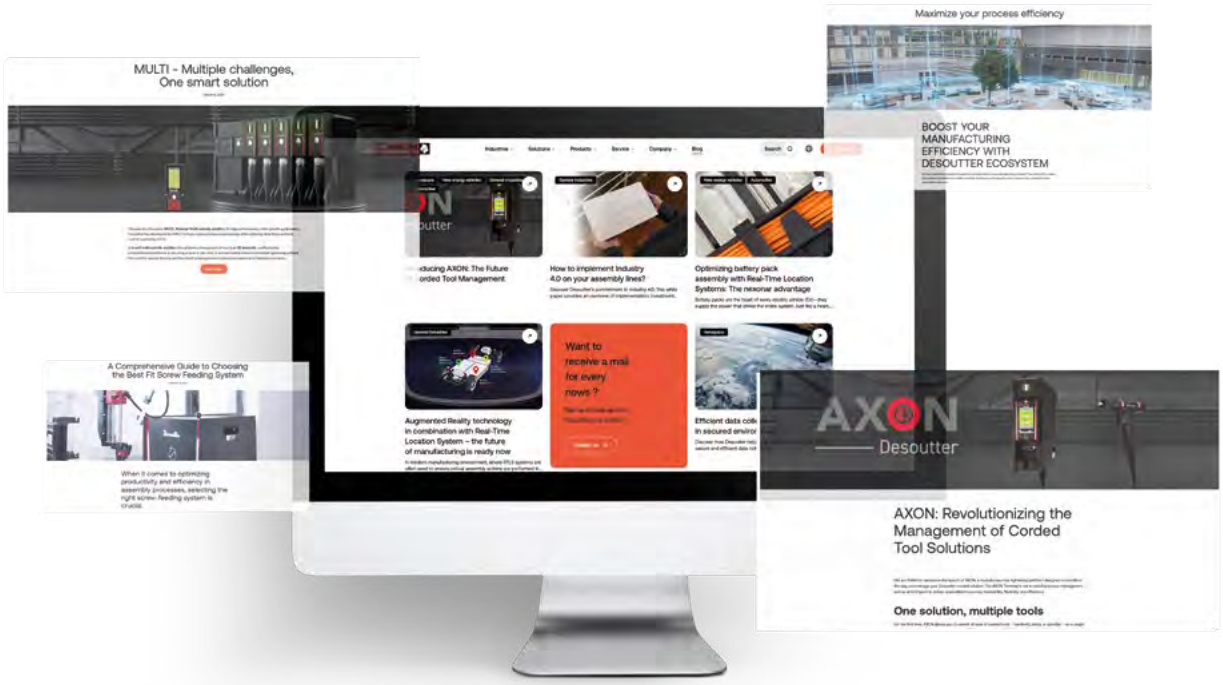
Desoutter

# Industrial Tools




More Than Productivity

# Desoutter Expertise




DIGITAL TWIN

## **Access 24/7**, The Virtual Replica of **Your** Desoutter Tool



**Enter your tool's Serial Number**



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Unless specified all inlet threads are BSP or NPT dependentv of market

Applifast. Toll Free 1 800 563 1293 applifast.com

# 100 YEARS OF INNOVATION



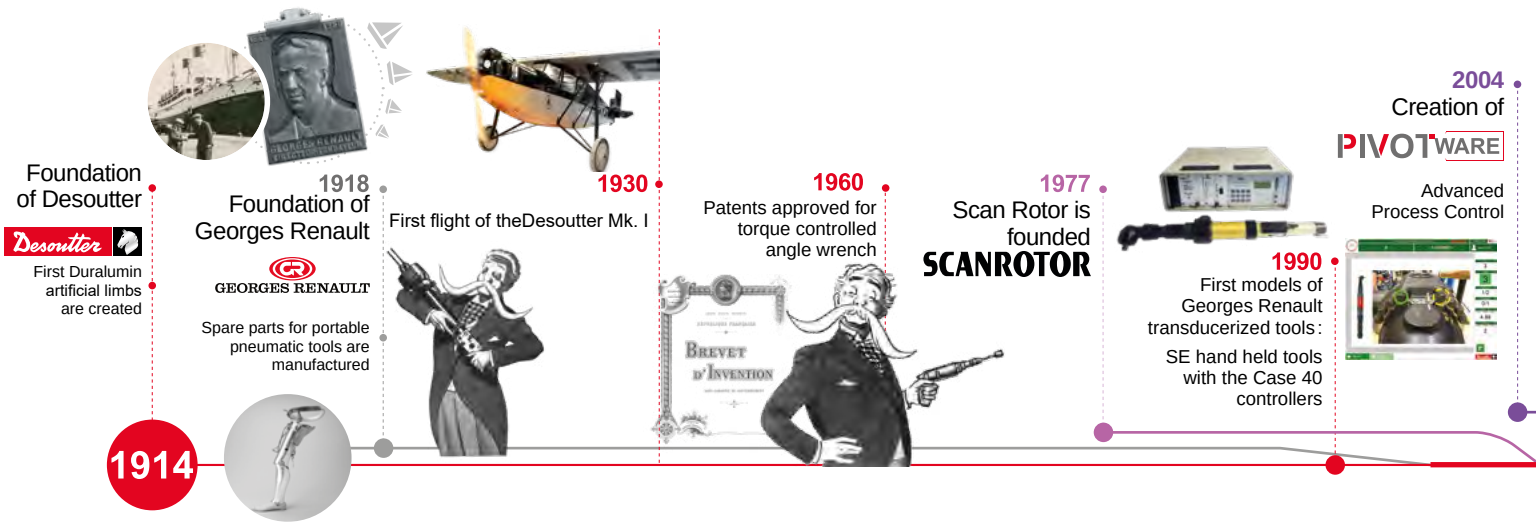
In Desoutter's earliest days one hundred years ago, who would have imagined that it would become today's global leader in its sector? How many industrial companies can claim, like Desoutter, to have weathered the years with such success, never forgetting the values that have formed the foundation of their prosperity?

This one century of existence would not have been possible without that drive for innovation that characterises our company, without that perpetual determination to evolve along with the changing world around us, always acting with vision to anticipate the needs of tomorrow.

This longevity is also the fruit of dedicated devotion on the part of all those employees who have shared their ideas, their skills and their technological expertise in order to turn that thrust for innovation into reality and to give it meaning.

But this history is also - and primarily - that of our customers and partners who remain the sole reason for our existence. It is for them and alongside them that we strive for perfection day after day, and our intention has been to pay tribute to them in the name of this shared success by compiling some of their testimonials in this book.

Together we have written the beginning of a great story. And together we will continue to move forward, to look to the future with the same ambition: always to offer "more than productivity".






Find more on what customers tell
about their Desoutter's customer experience in the

# Desoutter's anniversary book !

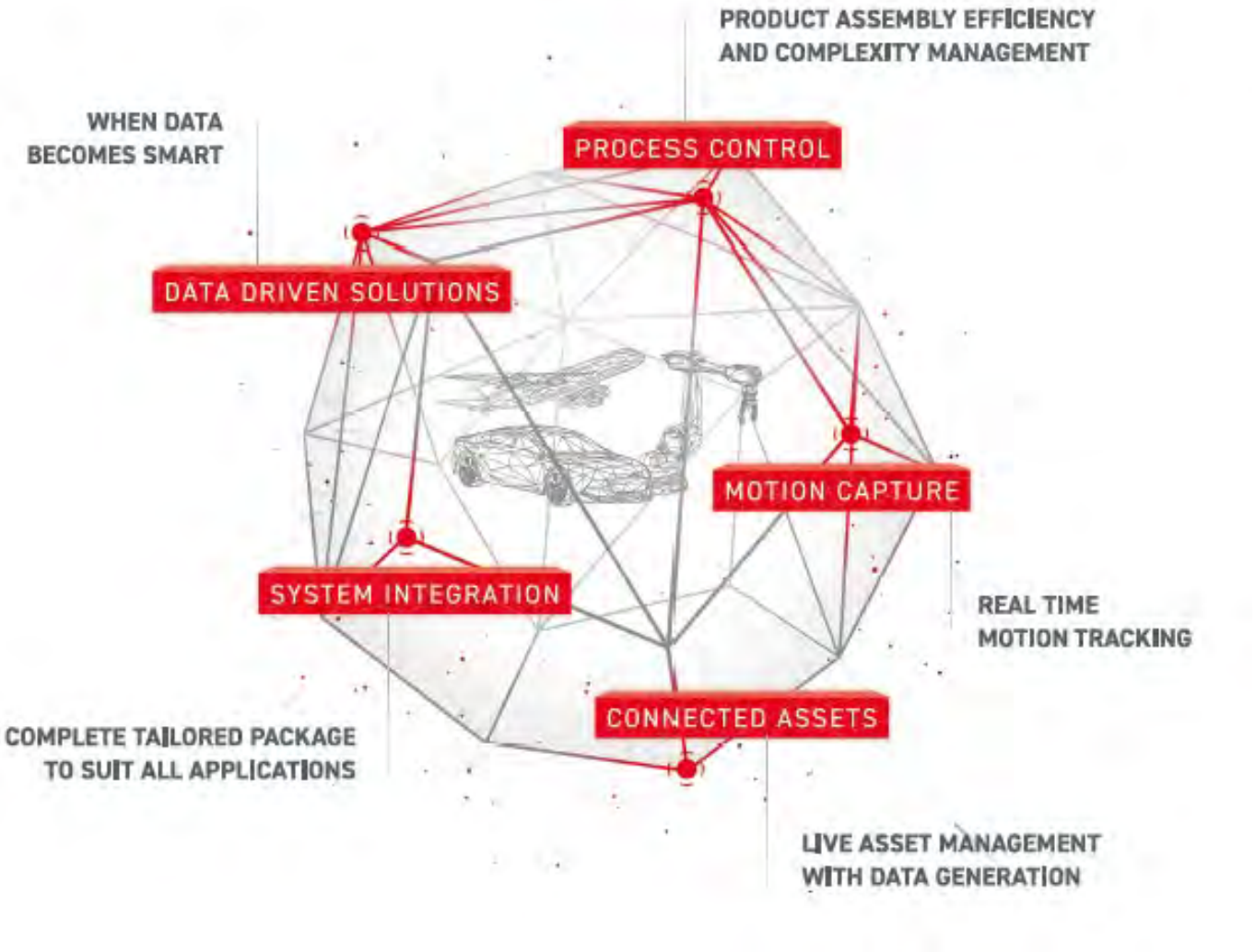


# Desoutter Ecosystem

*Maximize process efficiency*



Desoutter ecosystem is a set of
**INTERCONNECTED EXPERTISE AND SOLUTIONS**
design to face current and future production lines' challenges




### FLEXIBLE

One complete solution from applications up to data analytics with recommendations.

### SCALABLE

Build yur story at your own pace with DESOUTTER ECOSYSTEM

### INTUITIVE

Work in full autonomy with a seamless user experience

# Desoutter Ecosystem

*Maximize process efficiency*

## INTERCONNECTED SOLUTIONS

### FULL RANGE OF SCALABLE, FLEXIBLE AND ADVANCED SOLUTIONS

**A**



JOINTS /WORKSTATIONS

**B**



OPERATOR GUIDANCE

**C**



COMPLETE TAILORED SOLUTIONS

**D**



LIGHT AUTOMATION

**E**



PROCESS CONTROL

**F**



DATA-DRIVEN

### START FROM ANYWHERE



According to current production line challenges

### EVOLVE AT ANY TIME



To adapt to new production line challenges

## INTERCONNECTED EXPERTISE

### WE ARE GLOBAL... AND ACT LOCAL !

**GLOBAL NETWORK**

Of local entities covering over 50 countries to deliver an efficient local support.

**LOCAL PROJECT TEAMS**

Around the globe who tailor our Desoutter technical offer to match with all specific requirements.

**REGIONAL EXPERT**

With significant local agility to accelerate product and feature innovations.

**ON SITE SERVICE SUPPORT**

Service experts all around the world integrate the required solutions in your factory

# More Than Productivity



**Desoutter is your single source of electric and pneumatic tool solutions,** covering a wide range of assembly and manufacturing processes in the motor vehicle, aerospace, general industry and light assembly sectors.
Desoutter has a long history of producing high-quality industrial tools. Today, the scope of the activity combines a global offering with a widespread local presence.
The reason behind this approach is simple: our customers, who include many of the world's largest and most successful manufacturers, want worldwide access to a global portfolio of assembly and manufacturing solutions.
With Desoutter, we provide you more than productivity.

## FOCUSED
### ON YOUR OBJECTIVES...

Industry hates risk. And so do we.
So we work with you to eliminate cost, quality and performance risks from your production lines.

#### Optimize your investments

Your production lines are some of your company's most important investments. The quality and performance of Desoutter industrial tool solutions enable you to optimize your return on investments by producing more in the same cycle time. Our airline systems, for instance, keep our pneumatic nutrunners spinning at exactly the right speed and power, saving you precious seconds for each operation.

#### Raise productivity

Good ergonomics makes good economic sense. Not only are Desoutter tools designed to reduce operator stress factors, such as vibration and noise, they also take into account the relationship between the operator, the tool and the process. Our experts work with you to obtain long-term gains in productivity and safety, while improving cost, quality and cycle times.

## GLOBAL SOLUTIONS
### YOU CAN BUILD ON...

We know that finding the best solution is about much more than just picking a new tool. That is why we start every project by opening our ears, not our catalog.

#### Process optimization

Producing high-quality products requires high-quality processes. That is why many of the world's major motor vehicle, aerospace and appliance manufacturers rely on Desoutter. Each Desoutter solution is tailored to your exact needs. Our experts propose solutions that deliver a quantifiable return on investment, whether in terms of productivity improvements, quality gains or safety improvements.

#### Worldwide coverage

Desoutter combines global reach with local expertise. To ensure the smooth running of Desoutter solutions in your factories, all our local teams are trained to the same high level of expertise and service. Each team is in direct contact with the Desoutter area application and customer care center for your region. Together they ensure that solutions are implemented to worldwide standards, but in compliance with local criteria.















# EXPERTISE
## YOU CAN GROW ON…

From motors vehicles to appliances, planes to construction machines, electronics to energy – there is a Desoutter air powered and electric tool solution for you.

### Covering all segments

***Motor vehicle industry***

A wide range of tool solutions for vehicle makers, tier one suppliers and linebuilders. Solutions include fixed systems for powertrain assembly and handheld solutions for final assembly processes.

***Aerospace***

A long history of providing tools solutions to aerospace companies. We cover a wide range of their needs, from airframe and engine construction to system assembly.

### Customized solutions

Our Applications Centers are the symbol of our renowned flexibility. As comprehensive as our catalog is, we know that sometimes you need a tailored solution. Our Application Center engineers adapt existing solutions to your requirements and develop your own solutions. They are experts at developing Six Sigma tools and error proofing.

# A PARTNER
## YOU CAN COUNT ON…

Our support services keep your processes operating at maximum levels – and leave you to focus on your core business.

### Genuine Desoutter parts

Genuine Desoutter parts are the only parts designed and engineered specifically for Desoutter tools. They ensure that our tools always operate at their best. Moreover, for a lifetime of satisfaction, we always use genuine Desoutter spare parts when performing maintenance and repairs.

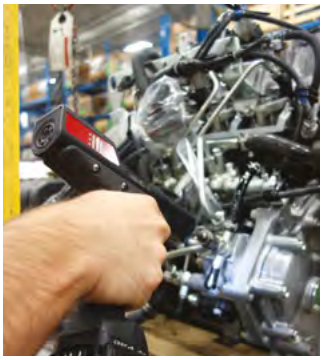
### Proactive logistics

When your operations are global, it is essential that your logistics are too. Our centralized inventory and warehousing system is highly responsive. We proactively manage our production to ensure a reliable supply of the products and parts you need. The majority of the solutions in our catalog can be shipped to you in three days, no matter where you are located. Next-day service is available in many markets.









# Service adds value

From day one, our experts are by your side, ensuring smooth product setup and providing responsive support throughout the entire lifecycle.

With preventive maintenance, we help extend the life of your tools, maintain the quality of your assemblies, and maximize uptime. Because reliable tools mean consistent performance and optimal productivity.

Discover our service offer designed to meet your needs:

SERVICE by Desoutter

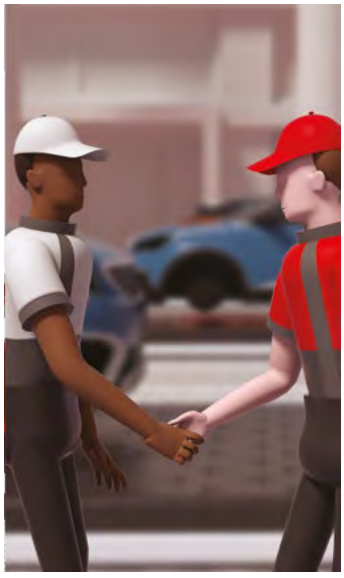
- **INSTALLATION & COMMISSIONING**
- **EXPER SUPPORT**
- **MAINTENANCE & CALIBRATION**



Improved uptime




Lower maintenance costs



Quality with high productivity

# Desoutter Service

## INSTALLATION & COMMISSIONING

A professional, high quality installation adds value.

### Benefits

- Fast and right first time.
- Avoids delays & minimises risks.
- Maintains warranty.
- Ensures tool accuracy and ergonomics.
- Full support from start to finish from certified technicians.



Programming
Right first time

## MAINTENANCE & CALIBRATION

### Production uptime is key for your business

- Preventive Maintenance reduces the production stops due to breakdowns and NOK's.

### You think your maintenance costs are too high

- Preventive maintenance decreases the costs of breakdowns.

### You want to keep the best quality with high productivity

- Preventive maintenance ensures tool accuracy and reduces rework.

### You value reducing your impact

Preventive maintenance and warranty extension help extend tool lifespan while reducing the need for spare parts and replacements over time.



Improving your uptime
and productivity

3 PRODUCTS TO MEET YOUR NEEDS

| | Machine Capability Test (MCT) | Preventive Maintenance and wear parts replacement | Optimised Preventive Maintenance + Repairs | Repair & Reuse of components |
|---|---|---|---|---|
| **Tool Calibration** | ✓ | | | |
| **Preventive Maintenance** | ✓ | ✓ | | |
| **Warranty Extension** | ✓ | ✓ | ✓ | ✓ |

# Desoutter Service

## EXPERT SUPPORT

### Maximised uptime

- Get support on the whole ecosystem, within 1 hour

### Secured quality

- We help you maintain processes that deliver the expected quality

### Increased efficiency

- We handle the systems, acting right first time so you can focus on your production.

### Minimal CO2 footprint

- Less travels with Remote Support, less emissions





### Remote Care Access

- ✓ Technical articles
- ✓ Remote support
- ✓ Unlimited updates
- ✓ Preferential upgrade rates

### Remote Care Performance

- ✓ Technical articles
- ✓ Priority support
- ✓ Unlimited updates
- ✓ Preferential upgrade rates
- ✓ Early access features
- ✓ Continuous learning
- ✓ Timed or Unlimited

### On-Site Support

- ✓ Upfront organisation for quote and order
- ✓ Planned presence for proactive activities
- ✓ Prioritised response
- ✓ Urgent support

# Desoutter Service

## Explore our online solutions

### Service Link: your spare parts portal

- Designed as a Search Assistant.
- Intuitive navigation.
- Simplified order process.
- Data download.







### Track My Service Status (TMSS): online operational service desk

- Track your tools maintenance status.
- All certificates of calibration available whenever you need them, for up to 10 years.
- Customized maintenance notifications.

# Assembly Tools - Selection guide


| PAGE | TOOL TYPE | |
|---|---|---|
| 16-29 | BATTERY STAND ALONE ASSEMBLY TOOLS |  |
| 30-60 | INDUSTRIAL SMART HUB & WIRELESS TRANSDUCERIZED BATTERY TOOLS |  |
| 61-93 | ELECTRIC TRANSDUCERIZED DC TOOLS & NUTRUNERS |  |
| 94-103 | DIGITAL EXPERIENCE - CVI Config / CVI Monitor / CVI Analyzer / CVI Key / E-LIT Config / Delta QC / DeMeter / Pivotware | |
| 104-112 | ELECTRIC TRANSDUCERIZED DC TOOLS - PC & Networks/Software - CVIR II / CVIL II / CVIXS |  |
| 113-121 | ELECTRIC CURRENT CONTROLLED DC TOOLS - CVIC |  |
| 122-129 | ELECTRIC FASTENING TOOLS |  |
| 130-153 | PNEUMATIC FASTENING TOOLS |  |
| 154-173 | CUSTOMIZED SOLUTIONS : ExBx HT - Screwfeeders - Multiplus - Arms |  |
| 174-202 | TORQUE MEASUREMENT SYSTEMS |  |

# Advanced tightening systems

## ELECTRIC TRANSDUCER CORDLESS



CONNECT-W CONNECT-X

- BLRTC 6 - 45 Nm
- EABcom 5 - 95 Nm
- EPBcom 1.5 - 17 Nm
- EABS 1.5 - 24 Nm
- E-LIT Wifi 0.8 - 60 Nm
- QShield-C
- Virtual Cable

* External Access point

## ELECTRIC TRANSDUCER CORD



AXON (Except ERP-HT) | CVI3 Essential (except spindle) | CVI3 Function | CVI3 Vision | TwinCVI3

- EPD cable
  - EPD 1 - 110 Nm
  - EAD 3 - 660 Nm
- EAD/EID cable
  - EID 3 - 270 Nm
  - EFD 1 - 2000 Nm
- EFD cable
  - EFD-TA 1-580 Nm
  - EFDO 4 - 480 Nm
  - EFDA 1 - 580 Nm
- Adaptator CVI II for ERx tools (except E-LRT)
- CVIL II
  - ERP HT 75 - 1700 Nm (Not compatible with AXON)
  - E-LRT 10 - 50 Nm
  - ERF 0.35-30 Nm
- LERT, ERF cable
- Module ERS/ERP-HT to connect CVI3 controllers and AXON terminal
- CVIR II (Cable included)
  - ERS (M20) 0.6 - 22 Nm
  - ERSA 0.6 - 27 Nm
  - ERSF 1.5 - 12 Nm
- CVIXS
  - ERXS 6 - 80 Ncm

## ELECTRIC CURRENT CONTROL



- ECS (M20) 0.12 - 16 Nm
- ECSA 0.55 - 11.5 Nm
- ECSF 0.12 - 16 Nm

Cable included

CVIC II-L2
CVIC II-H2





# E-LIT Series - Optimize your performance

*Clutch Battery Tool range*

## FOCUS




| 3 MODELS TO CHOOSE FROM | | BRUSHLESS MOTOR | LI-ION BATTERY | E-LIT CONFIG SOFTWARE | SPEED MODULE | CONNECT |
|---|---|---|---|---|---|---|
| **E-LIT PLUS** ELECTRONIC BRUSHLESS (ELB) PISTOL |  | ✔ | ✔ | ✔ | | |
| **E-LIT PREMIUM** ELECTRONIC BRUSHLESS SPEED CONTROL (ELS) PISTOL AND ANGLE |  | ✔ | ✔ | ✔ | ✔ | |
| **E-LIT WIRELESS** COMMUNICATION (ELC) PISTOL AND ANGLE |  | ✔ | ✔ | ✔ | ✔ | ✔ |

# Tool management device

*Speed setting / For ELS and ELC models*

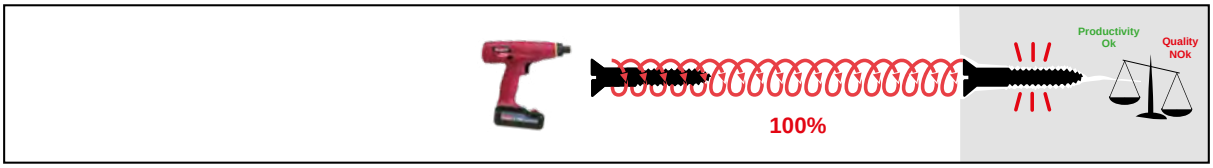
## Two speed setting easily controlled by external module

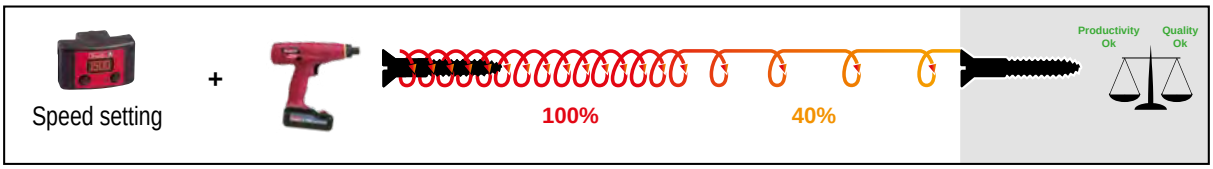


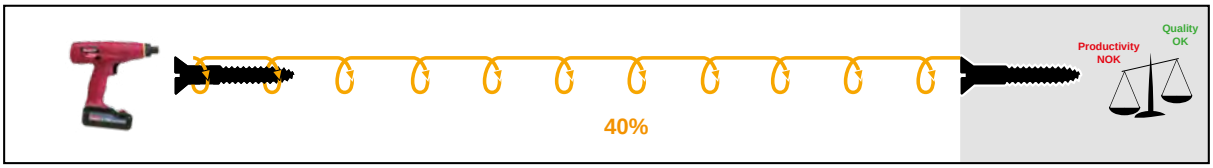

**Everything needed to optimize your assembly process**

**Guarantee quality and keep high productivity**

- Decrease final speed to ensure tightening quality
- Avoid quality defects in your final product
- Decrease starting speed to facilitate bolt engagement




# E-LIT CONFIG software

SOFTWARE
**see page 98**

# E-LIT Series - Optimize your performance

*Clutch Battery Tool range*

## Focus on wireless clutch tool solution




TU E-LIT WIFI proposes a better production follow-up , a better error proofing and a better total cost of owner ship of your production line by integrating and controlling a clutch tool on the CONNECT platform.

**BETTER CONTROL OF PRODUCTION LINE**

by enable or disable clutch tool

**PRODUCTION QUALITY IMPROVEMENT**

with traceability on standard joint

**EASY INTEGRATION**

thanks to CONNECT platform connectivity



### Enable/disable tool

according to production process:

- Batch count
- Reverse mode
- Open protocol, I/Os & Field bus



### OK/NOK reports

and prevent from FALSE OK:

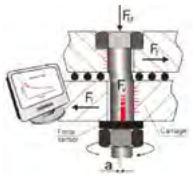
- OK/NOK
- Re-hit
- Cross thread prevention




### Setting adjustments

To fit with application requirements

- Up to 3 speeds
- 4 Pset & 4 Assembly Process
- Batch count



### Traceability information

For a better follow-up and analysis

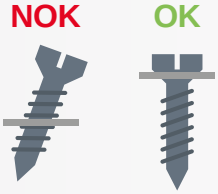
- Results linked with a VIN NUMBER
- Lock tool when memory is full (option)
- CVI MONITOR, ANALYZER & NET WEB compatible



#### FOCUS ON ERROR PROOFING FEATURE CROSS THREAD PREVENTION

A clutch could shuts off even if the screw is not well seated due to higher resistance linked to cross thread situation

TU E-LIT WIFI is now able to detect a cross thread situation and report a NOK in your traceability system




#### FOCUS ON PRODUCTION CONTROL FEATURE BATCH COUNT

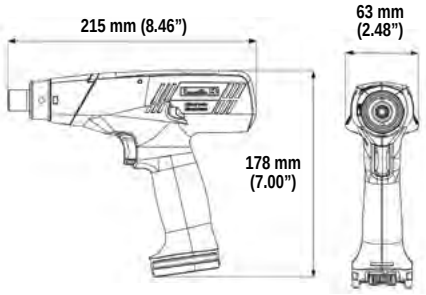
More production takt time is high or more production process is complex, more the risk to miss a screw is high !

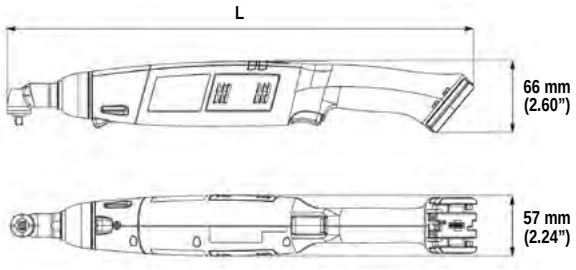
**Batch count real time feed-back**



Avoid quality issues and reduce rework time with batch count functionality

# Accessories




| MODEL | L | |
|---|---|---|
| | mm | in |
| ELS7 / ELC7 | 438 | 17.24 |
| ELS15 / ELC15 | 438 | 17.24 |
| ELS30 / ELC30 | 496 | 19.52 |
| ELS45 / ELC45 | 507 | 19.96 |
| ELS60 / ELC60 | 521 | 20.51 |




## OPTIONAL ACCESSORIES

| ITEM | | PISTOL | ANGLE HEAD 18V | ANGLE HEAD 36V | ELC -W TOOLS | PART NO. |
|---|---|---|---|---|---|---|
| **Battery type** | | | | | | |
| 1 | Li-ion battery pack 18V 2.5 Ah - 0.46 kg (1,01lb) | ✔ | ✔ | | ✔ | 615 813 266 0 |
| 2 | Li-ion battery pack 36V 2.5 Ah - 0,77 kg (1,70lb) | ✔ | | ✔ | ✔ | 615 813 267 0 |
| **Chargers** | | | | | | |
| 3 | Charger Universal 18 / 36V | ✔ | ✔ | ✔ | ✔ | 615 813 270 0 |
| • | Power Cord C13-C14 L=0.3m (daisy chain cable) | ✔ | ✔ | ✔ | ✔ | 615 813 383 0 |
| **Protective covers - Tools** | | | | | | |
| 4 | For Pistol - Clear | ✔ | | | ✔ | 615 396 870 0 |
| 4 | For Pistol - Black | ✔ | | | ✔ | 615 211 030 0 |
| 4 | For Pistol - Blue | ✔ | | | ✔ | 615 211 031 0 |
| 4 | For Pistol - Red | ✔ | | | ✔ | 615 211 032 0 |
| 4 | For Pistol - Grey | ✔ | | | ✔ | 615 211 033 0 |
| 4 | For Body angle head - Black | | ✔ | ✔ | ✔ | 615 211 004 0 |
| 4 | For Body angle head - Blue | | ✔ | ✔ | ✔ | 615 211 025 0 |
| 4 | For Body angle head - Red | | ✔ | ✔ | ✔ | 615 211 026 0 |
| 4 | For Body angle head - Grey | | ✔ | ✔ | ✔ | 615 211 027 0 |
| 5 | For Angle < 15Nm - Black | | ✔ | | ✔ | 615 397 672 0 |
| 5 | For Angle 30Nm - Black | | | ✔ | ✔ | 615 573 214 0 |
| 5 | For Angle 45Nm - Black | | | ✔ | ✔ | 615 573 215 0 |
| 5 | For Angle 60Nm - Black | | | ✔ | ✔ | 615 211 005 0 |
| **Protective covers - Battery** | | | | | | |
| 6 | For Battery 18V 2.5Ah - Clear | ✔ | ✔ | | ✔ | 615 211 136 0 |
| 6 | For Battery 18V 2.5Ah - Black | ✔ | ✔ | | ✔ | 615 211 137 0 |
| 6 | For Battery 18V 2.5Ah - Red | ✔ | ✔ | | ✔ | 615 211 138 0 |
| 6 | For Battery 18V 2.5Ah - Grey | ✔ | ✔ | | ✔ | 615 211 139 0 |
| 6 | For Battery 36V 2.5Ah - Clear | ✔ | ✔ | ✔ | ✔ | 615 211 140 0 |
| 6 | For Battery 36V 2.5Ah - Black | ✔ | ✔ | ✔ | ✔ | 615 211 141 0 |
| 6 | For Battery 36V 2.5Ah - Red | ✔ | ✔ | ✔ | ✔ | 615 211 142 0 |
| 6 | For Battery 36V 2.5Ah - Grey | ✔ | ✔ | ✔ | ✔ | 615 211 143 0 |
| **Miscellaneous** | | | | | | |
| • | Kit Overmould Presto (x10 pcs) | | | | | 615 211 057 5 |
| 7 | Speed Setting Module (ELS/ELC version) | ✔ | ✔ | ✔ | ✔ | 615 396 829 0 |
| 8 | Side handle - Pistol | ✔ | | | ✔ | 615 396 757 0 |
| 9 | Suspension bail - Pistol | ✔ | | | ✔ | 443 703 |
| 10 | Kit colour rings - Pistol (7 colors: white, yellow, orange, green, blue, purple, grey) | ✔ | | | ✔ | 615 396 742 5 |
| 10 | Kit colour rings - Angle tools (8 colors: white, yellow, orange, green, blue, purple, grey, black) | | ✔ | ✔ | ✔ | 615 970 114 5 |
| 11 | Kit Nose Crowfoot | ✔ | | | ✔ | 615 810 695 0 |
| 12 | eDOCK + Battery data interface | ✔ | ✔ | ✔ | ✔ | 615 813 400 0 |
| • | E-LIT CONFIG software | ✔ | ✔ | ✔ | ✔ | - |
| • | CVI CONFIG software | | | | ✔ | - |
| **Desoutter Tool Holsters** | | | | | | |
| 13 | DTH-42 | ✔ | | | ✔ | 107892 |
| 14 | DTH-90 | ✔ | | | ✔ | 615 812 119 0 |
| 15 | DTH TWIN (single) without rail | | ✔ | ✔ | ✔ | 615 811 411 0 |
| 16 | DTH TWIN rail kit with 2 Twin holders | | ✔ | ✔ | ✔ | 615 811 412 5 |
| 17 | DTH TWIN stand kit with 2 Twin holders | | ✔ | ✔ | ✔ | 615 811 413 5 |

# E-LIT series

*0.4 to 60 Nm (3.5 to 530 in. lb) - 50 to 1550 rpm*













| PIC REF | MODEL | PART NUMBER | TORQUE RANGE | | ROTATIONAL SPEED | OUTPUT DRIVE | WEIGHT WITHOUT BATTERY | | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|
| | | | Nm | in. lb | rpm | in. | kg | lb | V |
| **E-LIT PLUS - ELECTRONIC BRUSHLESS MOTOR** | | | | | | | | | |
| A | ELB 2.5-1250-P | 615 165 415 0 | 0.8-2.5 | 7-22 | 1250 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELB 6-900-P | 615 165 416 0 | 2-6 | 17.7-53 | 900 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELB 6-670-P | 615 165 440 0 | 2-6 | 17.7-53 | 670 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELB 8-670-P | 615 165 417 0 | 3-8 | 26.5-70 | 670 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELB 12-600-P | 615 165 418 0 | 5-12 | 44.2-106 | 570 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| **E-LIT PREMIUM - ELECTRONIC BRUSHLESS SPEED SETTING** | | | | | | | | | |
| A | ELS 2.5-1550-P | 615 165 419 0 | 0.8-2.5 | 7.1-22 | 500-1550 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELS 6-1000-P | 615 165 420 0 | 2-6 | 17.7-53 | 300-1000 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELS 8-400-P | 615 165 605 0 | 3-8 | 26.5-70 | 120-400 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELS 8-800-P | 615 165 421 0 | 3-8 | 26.5-70 | 300-765 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELS 8-400-P4S | 615 165 825 0 | 3-8 | 26.5-70 | 120-400 | Sq. 1/4 | 0.8 | 1.76 | 18 |
| A | ELS 12-600-P | 615 165 422 0 | 5-12 | 44.2-106 | 250-570 | Hex. 1/4 F | 0.8 | 1.76 | 18 |
| A | ELS 12-400-P4S | 615 165 826 0 | 5-12 | 44.2-106 | 120-400 | Sq. 1/4 | 0.8 | 1.76 | 18 |
| B | ELS 7-360-A4S | 615 165 725 0 | 2.5-7 | 22-62 | 120-360 | Sq. 1/4 | 1.2 | 2.6 | 18 |
| B | ELS 7-880-A | 615 165 628 0 | 2.5-7 | 22-62 | 400-880 | Hex. 1/4 F | 1.2 | 2.6 | 18 |
| B | ELS 7-880-A10S | 615 165 888 0 | 2.5-7 | 22-62 | 400-880 | Sq. 3/8 | 1.2 | 2.6 | 18 |
| B | ELS 15-480-A | 615 165 629 0 | 5-15 | 44.2-133 | 200-480 | Sq. 3/8 | 1.2 | 2.6 | 18 |
| B | ELS 15-480-A4S | 615 165 839 0 | 5-15 | 44.2-133 | 200-480 | Sq. 1/4 | 1.2 | 2.6 | 18 |
| C | ELS 30-300-A | 615 165 630 0 | 14-30 | 123.9-265 | 100-300 | Sq. 3/8 | 1.5 | 3.3 | 36 |
| C | ELS 45-180-A | 615 165 631 0 | 20-45 | 177-398 | 50-180 | Sq. 3/8 | 1.5 | 3.3 | 36 |
| D | ELS 60-160-A | 615 165 632 0 | 25-60 | 220-530 | 50-160 | Sq.1/2 | 1.97 | 4.33 | 36 |
| **E-LIT WIRELESS - COMMUNICATION** | | | | | | | | | |
| A | ELC 6-1000-P-W | 615 166 100 0 | 2-6 | 17.7-53 | 300-1000 | Hex. 1/4 F | 0.9 | 1.76 | 18 |
| A | ELC 8-400-P-W | 615 166 101 0 | 3-8 | 26.5-70 | 120-400 | Hex. 1/4 F | 0.9 | 1.76 | 18 |
| A | ELC 8-800-P-W | 615 166 102 0 | 3-8 | 26.5-70 | 300-765 | Hex. 1/4 F | 0.9 | 1.76 | 18 |
| A | ELC 12-600-P-W | 615 166 103 0 | 5-12 | 44.2-106 | 250-570 | Hex. 1/4 F | 0.9 | 1.76 | 18 |
| B | ELC7-360-A4S-W | 615 166 104 0 | 2.5-7 | 22-62 | 120-360 | Sq. 1/4 | 1.2 | 2.6 | 18 |
| B | ELC7-880-A-W | 615 166 105 0 | 2.5-7 | 22-62 | 400-880 | Hex. 1/4 F | 1.2 | 2.6 | 18 |
| B | ELC15-480-A-W | 615 166 106 0 | 5-15 | 44.2-133 | 200-480 | Sq. 3/8 | 1.2 | 2.6 | 18 |
| C | ELC30-300-A-W | 615 166 107 0 | 14-30 | 123.9-265 | 100-300 | Sq. 3/8 | 1.5 | 3.3 | 36 |
| C | ELC45-180-A-W | 615 166 108 0 | 20-45 | 177-398 | 50-180 | Sq. 3/8 | 1.5 | 3.3 | 36 |
| D | ELC60-160-A-W | 615 166 109 0 | 25-60 | 220-530 | 50-160 | Sq.1/2 | 2 | 4.3 | 36 |

*• Battery not included in standard offfering*

# B-FLEX: Performance and flexibility

## FOCUS




## KEYPOINTS

| BEST ERGONOMICS | HIGH TECHNOLOGY | QUALITY CONTROL |
|---|---|---|
| Ergostop technology to avoid RSI (Repetitive Strain Injury) | Smart embedded HMI on tool | Direct feedback for the operator |
| Perfectly balanced grip design | High resolution transducer | Visible tightening results on tool HMI |
| Rebalancing with the two different battery positions | New motor dedicated to battery tools: high speed, high torque, low temperature | Torque control and angle monitoring |
| Operator comfort | | |

# B-FLEX : Ergonomy and control

## ERROR PROOF QUALITY CONTROL

- Direct feedback for the operator
- Torque and Angle tightening result
- Torque control tightening strategy




No PC needed

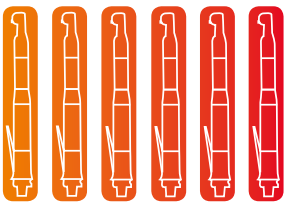



### 100 last results on "CVI Monitor"




## B-FLEX ADVANCED (Standard features +)

### 6 Pset

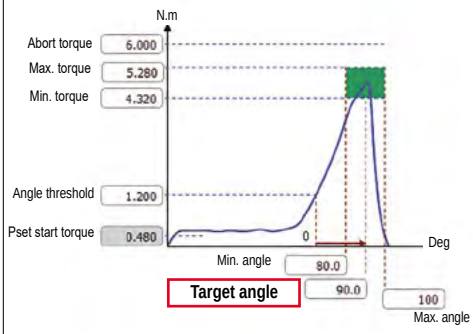


6 TOOLS in 1 B-FLEX



### Angle Strategy

Error proof your standard tightenings




### Full data collection

(up to 10 000 on CVI Analyzer)

CVI ANALYZER



# B-FLEX Series - Pistol grip

*1.5 to 17 Nm (1.1 to 12.5 ft. lb) - 10 to 1800 rpm*

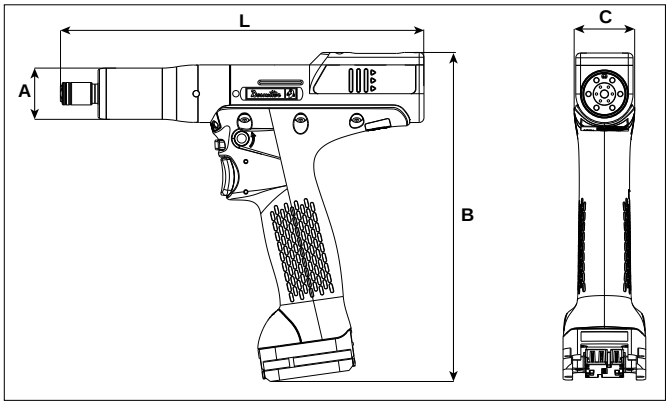


A



B

| MODEL | L | | A | | B | | C | |
|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| EPB 8-1800-4Q | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPB 8-1800-10S | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPB 14-900-4Q | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPB 14-900-10S | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPB 17-700-4Q | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPB 17-700-10S | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |




ACCESSORIES
**see page 28**

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE RANGE | | | | | | ROTATIONAL SPEED (RPM) | | WEIGHT WITHOUT BATTERY | | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | | in. | Nm | Nm | Nm | ft. lb | ft. lb | ft. lb | 18V | 36V | kg | lb | V |
| **B-FLEX - TRANSDUCERIZED BATTERY TOOL** | | | | | | | | | | | | | | |
| A | EPB 8-1800-4Q | 615 165 899 0 | Hex.1/4 | 1.5 | 7 | 8 | 1.1 | 5.2 | 5.9 | 900 | 1800 | 1 | 2.2 | 18/36 |
| B | EPB 8-1800-10S | 615 165 903 0 | Sq.3/8 | 1.5 | 7 | 8 | 1.1 | 5.2 | 5.9 | 900 | 1800 | 1 | 2.2 | 18/36 |
| A | EPB14-900-4Q | 615 165 978 0 | Hex.1/4 | 4 | 12 | 14 | 2.4 | 8.8 | 10.3 | 540 | 940 | 1 | 2.2 | 18/36 |
| B | EPB14-900-10S | 615 165 977 0 | Sq.3/8 | 4 | 12 | 14 | 2.4 | 8.8 | 10.3 | 540 | 940 | 1 | 2.2 | 18/36 |
| A | EPB 17-700-4Q | 615 165 905 0 | Hex.1/4 | 7 | 15 | 17 | 5.2 | 11 | 12.5 | 400 | 700 | 1 | 2.2 | 18/36 |
| B | EPB 17-700-10S | 615 165 901 0 | Sq.3/8 | 7 | 15 | 17 | 5.2 | 11 | 12.5 | 400 | 700 | 1 | 2.2 | 18/36 |
| **B-FLEX - ADVANCED** | | | | | | | | | | | | | | |
| A | EPBA 8-1800-4Q | 615 165 972 0 | Hex.1/4 | 1.5 | 7 | 8 | 1.1 | 5.2 | 5.9 | 900 | 1800 | 1 | 2.2 | 18/36 |
| B | EPBA 8-1800-10S | 615 165 971 0 | Sq.3/8 | 1.5 | 7 | 8 | 1.1 | 5.2 | 5.9 | 900 | 1800 | 1 | 2.2 | 18/36 |
| A | EPBA14-900-4Q | 615 165 974 0 | Hex.1/4 | 4 | 12 | 14 | 2.4 | 8.8 | 10.3 | 540 | 940 | 1 | 2.2 | 18/36 |
| B | EPBA14-900-10S | 615 165 973 0 | Sq.3/8 | 4 | 12 | 14 | 2.4 | 8.8 | 10.3 | 540 | 940 | 1 | 2.2 | 18/36 |
| A | EPBA 17-700-4Q | 615 165 976 0 | Hex.1/4 | 7 | 15 | 17 | 5.2 | 11 | 12.5 | 400 | 700 | 1 | 2.2 | 18/36 |
| B | EPBA 17-700-10S | 615 165 975 0 | Sq.3/8 | 7 | 15 | 17 | 5.2 | 11 | 12.5 | 400 | 700 | 1 | 2.2 | 18/36 |

*• Battery not included in standard offfering*
*• Battery 18V, 2.5 Ah : 0.46 kg (1.01lb) & 36V, 2.5 Ah : 0.77 kg (1.70lb)*

# B-FLEX Series - Angle head

*5 to 95 Nm (3.7 to 70 ft. lb) - 10 to 900 rpm*



A



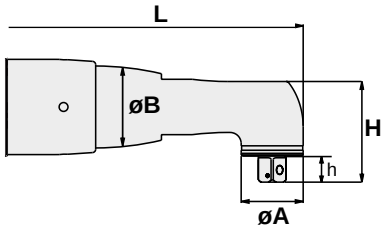
B



C

| MODEL | L | | H | | H | | ØA | | ØB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| **EAB 15-900** | 470 | 18.5 | 10.2 | 0.40 | 33.8 | 1.33 | 22 | 0.87 | 37.0 | 1.46 |
| **EAB 26-560** | 496 | 19.5 | 12.0 | 0.47 | 45.7 | 1.80 | 28 | 1.10 | 37.0 | 1.46 |
| **EAB 32-410** | 496 | 19.5 | 12.0 | 0.47 | 45.7 | 1.80 | 28 | 1.10 | 37.0 | 1.46 |
| **EAB 45-330** | 506 | 19.9 | 12.0 | 0.47 | 51.0 | 2.00 | 35 | 1.38 | 37.0 | 1.46 |
| **EAB 50-450** | 546 | 21.5 | 12.0 | 0.47 | 51.0 | 2.00 | 35 | 1.38 | 37.0 | 1.46 |
| **EAB 60-370** | 559 | 22.0 | 11.9 | 0.468 | 57.0 | 2.20 | 40 | 1.57 | 41.0 | 1.61 |
| **EAB 75-300** | 582 | 22.9 | 17.5 | 0.69 | 60.4 | 2.38 | 45 | 1.77 | 48.5 | 1.91 |
| **EAB 95-240** | 582 | 22.9 | 17.5 | 0.69 | 60.4 | 2.38 | 45 | 1.77 | 48.5 | 1.91 |

*L = Tool lenght without battery*




ACCESSOIRES
**see page 28**

| PIC REF | MODEL | PART NUMBER | SQUARE DRIVE | TORQUE RANGE | | | | | | ROTATIONAL SPEED | WEIGHT WITHOUT BATTERY | | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | |
| | | | in. | Nm | Nm | Nm | ft. lb | ft. lb | ft. lb | rpm | kg | lb | V |
| **B-FLEX - TRANSDUCERIZED BATTERY TOOL** | | | | | | | | | | | | | |
| • | **EAB 15-900** | **615 165 731 0** | 1/4 | 5 | 13 | 15 | 3.7 | 9.6 | 11 | 900 | 1.55 | 3.42 | 36 |
| A | **EAB 26-560** | **615 165 732 0** | 3/8 | 5 | 24 | 26 | 3.7 | 18 | 19 | 560 | 1.65 | 3.64 | 36 |
| A | **EAB 32-410** | **615 165 733 0** | 3/8 | 7 | 30 | 32 | 5.2 | 22 | 24 | 410 | 1.65 | 3.64 | 36 |
| B | **EAB 45-330** | **615 165 734 0** | 3/8 | 9 | 40 | 45 | 6.6 | 30 | 33 | 330 | 1.76 | 3.88 | 36 |
| B | **EAB 50-450** | **615 165 735 0** | 3/8 | 9 | 45 | 50 | 6.6 | 33 | 37 | 450 | 2.04 | 4.50 | 36 |
| B | **EAB 60-370** | **615 165 736 0** | 1/2 | 10 | 55 | 60 | 7.4 | 41 | 44 | 370 | 2.35 | 5.18 | 36 |
| C | **EAB 75-300** | **615 165 737 0** | 1/2 | 12 | 70 | 75 | 8.8 | 52 | 55 | 300 | 2.94 | 6.48 | 36 |
| C | **EAB 95-240** | **615 165 738 0** | 1/2 | 19 | 90 | 95 | 14 | 66 | 70 | 240 | 2.98 | 6.57 | 36 |
| **B-FLEX - ADVANCED** | | | | | | | | | | | | | |
| • | **EABA15-900** | **615 165 961 0** | 1/4 | 5 | 13 | 15 | 3.7 | 9.6 | 11 | 900 | 1.55 | 3.42 | 36 |
| A | **EABA26-560** | **615 165 962 0** | 3/8 | 5 | 24 | 26 | 3.7 | 18 | 19 | 560 | 1.65 | 3.64 | 36 |
| A | **EABA32-410** | **615 165 963 0** | 3/8 | 7 | 30 | 32 | 5.2 | 22 | 24 | 410 | 1.65 | 3.64 | 36 |
| B | **EABA45-330** | **615 165 964 0** | 3/8 | 9 | 40 | 45 | 6.6 | 30 | 33 | 330 | 1.76 | 3.88 | 36 |
| B | **EABA50-450** | **615 165 965 0** | 3/8 | 9 | 45 | 50 | 6.6 | 33 | 37 | 450 | 2.04 | 4.50 | 36 |
| B | **EABA60-370** | **615 165 966 0** | 1/2 | 10 | 55 | 60 | 7.4 | 41 | 44 | 370 | 2.35 | 5.18 | 36 |
| C | **EABA75-300** | **615 165 967 0** | 1/2 | 12 | 70 | 75 | 8.8 | 52 | 55 | 300 | 2.94 | 6.48 | 36 |
| C | **EABA95-240** | **615 165 968 0** | 1/2 | 19 | 90 | 95 | 14 | 66 | 70 | 240 | 2.98 | 6.57 | 36 |

*• Battery not included in standard offering*
*• Battery 36V, 2.5Ah - Weight: 0.77 kg (1.70lb)*

# B-FLEX QRX

*5 to 95 Nm (3.7 to 70 ft. lb) - 10 to 560 rpm*

## Advanced Multi Applications Tool




### BOOST YOUR PRODUCTIVITY

Real Time Pset selection for the selected Quick release accessory with RFID technology

### BOOST YOUR FLEXIBILITY

Possibility to use the same tool for multiple applications

| MODEL | PART NUMBER | TORQUE | | | ROTATIONAL MAX SPEED (RPM) | WEIGHT* | |
|---|---|---|---|---|---|---|---|
| | | MIN | NOMINAL | MAX | | | |
| | | Nm | Nm | Nm | | kg | ilb |
| **EABA26-560 QRX** | **615 166 080 0** | 5 | 24 | 26 | 560 | 2.04 | 4.50 |
| **EABA32-410 QRX** | **615 166 081 0** | 7 | 30 | 32 | 410 | 2.04 | 4.50 |
| **EABA45-330 QRX** | **615 166 082 0** | 9 | 40 | 45 | 330 | 2.21 | 4.87 |
| **EABA50-450 QRX** | **615 166 083 0** | 9 | 45 | 50 | 450 | 2.49 | 5.49 |
| **EABA60-370 QRX** | **615 166 084 0** | 10 | 55 | 60 | 370 | 2.82 | 6.22 |
| **EABA75-300 QRX** | **615 166 085 0** | 12 | 70 | 75 | 300 | 3.42 | 7.54 |
| **EABA95-240 QRX** | **615 166 086 0** | 19 | 90 | 95 | 240 | 3.46 | 7.63 |

**Weight without battery*
*All tools are powered by a battery pack 36V 2.5Ah*
*Battery 36V, 2.5Ah - Weight : 0.77 kg (1.70lb)*

# BLRTA

*6 to 45 Nm (4.4 to 33.19 ft.lb) - 1520 to 3990 rpm*



A



B

## BOOST YOUR PRODUCTIVITY

- By reducing cycle time
- By improving joint quality
- By providing process quality

## BOOST YOUR FLEXIBILITY

- Free of cable management
- Free of reaction arm
- Reduce total cost of ownership

## BOOST YOUR UP TIME

- Boost the uptime of the operator
- Boost the uptime of the tool

| | STANDALONE VERSION |
|---|---|
| **Wifi Communication** | N/A |
| **Programming on the tool** | ✔ |
| **Pset** | 6 |
| **No. of step in Pset** | 1 |
| **Assembly process** | N/A |
| **Results** | 10 000 with CVI analyzer |
| **Tightening Curve** | N/A |
| **Disconnected mode** | N/A |

ACCESSORIES
**see page 28**

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | OUTPUT RETAINING TYPE | TORQUE | | | | ROTATIONAL MAX SPEED (RPM) | | LENGTH | | WEIGHT* | | VOL-TAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | MIN | MAX | MIN | MAX | | | | | | | |
| | | | in. | | Nm | Nm | ft.lb | ft.lb | 18V | 36V | mm | in. | kg | in. | V |
| A | **BLRTA025-2350-10S** | **615 166 023 0** | Sq 3/8 | Through hole | 6 | 25 | 4.4 | 18.4 | 1520 | 2350 | 233 | 9.17 | 1.2 | 2.6 | 18/36 |
| B | **BLRTA025-2350-4Q** | **615 166 024 0** | Hex.1/4 | Quick change chuck | 6 | 25 | 4.4 | 18.4 | 1520 | 2350 | 233 | 9.17 | 1.2 | 2.6 | 18/36 |
| - | **BLRTA045-3990-10S** | **615 166 187 0** | Sq 3/8 | Through hole | 15 | 45 | 11.6 | 33.19 | 3990 | 3990 | 251 | 9.9 | 1.34 | 2.96 | 18/36 |

**Weight without battery*

# Accessories









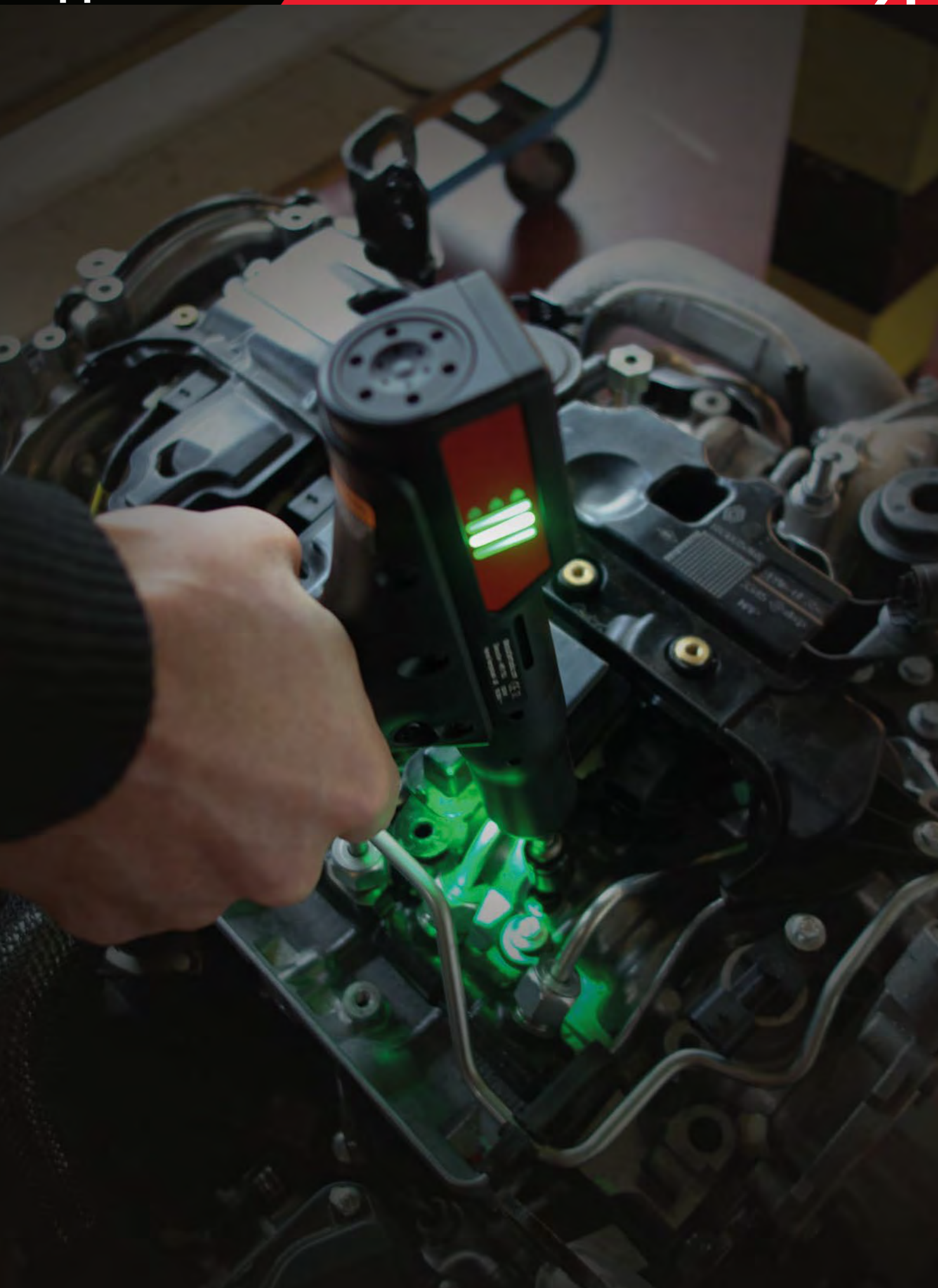
## B-FLEX / QRX / BLRTA / EAB / EPB

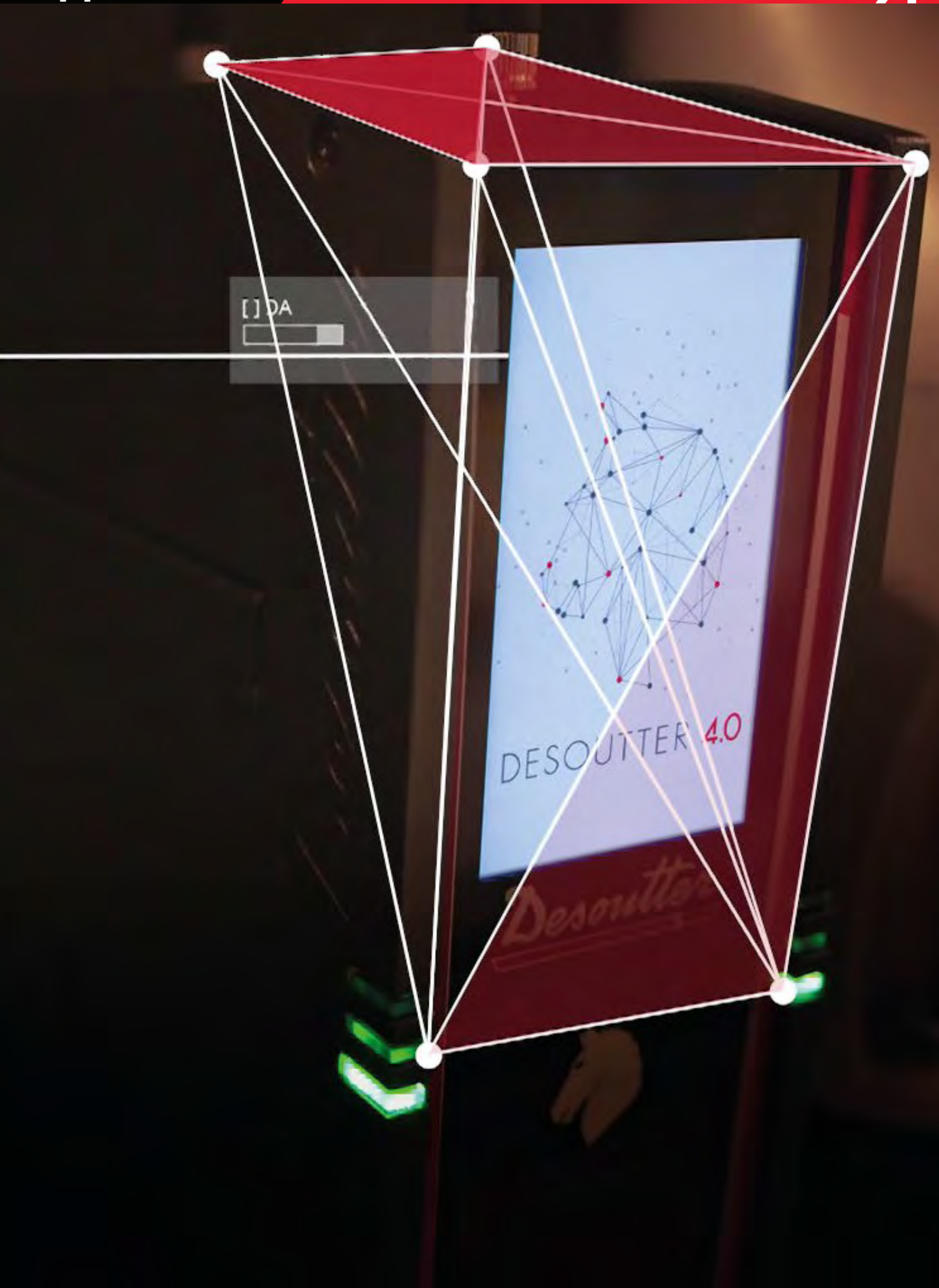
### ACCESSORIES INCLUDED

| | | EPB/EPBA | BLRTA |
|---|---|---|---|
| • | Pistol protective cover Red | 615 211 022 0 | 615 211 073 0 |

### OPTIONAL ACCESSORIES

| ITEM | | EAB/QRX | EPB/EPBA | BLRTA |
|---|---|---|---|---|
| **Battery type** | | | | |
| 1 | Li-ion battery pack 18V 2.5 Ah - 0.46 kg (1,01lb) | | 615 813 266 0 | 615 813 266 0 |
| 2 | Li-ion battery pack 36V 2.5 Ah - 0,77 kg (1,70lb) | 615 813 267 0 | 615 813 267 0 | 615 813 267 0 |
| **Charger** | | | | |
| 3 | Charger Universal 18 / 36V | 615 813 270 0 | 615 813 270 0 | 615 813 270 0 |
| • | Power Cord C13-C14 L=0.3m (daisy chain cable) | 615 813 383 0 | 615 813 383 0 | 615 813 383 0 |
| **Protective covers - Tools** | | | | |
| 4 | For Angle head EAB 15 | 615 211 003 0 | | |
| 4 | For Angle head EAB 26/32 | 615 573 207 0 | | |
| 4 | For Angle head EAB 45/50 | 615 573 208 0 | | |
| 4 | For Angle head EAB 60 | 615 573 209 0 | | |
| 4 | For Angle head EAB 75/95 | 615 573 210 0 | | |
| 5 | Pistol protective cover Black | | 615 211 019 0 | |
| **Protective covers - Battery** | | | | |
| 6 | For Battery 18V 2.5Ah - Clear | | 615 211 136 0 | 615 211 136 0 |
| 6 | For Battery 18V 2.5Ah - Black | | 615 211 137 0 | 615 211 137 0 |
| 6 | For Battery 18V 2.5Ah - Red | | 615 211 138 0 | 615 211 138 0 |
| 6 | For Battery 18V 2.5Ah - Grey | | 615 211 139 0 | 615 211 139 0 |
| 6 | For Battery 36V 2.5Ah - Clear | 615 211 140 0 | 615 211 140 0 | 615 211 140 0 |
| 6 | For Battery 36V 2.5Ah - Black | 615 211 141 0 | 615 211 141 0 | 615 211 141 0 |
| 6 | For Battery 36V 2.5Ah - Red | 615 211 142 0 | 615 211 142 0 | 615 211 142 0 |
| 6 | For Battery 36V 2.5Ah - Grey | 615 211 143 0 | 615 211 143 0 | 615 211 143 0 |
| **Miscellaneous** | | | | |
| 7 | Nose crowfoot adapter for EPB | | 615 565 518 0 | |
| 8 | eDOCK + Battery data interface | 615 813 400 0 | 615 813 400 0 | 615 813 400 0 |
| 9 | Side handle | | 615 397 016 0 | |
| **Desoutter Tool holster** | | | | |
| 10 | DTH TWIN (single) without rail | 615 811 411 0 | | |
| 11 | DTH TWIN rail kit with 2 Twin holders | 615 811 412 5 | | |
| 12 | DTH TWIN stand kit with 2 Twin holders | 615 811 413 5 | | |
| 13 | DTH90 | | 615 812 119 0 | 615 812 119 0 |




DESOUTTER 4.0

# CONNECT - Industrial Smart Hub

### SINGLE POINT OF CONNECTION FOR UP TO 20 TOOLS

With only one safety power supply
With only one Ethernet/fieldbus connection
With only one stand to mount the CONNECT

### CAPACITIVE INDUSTRIAL GRADE TOUCH SCREEN

With several display options and quick response time.

### MULTI-TOOL SOLUTION

Up to 20 tools connected to only one CONNECT.

### FINE-TUNES SETTINGS & SCALABLE SOLUTION

With feature management fine-tunes the Tightening Units by loading only features needed for each application.




### FOOTPRINT OPTIMIZATION

With a volume of only 4L, the CONNECT can be installed anywhere, under any constraints.

### FEATURE REBALANCING

Easy feature rebalancing from tightening unit to another one.

### EASY LINE REBALANCING

Pair the tool in less than 10 seconds, with easy contactless pairing feature.

### REMOVABLE INTEGRATED MEMORY

Transfer DATA and settings from one CONNECT to another in a fast and effective way.

# CONNECT - Industrial Smart Hub

CONNECT has been designed **to meet today's and tomorrow's** demanding production processes.

MULTI-CORDLESS TOOL **SOLUTION**

SCALABLE **SOLUTION**

EASY TOOL & FEATURE **REBALANCING**

FULL **TRACEABILITY**







Each Tightening Unit activated includes a Standard package. The standard package has been built to meet with more than 80% of requirements.

For more demanding applications, it is possible to activate additional features.

## INDUSTRIAL SMART HUB

***CONNECT is a powerful platform able to manage all items related to the assembly line***

With error proofing accessories and full traceability management for up to 20 tools, CONNECT is a solution with a **HIGH LEVEL OF CONNECTIVITY** to manage and control the assembly line under all circumstances.

## FEATURE MANAGEMENT

***FEATURE MANAGEMENT is a scalable solution which allows you to get what you really need***

With its **HIGH LEVEL OF FLEXIBILITY,** you can add new features whenever the requirements on your production line change. You just have to activate the feature and it is ready to use.

## TOOL RANGE **COMPATIBLE**

COMPATIBLE WITH ALL DESOUTTER CORDLESS TOOLS with IEEE 802.11 wireless communication.



○ EABC



○ EPBC



○ BLRTC



○ QSHIELD



○ EABS



○ E-LIT

# CONNECT - Industrial Smart Hub

## Multi-Cordless Tool solution

### CONNECT-W

With embedded access point **Up to 10 tightening units activated.**

With **CONNECT-W**, 10 tightening units can be activated which means 10 cordless tools can be paired.

### CONNECT-X

Requires an external access point **Up to 20 tightening units activated** (No embedded access point).

With **CONNECT-X**, 20 tightening units can be activated which means 20 cordless tools can be paired.

## Tool's Rebalancing




**No risk of errors in the wireless settings** because the CONNECT is managing it!

### EASY CONTACTLESS PAIRING

With easy wireless pairing, tool is paired in less than **10 secondes.**

## Virtual Cable



### TRACKING SOLUTION

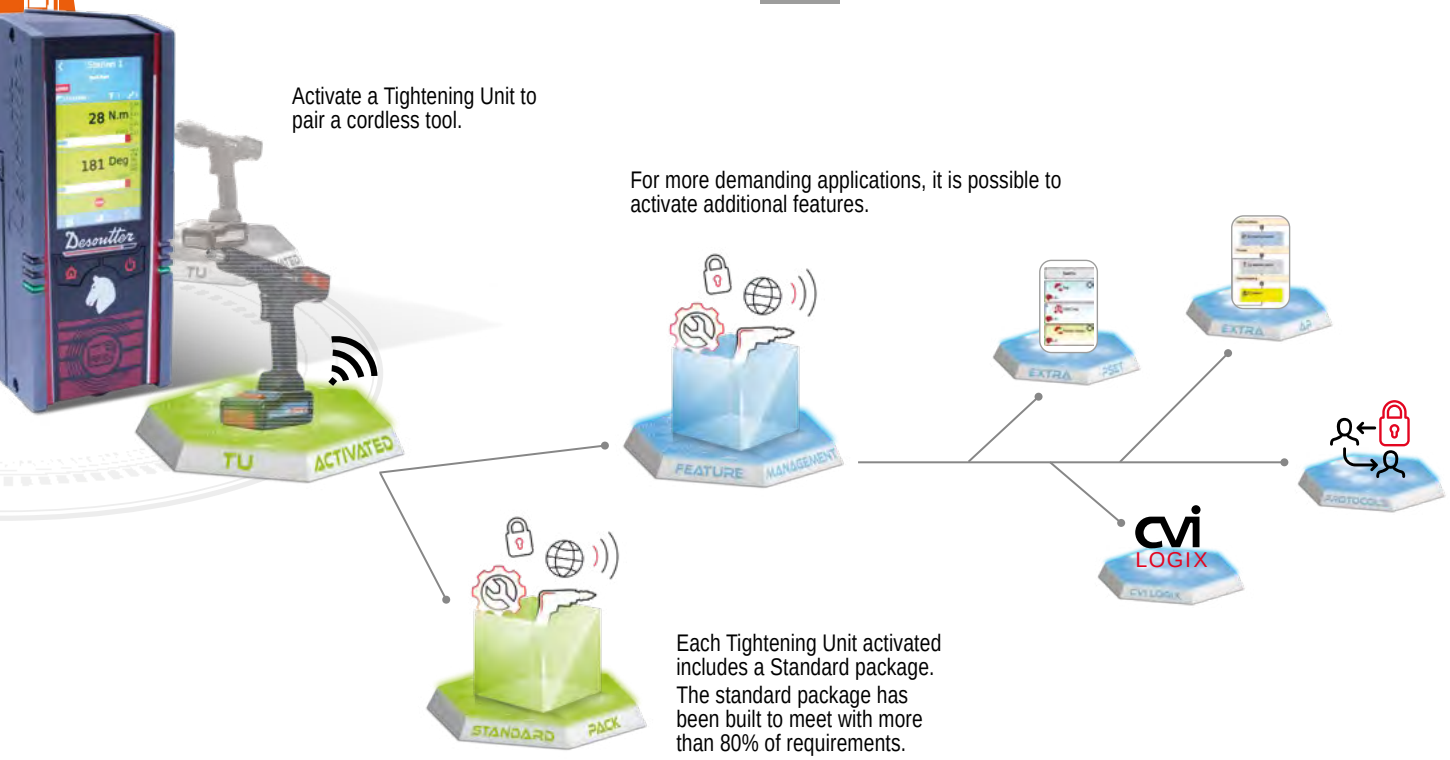
- Ensures the use of tools in the right locations and applications
- Easy to install and set up with the Easy Teaching mode

# CONNECT - Industrial Smart Hub

## Get what you really need with feature management

**FEATURE MANAGEMENT** is a scalable solution in order to provide a high level of flexibility to meet requirements. With feature management, you can add or remove a feature whenever you want or whatever the feature.

### HOW DOES IT WORK ?




**SEVERAL TIGHTENING UNITS [TU]** ARE AVAILABLE **ON CONNECT PLATFORM** WITH **DIFFERENT STANDARD PACK FEATURE LEVELS**

### STANDARD PACK

| | TU PREMIUM | TU ESSENTIAL | TU E-LIT WIFI | TU DIGITAL WRENCH |
|---|---|---|---|---|
| Compatible tool | EABC, EPBC, EABS, BLRTC | EABC, EPBC, EABS, BLRTC | ELC-P-W, ELC-A-W | QShield-C |
| Number of Pset | 10 | 6 | 4 | 10 |
| Number of Assembly Process | 10 | 6 | 4 | 10 |
| Live Results | Torque & angle values curves | Torque & angle values curves | OK/NOK | Torque & Angle values curves |
| Result Transfer/storage | Torque & angle values + curves | OK/NOK | OK/NOK | Torque & Angle values curves |
| Tightening strategy | Torque and/or angle control<br>Torque and/or angle monitoring | Torque control<br>angle monitoring | Torque control | Torque or Angle control<br>Torque or Angle monitoring |
| Protocol | Open protocol | Open protocol | Open protocol | Open protocol |
| Pairing | RFID or eDock pairing | RFID or eDock pairing | eDock pairing | RFID or USB pairing |

# CONNECT - Industrial Smart Hub

## FEATURES UNDER FEATURE MANAGEMENT ?

Feature activation is done Tightening Unit per Tightening Unit for more flexibility on your production line.

Feature management is required :

• For each Tightening Unit activation:



### TIGHTENING UNIT
Up to 10 TU with CONNECT-W
Up to 20 TU with CONNECT-X

TU PREMIUM / TU ESSENTIAL / TU E-LIT WIFI / TU DIGITAL WRENCH

• For zone control activation



### VIRTUAL CABLE
Tracker with one or multiple workings spaces

TU PREMIUM / TU ESSENTIAL

• For additional Pset activation



### EXTRA PSET
Pack “up to 50 PSET”
Pack “up to 250 PSET”

TU PREMIUM / TU DIGITAL WRENCH

• For specific Protocol activation



### PROTOCOL
Desoutter protocol
Customer protocols

TU PREMIUM / TU ESSENTIAL / TU E-LIT WIFI / TU DIGITAL WRENCH

• For additional Assembly Process activation



### EXTRA ASSEMBLY PROCESS
Pack “up to 50 AP”
Pack “up to 250 AP”

TU PREMIUM / TU DIGITAL WRENCH

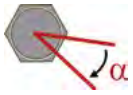
• For CVI logix activation




### AUTOMATION CONTROL
CVI LOGIX

TU PREMIUM / TU ESSENTIAL / TU E-LIT WIFI

• For specific strategies activation




### STRATEGIES
Residual Torque

TU DIGITAL WRENCH

## HOW TO ACTIVATE A FEATURE ?

○ THE HIGH FLEXIBILITY OF FEATURE MANAGEMENT IS **REACHED THANKS TO UV*.**

○ **ANY OR ALL FEATURES CAN BE ACTIVATED** BY APPLYING **UV*.**

○ **EACH FEATURE HAS ITS OWN UV*.**

*UV = *Unit Value*




| | CONNECT-W | CONNECT-X |
|---|---|---|
| Weight | 2,8 kg | |
| Volume | 4,2 Liters | |
| Display | Capacitive color touch screen (4,3”) | |
| Access point | EMBEDDED (includes internal access point) | NOT INCLUDED (external access point required) |
| Removable Integrated Memory | Included (accessible from front panel) | |
| Power supply | 110V – 220V or 24V | |
| Connectivity | 4 Ethernet ports – 4 USB ports – RS-232 port – eBUS port – fieldbus card slot | |
| IP Protection | IP 40 IP54 with an additionnal accessory | |
| Accessories | Wall mounting – stack light - socket tray – bit tray – operator panel – field bus - I/O expander - | |

# CONNECT - Industrial Smart Hub

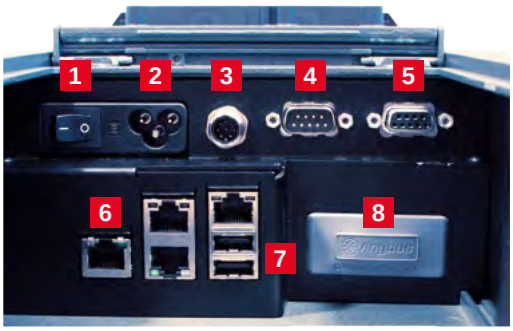
A



B



| PIC REF | MODEL | PART NUMBER | CONSUMPTION (CURRENT) | | MAIN SUPPLY | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | WIDTH | | HEIGHT | | DEPTH | | | |
| | | | 115V | 230V | 50/60 Hz | mm | in. | mm | in. | mm | in. | kg | lb. |
| A | CONNECT-X | 615 932 722 0 | < 1A | < 1A | Single-phase | 90 | 3.5 | 221 | 8.70 | 210 | 2.8 | 2.8 | 6.17 |
| B | CONNECT-W | 615 932 723 0 | < 1A | < 1A | Single-phase | 90 | 3.5 | 221 | 8.70 | 210 | 2.8 | 2.8 | 6.17 |




1 Switch On/Off
2 Auto-Sensing Voltage 110-240V
3 24V power supply
4 RS232 port
5 eBUS port (Bus dedicated to Error Proofing Integration accessories - EPI)
6 Ethernet switch with 4 Ethernet ports (including one POE)
7 2 USB ports on connector panel + 2 USB ports on front panel
8 Plug & Play Fieldbus module port

## FEATURE MANAGEMENT

| PIC REF | DESCRIPTION | PART NUMBER |
|---|---|---|
| A | UV | 615 927 843 0 |
| B | eWallet | 615 927 844 0 |

A

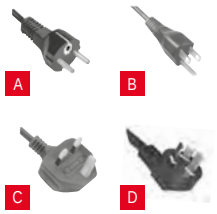



B



## POWER CORD
## to be ordered with CONNECT

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | 615 917 739 0 |
| B | US | 615 917 741 0 |
| C | UK | 615 917 740 0 |
| D | Chinese | 615 917 742 0 |




## OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| **Fieldbus modules** | | |
| 1 | Profibus module | 615 927 595 0 |
| 2 | ProfiNet module (1 port) | 615 927 596 0 |
| 3 | ProfiNet module (2 ports) | 615 927 597 0 |
| 3 | ProfiNet IRT module (2 ports) | 615 927 070 0 |
| 4 | DeviceNet module | 615 927 599 0 |
| 4 | CC-Link module | 615 927 598 0 |
| 5 | EtherNet IP module | 615 927 594 0 |
| 6 | Modbus TCP module | 615 927 615 0 |
| **Others** | | |
| • | Advanced wall mounting | 615 399 631 0 |
| • | KIT IP54 CONNECT | 615 399 336 0 |




18V

# QShield - Connected

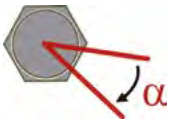
*Digital Wrench for Torque & Angle full track and trace*




**RFID TAG End-fittings with automatic recognition for ratio management and/or Pset selection**



**Gyroscope (Angle 1,2° to 250°/s)**




**Length independent transducer with double bridge strain gauge to guarantee a tightening result regardless of the position of the operator's hand.**

**Accuracy of +/-1% on Torque reading value (from 10 to 100% of the nominal torque)**

**Standard interchangeable heads and reversible ratchets**



**Industrial IoT gateway module**
- Dual band (2.4 & 5 Ghz)
- Wi-Fi enterprise security
- Global certification (TLS encryption)

**Wrench Protection**



**Mini USB port for Configuration, data export to Delta QC software & Calibrations**

**Easy pairing & rebalancing**



**RGB Color display Visual feedback AND a complementary configurable vibration for operator guidance**

**Li-Ion Battery 8 hours autonomy on QShield-C**



- ISO 6789:2017 compliance
- Wireless Communication & Easy Pairing
- Real Time reporting & traceability
- Feature Management & rebalancing
- A Unique platform of Multi-Tools on CONNECT allowing Tightening / Rework stations

# Digital Wrench on CONNECT

**QSHIELD-C** is a unique flexible solution to secure safety and quality critical applications on production lines, either requiring the highest precision on both torque and angle, tightening sequences with interchangeable heads, or simply enable assembly in difficult access conditions. It's a step in the evolution of processes to ramp up until production volumes justify investments to semi-automatic or fully automated processes.
Ultimately, it's also accurate and flexible enough to allow a rework from previous stations.



ACCESSORIES
**see page 200**

| MODEL | PART NUMBER | RANGE | | ANGLE | DRIVE | | INCLUDED RATCHET | LENGHT WITHOUT RATCHET | | LEVER ARM* | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Nm | ft.lbs | | mm | in. | in. | mm | in. | mm | in. | kg | lb. |
| **Q-SHIELD 30-C** | **615 935 200 0** | 3 - 30 | 2.21 - 22.13 | ✔ | 9x12 | 0.35x0.47 | 3/8 | 402 | 15.83 | 320 | 12.6 | 0.7 | 1.5 |
| **Q-SHIELD 150-C** | **615 935 201 0** | 15 - 150 | 11.06 - 110.6 | ✔ | 14x18 | 0.55x0.71 | 1/2 | 418 | 16.46 | 342 | 13.5 | 0.8 | 1.7 |
| **Q-SHIELD 200-C** | **615 935 202 0** | 20 - 200 | 14.75 - 147.5 | ✔ | 14x18 | 0.55x0.71 | 1/2 | 627 | 24.7 | 552 | 21.75 | 1.6 | 3.5 |
| **Q-SHIELD 350-C** | **615 221 037 0** | 35 - 350 | 25.81 - 258.1 | ✔ | 14x18 | 0.55x0.71 | 3/4 | 694 | 27.33 | 625.5 | 24.62 | 2.6 | 5.7 |
| **Q-SHIELD 400-C** | **615 935 203 0** | 40 - 400 | 29.5 - 295.0 | ✔ | 14x18 | 0.55x0.71 | 3/4 | 1028 | 40.48 | 960 | 37.8 | 3.2 | 7.0 |
| **Q-SHIELD 500-C** | **615 935 204 0** | 50 - 500 | 36.88 - 368.8 | ✔ | 21x26 | 0.82x1.02 | 3/4 | 1137 | 44.77 | 1100 | 43.3 | 5.5 | 12.1 |
| **Q-SHIELD 800-C** | **615 935 205 0** | 80 - 800 | 59.0 - 590.0 | ✔ | dia 28 | dia 1.1 | 1 | 1314 | 51.74 | 1362 | 53.62 | 6.7 | 14.7 |
| **Q-SHIELD 900-C** | **615 935 206 0** | 90 - 900 | 66.38 - 663.8 | ✔ | dia 28 | dia 1.1 | 1 | 1392 | 54.8 | 1440 | 56.7 | 8.2 | 18.0 |

** Useful length is from Ratchet axis to handle middle*

*All models are supplied with box including reversible rachet with TAG (QShield Batteries supplied seperately)*




| PIC REF | MODEL | PART NUMBER | HEIGHT | | LENGTH | | WIDTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | in | mm | in | mm | in | gr | lb |
| **A** | **Q-SHIELD battery** | **615 936 500 0** | - | - | 110 | 4.33 | Ø 22 | Ø 8.86 | 80 | 0.18 |
| **B** | **QA Charger** | **615 936 461 0** | 68 | 2.67 | 210 | 8.26 | 150 | 5.90 | 1290 | 2.84 |
| **C** | **Q-SHIELD 2x Adapters** | **615 936 533 0** | - | - | - | - | - | - | 160 | 0.35 |
| **D** | **Wrench Protection** | **615 936 504 0** | - | - | - | - | - | - | - | - |



# Q-shield-C-eLINK

Experience precision like never before with our **Q-SHIELD-C-ELINK** torque wrench, designed to be used with the nexonar tracker, for integrated Real-Time Location System (RTLS). The tracker is powered directly from the wrench itself, eliminating the need for cables or frequent tracker charging.
Q-Shield-C-eLINK improves workflow and productivity by ensuring tightenings are only validated at the desired location. Say goodbye to downtime and hello to seamless performance.


A


B


C


D

| PIC | MODEL | PART NUMBER | RANGE | | ANGLE | DRIVE | | INCLUDED RATCHET | LENGHT WITHOUT RATCHET | | LEVER ARM* | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nm | ft.lbs | | mm | in. | in. | mm | in. | mm | in. | kg | lb. |
| A | Q-SHIELD 30-C-ELINK | 615 221 044 0 | 3 - 30 | 2.21 - 22.13 | ✔ | 9X12 | 0.35X0.47 | 3/8 | 402 | 15.83 | 320 | 12.6 | 0.7 | 1.5 |
| A | Q-SHIELD 150-C-ELINK | 615 221 045 0 | 15 - 150 | 11.06 - 110.6 | ✔ | 14X18 | 0.55X0.71 | 1/2 | 418 | 16.46 | 342 | 13.5 | 0.8 | 1.7 |
| B | Q-SHIELD 200-C-ELINK | 615 221 046 0 | 20 - 200 | 14.75 - 147.5 | ✔ | 14X18 | 0.55X0.71 | 1/2 | 627 | 24.7 | 552 | 21.75 | 1.6 | 3.5 |
| B | Q-SHIELD 350-C-ELINK | 615 221 070 0 | 35 - 350 | 25.81 - 258.1 | ✔ | 14X18 | 0.55X0.71 | 3/4 | 694 | 27.33 | 625.5 | 24.62 | 2.6 | 5.7 |
| C | Q-SHIELD 400-C-ELINK | 615 221 047 0 | 40 - 400 | 29.5 - 295.0 | ✔ | 14X18 | 0.55X0.71 | 3/4 | 1028 | 40.48 | 960 | 37.8 | 3.2 | 7.0 |
| C | Q-SHIELD 500-C-eLINK | 615 221 048 0 | 50 - 500 | 36.88 - 368.8 | ✔ | 21X26 | 0.82X1.02 | 3/4 | 1137 | 44.77 | 1100 | 43.3 | 5.5 | 12.1 |
| D | Q-SHIELD 800-C-ELINK | 615 221 049 0 | 80 - 800 | 59.0 - 590.0 | ✔ | DIA 28 | DIA 1.1 | 1 | 1314 | 51.74 | 1362 | 53.62 | 6.7 | 14.7 |
| D | Q-SHIELD 900-C-ELINK | 615 221 050 0 | 90 - 900 | 66.38 - 663.8 | ✔ | DIA 28 | DIA 1.1 | 1 | 1392 | 54.8 | 1440 | 56.7 | 8.2 | 18.0 |

** Useful length is from Ratchet axis to handle middle. All models are supplied with box including reversible rachet with TAG (QShield Batteries supplied seperately).*

# Why is Q-shield-C-eLink existing

- For some applications, customer is looking for a solution with tracking of tools localization to validate the sequence, to avoid & limit errors.
- Real-Time location system (RTLS) with Nexonar tracker can be a solution to achieve this precision.
- Using Q-Shield-C-eLINK is very convenient as the tracker is powered from the tool: no need of cable or frequent charging.
- The Q-SHIELD-C eLINK is a connected asset thanks to the Connect Industrial Hub.



## BENEFITS

- Trackers are powered by the wrench providing ultimate convenience
- No cables or charging of tracker required
- Integrated trackers and their Real-Time Location System (RTLS) provide unmatched precision and reduced risk of errors
- Enhanced productivity and minimised downtime
- Perfect for hard-to-access applications where other tools cannot be used, open or closed crowfoot, with high accuracy (+/-1%)
- Wi-Fi communication with Connect (Industrial hub) - open for any industrial communication
- Q-Shield-C-eLINK can be used without tracker, as a normal “Q-Shield-C”

## OPTIONAL ACCESSORIES

| ITEM NO. | MODEL | PART NUMBER | HEIGHT | | LENGTH | | WIDTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | in | mm | in | mm | in | g | lb |
| 1 | Q-SHIELD BATTERY | 615 936 500 0 | - | - | 110 | 4.33 | Ø 22 | Ø 8.86 | 80 | 0.18 |
| 2 | QA-CHARGER | 615 936 461 0 | 68 | 2.67 | 210 | 8.26 | 150 | 5.90 | 1290 | 2.84 |
| 3 | Q-SHIELD 2X ADAPTERS | 615 936 533 0 | - | - | - | - | - | - | 160 | 0.35 |
| 4 | TRIPLE Q-SHIELD SDS | NX-001-102 | - | - | - | - | - | - | - | - |

1



2




3



4

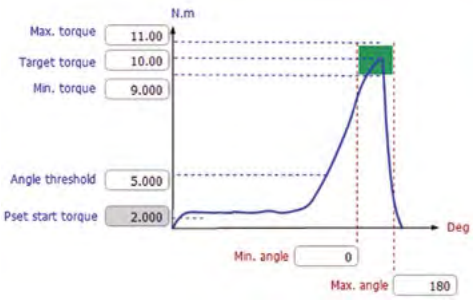


# QShield-C Strategies



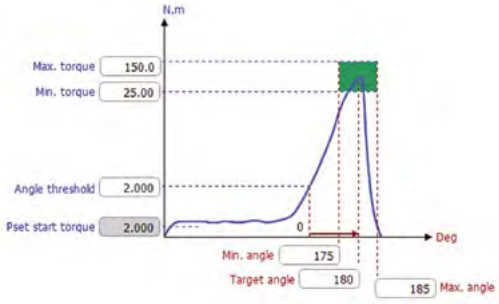
## TORQUE STRATEGY :

Tightening to a Target Torque
with a monitoring of the Angle and Torque
*(OK if both Torque and Angle are within Min/Max)*




## ANGLE STRATEGY :

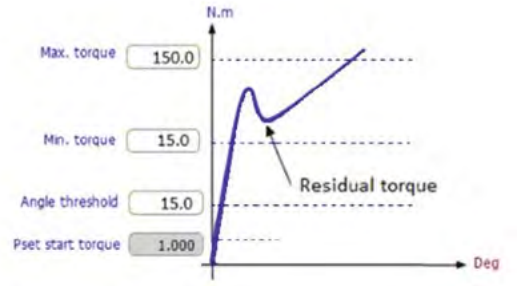
Tightening to a Target Angle
with a monitoring of the Torque and Angle
*(OK if both Torque and Angle are within Min/Max)*

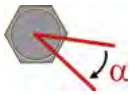





## RESIDUAL TORQUE STRATEGY :

Joint check in Production on pre-tightened joints
*(NOK management)*




Triple result detection
Residual + Breakaway (B)
+ Peak Torque (P)




## 7 TYPICAL SCENARIOS

1. Start of production (low quantities - ROI)
2. Difficult access conditions
3. More accuracy
4. Sequence using different end-fittings
5. Tighten to angle
6. Rework station (Diversity & Uptime)
7. PCT Test (Residual torque / Joint check)

## BENEFITS

- Accuracy for critical tightenings
- Wide torque range to replace click wrenches
- Production data traceability
- Repair station fastening capability
- Difficult access joints tightening
- Re-hit detection
- Low calibration cost
- Back up tool for safety & quality critical applications



# Virtual Cable

Virtual Cable is an Ultra Wide Band solution (UWB) used within the CONNECT hub platform that enables total traceability and control over tools locations and applications.

Virtual Cable ensures that the correct wireless tool can only be used for its pre-determined tasks in the correct working area. The tool is enabled for tightening only in the defined working area preventing Production errors and Quality issues.

Manage up to 20 tools in the right areas!

## BOOST YOUR PRODUCTIVITY

- You can standardise battery tools locating tools in the right working areas
- Ergonomic solution suitable for confined applications and inside cars

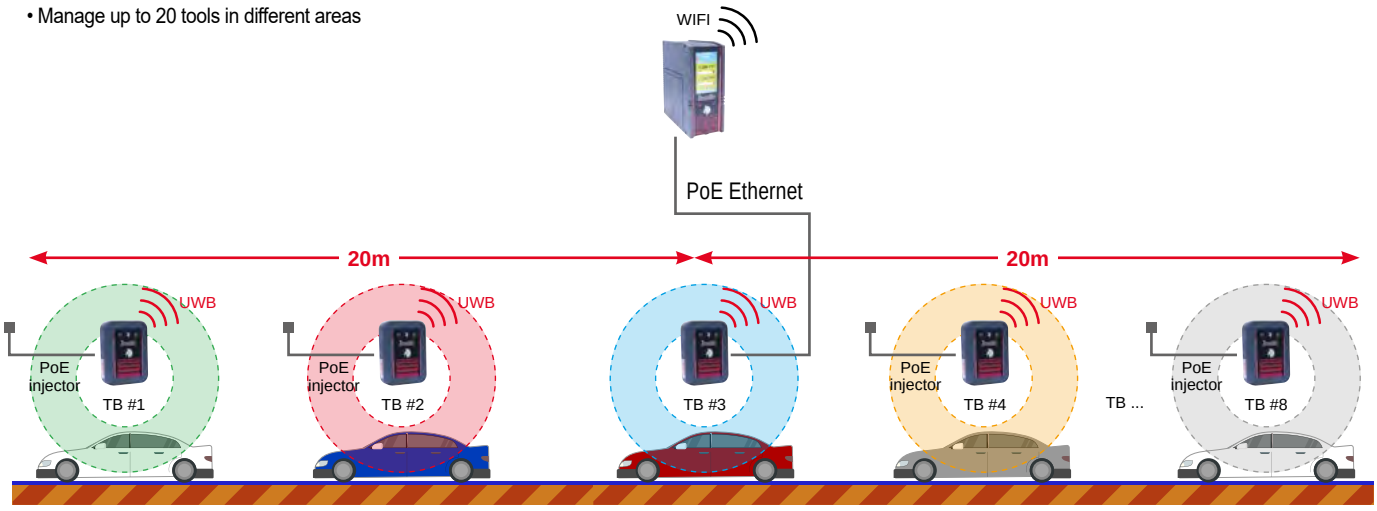
## BOOST YOUR UP TIME

- Create your working area in less than 10s with the unique Trigger Learning mode by directly pressing the tool's trigger
- Power supply via PoE

## BOOST YOUR FLEXIBILITY

- Easy to rebalance tools
- Manage up to 20 tools in different areas






**PRIMARY**
Tracking Base (TB)

## SPECIFICATIONS

| ORDERING INFORMATION | PART NUMBER |
|---|---|
| Tracking Base | 615 813 335 0 |
| Tracker for EPBC tools | 615 813 260 0 |
| Tracker for EABC tools | 615 813 259 0 |
| Tracker for EABS tools | 615 813 415 0 |
| PoE Injector | 615 813 263 0 |
| **PERFORMANCE** | |
| Frequency Range | 3.5 to 6.5 GHz |
| Area coverage | Sphere of 20m (65.6 ft) of radius |
| Max. number of Tracking bases per CONNECT | 8 |
| Max. number of areas per Tracking Base | 8 |
| Max. number of tools per CONNECT | 20 |

| TECHNICAL SPECIFICATIONS | |
|---|---|
| Environmental Sealing | Tracker: IP40<br>Tracking base: IP54 |
| Power consumption | Tracking base<br>PoE: 20mA |
| Power supply | 802.11af PoE Injector,<br>100-240 VAC |
| Tracking Base dimensions | 110 x 150 x 40 mm<br>(4.33 x 95.9 x 1.75 in.) |



# EABS - The One Hand Nutrunner



# EABS - The One Hand Nutrunner

## COMPACTNESS

**EABS IS A CONCENTRATION OF ADVANCED TECHNOLOGY** which allows to get a compactness never reached up to now with transducerized battery tools.

With a length at 30 cm, EABS can be used with only one hand. Consequently, one hand is released and could be used either to boost productivity or to improve operator's balance during tightening.




## HIGH SPEED BATTERY TOOLS WITH 18V BATTERY




### EABS IS A PERFECT BALANCE BETWEEN ERGONOMICS AND PRODUCTIVITY

EABS can reach really high speed to boost your productivity even with an 18V battery. Indeed, with an EABS 8 model and an EABS 12 model, free speed values are higher than 1000 rpm while preserving ergonomy with a total weight less than 1.5 kg.

## TOOL'S REBALANCING




### EASY WIRELESS PAIRING

The EABS tool has an embedded RFID chip for fast and efficient pairing with the CONNECT. Error proofing the process and eliminating any potential wireless setting mistakes.
With easy wireless pairing, tool is paired in less than 10 seconds.

# EABS Series

*1.5 to 24 Nm (1.1 to 16.2 ft.lb) – 10 to 1500 rpm*

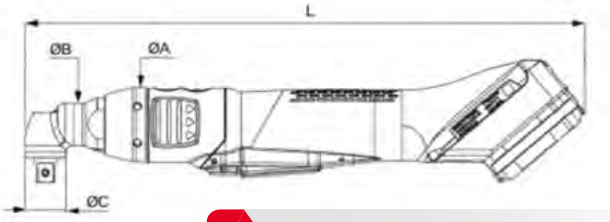

A


B


C


D

| MODEL | L | | ØA | | ØB | | ØC | |
|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| EABS8-1500 | 297 | 11.69 | 39 | 1.54 | 22 | 0.87 | 22 | 0.87 |
| EABS12-1100 | 297 | 11.69 | 39 | 1.54 | 22 | 0.87 | 22 | 0.87 |
| EABS17-800 | 297 | 11.69 | 39 | 1.54 | 22 | 0.87 | 22 | 0.87 |
| EABS24-500 | 335 | 13.19 | 39 | 1.54 | 23 | 0.91 | 28 | 1.10 |



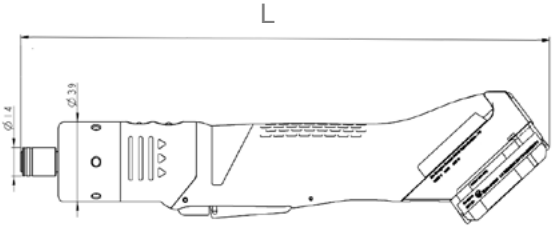

ACCESSORIES
**see page 52**

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE | | | | | | MAX. ROTATIONAL SPEED | WEIGHT* | | LENGTH* | | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | RECOMMENDED | MAX | MIN. | RECOMMENDED | MAX. | | | | | | |
| | | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | Kg | lb | mm | .in | V |
| A | **EABS8-1500-4Q** | **615 166 088 0** | Hex.1/4 | 1.5 | 7 | 8 | 1.10 | 5.16 | 5.90 | 1500 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| B | **EABS8-1500-4S** | **615 166 087 0** | Sq 1/4 | 1.5 | 7 | 8 | 1.10 | 5.16 | 5.90 | 1500 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| A | **EABS12-1100-4Q** | **615 166 091 0** | Hex.1/4 | 4 | 10 | 12 | 2.95 | 7.37 | 8.85 | 1100 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| B | **EABS12-1100-4S** | **615 166 089 0** | Sq 1/4 | 4 | 10 | 12 | 2.95 | 7.37 | 8.85 | 1100 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| B | **EABS12-1100-10S** | **615 166 090 0** | Sq 3/8 | 4 | 10 | 12 | 2.95 | 7.37 | 8.85 | 1100 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| A | **EABS17-800-4Q** | **615 166 094 0** | Hex.1/4 | 5 | 14 | 17 | 3.68 | 10.32 | 12.53 | 800 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| B | **EABS17-800-4S** | **615 166 092 0** | Sq 1/4 | 5 | 14 | 17 | 3.68 | 10.32 | 12.53 | 800 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| B | **EABS17-800-10S** | **615 166 093 0** | Sq 3/8 | 5 | 14 | 17 | 3.68 | 10.32 | 12.53 | 800 | 1.0 | 2.20 | 297 | 11.69 | 18/36 |
| C | **EABS24-500-4Q** | **615 166 096 0** | Hex.1/4 | 10 | 22 | 24 | 7.37 | 16.22 | 17.70 | 520 | 1.3 | 2.87 | 335 | 13.19 | 18/36 |
| D | **EABS24-500-10S** | **615 166 095 0** | Sq 3/8 | 10 | 22 | 24 | 7.37 | 16.22 | 17.70 | 520 | 1.3 | 2.87 | 335 | 13.19 | 18/36 |

**Weight and length without battery*

# EIBS Series






| MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE | | | | | | MAX. SPEED | LENGTH* | WEIGHT WITHOUT BATTERY | | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. | RECOMMENDED | MAX | MIN. | RECOMMENDED | MAX. | | | | | |
| | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | kg | lb | V |
| **EIBS7-1700-4Q** | **8920204015** | Hex. 1/4" F | 1 | 6 | 7 | 0.7 | 4.4 | 5.2 | 1700 | 278 | 1.05 | 2.31 | 18/36 |
| **EIBS10-1300-4Q** | **8920204370** | Hex. 1/4" F | 3 | 8.5 | 10 | 2.2 | 6.3 | 7.4 | 1300 | 297 | 1.15 | 2.53 | 18/36 |
| **EIBS14-950-4Q** | **8920204229** | Hex. 1/4" F | 4 | 12 | 14 | 2.9 | 8.8 | 10.3 | 950 | 297 | 1.15 | 2.53 | 18/36 |

**Battery not included in standard offering*

# BLRTC

*6 to 45 Nm (4.4 to 33.19 ft.lb) - 1520 to 3990 rpm*



A



B

## BOOST YOUR PRODUCTIVITY

- By reducing cycle time
- By improving joint quality
- By providing process quality

## BOOST YOUR FLEXIBILITY

- Free of cable management
- Free of reaction arm
- Reduce total cost of ownership

## BOOST YOUR UP TIME

- Boost the uptime of the operator
- Boost the uptime of the tool

| | WIFI COMMUNICATION VERSION |
|---|---|
| **Wifi Communication** | 2.4GHz or 5 GHz |
| **Programming on the tool** | N/A |
| **Pset** | 250 |
| **No. of step in Pset** | 10 |
| **Assembly process** | 250 |
| **Results** | 10 000 |
| **Tightening Curve** | 20 |
| **Disconnected mode** | ✔ |

ACCESSORIES
**see page 52**

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | OUTPUT RETAINING TYPE | TORQUE | | | | ROTATIONAL MAX SPEED (RPM) | | LENGTH | | WEIGHT* | | VOL-TAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | MIN | MAX | MIN | MAX | | | | | | | |
| | | | in. | | Nm | Nm | ft.lb | ft.lb | 18V | 36V | mm | in. | kg | in. | V |
| **A** | **BLRTC025-2350-10S** | **615 166 025 0** | Sq 3/8 | Through hole | 6 | 25 | 4.4 | 18.4 | 1520 | 2350 | 233 | 9.17 | 1.2 | 2.6 | 18/36 |
| **B** | **BLRTC025-2350-4Q** | **615 166 026 0** | Hex.1/4 | Quick change chuck | 6 | 25 | 4.4 | 18.4 | 1520 | 2350 | 233 | 9.17 | 1.2 | 2.6 | 18/36 |
| **-** | **BLRTC045-3990-10S** | **615 166 186 0** | Sq 3/8 | Through hole | 15 | 45 | 11.6 | 33.19 | 3990 | 3990 | 251 | 9.9 | 1.34 | 2.96 | 18/36 |

**Weight without battery*

# Wireless transducerized battery tool






**Pistol Version: additional features**

- Torque 1,5-17 Nm
- Compatible with both 18v and 36V batteries
- White LED activated by movement

## ADVANCED ERGONOMICS

- Low weight tools
- Effortless trigger
- 45° oriented battery (angle version)
- Slim angle head for tight areas access

## EASY INTEGRATION

- Quick wireless installation with contactless RFID pairing
- Data collection through wireless communication
- Improve error-proofing control with advanced tightening strategies
- Easy attachment for crowfoot & tubenuts

## INCREASED PRODUCTIVITY

- High speed tool
- Embedded display for pset selection
- Strong & efficient wireless communication, tested in industrial environment

## OPTIMIZED MAINTENANCE

- Long life batteries, no memory effect on Li-ion battery
- Dust & oil proof trigger
- Common spare parts

# EPBcom Series

*1.5 to 17 Nm (1.1 to 12.5 ft.lb) - 10 to 1800 rpm*

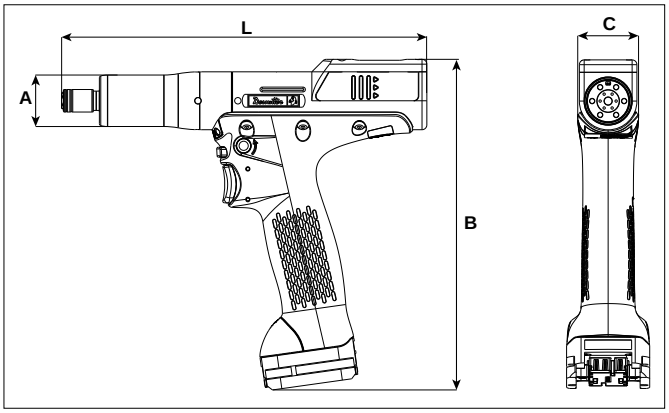
CONNECT CVI3



A



B




| MODEL | L | | A | | B | | C | |
|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| EPBC 8-1800-4Q | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPBC 8-1800-10S | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPBC14-900-4Q | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPBC14-900-10S | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPBC 17-700-4Q | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |
| EPBC 17-700-10S | 227 | 8.94 | 32 | 1.26 | 206 | 8.11 | 38 | 1.5 |

ACCESSORIES
**see page 52**

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE RANGE | | | | | | ROTATIONAL SPEED (RPM) | | WEIGHT WITHOUT BATTERY | | VOLTAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | 18V | 36V | kg | lb | V |
| **EPBcom - TRANSDUCERIZED BATTERY TOOL** | | | | | | | | | | | | | | |
| A | EPBC 8-1800-4Q | 615 165 900 0 | Hex.1/4"F | 1.5 | 7 | 8 | 1.1 | 5.2 | 5.9 | 900 | 1800 | 1.0 | 2.2 | 18/36 |
| B | EPBC 8-1800-10S | 615 165 904 0 | Sq.3/8 | 1.5 | 7 | 8 | 1.1 | 5.2 | 5.9 | 900 | 1800 | 1.0 | 2.2 | 18/36 |
| A | EPBC14-900-4Q | 615 165 980 0 | Hex.1/4"F | 4 | 12 | 14 | 2.9 | 8.8 | 10.3 | 540 | 940 | 1.0 | 2.2 | 18/36 |
| B | EPBC14-900-10S | 615 165 979 0 | Sq. 3/8 | 4 | 12 | 14 | 2.9 | 8.8 | 10.3 | 540 | 940 | 1.0 | 2.2 | 18/36 |
| A | EPBC 17-700-4Q | 615 165 906 0 | Hex.1/4"F | 7 | 15 | 17 | 5.2 | 11 | 12.5 | 400 | 700 | 1.0 | 2.2 | 18/36 |
| B | EPBC 17-700-10S | 615 165 902 0 | Sq.3/8 | 7 | 15 | 17 | 5.2 | 11 | 12.5 | 400 | 700 | 1.0 | 2.2 | 18/36 |

*• Battery not included in standard offfering*
*• Battery 18V, 2.5 Ah : 0.46 kg (1.01lb) & 36V, 2.5 Ah : 0.77 kg (1.70lb)*

# EABcom Series

*5 to 95 Nm (3.7 to 70 ft.lb) - 10 to 900 rpm*

CONNECT CVI3



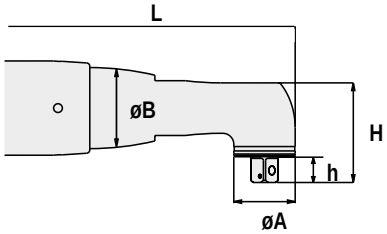
A



B



C




## eLINK range

**Angle head tool with integrated task light**
*(with LED color code reporting)*



## Barcode reader ready




| MODEL | L | | H | | H | | ØA | | ØB | |
|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| **EABC 15-900** | 470 | 18.5 | 10.2 | 0.40 | 33.8 | 1.33 | 22 | 0.87 | 37.0 | 1.46 |
| **EABC 26-560** | 496 | 19.5 | 12.0 | 0.47 | 45.7 | 1.80 | 28 | 1.10 | 37.0 | **1.46** |
| **EABC 32-410** | 496 | 19.5 | 12.0 | 0.47 | 45.7 | 1.80 | 28 | 1.10 | 37.0 | 1.46 |
| **EABC 45-330** | 506 | 19.9 | 12.0 | 0.47 | 51.0 | 2.00 | 35 | 1.38 | 37.0 | 1.46 |
| **EABC 50-450** | 546 | 21.5 | 12.0 | 0.47 | 51.0 | 2.00 | 35 | 1.38 | 37.0 | 1.46 |
| **EABC 60-370** | 559 | 22.0 | 11.9 | 0.468 | 57.0 | 2.20 | 40 | 1.57 | 41.0 | 1.61 |
| **EABC 75-300** | 582 | 22.9 | 17.5 | 0.69 | 60.4 | 2.38 | 45 | 1.77 | 48.5 | 1.91 |
| **EABC 95-240** | 582 | 22.9 | 17.5 | 0.69 | 60.4 | 2.38 | 45 | 1.77 | 48.5 | 1.91 |

*L = Tool lenght without battery*

ACCESSORIES
**see page 52**

| PIC REF | MODEL | PART NUMBER EABCOM | PART NUMBER EABCOM eLINK | SQUARE DRIVE | TORQUE RANGE | | | | | | ROTATIONAL SPEED | WEIGHT WITHOUT BATTERY | | VOL-TAGE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | |
| | | | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | kg | lb | V |
| **EABcom - TRANSDUCERIZED BATTERY TOOL** | | | | | | | | | | | | | | |
| • | **EABC 15-900** | **615 165 841 0** | **615 166 050 0** | 1/4 | 5 | 13 | 15 | 3.7 | 9.6 | 11 | 900 | 1.55 | 3.42 | 36 |
| A | **EABC 26-560** | **615 165 842 0** | **615 166 051 0** | 3/8 | 5 | 24 | 26 | 3.7 | 18 | 19 | 560 | 1.65 | 3.64 | 36 |
| A | **EABC 32-410** | **615 165 843 0** | **615 166 052 0** | 3/8 | 7 | 30 | 32 | 5.2 | 22 | 24 | 410 | 1.65 | 3.64 | 36 |
| B | **EABC 45-330** | **615 165 844 0** | **615 166 053 0** | 3/8 | 9 | 40 | 45 | 6.6 | 30 | 33 | 330 | 1.76 | 3.88 | 36 |
| B | **EABC 50-450** | **615 165 845 0** | **615 166 054 0** | 3/8 | 9 | 45 | 50 | 6.6 | 33 | 37 | 450 | 2.04 | 4.50 | 36 |
| B | **EABC 60-370** | **615 165 846 0** | **615 166 055 0** | 1/2 | 10 | 55 | 60 | 7.4 | 41 | 44 | 370 | 2.35 | 5.18 | 36 |
| C | **EABC 75-300** | **615 165 847 0** | **615 166 056 0** | 1/2 | 12 | 70 | 75 | 8.8 | 52 | 55 | 300 | 2.94 | 6.48 | 36 |
| C | **EABC 95-240** | **615 165 848 0** | **615 166 057 0** | 1/2 | 19 | 90 | 95 | 14 | 66 | 70 | 240 | 2.98 | 6.57 | 36 |

*• Battery not included in standard offering*
*• Battery 36V, 2.5Ah - Weight: 0.77 kg (1.70lb)*

# Accessories






## EABS / BLRTC / EPBcom / EABcom

### ACCESSORIES INCLUDED

| | EPBcom | BLRTC | EABS |
|---|---|---|---|
| • Protective cover - Black | 615 211 019 0 | 615 211 073 0 | Included (7) |

### OPTIONAL ACCESSORIES

| ITEM | | EABcom | EPBcom | BLRTC | EABS |
|---|---|---|---|---|---|
| **Battery type** | | | | | |
| 1 | Li-ion battery pack 18V 2.5 Ah - 0.46 kg (1,01lb) | | 615 813 266 0 | 615 813 266 0 | 615 813 266 0 |
| 2 | Li-ion battery pack 36V 2.5 Ah - 0,77 kg (1,70lb) | 615 813 267 0 | 615 813 267 0 | 615 813 267 0 | 615 813 267 0 |
| **Charger** | | | | | |
| 3 | Charger Universal 18 / 36V | 615 813 270 0 | 615 813 270 0 | 615 813 270 0 | 615 813 270 0 |
| • | Power Cord C13-C14 L=0.3m (daisy chain cable) | 615 813 383 0 | 615 813 383 0 | 615 813 383 0 | 615 813 383 0 |
| **Protective covers - Tools** | | | | | |
| 4 | For Angle head EAB 15 | 615 211 003 0 | | | |
| 4 | For Angle head EAB 26/32 | 615 573 207 0 | | | |
| 4 | For Angle head EAB 45/50 | 615 573 208 0 | | | |
| 4 | For Angle head EAB 60 | 615 573 209 0 | | | |
| 4 | For Angle head EAB 75/95 | 615 573 210 0 | | | |
| 5 | For Pistol EPB - Red | | 615 211 022 0 | | |
| 6 | For angle EABS 8 - EABS 12 - EABS 17 | | | | 615 813 250 0 |
| 6 | For angle EABS 24 | | | | 615 813 251 0 |
| **Protective covers - Battery** | | | | | |
| 7 | For Battery 18V 2.5Ah - Clear | | 615 211 136 0 | 615 211 136 0 | 615 211 136 0 |
| 7 | For Battery 18V 2.5Ah - Black | | 615 211 137 0 | 615 211 137 0 | 615 211 137 0 |
| 7 | For Battery 18V 2.5Ah - Red | | 615 211 138 0 | 615 211 138 0 | 615 211 138 0 |
| 7 | For Battery 18V 2.5Ah - Grey | | 615 211 139 0 | 615 211 139 0 | 615 211 139 0 |
| 7 | For Battery 36V 2.5Ah - Clear | 615 211 140 0 | 615 211 140 0 | 615 211 140 0 | 615 211 140 0 |
| 7 | For Battery 36V 2.5Ah - Black | 615 211 141 0 | 615 211 141 0 | 615 211 141 0 | 615 211 141 0 |
| 7 | For Battery 36V 2.5Ah - Red | 615 211 142 0 | 615 211 142 0 | 615 211 142 0 | 615 211 142 0 |
| 7 | For Battery 36V 2.5Ah - Grey | 615 211 143 0 | 615 211 143 0 | 615 211 143 0 | 615 211 143 0 |
| **Miscellaneous** | | | | | |
| 8 | Nose crowfoot adapter for EPB. | | 615 565 518 0 | | |
| 9 | eDOCK + Battery data interface | 615 813 400 0 | 615 813 400 0 | 615 813 400 0 | 615 813 400 0 |
| 10 | Barcode reader for EPBC (1D/2D/QR) | | 615 812 281 0 | | |
| • | Barcode reader for EABC-eLINK (1D/2D/QR) | 615 813 038 0 | | | |
| • | Access point Wifi 802.11N-US: | 615 811 417 5 | 615 811 417 5 | 615 811 417 5 | 615 811 417 5 |
| • | Access point Wifi 802.11N-EU: | 615 811 419 5 | 615 811 419 5 | 615 811 419 5 | 615 811 419 5 |
| • | Access point Wifi 802.11N-A | 615 811 650 5 | 615 811 650 5 | 615 811 650 5 | 615 811 650 5 |
| • | Access point Wifi 802.11N-H | 615 811 420 5 | 615 811 420 5 | 615 811 420 5 | 615 811 420 5 |
| • | Plug UK | 615 917 202 0 | 615 917 202 0 | 615 917 202 0 | 615 917 202 0 |
| 11 | Side handle | | 615 397 016 0 | | |
| **Virtual Cable** | | | | | |
| 12 | Tracking Base | 615 813 335 0 | 615 813 335 0 | 615 813 335 0 | 615 813 335 0 |
| 13 | Tracker | 615 813 259 0 | 615 813 260 0 | 615 813 260 0 | 615 813 415 0 |
| • | PoE Injector 30W | 615 813 263 0 | 615 813 263 0 | 615 813 263 0 | 615 813 263 0 |
| **Desoutter Tool holster** | | | | | |
| 14 | DTH TWIN (single) without rail | 615 811 411 0 | | | 615 811 411 0 |
| 15 | DTH TWIN rail kit with 2 Twin holders | 615 811 412 5 | | | |
| 16 | DTH TWIN stand kit with 2 Twin holders | 615 811 413 5 | | | |
| 17 | DTH90 | | 615 812 119 0 | 615 812 119 0 | |
| 18 | DTH Battery (single) without rail | 615 813 385 0 | | | 615 813 385 0 |
| **Suspension** | | | | | |
| 19 | Swivelling front suspension kit | 615 397 413 0 | | | 615 813 405 0 |
| 20 | EABS back suspension | | | | 615 813 296 0 |

# Accessories

## Front trigger for open crowfoot applications

### OPTIONAL ACCESSORIES




| ITEM | | EABcom |
|---|---|---|
| **Front trigger for open crowfoot applications** | | |
| **20** | Mechanical kit for tools for EABC tools (must be mounted on tool by authorized Desoutter service technician) | **615 398 530 0** |
| **20** | Kit FLEX FRONT START for EABC15 to EABC45 | **615 911 034 5** |
| **20** | Kit FLEX FRONT START for EABC50 to EABC95 | **615 911 033 5** |



## Tools display module for EABS

| ITEM | PART NUMBER | DESCRIPTION |
|---|---|---|
| **21** | BER2329000 | **EABS tool display module (TDM)** |
| **21** | BER2329600 | **EABS TDM for battery cover** |
| **22** | BER2329500 | **EABS suspended tool display module** |
| **23** | BER2329603 | **EABS TDM protection cover** |









# MULTI - Multi - Spindles solution




## CONNECT

Place your CONNECT wherever you want at the station or anywhere in the plant using the dedicated CONNECT network.

## M-DRIVE

The M-Drive can manage all Desoutter premium EFM fixtured spindles and can be installed and rebalanced in a matter of seconds.
- Restart in 30' for the shortest stop on the line.
- Optimised fanless cooling design for any production rate
- Easy access to install and rebalance - only one safety screw
- Direct front access to the tool cable
- Tool hot swap through tool changer within 6 seconds

## M-POWERBOX

The MULTI all-in-one and compact M-PowerBox:
- Can be connected to just one power source with a voltage level from 380V to 480V/3ph.
- Option to be on a daisy chain of up to several power boxes to synchronize up to 40 tools.



## M-MODURACK

No more cables, the M-Modurack ensures the power distribution, communication, and safety between all the components of the solution.

## M-SAFETYBOX

The M-SafetyBox is a core component for MULTI's safety management and the main connectivity point to the CONNECT and all your safety devices.
- 24VDC power supply output (Compatible with CONNECT)
- Ethernet
- eStop (Cat.3 Pl.e)
- Quick Stop



## EFM - FIXTURED SPINDLE

Premium EFM fixtured spindles offer performance from 1 to 2000 Nm.
Designed for:
- Performance and durability
- Compactness (lightest and shortest tool on the market)
- Easy integration
- Optimised PCD (Pitch Cycle Diameter)
- High precision and repeatability

## BOOST YOUR FLEXIBILITY

- **Integrated through the CONNECT to the Desoutter Ecosystem**
- **High Compacity for easy integration**
- **Advanced tightening strategy to manage all types of applications**

## BOOST YOUR UPTIME

- **Insight from Demeter**
- **Easy maintenance with channel diagnostics**
- **Service Contract to get the best of the solution**

## BOOST YOUR PRODUCTIVITY

- **High Speed for High Torque Spindle**
- **Up to 40 spindles**
- **Highly Robust, resistant to vibration, shock, heat, humidity and dust**

# Key fact about the MULTI

**0.2 M²**
Compact

Less then 1m for 40 spindles

**UP TO 40**

Modular

Choose from 1 to 40 spindles

**30 SEC.**

Fastest restart

Restart a station unit in 30'

**1**

Single Platform

One common platform to manage all assets

# They trust us

## APPLICATION IN POWERTRAIN

Desoutter's MULTI system is extremely compact, occupies a small space, and it's light-weight. In addition to meeting customer's own standards, its simple maintenance, good cable management, easy integration, easy installation and other advantages compare favorably with similar products on the market. Also The MULTI is in line with customer's digital production and intelligent manufacturing development planning needs.

## TIGHTENING MANAGER - AGRICULTURAL VEHICLE MANUFACTURE

The improvements in speed and accuracy, coupled with the additional benefits of full traceability and improved operator safety, have enabled us to take productivity to the next level.



# Select your MULTI

## TENSION

- What three-phase power supply do you use?
  The MULTI all-in-one and compact M-PowerBox can be connected to just one power source with a voltage level from 380V to 480V/3ph. This means it is quick and easy to install.

## SAFETY

- Do you need to meet specific safety requirements?
  The M-SafetyBox is a core component for MULTI's safety management and the main connectivity point to the CONNECT and all your safety devices.

## TORQUE

- What is the maximum torque your application requires?
  Check the torque needs according to your application. Premium EFM fixtured spindles offer performance from 1 to 2000 Nm.

## GET IN TOUCH

Our team will be happy to answer every question about the Modular Multi-Spindle Solution by Desoutter.

## CABLE LENGTH

- What is the distance between your tightening station and the Drive?
  The MULTI compact modules are designed to be mounted on the tightening unit, which requires less floor space, and fewer cables. Less cable management means a leaner, simpler, and faster installation.

## BOLTS / SCREWS

- How many bolts or screws require simultaneous tightening?
  To meet the varied demands of factory production, the MULTI can manage up to 40 tools, synchronised or not. The M-Drives are managed by the M-ModuRack, the backbone of the system. Cables and firmware are not required, but just a simple plug-and-play system.



# Set–up your MULTI with Feature Management

**Feature Management** is a scalable solution that allows you to get the features that you need.
With its HIGH LEVEL OF FLEXIBILITY, you can add new features to your MULTI (working mode, protocols, PSET, assembly process, and advanced tightening strategies) whenever your production line requirements change. Just activate the feature, and off you go!

## STANDARD PACK FOR 1 TIGHTENING UNIT CORD

| | CORD TRANSDUCERIZED TOOL APPLICATIONS | CORD TRANSDUCERIZED TOOL APPLICATIONS |
|---|---|---|
| | Tightening Unit Premium | Tightening Unit Essential |
| Number of Pset | 10 | 6 |
| Number of Assembly Process | 10 | 6 |
| Live Results | Torque, angle, curve | Torque, angle, curve |
| Result Transfer/storage | Torque, angle, curve | OK/NOK |
| Tightening strategy | Torque and/or angle control | Torque control, Angle monitoring |
| Protocol | Open protocol | Open protocol |

## EXTRA FEATURES

| WORKING MODE | PSET & ASSEMBLY PROCESS | ADVANCED TIGHTENING STRATEGY | PROTOCOLS |
|---|---|---|---|
| Workgroup* - [MULTI : from 2 to 40 Spindles] | Additional PSET up to 50 PSET | Yield point | Desoutter protocol |
| Automation control with CVI LOGIX | Additional PSET up to 250 PSET | Zero torque angle | Curves by Open protocol |
| | Additional AP up to 50 AP | Seating detection | VW protocol |
| | Additional AP up to 250 AP | | IPM protocol |
| | | | PFCS protocol |
| | | | FORD Protocol |
| | | | TOYOTA GLOBAL POKA YOKE |

DEMETER
Desoutter

Analyze your Multi data with ease!
DeMeter uses robust analytics to process and transform raw data into meaningful results through:

- Relevant KPIs to assess your performance
- Intuitive dashboards for clear visualization of your data
- Detailed graphs and reports for in-depth analysis
- Real-time notifications to keep you informed of critical changes



# Installation should never be an afterthought!

## Discover INSTALLATION & COMMISSIONING for MULTI

You have invested in a high-performance product. Now, make sure it delivers from day one. With INSTALLATION & COMMISSIONING by Desoutter, you ensure a flawless setup and immediate operational readiness, right first time.

What does INSTALLATION & COMMISSIONING include?

Installation, programming, functional test, each tool calibration, operator training and support during the production ramp-up

## Minimize Downtime, maximize productivity with REMOTE CARE

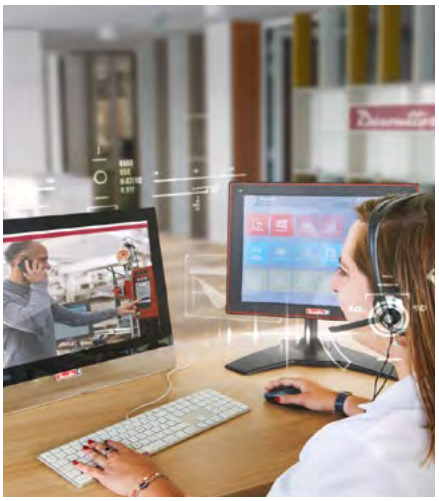
We commit to your sustainability and efficiency through our expertise; you concentrate on your production.

Get Expert support within one hour: on-site, on app, worldwide.

## Avoid production disruptions, extend the life of your tools and reduce their environmental impact.

Preventive Maintenance and Warranty Extension significantly increase tool lifespan, reduce spare consumption, ensure consistent quality and protect by minimising breakdowns.
In addition, Tool Calibration is systematically done after each maintenance.







# MULTI - Multi-Spindles solution


A


B


C


D


E


F


G


H

| PIC | MODEL | PART NUMBER | AMBIENT STORAGE TEMP. | | AMBIENT OPERATING TEMPERATURE | | | | POWER CONSUMPTION | WEIGHT | | POWER SUPPLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MAX °C | MAX °F | MIN. °C | MAX. °C | MIN. °F | MAX. °F | | | | |
| | | | | | | | | | A | Kg | lb | VAC |
| A | M-POWERBOX | 615 932 751 0 | 70 | 158 | 0 | 40 | 32 | 104 | 32 | 6 | 13.2 | 380 - 480 |
| B | M-SAFETYBOX | 615 932 752 0 | 70 | 158 | 0 | 40 | 32 | 104 | 2 | 2.5 | 5.51 | 24 |
| C | M-DRIVE | 615 932 763 0 | 70 | 158 | 0 | 40 | 32 | 104 | 3 | 3.5 | 7.72 | 520 |
| D | M-PROTECKTRACK | 615 932 755 0 | 70 | 158 | 0 | 40 | 32 | 104 | - | 3.5 | 7.72 | - |
| E | M-MODURACK2 | 615 932 756 0 | 70 | 158 | 0 | 40 | 32 | 104 | 32 | 0.5 | 1.1 | - |
| F | M-MODURACK3 | 615 932 757 0 | 70 | 158 | 0 | 40 | 32 | 104 | 32 | 0.7 | 1.54 | - |
| G | M-MODURACK5 | 615 932 758 0 | 70 | 158 | 0 | 40 | 32 | 104 | 32 | 1.2 | 2.65 | - |
| H | M-RACKPLUG | 615 932 759 0 | - | - | - | - | - | - | - | - | - | - |

## Ready for your transformation

- Innovative modular solution for multi-spindle applications
- Optimized design for various production environments
- Customized station solution from your actual assembly requirements
- Zero-error assembly with advanced tightening strategies & production monitoring






### BOOST YOUR FLEXIBILITY

- Integrated through the CONNECT to the Desoutter Ecosystem
- High Compacity for easy integration
- Advanced tightening strategy to manage all types of applications

### BOOST YOUR UP TIME

- Insight from Demeter
- Easy maintenance with channel diagnostics
- Service Contract to get the best of the solution

### BOOST YOUR PRODUCTIVITY

- High Speed for High Torque Spindle
- Up to 40 spindles
- Highly Robust, resistant to vibration, shock, heat, humidity and dust

# MULTI - EFM / EFM-TA / EFMO / EFMA


A

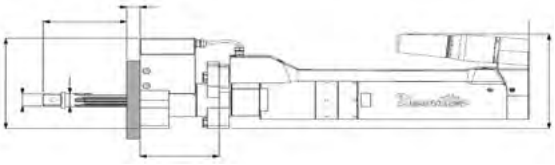

B


C


D


E


F





| PIC | MODEL | PART NUMBER | OUTPUT DRIVE | STROKE | TORQUE | | | | | | FREE SPEED | C-C DISTANCE | | TOOL LENGTH L | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | | | |
| | | | in. | mm | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | mm | in. | kg | lb |
| EFM | | | | | | | | | | | | | | | | | |
| A | EFM43-8 | 615 166 220 0 | 3/8 | 50 | 1.6 | 8 | 10 | 0.6 | 5.9 | 7.4 | 2000 | 43 | 1.69 | 286 | 11.26 | 1.85 | 4.08 |
| A | EFM43-15 | 615 166 221 0 | 3/8 | 50 | 1.5 | 15 | 17 | 1.1 | 11.1 | 12.5 | 2000 | 43 | 1.69 | 286 | 11.26 | 1.85 | 4.08 |
| A | EFM43-30 | 615 166 222 0 | 3/8 | 50 | 3 | 30 | 32 | 2.2 | 22.1 | 23.6 | 1454 | 43 | 1.69 | 322 | 12.68 | 2.3 | 5.07 |
| A | EFM43-45 | 615 166 223 0 | 3/8 | 50 | 4.5 | 45 | 50 | 3.3 | 33.2 | 36.9 | 1112 | 43 | 1.69 | 322 | 12.68 | 2.3 | 5.07 |
| A | EFM51-70 | 615 166 224 0 | 1/2 | 50 | 7 | 70 | 80 | 5.2 | 51.6 | 59 | 816 | 51 | 2.01 | 367 | 14.45 | 3.95 | 8.71 |
| A | EFM51-135 | 615 166 225 0 | 1/2 | 50 | 17.5 | 135 | 150 | 10 | 99.6 | 111 | 463 | 51 | 2.01 | 367 | 14.45 | 3.95 | 8.71 |
| A | EFM60-175 | 615 166 227 0 | 3/4 | 50 | 18 | 175 | 190 | 13.3 | 129 | 140 | 575 | 60 | 2.36 | 383 | 15.08 | 5.3 | 11.7 |
| A | EFM60-250 | 615 166 228 0 | 3/4 | 50 | 25 | 250 | 280 | 18.4 | 184 | 207 | 409 | 60 | 2.36 | 383 | 15.08 | 5.3 | 11.7 |
| B | EFM80-330 | 615 166 229 0 | 3/4 | 60 | 33 | 330 | 360 | 24.3 | 243 | 266 | 299 | 80 | 3.15 | 445 | 17.52 | 9.9 | 21.8 |
| B | EFM80-450 | 615 166 230 0 | 3/4 | 60 | 45 | 450 | 500 | 33.2 | 332 | 369 | 218 | 80 | 3.15 | 445 | 17.52 | 9.9 | 21.8 |
| B | EFM80-680 | 615 166 231 0 | 1 | 60 | 68 | 680 | 750 | 50.2 | 502 | 553 | 145 | 80 | 3.15 | 445 | 17.52 | 9.9 | 21.8 |
| B | EFM80-950 | 615 166 233 0 | 1 | 60 | 90 | 950 | 1050 | 66.4 | 701 | 774 | 190 | 80 | 3.15 | 488 | 19.21 | 13.3 | 29.4 |
| C | EFM106-1400 | 615 166 234 0 | 1-1/2 | 60 | 140 | 1400 | 1470 | 103 | 1030 | 1080 | 130 | 106 | 4.17 | 531 | 20.91 | 18.5 | 40.8 |
| C | EFM106-1900 | 615 166 235 0 | 1-1/2 | 60 | 190 | 1900 | 2000 | 140 | 1400 | 1480 | 100 | 106 | 4.17 | 531 | 20.91 | 18.5 | 40.8 |
| EFM-TA | | | | | | | | | | | | | | | | | |
| D | EFM51-70-TA | 615 166 269 0 | 1/2 | 50 | 20 | 70 | 80 | 14.8 | 51.6 | 59 | 816 | 51 | 2.01 | 465 | 18.31 | 5.7 | 12.5 |
| D | EFM51-135-TA | 615 166 270 0 | 1/2 | 50 | 20 | 135 | 150 | 14.8 | 99.6 | 111 | 463 | 51 | 2.01 | 465 | 18.31 | 5.7 | 12.5 |
| D | EFM60-175-TA | 615 166 271 0 | 3/4 | 50 | 30 | 175 | 190 | 22.1 | 129 | 140 | 409 | 60 | 2.36 | 481 | 18.94 | 7.9 | 17.4 |
| D | EFM60-250-TA | 615 166 272 0 | 3/4 | 50 | 50 | 250 | 280 | 36.9 | 184 | 207 | 299 | 60 | 2.36 | 481 | 18.94 | 7.9 | 17.4 |
| EFMO | | | | | | | | | | | | | | | | | |
| E | EFMO24-20 | 615 166 159 0 | 3/8 | 50 | 4 | 20 | 22 | 1.5 | 14.8 | 16.2 | 1940 | 24 | 0.94 | 351 | 13.82 | 3.1 | 6.83 |
| E | EFMO30-80 | 615 166 160 0 | 1/2 | 50 | 16 | 80 | 90 | 5.9 | 59 | 66.4 | 900 | 30 | 1.18 | 456 | 17.95 | 5.5 | 12.1 |
| E | EFMO40-180 | 615 166 161 0 | 3/4 | 50 | 36 | 180 | 200 | 13.3 | 133 | 148 | 560 | 40 | 1.57 | 504 | 19.84 | 8.8 | 19.4 |
| F | EFMO54-450 | 615 166 162 0 | 3/4 | 50 | 90 | 450 | 480 | 33.2 | 332 | 354 | 230 | 54 | 2.13 | 617 | 24.29 | 17.2 | 37.9 |









EFMA - ANGLE HEADED TOOLS WITHOUT TELESCOPIC MODULE

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | EFMA40-55 | 8920904518 | 1/2 | 12 | 55 | 65 | 8.9 | 46.6 | 47.9 | 719 | 40 | 1.57 | 322 | 12.64 | 139 | 5.5 | 4.5 | 9.9 |
| B | EFMA63-190 | 8920904520 | 3/4 | 80 | 190 | 250 | 59 | 140 | 184 | 320 | 63 | 2.47 | 383 | 15.04 | 189 | 7.5 | 3.2 | 7 |
| C | EFMA76-300 | 8920904532 | 3/4 | 107 | 300 | 380 | 79 | 221 | 280 | 287 | 76 | 2.98 | 383 | 15.04 | 191 | 7.5 | 10.6 | 23.2 |
| D | EFMA107-450 | 8920904531 | 1 | 150 | 450 | 580 | 110.6 | 332 | 428 | 170 | 107 | 4.21 | 383 | 15.04 | 322 | 12.7 | 13 | 28.5 |

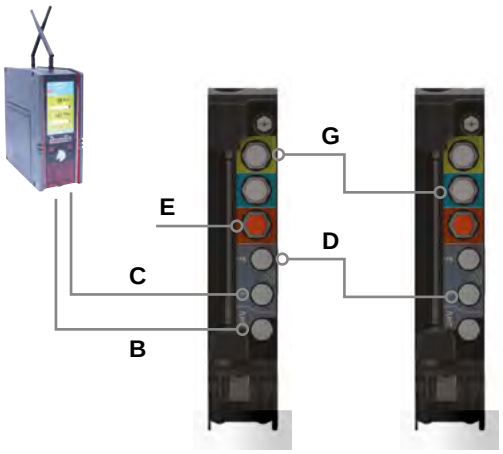
# Connect




| ITEM | | PART NUMBER |
|---|---|---|
| 1 | CONNECT-X | 615 932 722 0 |
| 2 | CONNECT-W | 615 932 723 0 |

## ADDITIONAL ACCESSORIES

| ITEM | | PART NUMBER |
|---|---|---|
| • | support for connect | 615 932 762 0 |
| B | m12/m12 connect/m-safetybox power cable 1m (3.28ft) | 615 917 753 0 |
| B | m12/m12 connect/m-safetybox power cable 5m (16ft) | 615 917 754 0 |
| C | rj45/m12x connect/m-safetybox ethernet cable 1m (3.28ft) | 615 917 756 0 |
| C | rj45/m12x connect/m-safetybox ethernet cable 5m (16ft) | 615 917 757 0 |
| D | m12x/m12x safetybox/safetybox ethernet cable 1m (3.28ft) | 615 917 760 0 |
| D | m12x/m12x safetybox/safetybox ethernet cable 5m (16ft) | 615 917 761 0 |
| G | m12/m12 safetybox/safetybox emergency stop cable 1m (3.28ft) | 615 917 763 0 |
| G | m12/m12 safetybox/safetybox emergency stop cable 5m (16ft) | 615 917 764 0 |
| E | open wires emergency stop cable 5m (16ft) | 615 917 766 0 |




Cables

| | | |
|---|---|---|
| • | Tool Cable 2.5m (8.20ft) | 615 917 651 0 |
| • | Tool Cable 5m (16ft) | 615 917 652 0 |
| • | Tool Cable 10m (32.8ft) | 615 917 654 0 |
| • | Tool Cable 15m (49.2ft) | 615 917 655 0 |
| • | Tool Extension Cable 8m (26.2ft) | 615 917 581 0 |
| • | Tool extension cable 16m (52.5ft) | 615 917 584 0 |
| • | Tool extension cable 32m (105ft) | 615 917 587 0 |



| TELESCOPIC MODULES (OPTION) | PART NUMBER | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|
| | | mm | in | kg | lb |
| TELESCOPIC MODULE 3/8" EFX43 IP54 | 615 397 013 5 | 165 | 6.50 | 0.75 | 1.65 |
| TELESCOPIC MODULE 1/2" EFX51 IP54 | 615 397 017 5 | 183 | 7.20 | 1.55 | 3.42 |
| TELESCOPIC MODULE 3/4" EFX60 IP54 | 615 397 014 5 | 203 | 7.99 | 1.95 | 4.3 |
| TELESCOPIC MODULE 3/4" EFX80 IP54 | 615 399 267 0 | 398 | 15.67 | 9.6 | 21.16 |
| TELESCOPIC MODULE 1" EFX80 IP54 | 615 399 268 0 | 406 | 15.98 | 9.6 | 21.16 |
| TELESCOPIC MODULE 1" EFX106 IP54 | 615 399 296 0 | 446 | 17.56 | 14.1 | 31.08 |
| TELESCOPIC MODULE 1"1/2 EFX106 IP54 | 615 399 270 0 | 467 | 18.39 | 14.1 | 31.08 |


AXON
Module
0.340
1497
Desoutter

# AXON Terminal

### MULTI-ASSET SOLUTION

- AXON can manage a wide range of corded tools to exceed your requirements.
- Thanks to the various type of tools, it can support a wide torque range, from 0.6Nm to 2000Nm

### FOOTPRINT OPTIMIZATION

- Compact terminal with optimized footprint.



### AGILE FEATURE MANAGEMENT

- With feature rebalancing mode, you can rebalance a digital feature from one station to face easily line evolution

### EASY LINE REBALANCING

- Backup stored in the Drive and in the module. Easy to rebalance by switching the module or the drive.

### TOP OF THE CLASS MAINTENANCE

- Separate Drive and Module improved rebalancing and line optimization. One Drive for multiple applications, use cases and tools.

### WEB USER INTERFACE

- Unique approach for live monitoring with embedded web user interface.
- Get access to results & data with multiple concurrent access.

## BOOST YOUR FLEXIBILITY

- **Get what you really need with feature management**
- **Compatible with latest corded tools from Desoutter**

## BOOST YOUR UPTIME

- **Easily rebalance your production line with the removable module**
- **One unique platform to optimize your maintenance management**
- **Web User Interface embedded to have an easy access to data anywhere at**

## BOOST YOUR PRODUCTIVITY

- **One platform for all corded tools**
- **Advanced tightening strategies to manage all type of applications**
- **Full error proofing capabilities**

# One platform for corded tools




| Handheld tools | | | | Fixtured tools | | | |
|---|---|---|---|---|---|---|---|
| Pistol Range | Straight & Angle Head Range | | | Fixtured Range | | | |
|  |  |  |  |  |  |  |  |
| 1-110Nm | 3-660Nm | 3-270Nm | 0.6-27Nm | 1-2000Nm | 12-580Nm | 4-480Nm | 0.6-12Nm |
| EPD | EAD | EID | ERS* | EFD | EFDA | EFDO | ERSF* |

| ERS Module | |
|---|---|
|  | ERP-HT is not supported |

# AXON Terminal

In an ever-evolving and increasingly demanding environment, today's challenges will not be the same as tomorrow's.

Desoutter provides solutions to your current needs and future solutions for your next challenges.

In its continuous pursuit of innovation, Desoutter has created the most advanced and cutting-edge Terminal for corded tool solutions: THE AXON TERMINAL. The capital in the end should be bold

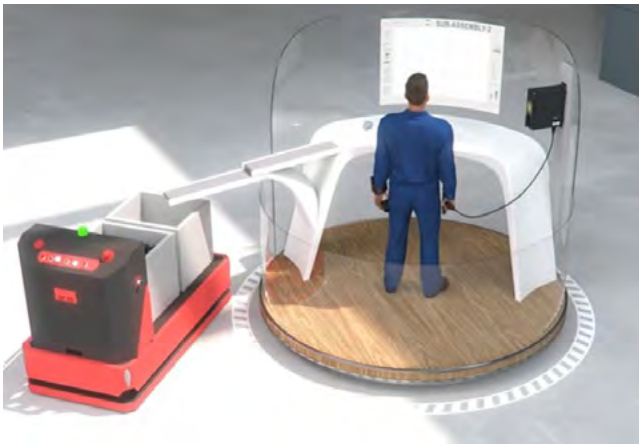
With a range of corded tools managed by AXON, Desoutter has the perfect tightening tool for your application, whether it's a straightforward easy application or one with the highest demands.

The AXON Terminal combines a high-powered drive with a smart module to elevate corded tools to the next level. By utilizing the latest and most efficient components, AXON ensures top performance and seamless integration into any application or work area.

# AXON APPLICATIONS

As a unique and dedicated platform for corded solutions, AXON can fit any type of applications:

### FIXED WORKSTATION



### LIGHT AUTOMATION



### HIGH TORQUE APPLICATIONS



### SCREWFEEDING SYSTEMS



# Software package

- EASY CONNECTIVITY AND A USER-FRIENDLY INTERFACE makes for a fast installation and smooth commissioning
- EASY UPGRADE CAPABILITIES AND FLEXIBILITY OF THE TOOL RANGE assures readiness for your future requirements
- ROBUST TOOLS AND HARDWARE BACKUP make for reliable and safe station
- ASSEMBLY QUALITY GUARANTEED with the process control and the error proofing modules

## CVI KEY

- Create & manage tailor-made access rights per user profile.

## CVI CONFIG

- Set your systems point to point or via network with an intuitive & guided interface.

## CVI MONITOR

- Monitor and diagnostic in live your systems. Check directly the I/O and fieldbus for an easy commissioning.

## CVI ANALYZER

- Analyse & import/export tightening data with results, curves, filters, profiles.

## DEMETER

### MONITORING OF PRODUCTION EFFICIENCY

- FULL DATA TRACEABILITY with real-time KPIs
- REAL-TIME DATA AND STATISTICS displayed in customized dashboards
- NOTIFICATIONS MANAGEMENT for a high reactivity on alerts and events
- CURVES ANALYTICS based on AI technology to detect potential defected joints




## PIVOTWARE

### ERROR PROOFING AT THE STATION

- PROCESS CONTROL to take control of all assets connected at the station
- TRACEABILITY of all actions performed by the users
- OPERATOR GUIDANCE to ensure a good understanding of the required actions
- PROCESS OWNERSHIP with an intuitive easy-to-use programming software



# Tightening process optimization

- NETWROK COMMUNICATION: standard fieldbus & advanced customer protocols
- TIGHTENING STRATEGY: combine flexible steps with different control and different monitoring
- DIRECT VISUALISATION AND ACCESS : simple configuration and results on the Terminal screen and on a remote HMI
- ASSEMBLY PROCESS: control a complete operation with several fastenings and logical requirements (scans, I/O, ...)




## WEB UI INTRODUCTION

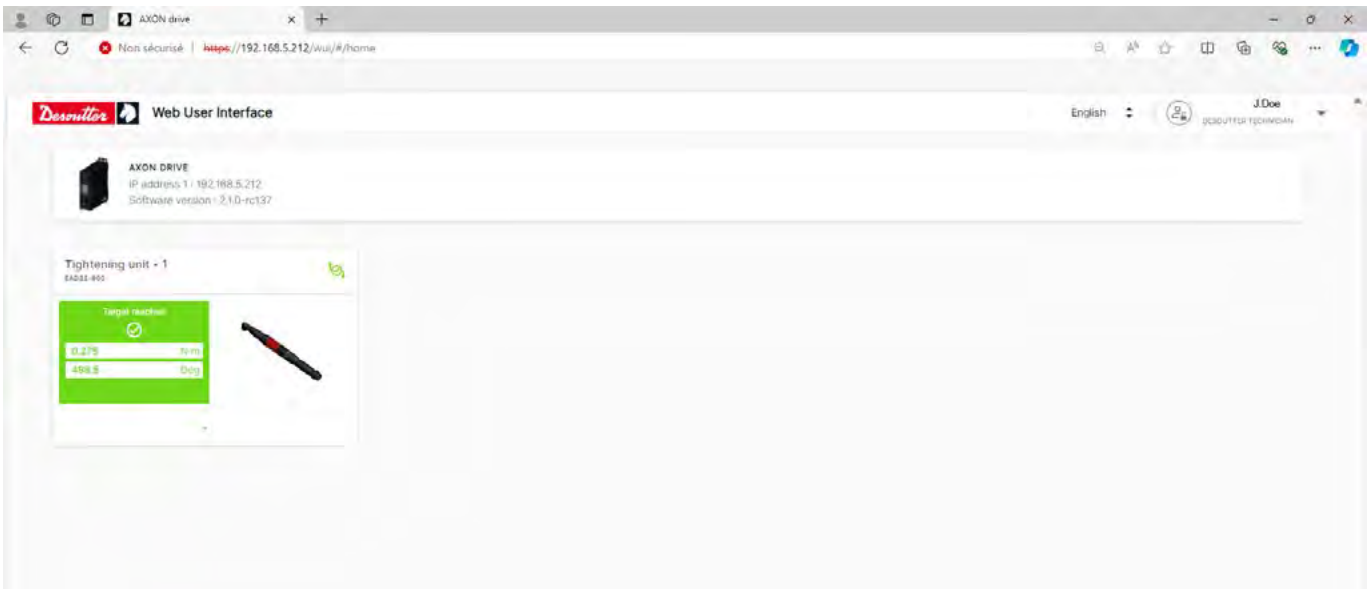
In a way of high industrialization, digitalization and automatization, the industries are changing very fast with more and more data centric.

Combining high performance tightening with relevant digital solutions and process control, the collection of valuable data can help to analyze and to identify bottlenecks, streamline workflows, and enhance overall efficiency.

Having an easy and unlimited access to these precise data are key!

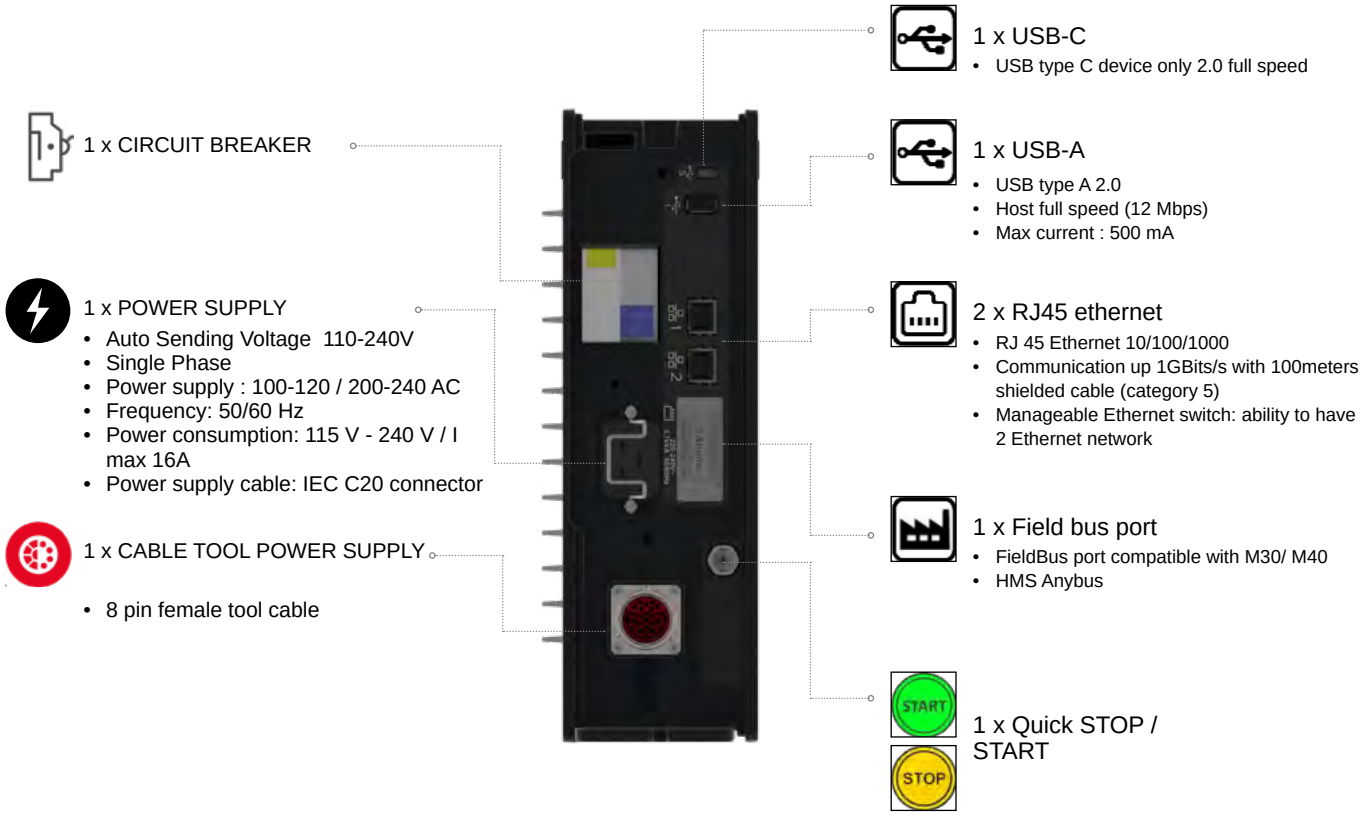
AXON comes with an embedded web user interface to have access to several data, anywhere at anytime with no limit of people connected at the same time !



# HARDWARE FOCUS

*AXON DRIVE: CONNECTIVITY*







| | |
|---|---|
| Weight | 6 kg \| 13,2 lbs |
| Volume | 10,08 $dm^3$ \| 615,12 $in^3$ |
| Order no. | 6159327800 |

# HARDWARE FOCUS

*AXON MODULE SX: CONNECTIVITY*




### USER INTERFACE

- Color touch screen 4”
- Resolution : 480 x 320

### FUNCTION BUTTON 2

- Boot menu (short press)
- Turn system ON/OFF (long press)

### FUNCTION BUTTON 1

- Home page / Main menu (short press)

BOTTOM VIEW



### 1 x RJ45 ethernet

- RJ 45 Ethernet 10/100/1000
- Power over Ethernet capability [POE]

1. 802.3at Type 2 "PoE+") :
2. Max power : 30 W
3. Max current : 600 mA

- Communication up 1GBits/s with 100meters shielded cable (category 5)

### 1 x USB-A

- USB type A 2.0
- Host full speed (12 Mbps)
- Max current : 500 mA




| | |
|---|---|
| Weight | 0,2 kg \| 0,44 lbs |
| Volume | 0,59 dm³ \| 36,00 in³ |
| Order no. | 6159327830 |

# Get what you really need with feature management

FEATURE MANAGEMENT is a scalable solution in order to provide a high level of flexibility to meet requirements. With feature management, you can add or remove a feature whenever you want or whatever the feature.

## TIGHTENING UNIT STANDARD PACK

| | TU PREMIUM | TU CORE | TU ESSENTIAL |
|---|---|---|---|
| Number of Psets | 10 | 6 | 6 |
| Number of APs | 10 | 1 | 6 |
| Results memory size | 20000 | 20000 | 20000 |
| Curves memory size | 50 | 50 | - |
| Live Results | Torque, Angle, curve | Torque, Angle, curve | Torque, Angle, curve |
| Results transfers and storage | Torque, Angle, curve | Torque, Angle, curve | OK/NOK |
| Tightening strategies | Torque and/or angle control & monitoring | Torque and/or angle control & monitoring | Torque control and angle monitoring |
| Protocol / Reporting | Open protocol, CVI Net Web, DeMeter, ToolsNet | Open protocol, CVI Net Web, DeMeter, ToolsNet | Open protocol, CVI Net Web, DeMeter, ToolsNet |
| Advanced Tightening Strategy | - | Seating Detection | |

## PSET & ASSEMBLY PROCESS

| | TU PREMIUM | TU CORE | TU ESSENTIAL |
|---|---|---|---|
| Additional Psets up to 50 Psets | OK | - | - |
| Additional Psets up to 250 Psets | OK | - | - |
| Additional APs up to 50 APs | OK | - | - |
| Additional APs up to 250 APs | OK | - | - |

## WORKING MODE

| | TU PREMIUM | TU CORE | TU ESSENTIAL |
|---|---|---|---|
| Automation control with CVI LOGIX | OK | OK | OK |

## PROTOCOLS

| | TU PREMIUM | TU CORE | TU ESSENTIAL |
|---|---|---|---|
| Desoutter protocol | OK | - | OK*** |
| Curves by Open protocol | OK | - | - |
| VW protocol (certified with limitations) | OK | - | - |
| IPM protocol | OK | - | OK |
| PFCS protocol | OK | - | OK* |
| FORD protocol | OK | - | OK* |
| TOYOTA GLOBAL POKAYOKE** | OK | - | OK* |

## ADVANCED TIGHTENING STRATEGY

| | TU PREMIUM | TU CORE | TU ESSENTIAL |
|---|---|---|---|
| Yield point | OK | - | - |
| Zero torque angle | OK | - | - |
| Seating detection | OK | INCLUDED | - |
| Gyroscpoe [eCompass] | OK | - | - |

* Technically ready but need to be certified by customer / ** CVI LOGIX is required / *** With TU ESSENTIAL limitation

# Extra Features

### ADDITIONAL PSET
A Parameter set is commonly called Pset. A Pset is a tightening process combining one or several steps, each step describing a function

### ADDITIONAL AP
An Assembly Process, commonly called "AP", is a tightening process which combines one or several assembly actions to proceed in a defined order.

### PROTOCOL
Protocols manages communication over ethernet between the system and any external devices according to specific "customer" requirements

### AUTOMATION CONTROL
Extend your automation control with the CVI Logix features to have a complete stand-alone working station

### YIELD POINT
The yield point detection strategy allows to tighten up to fastener elastic deformation zone

### GYROSCOPE [ECOMPASS]
Gyro [eCompass] allows to compensate any movement of the operator that might add or remove angle in the assembly

### ZERO TORQUE ANGLE
The zero torque angle strategy allows to improve consistency of the assembly regardless friction

### SEATING DETECTION
The seating detection strategy allows constant clamping force independently from the dispersion of torque in the seating zone

## ORDERING PARTS

| DESCRIPTION | DETAIL | PART NO. |
|---|---|---|
| AXON Drive | AXD | 615 932 780 0 |
| AXON Module SX | AXM-SX | 615 932 783 0 |
| PACK | | |
| AXON-SX Essential | AXD + AXM-SX + TU Essential | 615 932 797 0 |
| AXON-SX Core | AXD + AXM-SX + TU Core | 615 932 795 0 |
| AXON-SX Premium | AXD + AXM-SX + TU Premium | 615 932 796 0 |

# Accessoriess



OPERATOR PANEL*
Operator Interface, with visual and auditory alarms and 3 key switch positions
Ref : 6159360720



SOCKET/BIT TRAY*
Socket tray with tubes & inserts
Ref : 615 936095 0
Socket tray : Ref: 615 936 071 0
Bit Tray Ref : n°615936 080 0



STACK LIGHT*
4 colors stack light with buzzer, push button and 2 key switch positions
Ref : 6159360740



WALL MOUNTING
Ref : 6158136760



I/O COMMUNICATION*
I/O EXPANDER
with 8 configurable inputs and outputs. Ref : 6159360740



HMS MODULE
FieldBus port compatible with M30/ M40 HMS Anybus CompactCom
Compatible with : Modbus TCP (AB6446) / Device Net (AB6424) / Ethernet/IP (AB6430) / Profibus (AB6422) / Profinet I/O class A 1 port RJ 45 (AB6425) / Profinet I/O class B 2 ports RJ 45 (AB6431) / CC-link (AB6432) / Profinet IRP/MRP M40 (AB6918) / Ethernet/IP M40 (AB6842)
Ref : check in Desoutter catalog



WITH USB TO CAN KIT*
Ref : 6158136800



TABLE MOUNTING
Contact PROJECT team

## FIELDBUS MODULES

| ITEM | | PART NO. |
|---|---|---|
| 1 | Profibus module | 615 927 595 0 |
| 2 | ProfiNet module (1 port) | 615 927 596 0 |
| 3 | ProfiNet module (2 ports) | 615 927 597 0 |
| 3 | ProfiNet IRT module (2 ports) | 615 927 070 0 |
| 4 | DeviceNet module | 615 927 599 0 |
| 4 | CC-Link module | 615 927 598 0 |
| 5 | EtherNet IP module | 615 927 594 0 |
| 6 | Modbus TCP module | 615 927 615 0 |
| 7 | CC-Link IE Module | 615 927 943 0 |

## EBUS CABLE

| | PART NO. |
|---|---|
| eBUS cable Shielded 1m (3.3ft) | 615 917 607 0 |
| eBUS cable Shielded 3m (9.9ft) | 615 917 608 0 |
| eBUS cable Shielded 5m (16.4ft) | 615 917 609 0 |
| eBUS cable Shielded 15m (49.2ft) | 615 917 610 0 |
| eBUS Termination plug | 615 917 625 0 |

## POWER CORD

| PLUG | PART NO. |
|---|---|
| European | 615 917 069 0 |
| US NEMA 5-15 | 615 917 060 0 |
| US NEMA 5-20 | 615 917 063 0 |
| UK | 615 917 070 0 |
| Chinese | 615 917 061 0 |

## ACCESSORIES

| | PART NO. |
|---|---|
| eWALLET | 615 927 844 0 |
| UV | 615 927 843 0 |

# Installation should never be an afterthought!



## Ensure AXON is fully operational for the start of production

An investment was made in a highly technical product, and you want it to be fully operational immediately, right?

Benefit from the installation and commissioning package for your AXON and ensure your installation is programmed right the first time.

## What does installation & commissioning include?

Installation, programming, functional tests, tool calibration, station back-up, capability tests, operator training, and support during the start of production.



## Avoid production disruptions and extend the lifespan of your tools

Safeguard the reliability and accuracy of your AXON tools with our preventive maintenance solutions to reduce downtime and increase your productivity.

Calibration, Preventive maintenance, Extension of warranty, on-site or at the nearest Desoutter workshop. Select the maintenance you need for your tools.

# Notes

# The new standard of Value in Efficient Tightening…

In an era of FLEXIBLE manufacturing and the race to ZERO-fault assembly, Desoutter is proud to introduce the new standard of Value in Efficient Tightening for safety-critical applications: CVI3 assembly system.

This new system offers unequalled EFFICIENCY for all plants thanks to the best combination of advanced process control, easy integration, user-friendly interface & unmatched flexibility.

**The CVI3 system integrates UNIQUE added value INNOVATIONS:**
**Reduce rework cost:** complete station process control including tightening & logical operations without need for a dedicated PLC > **Assembly Process**
**Decrease installation/re-balance cost:** Fast & easy line re-balancing with multiple Battery transducerized tools connected to 1 CVI3 controller > **EAB cordless tools.**

**Improve quality with intuitive software:** User-friendly & visual interface to view tightening data & detect quality issues > **CVI ANALYZER.**

**Optimize flexibility:** 2 fixtured spindles synchronized or asynchronized in standard > **TWINCVI3.**

## ADVANCED PROCESS CONTROL

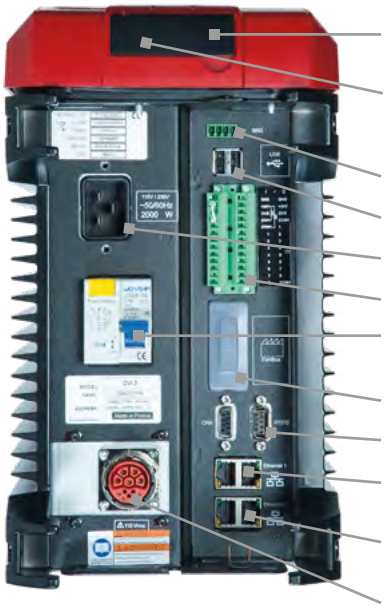
## EASY INTEGRATION




## UNMATCHED FLEXIBILITY

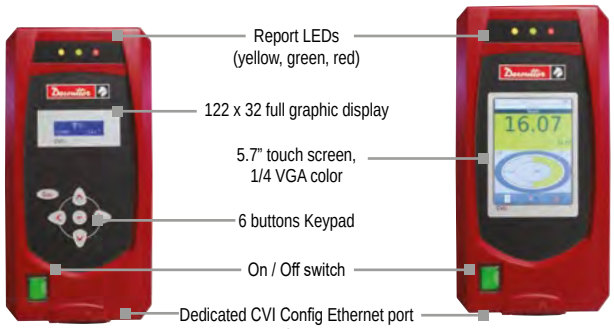
## USER-FRIENDLY INTERFACE

# Technical features




CVI3 **Function** / CVI3 **Essential**

CVI3 **Vision**




| FEATURES | CVI3 ESSENTIAL | CVI3 FUNCTION | CVI3 VISION | TWINCVI3 SYNCHRO/ASYNCHRO |
|---|---|---|---|---|
| **CONTROLLERS** | | | | |
| Weight - kg (lbs) | 9.3 (20.5) | 9.3 (20.5) | 9.3 (20.5) | 15 (33.1) |
| Volume (dm3) | 19.5 | 19.5 | 19.5 | 29.6 |
| Color touchscreen | | | ✔ (5.7") | ✔ (5.7") |
| **STORAGE** | | | | |
| Pset results (torque, angle, date, time, report) | 10000 (Only OK/NOK) | 10000 | 10000 | 10000/20000 |
| Pset curves (OK/NOK) | | 20 | 20 | 20/40 |
| Assembly Process results | 1000 (Only OK/NOK) | 1000 | 1000 | 1000/2000 |
| Event log storage (number of events) | 500 | 500 | 500 | 500 |
| **BASIC FUNCTIONS** | | | | |
| Nbr of Psets | 6 | 250 | 250 | 250 |
| Nbr of steps per Pset | 15 | 15 | 15 | 15 |
| Barcode reading (standard and 2D) | ✔ | ✔ | ✔ | ✔ |
| Quick Pset | ✔ | ✔ | ✔ | ✔ |
| Tubenut release | ✔ | ✔ | ✔ | ✔ |
| **ADVANCED FUNCTIONS** | | | | |
| Access Level Control/Management with unlimited profiles | ✔ | ✔ | ✔ | ✔ |
| ID input to select Assembly Process (up to 10 different identifiers) | ✔ | ✔ | ✔ | ✔ |
| Number of Assembly Process | 6 | 250 | 250 | 250 |
| Advanced Soft PLC (in option with CVILOGIX, ePod Essential, ePod2C (min.) is required) | ✔ | ✔ | ✔ | ✔ |
| 1 Network/Fieldbus Access point per group of up to 14 tools | | | ✔ | ✔ |
| Full synchronized control for a group of up to 14 controllers | | | ✔ | ✔ |
| **TIGHTENING STRATEGIES** | | | | |
| Control : torque, angle, torque OR angle, torque AND angle, yield point*, torque rate*, seating detection* | Torque only | ✔ | ✔ | ✔ |
| Monitoring : torque rate*, 2nd part angle, current, slip off, stick slip, time & rundown angle | Angle only | ✔ | ✔ | ✔ |
| **CONNECTIVITY** | | | | |
| Configurable I/O | 8/8 | 8/8 | 8/8 | 8/8 |
| USB ports (2 + 1 front) | ✔ | ✔ | ✔ | ✔ |
| Embedded Ethernet switch (4 ports + 1 front – 2 networks) | ✔ | ✔ | ✔ | ✔ |
| Dedicated Bus for integrated positionning management | ✔ | ✔ | ✔ | ✔ |
| **OPTIONAL FIELDBUS** | | | | |
| Plug & Play Fieldbus module port (EthernetIP, ProfiNet A/B/IRT, Modbus TCP, DeviceNet, Profibus, CC-Link) | ✔ | ✔ | ✔ | ✔ |
| Configurable fieldbus data mapping | ✔ | ✔ | ✔ | ✔ |

**with cable tools*

# Controller


A



B


C


D

| PIC REF | MODEL | PART NUMBER | CONSUMPTION (CURRENT) | | MAIN SUPPLY | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | WIDTH | | HEIGHT | | DEPTH | | | |
| | | | 110V | 240V | 50/60 Hz | mm | in. | mm | in. | mm | in. | kg | lb. |
| A | **CVI3 Vision** | **615 932 691 0** | 8A | 4A | Single-phase | 175 | 6.9 | 361 | 14.2 | 310 | 12.2 | 9.3 | 20.5 |
| A | **CVI3 Vision eSTOP** | **615 932 694 0** | 8A | 4A | Single-phase | 175 | 6.9 | 361 | 14.2 | 310 | 12.2 | 9.3 | 20.5 |
| B | **TWINCVI3** | **615 932 697 0** | 16A | 8A | Single-phase | 265 | 10.4 | 361 | 14.2 | 310 | 12.2 | 15 | 33.1 |
| B | **TWINCVI3 eSTOP** | **615 932 698 0** | 16A | 8A | Single-phase | 265 | 10.4 | 361 | 14.2 | 310 | 12.2 | 15 | 33.1 |
| C | **CVI3 Function** | **615 932 690 0** | 8A | 4A | Single-phase | 175 | 6.9 | 361 | 14.2 | 310 | 12.2 | 9.3 | 20.5 |
| C | **CVI3 Function eSTOP** | **615 932 693 0** | 8A | 4A | Single-phase | 175 | 6.9 | 361 | 14.2 | 310 | 12.2 | 9.3 | 20.5 |
| D | **CVI3 Essential** | **615 932 695 0** | 8A | 4A | Single-phase | 175 | 6.9 | 361 | 14.2 | 310 | 12.2 | 9.3 | 20.5 |

*CVIMONITOR included with controller: License free remote software for realtime monitoring of results, curves, I/O status , Fieldbus diagnostic, calibration & maintenance indicators*

## POWER CORD

to be ordered with the controller

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | **615 917 069 0** |
| B | US NEMA 5-15 | **615 917 060 0** |
| C | US NEMA 5-20 | **615 917 063 0** |
| D | UK | **615 917 070 0** |
| E | Chinese | **615 917 061 0** |




SOFTWARES
**see page 96**

## OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| **Fieldbus modules** | | |
| 1 | Profibus module | **615 927 595 0** |
| 2 | ProfiNet module (1 port) | **615 927 596 0** |
| 3 | ProfiNet module (2 ports) | **615 927 597 0** |
| 3 | ProfiNet IRT module (2 ports) | **615 927 070 0** |
| 4 | DeviceNet module | **615 927 599 0** |
| 4 | CC-Link module | **615 927 598 0** |
| 5 | EtherNet IP module | **615 927 594 0** |
| 6 | Modbus TCP module | **615 927 615 0** |
| 7 | CC-Link IE Module | **615 927 943 0** |
| **ePOD** | | |
| 8 | without ePOD | - |
| 8 | ePOD2C | **615 936 311 0** |
| 8 | ePOD3C | **615 936 318 0** |
| 8 | ePOD4C | **615 936 312 0** |
| 8 | ePOD4C PFCS | **615 936 332 0** |
| 8 | ePOD2 eCompass | **615 936 333 0** |
| 8 | EPOD VW AUDI XML | **615 936 090 0** |
| 8 | EPOD VOLVO SJC | **615 936 092 0** |
| 8 | ePOD RENAULT 3 FTT | **615 936 840 0** |
| 8 | ePOD RENAULT 2C FTT | **615 936 842 0** |
| 8 | ePOD RENAULT | **615 936 335 0** |
| 8 | EPOD IPM | **615 936 109 0** |
| 8 | EPOD CHRYSLER PFCS | **615 936 091 0** |
| 8 | EPOD 3 | **615 936 077 0** |
| 8 | EPOD 2 | **615 936 076 0** |
| 8 | EPOD 1 | **615 936 075 0** |

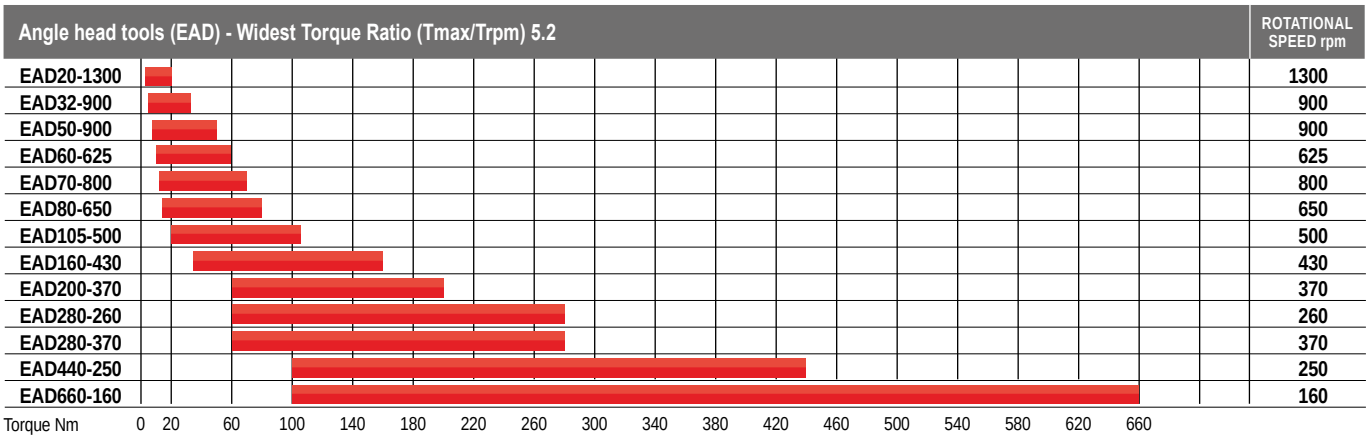


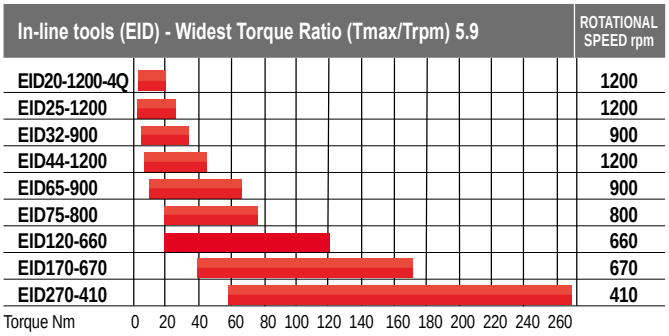

## Others Accessories

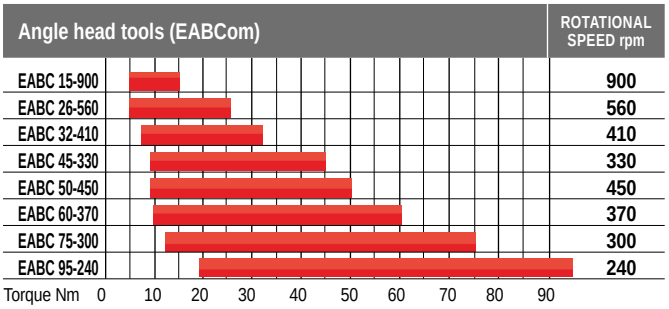
| | | |
|---|---|---|
| 9 | Table mounting | **615 397 399 5** |
| 10 | Wall mounting CVI3 Function/Essential/Vision | **615 397 631 5** |
| 11 | Wall mounting TWINCVI3 | **615 811 897 0** |
| 12 | Cable with 2 M8 male plugs - 0.5m (1.64ft) | **615 917 626 0** |
| | Cable with 2 M8 male plugs - 1m (3.28ft) | **615 917 633 0** |
| | Cable with 2 M8 male plugs - 2m (6.56ft) | **615 917 634 0** |
| 13 | Cable with 1 M8 male plugs - 5m (16.40ft) | **615 917 635 0** |

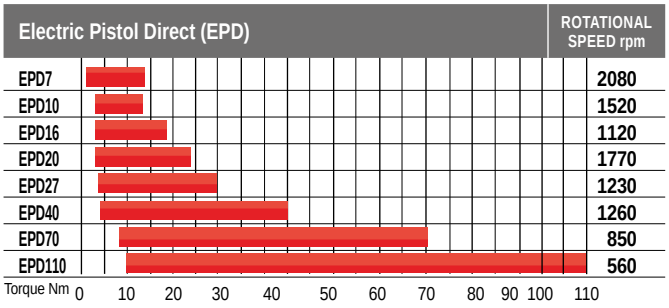
# Torque Range - Portable electric nutrunners

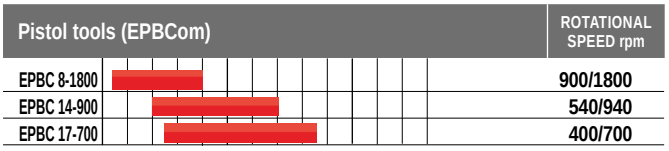
## Performance of Portable electric nutrunners - EAD, EID, EABC, EPBC, B-LRTC, ERS, EPD and ERP-HT

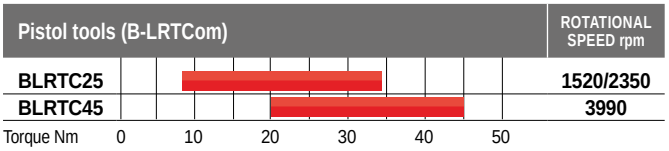


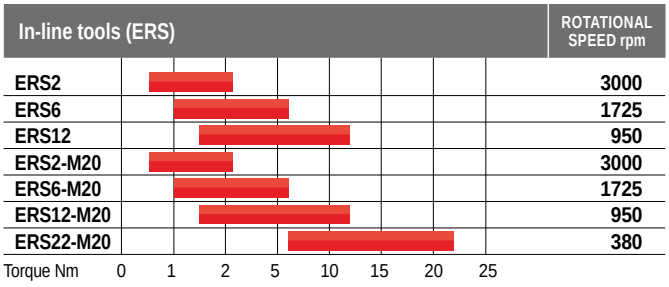



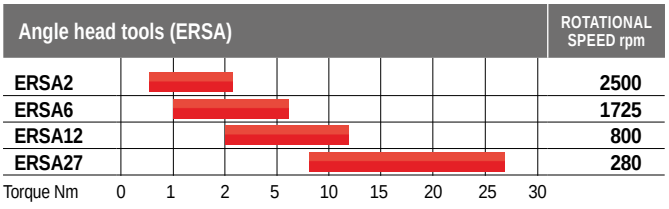



# EPD - Electric Pistol Direct




## BOOST YOUR FLEXIBILITY

- Led for operator feed-back (configurable)
- Internal buzzer for sonor feed-back (configurable)
- Vibration reporting to improve the tightening feed-back to the operator (Configurable)

## BOOST YOUR UPTIME

- Durability of the tools improved for a longer and better use
- New design, more ergonomic and robust for better resistance to extreme environments
- Dust and oil proof trigger tightening strategies

## BOOST YOUR PRODUCTIVITY

- High speed tool and compact
- One hand for the tool, one hand to Boost productivity

# Torque Range - Electric Pistol Direct

| RÉFÉRENCE | DÉSIGNATION | OUTPUT DRIVE | CABLE OUTPUT | TORQUE MIN | | TORQUE MAX | | FREE SPEED | TOOL LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Nm | ft/lb | Nm | ft/lb | rpm | mm | in | kg | lb |
| **6151662810** | EPD7-2080-4Q | Hexa ¼ | EPD7 Bottom Cable | 1 | 0.74 | 7 | 5.16 | 2080 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662820** | EPD7-2080-4Q-1 | Hexa ¼ | EPD7 Top Cable 1m | 1 | 0.74 | 7 | 5.16 | 2080 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662830** | EPD7-2080-4Q-5 | Hexa ¼ | EPD7 Top Cable 5m | 1 | 0.74 | 7 | 5.16 | 2080 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662840** | EPD7-2080-10S | SQ 3/8 | EPD7 Bottom Cable | 1 | 0.74 | 7 | 5.16 | 2080 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662850** | EPD7-2080-10S-1 | SQ 3/8 | EPD7 Top Cable 1m | 1 | 0.74 | 7 | 5.16 | 2080 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662860** | EPD7-2080-10S-5 | SQ 3/8 | EPD7 Top Cable 5m | 1 | 0.74 | 7 | 5.16 | 2080 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662870** | EPD10-1520-4Q | Hexa ¼ | EPD10 Bottom Cable | 2 | 1.48 | 10 | 7.38 | 1520 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662880** | EPD10-1520-4Q-1 | Hexa ¼ | EPD10 Top Cable 1m | 2 | 1.48 | 10 | 7.38 | 1520 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662890** | EPD10-1520-4Q-5 | Hexa ¼ | EPD10 Top Cable 5m | 2 | 1.48 | 10 | 7.38 | 1520 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662900** | EPD10-1520-10S | SQ 3/8 | EPD10 Bottom Cable | 2 | 1.48 | 10 | 7.38 | 1520 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662910** | EPD10-1520-10S-1 | SQ 3/8 | EPD10 Top Cable 1m | 2 | 1.48 | 10 | 7.38 | 1520 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662920** | EPD10-1520-10S-5 | SQ 3/8 | EPD10 Top Cable 5m | 2 | 1.48 | 10 | 7.38 | 1520 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662930** | EPD16-1120-4Q | Hexa ¼ | EPD16 Bottom Cable | 2 | 1.48 | 16 | 11.81 | 1120 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662950** | EPD16-1120-4Q-5 | Hexa ¼ | EPD16 Top Cable 5m | 2 | 1.48 | 16 | 11.81 | 1120 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662960** | EPD16-1120-10S | SQ 3/8 | EPD16 Bottom Cable | 2 | 1.48 | 16 | 11.81 | 1120 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662970** | EPD16-1120-10S-1 | SQ 3/8 | EPD16 Top Cable 1m | 2 | 1.48 | 16 | 11.81 | 1120 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662980** | EPD16-1120-10S-5 | SQ 3/8 | EPD16 Top Cable 5m | 2 | 1.48 | 16 | 11.81 | 1120 | 206 | 8.11 | 0.9 | 1.98 |
| **6151662990** | EPD20-1770-10S | SQ 3/8 | EPD20 Bottom Cable | 2 | 1.48 | 20 | 14.75 | 1770 | 222 | 8.74 | 1.1 | 2.43 |
| **6151663000** | EPD20-1770-10S-1 | SQ 3/8 | EPD20 Top Cable 1m | 2 | 1.48 | 20 | 14.75 | 1770 | 222 | 8.74 | 1.1 | 2.43 |
| **6151663010** | EPD20-1770-10S-5 | 5 SQ 3/8 | EPD20 Top Cable 5m | 2 | 1.48 | 20 | 14.75 | 1770 | 222 | 8.74 | 1.1 | 2.43 |
| **6151663020** | EPD27-1230-10S | SQ 3/8 | EPD27 Bottom Cable | 3 | 2.21 | 27 | 19.91 | 1230 | 222 | 8.74 | 1.1 | 2.43 |
| **6151663030** | EPD27-1230-10S-1 | SQ 3/8 | EPD27 Top Cable 1m | 3 | 2.21 | 27 | 19.91 | 1230 | 222 | 8.74 | 1.1 | 2.43 |
| **6151663040** | EPD27-1230-10S-5 | SQ 3/8 | EPD27 Top Cable 5m | 3 | 2.21 | 27 | 19.91 | 1230 | 222 | 8.74 | 1.1 | 2.43 |
| **6151663050** | EPD40-1260-10S | SQ 3/8 | EPD40 Bottom Cable | 4 | 2.95 | 40 | 29.5 | 1260 | 275 | 10.83 | 1.95 | 4.3 |
| **6151663060** | EPD40-1260-10S-1 | SQ 3/8 | EPD40 Top Cable 1m | 4 | 2.95 | 40 | 29.5 | 1260 | 275 | 10.83 | 1.95 | 4.3 |
| **6151663070** | EPD40-1260-10S-5 | SQ 3/8 | EPD40 Top Cable 5m | 4 | 2.95 | 40 | 29.5 | 1260 | 275 | 10.83 | 1.95 | 4.3 |
| **6151663080** | EPD70-850-SQ1/2 | SQ 1/2 | EPD70 Bottom Cable | 7 | 5.16 | 70 | 51.63 | 850 | 275 | 10.83 | 1.95 | 4.3 |
| **6151663090** | EPD70-850-SQ1/2-1 | SQ 1/2 | EPD70 Top Cable 1m | 7 | 5.16 | 70 | 51.63 | 850 | 275 | 10.83 | 1.95 | 4.3 |
| **6151663100** | EPD70-850-SQ1/2-5 | SQ 1/2 | EPD70 Top Cable 5m | 7 | 5.16 | 70 | 51.63 | 850 | 275 | 10.83 | 1.95 | 4.3 |
| **6151663110** | EPD110-560-SQ1/2 | SQ 1/2 | EPD110 Bottom Cable | 10 | 7.38 | 110 | 81.13 | 560 | 310 | 12.21 | 2.7 | 5.95 |
| **6151663120** | EPD110-560-SQ1/2-1 | SQ 1/2 | EPD110 Top Cable 1m | 10 | 7.38 | 110 | 81.13 | 560 | 310 | 12.21 | 2.7 | 5.95 |
| **6151663130** | EPD110-560-SQ1/2-5 | SQ 1/2 | EPD110 Top Cable 5m | 10 | 7.38 | 110 | 81.13 | 560 | 310 | 12.21 | 2.7 | 5.95 |

# Electric transducerized High torque - CVI3

*75 to 1700 Nm (55 to 1253 ft.lb) - 85 to 822 rpm*

**The transducerized nutrunners range ERP is dedicated to high torque applications, especially structural assemblies requiring accuracy and traceability.**










Complete Loop



*ERS / ERPHT Adaptor necessary*

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE RANGE | | | | MAX RUNDOWN TORQUE | SPEED | GEARBOX DIAMETER | | LENGHT | | WEIGHT | | SPLINE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | MAX. | MIN. | MAX. | | | | | | | | | |
| | | | in. | Nm | Nm | ft.lb | ft.lb | Nm | rpm | mm | in. | mm | in. | kg | lb | |
| A | ERP250 | 615 165 883 0 | 3/4 | 75 | 250 | 55 | 184 | 18 | 822 | 54 | 2.13 | 355 | 13.9 | 5.1 | 11.2 | 3 |
| B | ERP500 | 615 165 884 0 | 3/4 | 150 | 500 | 110 | 368 | 37 | 347 | 67 | 2.64 | 390 | 15.3 | 5.8 | 12.8 | 4 |
| C | ERP750 | 615 165 885 0 | 1 | 225 | 750 | 165 | 553 | 56 | 245 | 67 | 2.64 | 410 | 16.1 | 6.2 | 13.7 | 5 |
| C | ERP1000 | 615 165 886 0 | 1 | 300 | 1000 | 221 | 737 | 75 | 205 | 67 | 2.64 | 420 | 16.5 | 6.4 | 14.1 | 5 |
| • | ERP1700 | 615 165 887 0 | 1 | 510 | 1700 | 376 | 1253 | 127 | 85 | 84 | 3.31 | 455 | 17.9 | 8.3 | 18.3 | 9 |

# ACCESSORIES



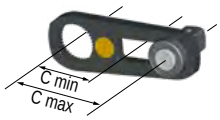

| REACTION BARS | SPLINE | 1 STRAIGHT | 2 S-TYPE | 3 L TYPE ALUMINIUM | 4 SQUARE | 5 SLIDDING DRIVE | 6 SLIDDING DRIVE EXTENDED C-C | 7 SUSPENSION BAIL | 8 SIDE HANDLE |
|---|---|---|---|---|---|---|---|---|---|
| ERP250 | 3 | 615 812 097 5 | 615 812 068 5 | 615 812 072 5 | 615 812 057 5 | 615 812 113 5 | N/A | 615 812 123 0 | 615 576 085 0 |
| ERP500 | 4 | 615 812 054 5 | 615 812 069 5 | 615 812 073 5 | 615 812 058 5 | 615 812 062 5 | 615 812 063 5 | 615 812 123 0 | 615 576 085 0 |
| ERP750 / ERP1000 | 5 | 615 812 055 5 | 615 812 070 5 | N/A | 615 812 059 5 | 615 812 064 5 | 615 812 065 5 | 615 812 123 0 | 615 576 085 0 |
| ERP1700 | 9 | 615 812 056 5 | 615 812 071 5 | N/A | 615 812 060 5 | 615 812 066 5 | 615 812 067 5 | 615 812 123 0 | 615 576 085 0 |



| NUTRUNNER CABLE | PART NO. |
|---|---|
| Tool cable 3m (9.8ft) | 615 917 461 0 |
| Tool cable 5m (16ft) | 615 917 462 0 |
| Tool cable 10m (32.8ft) | 615 917 464 0 |
| Tool cable 15m (49.2ft) | 615 917 465 0 |



| DESCRIPTION | PART NO. |
|---|---|
| ERS-ERPHT Adaptor | 615 936 537 0 |




**Slidding drive C-C**

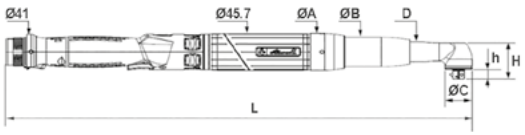
| PART NO. | C MIN | C MAX |
|---|---|---|
| | mm (in.) | mm (in.) |
| 615 812 113 5 | 70 (2.76) | 120 (4.72) |
| 615 812 062 5 | 76 (3) | 126 (4.96) |
| 615 812 063 5 | 82 (3.23) | 218 (8.58) |
| 615 812 064 5 | 80 (3.15) | 125 (4.92) |
| 615 812 065 5 | 82 (3.23) | 218 (8.58) |
| 615 812 066 5 | 80 (3.15) | 130 (5.11) |
| 615 812 067 5 | 80 (3.15) | 280 (11.0) |

# Angle head electric nutrunners - AXON Terminal & CVI3

*3 to 105 Nm (2.2 to 77.4 ft.lb) - 500 to 1300 rpm*



| MODEL | h | | H | | ØA | | ØB | | ØC | | ØD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| EAD20-1300 | 12.0 | 0.47 | 45.5 | 1.79 | 46 | 1.81 | 37 | 1.46 | 28 | 1.10 | 25 | 0.98 |
| EAD32-900 | 12.0 | 0.47 | 45.5 | 1.79 | 46 | 1.81 | 37 | 1.46 | 28 | 1.10 | 25 | 0.98 |
| EAD50-900 | 12.0 | 0.47 | 51.1 | 2.01 | 46 | 1.81 | 37 | 1.46 | 35 | 1.38 | 28 | 1.10 |
| EAD60-625 | 12.0 | 0.47 | 56.7 | 2.23 | 58 | 2.28 | 41 | 1.61 | 40 | 1.57 | 32 | 1.26 |
| EAD60-625 - 1/2" | 12.0 | 0.47 | 52.0 | 2.43 | 58 | 2.28 | 41 | 1.61 | 40 | 1.57 | 32 | 1.26 |
| EAD70-800 | 12.0 | 0.47 | 56.7 | 2.23 | 58 | 2.28 | 43 | 1.69 | 40 | 1.57 | 32 | 1.26 |
| EAD70-800 - 1/2" | 17.0 | 0.67 | 62.0 | 2.43 | 58 | 2.28 | 43 | 1.69 | 40 | 1.57 | 32 | 1.26 |
| EAD80-650 | 17.5 | 0.69 | 60.4 | 2.38 | 58 | 2.28 | 48 | 1.89 | 45 | 1.77 | 40 | 1.57 |
| EAD105-500 | 17.5 | 0.69 | 60.4 | 2.38 | 58 | 2.28 | 48 | 1.89 | 45 | 1.77 | 40 | 1.57 |




ACCESSORIES
**see page 95**

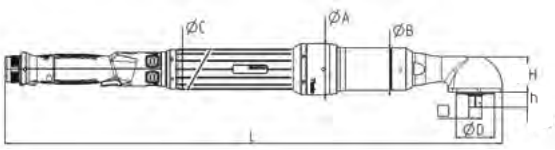
| MODEL | PART NUMBER | SQUARE DRIVE | TORQUE | | | | | | ROTATIONAL SPEED | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | kg | lb. |
| EAD20-1300 | 615 165 606 0 | 3/8 | 3 | 18 | 20 | 2.2 | 13.3 | 14.8 | 1300 | 481 | 19.2 | 1.6 | 3.53 |
| EAD32-900 | 615 165 607 0 | 3/8 | 5 | 30 | 32 | 3.7 | 22.1 | 23.6 | 900 | 481 | 19.2 | 1.6 | 3.53 |
| EAD50-900 | 615 165 609 0 | 3/8 | 8 | 45 | 50 | 5.9 | 33.2 | 40.6 | 900 | 531 | 20.9 | 2 | 4.41 |
| EAD60-625 | 615 166 079 0 | 3/8 | 10 | 55 | 60 | 7.4 | 41 | 44 | 625 | 504 | 19.8 | 2.1 | 4.5 |
| EAD60-625 - 1/2" | 615 166 188 0 | 1/2 | 10 | 55 | 60 | 7.4 | 41 | 44 | 625 | 504 | 19.8 | 2.1 | 4.5 |
| EAD70-800 | 615 165 611 0 | 3/8 | 12 | 65 | 70 | 8.9 | 47.9 | 51.6 | 800 | 544 | 21.4 | 2.3 | 5.07 |
| EAD70-800 | 615 165 882 0 | 1/2 | 12 | 65 | 70 | 8.9 | 47.9 | 51.6 | 800 | 544 | 21.4 | 2.3 | 5.07 |
| EAD80-650 | 615 165 612 0 | 1/2 | 15 | 75 | 80 | 11.1 | 55.3 | 59 | 650 | 567 | 22.3 | 2.9 | 6.39 |
| EAD105-500 | 615 165 613 0 | 1/2 | 20 | 90 | 105 | 14.8 | 66.4 | 77.4 | 500 | 567 | 22.3 | 2.9 | 6.39 |

# Angle head electric nutrunners - AXON Terminal & CVI3

*35 to 660 Nm (26 to 487 ft.lb) - 160 to 430 rpm*



| MODEL | h | | H | | ØA | | ØB | | ØC | | ØD | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| EAD160-430 | 17.1 | 0.67 | 65 | 2.56 | 66 | 2.6 | 55 | 2.17 | 52 | 2.05 | 50 | 1.16 |
| EAD200-370 | 23 | 0.91 | 85 | 3.35 | 66 | 2.6 | 55 | 2.17 | 52 | 2.05 | 62 | 2.44 |
| EAD280-260 | 23 | 0.91 | 85 | 3.35 | 66 | 2.6 | 55 | 2.17 | 52 | 2.05 | 62 | 2.44 |
| EAD280-370 | 23 | 0.91 | 85 | 3.35 | 76 | 2.99 | 55 | 2.17 | 66 | 2.60 | 62 | 2.44 |
| EAD440-250 | 24 | 0.94 | 91 | 3.58 | 76 | 2.99 | 67 | 2.64 | 66 | 2.60 | 75 | 2.95 |
| EAD660-160 | 33.1 | 1.3 | 110 | 4.33 | 76 | 2.99 | 67 | 2.64 | 66 | 2.60 | 106 | 4.17 |




ACCESSORIES
**see page 95**

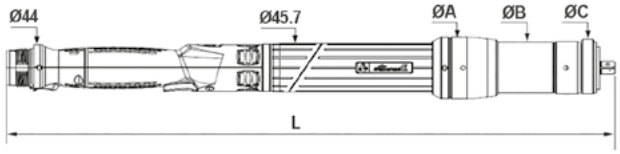
| MODEL | PART NUMBER | SQUARE DRIVE | TORQUE | | | | | | ROTATIONAL SPEED | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | kg | lb. |
| EAD160-430 | 615 165 681 0 | 1/2 | 35 | 150 | 160 | 26 | 111 | 118 | 430 | 650 | 25.6 | 4.3 | 9.5 |
| EAD200-370 | 615 165 682 0 | 3/4 | 60 | 170 | 200 | 44 | 125 | 148 | 370 | 673 | 26.5 | 5.1 | 11.2 |
| EAD280-260 | 615 165 683 0 | 3/4 | 60 | 250 | 280 | 44 | 184 | 207 | 260 | 673 | 26.5 | 5.1 | 11.2 |
| EAD280-370 | 615 165 684 0 | 3/4 | 60 | 250 | 280 | 44 | 184 | 207 | 370 | 681 | 26.8 | 6.1 | 13.5 |
| EAD440-250 | 615 165 685 0 | 3/4 | 100 | 400 | 440 | 74 | 295 | 325 | 250 | 735 | 28.9 | 8.4 | 18.5 |
| EAD660-160 | 615 165 686 0 | 1 | 100 | 600 | 660 | 74 | 443 | 487 | 160 | 774 | 30.4 | 11.0 | 24.3 |



# In-line electric nutrunners - AXON Terminal & CVI3

*3 to 75 Nm (2.2 to 57.5 ft.lb) - 800 to 1200 rpm*






| MODEL | ØA | | ØB | | ØC | |
|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. |
| EID20-1200-4Q | 62 | 2.44 | 37 | 1.46 | 60 | 2.36 |
| EID25-1200 | 62 | 2.44 | 37 | 1.46 | 60 | 2.36 |
| EID32-900 | 62 | 2.44 | 37 | 1.46 | 60 | 2.36 |
| EID44-1200 | 62 | 2.44 | 48 | 1.89 | 54 | 2.13 |
| EID65-900 | 58 | 2.28 | 48 | 1.89 | 54 | 2.13 |
| EID75-800 | 58 | 2.28 | 48 | 1.89 | 54 | 2.13 |

ACCESSORIES
**see page 95**

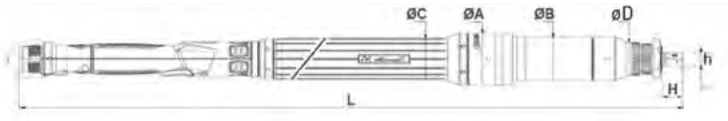
| MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE | | | | | | ROTATIONAL SPEED | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | kg | lb. |
| EID20-1200-4Q* | 615 165 992 0 | Hex. 1/4 F | 3 | 18 | 21 | 2.2 | 13.3 | 15.5 | 1200 | 430 | 16.9 | 1.45 | 3.20 |
| EID25-1200* | 615 165 614 0 | Sq. 3/8 | 3 | 20 | 25 | 2.2 | 14.8 | 18.4 | 1200 | 430 | 16.9 | 1.45 | 3.20 |
| EID32-900* | 615 165 615 0 | Sq. 3/8 | 5 | 30 | 32 | 3.7 | 22.1 | 25.1 | 900 | 430 | 16.9 | 1.45 | 3.20 |
| EID44-1200* | 615 165 616 0 | Sq. 3/8 | 7 | 40 | 44 | 5.2 | 29.5 | 33.2 | 1200 | 489 | 19.3 | 2 | 4.41 |
| EID65-900 | 615 165 617 0 | Sq. 1/2 | 10 | 60 | 65 | 7.4 | 44.3 | 47.9 | 900 | 489 | 19.3 | 2 | 4.41 |
| EID75-800 | 615 165 618 0 | Sq. 1/2 | 20 | 70 | 75 | 14.8 | 51.6 | 57.5 | 800 | 489 | 19.3 | 2 | 4.41 |

*(*): Tools mounted with second lever start in standard*

# In-line electric nutrunners - AXON Terminal & CVI3

*35 to 660 Nm (26 to 487 ft.lb) - 160 to 430 rpm*



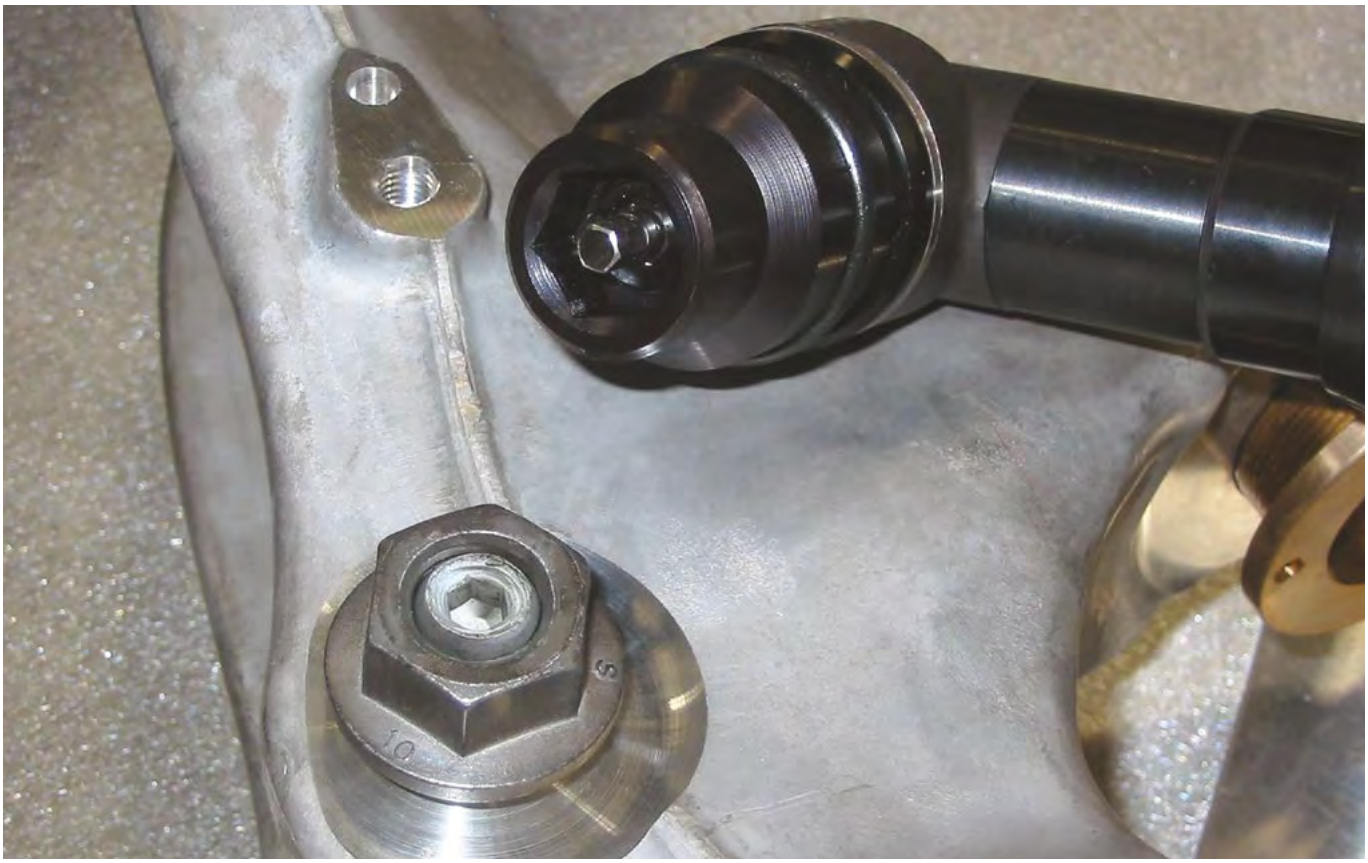



| MODEL | ØA | | ØB | | ØC | | ØD | |
|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| EID120-660 | 66 | 2.60 | 55 | 2.17 | 52 | 2.05 | 42.0 | 1.65 |
| EID170-670 | 72 | 2.83 | 55 | 2.17 | 66 | 2.60 | 42.0 | 1.65 |
| EID270-410 | 76 | 2.99 | 67 | 2.64 | 66 | 2.60 | 53.5 | 2.11 |

ACCESSORIES
**see page 95**

| MODEL | PART NUMBER | SQUARE DRIVE | TORQUE | | | | | | ROTATIONAL SPEED | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | kg | lb. |
| EID120-660 | 615 165 677 0 | 1/2 | 20 | 110 | 120 | 15 | 81 | 89 | 660 | 583 | 22.9 | 3.3 | 7.3 |
| EID170-670 | 615 165 678 0 | 1/2 | 40 | 150 | 170 | 30 | 111 | 125 | 670 | 591 | 23.3 | 4.6 | 10.1 |
| EID270-410 | 615 165 679 0 | 3/4 | 60 | 250 | 270 | 44 | 184 | 199 | 410 | 625 | 24.6 | 6.1 | 13.5 |

# Crowfoot and tube nut tools







**Offset Closed**





**Offset Open**

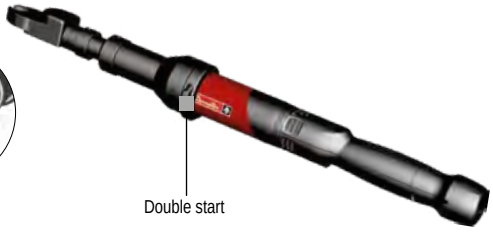
Double start





**In line Closed**





**In line Open**

Double start



**Flush Socket tools**



**Hold and Drive tools**

**Contact your Desoutter representative for assistance in specifying the correct head for your application.** We can supply standard products or, if the application requires, we can also provide customized tools.

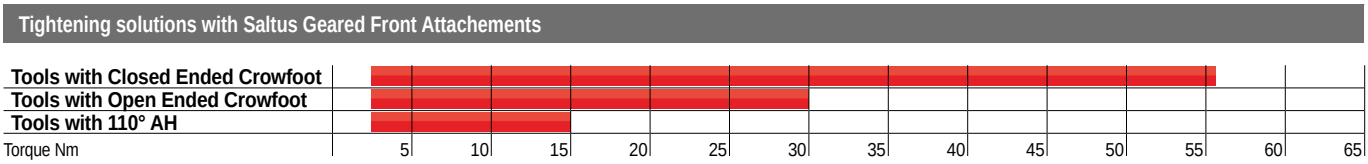
# Standard Tightening Solutions with SALTUS

*Geared Front Attachments*

The Desoutter tightening solutions with SALTUS Geared front attachment includes a range of Closed-ended crowfoots, Open ended Crowfoots & 110° Angle Heads offering best-in class performance, quality and reliability for the most demanding applications.

The patented designs of SALTUS Geared front attachment provides the market leading efficiency & accuracy, and the optimal integration with the Desoutter tool range delivers the most ergonomic and durable solution for high-class tightening.

**Torque range:**




## STANDARD TOOL RANGES WITH SALTUS GFAS



| | ELECTRIC TRANSDUCERIZED | ELECTRIC CLUTCH TOOL | PNEUMATIC TOOLS |
|---|---|---|---|
| EAD | ✔ | | |
| EAB | ✔ | | |
| EPB | ✔ | | |
| E-LIT | | ✔ | |
| ERSA | ✔ | | |
| ECSA | ✔ | | |
| SD | | | ✔ |
| SH | | | ✔ |

# Standard Tightening Solutions with SALTUS

*Geared Front Attachments*

## Main Features

EXCLUSIVE HIGH-QUALITY STEEL FOR CRITICAL COMPONENTS

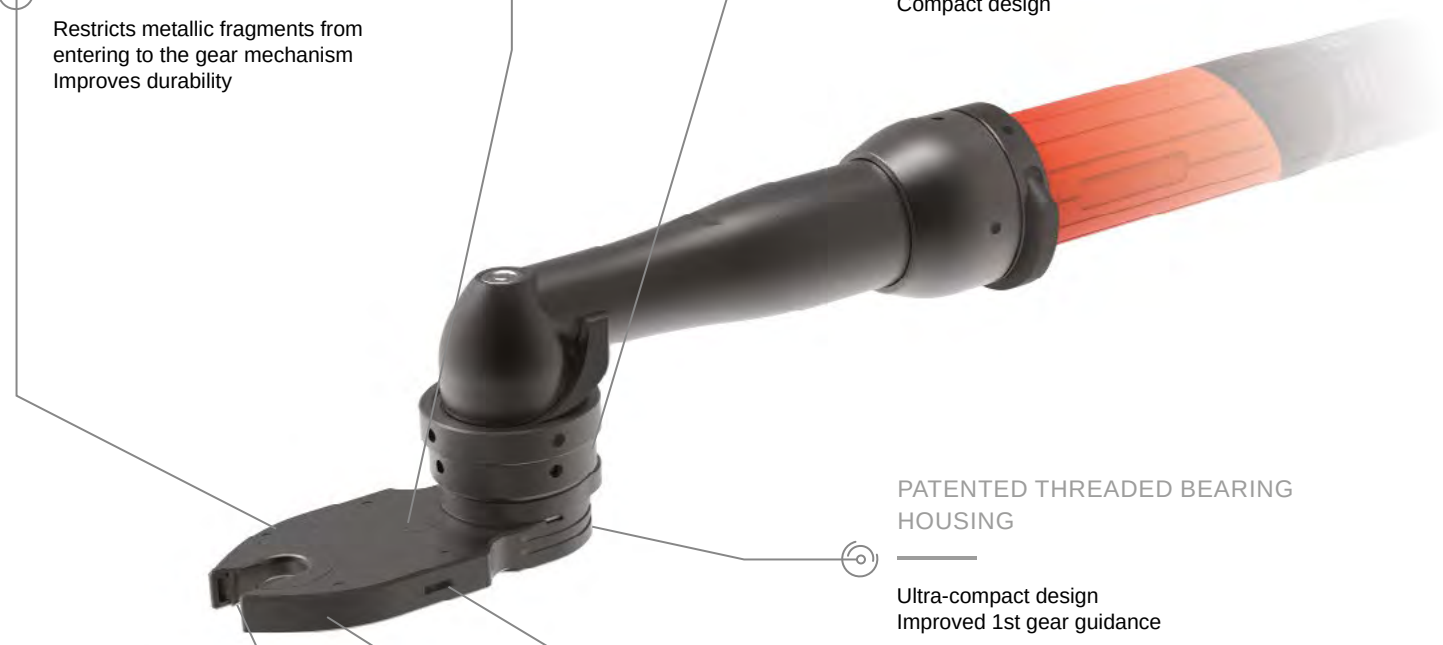
For Industry-leading Durability and Efficiency

MAGNET IN CROWFOOT HOUSING

Restricts metallic fragments from entering to the gear mechanism
Improves durability

CONVENIENTLY POSITIONED RE-INDEXATION MECHANISM

For easy maintenance
Compact design



PATENTED THREADED BEARING HOUSING

Ultra-compact design
Improved 1st gear guidance

CHAMFERED SLOT FOR EASY MAINTENANCE

SAME SOCKET CAN BE ASSEMBLED IN BOTH DIRECTIONS UPWARD AND DOWNWARD

Easy Reconfiguration

LOW GEAR MODULES

Better efficiency
Better accuracy
Less input torque is required for the same output

# Standard Tightening Solutions with SALTUS

*Geared Front Attachments*

## Main Features




MODULAR CROWFOOT INTERFACE

Same interface for both fixed and indexing adaptors

EXCLUSIVE HIGH-QUALITY STEEL FOR CRITICAL COMPONENTS

For Industry-leading Durability and Efficiency

SAME SOCKET CAN BE ASSEMBLED IN BOTH DIRECTIONS UPWARD AND DOWNWARD

Easy Reconfiguration

INDEXING ENGAGEMENT INDICATOR

Warning indicates that the splines are not engaged

H&D SOCKETS AVAILABLE WITH ALL CLOSED ENDED GFAS

No housing difference
Easy Reconfiguration

PATENTED THREADED BEARING HOUSING

Ultra-compact design
Improved 1st gear guidance

MAGNET IN CROWFOOT HOUSING

Restricts metallic fragments from entering to the gear mechanism
Improves durability

LOW GEAR MODULES

Better Efficiency
Better Accuracy
Less input torque is required for the same output

# Standard Tightening Solutions with SALTUS

*Geared Front Attachments*

## Main Features




### BENEFITS

- Compact Solution thanks to optimal integration with Desoutter tools
- High accuracy and Durability
- Better tool Ergonomics
- Hundreds of standard configurations with Desoutter tool ranges are possible to access the most challenging tightening joints

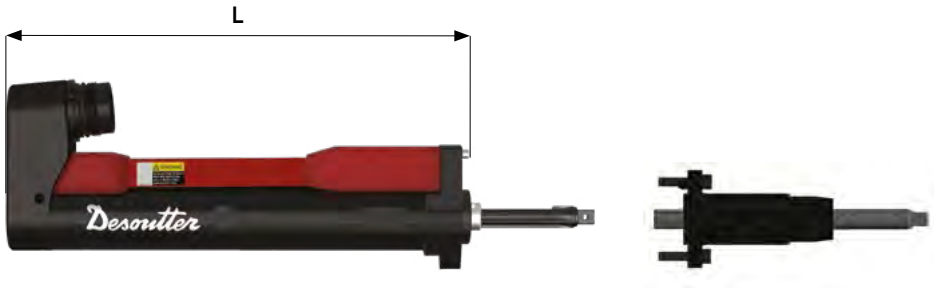


| MODEL | PART NUMBER | BASE TOOL / DRIVE UNIT | MAX. OUTPUT TORQUE | MAX. OUTPUT SPEED | TOOL ANGLE HEAD | CROWFOOT TYPE | ADAPTER TYPE | OUTPUT DIMENSION A/F | EXTENSION | BATTERY TYPE |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Nm | rpm | | | | mm | | |
| **EAD50-900-OOZRg22h-30-900** | **6150700108** | EAD50-900 | 30 | 900 | 90° | Open Offset | Fixed | 14 | Flush | - |
| **EAD32-900-OOZMFG29-18-900** | **6150700110** | EAD32-900 | 18 | 900 | 90° | Open Offset | Fixed | 10 | Flush | - |
| **EAD50-900-COZE4J7Z-31-833** | **6150700113** | EAD50-900 | 31 | 833 | 90° | Closed Offset | Fixed | 12 | Flush | - |
| **EABC32-410-COZE4E7Z-29-379** | **6150700116** | EABC32-410 | 29 | 379 | 90° | Closed Offset | Fixed | 12 | Flush | 18/36 V |

*Contact your Desoutter representative for assistance in configurating the right standard solution with SALTUS geared front attachments for your application.*

# Fixtured electric spindles - AXON Terminal & CVI3

*1.6 to 2000 Nm (0.7 to 1475 ft.lb) - 47 to 2000 rpm*




| MODEL | LENGTH TOOL-L | | WEIGHT TOOL | |
|---|---|---|---|---|
| | mm | in. | kg | lb. |
| **EFD43-8** | 276 | 10.9 | 2.1 | 4.6 |
| **EFD43-15** | 276 | 10.9 | 2.1 | 4.6 |
| **EFD43-30** | 311 | 12.2 | 2.3 | 5.1 |
| **EFD43-45** | 311 | 12.2 | 2.3 | 5.1 |
| **EFD51-70** | 357 | 14.0 | 3.9 | 8.6 |
| **EFD51-135** | 357 | 14.0 | 3.9 | 8.6 |
| **EFD60-175** | 373 | 14.7 | 5.3 | 11.7 |
| **EFD60-250** | 373 | 14.7 | 5.3 | 11.7 |
| **EFD80-330** | 435 | 17 | 10.2 | 22.5 |
| **EFD80-450** | 435 | 17 | 10.2 | 22.5 |
| **EFD80-680** | 435 | 17 | 10.2 | 22.5 |
| **EFD80-950** | 435 | 17 | 10.2 | 22.5 |
| **EFD106-1100** | 476 | 19 | 15.3 | 33.7 |
| **EFD106-1600** | 511 | 20 | 15.9 | 35 |
| **EFD106-1900** | 511 | 20 | 15.9 | 35 |

| TELESCOPIC MODULES (OPTION) | PART NO. | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|
| | | mm | in. | kg | lb. |
| Telescopic Module 3/8" EFx43 IP54 | **615 397 013 5** | **165** | **6.50** | **0.75** | **1.65** |
| Telescopic Module 1/2" EFx51 IP54 | **615 397 017 5** | **183** | **7.20** | **1.55** | **3.42** |
| Telescopic Module 3/4" EFx60 IP54 | **615 397 014 5** | **203** | **7.99** | **1.95** | **4.3** |
| Telescopic Module 3/4" EFx80 IP54 | **615 399 267 0** | **398** | **15.67** | **9.6** | **21.16** |
| Telescopic Module 1" EFx80 IP54 | **615 399 268 0** | **406** | **15.98** | **9.6** | **21.16** |
| Telescopic Module 1" EFx106 IP54 | **615 399 296 0** | **446** | **17.56** | **14.1** | **31.08** |
| Telescopic Module 1"1/2 EFx106 IP54 | **615 399 270 0** | **467** | **18.39** | **14.1** | **31.08** |

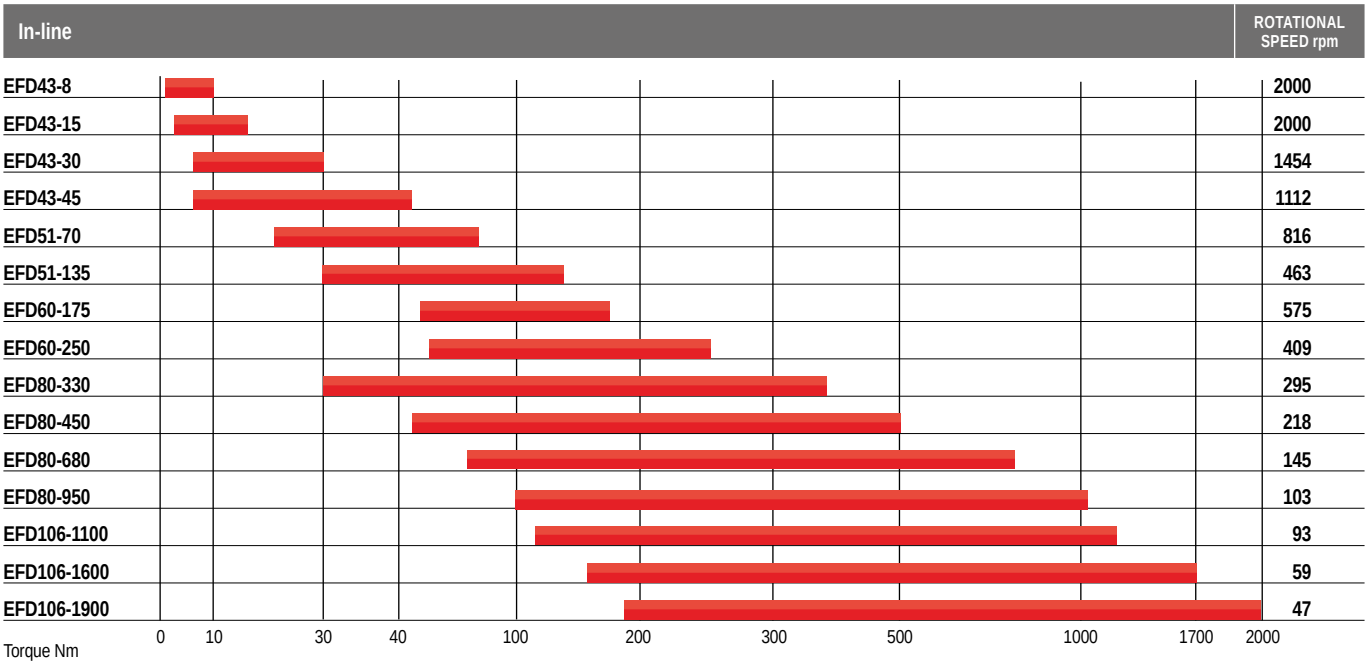
ACCESSOIRES
**see page page 94**

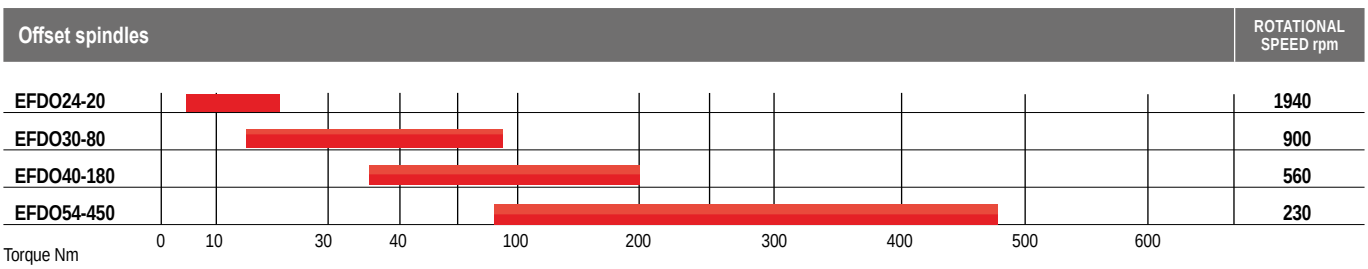
| MODEL | PART NUMBER | SQUARE DRIVE | TORQUE | | | | | | ROTATIONAL SPEED | TELESCOPIC STROKE | | MIN.CENTRE DISTANCE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | mm | in. |
| **EFD43-8** | **615 166 204 0** | 3/8 | 1.6 | 8 | 10 | 0.7 | 5.9 | 7.4 | 2000 | 50 | 1.97 | 43 | 1.69 |
| **EFD43-15** | **615 166 205 0** | 3/8 | 1.5 | 15 | 17 | 2.2 | 11.1 | 12.5 | 2000 | 50 | 1.97 | 43 | 1.69 |
| **EFD43-30** | **615 166 206 0** | 3/8 | 3 | 30 | 32 | 5.2 | 22.1 | 23.6 | 1454 | 50 | 1.97 | 43 | 1.69 |
| **EFD43-45** | **615 166 207 0** | 3/8 | 4.5 | 45 | 50 | 5.2 | 33.2 | 36.9 | 1112 | 50 | 1.97 | 43 | 1.69 |
| **EFD51-70** | **615 166 208 0** | 1/2 | 7 | 70 | 80 | 14.7 | 51.6 | 59 | 816 | 50 | 1.97 | 51 | 2.01 |
| **EFD51-135** | **615 166 209 0** | 1/2 | 13.5 | 135 | 150 | 22.1 | 99.6 | 111 | 463 | 50 | 1.97 | 51 | 2.01 |
| **EFD60-175** | **615 166 211 0** | 3/4 | 17.5 | 175 | 190 | 36.9 | 129 | 140 | 575 | 50 | 1.97 | 60 | 2.36 |
| **EFD60-250** | **615 166 212 0** | 3/4 | 25 | 250 | 280 | 40.6 | 184 | 206 | 409 | 50 | 1.97 | 60 | 2.36 |
| **EFD80-330** | **615 166 213 0** | 3/4 | 33 | 330 | 360 | 22.1 | 243.4 | 265.5 | 299 | 60 | 1.97 | 80 | 3.15 |
| **EFD80-450** | **615 166 214 0** | 3/4 | 45 | 450 | 500 | 33.2 | 331.9 | 368.8 | 218 | 60 | 1.97 | 80 | 3.15 |
| **EFD80-680** | **615 166 215 0** | 1 | 68 | 680 | 740 | 51.6 | 501.5 | 545.8 | 145 | 60 | 1.97 | 80 | 3.15 |
| **EFD80-950** | **615 166 216 0** | 1 | 90 | 950 | 1050 | 73.8 | 700.7 | 774.4 | 103 | 60 | 1.97 | 80 | 3.15 |
| **EFD106-1100** | **615 166 217 0** | 1 | 110 | 1100 | 1150 | 81.1 | 811.3 | 848.2 | 93 | 60 | 1.97 | 106 | 4.17 |
| **EFD106-1600** | **615 166 218 0** | 1 1/2 | 160 | 1600 | 1700 | 118.0 | 1180.1 | 1253.9 | 59 | 60 | 1.97 | 106 | 4.17 |
| **EFD106-1900** | **615 166 219 0** | 1 1/2 | 190 | 1900 | 2000 | 140.1 | 1401.4 | 1475.1 | 47 | 60 | 1.97 | 106 | 4.17 |

# Torque Range - Fixtured electric spindles




## Performance of Fixtured electric spindles - EFD Range



# Fixtured electric spindles - AXON Terminal & CVI3

*3 to 250 Nm (2.2 to 206 ft.lb) - 145 to 2000 rpm*




| PIC REF | MODEL | PART NUMBER | SQUARE DRIVE | TORQUE | | | | | | ROTATIONAL SPEED | TELESCOPIC STROKE | | MIN.CENTRE DISTANCE | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | |
| | | | in. | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | mm | in. |
| | **EFD43-15-TA** | **6151662530** | 3/8 | 3 | 15 | 17 | 2.2 | 11.1 | 12.5 | 2000 | 50 | 1.97 | 43 | 1.69 |
| | **EFD43-30-TA** | **6151662540** | 3/8 | 7 | 30 | 32 | 5.2 | 22.1 | 23.6 | 1454 | 50 | 1.97 | 43 | 1.69 |
| | **EFD43-45-TA** | **6151662550** | 3/8 | 7 | 45 | 50 | 5.2 | 33.2 | 36.9 | 1112 | 50 | 1.97 | 43 | 1.69 |
| | **EFD51-135-TA** | **6151662560** | 1/2 | 30 | 135 | 150 | 22.1 | 99.6 | 111 | 463 | 50 | 1.97 | 51 | 2.01 |
| | **EFD60-95-TA** | **6151662570** | 1/2 | 22 | 95 | 105 | 16.2 | 70.1 | 77.4 | 1055 | 50 | 1.97 | 60 | 2.36 |
| | **EFD60-175-TA** | **6151662580** | 3/4 | 50 | 175 | 190 | 36.9 | 129 | 140 | 575 | 50 | 1.97 | 60 | 2.36 |
| | **EFD60-250-TA** | **6151662590** | 3/4 | 55 | 250 | 280 | 40.6 | 184 | 206 | 409 | 50 | 1.97 | 60 | 2.36 |
| **A** | **EFD80-330-TA** | **8920904619** | 3/4 | 30 | 330 | 360 | 22.1 | 243.4 | 265.5 | 299 | 60 | 1.97 | 80 | 3.15 |
| **A** | **EFD80-450-TA** | **8920904512** | 3/4 | 45 | 450 | 500 | 33.2 | 331.9 | 368.8 | 218 | 60 | 1.97 | 80 | 3.15 |
| **A** | **EFD80-680-TA** | **8920904732** | 1 | 70 | 680 | 740 | 51.6 | 501.5 | 545.8 | 145 | 60 | 1.97 | 80 | 3.15 |

ACCESSOIRES
**see page 94**

# Fixtured offset electric spindles -AXON Terminal & CVI3

*4 to 480 Nm (2.9 to 352.9 ft.lb) - 230 to 1940 rpm*

A




B




C




D




| PIC REF | MODEL | PART NUMBER | SOCKET HOLDER | STROKE | TORQUE | | | | | | FREE SPEED | C-C DISTANCE | | TOOL LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | MIN. | RECOM-MENDED | MAX. | MIN. | RECOM-MENDED | MAX. | | | | | | | |
| | | | in. | mm | Nm | Nm | Nm | ft.lb | ft.lb | ft.lb | rpm | mm | in. | mm | in. | kg | lb |
| **EFDO** | | | | | | | | | | | | | | | | | |
| A | **EFDO24-20** | **615 166 190 0** | 3/8 | 50 | 4 | 20 | 22 | 2.9 | 14.7 | 16.2 | 1940 | 24 | 0.94 | 350 | 13.78 | 3.1 | 6.83 |
| B | **EFDO30-80** | **615 166 191 0** | 1/2 | 50 | 16 | 80 | 90 | 5.9 | 58.8 | 66.2 | 900 | 30 | 1.18 | 450 | 17.72 | 5.5 | 12.12 |
| C | **EFDO40-180** | **615 166 192 0** | 3/4 | 50 | 36 | 180 | 200 | 13.2 | 132.4 | 147.1 | 560 | 40 | 1.57 | 485 | 19.09 | 8.8 | 19.40 |
| D | **EFDO54-450** | **615 166 193 0** | 3/4 | 50 | 90 | 450 | 480 | 33.1 | 330.9 | 352.9 | 230 | 54 | 2.13 | 600 | 23.62 | 17.2 | 37.92 |

# Accessories

*Cable for EPD / EAD / EID / EFD*



| CABLE FOR EPD TOOLS | PART NO. |
|---|---|
| CABLTO-C3-LT (2.5m) | **615 917 835 0** |
| CABLTO-C3-LT (5m) | **615 917 836 0** |
| CABLTO-C3-LT (10m) | **615 917 837 0** |
| CABLTO-C3-LT (15m) | **615 917 838 0** |





| CABLE FOR EAD & EID TOOLS | PART NO. |
|---|---|
| Tool cable 2.5m (8.2ft) | **615 917 601 0** |
| Tool cable 5m (16ft) | **615 917 602 0** |
| Tool cable 10m (32.8ft) | **615 917 604 0** |
| Tool cable 15m (49.2ft) | **615 917 605 0** |
| Tool cable eFLEX 2.5m (8.2ft) | **615 917 631 0** |
| Tool cable eFLEX 5m (16.4ft) | **615 917 632 0** |



| CABLE FOR EFD RANGE TOOLS | PART NO. |
|---|---|
| Tool cable 1m (3.28ft) | **615 917 650 0** |
| Tool cable 2.5m (8.2ft) | **615 917 651 0** |
| Tool cable 5m (16ft) | **615 917 652 0** |
| Tool cable 10m (32.8ft) | **615 917 654 0** |
| Tool cable 15m (49.2ft) | **615 917 655 0** |

| EXTENSION CABLE FOR ERP TOOLS | PART NO. |
|---|---|
| Extension cable 5m (16ft) | **615 917 083 0** |
| Extension cable 10m (32.8ft) | **615 917 084 0** |
| Extension cable 15m (49.2ft) | **615 917 085 0** |
| Extension cable 20m (65.6ft) | **615 917 086 0** |
| Extension cable 25m (82ft) | **615 917 087 0** |
| Extension cable 30m (98ft) | **615 917 088 0** |



| EXTENSION CABLE FOR EPD, EAD, EID, EFD RANGE TOOLS | PART NO. |
|---|---|
| Ext. cable 8m (26.2ft) | **615 917 581 0** |
| Ext. cable 16m (52.5ft) | **615 917 584 0** |
| Ext. cable 32m (105ft) | **615 917 587 0** |
| Ext. cable 50m (164ft) | **615 917 589 0** |

| eBUS CABLE | PART NO. |
|---|---|
| eBUS cable Shielded 1m (3.3ft) | **615 917 607 0** |
| eBUS cable Shielded 3m (9.9ft) | **615 917 608 0** |
| eBUS cable Shielded 5m (16.4ft) | **615 917 609 0** |
| eBUS cable Shielded 15m (49.2ft) | **615 917 610 0** |
| eBUS Termination plug | **615 917 625 0** |



| TRANSDUCER HOLDERS FOR EFD/EFM TOOLS | PART NO. |
|---|---|
| 3/8" square drive EFD43 / EFM43 | **615 396 426 0** |
| 1/2" square drive EFD51/60-95 / EFM51/60-95 | **615 396 427 0** |
| 3/4" square drive EFD60-175/250 / EFM60-175/250 | **615 396 428 0** |
| 3/4" square drive EFD80-330/450 / EFM80-330/450 | **615 396 429 0** |



| EPD TOOLS | PART NO. | |
|---|---|---|
| Side handle | **615 401 282 0** | **For EPD7, EPD10 & EPD16 (Side handle – 467033 + spacer 6152112080)** |
| Side handle | **467033** | **For EPD20 & EPD27** |

# Accessories




## AXON Terminal and CVI3 Controllers

### OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| 1 | Socket tray with tubes & inserts | 615 936 095 0 |
| • | Socket tray | 615 936 071 0 |
| 2 | Kit tubes & Inserts for Socket tray | 615 398 035 5 |
| 3 | Bit holder module for Socket tray | 615 398 083 5 |
| 4 | Bit Tray | 615 936 080 0 |
| 5 | Operator Panel | 615 936 072 0 |
| 6 | Stack Light | 615 936 073 0 |
| 7 | I/O Expander | 615 936 074 0 |
| • | Y cable for RS232 port | 615 917 620 0 |




## EPD

### ACCESSORIES INCLUDED

| ITEM | | PART NO. ERP |
|---|---|---|
| 1 | Side handle | 467033 |
| 2 | Suspension bail | 467003 |

| EPD TOOLS | | PART NO. |
|---|---|---|
| Plastic cover EPD7/10/16 | Included with tool - for EPD7/10/16 bottom cable | 615 211 214 0 |
| Plastic cover EPD20/27 | Included with tool - for EPD20/27 bottom cable | 615 211 215 0 |
| Plastic cover EPD7/10/16 | Included with tool - for EPD7/10/16 top cable | 615 211 219 0 |
| Plastic cover EPD20/27 | Included with tool - for EPD20/27 top cable | 615 211 220 0 |
| Plastic cover EPD40/70 | Optional - for EPD40/70 bottom cable | 615 211 217 0 |
| Plastic cover EPD110 | Optional - for EPD110 bottom cable | 615 211 218 0 |
| Plastic cover EPD40/70 | Optional - for EPD40/70 top cable | 615 211 222 0 |
| Plastic cover EPD110 | Optional - for EPD110 top cable | 615 211 223 0 |




| REACTION BARS | PART NO. | |
|---|---|---|
| Reaction bar interface | 6155485040 | For EPD7, EPD10 & EPD16 |
| Reaction bar interface | 6155475050 | For EPD20 & EPD27 |
| Reaction bar straight spline 4 | 6158120545 | For EPD40, EPD70 & EPD110 : Straight reaction bar (1) |
| Reaction bar s-type spline 4 | 6158120695 | For EPD40, EPD70 & EPD110 : S type reaction bar (2) |
| Reaction bar sliding drive spline 4 | 6158120625 | For EPD40, EPD70 & EPD110: Sliding drive reaction bar short (5/6) |
| Reaction bar l-type aluminum spline 4 | 6158120735 | For EPD40, EPD70 & EPD110: L-type aluminium bar (4) |
| Reaction bar sliding drive spline 4 ext | 6158120735 | For EPD40, EPD70 & EPD110: Sliding drive reaction bar extended (5/6 |
| Reaction bar square spline 4 | 6158120585 | For EPD40, EPD70 & EPD110: Square reaction bar (4) |

# Accessories




## EAD / EID / ERPHT

### OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| **Suspension bail** | | |
| 8 | Swivelling - All tools up to EAD105/EID75 | 615 397 413 0 |
| 8 | Swivelling - for tools EAD160/200/280-260 & EID120 | 615 571 072 0 |
| **Front trigger** | | |
| 9 | Mechanical kit for tools EAD20 to EAD105 & EID20 to EID75 (must be mounted on tool by authorized Desoutter service technician) | 615 398 530 0 |
| 9 | Electric kit for EAD20 to EAD32 & EID20 to EID32 | 615 911 034 5 |
| 9 | Electric kit for EAD50 to EAD105 & EID44 to EID75 | 615 911 033 5 |
| **Telescopic output for EID tools** | | |
| 10 | 3/8" for EID25/32 | 615 397 811 0 |
| 10 | 3/8" for EID44 | 615 398 178 0 |
| 10 | 1/2" for EID65/75 | 615 398 079 0 |
| 10 | 1/2" for EID120/170 | 615 398 080 0 |
| 10 | 3/4" for EID270/300 | 615 398 081 0 |
| **Telescopic output for EAD / EFDA tools** | | |
| 11 | 1/2" for EAD160 | 615 398 076 0 |
| 11 | 3/4" for EAD200/280 & EFDA63-190 | 615 398 077 0 |
| 11 | 3/4" for EAD440 | 615 398 078 0 |
| 11 | 1" for EFDA107-450 | 615 398 161 0 |
| **Angle head protection for EAD tools** | | |
| 12 | For EAD20/32 | 615 573 207 0 |
| 12 | For EAD50 | 615 573 208 0 |
| 12 | For EAD60/70 | 615 573 209 0 |
| 12 | For EAD80/105 | 615 573 210 0 |
| **In-line protection for EID tools** | | |
| 13 | For EID20/25/32 | 615 573 211 0 |
| 13 | For EID44/65/75 | 615 573 212 0 |
| **Finger Protection for EAD tools** | | |
| 14 | For EAD20/32 | 615 397 635 0 |
| 14 | For EAD50/60 | 615 397 636 0 |
| 14 | For EAD70 | 615 397 637 0 |
| **Miscellaneous** | | |
| 15 | Handle lever | 615 397 831 0 |
| 16 | Trigger locker | 615 397 842 0 |
| 17 | Barcode reader + Headlight accessory - EAD/EID | 615 812 138 0 |
| 18 | Headlight accessory - EAD/EID | 615 812 139 0 |
| • | Mounting plate for custom arm - EAD160/200/280/440/660 | Contact Desoutter |
| **Desoutter Tool Holster** | | |
| 19 | DTH42 (For ERP3/5/10/20/30) | 107892 |
| 20 | DTH90 (For ERP3/5/10/20/30) | 615 812 119 0 |
| 21 | DTH TWIN (single) without rail | 615 811 411 0 |
| 22 | DTH TWIN rail kit with 2 Twin holders | 615 811 412 5 |
| 23 | DTH TWIN stand kit with base & 2 Twin holders | 615 811 413 5 |
| • | D53 arms | See page 168 |
| • | TRA telescopic reaction arms | See page 178 |
| • | Balancers | See page 188 |

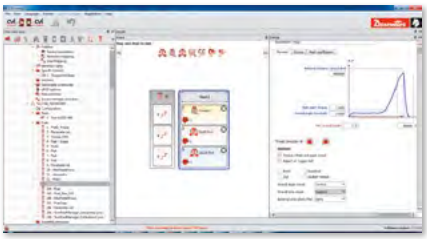
| ITEM | ADAPTER FOR ERAL/ERDL/ERP/ EME / ERS AND ERP-HT | PART NO. |
|---|---|---|
| 24 | CVI II Tool Adaptor | 615 936 070 0 |
| 25 | ERS-ERPHT Adaptor | 615 936 537 0 |

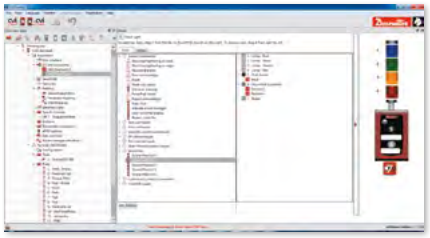
# Set your tools right...

*AXON Terminal ,CVI3 & CONNECT Platform*

## CVI CONFIG

To set any point to point or via network with an intuitive and guided interface.





### USER-FRIENDLY INTERFACE

- Configurable complete Assembly line view in the tree area
- Easy Tool/PSet setting including Quick Pset
- PSet steps definition with drag & drop feature and Intuitive settings with curve template
- Fast learning curve with contextual help
- Real time error-proofing consistency check

### HIGH FLEXIBILITY

- Dynamic mapping for I/O, fieldbus with drag & drop feature
- Including positioning set up
- 2 ways transfer of all parameters between stations & PC
- Complete backup/restore of stations

### ASSEMBLY PROCESS

- Complete process logic mapping including tightening & non-tightening operations with Assembly Process

## CVI MONITOR

(included in CVI CONFIG) To monitor results, maintenance and diagnostic in real time.

### REAL-TIME MONITOR

- Results
- Curves
- Export in csv format
- Real time fieldbus variables monitoring

### USER INFO HISTORY

- Alarms history (logs)
- Problem solving guidance

### MAINTENANCE

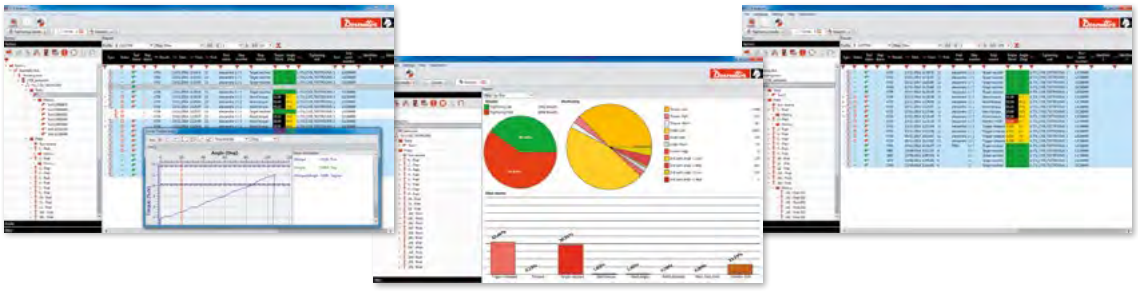
- read the counters of the tools, controller and cables
- set preventive maintenance alarms
- reset the counters and alarms
- tool calibration
- autocalibration with Delta 6D
- Real time access to tool parameters/counters (partial/total number of cycles performed by the tool/cable)
- Test mode to check torque transducer, angle encoder, brushless motor
- Battery tool setup and maintenance

# Set your tools right...

*AXON Terminal ,CVI3 & CONNECT Platform*

## CVI ANALYZER

To collect tightening data and analyze results thanks to customized filter and report.



### FLEXIBILITY

- Complete Factory and Assembly line layout definition
- Multi User Profiles definition
- Advanced customized filter definition
- Advanced data searching
- Multi tab view

### ANALYSIS

- OK/NOK distribution
- NOK distribution reasons analysis

### TRACEABILITY

- Unlimited results and curves collection in local DB through plant network
- Complete back-up solution
- Including data import from USB key
- Result and Curve export in csv format

| | PART NO. |
|---|---|
| **Software** | |
| CVI ANALYZER - 1 user | **615 927 696 0** |
| CVI ANALYZER - 5 users | **615 927 697 0** |
| CVI ANALYZER - 25 users | **615 927 698 0** |

## CVI KEY

To create & manage tailor-made access rights per user profile.

### TAILOR MADE PROTECTION

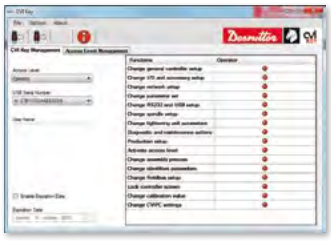
- Intuitive software to create/manage access level
- Protection guaranteed by unique profile keys created by the administartor (locked against copy)

### SIMPLE INTERFACE

- Plug & Play USB key
- 4 profiles already available by default

### HIGH FLEXIBILITY

- Unlimited number of profiles
- Set up the right access level





| | PART NO. |
|---|---|
| **Software** | |
| CVI KEY | **615 927 676 0** |

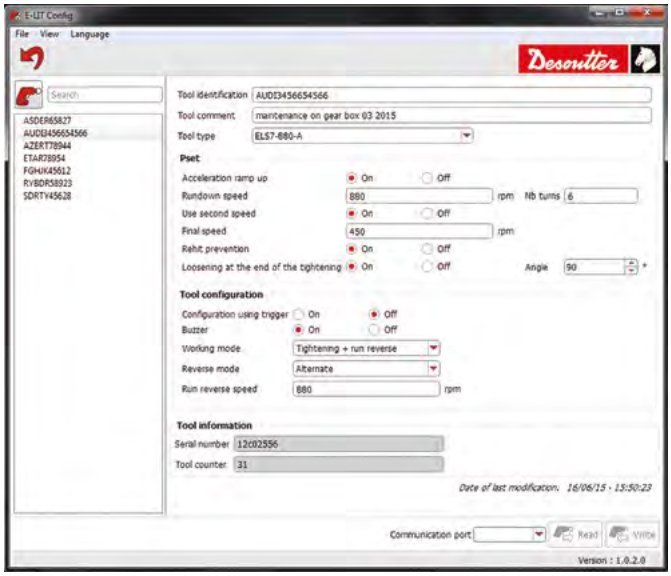
# Set your tools right...

*E-Lit Platform*

## Manage your E-LIT tools

- Save your E-LIT tool setting
- Use your own tool ID
- Upload saved setting on new tools
- Go further on the setting possibility






| | PISTOL | ANGLE HEAD 18V | ANGLE HEAD 36V | ELC TOOLS | PART NO. |
|---|---|---|---|---|---|
| **Software** | | | | | |
| E-LIT CONFIG software | ✔ | ✔ | ✔ | ✔ | - |
| License E-LIT PC Level 1 | | | | ✔ | **615 927 685 0** |

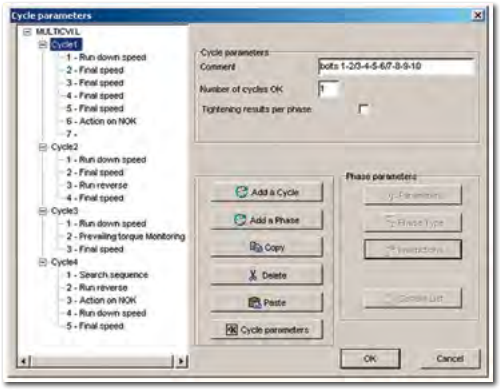
# Set your tools right...

*Other Platform*

CVIPC2000 software is a user friendly tool able to program tightening cycles, collect and display results and curves for other Desoutter controllers platforms.

## Programming mode

- General parameters of controllers: peripherals, fieldbuses, ethernet
- Tightening cycles
- Electric brushless tool features
- Downloading of all parameters to stations




Real time control mode on results, tightening reports.

Standard statistical analysis, reports and charts.

Maintenance mode with direct access to tool information, including test mode and complete backup/restore of stations.

The standard CVIPC 2000 is used for point to point connection of a single controller.

The CVIS/CVIC version is used for point to point connection of a single CVIS/CVIC/CVIC-II L and H/CVIL-II controller.

The advanced version is used for multipoint connection of several controllers.

| MODEL | PART NUMBER |
|---|---|
| Reporting to Toolsnet open protocol 1 licence | 615 927 829 0 |
| Reporting to Toolsnet open protocol 5 licences | 615 927 577 0 |
| Reporting to Toolsnet open protocol 10 licences | 615 927 578 0 |
| Reporting to Toolsnet open protocol 25 licences | 615 927 579 0 |
| Reporting to Toolsnet open protocol 50 licences | 615 927 580 0 |
| Open protocol 1 licence | 615 927 830 0 |
| Open protocol 5 licences | 615 927 581 0 |
| Open protocol 10 licences | 615 927 582 0 |
| Open protocol 25 licences | 615 927 583 0 |
| Open protocol 50 licences | 615 927 584 0 |

| MODEL | PART NUMBER |
|---|---|
| CVI PC2000 standard 1 install | 615 927 522 0 |
| CVI PC2000 standard 5 install | 615 927 526 0 |
| CVI PC2000 standard 25 install | 615 927 537 0 |
| CVI PC2000 advanced 1 install | 615 927 523 0 |
| CVI PC2000 advanced 5 install | 615 927 535 0 |
| CVI PC2000 advanced 25 install | 615 927 538 0 |
| CVIPC2000 for CVIS/CVIC 1 Install | 615 927 521 0 |
| CVIPC2000 for CVIS/CVIC 2 Install | 615 927 534 0 |



# DEMETER

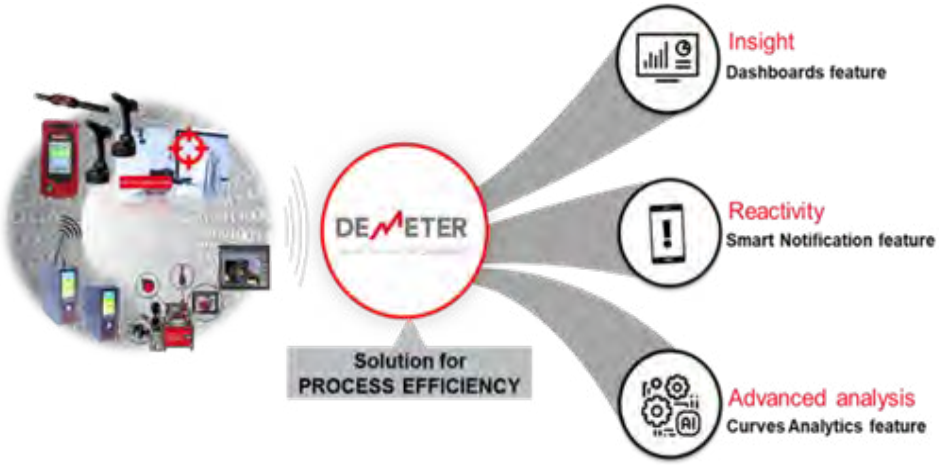
*Maximize efficiency of the production process*

## WHAT IS DEMETER?

DeMeter is the digitalization solution for smart factory to help you maximize the efficiency of your production process.

DeMeter is a data-driven solution which collects, analyzes and presents your assembly production data seamlessly to ensure you stay ahead in the fast-paced world of manufacturing.

The benefits of DeMeter include:
- Real-time monitoring of production performance
- Identification of areas to improve global efficiency
- Tracking hidden quality deviations







**CLOSE THE LOOP**
with Service experts



## Traceability

Collect and compile all traceability from your process control stations, drilling and tightening tools.

## OEE Monitoring

Monitor the Overall Efficiency of your Equipment (OEE) of your factory with dedicated indicators. Track every aspect of your production in real-time, empowering you to make informed decisions on the spot.

## Real-time diagnosis

- Use the smart widgets to detect instantly the bottlenecks of your production with the identification of the most critical assets and/or stop reasons.
- No need to wait to manually compile all your data, DeMeter does it live for you.

## Customizable metrics

Tailor DeMeter to fit your specific needs with our intuitive live dash-board. Choose and customize the indicators that are most relevant to your area of expertise, ensuring you focus on what's essential for your success.

## Alerts & production status

- Stay connected to your production floor anytime, anywhere. Monitor the Andon Board and receive instant notifications, ensuring you're always in the loop, even when you're on the move.
- With the unique Smart Alerts feature, create your own rules to be alerted on what really matters to you on the production line and react efficiently.

## Service support

Because we believe that service is essential to maintaining the highest operational efficiency, we include service support in all our offers. Benefit from our expertise instantly and stay up to date with the latest innovations.

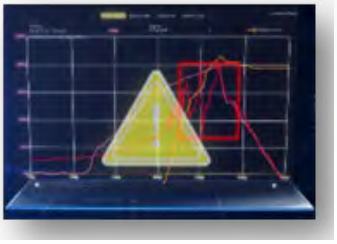
Always connected to our Remote Experts Team through your Support Portal!

# DEMETER

*Maximize efficiency of the production process*

## Anomaly detection system

Thanks to its advanced Curves Analytics feature, DeMeter is able to identify deviations or abnormalities of curves to guarantee the best quality of your product and prevent recalls or late error detections.



## Real-time Check & Rework

In combination with Pivotware, set up an efficient inline rework strategy to correct process deviations detected in your production without stopping the line.




## Flexible offer

DeMeter proposes a flexible offer based on the number of connected devices and assets. Tailor DeMeter to your needs with additional features:

- More Dashboards with complete widget library.
- Smart Notifications to receive and manage operator calls and tightening events on a mobile application.
- Curves Analytics for automatic curves classification to detect abnormalities at an early stage.

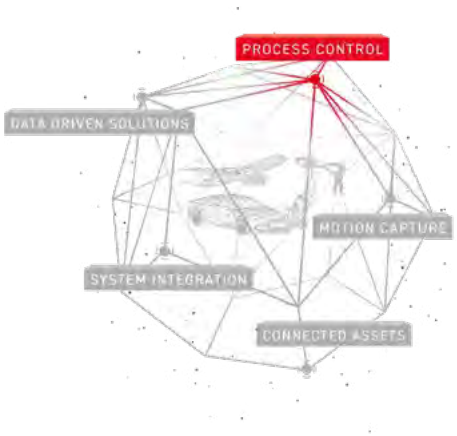
DEMETER
Desoutter



# Pivotware - Process Control

*Take control of your process*

PIVOTWARE Desoutter is a process control and worker assistance solution.It's designed to enhance productivity and efficiency in manufacturing by providing step-by-step guidance to operators, ensuring error-proof actions, and maintaining high-quality standards




## Operator guidance with a fresh interface

Pivotware provides on-screen instructions to guide operators through each step of the process, reducing errors.




## Full Traceability

- Assembly Birth Certificate
- Integration with MSSQL databases

Pivotware records all work results and serial numbers, allowing for comprehensive data analysis and quality control.



## Zero Defect Strategy

Pivotware integrates smart tools and real-time feedback to detect and correct assembly errors immediately.
It offers various interfaces to integrate tools, scanners, printers, sensors, and more for a connected and efficient production environment.



## Easy to use

- Drag & Drop Process Programming
- Asset and User Management
- Variant Management

As a flexible solution, Pivotware allows to manage Excel based process.
Pivotware is easily scalable: it can be implemented from a single station to an entire production line and easily expanded as needed.



# Pivotware - Process Control

*Feature Management*

Feature management is a flexible solution designed to fit with tomorrow's challenges.

Within the Desoutter ecosystem, this modular licensing model allows customers to select and pay only for the specific features they need.This approach offers several benefits:

- Cost Efficiency: only use the features that are essential for your operations.
- Customization: tailor the software to your specific requirements, enhancing productivity and efficiency.
- Scalability: As needs evolve, activate additional features without requiring a complete software overhaul.
- Flexibility: This model supports a wide range of applications, making it adaptable to various industries and processes

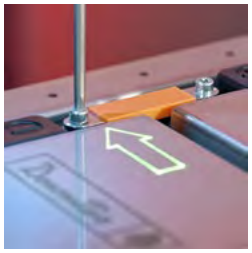



# Empower Desoutter Ecosystem




In combination with **DeMeter**, set up an efficient inline rework strategy to correct immediately all deviations detected for the parts in your production without stopping the line.

By adding Real-Time Location System (RTLS) with nexonar tracker, enhance efficiency, quality, and safety for an error-proof manufacturing. Infrared technology ensures precise tracking of asset and personnel actions, optimizing production. This system can be integrated into Pivotware, providing a seamless interface for the operator.





# Pivotware - Process Control

*Product references list*

## HARDWARE

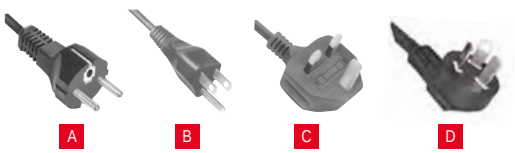
| Infinity | | PART NUMBER |
|---|---|---|
| PRIM Infinity One 8GB | Infinity V7 and higher including Features Management | 615 927 867 0 |
| **Panel PC's** | | **PART NUMBER** |
| Infinity Panel PC 17" | with Alim, without power cable | 615 932 787 0 |
| **Accessories** | | |
| INFINITY Positioning HW USB to CAN kit | 1 x kit | 615 813 265 0 |
| Kit drive SSD with pre loaded software - spare part - Order with customer center | | |
| Cable HD15 0,5m | Spare part | 615 917 664 0 |
| Infinity Wifi kit | | 615 929 058 0 |
| **Cables** | | |
| Power cord 2m - A - European | | 615 917 201 0 |
| Power cord 2m - B - USA | | 615 917 203 0 |
| Power cord 2m - C - UK | | 615 917 202 0 |
| Power cord 2m - D - Chinese | | 615 917 206 0 |

## PANEL PC



| Infinity Panel PC 17" (615 932 787 0) | | |
|---|---|---|
| **System** | | |
| | OS | Windows 10 Iot Engish Language |
| | Core | Core i3-814u-2core- 8th generation |
| | Clock | 2.4 GHz |
| | RAM | 8GB |
| | SSD | 256 GB TLC |
| **Panel** | | |
| | Size | 17" (4:3)<br>LCD Led Backlight |
| | Resolution | 1280 x 1024 |
| | Brightness | 350 -nit brightness |
| | Colors | 16,7 Million |
| | IP | IP65 front - IP20 rear |
| | Touchscreen | Capacitive technology<br>PCAP multitouch -10points |

## CABLES



A B C D

## ACCESSORIES



# Pivotware

## INSTALLATION & COMMISSIONNING

Digital transformation is the key to Industry 4.0. With our Software experts and our global presence, we work together to make it happen at your facility
Your benefits:

- Get it right first time
- Realize the full potential of Pivotware
- Deploy scalable, future proof processes



## REMOTE CARE

With our Remote Care service, ensure continuous operations and efficiency. Our experts are ready to assist and support within one hour—on-site, on app, worldwide.
Your benefits:

- Get Expert support whenever needed
- Improve stability and efficiency with unlimited Updates & Upgrades
- Discover hidden potential thanks to Continuous Coaching






Desoutter
Esc
Valid
CVI

# CVIx II Range

## Transducerized Tools

**Handheld Tools**
- Brushless AC motor : virtually maintenance free
- Resolver : smooth angle control at any speed
- 6 leds OK / NOK signals

**Fixtured electric spindles**
- Long life gear boxes
- Brushless motor
- High output torque transducer for a larger torque range








## Controllers



# Controller - CVIR II

*Error proofing and flexibility*

**Advanced control unit with flexibility and technology**
• Easy integration into your assembly line with multiple choices of connectivity





**ERS**
**Transducerized technology**



**ECS**
**Current Control Technology**

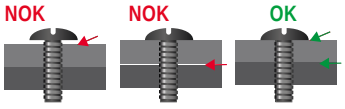
## COMMUNICATION

• 1 Ethernet port for CVIPC or network communication
• 1 RS232 port to connect barcode readers or CVIPC 2000
• 8 Inputs and 8 Outputs
• 1 Optional fieldbus module

### Innovative Tightening Strategy

### Seating detection

Detect the screw head contact on your part by torque rate management, even with material variation




| MAIN FUNCTIONS | CVIR II |
|---|---|
| **Programming modes** | |
| Quick cycle | ✔ |
| Learning mode | ✔ |
| Number of cycles | **50** |
| Number of phases available | **15** |
| **Phase characteristics** | |
| Search sequence | ✔ |
| Approach | ✔ |
| Run down speed | ✔ |
| Final speed phase | ✔ |
| Action on NOK | ✔ |
| Run reverse | ✔ |
| Jump to another phase | ✔ |
| Prevailing Torque | ✔ |
| Synchronisation phase | ✔ |
| **Tightening strategies** | |
| Torque | ✔ |
| Torque with angle monitoring | ✔ |
| Angle with torque monitoring | ✔ |
| Yield point | ✔ |
| Seating detection | ✔ |
| Number of stored results | 2000 to 10000 according configuration |

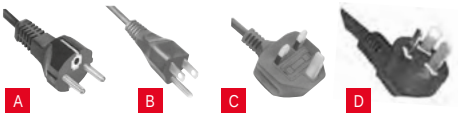
## QUALITY GUARANTEED

| MODEL | PART NUMBER | TOOLS | CONSUMPTION (CURRENT) | | MAINS SUPPLY | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | WIDTH | | HEIGHT | | DEPTH | | | |
| | | | 115 V | 230 V | 50/60 hertz | mm | in. | mm | in. | mm | in. | kg | lb. |
| **CVIR II** | **615 932 681 0** | ERS/ECS | 4A | 2A | Single-phase | 130 | 5.1 | 278 | 10.9 | 291 | 11.5 | 5 | 11 |

# Upgrade kits...

### POWER CORD
**to be ordered with the controller**

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | **615 917 201 0** |
| B | US | **615 917 203 0** |
| C | UK | **615 917 202 0** |
| D | Chinese | **615 917 206 0** |






## OPTIONAL ACCESSORIES

| | PART NO. |
|---|---|
| • PC cable length 2 m (78.7") | **615 917 047 0** |
| • 37 pin D-Sub female I/O adapter | **615 919 003 0** |
| • Shelf support - Aluminium profile | **615 397 403 5** |
| • BRDx2 (Backup Rescue Device) | **615 936 328 0** |

### Fieldbus / Protocol

| MODEL | PART NO. |
|---|---|
| Ethernet IP Module | **615 927 594 0** |
| Profibus DP Module | **615 927 595 0** |
| ProfiNet Module (1 port) | **615 927 596 0** |
| ProfiNet Module (2 ports) | **615 927 597 0** |
| CC-Link Module | **615 927 598 0** |
| Devicenet Module | **615 927 599 0** |
| MODBUS TCP Slave | **615 927 615 0** |

# Electric transducerized screwdrivers - CVIR II

*0.6 to 27 Nm (5.3 to 239 ft.lb) – 280 to 3000 rpm*

**The transducerized screwdrivers range ERS is dedicated for all type of tightening which required accuracy and traceability**



A



B



C

## Visible & Programmable reporting LED System



**Good Report**



**Bad Report**





**Programmable**

Tool Ready, Tool in Cycle, Maintenance Alert, and more.

ACCESSORIES **see page 114**

*To connect with CVI3 controller, ERS module is needed*

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE | | | | SPEED | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | MAX. | MIN. | MAX. | | | |
| | | | in. | Nm | Nm | in/lb | in/lb | rpm | kg | lb |
| A | ERS2 | 615 165 688 0 | Hex.1/4F | 0.6 | 2.5 | 5.3 | 22.1 | 3000 | 0.7 | 1.54 |
| A | ERS6 | 615 165 689 0 | Hex.1/4F | 1.0 | 6.0 | 8.8 | 53.1 | 1725 | 0.7 | 1.54 |
| A | ERS12 | 615 165 690 0 | Hex.1/4F | 1.5 | 12 | 13.3 | 106.2 | 950 | 0.7 | 1.54 |
| A | ERS2-M20 | 615 165 691 0 | Hex.1/4F | 0.6 | 2.5 | 5.3 | 22.1 | 3000 | 0.7 | 1.54 |
| A | ERS6-M20 | 615 165 692 0 | Hex.1/4F | 1.0 | 6.0 | 8.8 | 53.1 | 1725 | 0.7 | 1.54 |
| A | ERS12-M20 | 615 165 693 0 | Hex.1/4F | 1.5 | 12 | 13.3 | 106.2 | 950 | 0.7 | 1.54 |
| A | ERS22-M20 | 615 165 916 0 | Sq.3/8 | 6.0 | 22 | 53.1 | 194.7 | 380 | 1.05 | 2.31 |
| B | ERSA2 | 615 165 697 0 | Hex.1/4F | 0.6 | 2.5 | 5.3 | 22.1 | 2500 | 1.0 | 2.2 |
| B | ERSA6 | 615 165 698 0 | Hex.1/4F | 1.0 | 6.0 | 8.8 | 53.1 | 1450 | 1.0 | 2.2 |
| B | ERSA12 | 615 165 699 0 | Hex.1/4F | 2.0 | 12 | 17.7 | 106.2 | 800 | 1.0 | 2.2 |
| B | ERSA27 | 615 165 917 0 | Sq.3/8 | 8.0 | 27 | 70.8 | 239 | 280 | 1.25 | 2.75 |
| C | ERSF2 | 615 165 694 0 | Hex.1/4F | 0.6 | 2.5 | 5.3 | 22.1 | 3000 | 0.7 | 1.54 |
| C | ERSF6 | 615 165 695 0 | Hex.1/4F | 1.0 | 6.0 | 8.8 | 53.1 | 1725 | 0.7 | 1.54 |
| C | ERSF12 | 615 165 696 0 | Hex.1/4F | 1.5 | 12 | 13.3 | 106.2 | 950 | 0.7 | 1.54 |
| C | *ERSF2-03 | 615 166 068 0 | Hex.1/4F | 0.6 | 2.5 | 5.3 | 22.1 | 3000 | 0.7 | 1.54 |
| C | *ERSF6-03 | 615 166 069 0 | Hex.1/4F | 1.0 | 6.0 | 8.8 | 53.1 | 1725 | 0.7 | 1.54 |
| C | *ERSF12-03 | 615 166 070 0 | Hex.1/4F | 1.5 | 12 | 13.3 | 106.2 | 950 | 0.7 | 1.54 |

**Models with 30cm integrated cable instead of 4 meters*

# Electric transducerised Very Low Torque – CVIXS



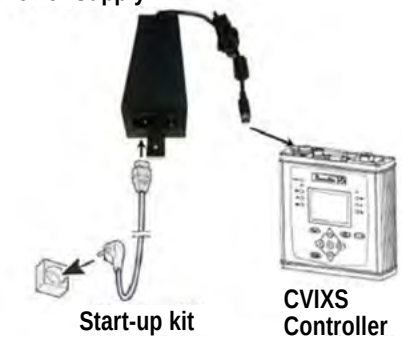




| MAIN FUNCTIONS | |
|---|---|
| **Programming modes** | |
| Quick cycle | ✔ |
| Learning mode | ✔ |
| Number of cycles | **50** |
| Number of phases available | **15** |
| **Phase characteristics** | |
| Search sequence | ✔ |
| Run down speed | ✔ |
| Final speed phase | ✔ |
| Action on NOK | ✔ |
| Run reverse | ✔ |
| Jump to another phase | ✔ |
| Prevailing Torque | ✔ |
| Synchronisation phase | ✔ |
| **Tightening strategies** | |
| Torque | ✔ |
| Torque with angle monitoring | ✔ |
| Angle with torque monitoring | ✔ |
| Seating detection | ✔ |
| Stall torque | ✔ |
| Number of stored results | 2000 to 10000 according configuration |

# Controller features

### Power Supply

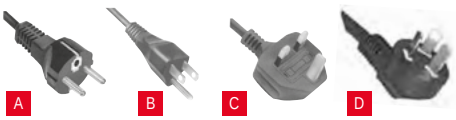


Start-up kit

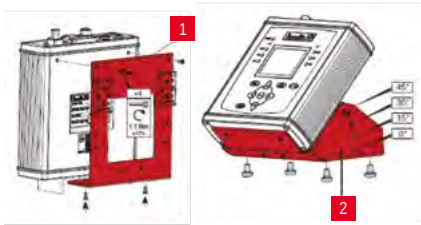
CVIXS Controller

### Start-up kit

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | **615 917 201 0** |
| B | US | **615 917 203 0** |
| C | UK | **615 917 202 0** |
| D | Chinese | **615 917 206 0** |




### CVIXS supports




| ITEM | DESCRIPTION | PART NO. |
|---|---|---|
| 1 | KIT RAIL DIN SUPPORT CVIXS | **615 812 231 0** |
| 2 | KIT ANGLE SUPPORT CVIXS | **615 812 232 0** |

### CVIXS fieldbus communication : order fieldbus module + fieldbus protocol

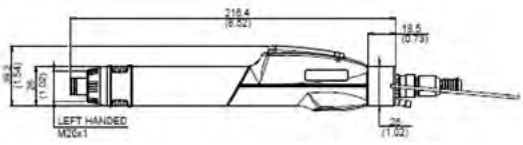
| FIELDBUS PROTOCOL | MODEL | PART NO. |
|---|---|---|
| | Ethernet IP Module | **615 929 051 0** |
| | Profibus DP Module | **615 929 052 0** |
| | ProfiNet Module (1 port) | **615 929 053 0** |
| | ProfiNet Module (2 ports) | **615 929 054 0** |
| | CC-Link Module | **615 929 055 0** |
| | Devicenet Module | **615 929 056 0** |
| | MODBUS TCP Slave | **615 929 057 0** |

| MODEL | PART NUMBER | TOOLS | CONSUMPTION (CURRENT) | SUPPLY VOLTAGE | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | WIDTH | | HEIGHT | | DEPTH | | | |
| | | | W | | mm | in. | mm | in. | mm | in. | kg | lb. |
| **CVIXS CONTROLLER** | **615 932 720 0** | ERXS | 150 | 36 VDC | 171,6 | 6,73 | 171 | 6,75 | 54,6 | 2,15 | 1,12 | 2,2 |
| **CVIXS POWER SUPPLY** | **615 932 663 0** | CVIXS | 72-180 | 100-240 VAC | 65 | 2,56 | 50 | 8,07 | 50 | 1,97 | 0,97 | 2,13 |

# Electric transducerised Very Low Torque – NANO DRIVER



A




## Transducerized tool for Extreme Precision

- 4mm wing shank and half moon bits for the smallest screws
- Safety Critical Repeatability
- Traceability using internal transducer

## Ergonomic Design

- Streamlined & contoured
- Non-slip Tool Housing
- Push / Lever start
- Highly Flexible Light Weight Industrial Cable
- M20 output thread for easy integration and automatization

## Programmable Vacuum System Activation Options

- Built in Accelerometer
- Dedicated connector for 24V vacuum pump

| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE | | | | MAX SPEED | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN | MAX | MIN | MAX | | | | | |
| | | | | Ncm | Ncm | in/lb | in/lb | rpm | mm | in. | kg | lb |
| A | **ERXS 20** | **615 165 874 0** | WS-HM | 6 | 20 | 0,53 | 1,77 | 1000 | 216 | 8,5 | 0,3 | 0,66 |
| A | **ERXS 50** | **615 165 875 0** | WS-HM | 15 | 50 | 1,32 | 4,43 | 1000 | 216 | 8,5 | 0,3 | 0,66 |
| A | **ERXS 80** | **615 165 876 0** | WS-HM | 24 | 80 | 2,12 | 7,08 | 1000 | 216 | 8,5 | 0,3 | 0,66 |

| DESCRIPTION | PART NO. |
|---|---|
| TOOL & EXTENSION CABLE 3 METERS - 9,8 FT* | **615 917 643 0** |

**Connect up to 3 cables (max 9 Meters - 29,5 ft)*

## ACCESSORIES

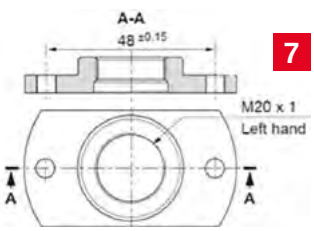
| ITEM | | PART NUMBER |
|---|---|---|
| **Vacuum solution** | | |
| **1** | "Blank nozzle short : 40mm. To be machined according to screw" | **615 704 033 0** |
| **2** | "Blank nozzle long : 60mm. To be machined according to screw" | **615 704 034 0** |
| **3** | "Vaccum adapter kit. For tool handheld. To be ordered with a blank nozzle" | **615 812 883 0** |
| **Arms** | | |
| **4** | D53-5 | **615 810 700 0** |
| **5** | D53-5S | **615 810 706 0** |
| **6** | Special clamp | **615 812 885 5** |
| **Bits** | | |
| • | Refer to accessories section | **page 299** |
| **Miscellaneous** | | |
| **7** | Flange M20 for automatization | **205 052 875 3** |
| **8** | DTH42 Tool holster | **107892** |
| **9** | Cable 2m for Bit Tray | **615 917 598 0** |











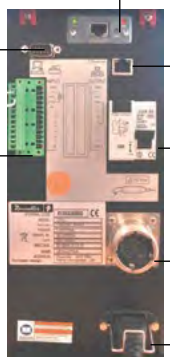

# Controller - CVIL II

*Flexible integration*









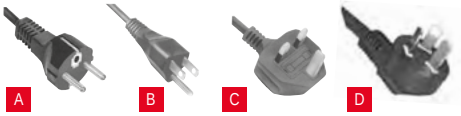

| FEATURES | CVIL II |
|---|---|
| **General functions** | |
| Number of cycles | 50 |
| Number of phases | 15 |
| Batch count | 999 |
| Bar code reading via RS232 port | ✔ |
| **Programming** | |
| LCD screen and display | ✔ |
| CVIPC software | ✔ |
| **Tightening results** | |
| Led “Low”, “OK”, “High” Torque | ✔ |
| Led “Low”, “OK”, “High” Angle | ✔ |
| Torque+Angle+Data+Time+Report | up to 10 000 |
| Number of curves (flexibility with OK and NOK) | 10 |

| MODEL | PART NUMBER | CONSUMPTION (CURRENT) | | MAINS SUPPLY | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | WIDTH | | HEIGHT | | DEPTH | | | |
| | | 115 V | 230 V | 50/60 hertz | mm | in. | mm | in. | mm | in. | kg | lb. |
| **CVIL II** | **615 932 680 0** | 4A | 2A | Single-phase | 130 | 5.1 | 278 | 10.9 | 291 | 11.5 | 5.9 | 13 |

# Upgrade kits...

**POWER CORD**
**to be ordered with the controller**

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | **615 917 201 0** |
| B | US | **615 917 203 0** |
| C | UK | **615 917 202 0** |
| D | Chinese | **615 917 206 0** |






## OPTIONAL ACCESSORIES

| | PART NO. |
|---|---|
| • PC cable length 2 m (78.7”) | **615 917 047 0** |
| • 37 pin D-Sub female I/O adapter | **615 919 003 0** |
| • Shelf support - Aluminium profile | **615 397 403 5** |
| • BRDx2 (Backup Rescue Device) | **615 936 328 0** |

### Fieldbus / Protocol

| MODEL | PART NO. |
|---|---|
| Ethernet IP Module | **615 927 594 0** |
| Profibus DP Module | **615 927 595 0** |
| ProfiNet Module (1 port) | **615 927 596 0** |
| ProfiNet Module (2 ports) | **615 927 597 0** |
| CC-Link Module | **615 927 598 0** |
| Devicenet Module | **615 927 599 0** |
| MODBUS TCP Slave | **615 927 615 0** |

# Electric pulse nutrunners - E-PULSE

*10 to 50 Nm (7.4 to 36.9 ft.lb) - 4600 rpm*

## ADVANCEDERGONOMICS

- Reaction free
- Soft grip and slim handle
- Low weight tool

## OPTIMIZEDMAINTENANCE

- No oil to change
- Brushless electric motor
- Long life gearbox

## INCREASED PRODUCTIVITY

- Max. speed 4600 rpm
- Point and shoot solution
- Pistol tool 30 % shorter time to locate bolt

## IMPROVEDENVIRONMENT

- Reduce CO2 emission
- Clean workspace
- Reduce energy consumption



















ACCESSORIES
see page 114

| PIC REF | PART NUMBER | MODEL | OUTPUT DRIVE | OUTPUT RETAINING TYPE | TORQUE | | | | ROTATIONAL MAX SPEED | LENGTH | | WEIGHT | | INTEGRATED CABLE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | MIN | MAX | MIN | MAX | | | | | | |
| | | | in. | | Nm | Nm | ft.lb | ft.lb | rpm | mm | in. | kg | in. | |
| A | 615 165 838 0 | ELRT025-P4600-10S | Sq. 3/8 | Trough hole | 10 | 25 | 7.4 | 18.4 | 4600 | 228 | 9.0 | 1.3 | 2.9 | N/A |
| B | 615 165 890 0 | ELRT025-P4600-4Q | Hex.1/4 | Quick change chuck | 10 | 25 | 7.4 | 18.4 | 4600 | 228 | 8.7 | 1.3 | 2.9 | N/A |
| C | 615 166 040 0 | ELRT025T-10S-5 | Sq 3/8 | Trough hole | 10 | 25 | 7.4 | 18.4 | 4600 | 255 | 10.0 | 2.6 | 5.7 | 5 meters |
| C | 615 166 047 0 | ELRT25T-10S-1 | Sq 3/8 | Trough hole | 10 | 25 | 7.4 | 18.4 | 4600 | 255 | 10.0 | 2.1 | 4.6 | 1 meter |
| D | 615 166 041 0 | ELRT25T-4Q-5 | Hex.1/4 | Quick change chuck | 10 | 25 | 7.4 | 18.4 | 4600 | 249 | 9.8 | 2.6 | 5.7 | 5 meters |
| D | 615 166 048 0 | ELRT25T-4Q-1 | Hex.1/4 | Quick change chuck | 10 | 25 | 7.4 | 18.4 | 4600 | 249 | 9.8 | 2.1 | 4.6 | 1 meter |
| E | 615 166 022 0 | ELRT050-P4900-10S | Sq 3/8 | Trough hole | 20 | 50 | 14.8 | 36.9 | 4900 | 244 | 9.6 | 1.7 | 3.7 | N/A |
| F | 615 166 042 0 | ELRT050T-10S-5 | Sq 3/8 | Trough hole | 20 | 50 | 14.8 | 36.9 | 4900 | 271 | 10.7 | 3.0 | 6.6 | 5 meters |
| F | 615 166 049 0 | ELRT050T-10S-1 | Sq 3/8 | Trough hole | 20 | 50 | 14.8 | 36.9 | 4900 | 271 | 10.7 | 2.5 | 5.5 | 1 meter |

# Fixtured electric spindles ERF




For your assembly applications, Desoutter offers a range of fixtured electric spindles, transducerized or current controlled with integrated cable

## CVIL II Range

| MODEL | PART NUMBER | TORQUE RANGE | |
|---|---|---|---|
| | | Nm | ft.lb |
| ERF3L | 615 165 286 0 | 0.35 - 3 | 0.26 - 2.2 |
| ERF5L | 615 165 287 0 | 0.5 - 5 | 0.37 - 3.7 |
| ERF10L | 615 165 288 0 | 3 - 10 | 2.2 - 7.4 |
| ERF20L | 615 165 289 0 | 5 - 20 | 3.7 - 14.8 |
| ERF20S | 615 165 290 0 | 5 - 20 | 3.7 - 14.8 |
| ERF30S | 615 165 291 0 | 7 - 30 | 5.2 - 22.1 |

*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

# Accessories




## ERS / ERSA / ERSF / E-LRT

### OPTIONAL ACCESSORIES

| ITEM | | ERS. | ELRT |
|---|---|---|---|
| 1 | Long lever Kit | 615 321 254 0 | |
| 2 | Suspension yoke kit | 615 791 080 0 | |
| 3 | Reaction handle | 615 397 016 0 | |
| 4 | Plastic cover for ELRT | | 615 211 012 0 |
| 5 | Pistol grip kit for ERS | 615 390 059 0 | |
| 6 | D53-25 Linear arm (tool clamp included) - (see page 148) | 615 810 702 0 | |
| 6 | D53-25X Linear arm, extended reach (tool clamp included) - (see page 148) | 615 810 703 0 | |
| 7 | D53-25S Folder arm (tool clamp included) - (see page 148) | 615 810 708 0 | |
| 8 | Bit Tray | 615 929 025 0 | 615 929 025 0 |
| 9 | Spring suspension balancer | 50522 | 50542 |
| 10 | Tool Holster DTH90 | | 615 812 119 0 |
| 11 | ERS Module | 615 936 537 0 | |
| 12 | Sleeve drive socket | see page 297/298/299 | |

| EXTENTION CABLE FOR ERS TOOLS | PART NO. |
|---|---|
| Ext. cable 5m (16ft) | 615 917 222 0 |
| Ext. cable 10m (32ft) | 615 917 224 0 |



| HEAVY DUTY THIN CABLE FOR ELRT TOOLS | PART NO. |
|---|---|
| Cable 5m (16ft) | 615 917 641 0 |

| HEAVY DUTY EXTENTION CABLE FOR ELRT TOOLS | PART NO. |
|---|---|
| Ext. cable 5m (16ft) | 615 917 083 0 |
| Ext. cable 10m (32ft) | 615 917 084 0 |
| Ext. cable 15m (49.2ft) | 615 917 085 0 |
| Ext. cable 20m (65.6ft) | 615 917 086 0 |
| Ext. cable 25m (82ft) | 615 917 087 0 |
| Ext. cable 30m (98ft) | 615 917 088 0 |

## EME / EMEL



### OPTIONAL ACCESSORIES

| TRANSDUCER-HOLDER FOR EME TOOL | PART NO. |
|---|---|
| • 3/8" square drive EME35/EME38 | 615 396 426 0 |
| • 1/2" square drive EME51/EME60.10 | 615 396 427 0 |
| • 3/4" square drive EME60.20/EME60.30 | 615 396 428 0 |
| • 3/4" square drive EME80.10/EME80.20 | 615 396 429 0 |

| EME ADAPTATION ON EXISTING APPLICATION (SEPARATED CABLE TORQUE + MOTOR CABLE) | PART NO |
|---|---|
| • EME adaptation on old cable | 615 917 539 0 |



| CABLE FOR EME TOOLS - MULTICVIL & CVIL II | PART NO. |
|---|---|
| Cable 5m (16ft) | 615 917 541 0 |
| Cable 10m (32ft) | 615 917 542 0 |
| Cable 15m (49.2ft) | 615 917 543 0 |

| EXTENTION CABLE FOR EME TOOLS - MULTICVIL & CVIL II | PART NO. |
|---|---|
| Ext. cable 5m (16ft) | 615 917 083 0 |
| Ext. cable 10m (32ft) | 615 917 084 0 |
| Ext. cable 15m (49.2ft) | 615 917 085 0 |
| Ext. cable 20m (65.6ft) | 615 917 086 0 |
| Ext. cable 25m (82ft) | 615 917 087 0 |
| Ext. cable 30m (98ft) | 615 917 088 0 |



# CVIC Range Current controlled




## Easy to integrate

Small size and smooth design for a simple installation.

Speed up the set up time by using the self learning process. Provides automatic set up for the tool to optimize your fastening process.

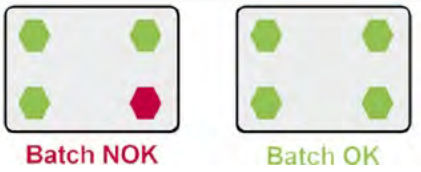
## Multi torque capability

Replace multiple pneumatic tools with one electric tool per station.



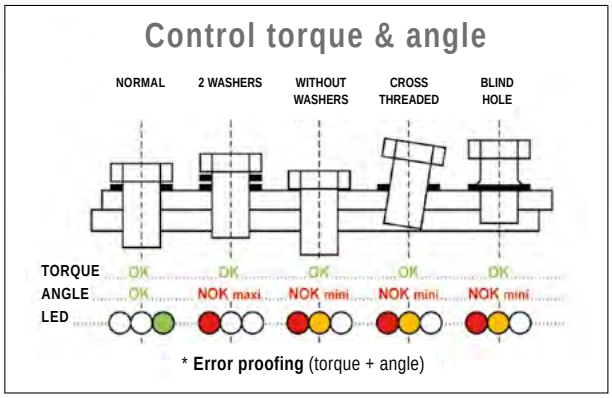
## Fastening quality guaranteed in all your products

Set up a batch count to ensure all bots are tightened with correct strategy.




## Quality of tightening

Control torque and angle with multi phases strategies.




* **Error proofing** (torque + angle)

## Advanced ergonomics

Maximize your operators' comfort with ergo stop and direct reporting led in the controller and on the tool.








## Open to peripherals



Increase your assembly quality and process through barcode reader, socket tray or bit tray.
Control tightening order with our positioning system.

# Technical features

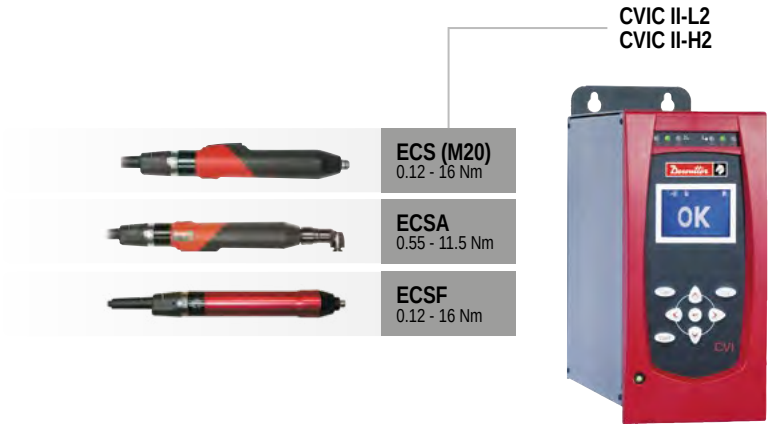
*CVIC Range*

| MAIN FUNCTIONS | NORMAL | | ECP HIGH TORQUE | |
|---|---|---|---|---|
| | L STANDARD | H ADVANCED | L STANDARD | H ADVANCED |
| Quick cycle with self-learning of the joint | ✔ | ✔ | | |
| Number of cycles in the controller | 1 | 15 | 1 | 15 |
| Number of phases | 15 | 15 | 15 | 15 |
| Batch count (999 OK reports) | ✔ | ✔ | ✔ | ✔ |
| **TIGHTENING RESULTS** | | | | |
| Torque + Angle + Date + Time + Report | 5000 to 20000 according configuration | | | |
| **TYPES OF PHASES IN A CYCLE** | | | | |
| Search Sequence | ✔ | ✔ | | |
| Run Down speed | ✔ | ✔ | ✔ | ✔ |
| Final speed | ✔ | ✔ | ✔ | ✔ |
| Run reverse | ✔ | ✔ | | |
| Action on NOK | ✔ | ✔ | | |
| Prevailing torque monitoring | ✔ | ✔ | | |
| **FINAL SPEED STRATEGIES** | | | | |
| Torque control + Angle monitoring | ✔ | ✔ | ✔ | ✔ |
| Angle control + Torque monitoring | ✔ | ✔ | ✔ | ✔ |
| **DISPLAY AND PROGRAMMING** | | | | |
| **Display** | | | | |
| LCD display | ✔ | ✔ | ✔ | ✔ |
| **Keyboard** | | | | |
| 8 button keypad | ✔ | ✔ | ✔ | ✔ |
| **Reports** | | | | |
| LEDs | 6 | 6 | 6 | 6 |
| **PC Software Windows** | | | | |
| | program cycles, collect, display and save results, run statistics, curves | | | |
| CVIPC2000 *: | Connection 'point to point' (RS232) | ✔ | ✔ | ✔ | ✔ |
| | Connection through ethernet | ✔ | ✔ | ✔ | ✔ |
| **MAINTENANCE** | | | | |
| Access to all tool parameters (tool memory) | ✔ | ✔ | ✔ | ✔ |
| Autotest of the complete system | ✔ | ✔ | ✔ | ✔ |
| Spindle rotation test | ✔ | ✔ | ✔ | ✔ |
| Input/Output selection | ✔ | ✔ | ✔ | ✔ |
| Date of the last maintenance operation | ✔ | ✔ | ✔ | ✔ |
| Total and partial cycle counters | ✔ | ✔ | ✔ | ✔ |
| **PERIPHERALS** | | | | |
| Input/Output | 8/8 | 8/8 | 8/8 | 8/8 |
| Serial port RS232 (PC transfer, Bar code, Report output) | ✔ | ✔ | ✔ | ✔ |
| Ethernet connection (CVIPC2000 / DeMeter) | ✔ | ✔ | ✔ | ✔ |
| **MODEL** | | | | |
| CONTROLLER for low torque tools | CVIC II L-2 | CVIC II H-2 | | |
| CONTROLLER for the other tools | CVIC II L-4 | CVIC II H-4 | CVIC II L-4 | CVIC II H-4 |
| **MAINS SUPPLY** | | | | |
| Single-phase, automatic switching 110V/230V | ✔ | ✔ | ✔ | ✔ |

**All CVIPC2000 versions are compatible with CVICs*

# Controllers - CVIC

*Electric current control*




| MODEL | PART NUMBER | TOOLS | CONSUMPTION (current) | | MAINS SUPPLY | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | WIDTH | | HEIGHT | | DEPTH | | | |
| | | | 115V | 230V | 50/60 hertz | mm | in. | mm | in. | mm | in. | kg | lb. |
| **CVIC II CONTROLLERS** | | | | | | | | | | | | | |
| **CVIC II-L2** | **615 932 676 0** | ECS | 4A | 2A | Single-phase | 130 | 5.1 | 278 | 10.9 | 291 | 11.5 | 5 | 11 |
| **CVIC II-H2** | **615 932 677 0** | ECS | 4A | 2A | 100 to 250 V | 130 | 5.1 | 278 | 10.9 | 291 | 11.5 | 5 | 11 |

**START-UP KIT** to be ordered with the controller
Including : **Power cable and plug**

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | **615 917 201 0** |
| B | US | **615 917 203 0** |
| C | UK | **615 917 202 0** |
| D | Chinese | **615 917 206 0** |






## OPTIONAL ACCESSORIES

| | PART NO. |
|---|---|
| • PC cable Length 2m (78.7") | **615 917 047 0** |
| • Printer cable Length 2m (78.7") | **615 917 011 0** |
| • 37 pin D-Sub female I/O adapteR | **615 919 003 0** |
| • BRDx2 (Backup Rescue Device) | **615 936 328 0** |

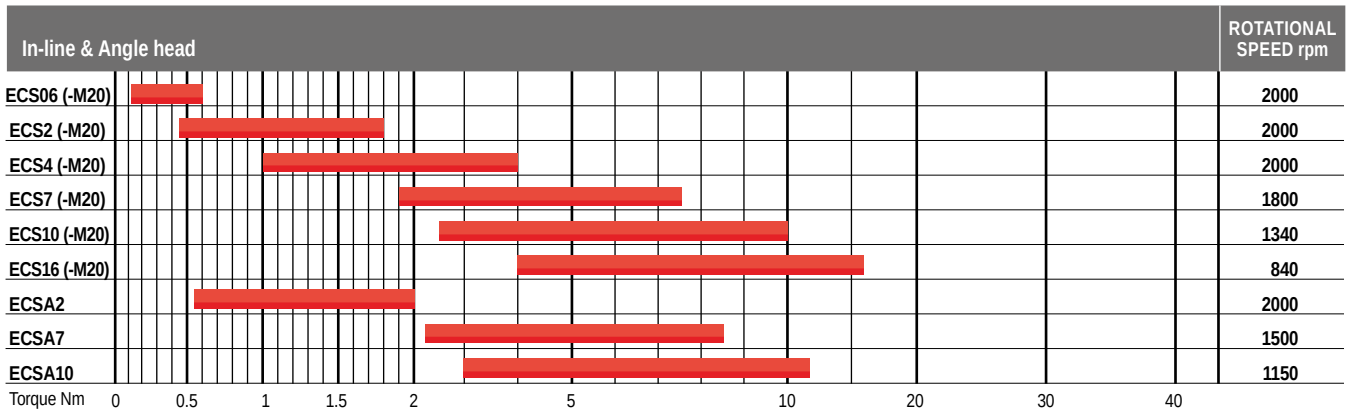
### Fieldbus / Protocol

| MODEL | PART NO. |
|---|---|
| Ethernet IP Module | **615 927 594 0** |
| Profibus DP Module | **615 927 595 0** |
| ProfiNet Module (1 port) | **615 927 596 0** |
| ProfiNet Module (2 ports) | **615 927 597 0** |
| CC-Link Module | **615 927 598 0** |
| Devicenet Module | **615 927 599 0** |
| MODBUS TCP | **615 927 615 0** |

# Torque range

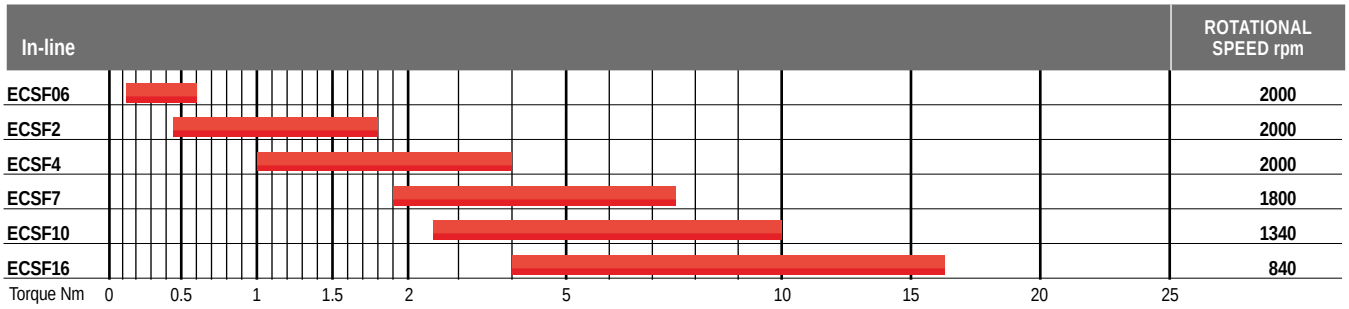
## Performances of Portable electric nutrunners

### ECS, ECSA Series




## Performances of Fixtured electric spindles

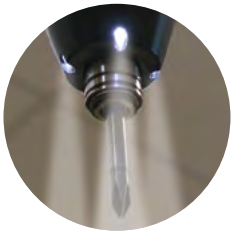
### ECSF



# Electric screwdrivers - CVIC

*0.12 to 16 Nm (1.1 to 141.6 in.lb) - 840 to 2000 rpm*

**The ECS series offers outstanding torque accuracy and operator ergonomics, making it the ideal choice for assembly operations that require a high level of quality**



**Improve your joint visibility**




**Get the best tightening feedback directly on the tool**



A



B




C



**Adapt your tool with accessories**

ACCESSORIES
**see page 123**

| PIC REF | MODEL | PART NUMBER | OUTPUT HEX | TORQUE RANGE MIN. | TORQUE RANGE MAX. | TORQUE RANGE MIN. | TORQUE RANGE MAX. | ROTATIONAL SPEED | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Nm | Nm | in.lb | in.lb | rpm | mm | in. | kg | lb. |
| **ELECTRIC SCREWDRIVERS - IN-LINE** | | | | | | | | | | | | |
| A | ECS06 | 615 165 442 0 | Hex. 1/4 F | 0.12 | 0.6 | 1.1 | 5.3 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | ECS2 | 615 165 443 0 | Hex. 1/4 F | 0.45 | 1.8 | 4 | 15.9 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | ECS4 | 615 165 445 0 | Hex. 1/4 F | 1 | 4 | 8.8 | 35.4 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | ECS7 | 615 165 446 0 | Hex. 1/4 F | 1.9 | 7.5 | 16.8 | 66.4 | 1800 | 285 | 11.2 | 0.7 | 1.5 |
| A | ECS10 | 615 165 444 0 | Hex. 1/4 F | 2.5 | 10 | 22.1 | 88.5 | 1340 | 285 | 11.2 | 0.7 | 1.5 |
| A | ECS16 | 615 165 459 0 | Hex. 1/4 F | 4 | 16 | 35.4 | 141.6 | 840 | 285 | 11.2 | 0.7 | 1.5 |
| B | ECS06-M20 | 615 165 454 0 | Hex. 1/4 F | 0.12 | 0.6 | 1.1 | 5.3 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| B | ECS2-M20 | 615 165 455 0 | Hex. 1/4 F | 0.45 | 1.8 | 4 | 15.9 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| B | ECS4-M20 | 615 165 456 0 | Hex. 1/4 F | 1 | 4 | 8.8 | 35.4 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| B | ECS7-M20 | 615 165 457 0 | Hex. 1/4 F | 1.9 | 7.5 | 16.8 | 66.4 | 1800 | 285 | 11.2 | 0.7 | 1.5 |
| B | ECS10-M20 | 615 165 458 0 | Hex. 1/4 F | 2.5 | 10 | 22.1 | 88.5 | 1340 | 285 | 11.2 | 0.7 | 1.5 |
| B | ECS16-M20 | 615 165 460 0 | Hex. 1/4 F | 4 | 16 | 35.4 | 141.6 | 840 | 285 | 11.2 | 0.7 | 1.5 |
| **ELECTRIC SCREWDRIVERS - ANGLE HEAD** | | | | | | | | | | | | |
| C | ECSA2 | 615 165 447 0 | Hex. 1/4 F | 0.55 | 2.2 | 4.9 | 19.5 | 2000 | 329 | 12.9 | 1 | 2.2 |
| C | ECSA7 | 615 165 448 0 | Hex. 1/4 F | 2.2 | 8.5 | 19.5 | 75.2 | 1500 | 329 | 12.9 | 1 | 2.2 |
| C | ECSA10 | 615 165 449 0 | Hex. 1/4 F | 3 | 11.5 | 26.6 | 101.8 | 1150 | 329 | 12.9 | 1 | 2.2 |

# Fixtured electric spindles - CVIC

*0.12 to 16 Nm (1.1 to 141.6 in.lb) - 840 to 2000 rpm*



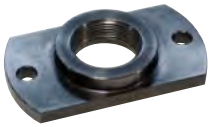
A



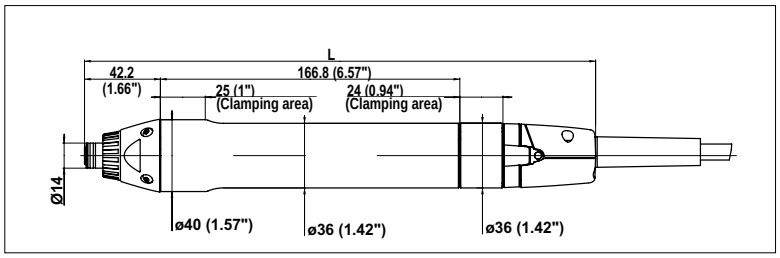
**Offset head for application with close centers (minimum 19mm)**



**Automatically adjust the stroke for multispindle applications with spring loaded shafts**



**Mount your spindle easily on a support using the adapted flange**




ACCESSORIES
**see page 123**

| PIC REF | MODEL | PART NUMBER | OUTPUT HEX | TORQUE RANGE | | ROTATIONAL SPEED AT | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | Nm | in.lb | rpm | mm | in. | kg | lb. |
| A | ECSF06 | 615 165 501 0 | Hex. 1/4 F | 0.12-0.6 | 1.1-5.3 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | ECSF2 | 615 165 502 0 | Hex. 1/4 F | 0.45-1.8 | 4.0-15.9 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | ECSF4 | 615 165 503 0 | Hex. 1/4 F | 1.0-4.0 | 8.8-35.4 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | ECSF7 | 615 165 504 0 | Hex. 1/4 F | 1.9-7.5 | 16.8-66.4 | 1800 | 285 | 11.2 | 0.7 | 1.5 |
| A | ECSF10 | 615 165 505 0 | Hex. 1/4 F | 2.5-10 | 22.1-88.5 | 1340 | 285 | 11.2 | 0.7 | 1.5 |
| A | ECSF16 | 615 165 506 0 | Hex. 1/4 F | 4.0-16 | 35.4-141.6 | 840 | 285 | 11.2 | 0.7 | 1.5 |
| A | *ECSF06-03 | 615 166 071 0 | Hex. 1/4 F | 0.12-0.6 | 1.1-5.3 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | *ECSF2-03 | 615 166 072 0 | Hex. 1/4 F | 0.45-1.8 | 4.0-15.9 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | *ECSF4-03 | 615 166 073 0 | Hex. 1/4 F | 1.0-4.0 | 8.8-35.4 | 2000 | 285 | 11.2 | 0.6 | 1.3 |
| A | *ECSF7-03 | 615 166 074 0 | Hex. 1/4 F | 1.9-7.5 | 16.8-66.4 | 1800 | 285 | 11.2 | 0.7 | 1.5 |
| A | *ECSF10-03 | 615 166 075 0 | Hex. 1/4 F | 2.5-10 | 22.1-88.5 | 1340 | 285 | 11.2 | 0.7 | 1.5 |
| A | *ECSF16-03 | 615 166 076 0 | Hex. 1/4 F | 4.0-16 | 35.4-141.6 | 840 | 285 | 11.2 | 0.7 | 1.5 |

**Models with 30cm integrated cable instead of 4 meters*


RES
I/O

# Accessories

## ECS




### ACCESSORIES INCLUDED

| ITEM | | PART NO. |
|---|---|---|
| 1 | Fixed suspension bail for ECS | 205 049 537 3 |




### OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| **ECS / ECSA** | | |
| 2 | Reaction handle for ECS | 615 397 016 0 |
| 3 | Stationary suspension bail for ECSA | 615 791 080 0 |
| • | Tool clamp for ECS | 615 396 616 0 |
| 4 | Pistol grip kit for ECS | 615 390 059 0 |
| **Spring Loaded Shafts and Bearings Support for ECS-M20/ECSF** | | |
| 5 | Bit Adaptor | 103782 |
| 6 | Spring Loaded Shaft 25mm (1") stroke, 3/8" Sq Drive | 108342 |
| 7 | Shaft Support and Nose Mount | 108412 |
| **Nose Mounts for ECS-M20/ECSF** | | |
| 8 | Nose Mount | 205 052 876 3 |
| 9 | Flange | 205 052 875 3 |
| **Offset Head and Spring Loaded Shaft for ECS-M20/ECSF** | | |
| 6 | Spring loaded shaft 25mm (1") strocke, 3/8" square drive | 108342 |
| 10 | Offset Head, Offset 30mm (1.18") | 384993 |
| **Screwdriver Bit Adaptor for ECS/ECSA/ECS-M20/ECSF** | | |
| 11 | 3/8" Square to 1/4" HexPower Adaptor | 108322 |

| SOCKETS TRAY & BITS TRAY | PART NO. |
|---|---|
| • Bit tray (bits not included) | 615 929 025 0 |

| CABLE FOR BIT TRAY | PART NO. |
|---|---|
| Cable 1m (3.3ft) | 615 917 265 0 |
| Cable 5m (16ft) | 615 917 266 0 |
| Cable 10m (32.8ft) | 615 917 267 0 |

| CABLE FOR SOCKET TRAY | PART NO. |
|---|---|
| Extension cable 2m (6.4ft) | 615 917 535 0 |

| EXTENSION CABLE FOR ECS TOOLS | PART NO. |
|---|---|
| Extension cable 5m (16ft) | 615 917 222 0 |
| Extension cable 10m (32.8ft) | 615 917 224 0 |


Desoutter
615 610 0740
A53 - P3
615 610 0750
C12 - P3

# SLBN screwdrivers controllers

*Advanced controller for SLBN screwdrivers*

**Flexible speed**
- Speed adjustment

**Protection of the parameters**
- Setting locked by key



**Fastening Strategies**
- PreRun reverse
- Slow start
- Final fastening
- Post run reverse

**Universal**
- Compatible with all the SLBN range



**Batch counting**
- Incremental or decremental counting up to 99



## INPUTS AND OUTPUTS FOR PLC COMMUNICATION

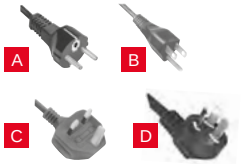
**Inputs :**
- Remote Start
- Remote Reverse
- Enable tool A
- Enable tool B
- Enable Reverse
- Reset Batch
- NOK Acknowledgment
- Psets 1 to 5
- PreRun Reverse enable

**Outputs :**
- OK
- NOK
- OK Batch
- Tool running forward
- Tool running reverse
- 24/12 Vdc

**START-UP KIT** to be ordered with the controller

Including : **Power cable and plug**

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | 615 917 201 0 |
| B | US | 615 917 203 0 |
| C | UK | 615 917 202 0 |
| D | Chinese | 615 917 206 0 |





A


B


C

| PIC REF | MODEL | PART NUMBER | DIMENSIONS | | | | | | WEIGHT | | VOLTAGE VAC | COMPATIBLE TOOLS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | WIDTH | | HEIGHT | | DEPTH | | | | | |
| | | | mm | in | mm | in | mm | in | kg | lb. | | |
| A | ESP1 | 615 932 635 0 | 160 | 6.3 | 75 | 2.95 | 55 | 2.17 | 0.50 | 1.1 | 100-240 | SLBN003/010/012/020 |
| B | ESP1-HT | 615 932 637 0 | 213 | 8.4 | 131 | 5.20 | 65 | 2.60 | 1.80 | 3.9 | 100-240 | SLBN030/050 |
| B | ESP1-HT PLUS | 615 932 707 0 | 213 | 8.4 | 131 | 5.20 | 65 | 2.60 | 1.63 | 3.6 | 100-240 | SLBN90/120 |
| C | ESP2-A | 615 932 708 0 | 135 | 5.3 | 285 | 11.2 | 105 | 4.1 | 2.8 | 4.4 | 100-240 | SLBN003-SLBN120 |

# Low Voltage Screwdriver with clutch shut off - SLBN




**Flexibility**

- Installation by clamping in the top or in the front by a torque fixing ring

**ESD Certification**

- Dedicated version for Electrostatic discharge component protection

**Productivity**

- Speed up to 2000 rpm
- Maintenance free thanks to brusless motor

**Ergonomy**

- Soft Rubber grip
- Low noise level < 70dB (A)

# Standard Version - SLBN

*0.02 to 12 Nm (0.18 to 106.2 in.lb) - 160 to 2000 rpm*



A



B



C



D



E



F

| MODEL | LENGHT | | WEIGHT | |
|---|---|---|---|---|
| | mm | in. | kg | lb. |
| SLBN001 | 174 | 6.8 | 0.17 | 0.37 |
| SLBN003/010 | 182 | 7.2 | 0.38 | 0.34 |
| SLBN012/020 | 245 | 9.6 | 0.58 | 1.28 |
| SLBN030/050 | 283 | 11.1 | 0.80 | 1.76 |
| SLBN090/120 | 301 | 11.8 | 1.25 | 2.76 |

ACCESSORIES
**see page 131**

| PIC REF | MODEL | PART NUMBER | OUTPUT HEX | FREE SPEED | | TORQUE RANGE | | TORQUE RECOMMENDED | | VOLTAGE VDC | CONTROLLER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in | Hi rpm | Lo rpm | Nm | in.lb | Nm | in.lb | | |
| **LEVER START - LOW VOLTAGE - CLUTCH CONTROL - SHUT OFF** | | | | | | | | | | | |
| A | SLBN001-L1000-SWS | 615 165 873 0 | whing shank | 1000 | 700 | 0.02-0.14 | 0.18-1.32 | 0.10 | 0.91 | 15 | ESP1.LT included |
| A | SLBN003-L230-S4Q | 615 165 922 0 | 1/4 | 230 | 160 | 0.07-0.34 | 0.62-2.99 | 0.24 | 2.09 | 25 | ESP1 |
| A | SLBN003-L1000-S4Q | 615 165 923 0 | 1/4 | 1000 | 750 | 0.07-0.34 | 0.62-2.99 | 0.24 | 2.09 | 25 | ESP1 |
| A | SLBN010-L1000-S4Q | 615 165 955 0 | 1/4 | 1000 | 750 | 0.1-1 | 0.88-8.8 | 0.70 | 6.16 | 25 | ESP1 |
| B | SLBN012-L1000-S4Q | 615 165 924 0 | 1/4 | 1000 | 750 | 0.2-1.18 | 1.76-10.4 | 0.83 | 7.28 | 32 | ESP1 |
| B | SLBN012-L2000-S4Q | 615 165 925 0 | 1/4 | 2000 | 1500 | 0.2-1.18 | 1.76-10.4 | 0.83 | 7.28 | 32 | ESP1 |
| B | SLBN020-L1000-S4Q | 615 165 926 0 | 1/4 | 1000 | 750 | 0.29-1.9 | 2.57-16.8 | 1.33 | 11.76 | 32 | ESP1 |
| C | SLBN030-L1000-S4Q | 615 165 927 0 | 1/4 | 1000 | 750 | 1.00-2.9 | 8.80-25.7 | 2.03 | 17.99 | 40 | ESP1-HT |
| C | SLBN030-L2000-S4Q | 615 165 928 0 | 1/4 | 2000 | 1500 | 1.00-2.9 | 8.80-25.7 | 2.03 | 17.99 | 40 | ESP1-HT |
| C | SLBN050-L1000-S4Q | 615 165 929 0 | 1/4 | 1000 | 750 | 2.00-4.9 | 17.7-44.4 | 3.43 | 31.08 | 40 | ESP1-HT |
| D | SLBN090-L800-S4Q | 615 165 947 0 | 1/4 | 800 | 600 | 3.00-9.0 | 26.6-79.7 | 6.30 | 55.79 | 40 | ESP1-HT PLUS |
| D | SLBN120-L550-S4Q | 615 165 948 0 | 1/4 | 550 | 410 | 4.00-12 | 35.4-106.2 | 8.40 | 74.34 | 40 | ESP1-HT PLUS |
| **PUSH START - LOW VOLTAGE - CLUTCH CONTROL - SHUT OFF** | | | | | | | | | | | |
| E | SLBN012-A1000-S4Q | 615 165 934 0 | 1/4 | 1000 | 750 | 0.2-1.18 | 1.76-10.4 | 0.83 | 7.28 | 32 | ESP1 |
| E | SLBN012-A2000-S4Q | 615 165 935 0 | 1/4 | 2000 | 1500 | 0.2-1.18 | 1.76-10.4 | 0.83 | 7.28 | 32 | ESP1 |
| E | SLBN020-A1000-S4Q | 615 165 936 0 | 1/4 | 1000 | 750 | 0.29-1.9 | 2.57-16.8 | 1.33 | 11.76 | 32 | ESP1 |
| F | SLBN030-A1000-S4Q | 615 165 937 0 | 1/4 | 1000 | 750 | 1.00-2.9 | 8.80-25.7 | 2.03 | 17.99 | 40 | ESP1-HT |
| F | SLBN030-A2000-S4Q | 615 165 938 0 | 1/4 | 2000 | 1500 | 1.00-2.9 | 8.80-25.7 | 2.03 | 17.99 | 40 | ESP1-HT |
| F | SLBN050-A1000-S4Q | 615 165 939 0 | 1/4 | 1000 | 750 | 2.00-4.9 | 17.7-44.4 | 3.43 | 31.08 | 40 | ESP1-HT |
| D | SLBN090-A800-S4Q | 615 165 951 0 | 1/4 | 800 | 600 | 3.00-9.0 | 26.6-79.7 | 6.30 | 55.79 | 40 | ESP1-HT PLUS |
| D | SLBN120-A550-S4Q | 615 165 952 0 | 1/4 | 550 | 410 | 4.00-12 | 35.4-106.2 | 8.40 | 74.34 | 40 | ESP1-HT PLUS |

# ESP C / ESP CA

*Advanced controller SLC range*

- Auto stop after elapsed time and auto reverse
- OK/NOK with rehit protection
- I/O for integration with PLC for multiple functions

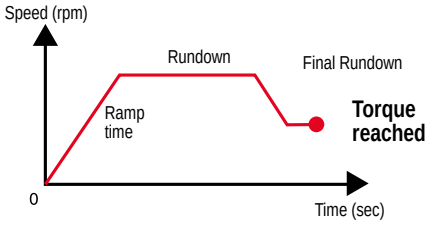





A

- Easy to use
- Flexible keypad
- Multi languages

- Speed control at all steps of operation: start, rundown and final phase




- Replace several tools by one
- Multi torque strategy




B

- Automatic sequence
- Up to 8 programs

- User friendly interface
- Avoid time and Energy lost in programming

- POKE YOKE & Fastening Assurance System

- User friendly interface
- Avoid time and Energy lost in programming

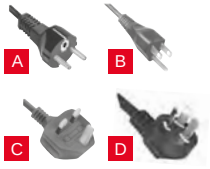


- USB key
- Results saving
- Statistics

- High Torque Phase (HLT)
- For all Self Tapping/ Cutting applications

**START-UP KIT** to be ordered with the controller Including: **Power cable and plug**

| PLUG | DESCRIPTION | PART NO. |
|---|---|---|
| A | European | 615 917 201 0 |
| B | US | 615 917 203 0 |
| C | UK | 615 917 202 0 |
| D | Chinese | 615 917 206 0 |

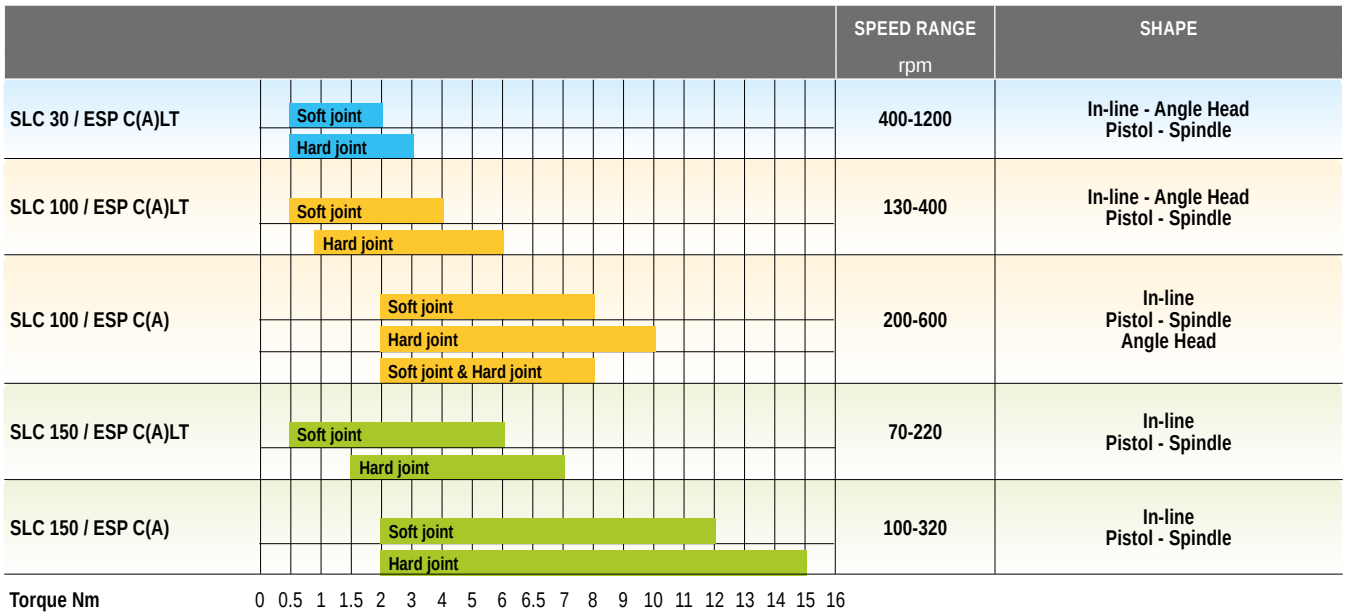



| PIC REF | MODEL | PART NUMBER | TORQUE RANGE | | SUPPLY VOLTAGE | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | WIDTH | | HEIGHT | | DEPTH | | | |
| | | | Nm | in.lb | | mm | in. | mm | in. | mm | in. | kg | lb |
| A | ESP C 220V | 615 165 480 0 | 0.5-15 | 4.4-132.7 | AC 230V 50Hz | 195 | 7.7 | 89 | 3.5 | 154 | 6.0 | 3.4 | 7.4 |
| A | ESP C 110V | 615 165 484 0 | 0.5-15 | 4.4-132.7 | AC 120V 60Hz | 195 | 7.7 | 89 | 3.5 | 154 | 6.0 | 3.4 | 7.4 |
| A | ESP C LT 220V | 615 165 481 0 | 0.5-7.0 | 4.4-61.9 | AC 230V 50Hz | 195 | 7.7 | 89 | 3.5 | 154 | 6.0 | 3.4 | 7.4 |
| A | ESP C LT 110V | 615 165 485 0 | 0.5-7.0 | 4.4-61.9 | AC 120V 60Hz | 195 | 7.7 | 89 | 3.5 | 154 | 6.0 | 3.4 | 7.4 |
| B | ESP CA 220V | 615 165 482 0 | - | - | AC 230V 50 Hz | 208 | 8.2 | 120 | 4.7 | 206 | 8.1 | 3.4 | 7.5 |
| B | ESP CA LT 220V | 615 165 483 0 | - | - | AC 230V 50 Hz | 208 | 8.2 | 120 | 4.7 | 206 | 8.1 | 3.4 | 7.5 |
| B | ESP CA 110V | 615 165 486 0 | - | - | AC 120V 60 Hz | 208 | 8.2 | 120 | 4.7 | 206 | 8.1 | 3.4 | 7.5 |
| B | ESP CA LT 110V | 615 165 487 0 | - | - | AC 120V 60 Hz | 208 | 8.2 | 120 | 4.7 | 206 | 8.1 | 3.4 | 7.5 |

# High power screwdrivers - SLC

*Torque Range*

## Performance of Electric Screwdrivers - Series SLC




# In-line and Angle head screwdrivers - SLC

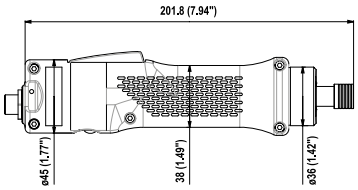
*0.5 to 15 Nm (4.4 to 132.7 in.lb) - 70 to 1200 rpm*

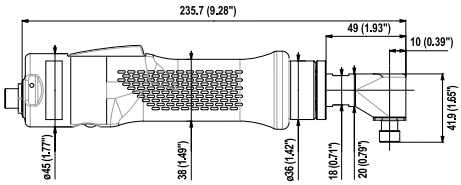


A



B



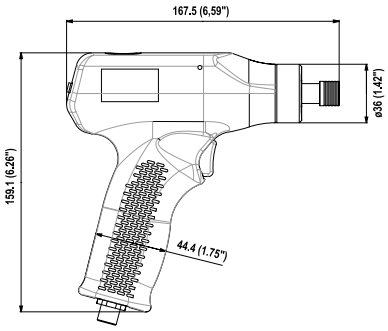




ACCESSORIES
**see page 131**

| PIC REF | MODEL | PART NUMBER | OUTPUT HEX | FREE SPEED | TORQUE RANGE SOFT | TORQUE RANGE SOFT | TORQUE RANGE HARD | TORQUE RANGE HARD | WEIGHT | | CONTROLLER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | rpm | Nm | in.lb | Nm | in.lb | kg | lb | |
| **IN-LINE - LOW VOLTAGE - CURRENT CONTROL - SHUT OFF** | | | | | | | | | | | |
| A | SLC030-L1200-C4Q | 615 165 500 0 | 1/4 | 400-1200 | 0.5-2 | 4.4-17.7 | 0.6-3 | 5.3-26.5 | 0.5 | 1.1 | ESP C(A) LT |
| A | SLC100-L600-C4Q | 615 165 466 0 | 1/4 | 130-400 | 0.5-4 | 4.4-35.4 | 0.8-6 | 7.1-53.1 | 0.5 | 1.1 | ESP C(A) LT |
| | | | 1/4 | 200-600 | 2.0-8 | 17.7-70.8 | 2.0-10 | 17.7-88.5 | 0.5 | 1.1 | ESP C(A) |
| A | SLC150-L320-C4Q | 615 165 467 0 | 1/4 | 70-220 | 0.5-6 | 4.4-53.1 | 1.5-7 | 13.3-61.9 | 0.5 | 1.1 | ESP C(A) LT |
| | | | 1/4 | 100-320 | 2.0-12 | 17.7-106.2 | 2.0-15 | 17.7-132.7 | 0.5 | 1.1 | ESP C(A) |
| **ANGLE HEAD - LOW VOLTAGE - CURRENT CONTROL - SHUT OFF** | | | | | | | | | | | |
| B | SLC030-L1200-C90A4H | 615 165 478 0 | 1/4 | 400-1200 | 0.5-2 | 4.4-17.7 | 0.6-3 | 5.3-26.5 | 0.7 | 1.5 | ESP C(A) LT |
| B | SLC100-L600-C90A4H | 615 165 479 0 | 1/4 | 130-400 | 0.5-4 | 4.4-35.4 | 0.8-6 | 7.1-53.1 | 0.7 | 1.5 | ESP C(A) LT |
| | | | 1/4 | 200-600 | 2.0-8 | 17.7-70.8 | 2.0-10 | 17.7-88.5 | 0.7 | 1.5 | ESP C(A) |

# Pistol grip screwdrivers - SLC

*0.5 to 15 Nm (4.4 to 132.7 in.lb) - 70 to 1200 rpm*





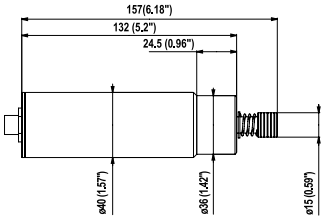





| PIC REF | MODEL | PART NUMBER | OUTPUT HEX | FREE SPEED | TORQUE RANGE SOFT | TORQUE RANGE SOFT | TORQUE RANGE HARD | TORQUE RANGE HARD | WEIGHT | | CONTROLLER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | in. | rpm | Nm | in.lb | Nm | in.lb | kg | lb | |
| **PISTOL GRIP - LOW VOLTAGE - CURRENT CONTROL - SHUT OFF** | | | | | | | | | | | |
| A | SLC030-P1200-C4Q | 615 165 488 0 | 1/4 | 400-1200 | 0.5-2 | 4.4-17.7 | 0.6-3 | 5.3-26.5 | 0.6 | 1.3 | ESP C(A) LT |
| A | SLC100-P600-C4Q | 615 165 462 0 | 1/4 | 130-400 | 0.5-4 | 4.4-35.4 | 0.8-6 | 7.1-53.1 | 0.6 | 1.3 | ESP C(A) LT |
| | | | 1/4 | 200-600 | 2.0-8 | 17.7-70.8 | 2.0-10 | 17.7-88.5 | 0.6 | 1.3 | ESP C(A) |
| A | SLC150-P320-C4Q | 615 165 463 0 | 1/4 | 70-220 | 0.5-6 | 4.4-53.1 | 1.5-7 | 13.3-61.9 | 0.6 | 1.3 | ESP C(A) LT |
| | | | 1/4 | 100-320 | 2.0-12 | 17.7-106.2 | 2.0-15 | 17.7-132.7 | 0.6 | 1.3 | ESP C(A) |
| **PISTOL GRIP WITH TOP CONNECTOR - CURRENT CONTROL - SHUT OFF** | | | | | | | | | | | |
| B | SLC030-T1200-C4Q | 615 165 489 0 | 1/4 | 400-1200 | 0.5-2 | 4.4-17.7 | 0.6-3 | 5.3-26.5 | 0.6 | 1.3 | ESP C(A) LT |
| B | SLC100-T600-C4Q | 615 165 464 0 | 1/4 | 130-400 | 0.5-4 | 4.4-35.4 | 0.8-6 | 7.1-53.1 | 0.6 | 1.3 | ESP C(A) LT |
| | | | 1/4 | 200-600 | 2.0-8 | 17.7-70.8 | 2.0-10 | 17.7-88.5 | 0.6 | 1.3 | ESP C(A) |
| B | SLC150-T320-C4Q | 615 165 465 0 | 1/4 | 70-220 | 0.5-6 | 4.4-53.1 | 1.5-7 | 13.3-61.9 | 0.6 | 1.3 | ESP C(A) LT |
| | | | 1/4 | 100-320 | 2.0-12 | 17.7-106.2 | 2.0-15 | 17.7-132.7 | 0.6 | 1.3 | ESP C(A) |

# SLC - Automation - Remote start

*0.5 to 15 Nm (4.4 to 132.7 in.lb) - 70 to 1200 rpm*







| PIC REF | MODEL | PART NUMBER | OUTPUT HEX | FREE SPEED | TORQUE RANGE SOFT | TORQUE RANGE SOFT | TORQUE RANGE HARD | TORQUE RANGE HARD | WEIGHT | | CONTROLLER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | kg | lb | |
| **AUTOMATION - REMOTE START** | | | | | | | | | | | |
| A | SLC030-F1200-C4Q | 615 165 490 0 | 1/4 | 400-1200 | 0.5-2 | 4.4-17.7 | 0.6-3 | 5.3-26.5 | 0.5 | 1.1 | ESP C(A) LT |
| A | SLC100-F600-C4Q | 615 165 468 0 | 1/4 | 130-400 | 0.5-4 | 4.4-35.4 | 0.8-6 | 7.1-53.1 | 0.5 | 1.1 | ESP C(A) LT |
| | | | 1/4 | 200-600 | 2.0-8 | 17.7-70.8 | 2.0-10 | 17.7-88.5 | 0.5 | 1.1 | ESP C(A) |
| A | SLC150-F320-C4Q | 615 165 469 0 | 1/4 | 70-220 | 0.5-6 | 4.4-53.1 | 1.5-7 | 13.3-61.9 | 0.5 | 1.1 | ESP C(A) LT |
| | | | 1/4 | 100-320 | 2.0-12 | 17.7-106.2 | 2.0-15 | 17.7-132.7 | 0.5 | 1.1 | ESP C(A) |

# Accessories

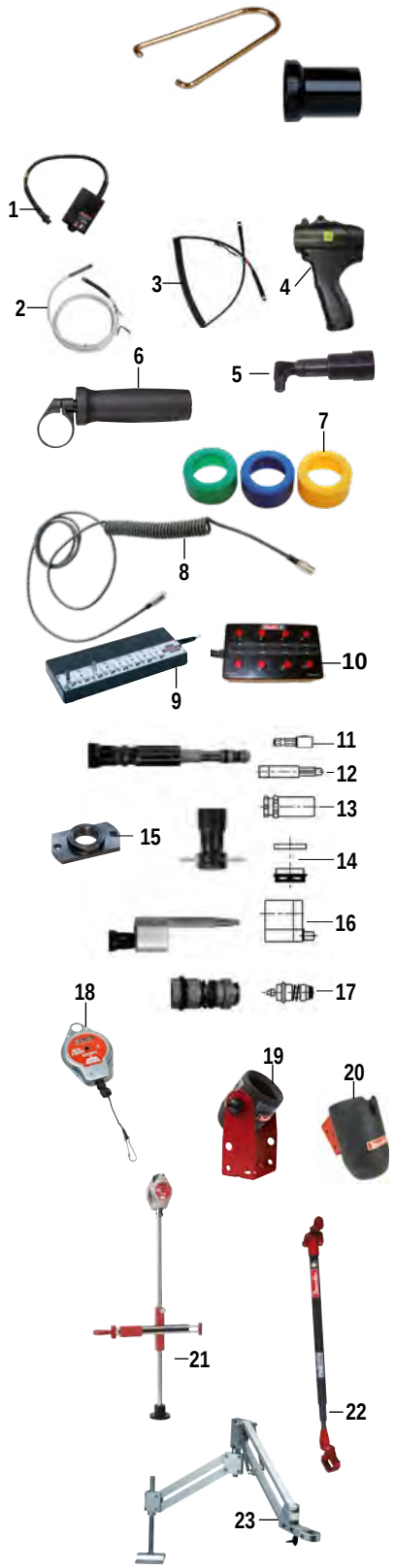
## SLBN / SLC

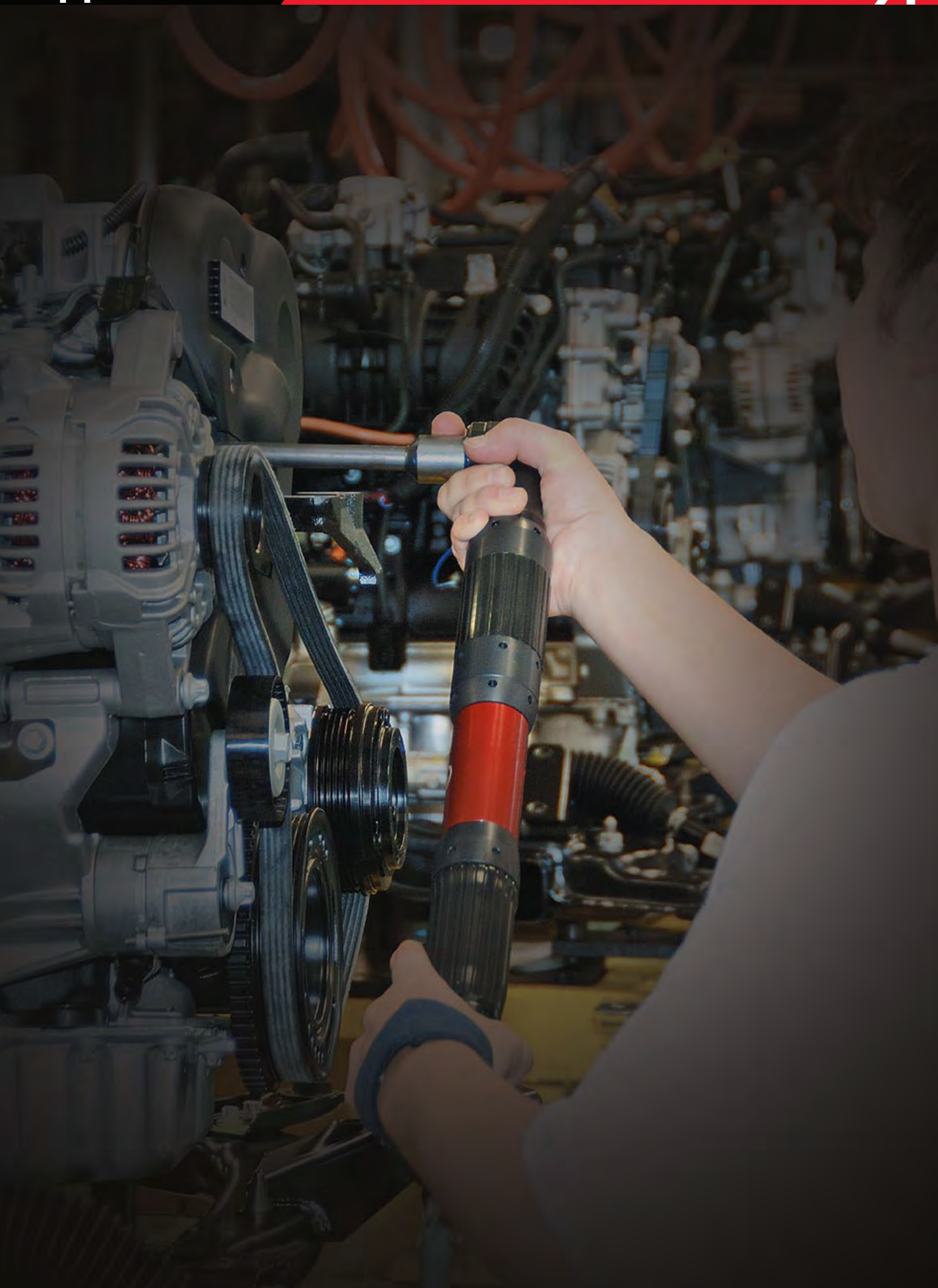
### ACCESSORIES INCLUDED

| | | SLBN | SLC |
|---|---|---|---|
| • | Suspension bail | | 615 360 222 0 |
| • | Torque fixing ring for SLB003 | 615 225 053 0 | |
| • | Torque fixing ring for SLB012/020 | 615 548 218 0 | |
| • | Torque fixing ring for SLB030/050 | 615 548 219 0 | |
| • | Tool / Controller cable L = 2.5m (8.2ft) | - | 615 360 223 0 |
| • | Cable L = 1.83m (6ft) | 615 397 416 0 | |

### OPTIONAL ACCESSORIES

| ITEM | | SLBN | SLC |
|---|---|---|---|
| **SLBN Tools** | | | |
| 1 | Control Box | 615 932 709 0 | |
| 2 | Shielded cable 3m for ESP2-A | 615 917 721 0 | |
| • | Shielded cable 5m | 615 917 725 0 | |
| • | Shielded cable 10m | 615 917 726 0 | |
| 3 | Spiral cable 2m (6.5 ft) | 615 360 838 0 | |
| 4 | Pistol grip (Trigger) for SLB030/050 | 615 397 918 0 | |
| 4 | Pistol grip (Push) for SLB030/050 | 615 397 919 0 | |
| 4 | Pistol grip (Push) for SLB012/020 | 77562 | |
| • | Cable, 10m (32.8 ft) | 615 360 379 0 | |
| • | Wall fixing plate for ESP1-HT | 615 571 085 5 | |
| • | Clamp ring for SLB012/020 | 615 399 057 0 | |
| • | Clamp ring for SLB030/050 | 615 397 815 0 | |
| • | Adaptor M20 SLB012/020 | 615 548 151 5 | |
| • | Adaptor M20 SLB 030/050 | 615 548 152 5 | |
| 5 | Angle head for SLB012/020 | 615 398 033 0 | |
| 5 | Angle head for SLB030/050 | 615 398 034 0 | |
| **SLC Tools** | | | |
| 6 | Side Handle | | 615 397 016 0 |
| 7 | Color ring (3) | | 615 397 008 5 |
| • | Cable extension L = 2m (6.6ft) | | 615 917 593 0 |
| 8 | Spiral cable L = 2m (6.6ft) | | 615 917 594 0 |
| • | M20 adaptor | | 615 567 132 0 |
| 9 | Bit tray | | 615 936 068 0 |
| 10 | Switch box | | 615 936 069 0 |
| **Spring Loaded Shafts and Bearings Support** | | | |
| 11 | Bit Adaptor | | 103782 |
| 12 | Spring Loaded Shaft 25mm (1") stroke, 3/8" Sq Drive | | 108342 |
| 13 | Shaft Support and Nose Mount | | 108412 |
| **Nose Mounts for SLC-M20** | | | |
| 14 | Nose Mount | | 205 052 876 3 |
| 15 | Flange | | 205 052 875 3 |
| **Offset Head and Spring Loaded Shaft** | | | |
| 12 | Spring loaded shaft 25mm (1") strocke, 3/8" square drive | | 108342 |
| 16 | Offset Head, Offset 30mm (1.18") | | 384993 |
| **Screwdriver Bit Adaptor** | | | |
| 17 | 3/8" Square to 1/4" HexPower Adaptor | | 108322 |
| **Balancers and Holster** | | | |
| 18 | Spring Suspension Balancer | | 50522 |
| 19 | Tool holster DTH-42 | | 107892 |
| 20 | Tool holster DTH90 | | 615 812 119 0 |
| **Ergonomic accessories** | | | |
| 21 | D53 - Linear & Folder arms | | see page 199 |
| 22 | TRA - Telescopic arms | | see page 205 |
| 23 | D57, D58 - Balancing arms | | see page 210 |





# Pneumatic fastening tools

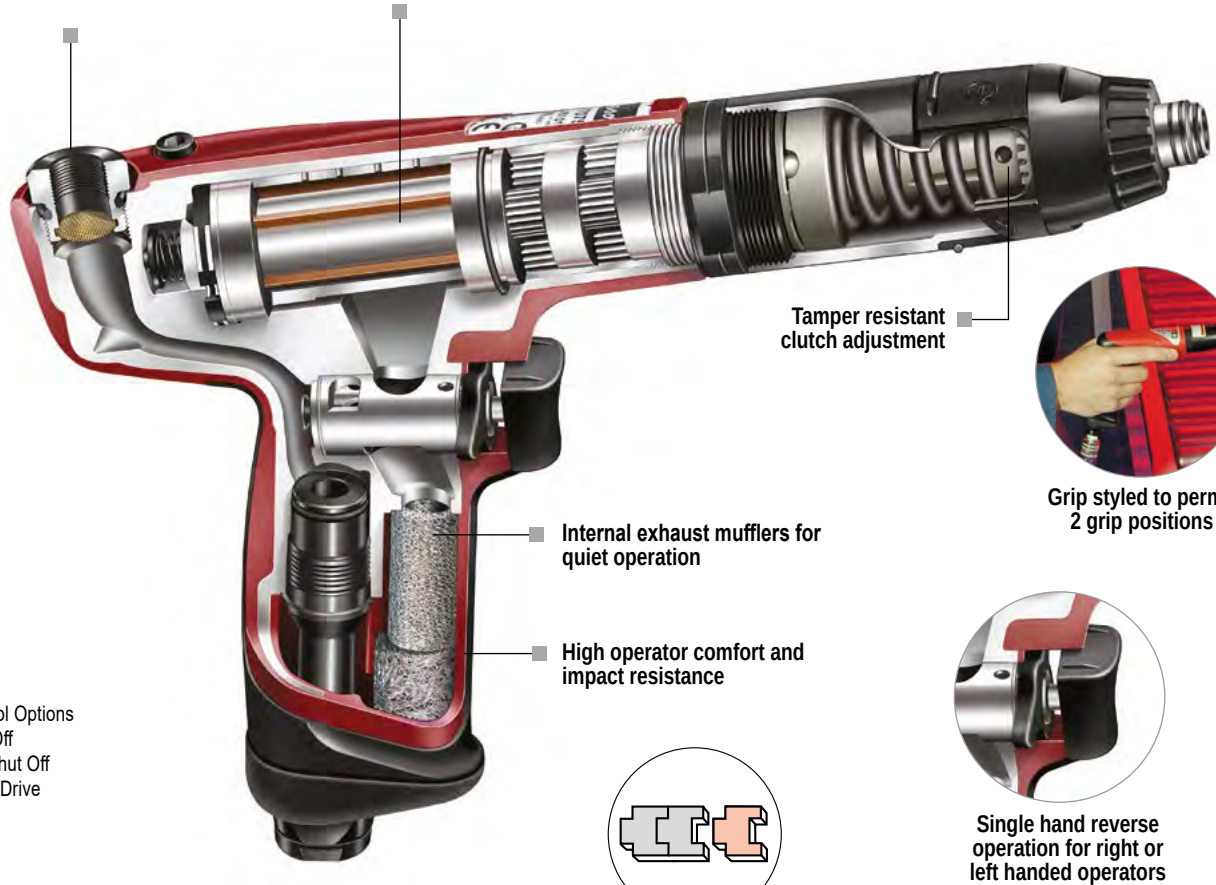
*Shut Off, Non Shut Off, Direct Drive, Automatic Reverse*




T shape grip for better balance to enhance operator comfort

Powerful, efficient, Dryline™ motor

**CLUTCH AND MOTOR PROLONGING TOOL LIFE**



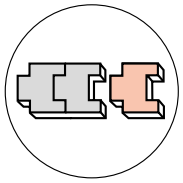



Grip styled to permit 2 grip positions



Single hand reverse operation for right or left handed operators

3 Control Options
- Shut Off
- Non Shut Off
- Direct Drive



Modularity

# Tool selection

## CRITERIA

- Type of Fastener/Component
- Joint integrity
- Torque Required
- Tool Orientation and Operator Reference
- Productivity
- Access

## TYPE OF FASTENER/COMPONENT

| FASTENER/COMPONENT | RECOMMENDED TOOL TYPE |
|---|---|
| Machine Screw/Nut | Shut Off/Impulse/Non Shut Off |
| Thread Rolling/Forming | Shut Off/HLT/Impulse/Direct Drive |
| Self Tapping | Non Shut Off/HLT/Direct Drive |
| Self Tapping in Plastic/ Thin Materials | Shut Off/HLT |
| Self Drilling | Non Shut Off/HLT/Direct Drive |
| Wood Screws | Non Shut Off/Direct Drive |

| FASTENER/COMPONENT | RECOMMENDED TOOL TYPE |
|---|---|
| Screws with Adhesive | HLT/Non Shut Off/Impulse |
| Self Lock Nuts | HLT/Non Shut Off/Impulse |
| Misaligned Holes | HLT |
| Variable Size Holes | HLT |
| Fragile Components | HLT/Low Voltage Screwdrivers |





# Tool selection

## FASTENER TORQUE VALUES

| MACHINE SCREWS | | | | | | THREAD FORMING/ ROLLING SCREWS |
|---|---|---|---|---|---|---|
| ISO | 4.6 | 5.8 | 8.8 | 10.9 | 12.9 | 8.8 |
| THREAD SIZE | RECOMMENDED TORQUE (NM) | | | | | RECOMMENDED TORQUE (NM) |
| M1.6 | 0.07 | 0.12 | 0.19 | – | – | – |
| M2 | 0.15 | 0.24 | 0.38 | – | – | 0.5 |
| M2.2 | 0.19 | 0.31 | 0.51 | – | – | – |
| M2.5 | 0.28 | 0.48 | 0.77 | – | – | – |
| M3 | 0.51 | 0.85 | 1.4 | 1.9 | 2.3 | 1.4 |
| M3.5 | 0.80 | 1.34 | 2.2 | 3.0 | 3.6 | – |
| M4 | 1.20 | 2.00 | 3.2 | 4.5 | 5.4 | 3.2 |
| M5 | 2.40 | 4.00 | 6.4 | 9.0 | 10.7 | 6.5 |
| M6 | 4.10 | 6.80 | 10.9 | 15.3 | 18.3 | 11 |
| M8 | 9.80 | 16.3 | 26.1 | 36.8 | 44.1 | 26 |
| M10 | 19.3 | 32.2 | 51.5 | 72 | 86.9 | 52 |
| M12 | 33.6 | 56.0 | 90 | 126 | 151 | 91 |
| M14 | 53.0 | 89.0 | 142 | 200 | 239 | |
| M16 | 82.0 | 136 | 218 | 307 | 368 | |
| M18 | 114 | 190 | 304 | 428 | 513 | |
| M20 | 160 | 266 | 426 | 598 | 718 | |
| M22 | 215 | 358 | 573 | 806 | 967 | |

| SELF TAPPING/DRILLING SCREWS | |
|---|---|
| THREAD SIZE | RECOMMENDED TORQUE (NM) |
| ST2.2 (B2) | 0.2 |
| ST2.9 (B4) | 1.0 |
| ST3.5 (B6) | 1.8 |
| ST4.2 (B8) | 2.9 |
| ST4.8 (B10) | 4.2 |
| ST5.5 (B12) | 6.7 |
| ST6.3 (B14) | 9.1 |

### CONVERSION FACTORS

Nm x 141.6 = oz in
Nm x 8.851 = in lb
Nm x 0.73756 = ft lb
Nm x 0.102 = kgf m/kpm
Nm x 10.2 = kgf cm

*Torque figures should be used as a guide only*
*Table assumes fasteners are new, lightly lubricated and of a standard finish*
*For lock nuts with a nylon insert, +10 %*
*Torque values are recommended values for a working pressure of 6,3 bar (90 PSIG)*

*For non metric threads please use the following data as a guide.*

### Recommended Maximum Torque Values – UNC Thread

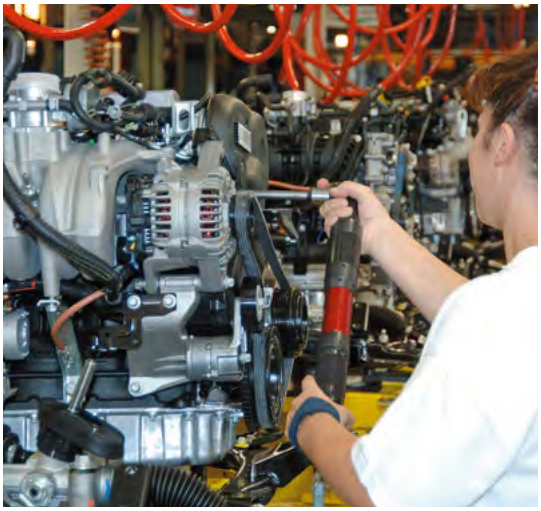
| THREAD SIZE | QUALITY P | | QUALITY S | | QUALITY T | |
|---|---|---|---|---|---|---|
| in. | Nm | ft.lb | Nm | ft.lb | Nm | ft.lb |
| 1/4 | 5.43 | 4 | 10.3 | 7.6 | 11 | 8.2 |
| 5/16 | 11.2 | 8.3 | 21.3 | 15.7 | 23 | 16.9 |
| 3/8 | 19.9 | 14.7 | 37.9 | 27.9 | 40 | 30.2 |
| 7/16 | 31.9 | 23.5 | 60.7 | 44.8 | 65 | 48.31 |
| 1/2 | 48.8 | 36 | 92.7 | 68.4 | 100 | 73.8 |
| 9/16 | 70.4 | 51.9 | 134 | 98.8 | 144 | 106 |
| 5/8 | 97.4 | 71.8 | 185 | 136.4 | 200 | 147.5 |
| 3/4 | 178 | 131.3 | 338 | 249.3 | 364 | 268.5 |
| 7/8 | 279 | 205.8 | 530 | 391 | 572 | 422 |
| 1 | 418 | 308.3 | 795 | 586 | 858 | 633 |
| 1 1/8 | 593 | 437.4 | 1126 | 830 | 1216 | 897 |
| 1 1/4 | 837 | 617.3 | 1591 | 1173 | 1717 | 1266 |
| 1 3/8 | 1096 | 808.4 | 2083 | 1536 | 2248 | 1658 |
| 1 1/2 | 1456 | 1074 | 2767 | 2041 | 2987 | 2203 |

### Recommended Maximum Torque Values – UNF Threads

| THREAD SIZE | QUALITY P | | QUALITY S | | QUALITY T | |
|---|---|---|---|---|---|---|
| in. | Nm | ft.lb | Nm | ft.lb | Nm | ft.lb |
| 1/4 | 6.3 | 4.6 | 11.9 | 8.8 | 12.9 | 9.5 |
| 5/16 | 12.5 | 9.2 | 23.8 | 17.5 | 25.7 | 18.9 |
| 3/8 | 22.7 | 16.7 | 43.2 | 31.9 | 46.6 | 34.4 |
| 7/16 | 35.9 | 26.5 | 68.2 | 50.3 | 73.6 | 54.3 |
| 1/2 | 55.4 | 40.9 | 105 | 77.4 | 114 | 84 |
| 9/16 | 79 | 58.3 | 150 | 111 | 162 | 119 |
| 5/8 | 111 | 81.9 | 210 | 155 | 227 | 167 |
| 3/4 | 195 | 144 | 370 | 273 | 399 | 294 |
| 7/8 | 309 | 228 | 587 | 433 | 634 | 468 |
| 1 | 459 | 339 | 873 | 644 | 942 | 695 |
| 1 1/8 | 667 | 492 | 1267 | 934 | 1368 | 1009 |
| 1 1/4 | 925 | 682 | 1757 | 1296 | 1896 | 1398 |
| 1 3/8 | 1252 | 923 | 2378 | 1754 | 2567 | 1893 |
| 1 1/2 | 1642 | 1211 | 3119 | 2300 | 3367 | 2482 |

**Quality P = approximately ISO 4.6 Quality S/T = approximately ISO 8.8 Quality S = ANSI Grade 5**





# Productivity and Ergonomics

## ACCESS



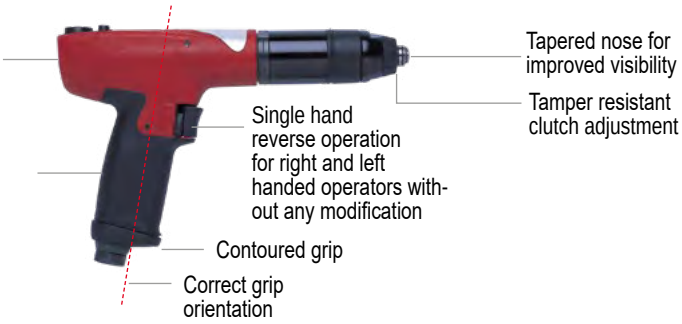
**90° Angle Heads**

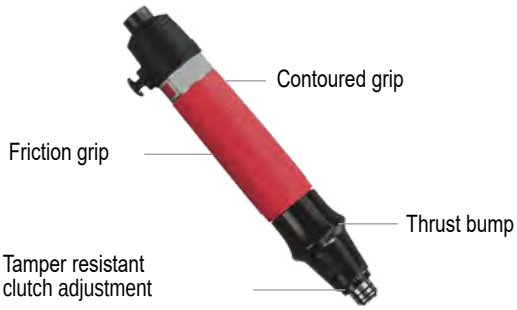


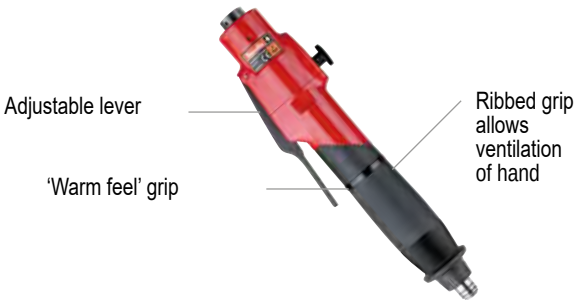
**Crowfoot**
**Open Ended Wrenches**

## ERGONOMIC BENEFITS

- Lightweight
- Short Length
- Light Start Load

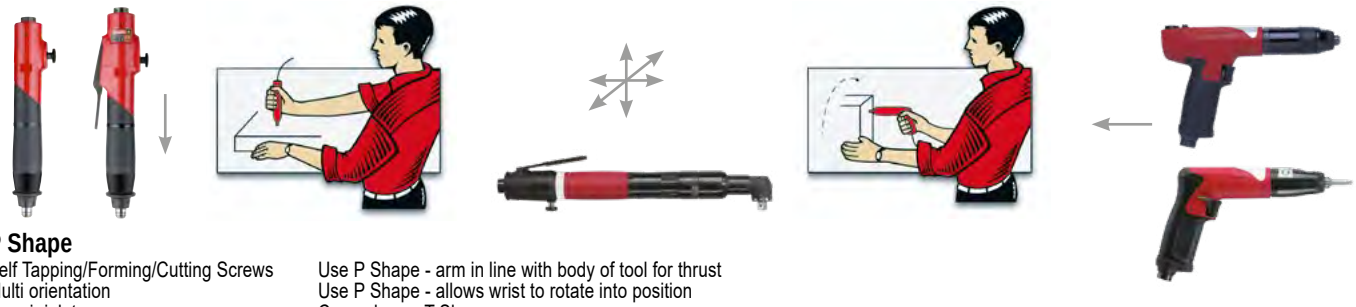



*For low vibration exposure and high productivity, select shut off tools where possible*

## TOOL ORIENTATION AND OPERATOR PREFERENCE



### P Shape

| | |
|---|---|
| Self Tapping/Forming/Cutting Screws | Use P Shape - arm in line with body of tool for thrust |
| Multi orientation | Use P Shape - allows wrist to rotate into position |
| Top air inlet | Can only use T Shape |
| Requires balanced tool | Use T Shape - especially with screwfeeder |

### Button Reverse versus Rotary Reverse

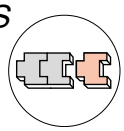
| | |
|---|---|
| Rapid Reverse Required | Use button reverse |
| Thread Chasing Cleaning | Use button reverse (auto reverse for blind holes) |
| Rivnuts/Threaded Fasteners | Use auto reverse tools |
| Long Periods in Reverse | Use rotary reverse |

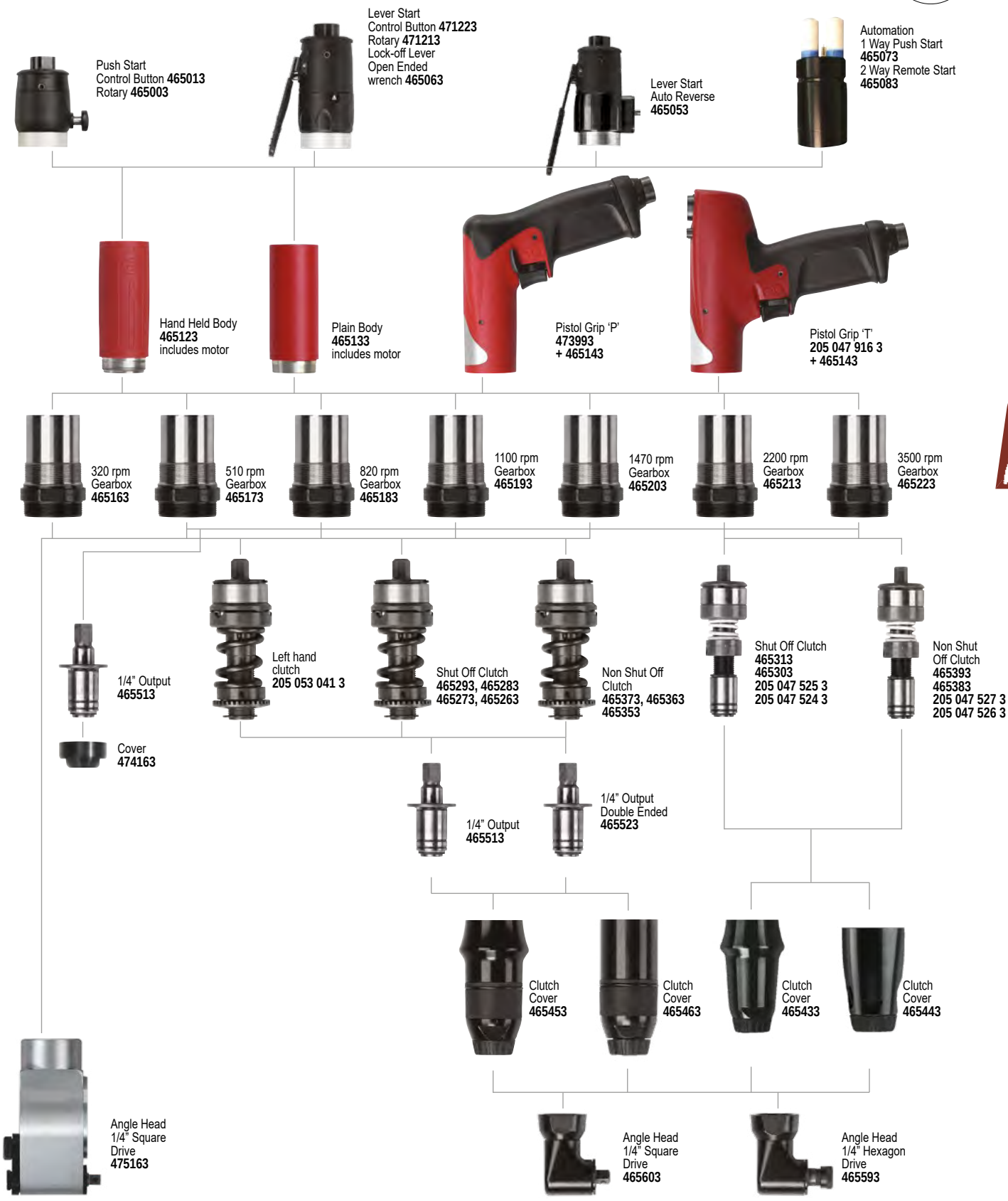
### Push Start versus Lever Start

| | |
|---|---|
| Fast Cycle Rate | Use push start |
| Single Hand Operation Required | Use push start |
| Need to Align/Position Components First | Use lever start or push + trigger start (SBP/SDP only) |

# Modularity

## SD SERIES

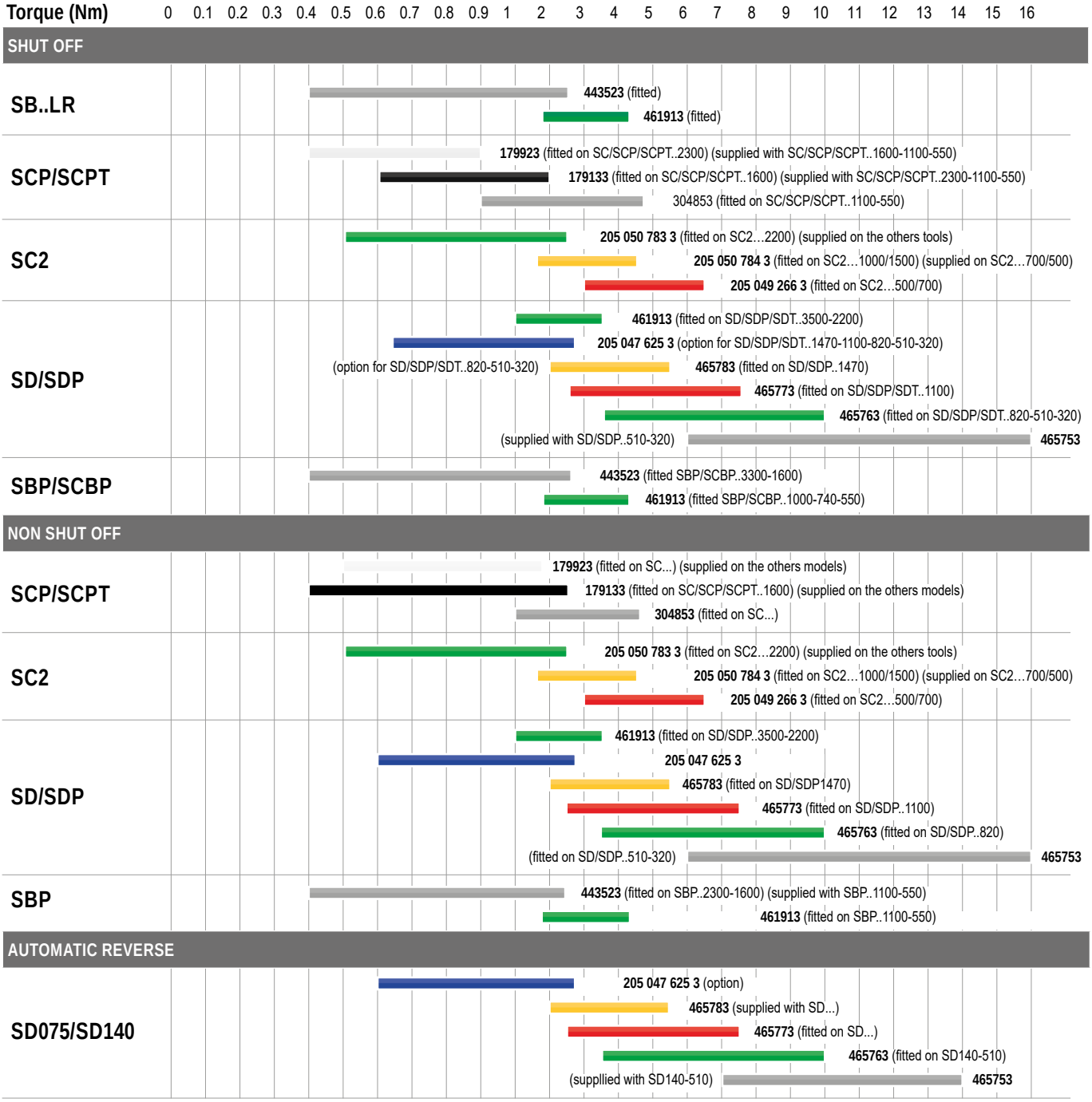




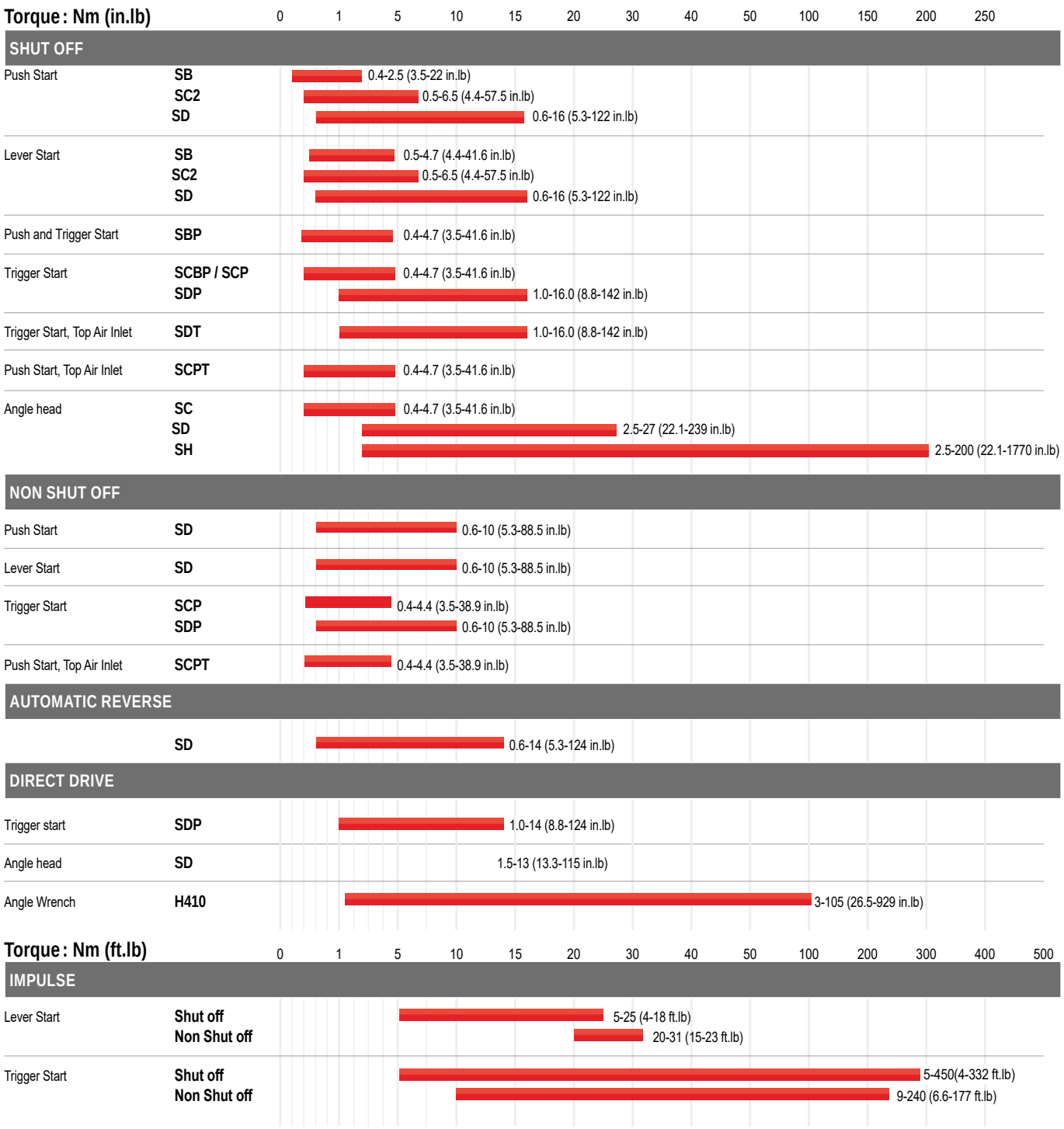

**Modularity, a concept for all Desoutter pneumatic screwdrivers range**

# Screwdriver Torque Ranges

Torque output of the range of shut off and non shut off screwdrivers is controlled by the type of spring in the clutch assembly.
The overall torque range, together with that of the factory fitted spring on a soft joint to ISO5393 are listed in the tables on the following pages. The chart below provides an indication of the torque ranges for the optional colour coded clutch springs together with their respective part numbers (some are included with certain tools) As a general rule, the tool should be fitted with a spring which ensures the torque required falls within 20 to 80 % of the operating range.
Please note that the torque range of specific speed tools may alter slightly from that shown below and for this reason the chart should be used as a guide only.



# Tool Types and Torque Ranges

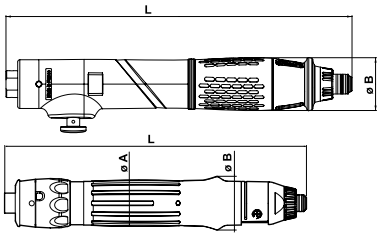


# Screwdrivers - Shut off - Push start

*0.09 to 16 Nm (0.8 to 142 in.lb) - 320 to 3500 rpm*




| Model | ø A mm (in.) | ø B mm (in.) | L mm (in.) |
|---|---|---|---|
| SB.. | 32 (1.26) | 36 (1.42) | 197 (7.76) |
| SC2 | | 37.4 (1.47) | 245 (9.65) |
| SD023..3500 | 38.7 (1.52) | 44 (1.73) | 227 (8) |
| SD035..2200 | 38.7 (1.52) | 44 (1.73) | 227 (8) |
| SD055..1470 | 38.7 (1.52) | 44 (1.73) | 253 (10) |
| SD075..1100 | 38.7 (1.52) | 44 (1.73) | 253 (10) |
| SD100..820 | 38.7 (1.52) | 44 (1.73) | 253 (10) |
| SD140..510 | 38.7 (1.52) | 44 (1.73) | 253 (10) |
| SD160..320 | 38.7 (1.52) | 44 (1.73) | 253 (10) |



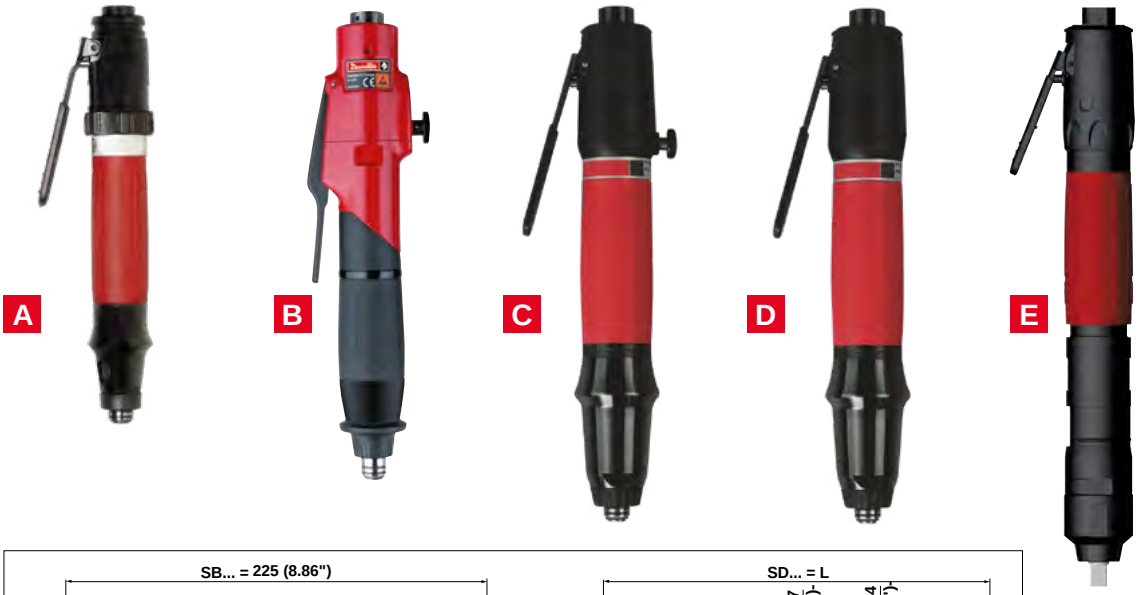

ACCESSORIES
**see page 150**

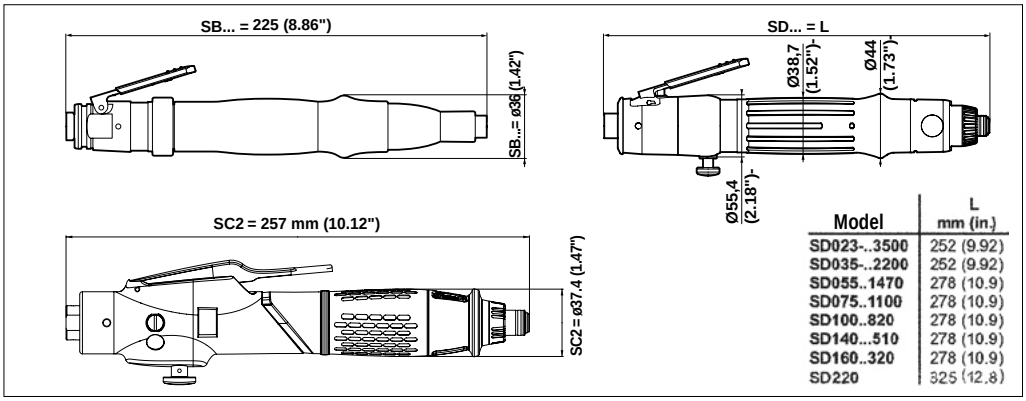
*Types A to B, 1/4" double ended and 5mm bit holder optional*

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT HEX | TORQUE RANGE | | FITTED SPRING | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT.Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | kg | lb. | l/s | cfm | in. | nm | in. |
| A | SB011-AB1600-S4Q | 1460644 | 1600 | 1/4 | 0.4-1.1 | 3.5-9.7 | 0.4-1.1 | 3.5-9.7 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| A | SB015-AB1100-S4Q | 1460634 | 1100 | 1/4 | 0.4-1.5 | 3.5-13 | 0.4-1.5 | 3.5-13 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| A | SB025-AB750-S4Q | 1460624 | 750 | 1/4 | 0.4-2.5 | 3.5-22 | 0.4-2.5 | 3.5-22 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| A | SB025-AB500-S4Q | 1460684 | 500 | 1/4 | 0.4-2.5 | 3.5-22 | 0.4-2.5 | 3.5-22 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| B | SB011-AR1600-S4Q | 1460524 | 1600 | 1/4 | 0.4-1.1 | 3.5-9.7 | 0.4-1.1 | 3.5-9.7 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| B | SB015-AR1100-S4Q | 1460514 | 1100 | 1/4 | 0.4-1.5 | 3.5-13 | 0.4-1.5 | 3.5-13 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| B | SB025-AR750-S4Q | 1460504 | 750 | 1/4 | 0.4-2.5 | 3.5-22 | 0.4-2.5 | 3.5-22 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| B | SB025-AR500-S4Q | 1460564 | 500 | 1/4 | 0.4-2.5 | 3.5-22 | 0.4-2.5 | 3.5-22 | 0.42 | 0.93 | 4.1 | 8.7 | 1/8 | 5 | 3/16 |
| C | SC2-025-A2200-S4Q | 205 147 269 4 | 2200 | 1/4 | 0.5-2.5 | 4.4-22 | 0.5-2.5 | 4.4-22.1 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| C | SC2-035-A1500-S4Q | 205 147 268 4 | 1450 | 1/4 | 0.5-3.5 | 4.4-30.8 | 1.7-3.5 | 15.0-30.9 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| C | SC2-045-A1000-S4Q | 205 147 267 4 | 1000 | 1/4 | 0.5-4.5 | 4.4-39.6 | 1.7-4.5 | 15.0-39.8 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| C | SC2-055-A700-S4Q | 205 147 266 4 | 700 | 1/4 | 0.5-5.5 | 4.4-48.4 | 3.0-5.5 | 26.5-48.6 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| C | SC2-065-A500-S4Q | 205 147 265 4 | 480 | 1/4 | 0.5-6.5 | 4.4-57.2 | 3.0-6.5 | 26.5-57.5 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| D | SD035-AB2200-S4Q | 1462824 | 2200 | 1/4 | 1.0-3.5 | 8.9-31 | 1.0-3.5 | 8.9-31 | 0.73 | 1.61 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD055-AB1470-S4Q | 1462814 | 1470 | 1/4 | 0.6-5.5 | 5.3-48.7 | 2.0-5.5 | 17.7-48.7 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD075-AB1100-S4Q | 1462804 | 1100 | 1/4 | 0.6-7.5 | 5.3-66.4 | 2.5-7.5 | 22.0-66.4 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD100-AB820-S4Q | 1462794 | 820 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD140-AB510-S4Q | 1462784 | 510 | 1/4 | 0.6-14 | 5.3-124 | 3.5-10 | 31.0-88.5 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD160-AB320-S4Q | 1462774 | 320 | 1/4 | 0.6-16 | 5.3-142 | 3.5-10 | 31.0-88.5 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| E | SD055-AR1470-S4Q | 1462744 | 1470 | 1/4 | 0.6-5.5 | 5.3-48.7 | 2.0-5.5 | 17.7-48.7 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| E | SD075-AR1100-S4Q | 1462734 | 1100 | 1/4 | 0.6-7.5 | 5.3-66.4 | 2.5-7.5 | 22.1-66.4 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| E | SD100-AR820-S4Q | 1462724 | 820 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| E | SD140-AR510-S4Q | 1462714 | 510 | 1/4 | 0.6-14 | 5.3-124 | 3.5-10 | 31.0-88.5 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| E | SD160-AR320-S4Q | 1462704 | 320 | 1/4 | 0.6-16 | 5.3-142 | 3.5-10 | 31.0-88.5 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |

# Screwdrivers - Shut off - Lever start

*0.4 to 16 Nm (3.5 to 142 in.lb) - 320 to 3500 rpm*




| Model | L mm (in.) |
|---|---|
| SD023-..3500 | 252 (9.92) |
| SD035-..2200 | 252 (9.92) |
| SD055..1470 | 278 (10.9) |
| SD075..1100 | 278 (10.9) |
| SD100..820 | 278 (10.9) |
| SD140...510 | 278 (10.9) |
| SD160..320 | 278 (10.9) |
| SD220 | 325 (12.8) |

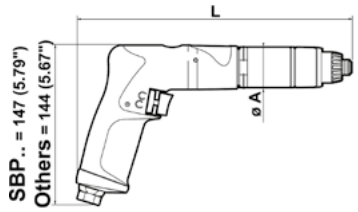
ACCESSORIES
see page 150

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT DRIVE | TORQUE RANGE | | FITTED SPRING | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT.Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | kg | lb. | l/s | cfm | in. | nm | in. |
| A | SB043-LR1050-S4Q | 205 147 507 4 | 1050 | 1/4 Hex | 0.4-4.3 | 3.5-38 | 1.9-4.3 | 16.7-37.8 | 0.61 | 1.34 | 7.3 | 15.5 | 1/8 | 6 | 1/4 |
| A | SB047-LR500-S4Q | 205 147 506 4 | 500 | 1/4 Hex | 0.4-4.7 | 3.5-41.6 | 1.9-4.7 | 16.7-41.4 | 0.61 | 1.34 | 7.3 | 15.5 | 1/8 | 6 | 1/4 |
| B | SC2-025-L2200-S4Q | 205 147 283 4 | 2200 | 1/4 Hex | 0.5-2.5 | 4.4-22 | 0.5-2.5 | 4.4-22.1 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| B | SC2-035-L1500-S4Q | 205 147 282 4 | 1450 | 1/4 Hex | 0.5-3.5 | 4.4-30.8 | 1.7-3.5 | 15.0-30.9 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| B | SC2-045-L1000-S4Q | 205 147 281 4 | 1000 | 1/4 Hex | 0.5-4.5 | 4.4-39.6 | 1.7-4.5 | 15.0-39.8 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| B | SC2-055-L700-S4Q | 205 147 280 4 | 700 | 1/4 Hex | 0.5-5.5 | 4.4-48.4 | 3.0-5.5 | 26.5-48.6 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| B | SC2-065-L500-S4Q | 205 147 279 4 | 480 | 1/4 Hex | 0.5-6.5 | 4.4-57.2 | 3.0-6.5 | 26.5-57.5 | 0.69 | 1.52 | 7.0 | 14.8 | 1/4 | 6 | 1/4 |
| C | SD055-LB1470-S4Q | 1463074 | 1470 | 1/4 Hex | 0.6-5.5 | 5.3-48.7 | 2.0-5.5 | 17.7-48.7 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD075-LB1100-S4Q | 1463064 | 1100 | 1/4 Hex | 0.6-7.5 | 5.3-66.4 | 2.5-7.5 | 22.1-66.4 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD100-LB820-S4Q | 1463054 | 820 | 1/4 Hex | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD140-LB510-S4Q | 1463044 | 510 | 1/4 Hex | 0.6-14 | 5.3-124 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD160-LB320-S4Q | 1463034 | 320 | 1/4 Hex | 0.6-16 | 5.3-142 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD023-LR3500-S4Q | 1463024 | 3500 | 1/4 Hex | 1.0-2.3 | 8.9-20.4 | 1.0-2.3 | 8.9-20.4 | 0.76 | 1.67 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD055-LR1470-S4Q | 1463004 | 1470 | 1/4 Hex | 0.6-5.5 | 5.3-48.7 | 2.0-5.5 | 17.7-48.7 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD075-LR1100-S4Q | 1462994 | 1100 | 1/4 Hex | 0.6-7.5 | 5.3-66.4 | 2.5-7.5 | 22.1-66.4 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD100-LR820-S4Q | 1462984 | 820 | 1/4 Hex | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD140-LR510-S4Q | 1462974 | 510 | 1/4 Hex | 0.6-14 | 5.3-124 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| D | SD160-LR320-S4Q | 1462964 | 320 | 1/4 Hex | 0.6-16 | 5.3-142 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| E | SD220-LR320-S4Q | 205147937 4 | 320 | 1/4 Hex | 9-16 | 27-142 | 9-16 | 27-142 | 1.4 | 3.1 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| E | SD220-LR320-S10S | 205147979 4 | 320 | 3/8 Sq | 9-22 | 27-198 | 9-19 | 27-168 | 1.4 | 3.1 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |

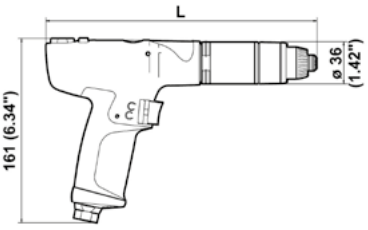
# Screwdrivers - Shut off - Pistol grip

*0.4 to 16 Nm (3.5 to 142 in.lb) - 180 to 3500 rpm*




| Model | ØA mm (in.) | L mm (in.) |
|---|---|---|
| SBP.. | 31 (1.22) | 182 (7.17) |
| SCBP.. | 31 (1.22) | 182 (7.17) |
| SCP... | 34 (1.34) | 228 (8.97) |
| SCPT... | 34 (1.34) | 230 (9.06) |
| SDP023..3400 | 36 (1.42) | 194 (7.64) |
| SDP035..2100 | 36 (1.42) | 194 (7.64) |
| SDP055..1400 | 36 (1.42) | 220 (8.66) |
| SDP075..1050 | 36 (1.42) | 220 (8.66) |
| SDP100..780 | 36 (1.42) | 220 (8.66) |
| SDP140..490 | 36 (1.42) | 220 (8.66) |
| SDP160..300 | 36 (1.42) | 220 (8.66) |
| SDP045..180 | 36 (1.42) | 220 (8.66) |




| Model | L mm (in.) |
|---|---|
| SDT035..1100 | 212 (8.35) |
| SDT035..2200 | 212 (8.35) |
| SDT055..1470 | 238 (9.37) |
| SDT075..1100 | 238 (9.37) |
| SDT100..800 | 238 (9.37) |
| SDT140..510 | 238 (9.37) |
| SDT160..320 | 238 (9.37) |

ACCESSORIES
**see page 150**

**Types D and E, Top air inlet**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT HEX | TORQUE RANGE | | FITTED SPRING | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | kg | lb. | l/s | cfm | in. | mm | in. |
| **PUSH AND TRIGGER START** | | | | | | | | | | | | | | | |
| A | SBP021-T2300-S4Q | 1462144 | 2300 | 1/4 | 0.4-2.1 | 3.5-18.6 | 0.4-2.1 | 3.5-18.6 | 0.82 | 1.81 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| A | SBP021-T1600-S4Q | 1462154 | 1600 | 1/4 | 0.4-2.1 | 3.5-18.6 | 0.4-2.1 | 3.5-18.6 | 0.82 | 1.81 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| A | SBP043-T1100-S4Q | 1462164 | 1100 | 1/4 | 0.4-4.3 | 3.5-38 | 1.8-4.3 | 15.9-38.0 | 0.82 | 1.81 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| A | SBP047-T550-S4Q | 1462174 | 550 | 1/4 | 0.4-4.7 | 3.5-41.6 | 1.8-4.7 | 15.9-41.5 | 0.82 | 1.81 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| **TRIGGER START** | | | | | | | | | | | | | | | |
| A | SCBP043-T1100-S4Q | 1466354 | 1100 | 1/4 | 0.4-4.3 | 3.5-38 | 1.8-4.3 | 15.9-38 | 0.82 | 1.81 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| A | SCBP044-T740-S4Q | 1466344 | 740 | 1/4 | 0.4-4.4 | 3.5-39 | 1.8-4.4 | 15.9-39 | 0.82 | 1.81 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| A | SCBP047-T550-S4Q | 1466334 | 550 | 1/4 | 0.4-4.7 | 3.5-41.6 | 1.8-4.7 | 15.9-41.6 | 0.82 | 1.81 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| B | SCP021-T1600-S4Q | 1456744 | 1600 | 1/4 | 0.4-2.1 | 3.5-18.6 | 0.6-2.1 | 5.3-18.6 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| B | SCP043-T1100-S4Q | 1456754 | 1100 | 1/4 | 0.4-4.3 | 3.5-38 | 0.9-4.3 | 7.9-38 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| B | SCP047-T550-S4Q | 1456764 | 550 | 1/4 | 0.4-4.7 | 3.5-41.6 | 0.9-4.7 | 7.9-41.6 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| C | SDP035-T2100-S4Q | 1465564 | 2100 | 1/4 | 1.0-3.5 | 8.9-31 | 1.0-3.5 | 8.9-31 | 0.9 | 1.98 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| C | SDP055-T1400-S4Q | 1465554 | 1400 | 1/4 | 1.0-5.5 | 8.9-48.7 | 1.0-5.5 | 8.9-48.7 | 1.0 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| C | SDP075-T1050-S4Q | 1465544 | 1050 | 1/4 | 0.6-7.5 | 5.3-66.4 | 2.5-7.5 | 22.1-66.4 | 1.0 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| C | SDP100-T780-S4Q | 1465534 | 780 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 1.0 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| C | SDP140-T490-S4Q | 1465524 | 490 | 1/4 | 0.6-14 | 5.3-124 | 3.5-10 | 31.0-88.5 | 1.0 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| C | SDP160-T300-S4Q | 1465514 | 300 | 1/4 | 0.6-16 | 5.3-142 | 3.5-10 | 31.0-88.5 | 1.0 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| C | SDP045-T180-S4Q | 205 146 706 4 | 180 | 1/4 | 1.5-4.5 | 13.3-39.8 | 1.5-4.5 | 13.3-39.8 | 1.0 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| D | SDT035-T1100-S4Q | 205 147 623 4 | 1100 | 1/4 | 1.0-3.5 | 8.9-31 | 1.0-3.5 | 8.9-31 | 1.0 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| D | SDT035-T2200-S4Q | 1465774 | 2200 | 1/4 | 1.0-3.5 | 8.9-31 | 1.0-3.5 | 8.9-31 | 1.1 | 2.42 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| D | SDT055-T1470-S4Q | 1465764 | 1470 | 1/4 | 2.0-5.5 | 17.7-48.7 | 2.0-5.5 | 17.7-48.7 | 1.1 | 2.42 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| D | SDT075-T1100-S4Q | 1465754 | 1100 | 1/4 | 2.5-7.5 | 22.1-66.4 | 2.5-7.5 | 22.1-66.4 | 1.1 | 2.42 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| D | SDT100-T820-S4Q | 1465744 | 820 | 1/4 | 3.5-10 | 31.0-88.5 | 3.5-10 | 31.0-88.5 | 1.1 | 2.42 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| D | SDT140-T510-S4Q | 1465734 | 510 | 1/4 | 3.5-14 | 31.0-124 | 3.5-10 | 31.0-88.5 | 1.1 | 2.42 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| D | SDT160-T320-S4Q | 1465724 | 320 | 1/4 | 3.5-16 | 31.0-142 | 3.5-10 | 31.0-88.5 | 1.1 | 2.42 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| **PUSH START, TOP AIR INLET** | | | | | | | | | | | | | | | |
| E | SCPT021-A2300-S4Q | 1458974 | 2300 | 1/4 | 0.4-2.1 | 3.5-18.6 | 0.4-0.9 | 3.5-7.9 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| E | SCPT043-A1100-S4Q | 1458894 | 1100 | 1/4 | 0.4-4.3 | 3.5-38 | 0.9-4.3 | 7.9-38.0 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| E | SCPT047-A550-S4Q | 1458854 | 550 | 1/4 | 0.4-4.7 | 3.5-41.6 | 0.9-4.7 | 7.9-41.6 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |

# SH range - Angle head - Shut off

*2.5 to 200 Nm (22.1 to 1770 in.lb) - 80 to 1100 rpm*




## PRODUCTIVITY
- High speed with joint stiffness capability

## QUALITY
- High accuracy with immediate shut off
- Improve your process quality with FAS3000

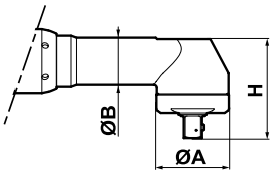
## ERGONOMY
- Low reaction force on hard joint

## DURABILITY
- Low frequency maintenance
- Quick service time



**Option:**
Reaction bar for SH850/1200/2000






| MODEL | ANGLE HEAD DIMENSIONS | | | | | |
|---|---|---|---|---|---|---|
| | ØA | | ØB | | H | |
| | mm | in. | mm | in. | mm | in. |
| **SH70** | 20 | 0.79 | 20 | 0.79 | 36.6 | 1.44 |
| **SH150** | 22 | 0.87 | 21 | 0.83 | 35.2 | 1.38 |
| **SH200** | 27 | 1.06 | 27 | 1.06 | 45.5 | 1.79 |
| **SH280** | 27 | 1.06 | 24 | 0.94 | 41.5 | 1.63 |
| **SH420** | 40 | 1.57 | 29 | 1.10 | 56.5 | 2.20 |
| **SH500** | 40 | 1.57 | 29 | 1.10 | 56.5 | 2.20 |
| **SH700** | 40 | 1.57 | 29 | 1.10 | 56.5 | 2.20 |
| **SH850** | 51 | 2.00 | 33 | 1.30 | 69.5 | 2.70 |
| **SH1200** | 51 | 2.00 | 33 | 1.30 | 69.5 | 2.70 |
| **SH2000** | 51 | 2.00 | 33 | 1.30 | 69.5 | 2.70 |

ACCESSORIES
**see page 152**

| PIC REF | MODEL | PART NUMBER | BOLT SIZE | FREE SPEED | SQUARE DRIVE | TORQUE RANGE | | LENGTH | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | rpm | in | Nm | in.lb | mm | in. | kg | lb. | l/s | cfm | in. | mm | in. |
| A | **SH70-LR1100-S90-A4S** | **205 147 628 4** | M5 | 1100 | 1/4 | 2.5-7 | 22.1-61.9 | 334 | 13.1 | 1.3 | 2.9 | 8 | 17 | 1/4 | 8 | 5/16 |
| B | **SH150-LR580-S90-A10S** | **205 147 629 4** | M6 | 560 | 3/8 | 7-15 | 61.9-44.2 | 349 | 13.7 | 1.4 | 3.1 | 10 | 21 | 1/4 | 10 | 3/8 |
| B | **SH200-LR550-S90-A10S** | **205 147 630 4** | M6 | 530 | 3/8 | 10-19 | 88.5-168 | 355 | 14.0 | 1.4 | 3.1 | 10 | 21 | 1/4 | 10 | 3/8 |
| B | **SH280-LR350-S90-A10S** | **205 147 631 4** | M8 | 340 | 3/8 | 14-28 | 124-248 | 350 | 13.8 | 1.4 | 3.1 | 10 | 21 | 1/4 | 10 | 3/8 |
| B | **SH280-LR80-S90-A10S** | **205 147 632 4** | M8 | 80 | 3/8 | 14-28 | 124-248 | 350 | 13.8 | 1.4 | 3.1 | 10 | 21 | 1/4 | 10 | 3/8 |
| C | **SH420-LR400-S90-A10S** | **205 147 800 4** | M10 | 400 | 3/8 | 20-42 | 177-372 | 436 | 17.2 | 2.0 | 4.4 | 16 | 34 | 1/4 | 10 | 3/8 |
| C | **SH500-LR330-S90-A13S** | **205 147 473 4** | M10 | 330 | 1/2 | 25-50 | 221-442 | 453 | 17.8 | 2.2 | 4.8 | 16 | 34 | 1/4 | 10 | 3/8 |
| D | **SH700-LR225-S90-A13S** | **205 147 474 4** | M10-M12 | 225 | 1/2 | 34-70 | 301-619 | 487 | 19.2 | 2.4 | 5.3 | 16 | 34 | 1/4 | 10 | 3/8 |
| D | **SH850-LR190-S90-A13S** | **205 147 475 4** | M12 | 190 | 1/2 | 40-85 | 354-752 | 530 | 20.8 | 2.8 | 6.1 | 16 | 34 | 1/4 | 10 | 3/8 |
| E | **SH1200-LR215-S90-A13S** | **205 147 476 4** | M12-M14 | 215 | 1/2 | 70-120 | 354-1062 | 590 | 23.2 | 3.5 | 7.6 | 28 | 59 | 1/2 | 13 | 1/2 |
| E | **SH2000-LR100-S90-A13S** | **205 147 801 4** | M12-M14 | 100 | 1/2 | 115-200 | 1018-1770 | 608 | 23.9 | 4.4 | 9.7 | 28 | 59 | 1/2 | 13 | 1/2 |

# Angle Head - Shut off

*0.4 to 27 Nm (3.5 to 239 in.lb) - 170 to 2200 rpm*



A



B



C

ACCESSORIES
**see page 152**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT DRIVE | TORQUE RANGE | | FITTED SPRING | | LENGTH | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | mm | in. | kg | lb. | l/s | cfm | in. | mm | in. |
| **TWO WAY** | | | | | | | | | | | | | | | | | |
| A | SC043-L950-S90A4S | 1459134 | 950 | 1/4 sq | 0.4-4.3 | 3.5-38 | 0.9-4.3 | 7.9-38 | 275 | 10.8 | 0.84 | 1.85 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| A | SC047-L500-S90A4S | 1459124 | 500 | 1/4 sq | 0.4-4.7 | 3.5-41.5 | 0.9-4.7 | 7.9-41.5 | 275 | 10.8 | 0.84 | 1.85 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| B | SC043-L950-S90A4H | 1459054 | 950 | 1/4 hex | 0.4-4.3 | 3.5-38 | 0.9-4.3 | 7.9-38 | 275 | 10.8 | 1.12 | 2.47 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| B | SC047-L500-S90A4H | 1459044 | 500 | 1/4 hex | 0.4-4.7 | 3.5-41.5 | 0.9-4.7 | 7.9-41.5 | 275 | 10.8 | 1.12 | 2.47 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| C | SD072-LB1080-S90-A10S | 1463504 | 1080 | 3/8 sq | 2.5-7.2 | 22-63.7 | 2.5-7.2 | 22-63.7 | 353 | 13.9 | 1.41 | 3.11 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD095-LB800-S90-A10S | 1463494 | 800 | 3/8 sq | 3-9.5 | 26.6-84.1 | 3-9.5 | 26.6-84.1 | 353 | 13.9 | 1.41 | 3.11 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD130-LB600-S90-A10S | 1463484 | 600 | 3/8 sq | 4.5-12 | 39.8-106 | 4.5-12 | 39.8-106 | 353 | 13.9 | 1.41 | 3.11 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD209-LB370-S90-A10S | 1463474 | 370 | 3/8 sq | 11-19 | 97.3-168 | 6-19 | 53.1-168 | 376 | 14.8 | 1.50 | 3.31 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD300-LB250-S90-A10S | 1463464 | 250 | 3/8 sq | 11-27 | 97.3-239 | 11-27 | 97.3-239 | 376 | 14.8 | 1.50 | 3.31 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD072-LR1080-S90-A10S | 1463554 | 1080 | 3/8 sq | 2.5-7.2 | 22-63.7 | 2.5-7.2 | 22-63.7 | 376 | 14.8 | 1.41 | 3.11 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD095-LR800-S90-A10S | 1463544 | 800 | 3/8 sq | 3-9.5 | 26.6-84.1 | 3-9.5 | 26.6-84.1 | 376 | 14.8 | 1.41 | 3.11 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD130-LR600-S90-A10S | 1463534 | 600 | 3/8 sq | 4.5-12 | 39.8-106 | 4.5-12 | 39.8-106 | 376 | 14.8 | 1.41 | 3.11 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD209-LR370-S90-A10S | 1463524 | 370 | 3/8 sq | 11-19 | 97.3-168 | 6-19 | 53.1-168 | 376 | 14.8 | 1.41 | 3.11 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD300-LR250-S90-A10S | 1463514 | 250 | 3/8 sq | 11-27 | 97.3-239 | 11-27 | 97.3-239 | 376 | 14.8 | 1.50 | 3.31 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD300-LR180-S90-A10S | 205 146 704 4 | 180 | 3/8 sq | 11-27 | 97.3-239 | 11-27 | 97.3-239 | 375 | 14.8 | 1.50 | 3.30 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |

# Screwdrivers - Non Shut off - Push and Lever start

*0.6 to 10 Nm (5.3 to 88.5 in.lb) - 510 to 3500 rpm*



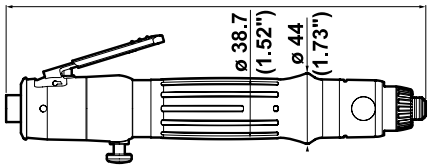
A



B



C




| Model | L mm (in.) |
|---|---|
| SD023..3500 | 252 (9.92) |
| SD035..2200 | 252 (9.92) |
| SD055..1470 | 278 (10.9) |
| SD075..1100 | 278 (10.9) |
| SD100..820 | 278 (10.9) |
| SD100..510 | 278 (10.9) |

ACCESSORIES
**see page 150**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT HEX | TORQUE RANGE | | FITTED SPRING | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT.Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | kg | lb. | l/s | cfm | in. | mm | in. |
| **PUSH START** | | | | | | | | | | | | | | | |
| A | SD035-AB2200-R4Q | 1462944 | 2200 | 1/4 | 1.0-3.5 | 8.9-31.0 | 1.0-3.5 | 8.9-31.0 | 0.73 | 1.61 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| A | SD055-AB1470-R4Q | 1462934 | 1470 | 1/4 | 0.6-5.5 | 5.3-48.7 | 2.0-5.5 | 17.7-48.7 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| A | SD075-AB1100-R4Q | 1462924 | 1100 | 1/4 | 0.6-7.5 | 5.3-66.4 | 2.5-7.5 | 22.1-66.4 | 0.89 | 1.96 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| **LEVER START** | | | | | | | | | | | | | | | |
| B | SD055-LB1470-R4Q | 1463194 | 1470 | 1/4 | 0.6-5.5 | 5.3-48.7 | 2.0-5.5 | 17.7-48.7 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| B | SD075-LB1100-R4Q | 1463184 | 1100 | 1/4 | 0.6-7.5 | 5.3-66.4 | 2.5-7.5 | 22.1-66.4 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| B | SD100-LB820-R4Q | 1463174 | 820 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| B | SD100-LB510-R4Q | 1463164 | 510 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| C | SD023-LR3500-R4Q | 1463154 | 3500 | 1/4 | 1.0-2.3 | 8.9-20.3 | 1.0-2.3 | 8.9-20.3 | 0.76 | 1.67 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |

# Screwdrivers - Non Shut Off - Pistol Grip

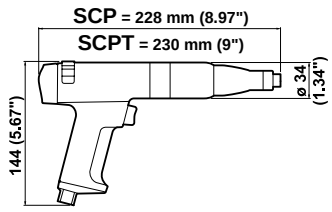
*0.4 to 10 Nm (3.5 to 88.5 in.lb) - 300 to 3500 rpm*

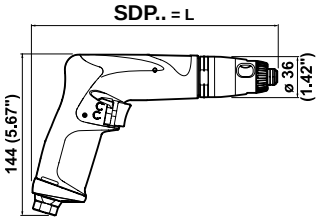









| Model | L mm (in.) |
|---|---|
| SDP023-T3400 | 222 (8.74) |
| SDP035-T2100 | 222 (8.74) |
| SDP055-T1400 | 248 (9.76) |
| SDP075-T1050 | 248 (9.76) |
| SDP100-T780 | 248 (9.76) |
| SDP100-T490 | 248 (9.76) |
| SDP100-T300 | 248 (9.76) |

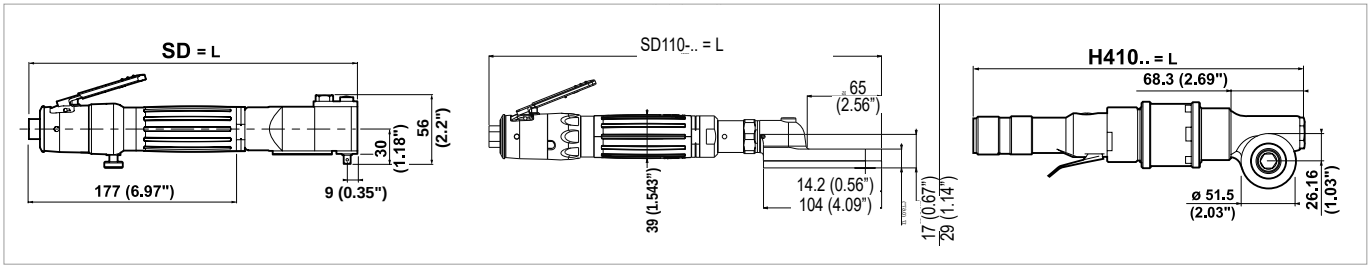
ACCESSORIES
**see page 150**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT HEX | TORQUE RANGE | | FITTED SPRING | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT.Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | kg | lb. | l/s | cfm | in. | mm | in. |
| **TRIGGER START** | | | | | | | | | | | | | | | |
| A | SCP044-T1100-R4Q | 1456794 | 1100 | 1/4 | 0.4-4.4 | 3.5-38.9 | 1.3-4.4 | 11.5-38.9 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| A | SCP044-T550-R4Q | 1456804 | 550 | 1/4 | 0.4-4.4 | 3.5-38.9 | 1.0-4.4 | 8.9-38.9 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |
| B | SDP035-T2100-R4Q | 1465634 | 2100 | 1/4 | 1.0-3.5 | 8.8-31.0 | 1.0-3.5 | 8.9-31.0 | 0.90 | 1.98 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| B | SDP055-T1400-R4Q | 1465624 | 1400 | 1/4 | 1.0-5.5 | 8.8-48.6 | 1.0-5.5 | 8.9-48.6 | 1.00 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| B | SDP075-T1050-R4Q | 1465614 | 1050 | 1/4 | 0.6-7.5 | 5.3-66.3 | 2.5-7.5 | 22.1-66.3 | 1.00 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| B | SDP100-T780-R4Q | 1465604 | 780 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 1.00 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| B | SDP100-T490-R4Q | 1465594 | 490 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 1.00 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| B | SDP100-T300-R4Q | 1465584 | 300 | 1/4 | 0.6-10 | 5.3-88.5 | 3.5-10 | 31.0-88.5 | 1.00 | 2.20 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| **PUSH START, TOP AIR INLET** | | | | | | | | | | | | | | | |
| C | SCPT022-A1600-R4Q | 1458954 | 1600 | 1/4 | 0.5-2.2 | 4.4-19.4 | 0.8-2.2 | 7.1-19.4 | 0.86 | 1.89 | 6.5 | 13.8 | 1/8 | 6 | 1/4 |

# Angle Head - Direct drive

*1.5 to 105 Nm (13.3 to 929 in.lb) - 60 to 800 rpm*




## SD - Stall Torque (Nm) Setting using Regulator Part No. 81223

ACCESSORIES
see page 152

| MODEL | REGULATOR POSITION | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | OPEN |
| **INLET PRESSURE - 6.3 BAR** | | | | | | | |
| SD130-LB500-D90-A4S | 3.2 | 3.5 | 5.3 | 7.0 | 10.0 | 12.5 | 13.0 |
| SD096-LB800-D90-A4S | 2.6 | 2.8 | 4.0 | 5.5 | 7.3 | 9.0 | 9.6 |
| **INLET PRESSURE - 4.0 BAR** | | | | | | | |
| SD130-LB500-D90-A4S | 2.0 | 2.7 | 3.0 | 4.2 | 6.0 | 8.2 | 9.0 |
| SD096-LB800-D90-A4S | 1.5 | 1.7 | 2.5 | 3.0 | 4.5 | 5.5 | 6.0 |

## H410 - Stall Torque (Nm) Setting using a Typical Regulator

| MODEL | REGULATOR POSITION | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 10 % | 20 % | 30 % | 40 % | 50 % | 60 % | 70 % | 80 % | 90 % | OPEN |
| **INLET PRESSURE - 6.3 BAR** | | | | | | | | | | |
| H410-N-500 | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 |
| H410-N-350 | 5 | 9 | 14 | 18 | 23 | 27 | 32 | 36 | 41 | 45 |
| H410-N-150 | 8 | 16 | 24 | 32 | 40 | 48 | 56 | 64 | 72 | 80 |
| H410-N-90 | 16 | 32 | 48 | 63 | 79 | 95 | - | - | - | - |
| H410-N-60 | 20 | 40 | 60 | 80 | - | - | - | - | - | - |
| **INLET PRESSURE - 4.0 BAR** | | | | | | | | | | |
| H410-N-500 | 2 | 4 | 6 | 8 | 9 | 11 | 13 | 15 | 17 | 19 |
| H410-N-350 | 3 | 6 | 9 | 11 | 14 | 17 | 20 | 23 | 26 | 28 |
| H410-N-150 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 |
| H410-N-90 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| H410-N-60 | 4 | 30 | 45 | 60 | 75 | 90 | 105 | - | - | - |

Maximum stall torque 105Nm
Performance will differ from the figures above depending on the regulator used
Data obtained from a lubricated air line
Torque figures are to be used as a guide only
** Must never be used without regulator with a pressure higher than 4 bars*
*** Must never be used without regulator with a pressure higher than 2 bars*

**H410-N** – When using direct drive screwdrivers, it is strongly advised to equip the machines with a re-action bar to compensate against potentially high torque reaction and avoid operator injury

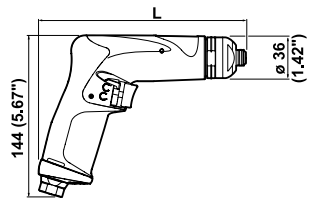
| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT DRIVE | TORQUE RANGE | | LENGTH L | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | mm | in. | kg | lb. | l/s | cfm | in. | mm | in. |
| A | SD130-LB500-D90-A4S | 1465974 | 500 | 1/4 sq | 2-13 | 17.7-115 | 326 | 12.8 | 1.08 | 2.38 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| B | SD110-LX450 | 205 148 131 4 | 450 | 0.445 hex | 1.5-11.8 | 13.3-104 | 346 | 13.6 | 1.34 | 2.95 | 8.5 | 18.0 | 1/4 | 10 | 1/4 |
| C | H410-N-500 | 1302374 | 500 | 0.525 hex | 3-30 | 26.6-265 | 319 | 12.6 | 1.70 | 3.74 | 17.9 | 37.9 | 3/8 | 12 | 1/2 |
| C | H410-N-350 | 1302454 | 350 | 0.525 hex | 4.5-45 | 39.8-398 | 319 | 12.6 | 1.70 | 3.74 | 17.9 | 37.9 | 3/8 | 12 | 1/2 |
| C | H410-N-150 | 1302534 | 150 | 0.525 hex | 8-80 | 70.8-708 | 358 | 14.1 | 2.00 | 4.41 | 17.9 | 37.9 | 3/8 | 12 | 1/2 |
| C | H410-N-90* | 1302614 | 90 | 0.525 hex | 10-105 | 88.5-929 | 358 | 14.1 | 2.00 | 4.41 | 13.2 | 27.9 | 3/8 | 12 | 1/2 |
| C | H410-N-60** | 1302794 | 60 | 0.525 hex | 10-105 | 88.5-929 | 358 | 14.1 | 2.00 | 4.41 | 13.2 | 27.9 | 3/8 | 12 | 1/2 |

# Screwdrivers - Direct drive Pistol grip

*1 to 14 Nm (8.9 to 124 in.lb) - 490 to 3400 rpm*



A




| Model | L mm (in.) |
|---|---|
| SDP023-T3400 | 182 (7.16) |
| SDP035-T2100 | 182 (7.16) |
| SDP055-T1400 | 182 (7.16) |
| SDP075-T1050 | 182 (7.16) |
| SDP100-T780 | 182 (7.16) |
| SDP140-T490 | 182 (7.16) |

ACCESSORIES
**see page 150**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT HEX | TORQUE RANGE | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | kg | lb. | l/s | cfm | in. | mm | in. |
| A | SDP035-T2100-D4Q | 1465704 | 2100 | 1/4 | 1.0-3.5 | 8.9-31.0 | 0.8 | 1.76 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| A | SDP055-T1400-D4Q | 1465694 | 1400 | 1/4 | 1.0-5.5 | 8.9-48.6 | 0.8 | 1.76 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| A | SDP075-T1050-D4Q | 1465684 | 1050 | 1/4 | 3.5-7.5 | 31-66.3 | 0.8 | 1.76 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| A | SDP100-T780-D4Q | 1465674 | 780 | 1/4 | 3.5-10 | 31-88.5 | 0.8 | 1.76 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |
| A | SDP140-T490-D4Q | 1465664 | 490 | 1/4 | 3.5-14 | 31-124 | 0.8 | 1.76 | 9.0 | 19.1 | 1/4 | 10 | 3/8 |

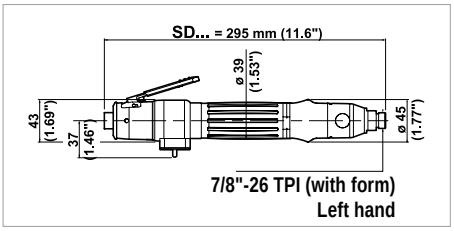
# Screwdrivers - Left hand tightening - Shut off Push start Automatic reverse

*0.6 to 16 Nm (5.3 to 142 in.lb) - 320 to 1100 rpm*



A

Tool shown with optional clutch HSG and bit adaptor

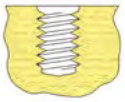



**APPLICATIONS**

**Placement of Threaded Fasteners**



**Tapping in Blind Holes**



**Clearing Tapped Holes after Painting or Coating**



ACCESSORIES
**see page 151**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT HEX | TORQUE RANGE | | FITTED SPRING | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | kg | lb. | l/s | cfm | in. | mm | in. |
| **AUTOMATIC REVERSE** | | | | | | | | | | | | | | | |
| A | SD140-LA510-S4 | 1464584 | 510 | See | 0.6-14 | 5.3-124 | - | - | 1.0 | 2.2 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |
| A | SD075-LA1100-S4 | 1464604 | 1100 | Accessories | 0.6-7.5 | 5.3-66.4 | - | - | 1.0 | 2.2 | 8.7 | 18.4 | 1/4 | 10 | 3/8 |

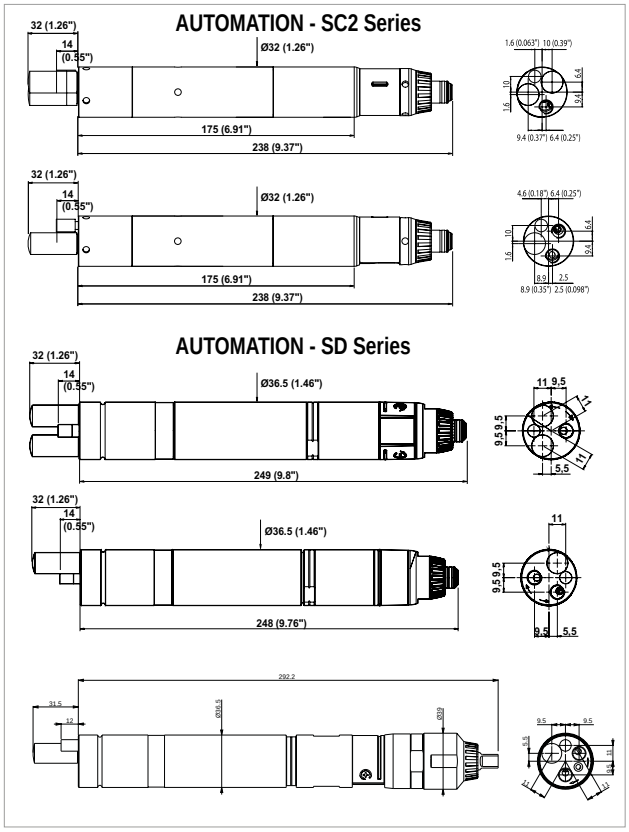
# Torque Controlled - Shut Off

*0.5 to 16 Nm (4.4 to 142 in.lb) - 320 to 3500 rpm*




M5 Port provides signal while tool is running
The signal stops when the clutch operates




ACCESSORIES
**see page 153**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT DRIVE | TORQUE RANGE | | FITTED SPRING | | WEIGHT | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | in.lb | Nm | in.lb | kg | lb. | l/s | cfm | in. | mm | in. |
| **AUTOMATION - PUSH START - SHUT OFF - 1 WAY** | | | | | | | | | | | | | | | |
| A | SC2-025-1AM2200-S4Q | 205 147 426 4 | 2150 | 1/4 Hex | 0.5-2.5 | 4.4-22 | 0.5-2.5 | 4.4-22.1 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| A | SC2-035-1AM1500-S4Q | 205 147 425 4 | 1450 | 1/4 Hex | 0.5-3.5 | 4.4-30.8 | 1.7-3.5 | 15-30.9 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| A | SC2-045-1AM1000-S4Q | 205 147 424 4 | 1000 | 1/4 Hex | 0.5-4.5 | 4.4-39.6 | 1.7-4.5 | 15-39.8 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| A | SC2-055-1AM700-S4Q | 205 147 423 4 | 670 | 1/4 Hex | 0.5-5.5 | 4.4-48.4 | 3-5.5 | 26.5-48.6 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| A | SC2-065-1AM500-S4Q | 205 147 422 4 | 470 | 1/4 Hex | 0.5-6.5 | 4.4-57.2 | 3-6.5 | 26.5-57.5 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| **AUTOMATION - REMOTE START - SHUT OFF - 2 WAY** | | | | | | | | | | | | | | | |
| B | SC2-025-2RM2200-S4Q | 205 147 440 4 | 2150 | 1/4 Hex | 0.5-2.5 | 4.4-22 | 0.5-2.5 | 4.4-22.1 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| B | SC2-035-2RM1500-S4Q | 205 147 439 4 | 1450 | 1/4 Hex | 0.5-3.5 | 4.4-30.8 | 1.7-3.5 | 15-30.9 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| B | SC2-045-2RM1000-S4Q | 205 147 438 4 | 1000 | 1/4 Hex | 0.5-4.5 | 4.4-39.6 | 1.7-4.5 | 15-39.8 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| B | SC2-055-2RM700-S4Q | 205 147 437 4 | 670 | 1/4 Hex | 0.5-5.5 | 4.4-48.4 | 3-5.5 | 26.5-48.6 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| B | SC2-065-2RM500-S4Q | 205 147 436 4 | 470 | 1/4 Hex | 0.5-6.5 | 4.4-57.2 | 3-6.5 | 26.5-57.5 | 0.64 | 1.41 | 7 | 14.8 | 1/8 | 6 | 1/4 |
| **AUTOMATION - PUSH START - SHUT OFF - 1 WAY** | | | | | | | | | | | | | | | |
| C | SD035-1AM2200-S4Q | 1464244 | 2200 | 1/4 Hex | 1.0-3.5 | 8.8-31 | 1.0-3.5 | 8.8-30.9 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| C | SD055-1AM1470-S4Q | 1464234 | 1470 | 1/4 Hex | 2.0-5.5 | 18-48.7 | 2.0-5.5 | 18-48.7 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| C | SD075-1AM1100-S4Q | 1464224 | 1100 | 1/4 Hex | 2.5-7.5 | 22-66.4 | 2.5-7.5 | 22-66.4 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| C | SD100-1AM820-S4Q | 1464214 | 820 | 1/4 Hex | 3.5-10 | 31-88.5 | 3.5-10 | 31-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| C | SD140-1AM510-S4Q | 1464204 | 510 | 1/4 Hex | 3.5-14 | 31-124 | 3.5-10 | 31-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| C | SD160-1AM320-S4Q | 1464194 | 320 | 1/4 Hex | 3.5-16 | 31-142 | 3.5-10 | 31-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| **AUTOMATION - REMOTE START - SHUT OFF - 2 WAY** | | | | | | | | | | | | | | | |
| D | SD035-2RM2200-S4Q | 1464314 | 2200 | 1/4 Hex | 1.0-3.5 | 8.8-31 | 1.0-3.5 | 8.8-30.9 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| D | SD055-2RM1470-S4Q | 1464304 | 1470 | 1/4 Hex | 2.0-5.5 | 18-48.7 | 2.0-5.5 | 18-48.7 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| D | SD075-2RM1100-S4Q | 1464294 | 1100 | 1/4 Hex | 2.5-7.5 | 22-66.4 | 2.5-7.5 | 22-66.4 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| D | SD100-2RM820-S4Q | 1464284 | 820 | 1/4 Hex | 3.5-10 | 31-88.5 | 3.5-10 | 31-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| D | SD140-2RM510-S4Q | 1464274 | 510 | 1/4 Hex | 3.5-14 | 31-124 | 3.5-10 | 31-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| D | SD160-2RM320-S4Q | 1464264 | 320 | 1/4 Hex | 3.5-16 | 31-142 | 3.5-10 | 31-88.5 | 0.92 | 2.03 | 8.7 | 18.4 | 1/8 | 10 | 3/8 |
| E | SD220-2RM320-S4Q | 205 147 939 4 | 320 | 1/4 Hex | 9-16 | 27-142 | 9-16 | 27-142 | 1.4 | 3.1 | 8.7 | 18.4 | | 10 | 3/8 |
| E | SD220-2RM320-S10S | 205 147 941 4 | 320 | 3/8 Sq | 9-22 | 27-198 | 9-19 | 27-168 | 1.4 | 3.1 | 8.7 | 18.4 | | 10 | 3/8 |

# Accessories




## STRAIGHT - PUSH START & LEVER START

### ACCESSORIES INCLUDED

| ITEM | | SB | SC2 | SD |
|---|---|---|---|---|
| • | Suspension bail(s) | 443703 | 205 049 537 3 | 467003 |
| • | Suspension bail internal | | 205 051 289 3 | |
| • | Exhaust hose | 443723 | 205 049 584 3 | 467073 |
| • | Clutch adjustment keys | 446583 | 205 050 785 3 | 29932 |
| 1 | Short lever (lever start model) | | 205 052 020 3 | |
| 2 | Rings identification | | 205 049 590 3 | |
| 3 | Side handle asssembly | | | 467033 |

### OPTIONAL ACCESSORIES

| ITEM | | SB | SC2 | SD |
|---|---|---|---|---|
| 3 | Side handle asssembly | | 205 052 175 3 | |
| • | Double-ended bit holder | | 205 052 883 3 | 465523 |
| **Balancers & Tool Holster** | | | | |
| 4 | Spring suspension balancer | 50522 | 50522 | 52862 |
| 5 | Hose reel balancer | 50552 | 50552 | 50562 |
| 6 | Tool holster DTH-42 | 107892 | 107892 | 107892 |
| **Bench Stands (for more information, see pages 153-163)** | | | | |
| 7 | D53-25 Linear arm (tool clamp included) | 615 810 702 0 | 615 810 702 0 | 615 810 702 0 |
| 7 | D53-25X Linear arm (tool clamp included) | 615 810 703 0 | 615 810 703 0 | 615 810 703 0 |
| 8 | D53-25S Folder arm (tool clamp included) | 615 810 708 0 | 615 810 708 0 | 615 810 708 0 |
| 9 | D57 Balancing arm | 408903 | 408903 | 408903 |
| • | Tool clamp | 615 396 614 0 | 615 396 614 0 | 615 396 614 0 |
| 9 | D57X Balancing arm | 408913 | 408913 | 408913 |
| • | Tool clamp | 615 396 614 0 | 615 396 614 0 | 615 396 614 0 |
| 10 | D58 Balancing arm | 408923 | 408923 | 408923 |
| • | Tool clamp | 615 396 614 0 | 615 396 614 0 | 615 396 614 0 |
| 11 | TRA12 / TRA25 Telescopic reaction arm | | (see page 156) | |
| **Vacuum Pick Up - Order Pick Up kit, Finder Sleeve & Vacuum Source** | | | | |
| 12 | Vacuum pick up kit (spring only for 2A89) | 108892 | | 108892 |
| 13 | Finder sleeve blank - plastic | 464093 | | 464093 |
| • | Finder sleeve blank - steel | 464103 | | 464103 |
| 14 | Vacuum source AV201 for use with filter/regulator unit | | | 112063 |
| **Miscellaneous** | | | | |
| 15 | Offset exhaust | | | 205 047 623 3 |
| • | Clutch case 7/8" LH thread 320-1470 rpm | | | 205 047 478 3 |
| • | Clutch case 7/8" LH thread 2200-3500 rpm | | | 205 047 479 3 |
| • | Clutch case without thrust bump, M20x1.0LH thread 320-1470 rpm | | | 465463 |
| • | Clutch case without thrust bump, M20x1.0LH thread 2200-3500 rpm | | | 465443 |

## PISTOL GRIP




### ACCESSORIES INCLUDED

| | | SCBP | SBP | SCP SCPT | SDP SDT |
|---|---|---|---|---|---|
| • | Suspension bail(s) | 307683 | 307683 | 307683 | 473153 |
| • | Side handle (320 & 1470 rpm) | | | | 467033 |
| • | Clutch adjustment keys (320 - 1470 rpm) | 205 047 988 3 | 446583 | 29932 | 29932 |
| • | Clutch adjustment keys (2200 - 3500 rpm) | | | | 467293 |

### OPTIONAL ACCESSORIES

| ITEM | | SBP SCBP | SCP SCPT | SDP SDT |
|---|---|---|---|---|
| **Balancers & Holster** | | | | |
| 1 | Spring suspension balancer | 52862 | 52862 | 52862 |
| 2 | Hose reel balancer | 50552 | 50552 | 50562 |
| • | Hose reel balancer conversion kit | 107403 | 107403 | 115193 |
| 3 | Tool holster DTH-90 | 615 812 119 0 | 615 812 119 0 | 615 812 119 0 |
| **Bench Stands (for more information, see pages 172-173)** | | | | |
| 4 | D59 Pantographic arm | 408933 | 408933 | 408933 |
| **Miscellaneous** | | | | |
| 5 | Side handle | 70442 | 70442 | 467033 |

# Accessories

## DIRECT DRIVE

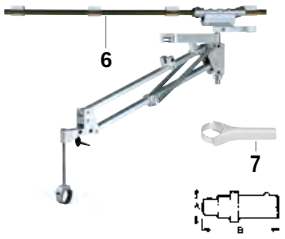


### ACCESSORIES INCLUDED

| | SDP | SD | H410 |
|---|---|---|---|
| • Suspension bail(s) | 473153 | 467003 | |
| • Side handle | 467033 | | |
| • Exhaust hose | | 467073 | |

### OPTIONAL ACCESSORIES




| ITEM | | SDP | SD | H410 |
|---|---|---|---|---|
| • | Air flow regulator | 81223 | 81223 | |
| **Balancers & Holster** | | | | |
| 1 | Spring suspension balancer | 52862 | 50532 | 50542 |
| 2 | Hose reel balancer | 50562 | 50562 | |
| 3 | Tool holster DTH-42 | 107892 | | |
| 4 | Tool holster DTH-90 | | 615 812 119 0 | |
| **Suspension Shakle** | | | | |
| 5 | Suspension shackle | | 70082 | 615 571 050 0 |
| • | Swivel suspension shackle | | | 615 396 229 0 |
| **Bench Stands (for more information, see pages 172-173)** | | | | |
| 6 | D59 Pantographic arm | 408933 | | |
| **Miscellaneous** | | | | |
| 7 | Side handle | 467033 | | |
| • | Offset exhaust | | 205 047 623 3 | |
| • | Square drive adaptor 3/8" Square drive, 48mm (1.89") long | | | 14422 |
| • | Square drive adaptor 1/2" Square drive, 46mm (1.81") long | | | 14442 |
| • | Square drive adaptor 1/2" Square drive, 76mm (2.99") long | | | 14482 |
| • | Exhaust collector | | | 72163 |

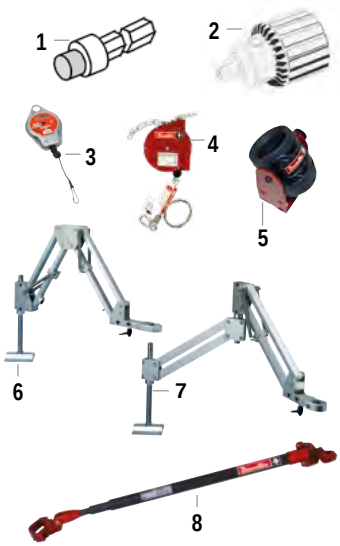
## AUTO REVERSE



### ACCESSORIES INCLUDED

| | SD |
|---|---|
| • Suspension bail(s) | 467003 |
| • Side handle | 467033 |
| • Clutch adjustment keys | 29932 |

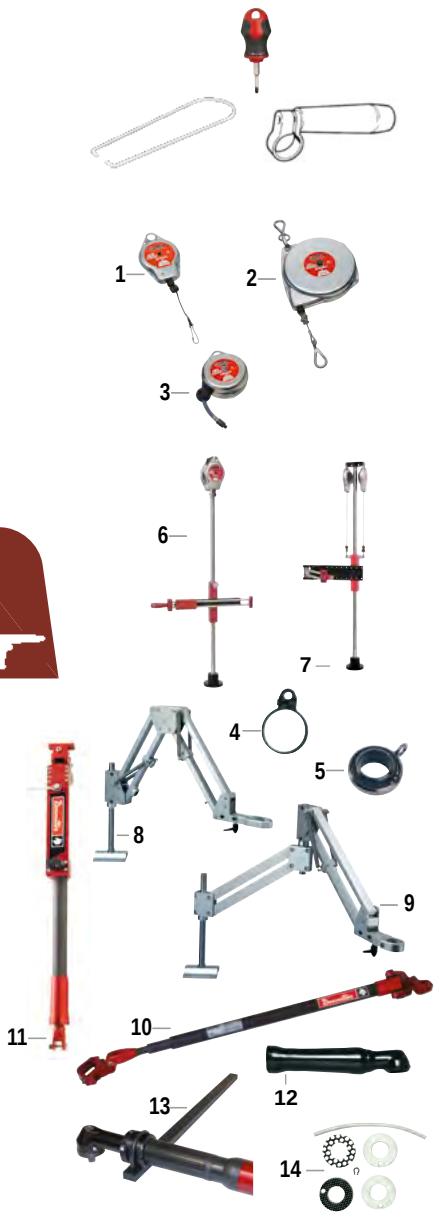
### OPTIONAL ACCESSORIES




| ITEM | | SD |
|---|---|---|
| **Blind Hole Tapping/ Cleaning - 3 parts Required** | | |
| • | Bit adaptor* | 465513 |
| 1 | Thread adaptor | 96743 |
| 2 | Chuck capacity 8mm (5/16") | 205 053 013 3 |
| **Balancers & Tool Holster** | | |
| 3 | Spring suspension balancer | 50532 |
| 4 | Reaction free self-lock balancer | 615 813 078 0 |
| 5 | Tool holster DTH-42 | 107892 |
| **Bench Stands (for more information, see pages 172-173)** | | |
| 6 | D57 Balancing arm | 408903 |
| • | Tool clamp | 615 396 614 0 |
| 6 | D57X Balancing arm | 408913 |
| • | Tool clamp | 615 396 614 0 |
| 7 | D58 Balancing arm | 408923 |
| • | Tool clamp | 615 396 614 0 |
| 8 | TRA25 Telescopic reaction arm | (see page 178) |

** To order more clutch cover PN 465453 + washer PN 467113*

# Accessories




## ANGLE HEAD

### ACCESSORIES INCLUDED

| | SC | SD | SH |
|---|---|---|---|
| • Suspension bail(s) | 39433/280893 | 467003 | |
| • Exhaust hose | 396553 | 467073 | |
| • Adjustment keys | 29932 | 29932 | 205 050 785 3 |
| • Air hose nipple | | | 205 051 239 3 |

### OPTIONAL ACCESSORIES

| ITEM | | 2D4872 | SC | SD | SH |
|---|---|---|---|---|---|
| • | Exhaust hose for SH70/150/200/280/420/500/700/850 | | | | 459813 |
| • | Exhaust hose for SH1200/2000 | | | | 205 050 181 3 |
| **Balancers & Holster** | | | | | |
| 1 | Spring suspension balancer | 50532 | 52862 | 50532 | |
| 1 | Spring suspension balancer for SH70/150/200/280 | | | | 52862 |
| 2 | Spring suspension balancer for SH420 to SH2000 | | | | 50052 |
| 3 | Hose reel balancer | 50562 | 50552 | 50562 | |
| 3 | Hose reel balancer for SH70/150/200/280 | | | | 50562 |
| **Suspension Shakle** | | | | | |
| • | Suspension shackle | | 95842 | 70082 | |
| **Suspension bails** | | | | | |
| 4 | Suspension bail for SH70/150/200/280 | | | | 205 051 632 3 |
| 4 | Suspension bail for SH420/500/700/850 | | | | 205 051 113 3 |
| 4 | Suspension bail for SH1200/2000 | | | | 615 396 562 0 |
| **Swiveling bails** | | | | | |
| 5 | Swiveling bail for SH420/500/750/850 | | | | 205 051 115 3 |
| 5 | Swiveling bail for SH1200/2000 | | | | 205 051 232 3 |
| **Bench Stands (for more information, see pages 153-163)** | | | | | |
| 6 | D53-25 Linear arm (tool clamp included) | 615 810 702 0 | 615 810 702 0 | 615 810 702 0 | 615 810 704 0 |
| 6 | D53-25X Linear arm, extended reach | 615 810 703 0 | 615 810 703 0 | 615 810 703 0 | |
| 7 | D53-25S Folder arm (tool clamp included) | 615 810 707 0 | 615 810 707 0 | 615 810 707 0 | 615 810 709 0 |
| **Bench Stands (for more information, see pages 172-173)** | | | | | |
| 8 | D57 Balancing arm | 408903 | 408903 | 408903 | |
| • | Tool clamp | 615 396 614 0 | 615 396 614 0 | 615 396 614 0 | |
| 8 | D57X Balancing arm | 408913 | 408913 | 408913 | |
| • | Tool clamp | 615 396 614 0 | 615 396 614 0 | 615 396 614 0 | |
| 9 | D58 Balancing arm | 408923 | 408923 | 408923 | |
| • | Tool clamp | 615 396 614 0 | 615 396 614 0 | 615 396 614 0 | |
| 10 | TRA12 / TRA25 Telescopic reaction arm | | (see page 156) | | |
| 11 | TT10 / TT25 Torque Tube Arm | | (see page 159) | | |
| **Miscellaneous** | | | | | |
| • | Offset exhaust | | | 205 047 623 3 | |
| 12 | Protective cover for SH70/150/200/280 | | | | 205 011 426 2 |
| 12 | Protective cover for SH420/500 | | | | 205 050 182 3 |
| 12 | Protective cover for SH700/850 | | | | 205 050 235 3 |
| 12 | Protective cover for SH1200/2000 | | | | 205 050 252 3 |
| 13 | Complete reaction bar kit for SH850/1200/2000 | | | | 205 051 121 3 |
| 14 | Reporting kit for SH70 (for connexion with FAS) | | | | 205 011 424 2 |
| 14 | Reporting kit for SH150/200/280 (for connexion with FAS) | | | | 205 011 425 2 |
| 14 | Reporting kit for SH420/500/700/850 (for connexion with FAS) | | | | 205 050 175 3 |
| 14 | Reporting kit for SH1200/2000 (for connexion with FAS) | | | | 205 050 176 3 |

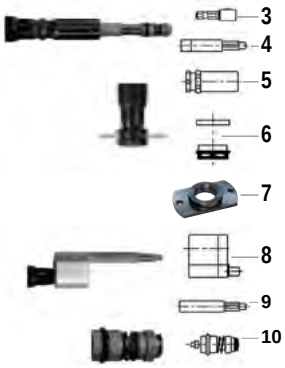
# Accessories

## TORQUE CONTROLLED




### ACCESSORIES INCLUDED

| ITEM | | SC2 / SD |
|---|---|---|
| 1 | Muffler | 205 045 792 3 |
| 2 | Straight fitting | 444973 |

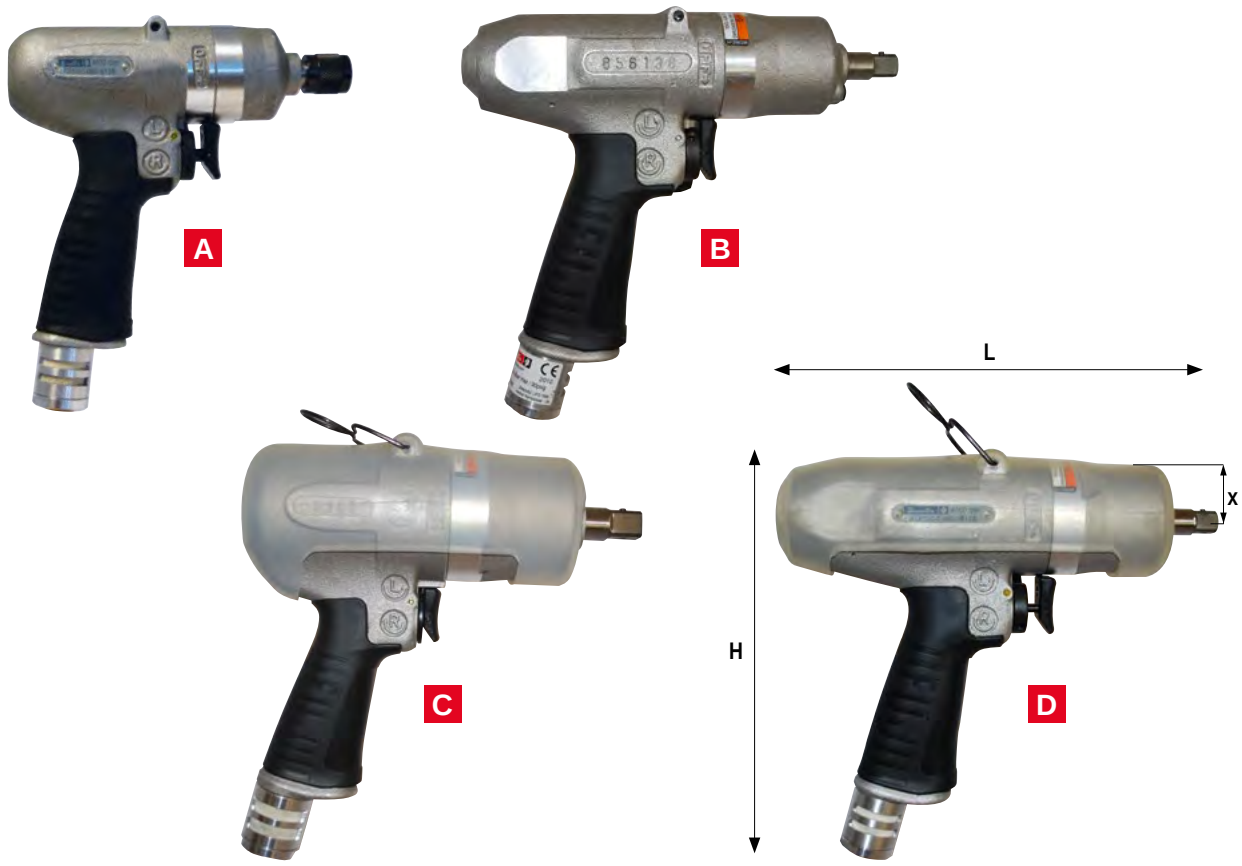



### OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| • | **Spring Loaded Shats and Bearings Support (including 3, 4, 5)** | |
| 3 | Bit Adaptor | 103782 |
| 4 | Spring Loaded Shatf 25mm (1") | 108342 |
| 5 | Shaft Support and Nose Mount | 108412 |
| 6 | Nose Mounts | 205 052 876 3 |
| 7 | Flange M20 | 205 052 875 3 |
| • | **Offset Head & Spring Loaded shaft (Including 8, 9)** | |
| 8 | Offset Head , offset 30mm (1.18") | 384993 |
| 9 | Spring Loaded Shaft 25mm (1") stroke | 108342 |
| 10 | 3/8" Square to 1/4" Hex Power Adaptor | 108322 |

# Pulse Tools - Non Shut off and Shut Off range

*5 to 172 Nm (3.6 to 127 ft.lb) - 3400 to 6700 rpm*

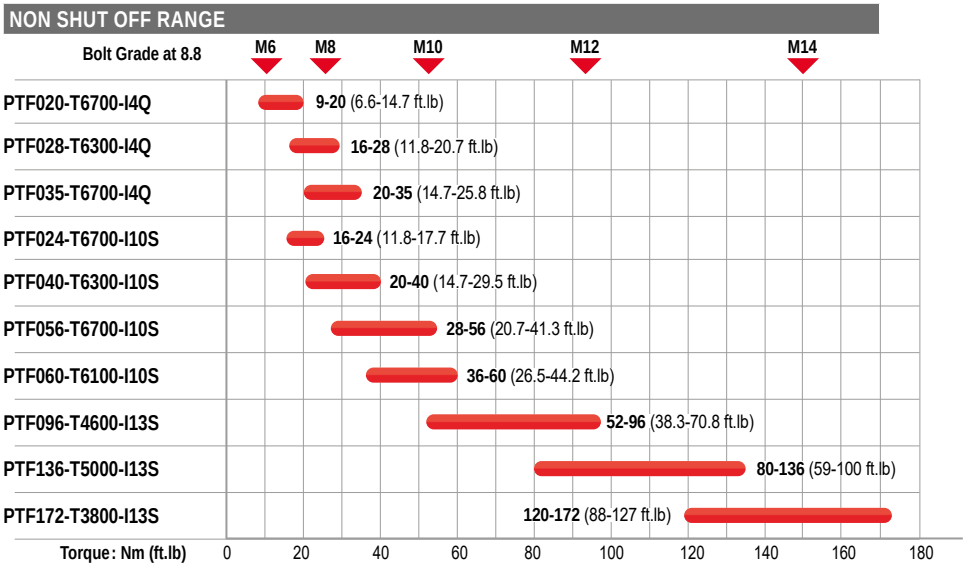


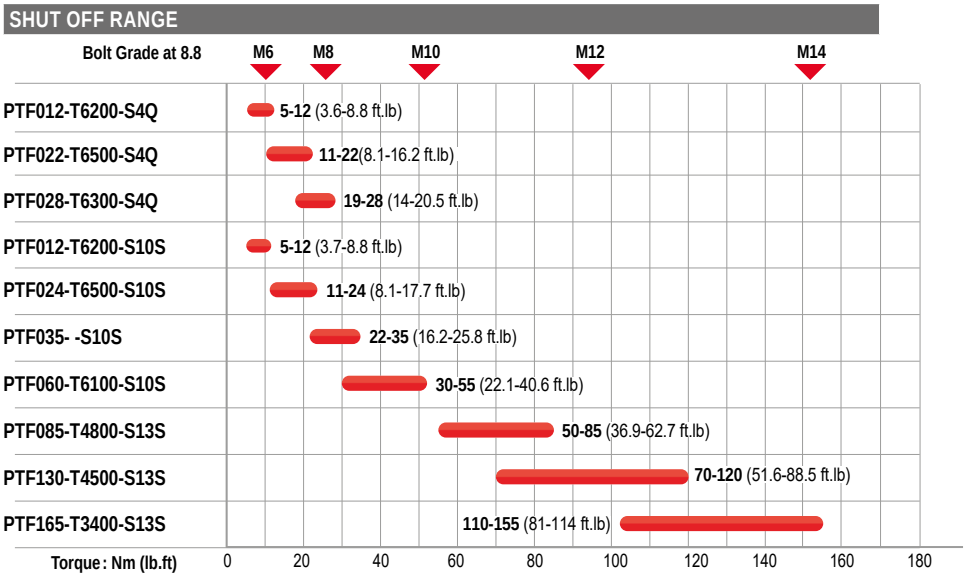

*Air inlet: All models 1/4" R*

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OUTPUT DRIVE | TORQUE RANGE | | DIMENSIONS L | | DIMENSIONS X | | DIMENSIONS H | | WEIGHT | | AIR FLOW | | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | in. | Nm | ft.lb | mm | in. | mm | in. | mm | in. | kg | lb | l/s | cfm | mm | in. |
| **NON SHUT OFF** | | | | | | | | | | | | | | | | | | |
| A | PTF020-T6700-I4Q | 615 172 101 0 | 6700 | 1/4 Hex | 9-20 | 6.6-14.7 | 140 | 5.5 | 22 | 0.87 | 169 | 6.6 | 0.80 | 1.7 | 6.0 | 12.7 | 6 | 1/4 |
| A | PTF028-T6300-I4Q | 615 172 102 0 | 6300 | 1/4 Hex | 16-28 | 11.8-20.7 | 140 | 5.5 | 22 | 0.87 | 169 | 6.6 | 0.80 | 1.7 | 6.7 | 14.1 | 6 | 1/4 |
| A | PTF035-T6700-I4Q | 615 172 103 0 | 6700 | 1/4 Hex | 20-35 | 14.7-25.8 | 152 | 6.0 | 22 | 0.87 | 169 | 6.6 | 0.80 | 1.7 | 7.0 | 14.8 | 10 | 3/8 |
| B | PTF024-T6700-I10S | 615 172 072 0 | 6700 | 3/8 Sq | 16-24 | 11.8-17.7 | 139.5 | 5.5 | 22 | 0.87 | 165.7 | 6.5 | 0.79 | 1.7 | 6.0 | 12.7 | 6 | 1/4 |
| B | PTF040-T6300-I10S | 615 172 074 0 | 6300 | 3/8 Sq | 20-40 | 14.7-29.5 | 139.5 | 5.5 | 22 | 0.87 | 165.7 | 6.5 | 0.79 | 1.7 | 6.7 | 14.2 | 10 | 3/8 |
| B | PTF056-T6700-I10S | 615 172 075 0 | 6700 | 3/8 Sq | 28-56 | 20.7-41.3 | 151.5 | 5.9 | 22 | 0.87 | 165.7 | 6.5 | 0.83 | 1.8 | 7.0 | 14.8 | 10 | 3/8 |
| B | PTF060-T6100-I10S | 615 172 076 0 | 6100 | 3/8 Sq | 36-60 | 26.5-44.2 | 155 | 6.1 | 24 | 0.94 | 170.0 | 6.7 | 1.02 | 2.2 | 10.0 | 21.2 | 10 | 3/8 |
| B | PTF096-T4600-I13S | 615 172 077 0 | 4600 | 1/2 Sq | 52-96 | 38.3-70.8 | 173 | 6.8 | 27 | 1.06 | 175.0 | 6.9 | 1.45 | 3.2 | 10.8 | 22.9 | 10 | 3/8 |
| B | PTF136-T5000-I13S | 615 172 078 0 | 5000 | 1/2 Sq | 80-136 | 59-100 | 182.5 | 7.2 | 29.5 | 1.16 | 186.5 | 7.3 | 1.80 | 4.0 | 13.3 | 28.2 | 10 | 3/8 |
| B | PTF172-T3800-I13S | 615 172 079 0 | 3800 | 1/2 Sq | 120-172 | 88-127 | 191.5 | 7.6 | 32 | 1.26 | 192.0 | 7.6 | 2.10 | 4.6 | 14.2 | 30.1 | 10 | 3/8 |
| **SHUT OFF** | | | | | | | | | | | | | | | | | | |
| A | PTF012-T6200-S4Q | 615 172 104 0 | 6200 | 1/4 Hex | 5-12 | 3.6-8.8 | 181 | 7.1 | 22 | 0.87 | 169 | 6.6 | 1.00 | 2.2 | 6.7 | 14.1 | 6 | 1/4 |
| A | PTF022-T6500-S4Q | 615 172 105 0 | 6500 | 1/4 Hex | 11-22 | 8.1-16.2 | 181 | 7.1 | 22 | 0.87 | 169 | 6.6 | 1.00 | 2.2 | 7.5 | 15.9 | 6 | 1/4 |
| A | PTF028-T6300-S4Q | 615 172 106 0 | 6300 | 1/4 Hex | 19-28 | 14.0-20.5 | 193 | 7.6 | 22 | 0.87 | 169 | 6.6 | 1.00 | 2.2 | 9.2 | 19.4 | 10 | 3/8 |
| C | PTF012-T6200-S10S | 615 172 081 0 | 6200 | 3/8 Sq | 5-12 | 3.7-8.8 | 180.5 | 5.5 | 22 | 0.87 | 164.3 | 6.5 | 0.97 | 2.1 | 6.7 | 14.1 | 6 | 1/4 |
| C | PTF024-T6500-S10S | 615 172 084 0 | 6500 | 3/8 Sq | 11-24 | 8.1-17.7 | 180.5 | 5.5 | 22 | 0.87 | 164.3 | 6.5 | 0.97 | 2.1 | 7.5 | 15.9 | 10 | 3/8 |
| C | PTF035-T6300-S10S | 615 172 087 0 | 6300 | 3/8 Sq | 22-35 | 16.2-25.8 | 192.5 | 5.9 | 22 | 0.87 | 164.3 | 6.5 | 1.00 | 2.2 | 9.2 | 19.4 | 10 | 3/8 |
| D | PTF060-T6100-S10S | 615 172 088 0 | 6100 | 3/8 Sq | 30-55 | 22.1-40.6 | 189.5 | 6.1 | 24 | 0.94 | 169.0 | 6.7 | 1.10 | 2.4 | 10 | 21.1 | 10 | 3/8 |
| D | PTF085-T4800-S13S | 615 172 089 0 | 4800 | 1/2 Sq | 50-85 | 36.9-62.7 | 208.5 | 6.8 | 27 | 1.06 | 175.0 | 6.9 | 1.60 | 3.5 | 11.3 | 24.0 | 10 | 3/8 |
| D | PTF130-T4500-S13S | 615 172 090 0 | 4500 | 1/2 Sq | 70-120 | 51.6-88.5 | 217.5 | 7.2 | 29.5 | 1.16 | 186.5 | 7.3 | 1.85 | 4.1 | 13.3 | 18.2 | 10 | 3/8 |
| D | PTF165-T3400-S13S | 615 172 091 0 | 3400 | 1/2 Sq | 110-155 | 81-114 | 227.5 | 7.6 | 32 | 1.26 | 192.0 | 7.6 | 2.10 | 4.6 | 14.2 | 30.0 | 10 | 3/8 |

*The tool is designed for a working pressure of 6.3 bar 90 PSI.*

# Pulse Tools - Tool Selection




# Accessories

## ACCESSORIES INCLUDED

| | PART NO. |
|---|---|
| • Air Hose nipple PTF012/024/040 | 541 205 445 0 |
| • Air Hose nipple (other models) | 541 205 445 2 |
| • Suspension bail | 541 205 847 4 |
| • Hex pin wrench | - |

### Pulse Non Shut Off

| | |
|---|---|
| • Cover protection for PTF020/024/028/040. | 541 206 045 6 |
| • Cover protection for PTF060.. | 541 206 045 8 |
| • Cover protection for PTF056/035. | 541 206 045 7 |
| • Cover protection for PTF096.. | 541 206 045 9 |
| • Cover protection for PTF136.. | 541 206 046 0 |
| • Cover protection for PTF172.. | 541 206 046 1 |

## ACCESSORIES INCLUDED

| | PART NO. |
|---|---|
| **Pulse Shut Off** | |
| • Cover protection for PTF012/022/024... | 541 206 045 0 |
| • Cover protection for PTF035... | 541 206 045 1 |
| • Cover protection for PTF060... | 541 206 045 2 |
| • Cover protection for PTF085... | 541 206 045 3 |
| • Cover protection for PTF130... | 541 206 045 4 |
| • Cover protection for PTF165... | 541 206 045 5 |


Desoutter

# Specific Nutrunners and Spindles



**Specific nutrunners**
- Flush socket
- Crowfoot (open or close ended)
- Hold and Drive
- Crowfoot Hold and Drive
- Insulated
- 2 output shafts
- With multiplier
- Quick Change

**Specific spindles**
- U-Shape
- Specific output shaft
- Second torque transducer

**Specific reaction bars**

**AND MUCH MORE ON REQUEST !**

*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

# Insulated Solutions

*Assembly solutions for electric vehicles*

## DESOUTTER SOLUTION





During the **assembly of components exposed to high voltage such as busbars and harnesses**, using insulated tools is one of the many important steps to protect from electrical shocks and damages:

- the operators
- the tools
- the battery pack
- the assembly line

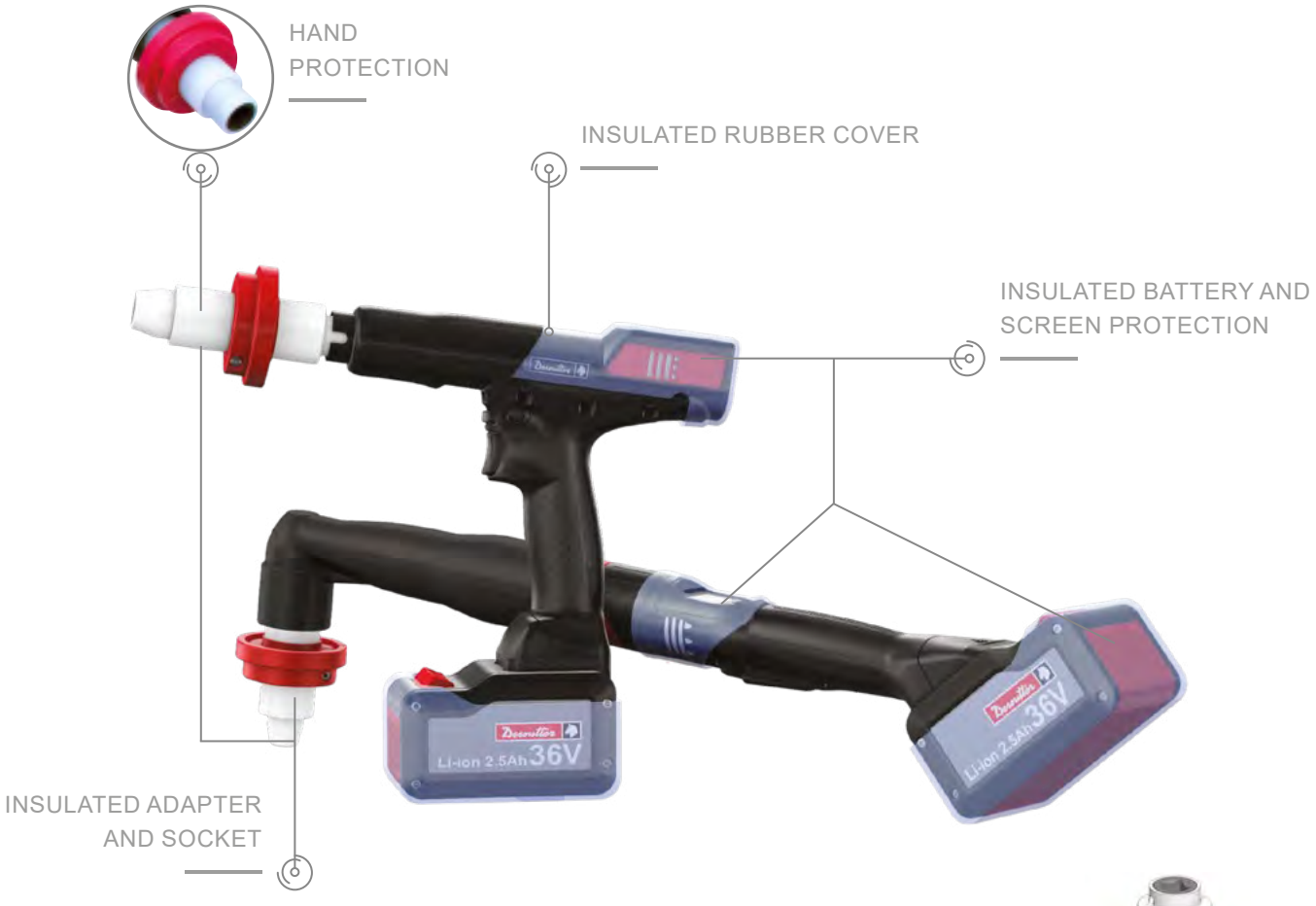
The design strictly follows the requirements of the latest International Electro technical Commission (IEC) Norms **IEC60900:2018 & IEC60664-1:2020** that entails to ensure operators are protected against electrical breakdown for currents less than 1000V/AC and 1500V/DC.

**Our solution is tested by an external laboratory.**

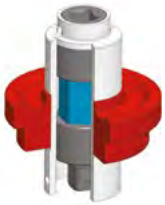
## INSULATED TOOLS

**1000V RATED**

We are allowed to apply the official international 1000-volt rating symbol on the different accessories which are related to the electrical insulation of our tools. This means they prevent electrical breakdown for currents up to 1000 V/AC and 1500 V/DC.




ADAPTER IS BOTH AXIALLY AND RADIALLY INSULATED
→ NO ELECTRICAL CONTINUITY



# Insulated Solutions

*Assembly solutions for electric vehicles*

## INSULATED TOOLS AND RANGE

### EABCom and B-Flex Series
5 to 50 Nm (3.7 to 37 ft.lb) - 10 to 900 rpm



### EPBCom and B-Flex Series
1.5 to 17 Nm (1.1 to 12.5 ft.lb) - 10 to 1800 rpm



### EABS Series
1.5 to 24 Nm (1.1 to 17.7 ft.lb) - 10 to 1500 rpm



### E-LIT Series
1.5 to 45 Nm (13.3 to 398 in.lb) - 50 to 880 rpm



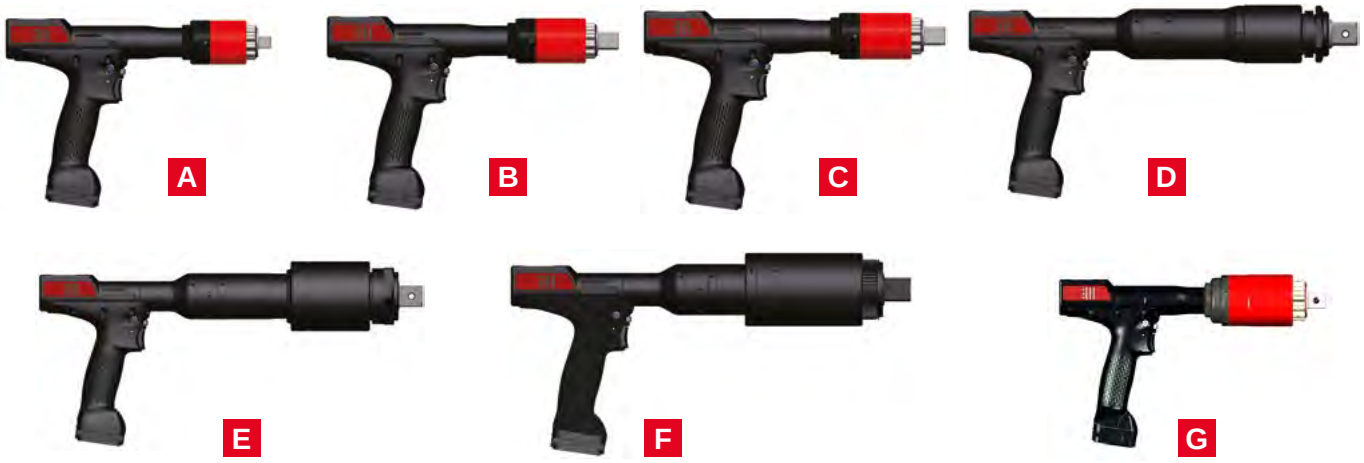
EABCom eLink and EPBCom are **compatible** with

nexonar

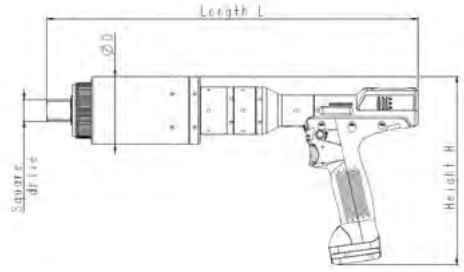
*For further information, please contact your Desoutter representative for assistance.*

# EPBx High Torque Series

*50 to 2000 Nm (36.9 to 1475.1 ft. lb) - 3.2 to 78 rpm*




| MODEL | Ø D | | LENGHT L | | HEIGHT H | |
|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. |
| A | 48 | 1.9 | 290 | 11.4 | 206 | 8.1 |
| B | 48 | 1.9 | 311 | 12.2 | 206 | 8.1 |
| C | 48 | 1.9 | 311 | 12.2 | 206 | 8.1 |
| D | 64 | 2.5 | 426 | 16.8 | 212 | 8.3 |
| E | 84 | 3.3 | 460 | 18.1 | 222 | 8.7 |
| F | 80 | 3.1 | 433 | 17.0 | 220 | 8.6 |
| G | 63 | 2.5 | 353 | 13.9 | 212 | 8.3 |




| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE RANGE | | MAX SPEED | WEIGHT WITHOUT BATTERY | VOLTAGE |
|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | MAX. | | | |
| | | | in | Nm | Nm | rpm | kg | V |
| **PISTOL VERSION 150 NM** | | | | | | | | |
| A | EPBHT 150-78 | 8920903996 | 1/2 | 50 | 160 | 78 | 1.8 | 36 |
| A | EPBAHT 150-78 | 8920904001 | 1/2 | 50 | 160 | 78 | 1.8 | 36 |
| A | EPBCHT 150-78 | 8920904006 | 1/2 | 50 | 160 | 78 | 1.8 | 36 |
| **PISTOL VERSION 300 NM** | | | | | | | | |
| B | EPBHT 300-20 | 8920903997 | 3/4 | 125 | 300 | 20 | 2.0 | 36 |
| B | EPBAHT 300-20 | 8920904002 | 3/4 | 125 | 300 | 20 | 2.0 | 36 |
| B | EPBCHT 300-20 | 8920904007 | 3/4 | 125 | 300 | 20 | 2.0 | 36 |
| **PISTOL VERSION 500 NM** | | | | | | | | |
| C | EPBHT 500-10 | 8920903998 | 3/4 | 325 | 500 | 10 | 2.0 | 36 |
| C | EPBAHT 500-10 | 8920904003 | 3/4 | 325 | 500 | 10 | 2.0 | 36 |
| C | EPBCHT 500-10 | 8920904008 | 3/4 | 325 | 500 | 10 | 2.0 | 36 |
| **PISTOL VERSION 750 NM** | | | | | | | | |
| G | EPBHT 750-7 | 8920904995 | 3/4 | 512 | 750 | 7 | 2.9 | 36 |
| G | EPBAHT 750-7 | 8920904994 | 3/4 | 512 | 750 | 7 | 2.9 | 36 |
| G | EPBCHT 750-7 | 8920904993 | 3/4 | 512 | 750 | 7 | 2.9 | 36 |
| **PISTOL VERSION 1000 NM** | | | | | | | | |
| D | EPBHT 1000-6 | 8920904146 | 1 | 550 | 1000 | 6 | 4.3 | 36 |
| D | EPBAHT 1000-6 | 8920904149 | 1 | 550 | 1000 | 6 | 4.3 | 36 |
| D | EPBCHT 1000-6 | 8920904033 | 1 | 550 | 1000 | 6 | 4.3 | 36 |
| **PISTOL VERSION 1500 NM** | | | | | | | | |
| E | EPBHT 1000-6 | 8920904146 | 1 | 550 | 1000 | 6 | 4.3 | 36 |
| E | EPBAHT 1000-6 | 8920904149 | 1 | 550 | 1000 | 6 | 4.3 | 36 |
| E | EPBCHT 1000-6 | 8920904033 | 1 | 550 | 1000 | 6 | 4.3 | 36 |
| **PISTOL VERSION 2000 NM** | | | | | | | | |
| F | EPBHT 2000-3 | 8920904148 | 1 | 1350 | 2000 | 3.2 | 6.1 | 36 |
| F | EPBAHT 2000-3 | 8920904151 | 1 | 1350 | 2000 | 3.2 | 6.1 | 36 |
| F | EPBCHT 2000-3 | 8920904035 | 1 | 1350 | 2000 | 3.2 | 6.1 | 36 |

*• Battery not included in standard offfering*

# EABx High Torque Series

*250 to 1500 Nm (184.4 to 1106.3 ft. lb) - 4 to 10 rpm*





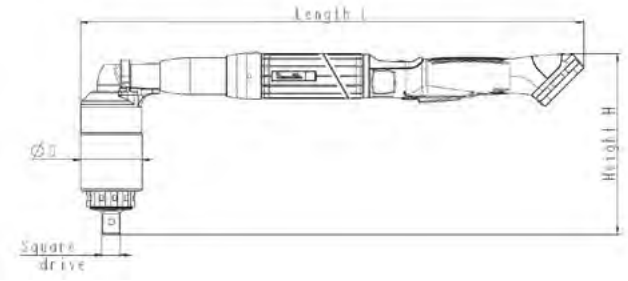








| MODEL | Ø D | | LENGHT L | | HEIGHT H | |
|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. |
| A | 48 | 1.9 | 482 | 19.0 | 137 | 5.4 |
| B | 63 | 2.5 | 512 | 20.2 | 183 | 7.2 |
| C | 84 | 3.3 | 529 | 20.8 | 298 | 11.7 |
| D | 70 | 2.8 | 522 | 20.6 | 280 | 11.0 |




| PIC REF | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE RANGE | | MAX SPEED | WEIGHT WIT-HOUT BATTERY | VOLTAGE |
|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | MAX. | | | |
| | | | in | Nm | Nm | rpm | kg | V |
| **ANGLE VERSION 500 NM** | | | | | | | | |
| A | EABHT 500-10 | 8920903999 | 3/4 | 250 | 500 | 10 | 2.4 | 36 |
| A | EABAHT 500-10 | 8920904004 | 3/4 | 250 | 500 | 10 | 2.4 | 36 |
| A | EABCHT 500-10 | 8920904009 | 3/4 | 250 | 500 | 10 | 2.4 | 36 |
| **ANGLE VERSION 1000 NM** | | | | | | | | |
| B | EABHT 1000-4 | 8920904000 | 3/4 | 500 | 1050 | 4 | 3.6 | 36 |
| B | EABAHT 1000-4 | 8920904005 | 3/4 | 500 | 1050 | 4 | 3.6 | 36 |
| B | EABCHT 1000-4 | 8920904010 | 3/4 | 500 | 1050 | 4 | 3.6 | 36 |
| **ANGLE VERSION 1500 NM** | | | | | | | | |
| C | EABHT 1500-5 | 8920904152 | 1 | 550 | 1500 | 5 | 6.7 | 36 |
| C | EABAHT 1500-5 | 8920904153 | 1 | 550 | 1500 | 5 | 6.7 | 36 |
| C | EABCHT 1500-5 | 8920904047 | 1 | 550 | 1500 | 5 | 6.7 | 36 |
| **ANGLE VERSION 2000 NM** | | | | | | | | |
| C | EABHT 1500-5 | 8920904152 | 1 | 550 | 1500 | 5 | 6.7 | 36 |
| C | EABAHT 1500-5 | 8920904153 | 1 | 550 | 1500 | 5 | 6.7 | 36 |
| C | EABCHT 1500-5 | 8920904047 | 1 | 550 | 1500 | 5 | 6.7 | 36 |

*• Battery not included in standard offfering*

## ACCESSORIES

*please contact your Desoutter representative*

# Multiplus










| PART NO. | DESCRIPTION | |
|---|---|---|
| 615 396 875 0 | Handle start horizontal |  |
| 615 396 876 0 | Handle start vertical |  |
| 615 396 877 0 | Handle support cpte |  |
| 615 396 878 0 | Handle reverse |  |
| 615 398 135 0 | 2 additional buttons kit |  |
| 615 398 136 0 | 1 LED + 1 additional button kit |  |

**Options**
- Suspension (cable balancer or cylinder)
- Transducer holders
- Variable center distance
(manual, automatic by cylinder or motorized)

*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

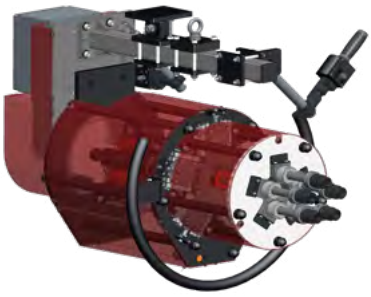
# Customized Machine

*Single spindle, Multi spindles, Manual or automatic center distance adjustment*



- Standard build components
- Increased custumer configuration
- Simplified maintenance
- Proven solution
- Shorter lead time
- Improved ergonomics

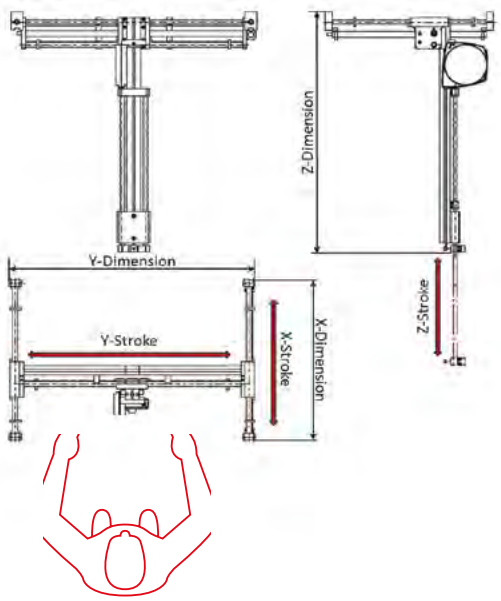








## ROLLEX






| DESCRIPTION | UNIT | RANGE | | |
|---|---|---|---|---|
| **Maximum Torque** | Nm | 30 | 60 | 90 |
| | ft.lb | 22.1 | 44.2 | 66.4 |
| **Maximum Thightening head weight** | kg | 20 | 25 | 25 |
| | lb | 44.1 | 55.1 | 55.1 |
| **X-Stroke (min - max)** | mm | 250 - 450 | | |
| | in. | 9.8 - 17.7 | | |
| **Y-Stroke (min - max)** | mm | 250 - 750 | | |
| | in. | 9.8 - 29.5 | | |
| **Z-Stroke (min - max)** | mm | 250 - 500 | | |
| | in. | 9.8 - 19.7 | | |
| **X-Dimensions** | mm | 260 + X-Stroke | | |
| | in. | 10.2 + X-Stroke | | |
| **Y-Dimensions** | mm | 290 + Y-Stroke | | |
| | in. | 11.4 + Y-Stroke | | |
| **Z-Dimensions** | mm | 1070 + Z-Stroke | | |
| | in. | 42.1 + Z-Stroke | | |

*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

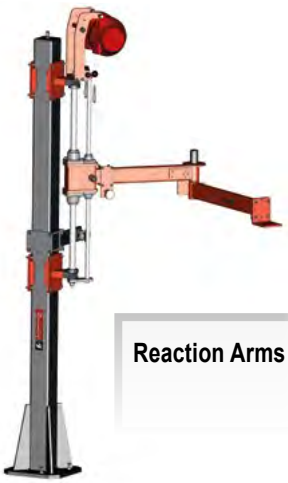
# Arms and Torque Tubes

**Torque Tubes**
- Aluminium (0-250 Nm) (0-185 ft.lb)
- Steel (250-2000 Nm) (185-1480 ft.lb)
- Balancer or pneumatic cylinder suspension



**Light Torque Tubes**
- Steel (250-1000 Nm) (185-737.5 ft.lb)
- Mono spindle
- Removal cover for balancer maintenance
- Integrated balancer suspension





**Reaction Arms**

**Up to 150 Nm** (111 ft.lb)
Balancer suspension
Radius 1200 to 2000 mm (3.94 to 6.56 ft)

**Ceiling version**



**Ground version**

**Up to 300-600 Nm** (221-442 ft.lb)
Zero Gravity Carbon Arm
Easy moving manipulation
Radius 1500 to 2500 mm (4.92 to 8.20 ft)



**Up to 300-600-1000-2000 Nm**
(221-442-737-1475 ft.lb)
Pneumatic cylinder suspension
Radius 1600 to 4000 mm (5.25 to 13.12 ft)

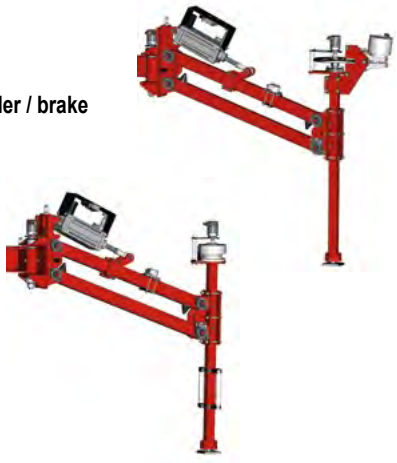
# Options

**Arms options**
- Controller and accessories stand
- Parking position sensor
- Encoder (possible on each axis)
- Rotating pillar
- Brakes



**Controller support**

**Encoder / brake**



*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

# Accessories and Options

*Tool holders*

**Fixed tool holder**



**X-Rotating tool holder**



**Indexed X-Rotating tool holder**



**Z-Rotating tool holder**



**Indexed Z-Rotating tool holder**






**Y-Rotating tool holder**



**Indexed Y-Rotating tool holder**



# CVI3 HMI & Positioning System

**CVI3 HMI**

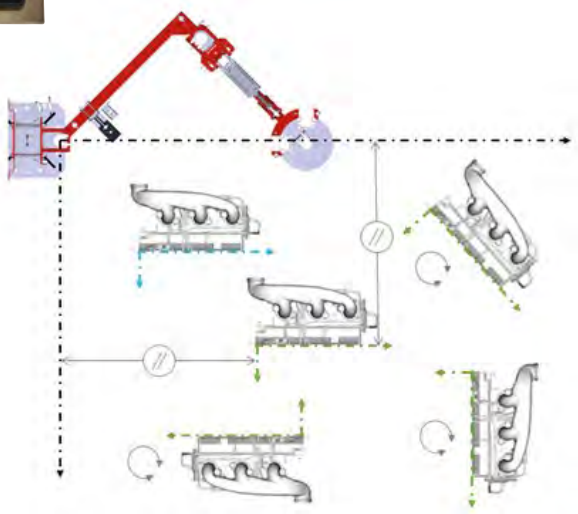
- Standard or specific 4", 7" and 8"
- PC or non PC based
- Plastic or stainless steel enclosure
- From basic input keypad to CVI Adavanced HMI
- Multi-tool / Operator guidance working instruction management



**CVI3 Positionning System**

can be used in many different cases:

- DSM Arms, D53 Linear and Folded arms, TRA or special Arms
- Based on connected encoders, positioning system permit to contol & guaranty every tightening in order to prevent to forget some bolts or to tighten a bolt already tightened
- Controlled tightening system
- Standard, "Relative X & Y" or "Relative X & Y + Z Rotating" mode



*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

# Customized Solutions

## CONTROLLER STAND

- 1 Controller CVI3 and accessories or 2 controllers
- 1 Controller Twin CVI3 and accessories or 2 controllers
- Multi CVI3 - Retractable controller stand
- Different options and cable management included





## SPECIAL FUNCTIONS:

- Trombons (vertical and horizontal)
- Special gear boxes simple or with Hold and Drive
- Special gear boxes with 2 spindles













*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

# Other Customized Solutions

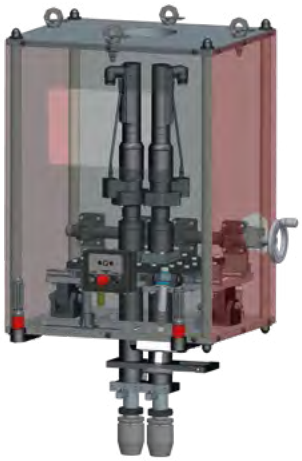


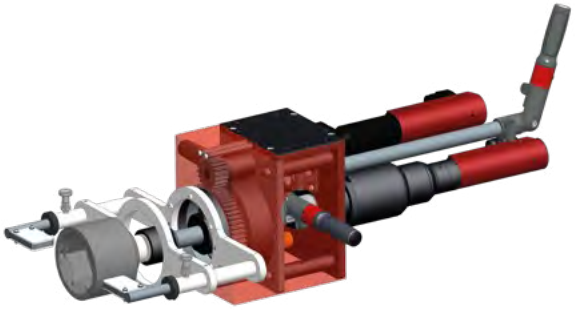


## CUSTOMIZED SOLUTIONS

- 1 spindle with electromagnet and reaction pin with 2 center distances
- Special multi spindle with orientation, center distance adjustment, suspension with brake, ...
- Trolley and arms on trolley

**AND MUCH MORE ON REQUEST !**

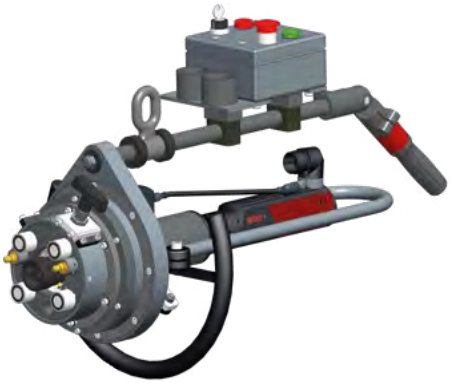












*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

# Screwfeeder Solutions - Rapid

## SCREW FEEDING SYSTEM

Automation has significantly transformed the manufacturing industry, particularly with the advent of screw feeding systems that have replaced traditional manual tightening stations. Coupled with rapidly advancing handling systems and electrical screwdriver technology, the performance, production capacity, and quality control of tightening stations have reached unprecedented levels.



## RAPID SOLUTION FROM DESOUTTER



We recognize the significant impact a screw feeding system can have on the success of a tightening process and the overall performance of the final assembly. As a natural progression of our product range, we developed our in-house designed screw feeding system. Introducing "RAPID", an integrated solution that combines our screwdriver and controller, ensuring perfect compatibility, enhancing project flexibility, and aiding global standardization. This combination boosts productivity and minimizes downtime.

## GENERAL INTRODUCTION

A screw feeding system encompasses more than just its two primary components—the feeder unit and tightening module. It also includes a screwdriver, controller, functional accessories, and specific design features, forming a comprehensive system topology. This system is customized to suit your fastener and application using standardized components. Its goal is to automate the tightening process, enhancing cycle time, improving quality, and preventing incorrect operations.



For further information about technical data, please contact your Desoutter representative or Project Manager for assistance

# Screwfeeder Solutions - Feeders

## BOWL FEEDER

- Fill volume: 0.4L, 1.0L or 3.0L
- Simple structure and easy maintenance



SS2, SS5

## STEP FEEDER

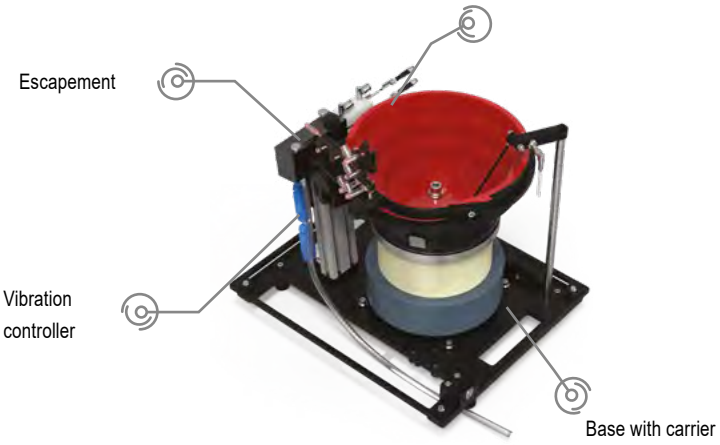
- Fill volume: 2.0L or 5.0L
- Reduced friction, particles and noise

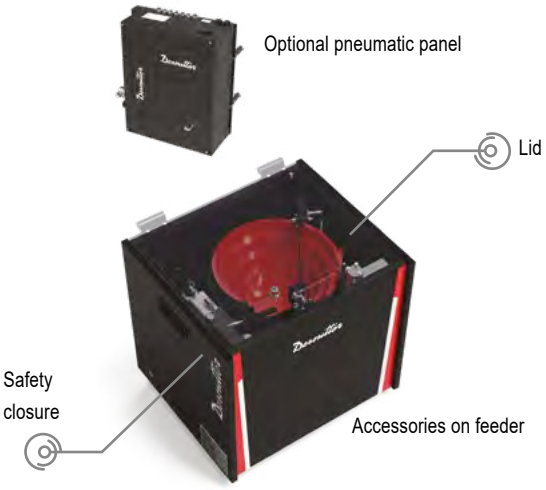


BS04, BS1, BS3

## STRUCTURE

- Container that includes:
- Linear rail
- Linear track sensor
- Screw level indicator




## CONTAINER AND LINEAR RAIL



## LINER RAIL AND ESCAPEMENT



Nut feeding is available as well

# Screwfeeder Solutions - Tightening modules

## AUTOMATIC STATION AUTO-FEEDING

- With or without Z-axis head stroke;
- Vacuum option for hard-to-reach point;
- Male and female screw recess;
- Best cycle time;
- All tightening directions;



S1 S2 VS1B VS2B VS2S

## AUTOMATIC STATION PICK& PLACE

- Single or double stroke;
- VP0 on your own Z-axis stroke;
- Wide range of screws;
- Best cost for hard-to-reach points;
- Compact and light weight;



VP0 VP1 VP2 VPAQ

## HAND-HELD STATION AUTO-FEEDING AND PICK & PLACE

- VP0 uses for hand-held station;
- Ergonomic design with D53
- Exist for horizontal application

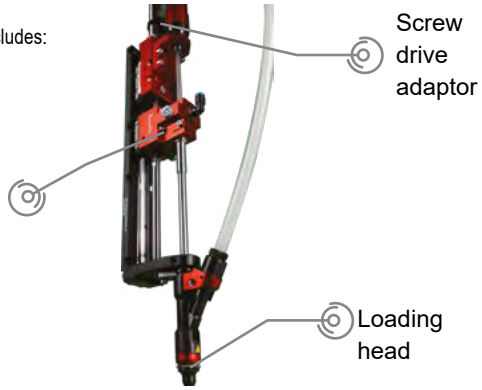


C1 / VC1B VP0

## "SWIVEL" LOADING HEAD

Stroke module that includes:

- Pneumatic cylinders;
- Screw bit;
- Vacuum tube;
- Vacuum module;
- Guide rail



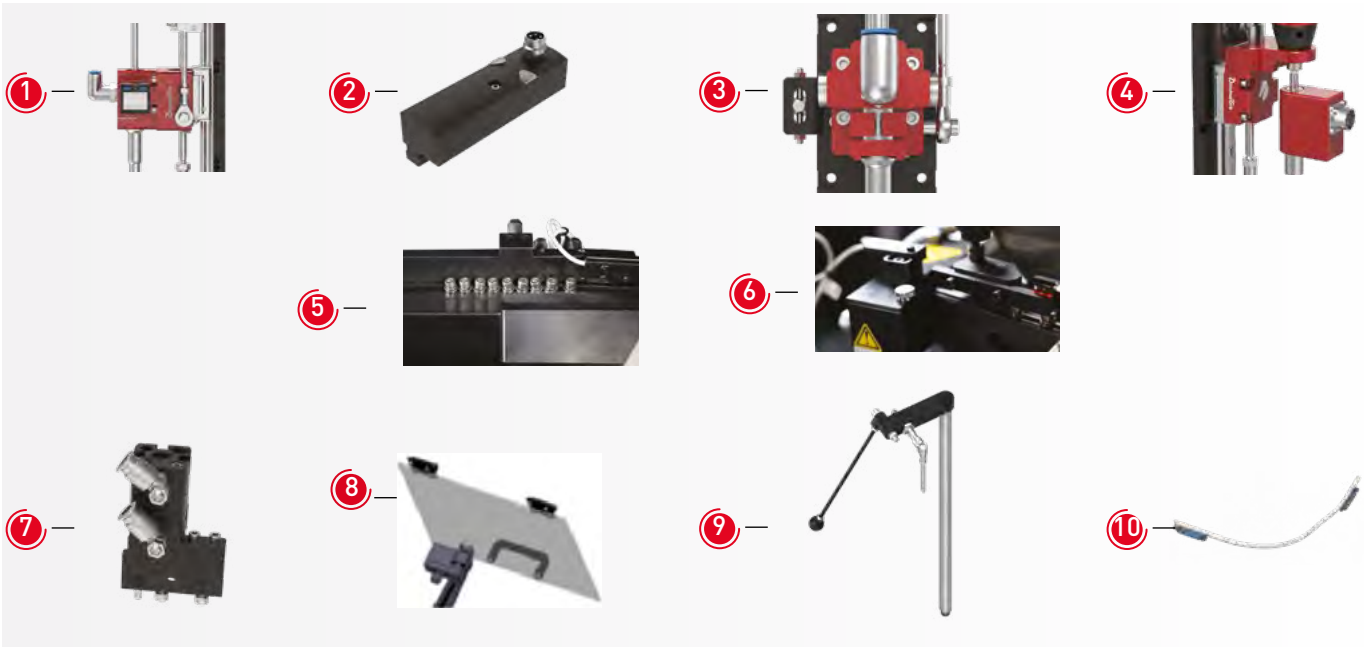



Nut feeding is available as well

*For further information about technical data, please contact your Desoutter representative or Project Manager for assistance*

# Screwdriver Solution - Accessories

| | ACCESSORIES | USAGE | FUNCTION |
|---|---|---|---|
| 1 | Vacuum sensor | module | Check whether vacuum is correctly built up. In case of screw dropping, the sensor should send alert signal. |
| 2 | Depth sensor | module | Ensure the tool cylinder has correct stroke for tightening, through analogue signal. |
| 3 | Search position sensor | module | Ensure the screw is correctly engaged by the bit. |
| 4 | DRT Function | module | Tool torque online calibration |
| 5 | Overload ejector | Feeder | Avoid the overload of screws when the rail is full by air blowing. |
| 6 | Escapement sensor | Feeder | Ensure the screw presence in the escapement. |
| 7 | Screw hammer | Feeder | Ensure correct alignment of screw and washers, by “knocking” the screw head. |
| 8 | E-locker | Feeder | Safety closure can only be opened, by sending electrical signal to controller. |
| 9 | Screw level monitor | Feeder | Detect the screw level in container and send signal if screws are running out. |
| 10 | Feed hose sensor | Feeder | Check the screw presence in the feed hose. |





hopper


break unit


shaft length check


distributor


presenter


Particle cleaner

# THE MOTION CAPTURE SOLUTION

*Solutions*

INTELLIGENT WORKER ASSISTANCE FOR POSITION MONITORING OF TOOLS



Each work step is explained step by step and makes error-free work possible

## GOOD TO KNOW

6% of the global population is colour blind or has other colour blindness issues. Nexonar offers an audio support system for these groups of people.

## OUR OBJECTIVE

- True to the “Poka Yoke” principle, we make error-free work possible.
- Ensuring security within the work process by locking the device in the wrong position and unlocking it in the right one.
- Through visual and auditory feedback , we help the worker to achieve a process in which error prevention and quality control go hand in hand.

## YOUR BENEFITS

- Less follow-up remedy of defects
- Easier handling through image, text and sound support system
- Less need for training with frequently changing personnel
- Better cost/benefit ratio in the long term
- Error exclusion in complex and/or monotonous work activities

# THE MOTION CAPTURE SOLUTION

*Products*

## IR CAMERA

- Flexible attachment and assembly options
- Various fields of view (up to 4x4m per camera)
- Up to 8 additional cameras at one workstation
- Only receptive to infrared light



## BENEFITS OF IR TECHNOLOGY

- Compliant with General Data Protection Regulation (GDPR)
- Possibility of very precise work processes with distances up to 1mm
- Independent from the light condition at the work place





# THE MOTION CAPTURE SOLUTION

*Visualization*

## ASSEMBLY SCOUT

- Visualize the tasks you have to do
- Customized operator instructions
- Monitor dynamicly the positions and control your process






## 3D LASER GUIDANCE

- Visualize the right positions directly on the application
- Movable laser without loss of accuracy
- Possibility to configure customized shapes (arrow, cross, number)




## AUGMENTED REALITY

- Visualize the status of an actual system setup
- Movable laser without loss of accuracy
- Help to improve virtual zone positions according to the tool orientation

# THE MOTION CAPTURE SOLUTION

*Software*

## ASSEMBLY SCOUT CONFIGURATION

- Worker assistance software
- Dynamic monitoring of the positions
- Error-free work
- Real-time analytics

## CONNECTIONS

- ProfiNet
- Ethernet/IP
- Profibus
- Discreet I/O
- Open Protocol
- MQTT
- OPC/UA
- PivotWare (Desoutter)
- OGS (Bosch Rexroth)
- VPG+ (SCS)
- SQS (Atlas Copco)
- AklanS (VW/Audi)

## USER INTERFACE



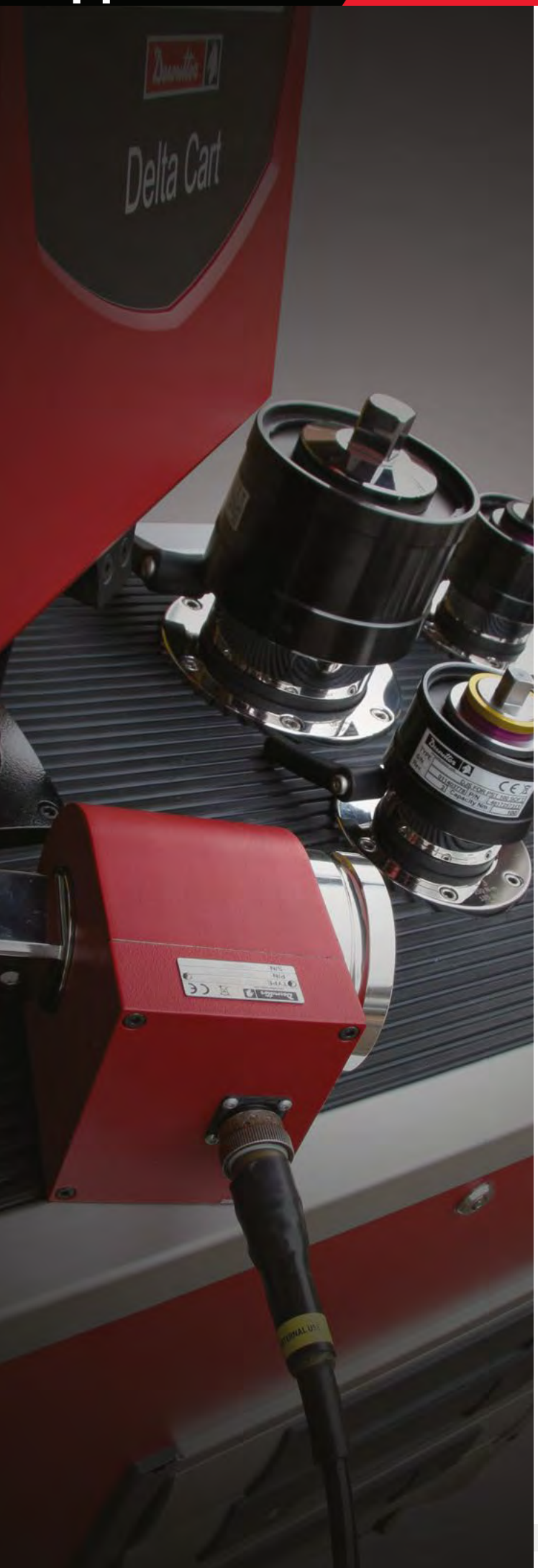

Simple controls

Tracker selection

Definition of the workspace

Create factory recipes

Lots of customization options




# Quality Assurance Techniques

Statistical quality assurance techniques help organizations to achieve over 30% defect reduction annually. They reflect a growing trend throughout the industry to become more quantitative about quality.

Activities to implement start from the qualification of your assembly tools in inventory, and the regular tests of their performance over their lifetime.

But over the simple measurement of Power Tools performances, Quality Assurance allows a continuous improvement of processes.

Using Six Sigma for process improvement (DMAIC):

- *DEFINE*: Set the goal
- *MEASURE*: Define the metrics
- *ANALYZE*: Measure where you go
- *IMPROVE*: Improve Processes while you go
- *CONTROL*: Act immediately if going on the wrong path

Measure and Analyze are the main added value of the range exposed in following pages.

Based on your Control Plan, the different solutions we provide in Measurement Techniques allow you to:

- Take control of the Capability and repeatability of Assembly tools from their reception in the factory, and make it sustainable and traceable with Machine Capability Tests and Calibration reports.
- Qualify the selected tools for specific operations in regards to the periodical tests performed.
- Measure in SPC the output of production and get clear guidance to implement preventive maintenance or detect a process deviation on critical operations.
- Enable documentation of your tightening operations from engineering phase to quality audits.

As a manufacturer of Industrial Tools, measurement systems, and service provider Desoutter is your partner to make your investment sustainable and cost effective.

# Delta Data Collector and Analyzer

*Delta 1D / Delta 6D / Delta 7D*

Delta Analyzer is a portable solution to perform Assembly line Audits, measure and detect deviations in SPC, execute Machine Capability Test to prove that the inventory of tools is under control.

Combined with the entire range of standard Desoutter transducers (rotary, static and wrenches) it allows a continuous roll out of the Control Plan in Production and enables calibrations of pulse tools, pneumatic and electric nutrunners, spindles, screwdrivers and wrenches.



## MAIN FEATURES

- Display: Large color screen shows clear test results, Torque & Angle curves. Real time statistics, Tools description and Routes
- Connectivity: Ethernet and USB port for Delta QC software communication and RS232 for communication to controllers (calibrations) or barcode reader
- Power: Li-Ion high capacity battery of 16 hours of autonomy or external power supply
- Transducer: Standard Desoutter connector for Digital transducers, Analog CMD and GSE transducer connection through optional adapters.
- Barcode (Delta 7D): Embedded Barcode for automatic Pset selection or VIN traceability

## MAIN BENEFITS

**Machine Capability Tests** (Maintenance Operators)

- Perform tools dynamic on-line verifications with Digital Rotary Transducers with minimal disturbance in production with clear outputs thanks to SPC mode.
- Check the repeatability of tools after adjustment or perform tools transducers calibrations or carry full tool check after repair / maintenance, using Static transducers to report Cm/Cmk.
- Compare Tools performances on a job to define backup solutions.

**Process Capability Tests** (Quality Operators)

- Plan routes and focus to execute a Control Plan on the critical operations where Quality Control is the most valuable to detect deviations and avoid non desired costs due to rejects.
- Carry Joint checks verifications campaigns with a Digital Torque & Angle wrench.
- Measure in real time and with precision the outputs of a tightening tool in production, with a direct access to curves and real time statistics, removing manual work / reports.



Test in static (PST)



Test in dynamic (DRT)



Post-production Joint check (Q-AUDIT)

This range of 3 models delivers 3 levels of usage:

- Basic : DELTA 1D for Torque measurement only.
- Essential : DELTA 6D for Torque & Angle measurements.
- Advanced : DELTA 7D, adding to the Delta 6D model an embedded barcode scanner which makes it the ideal daily companion for both Maintenance operations and Quality Control data collection during line Audits. This model also allows joint analysis with different production strategies, as well as Residual Torque Checks (with Q-AUDIT wrenches), and SPC campaigns.

# Delta Data Collector and Analyzer

*Delta 1D / Delta 6D / Delta 7D*

| MODEL | PART NUMBER | POWER REQUIREMENTS | | DIMENSIONS | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | BATTERY LIFE | CHARGER | DEPTH | | WIDTH | | HEIGHT | | | |
| | | hours | Volt | mm | in. | mm | in. | mm | in. | kg | lb |
| **Delta 1D** | **615 935 101 0** | 16 | 110/240 | 45 | 1.77 | 95 | 3.74 | 192 | 7.56 | 0.5 | 1.1 |
| **Delta 6D** | **615 935 102 0** | 16 | 110/240 | 45 | 1.77 | 95 | 3.74 | 192 | 7.56 | 0.5 | 1.1 |
| **Delta 7D** | **615 935 147 0** | 16 | 110/240 | 45 | 1.77 | 95 | 3.74 | 192 | 7.56 | 0.5 | 1.1 |

All models are supplied with box including Battery, Power Supplier and Delta QC Free Version

| | DELTA 1D Basic | DELTA 6D Essential | DELTA 7D Advanced |
|---|---|---|---|
| **Onboard Functionalities** | | | |
| Tool Checks (Power tool, Pulse tool, Wrenches) | ✔ | ✔ | ✔ |
| Min, Max, Avg, Sigma statistics | ✔ | ✔ | ✔ |
| Cm/Cmk and SPC | - | ✔ | ✔ |
| Joint Checks / Quality Strategies | - | - | ✔ |
| **Hardware Capability** | | | |
| Number of channels | 1 | 1 | 1 |
| Digital transducers (DRT, PST, FCT, DSTxs) | ✔ | ✔ | ✔ |
| Analog transducers* (CMD, GSE, 19 pins analog transducers) | ✔ | ✔ | ✔ |
| Q-Audit for Joint Checks and Analysis | - | - | ✔ |
| Size | 95 x 192 x 49 | 95 x 192 x 49 | 95 x 192 x 49 |
| Keyboard | ✔ | ✔ | ✔ |
| Color display | ✔ | ✔ | ✔ |
| Torque | ✔ | ✔ | ✔ |
| Angle | - | ✔ | ✔ |
| Clamping Force | ✔ | ✔ | ✔ |
| Embedded Tools database | 1 | 1000 | 1000 |
| Embedded Psets database | 1 in manual | 1000 | 1000 |
| Results storage | 1000 | 5000 | 5000 |
| Curves storage (visible on display) | 10 | 10 | 10 |
| Embedded Barcode reader | - | RS232 (not included) | ✔ |
| RS232 / RJ45 (Ethernet) & USB port | ✔ | ✔ | ✔ |

*Through optional analog/digital adapter

| | FREE | LICENSED | ADVANCED |
|---|---|---|---|
| **Software** | | | |
| View / Export results and Curves | ✔ | ✔ | ✔ |
| Configure Tests strategies | ✔ | ✔ | ✔ |
| Define Routes (up to 32.000) for a fleet of Delta 6D/7D | - | ✔ | ✔ |

# Main functions of Delta Analyzer

*Delta 1D / Delta 6D / Delta 7D*



- Connectivity: Ethernet / RS232 / USB Port (Transfer of results in Delta QC SQlite database for an overall traceability from all transducers.)
- Power: Li-Ion high capacity battery (16 hours)
  External power supply
- Barcode: For Pset selection / Traceability
- Transducer: Connector to fit a large range of transducers (Rotary / Static / Load transducers and Q-AUDIT wrench)

## Digital Transducers:



**DRT**



**PST**



**DSTxs**



**FCT**



**Q-AUDIT**

# Accessories for Delta

## ACCESSORIES INCLUDED

| | | PART NO. |
|---|---|---|
| 1 | Delta Battery | 615 936 142 0 |
| 2 | Universal Power Supplier | 615 936 143 0 |



— 1



— 2



(belt clip included)

## OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| 3 | Rubber Protection | 615 936 141 0 |
| 4 | Digital 10 pins Cable 2m | 615 917 430 0 |
| • | Digital 10 pins Spiral Cable 2m | 615 917 432 0 |
| • | Digital 10 pins Cable 5m | 615 917 433 0 |
| • | CMD & ST 4000 Adapter | 615 917 671 0 |
| • | CMD 5000 Adapter | 615 917 672 0 |
| • | RS232 Adapter | 615 917 670 0 |
| • | GSE 2500 Adapter | 615 917 674 0 |
| • | GSE 8500T Adapter | 615 917 675 0 |
| • | GSE 8500T/A Adapter | 615 917 676 0 |
| • | Analog 19 pins Adapter | 615 935 175 0 |
| 5 | Delta Demo Case (Empty) | 615 936 140 0 |
| 6 | Delta QC Licensed - 1 user | 615 927 651 0 |
| 6 | Delta QC Licensed - 5 user | 615 927 652 0 |
| 6 | Delta QC Advanced 1 user | 615 927 653 0 |
| 6 | Delta QC Advanced 5 user | 615 927 654 0 |
| 7 | Delta Neck Holder | 615 936 530 0 |



— 3



— 4



— 5




— 6



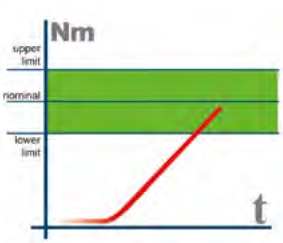
— 7

# Q-Audit - Wrench

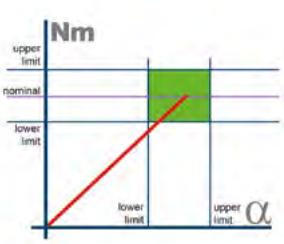
Production & Quality strategies: In combination with Delta 7D, the torque and angle wrench for residual automatic torque check and Joint analysis with Yield point detection.

| MODEL | PART NUMBER | RANGE | | ANGLE | DRIVE | | INCLUDED RATCHET | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Nm | ft lb | | mm | in. | in | mm | in. | kg | lb |
| **Q-Audit 30** | **615 221 040 0** | 3-30 | 2.21-22.13 | ✔ | 9x12 | 0.35X0.47 | 3/8 | 405 | 15.9 | 0.765 | 1.686 |
| **Q-Audit 150** | **615 221 041 0** | 15-150 | 11.06-110.6 | ✔ | 14x18 | 0.55x0.70 | 3/8 | 420.5 | 16.55 | 1.020 | 2.248 |
| **Q-Audit 350** | **615 221 042 0** | 35-350 | 25.81-258.1 | ✔ | 14x18 | 0.55x0.70 | 3/8 | 697 | 27.44 | 2.168 | 4.779 |

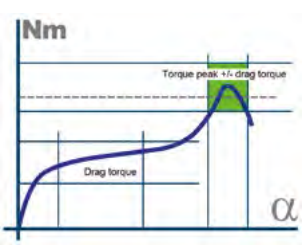




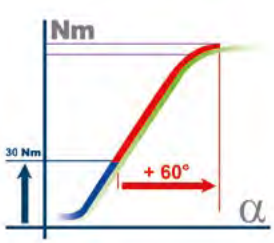

**Tightening within torque limits**




**Tightening within torque and angle limits (tightening to a window)**




**Prevailing torque automatic compensation**




**Tightening with torque and additional angle rotation (torque + angle)**


Desoutter
WRT
Connect
Desoutter

# Wireless Rotary Transducers & Accessories

*Make your tool verification & calibration simple*

### TRANSDUCER

Torque & Angle quality control on all models. Maximum torque accuracy error (value read by the transducer): ± 0.50 %. Maximum resolution: 0.06°.

### ON BOARD MEMORY STORAGE

50,000 results, 5,000 curves can be stored on a WRT.

### FOR AN EXTENSIVE RANGE OF TOOLS



Click-wrenches, slip-wrenches, nutrunners and Pulse tools.

### BATTERY ACCESS

Charging is also possible by removing the battery and placing WRT adapters on a QA-Charger. WRT battery autonomy: 8 hours.

### BATTERY LED

Communicate the battery charge status.




### OUTPUT DRIVE

According to the torque range, the output is different from 1/4" hex drive to 3/4" square drive, depending on torque capacity.

### USB PORT

Required for 1st connection to connect to the web user interface and / or to charge the WRT.



### ON/OFF BUTTON

Physical button to turn on/off the WRT.

### REPORTING LED STATUS

Communicate different WRT statuses depending on color and behavior.

## FEATURES

- Torque range from 0.4 to 500 Nm (0.36 to 368,7 ft.lb).
- Angle counting system 0.06° maximum resolution.
- Strain gauges transducer : - sensitivity 2mV/V - accuracy +/-0.5% of value read by the transducer, thanks to magnetic ring technology.
- No cable required, as it's a wireless transducer.
- Dedicated web user interface.
- Memory storage of all torque & angle data with curves (50,000 results and 5,000 curves).
- New design uses optical transmission of all data (brushless system), especially for use with Pulse tools.

## BENEFITS

- Easy to use.
- Quick tool verification, especially in hard-to-reach applications with no cables to manage.
- Fast and flexible connection: choose between the built-in access point, a connection to your network or via USB.
- View the results on the device of your choice (computer, tablet, etc.).
- Intuitive web user interface: view results, curves, database, data download facility in a matter of seconds.
- No software required
- Use for all type of tools (Click-wrenches, slip-wrenches, nutrunners) including Pulse tools.

# WRT - Wireless Rotary Transducers

*Torque & Angle*

The WRT is a means of auditing not only the tools (click-wrenches, slip-wrenches, nutrunners or Pulse tools*) but also the assembly process, providing a detailed analysis of torque and angle information.
With the WRT you can:
- Manual & Automatic Calibration (Automatic Adjustment) with CONNECT Smart hub
- SPC (Statistical Process Control)
- CM / CMK
- Demo mode









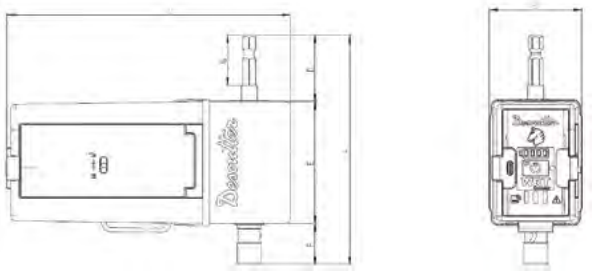




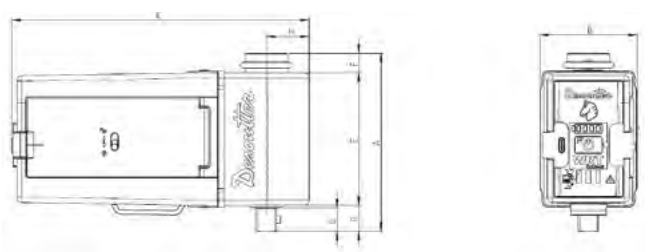
| PIC | MODEL | PART NUMBER | OUTPUT DRIVE | TORQUE | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | MIN. | MAX.* | MIN. | MAX.* | | |
| | | | in. | Nm | Nm | ft.lb | ft.lb | g | lb |
| A | WRT4-HEX1/4 | 615 221 051 0 | 1/4 | 0.4 | 4 | 0.36 | 3.6 | 483.5 | 1.065 |
| A | WRT10-HEX1/4 | 615 221 052 0 | 1/4 | 1 | 10 | 0.88 | 8.8 | 484.7 | 1.068 |
| A | WRT20-HEX1/4 | 615 221 053 0 | 1/4 | 2 | 20 | 1.47 | 14.7 | 463.2 | 1.02 |
| B | WRT25-SQ3/8 | 615 221 054 0 | 3/8 | 2.5 | 25 | 1.84 | 18.4 | 486.4 | 1.07 |
| B | WRT75-SQ3/8 | 615 221 055 0 | 3/8 | 7.5 | 75 | 5.53 | 55.3 | 491.4 | 1.08 |
| C | WRT180-SQ1/2 | 615 221 056 0 | 1/2 | 18 | 180 | 13.27 | 132.7 | 599.7 | 1.32 |
| D | WRT500-SQ3/4 | 615 221 057 0 | 3/4 | 50 | 500 | 36.87 | 368.7 | 1094 | 2.41 |

*With Pulse tools, the WRT shall not be used over 50% of the maximum torque.

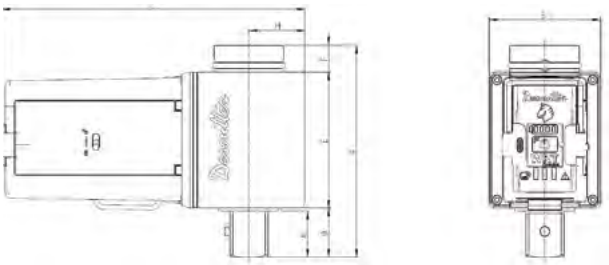
| MODEL | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| | mm | mm | mm | mm | mm | mm | mm | mm |
| WRT4-HEX1/4 | 115.8 | 45 | 138.3 | 33.8 | 61.5 | 20.5 | 25.5 | 20 |
| WRT10-HEX1/4 | 115.8 | 45 | 138.3 | 33.8 | 61.5 | 20.5 | 25.5 | 20 |
| WRT20-HEX1/4 | 115.8 | 45 | 138.3 | 33.8 | 61.5 | 20.5 | 25.5 | 20 |
| WRT25-SQ3/8 | 82.6 | 45 | 138.3 | 12.1 | 61.5 | 9 | 11 | 20 |
| WRT75-SQ3/8 | 82.6 | 45 | 138.3 | 12.1 | 61.5 | 9 | 11 | 20 |
| WRT180-SQ1/2 | 90.5 | 45 | 141.8 | 17 | 61.5 | 12 | 15.2 | 22.5 |
| WRT500-SQ3/4 | 106 | 56 | 151.9 | 24.6 | 68 | 13.4 | 23 | 28 |



WRT4-Hex1/4, WRT10-Hex1/4, WRT20-Hex1/4



WRT25-Sq3/8, WRT75-Sq3/8, WRT180-Sq1/2



WRT500-Sq3/4

# WRT - Wireless Rotary Transducers

*Torque & Angle*

## INTUITIVE WEB USER INTERFACE

- View the results with the device of your choice: computer, tablet or smartphone !
- The web user interface gives access to the result data base, curves, live results and the data download facility.

**WRT offers three different ways to access its web user interface:**

- **EMBEDDED ACCESS POINT (DHCP) / WEB:** WRT hosts an embedded access point. You can update network settings directly through the intuitive Web User Interface and choose between static and DHCP methods for IP address allocation. It's ideal for scenarios where simplicity and self-contained connectivity are paramount.
- **INFRASTRUCTURE MODE:** In this mode, WRT seamlessly integrates into your existing factory network. It's perfect for environments where additional Wi-Fi networks are undesirable or impractical.
- **BY CABLE:** Use the cable for your first connection - it's a one-time requirement - then this old-school approach is also possible from this point forward..



# Accessories




### ACCESSORIES INCLUDED

| | | PART NO. |
|---|---|---|
| 3 | WRT Battery | **615 936 531 0** |

### OPTIONAL ACCESSORIES

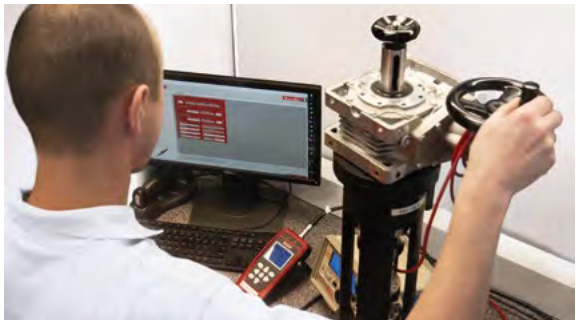
| ITEM | | PART NO. |
|---|---|---|
| 1 | WRT 2x Adapters | 615 936 534 0 |
| 2 | QA Charger | 615 936 461 0 |
| 3 | WRT Battery | 615 936 531 0 |
| 4 | WRT anti-rotation holder[1] | 615 936 535 0 |
| 5 | CVI KEY[2] | 615 927 676 0 |

*[1] For angle tools with compatible sizes (tool diameter less than 43 mm, such as EABC 32- 410, EABC 50-450, EABC 60-370, EABC 17-800-4Q, EABC 24-500-4Q, ELS330-300-A, etc.).*
*[2] The WRT Web User Interface uses a role-based authorization system. User permissions depend on the role assigned to the user with the CVI KEY. Without it, you will only have access to "Demo mode". To create an operation (tool & Pset), you need to enter your CVI KEY.*

## Accredited Calibration

SAFETY & TRACEABILITY OF YOUR TIGHTENING PROCESS

- Recognised accreditation through the ILAC* agreement
- According to ISO/IEC 17025 specified measurement uncertainty
- Adjustment of the equipment
- Certificates available 24/7 for up to 10 years
- Reminder of next calibration



* ILAC (International Laboratory Accreditation Cooperation): an agreement signed by almost all industrialized countries. Certificates from accredited laboratories of the member states are recognized by other ILAC member countries.

# Quality Control and measurement traceability

*Delta Quality Control*

## DELTA QC

The Delta QC software is the common software platform for all Delta QC measurement equipment. Included features are programming, results and curve viewer ensuring measurement data traceability Statistic machine capability tool or SPC are also ensured thanks to local database available in the Advanced version

## Delta QC Advanced

Advanced version provides a local result database and offline programming.
All results, curves and statistics are available for review, export and reporting in both on line and off line mode. All Tools, Status and Pset are always available in the local SQL DB




| MODEL | PART NUMBER |
|---|---|
| Delta QC Licensed 1 User | **615 927 651 0** |
| Delta QC Licensed 5 User | **615 927 652 0** |
| Delta QC Advanced 1 User | **615 927 653 0** |
| Delta QC Advanced 5 User | **615 927 654 0** |

| MAIN FUNCTIONS | FREE | LICENSED | ADVANCED |
|---|---|---|---|
| **Delta D** | | | |
| Pset programming | ✔ | ✔ | ✔ |
| Tool Definition | ✔ | ✔ | ✔ |
| Route Definition | | ✔ | ✔ |
| Transducer Definition | ✔ | ✔ | ✔ |
| Pset Database | | ✔ | ✔ |
| Tool Database | | ✔ | ✔ |
| Route Database | | ✔ | ✔ |
| Statistic (online only) | | ✔ | ✔ |
| Result viewer | ✔ | ✔ | ✔ |
| Result excel export | ✔ | ✔ | ✔ |
| Curve viewer | | ✔ | ✔ |
| Curve excel, JPEG export | | ✔ | ✔ |
| Curve comparison | | ✔ | ✔ |
| RESULT Database | | | ✔ |
| Curve Database | | | ✔ |
| Offline statistic | | | ✔ |

## Delta QC Licensed




| MAIN FUNCTIONS | FREE | LICENSED | ADVANCED |
|---|---|---|---|
| **QShield-S** | | | |
| Pset programming | ✔ | ✔ | ✔ |
| Result viewer | ✔ | ✔ | ✔ |
| Result excel export | ✔ | ✔ | ✔ |
| PSet Database | | ✔ | ✔ |
| Curve viewer | | ✔ | ✔ |
| Result Database | | | ✔ |
| **Delta Cart** | | | |
| Pset programming | | | ✔ |
| Pset Database | | | ✔ |
| Result viewer | | | ✔ |
| Result excel export | | | ✔ |
| Result Database | | | ✔ |
| Offline statistic | | | ✔ |

## Delta QC FreeVersion

Delta Wrench and Alpha D product range are supplied with the Delta QC software Without any registration the Delta QC is able to program Delta Wrench, Delta D and Alpha D, download results, export to excel and print



| MAIN FUNCTIONS | FREE | LICENSED | ADVANCED |
|---|---|---|---|
| **ALPHA D** | | | |
| Result viewer | ✔ | ✔ | ✔ |
| Result excel export | ✔ | ✔ | ✔ |
| Curve viewer | | ✔ | ✔ |



# Digital Rotary Transducers & Accessories

*Torque & Angle*

The DRT5 series associated with a Delta 6D or Delta 7D are including an Angle measurement encoder to allow both Torque AND Angle quality controls (preferred series in case you are using Angle strategies and/or monitoring).



| MODEL | PART NUMBER | TORQUE RANGE | | OUTPUT |
|---|---|---|---|---|
| DRT5 | | Nm | ft lb | |
| **DRT 5 H 2** | **615 165 218 0** | 0.2 - 2 | 0.15 - 1.5 | Hex ¼" |
| **DRT 5 H 5** | **615 165 219 0** | 0.5 - 5 | 0.37 - 3.7 | Hex ¼" |
| **DRT 5 H 20** | **615 165 220 0** | 2 - 20 | 1.47 - 14.7 | Hex ¼" |
| **DRT 5 Sq 20** | **615 165 221 0** | 2 - 20 | 1.47 - 14.7 | Sq ¼" |
| **DRT 5 Sq 25** | **615 165 222 0** | 2.5 - 25 | 1.84 - 18.4 | Sq ⅜" |
| **DRT 5 Sq 75** | **615 165 223 0** | 7.5 - 75 | 5.53 - 55.3 | Sq ⅜" |
| **DRT 5 Sq 180** | **615 165 224 0** | 18 - 180 | 13.2 - 132 | Sq ½" |
| **DRT 5 Sq 500** | **615 165 225 0** | 50 - 500 | 36.8 - 368 | Sq ¾" |
| **DRT 5 Sq 1400** | **615 165 226 0** | 140 - 1400 | 103.2 - 1032 | Sq 1" |
| **DRT 5 Sq 5000** | **615 165 780 0** | 500 - 5000 | 368.5 - 3685 | Sq 1-½" |

*Note: The DRT shall not be used with pulse tools over 50 % of the transducer nominal torque.*

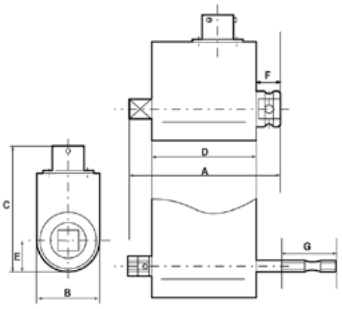
## FEATURES

- Torque range from 0.2 to 5000 Nm (0.15 to 3685 ft.lb).
- Angle counting system 0.35° resolution.
- Strain gauges transducer : - sensitivity 2mV/V - accuracy +/-0.35% of max. torque.
- Built-in smart chip memory with calibration features : - type of transducer - sensitivity nominal load - serial number.

## BENEFITS

- Automatic recognition thanks to internal memory chip storing main data values eliminating any setting mistakes and time losses.
- High reliability due to immunity from external noise thanks to digital communication.
- Communication to data analyzer not sensitive to the cable length.
- Long life durability thanks to industrial design from transducer to housing.

| SAME SIZE FOR TORQUE OR TORQUE & ANGLE TRANSDUCER | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OUTPUT | A | | B | | C | | E | | H | | F | | G | |
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| **Hex ¼"** | 116 | 4.56 | 31 | 1.22 | 71.9 | 2.83 | 56 | 2.2 | 15.5 | 0.61 | 39 | 1.53 | 25.5 | 1 |
| **Sq ¼"** | 71.5 | 2.81 | 31 | 1.22 | 71.9 | 2.83 | 56 | 2.2 | 15.5 | 0.61 | 6 | 0.24 | | |
| **Sq ⅜"** | 77 | 3.03 | 31 | 1.22 | 71.9 | 2.83 | 56 | 2.2 | 15.5 | 0.61 | 8 | 0.31 | | |
| **Sq ½"** | 87 | 3.42 | 42 | 1.65 | 82.9 | 3.26 | 58 | 2.28 | 21 | 0.83 | 12 | 0.47 | | |
| **Sq ¾"** | 106 | 4.17 | 52 | 2.05 | 92.9 | 3.66 | 66 | 2.60 | 26 | 1.02 | 21 | 0.83 | | |
| **Sq 1** | 125 | 4.92 | 65 | 2.56 | 104.9 | 4.13 | 73 | 2.87 | 32.5 | 1.28 | 29 | 1.14 | | |
| **Sq 1-½"** | 165 | 6.5 | 106 | 4.17 | 148.5 | 5.85 | 88 | 3.46 | 53 | 2.09 | 35.2 | 1.39 | | |




## OPTIONAL ACCESSORIES

| ITEM | DRT5 / DRT4 | PART NO. |
|---|---|---|
| • | 3/8" TRANS-HOLDER | **615 396 426 0** |
| • | 1/2" TRANS-HOLDER | **615 396 427 0** |

# DRT - Digital Rotary Transducers

*Torque*

The DRT4 rotary transducer series are designed to measure torque output (Only) of any non-impact assembly tool, directly on your application in dynamic mode.



## FEATURES

- Torque range from 0,2 to 10000 Nm (0.15 to 7375 ft.lb).
- Strain gauges transducer: - sensitivity 2mV/V - accuracy +/-0.35% of max. torque.
- Built-in smart chip memory with calibration features: - type of transducer - sensitivity nominal load - serial number.

| MODEL | PART NUMBER | TORQUE RANGE | | OUTPUT |
|---|---|---|---|---|
| DRT4 | | Nm | ft lb | |
| **DRT 4 H 2** | **615 165 209 0** | 0.2 - 2 | 0.15 - 1.5 | Hex ¼" |
| **DRT 4 H 5** | **615 165 210 0** | 0.5 - 5 | 0.37 - 3.7 | Hex ¼" |
| **DRT 4 H 20** | **615 165 211 0** | 2 - 20 | 1.47 - 14.7 | Hex ¼" |
| **DRT 4 Sq 20** | **615 165 212 0** | 2 - 20 | 1.47 - 14.7 | Sq ¼" |
| **DRT 4 Sq 25** | **615 165 213 0** | 2.5 - 25 | 1.84 - 18.4 | Sq ⅜" |
| **DRT 4 Sq 75** | **615 165 214 0** | 7.5 - 75 | 5.53 - 55.3 | Sq ⅜" |
| **DRT 4 Sq 180** | **615 165 215 0** | 18 - 180 | 13.2 - 132 | Sq ½" |
| **DRT 4 Sq 500** | **615 165 216 0** | 50 - 500 | 36.8 - 368 | Sq ¾" |
| **DRT 4 Sq 1400** | **615 165 217 0** | 140 - 1400 | 103.2 - 1032 | Sq 1" |
| **DRT 4 Sq 3000** | **615 165 536 0** | 300 - 3000 | 221.1 - 2211 | Sq 1-½" |
| **DRT 4 Sq 5000** | **615 165 540 0** | 500 - 5000 | 368.5 - 3685 | Sq 1-½" |
| **DRT4 Sq 10000** | **615 935 164 0** | 1000 - 10000 | 736.6 - 7375 | Sq 1-½" |

*Note: The DRT shall not be used with pulse tools over 50 % of the transducer nominal torque*

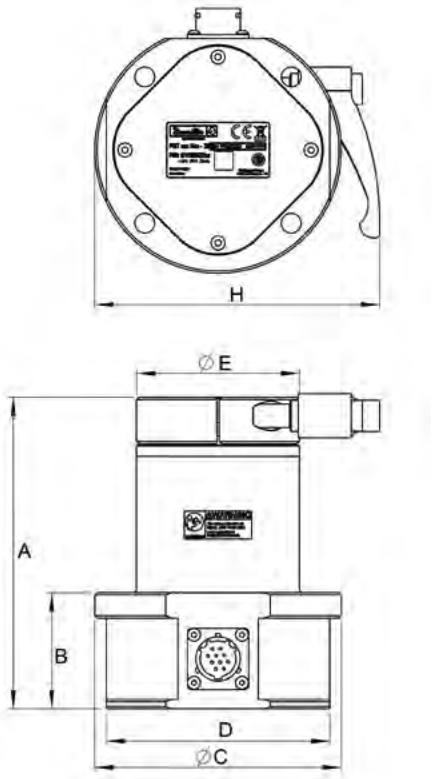
## TRANSDUCER CABLES

| MODEL | PART NUMBER | DESCRIPTION |
|---|---|---|
| **2m (78.7") - 10 pins** | **615 917 430 0** | For DRT / PST / DSTxs / FCT - all Delta Models |
| **2m (78.7") spiral - 10 pins** | **615 917 432 0** | For DRT / PST / DSTxs / FCT - all Delta Models |
| **5m (196.8") - 10 pins** | **615 917 433 0** | For DRT / PST / DSTxs / FCT - all Delta Models |

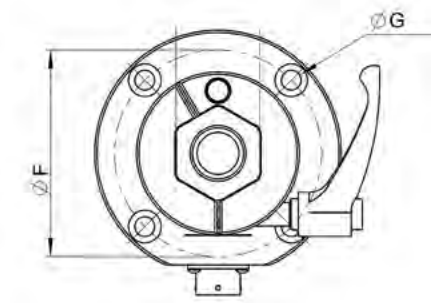
# PST - Pulse Static Transducer

Designed for testing hand wrenches, click wrenches, Pneumatic Pulse tools and electric nutrunners, the Pulse Static Transducer is the ideal solution to provide a periodic and static mean of control for audit at the station and will cover all your assembly tools in the production area.




*(reminder: the joint simulator is required accessory in the case of a shut-off pulse or nutrunner tool test).*




## FEATURES

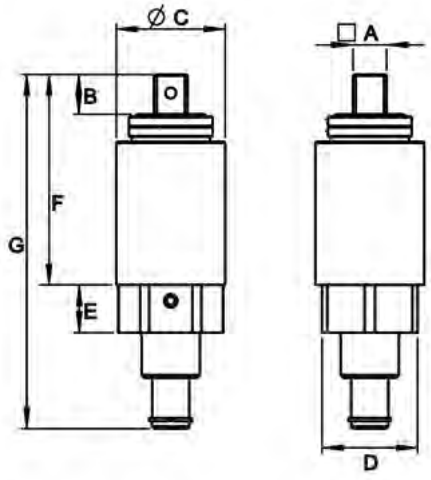
- Torque accuracy +/-0.35% of torque max.
- Built-in smart chip memory with calibration features: - type of transducer - sensitivity nominal load - serial number
- Lever to clamp the Joint simulator firmly for impulse tools
- Recommended for Pulse tools

| MODEL | PART NUMBER | TORQUE RANGE | | DIMENSIONS (MM) | | | | | | | | INPUT | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PST | | Nm | ft lb | A | B | C | D | E | F | G | H | | kg | lb |
| **PST 2 Nm - 13** | **615 935 220 0** | 0.2 - 2 | 0.15-1.5 | 83 | 39 | 80 | 69 | 45 | 64 | 4x Ø 6.5 | / | Sq 1/2" | 1.4 | 3.1 |
| **PST 5 Nm - 13** | **615 935 221 0** | 0.5 - 5 | 0.37 - 3.7 | 83 | 39 | 80 | 69 | 45 | 64 | 4x Ø 6.5 | / | Sq 1/2" | 1.4 | 3.1 |
| **PST 10 Nm - 13** | **615 935 222 0** | 1-10 | 0.74-7.4 | 83 | 39 | 80 | 69 | 45 | 64 | 4x Ø 6.5 | / | Sq 1/2" | 1.4 | 3.1 |
| **PST 25 Nm - 36** | **615 935 223 0** | 2.5-25 | 1.8-18 | 134 | 50 | 106 | 96 | 70 | 89 | 4x Ø 8.5 | 123 | Hex 36 | 4 | 8.8 |
| **PST 50 Nm - 36** | **615 935 224 0** | 5-50 | 3.7-37 | 134 | 50 | 106 | 96 | 70 | 89 | 4x Ø 8.5 | 123 | Hex 36 | 4 | 8.8 |
| **PST 100 Nm - 36** | **615 935 225 0** | 10-100 | 7.4-74 | 134 | 50 | 106 | 96 | 70 | 89 | 4x Ø 8.5 | 123 | Hex 36 | 4 | 8.8 |
| **PST 250 Nm - 36** | **615 935 226 0** | 25-250 | 18.4-184 | 134 | 50 | 106 | 96 | 70 | 89 | 4x Ø 8.5 | 123 | Hex 36 | 4 | 8.8 |
| **PST 500 Nm - 50** | **615 935 227 0** | 50 - 500 | 36.9-369 | 170 | 50 | 148 | 136 | 108 | 125 | 6x Ø 8.5 | 180 | Hex 50 | 10.1 | 22.3 |
| **PST 1000 Nm - 50** | **615 935 228 0** | 100-1000 | 73.8-738 | 170 | 50 | 148 | 136 | 108 | 125 | 6x Ø 8.5 | 180 | Hex 50 | 10.1 | 22.3 |
| **PST 2000 Nm - 50** | **615 935 229 0** | 200-2000 | 147.5-1475 | 170 | 50 | 148 | 136 | 108 | 125 | 6x Ø 8.5 | 180 | Hex 50 | 10.1 | 22.3 |

# Joint Simulator

A wide range of mechanical joint simulators are available to reproduce the joint behavior; installing the joint simulator on a transducer allows you to test a tool in the same repeatable working conditions. Each joint simulator reproduces a specific stiffness as described in its torque/angle characteristics. For each capacity, there are two versions: one reproducing a softer joint and one reproducing a harder joint.




| MODEL | PART NUMBER | COLOR | DIMENSIONS (MM) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| DJS | | | A | B | C | D | E | F | G |
| DJS for DST and PST 2 Nm SOFT | 615 165 529 0 | YW – YW | HEX ¼" | 14 | 24 | Sq. ½" | 8 | 50 | 71,5 |
| DJS for DST and PST 2 Nm HARD | 615 165 530 0 | YW – BK | HEX ¼" | 14 | 24 | Sq. ½" | 8 | 50 | 71,5 |
| DJS for DST and PST 5 Nm SOFT | 615 165 531 0 | GR – YW | HEX ¼" | 14 | 24 | Sq. ½" | 8 | 50 | 71,5 |
| DJS for DST and PST 5 Nm HARD | 615 165 571 0 | GR – BK | HEX ¼" | 14 | 24 | Sq. ½" | 8 | 50 | 71,5 |
| DJS for PST 10 Nm SOFT | 615 936 377 0 | RD - YW | HEX ¼" | 14 | 24 | Sq. ½" | 8 | 50 | 71,5 |
| DJS for PST 10 Nm HARD | 615 936 378 0 | RD - BK | HEX ¼" | 14 | 24 | Sq. ½" | 8 | 50 | 71,5 |
| DJS for PST 25 Nm SOFT | 615 936 379 0 | RD – YW | Sq. ⅜" | 11 | 34 | Hex 36 | 16,5 | 70 | 120,5 |
| DJS for PST 25 Nm HARD | 615 936 380 0 | RD – BK | Sq. ⅜" | 11 | 34 | Hex 36 | 16,5 | 70 | 120,5 |
| DJS for PST 50 Nm SOFT | 615 936 381 0 | BL – YW | Sq. ½" | 15 | 41 | Hex 36 | 18 | 84 | 133,5 |
| DJS for PST 50 Nm HARD | 615 936 382 0 | BL – BK | Sq. ½" | 15 | 41 | Hex 36 | 18 | 84 | 133,5 |
| DJS for PST 100 Nm SOFT | 615 936 365 0 | VL – YW | Sq. ½" | 15 | 41 | Hex 36 | 18 | 84 | 133,5 |
| DJS for PST 100 Nm HARD | 615 936 366 0 | VL – BK | Sq. ½" | 15 | 41 | Hex 36 | 18 | 84 | 133,5 |
| DJS for PST 250 Nm SOFT | 615 936 384 0 | GY – YW | Sq. ½" | 15 | 41 | Hex 36 | 18 | 84 | 133,5 |
| DJS for PST 250 Nm HARD | 615 936 385 0 | GY – BK | Sq. ½" | 15 | 41 | Hex 36 | 18 | 84 | 133,5 |
| DJS for PST 500 Nm SOFT | 615 936 369 0 | BK – YW | Sq. ¾" | 22 | 59 | Hex 50 | 30 | 141 | 224 |
| DJS for PST 500 Nm HARD | 615 936 370 0 | BK – BK | Sq. ¾" | 22 | 59 | Hex 50 | 30 | 141 | 224 |
| DJS for PST 1000 Nm | 615 936 386 0 | no color | Sq. 1" | 28 | 90 | Hex 50 | 30 | 179 | 273 |
| DJS for PST 2000 Nm | 615 936 393 0 | no color | Sq. 1 ½" | 38 | 138 | Hex 50 | 30 | 168.2 | 218.2 |



| MODEL | PART NO. |
|---|---|
| HEX 36 M-3/8" F | 615 936 398 0 |
| HEX 36 M-1/2" F | 615 936 399 0 |
| HEX 50 M-1/2" F | 615 936 431 0 |
| HEX 50 M-3/4" F | 615 936 432 0 |
| HEX 50 M-1" F | 615 936 433 0 |
| HEX 1/4" M-1/4" F | 615 936 118 0 |
| HEX 1/4" M-3/8" F | 615 936 119 0 |

*Direct adapter for Non shut-off pulse tools and click wrenches (without DJS).*



## ADAPTERS & COUPLINGS

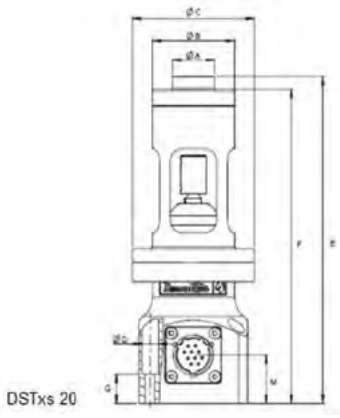
*(Accessories for Static transducers & Joint simulators).*

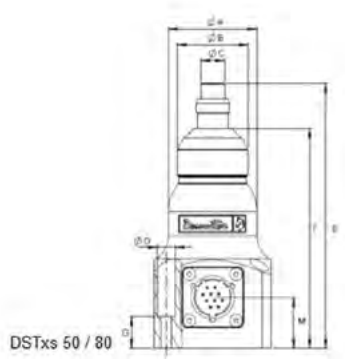
| MODEL | PART NO. | MODEL | PART NO. | MODEL | PART NO. |
|---|---|---|---|---|---|
| 3/4" M-1/4" F | 615 397 205 0 | 1/2 " M -3/8" F | 615 936 111 0 | HEX 1/4" M-1/4"F | 615 936 118 0 |
| 3/4" M-3/8" F | 615 397 206 0 | 1/2 " F-3/8" F | 615 936 112 0 | HEX 1/4" M-3/8"F | 615 936 119 0 |
| 1" M-1/2 " F | 615 397 207 0 | 1/2 " M-1/2 "F | 615 936 113 0 | 1" F-3/4" F | 615 936 126 0 |
| 1"1/4 M-1/2 " F | 615 397 208 0 | 1"1/4 M-3/4" F | 615 936 114 0 | 3/4" F-1/2 " F | 615 936 130 0 |
| 1" 1/4 M-3/4"F | 615 397 209 0 | 1/4" F-3/8" F | 615 936 115 0 | 1" 1/2 F-1" 1/2 F | 615 936 436 0 |
| 1/4" F-1/4" F | 615 397 210 0 | 1" 1/4 M-1" F | 615 936 116 0 | 1/2 " F-1/2 " F | 615 165 573 0 |
| 3/8" F-3/8" F | 615 397 211 0 | 1" F-1" F | 615 936 117 0 | 3/4" F-3/4" F | 615 165 576 0 |
| 1" M-3/4" F | 615 936 110 0 | | | | |

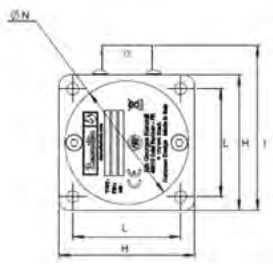
# DSTxs Series - Digital Static Transducers

*Nano-torques applications (< 1 Nm)*





*Ideal for Nanodrivers.*

## FEATURES

- Accuracy from 10% to 100% of the nominal torque : +/-0,5% FSD (Full Scale Deviation) - Overload at 120% of nominal capacity.
- Stability of Zero offset with temperature: < ±0.1% FSD/°C - Operating temperature: 5 to 40°C.
- Built-in memory with calibration features: Serial Number, Transducer Type, Sensitivity, Nominal Load, Calibration / Maintenance date, Tightening counter, Damage limit.

## BENEFITS

- Automatic recognition thanks to internal memory chip storing main data values eliminating any setting mistakes and time losses.
- High reliability due to immunity from external noise thanks to digital communication.
- Communication to data analyzer not sensitive to the cable length.

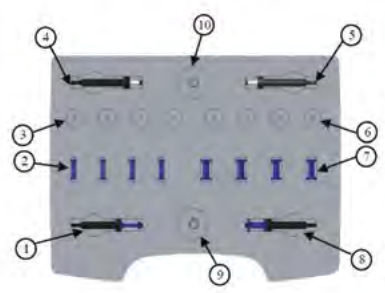
| MODEL | PART NUMBER | TORQUE RANGE | | SQUARE DRIVE | DIMENSIONS | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Ø A | | Ø B | | Ø C | | L | | H | | | |
| | | cNm | in.lbs | in | mm | in | mm | in | mm | in | mm | in | mm | in | kg | lb |
| **DSTxs 20 cNm** | **615 165 752 0** | 2-20 | 0.17-1.77 | dia 3mm | 20 | 0.787 | 39 | 1.535 | 58 | 2.283 | 41 | 1.614 | 51.5 | 2.027 | 0.56 | 1.2 |
| **DSTxs 50 cNm** | **615 165 754 0** | 5-50 | 0.44-4.42 | Hex 1/4 | 39 | 1.535 | 32 | 1.259 | 10.5 | 0.413 | 41 | 1.614 | 51.5 | 2.027 | 0.42 | 0.9 |
| **DSTxs 80 cNm** | **615 165 764 0** | 8-80 | 0.70-7.08 | Hex 1/4 | 39 | 1.535 | 32 | 1.259 | 10.5 | 0.413 | 41 | 1.614 | 51.5 | 2.027 | 0.42 | 0.9 |

## JOINT SIMULATOR KITS

*(Soft / Hard joints – Min / Max Torques)*

| MODEL | PART NUMBER | JOINTS COVERED | | | | ADAPTER | SCREW SIZE |
|---|---|---|---|---|---|---|---|
| DSTxs | | Hard / mini | Soft / mini | Hard / max | Soft / max | | Metric |
| **DJSxs 20** | **615 936 445 0** | 2-6 cNm | 2-6 cNm | 20 cNm | 20 cNm | dia 3mm | M2 |
| **DJSxs 50** | **615 936 446 0** | 5-15 cNm | 5-15 cNm | 50 cNm | 50 cNm | Hex 1/4 | M2 & M3 |
| **DJSxs 80** | **615 936 447 0** | 8-24 cNm | 8-24 cNm | 80 cNm | 80 cNm | Hex 1/4 | M3 |

| ITEM | CONTENT OF THE DJS KIT SUITCASE |
|---|---|
| 1 | DJSxs assembly - min. torque - Soft joint x1 |
| 2 | Spare compression spacer - min. torque - Soft x4 |
| 3 | Spare compression spacer - min. torque - Hard x1 |
| 4 | DJSxs assembly - min. torque - Hard joint x1 |
| 5 | DJSxs assembly - nominal torque - Hard joint x1 |
| 6 | Spare compression spacer - nominal torque - Hard joint x1 |
| 7 | Spare compression spacer - nominal torque - Soft joint x4 |
| 8 | DJSxs assembly - nominal torque - Soft joint x1 |
| 9 | DJSxs20 assembly - min./nominal torque - Soft joint - spacer for DSTxs adapter |
| 10 | DJSxs20 assembly - min./nominal torque - Hard - spacer for DSTxs adapter |





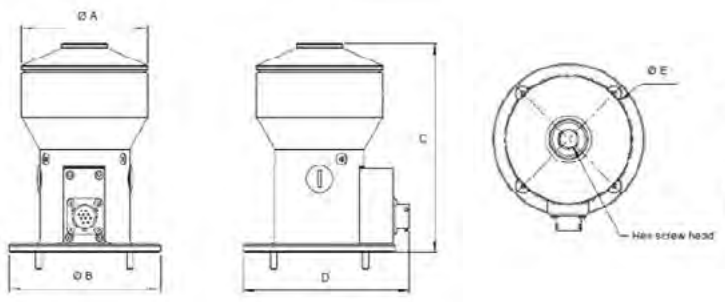
# FCT series - Clamp Force Transducers

*Measure Pulse Tools repeatability in tension*

The purpose of the FCT is to measure the repeatability of a pulse tool in achieving a constant tension independently from the friction effects and detect a deviation over time. Delta 6D/7D can display both the load and equivalent torque.



*Ideal for Pulse tools.*




| ØA | | ØB | | C | | D | | ØE | |
|---|---|---|---|---|---|---|---|---|---|
| mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| 96 | 3.779 | 115 | 4.779 | 157.8 | 6.21 | 125.8 | 4.952 | 98 | 3.858 |

## FEATURES

- Accuracy +/-0,5% of Applied Force Reading Value.
- Built-in Load Cell.
- Used with Delta xD data collectors and cables.
- Battery powered with up to 12 hours autonomy.
- Allows a display of both Clamping Force and Torque (K factor)
- Up to 2000 Hz filter selection
- RS-232 interface to download readings in “real time”
- Large screen and easy to use menus (5 languages)
- Supplied with screw kit and 3/8” socket SW13

## BENEFITS

- Measures the repeatability of pulse tools to achieve a target clamping force.
- By measuring the clamp force instead of the torque delivered, the adverse effects of adding an in-line torque transducer are eliminated.
- As most design offices specify a clamping force, measuring the actual clamping force allows to eliminate the uncertitude linked to the translation in torque of a clamping value.

| MODEL | PART NUMBER | TORQUE RANGE | | LOAD RANGE | | OVERLOAD FORCE | | OVERLOAD TORQUE | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Nm | ft.lbs | N | lbf | N | lbf | Nm | ft.lbs | kg | lb |
| **FCT30** | **615 935 249 0** | 10-30 | 7.38-22.13 | 1800-18000 | 405-4050 | 23400 | 5260 | 39 | 28.7 | 2.4 | 5.3 |
| **FCT60** | **615 935 250 0** | 20-60 | 14.75-44.25 | 2700-27000 | 607-6070 | 35100 | 7890 | 78 | 57.5 | 2.4 | 5.3 |

## ACCESSORIES INCLUDED

| | | | PART NO. |
|---|---|---|---|
| **FCT30** | **1** | FCT30 Screw | **615 936 484 0** |
| | **2** | Sleeve Drive Sockets 3/8" - 13mm | **615 811 781 0** |
| **FCT60** | **1** | FCT60 Screw | **615 936 485 0** |
| | **2** | Sleeve Drive Sockets 3/8" - 18mm | **615 811 784 0** |









*Oil recommended to fill the oil bath: 75W-90.*

# Calibration Bench

## EMBEDDED TRANSDUCERS :

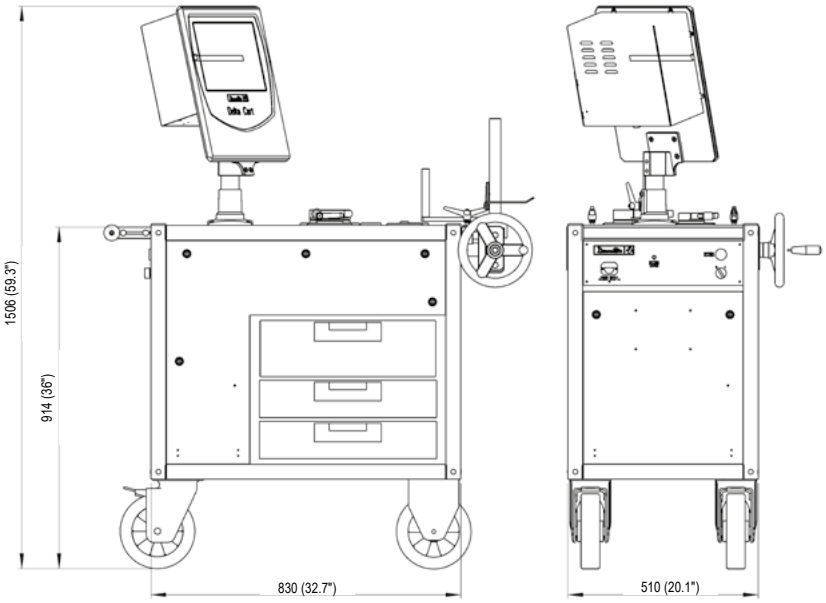
Assembly tools calibration process requires a flexible and versatile solution, high quality performance even in production lines. Desoutter Tools is proud to present the Delta Cart, an ergonomic and attractive solution to improve quality in assembly processes.

- Delta Cart offers a wide torque range since it can be configured up to 4 static transducers to cover from 0.2 Nm to 1 000 Nm (0.15 to 738 ft.lb) in a very compact dimensions (510mm width), making the Delta Cart the ideal solution for tool testing in assembly production lines.
- PST High accuracy static transducers with locking system specially designed for pulse tool calibration
- ISO RIG (mandatory over 200Nm) System for torque wrench calibration




- Embedded PC equipped with wide 12” color touch screen lets operators to start tool testing in a few seconds and few steps.




- Delta Cart includes all adapters, reaction bars and suitable joint similators. Optional ISO RIG for torque wrench to eliminate operator influence during calibration, reducing efforts for high torque range.

**Each calibration bench is customized to your needs. However, it's also possible to order an existing configuration:**

| MODEL | PART NUMBER | JOINTS COVERED |
|---|---|---|
| 6159352520 | DC2-25-100 | 2 cells 2,5-100Nm-NO RIG |
| 6159352550 | DC2-5-25-100 | 3 cells 0,5-100Nm-NO RIG |
| 6159352510 | DC2-50-60-100-500 | 4 cells 5-500Nm-FCT60-NO RIG |
| 6159351980 | DC2-10-100-1000-RIG | 3 cells 1-1000Nm with RIG |
| 6159352570 | DC2-2-10-50-500-RIG | 4 cells 0,2-500Nm with RIG |
| 6159352080 | DC2-2-25-100-1000-RIG | 4 cells 0,2-1000Nm with RIG |
| 6159352560 | DC2-5-10-50-250-RIG | 4 cells 0,5-250Nm with RIG |
| 6159351160 | DC2-10-50-100-500-RIG | 4 cells 1-500Nm with RIG |
| 6159352090 | DC2-25-100-250-500-RIG | 4 cells 2,5-500Nm with RIG |
| 6159352170 | DC2-25-50-250-1000-RIG | 4 cells 2,5-1000Nm with RIG |
| 6159351970 | DC2-50-100-250-500-RIG | 4 cells 5-500Nm with RIG |
| 6159352540 | DC2-50-250-500-1000-RIG | 4 cells 5-1000Nm with RIG |
| 6159352070 | DC2-LARGE-25-100-500-RIG | Extd Frame 2,5-500Nm with RIG |
| 6159352530 | DC2-LARGE-5-25-100-500-RIG | Extd Frame 0,5-500Nm with RIG |
| 6159351960 | DC2-LARGE-10-50-250-1000-RIG | Extd Frame 1-1000Nm with RIG |

# Delta Cart Tool Calibration

## EMBEDDED TRANSDUCERS :

Assembly tools calibration process requires a flexible and versatile solution, high quality performance even in production lines Desoutter Tools is proud to present the Delta Cart, an ergonomic and attractive solution to improve quality in assembly processes.



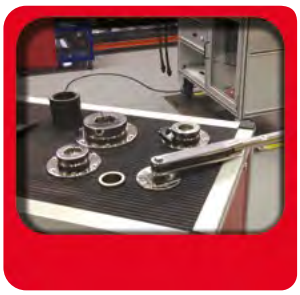
**Electric and Pneumatic Nut-runner**



**Shut off and non shut off Pulse Tool**



**Torque wrench**



**Click wrench**

The Delta Cart is able to follow your tools during the complete life span : by performing capacity test (Cm/Cmk) before tool is introduced into production, or monitoring tool performance during production assembly process by performing Statistic Process Control (SPC) test



### TECHNICAL FEATURES

- Configurable torque range from 1 Nm to 2000Nm
- Torque reaction bar and joint simulator included
- External DRT communication for in-line calibration
- Angle Strategy with external DRT5
- CVI2 and CVI3 autocalibration
- Double reading calibration with automatic deviation check

## Embedded Software with local tool DB (SQL Server)

- Tools Inventory with calibration status and next calibration date (Excel sheet export)
- Calibration STATUS
- Cm/Cmk Reports
- SPC X/R Charts
- USER Management - login per user





SOFTWARE
**see page 185**

### CLIENT - SERVER Architecture

- Ideal for > 1 cart management
- All Calibration data always synchronized with unique Server database
- Fast Ethernet communication

### ROUTE MANAGEMENT

- Send to Delta Cart just the Tool to be tested

| SOFTWARE FEATURES | |
|---|---|
| Torque Wrench, Electric or Pneumatic Nutrunner<br>Test, Pulse Test<br>Cm/Cmk - ISO 3534 | Local Test Database up to 30000 Tests - Setting : Nominal Min Max Torque, unit of measure, Test Id, Test Description, Transducer number, Timeout setting<br>Cm/Cmk, min, max, average, sigma |
| ISO 6789 - ISO 5393 | Automatic test report |
| Statistic Control - ISO 8258<br>Print | X/R Charts for trend control<br>Direct Printing from Delta Cart PC software |
| Export<br>Curve | Certificate export to PDF or XLS<br>Torque/Time or Torque/Angle with external DRT5 |
| Barcode<br>Configurable for each test | External USB<br>N.m - gf.cm - Kgf.cm - kgf.m - ozf.in - lbf.in - lbf.ft |
| Languages | English, French, Italian, German, Russian |

# Alpha Low Torque Analyzer

Dedicated torque analyzers for the setting and static test checks of low torque screwdrivers, either pneumatic or electric.



■ **Embedded Transducer & Battery**




## TECHNICAL SPECIFICATION

| | |
|---|---|
| Torque Transducer | Embedded |
| Torque Accuracy | +/-1 % of readings |
| Tools Testing | Torque Wrench, Nutrunner or Pulse Tools |
| Statistic | Min. Max, Average, Standard Deviation |
| Results Storage | 1000 + 10 curves with DeltaQC Licenced |
| Multi-units | N.m, Kg.m, Kg.cm, Oz.in, Lb.in, Lb.ft, N.cm |
| Display | Red, Green, Blue blacklight |
| Power Supply | Embedded Battery External power supply |
| Battery Autonomy | Up to 12 hours |
| Languages | French, English, Spanish, Italian, Deutsch, Portuguese |
| Software | Free Delta QC Software to export by USB result |

# Alpha Low Torque Analyzer

## MAIN FEATURES

- Alpha D Series is designed to monitor and collect torque check results from screwdrivers, torque wrenches or click wrenches.
- Ideal to tune the tools thanks to real time statistics on color display and high capacity torque results storage.
- Traceability with included software result acquisition with time stamp, including PDF or XLS reports.
- Three models with embedded transducer to cover torque range from 0,1 to 16 Nm. All models are provided with two included joint simulators to test nutrunner according to different joint stiffness condition.



- **Backlight RGB color display with acoustic buzzer**
- **Hard & Soft Joint Simulator**

| MODEL | PART NUMBER |
|---|---|
| DJS for Alpha_D1 Soft | **615 936 120 0** |
| DJS for Alpha_D1 Hard | **615 936 121 0** |
| DJS for Alpha_D5 Soft | **615 936 122 0** |
| DJS for Alpha_D5 Hard | **615 936 123 0** |
| DJS for Alpha_D16 Soft | **615 936 124 0** |
| DJS for Alpha_D16 Hard | **615 936 125 0** |
| Universal Power Supplier | **615 936 143 0** |

| MODEL | PART NUMBER | P. CHARGER | TORQUE RANGE | | DEPTH | | WIDTH | | HEIGHT | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | volts | Nm | in. - lb | mm | in. | mm | in. | mm | in. | kg | lb |
| **Alpha D1** | **615 935 140 0** | 110/240V | 0.1 - 1 | 0.88 - 8.85 | 106 | 4.17 | 180 | 7.09 | 70 | 2.76 | 0.95 | 2.1 |
| **Alpha D5** | **615 935 141 0** | 110/240V | 0.5 - 5 | 4.42 - 44.25 | 106 | 4.17 | 180 | 7.09 | 70 | 2.76 | 0.95 | 2.1 |
| **Alpha D16** | **615 935 142 0** | 110/240V | 1.6 - 16 | 14.1 - 141.6 | 106 | 4.17 | 180 | 7.09 | 70 | 2.76 | 0.95 | 2.1 |

*All models are supplied with external power supply, suitable hard and soft joint simulators and Delta QC Software*

# QShield - Standalone

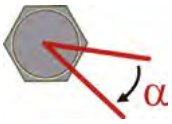
*Quality Checks Digital Wrench - Torque & Angle*




**RFID TAG End-fittings with automatic recognition for ratio management and/or Pset selection**



**Gyroscope (Angle 1,2° to 250°/s)**




**Length independent transducer with double bridge strain gauge to guarantee a tightening result regardless of the position of the operator's hand.**

**Accuracy of +/-1% on Torque reading value (from 10 to 100% of the nominal torque)**

**Standard interchangeable heads and reversible ratchets**






**Digital Twin**



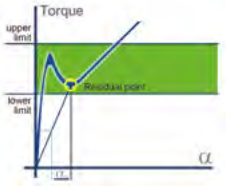
**Mini USB port for Configuration, data export to Delta QC software & Calibrations**



**RGB Color display Visual feedback AND a complementary configurable vibration for operator guidance**

**Li-Ion Battery 10 hours autonomy on QShield-S**






- ISO 6789:2017 compliance
- Quality Strategies
- Joint Analysis
- Delta QC platform software

# Audit & Joint Analysis Digital Wrench

**QSHIELD-S SERIES** provide a freedom for Quality Operators and Process Engineers to use the wrench in a free mode and independently from production datas: Joint check during audits, conduct Joint analysis on prototypes to or simply retightening mode to secure a joint.

- 5 methods of Residual Torque checks (as per VDI-VDE 2645 part 3).
- Menus are accessible for a versatile usage by a trained staff.
- The vibrating handle (configurable threshold) provides an immediate feedback even in a loud environment of work.
- Results & Curves are stored in the wrench until downloaded on Delta QC (Quality Control Software).



ACCESSORIES
**see page 194-195**

| MODEL | PART NUMBER | RANGE | | ANGLE | DRIVE | | INCLUDED RATCHET | LENGHT WITHOUT RATCHET | | LEVER ARM* | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Nm | ft.lbs | | mm | in. | in. | mm | in. | mm | in. | kg | lb. |
| **Q-SHIELD 30-S** | **615 935 210 0** | 3 - 30 | 2.21 - 22.13 | ✔ | 9x12 | 0.35x0.47 | 3/8 | 402 | 15.83 | 320 | 12.6 | 0.7 | 1.5 |
| **Q-SHIELD 150-S** | **615 935 211 0** | 15 - 150 | 11.06 - 110.6 | ✔ | 14x18 | 0.55x0.71 | 1/2 | 418 | 16.46 | 342 | 13.5 | 0.8 | 1.7 |
| **Q-SHIELD 200-S** | **615 935 212 0** | 20 - 200 | 14.75 - 147.5 | ✔ | 14x18 | 0.55x0.71 | 1/2 | 627 | 24.7 | 552 | 21.75 | 1.6 | 3.5 |
| **Q-SHIELD 350-S** | **615 221 038 0** | 35 - 350 | 25.81 - 258.1 | ✔ | 14x18 | 0.55x0.71 | 3/4 | 694 | 27.33 | 625.5 | 24.62 | 2.6 | 5.7 |
| **Q-SHIELD 400-S** | **615 935 213 0** | 40 - 400 | 29.5 - 295.0 | ✔ | 14x18 | 0.55x0.71 | 3/4 | 1028 | 40.48 | 960 | 37.8 | 3.2 | 7.0 |
| **Q-SHIELD 500-S** | **615 935 214 0** | 50 - 500 | 36.88 - 368.8 | ✔ | 21x26 | 0.82x1.02 | 3/4 | 1137 | 44.77 | 1100 | 43.3 | 5.5 | 12.1 |
| **Q-SHIELD 800-S** | **615 935 215 0** | 80 - 800 | 59.0 - 590.0 | ✔ | dia 28 | dia 1.1 | 1 | 1314 | 51.74 | 1362 | 53.62 | 6.7 | 14.7 |
| **Q-SHIELD 900-S** | **615 935 216 0** | 90 - 900 | 66.38 - 663.8 | ✔ | dia 28 | dia 1.1 | 1 | 1392 | 54.8 | 1440 | 56.7 | 8.2 | 18.0 |

** Useful length is from Ratchet axis to handle middle*

*All models are supplied with box including reversible rachet with TAG (QShield Batteries supplied seperately)*




| PIC REF | MODEL | PART NUMBER | HEIGHT | | LENGTH | | WIDTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | in | mm | in | mm | in | gr | lb |
| A | **QShield Battery** | **615 936 500 0** | - | - | 110 | 4.33 | Ø 22 | Ø 8.86 | 80 | 0.18 |
| B | **QA Charger** | **615 936 461 0** | 68 | 2.67 | 210 | 8.26 | 150 | 5.90 | 1290 | 2.84 |
| C | **Q-SHIELD 2x Adapters** | **615 936 533 0** | - | - | - | - | - | - | 160 | 0.35 |
| D | **Wrench Protection** | **615 936 504 0** | - | - | - | - | - | - | - | - |

SOFTWARE
**see page 183**

| DELTAQC SOFTWARE | FREE | LICENSED | ADVANCED |
|---|---|---|---|
| **PSet programming** | ✔ | ✔ | ✔ |
| **Result viewer** | ✔ | ✔ | ✔ |
| **Result excel export** | ✔ | ✔ | ✔ |
| **Curve viewer** | | ✔ | ✔ |
| **Result Database** | | | ✔ |

| MODEL | PART NUMBER |
|---|---|
| **DeltaQC Licensed 1 user** | **615 927 651 0** |
| **DeltaQC Licensed 5 users** | **615 927 652 0** |
| **DeltaQC Advanced 1 user** | **615 927 653 0** |
| **DeltaQC Advanced 5 users** | **615 927 654 0** |

# QShield-S Strategies

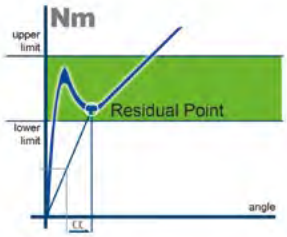



## TECHNICAL SPECIFICATION

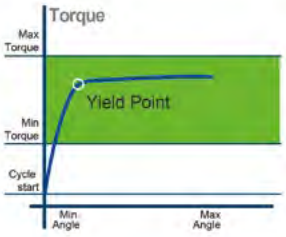
| | |
|---|---|
| **Standards compliance** | ISO 6789:2017 / VDI-VDE 2645-2 & -3 |
| **Torque Accuracy** | +/-1% of torque reading +/-1 digit from 10 to 100% of nominal torque. |
| **Angle Accuracy** | +/-1% from 3°/Sec to 250°/sec |
| **Predefined Pset** | 250 Psets with T/A defined in Delta QC Software |
| **Batch Count** | Up to 99 |
| **Results** | 1000 in memory, last 99 results accessible directly on the wrench display (FIFO) without external PC or software |
| **Curves** | 25 curves with Delta QC licensed |
| **Quality Audit & Testing Strategies** | Residual Torque/Angle Automatic<br>Residual Peak/Torque<br>Residual Torque/Angle<br>Residual Minimum after breakaway<br>Residual Intersection determination<br>Residual Gradient change<br>Residual Loose and Tighten<br>Yield Point (Joint Analysis)<br>Drag Torque |
| **Tightening Strategies** | Torque/Time, Torque & Angle,<br>Torque+Angle CW/CCW Tightenings |
| **Extension Management** | Torque and Angle bending correction per Pset |
| **USB Communication** | Bi-directional communication to Delta QC Software |
| **RGB Display** | Red / Green / Blue backlight |
| **Battery** | Li-ion battery |
| **Power Autonomy** | 10 hours on QShield-S |
| **Multi-Units** | N.m, kgf.m, lbf.ft, lbf.in, ozf.ft, ozf.in, kp.m, dN.m |
| **Languages** | English, Spanish, German, Portuguese, French, Italian |
| **Software** | Free Delta QC Software to define Pset and download results (extended capabilities with Licensed and Advanced versions) |

## BENEFITS

- Real residual torque value without any special programmimg or setting from operator
- Save time no PC setting are required
- No risk to release an over loaded fastener as mean value is saved
- Residual value operator independent
- Export data for quality & statistic analysis
- Perfect for fast & accurate pulse tools setting

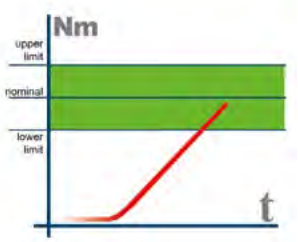



**Residual Torque (VDI-VDE 2645-3)**

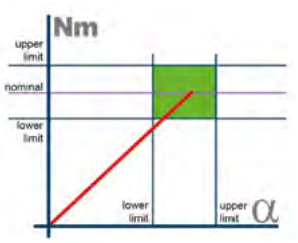



**Yield point (Joint Analysis)**

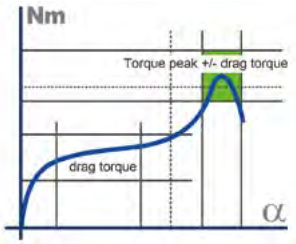
## OTHER TIGHTENING STRATEGIES ARE ALSO AVAILABLE



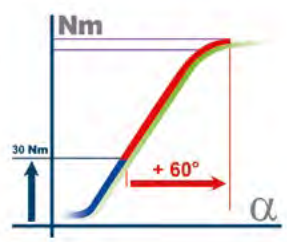

**Torque/Time**




**Torque & Angle Torque + Angle**




**Prevailing torque automatic compensation**




**Tightening with torque and additional angle rotation (torque + angle)**

# Digital Wrench Accessories

*End Fittings with embedded RFID TAG* and NO TAG*





| OPEN END - metric | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Open End 7 mm | 615 936 152 0 | 615 397 055 0 |
| Drive 9x12 Open End 8 mm | 615 936 153 0 | 615 397 056 0 |
| Drive 9x12 Open End 9 mm | 615 936 154 0 | 615 397 057 0 |
| Drive 9x12 Open End 10 mm | 615 936 155 0 | 615 397 058 0 |
| Drive 9x12 Open End 11 mm | 615 936 156 0 | 615 397 059 0 |
| Drive 9x12 Open End 12 mm | 615 936 157 0 | 615 397 060 0 |
| Drive 9x12 Open End 13 mm | 615 936 158 0 | 615 397 061 0 |
| Drive 9x12 Open End 14 mm | 615 936 159 0 | 615 397 062 0 |
| Drive 9x12 Open End 15 mm | 615 936 160 0 | 615 397 063 0 |
| Drive 9x12 Open End 16 mm | 615 936 161 0 | 615 397 064 0 |
| Drive 9x12 Open End 17 mm | 615 936 162 0 | 615 397 065 0 |
| Drive 9x12 Open End 18 mm | 615 936 163 0 | 615 397 066 0 |
| Drive 9x12 Open End 19 mm | 615 936 164 0 | 615 397 067 0 |
| Drive 14x18 Open End 13 mm | 615 936 194 0 | 615 397 131 0 |
| Drive 14x18 Open End 14 mm | 615 936 195 0 | 615 397 132 0 |
| Drive 14x18 Open End 15 mm | 615 936 196 0 | 615 397 133 0 |
| Drive 14x18 Open End 16 mm | 615 936 197 0 | 615 397 134 0 |
| Drive 14x18 Open End 17 mm | 615 936 198 0 | 615 397 135 0 |
| Drive 14x18 Open End 18 mm | 615 936 199 0 | 615 397 136 0 |
| Drive 14x18 Open End 19 mm | 615 936 200 0 | 615 397 137 0 |
| Drive 14x18 Open End 21 mm | 615 936 201 0 | 615 397 138 0 |
| Drive 14x18 Open End 22 mm | 615 936 202 0 | 615 397 139 0 |
| Drive 14x18 Open End 24 mm | 615 936 203 0 | 615 397 140 0 |
| Drive 14x18 Open End 27 mm | 615 936 204 0 | 615 397 141 0 |
| Drive 14x18 Open End 30 mm | 615 936 205 0 | 615 397 142 0 |
| Drive 14x18 Open End 32 mm | 615 936 206 0 | 615 397 143 0 |
| Drive 14x18 Open End 34 mm | 615 936 207 0 | 615 397 144 0 |



| RING BOX END - metric | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Ring Box End 7 mm | 615 936 165 0 | 615 397 078 0 |
| Drive 9x12 Ring Box End 8 mm | 615 936 166 0 | 615 397 079 0 |
| Drive 9x12 Ring Box End 10 mm | 615 936 167 0 | 615 397 080 0 |
| Drive 9x12 Ring Box End 11 mm | 615 936 168 0 | 615 397 081 0 |
| Drive 9x12 Ring Box End 12 mm | 615 936 169 0 | 615 397 082 0 |
| Drive 9x12 Ring Box End 13 mm | 615 936 170 0 | 615 397 083 0 |
| Drive 9x12 Ring Box End 14 mm | 615 936 171 0 | 615 397 084 0 |
| Drive 9x12 Ring Box End 15 mm | 615 936 172 0 | 615 397 085 0 |
| Drive 9x12 Ring Box End 16 mm | 615 936 173 0 | 615 397 086 0 |
| Drive 9x12 Ring Box End 17 mm | 615 936 174 0 | 615 397 087 0 |
| Drive 9x12 Ring Box End 18 mm | 615 936 175 0 | 615 397 088 0 |
| Drive 9x12 Ring Box End 19 mm | 615 936 176 0 | 615 397 089 0 |
| Drive 9x12 Ring Box End 21 mm | 615 936 177 0 | 615 397 090 0 |
| Drive 9x12 Ring Box End 22 mm | 615 936 178 0 | 615 397 091 0 |
| Drive 14x18 Ring Box End 13 mm | 615 936 208 0 | 615 397 173 0 |
| Drive 14x18 Ring Box End 14 mm | 615 936 209 0 | 615 397 174 0 |
| Drive 14x18 Ring Box End 15 mm | 615 936 210 0 | 615 397 175 0 |
| Drive 14x18 Ring Box End 16 mm | 615 936 211 0 | 615 397 176 0 |
| Drive 14x18 Ring Box End 17 mm | 615 936 212 0 | 615 397 177 0 |
| Drive 14x18 Ring Box End 18 mm | 615 936 213 0 | 615 397 178 0 |
| Drive 14x18 Ring Box End 19 mm | 615 936 214 0 | 615 397 179 0 |
| Drive 14x18 Ring Box End 21 mm | 615 936 215 0 | 615 397 180 0 |
| Drive 14x18 Ring Box End 22 mm | 615 936 216 0 | 615 397 181 0 |
| Drive 14x18 Ring Box End 24 mm | 615 936 217 0 | 615 397 182 0 |
| Drive 14x18 Ring Box End 27 mm | 615 936 218 0 | 615 397 183 0 |
| Drive 14x18 Ring Box End 30 mm | 615 936 219 0 | 615 397 184 0 |
| Drive 14x18 Ring Box End 32 mm | 615 936 220 0 | 615 397 185 0 |
| Drive 14x18 Ring Box End 34 mm | 615 936 221 0 | 615 397 186 0 |
| Drive 14x18 Ring Box End 36 mm | 615 936 222 0 | 615 397 187 0 |
| Drive 14x18 Ring Box End 41 mm | 615 936 223 0 | 615 397 188 0 |



| FLARED END - metric | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Flared End 10 mm | 615 936 179 0 | 615 397 103 0 |
| Drive 9x12 Flared End 11 mm | 615 936 180 0 | 615 397 104 0 |
| Drive 9x12 Flared End 12 mm | 615 936 181 0 | 615 397 105 0 |
| Drive 9x12 Flared End 13 mm | 615 936 182 0 | 615 397 106 0 |
| Drive 9x12 Flared End 14 mm | 615 936 183 0 | 615 397 107 0 |
| Drive 9x12 Flared End 16 mm | 615 936 184 0 | 615 397 108 0 |
| Drive 9x12 Flared End 17 mm | 615 936 185 0 | 615 397 109 0 |
| Drive 9x12 Flared End 18 mm | 615 936 186 0 | 615 397 110 0 |
| Drive 9x12 Flared End 19 mm | 615 936 187 0 | 615 397 111 0 |
| Drive 9x12 Flared End 21 mm | 615 936 188 0 | 615 397 112 0 |
| Drive 9x12 Flared End 22 mm | 615 936 189 0 | 615 397 113 0 |
| Drive 9x12 Flared End 24 mm | 615 936 190 0 | 615 397 114 0 |



| BLANK END | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Blank End | 615 936 228 0 | 615 397 130 0 |
| Drive 14x18 Blank End | 615 936 226 0 | 615 397 203 0 |
| Drive 21x26 Blank End | 615 936 444 0 | 615 936 443 0 |

**These accessories fit QShield / DWTA and Delta wrenches*



# Digital Wrench Accessories

*End Fittings with embedded RFID TAG* and NO TAG*



| OPEN END - inches | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Open End 1/4” | 615 936 229 0 | 615 397 069 0 |
| Drive 9x12 Open End 5/16” | 615 936 230 0 | 615 397 070 0 |
| Drive 9x12 Open End 3/8” | 615 936 231 0 | 615 397 071 0 |
| Drive 9x12 Open End 7/16” | 615 936 232 0 | 615 397 072 0 |
| Drive 9x12 Open End 1/2” | 615 936 233 0 | 615 397 073 0 |
| Drive 9x12 Open End 9/16” | 615 936 234 0 | 615 397 074 0 |
| Drive 9x12 Open End 5/8” | 615 936 235 0 | 615 397 075 0 |
| Drive 9x12 Open End 11/16” | 615 936 236 0 | 615 397 076 0 |
| Drive 9x12 Open End 3/4” | 615 936 237 0 | 615 397 077 0 |
| Drive 14x18 Open End 7/16” | 615 221 008 0 | 615 397 145 0 |
| Drive 14x18 Open End 1/2” | 615 221 009 0 | 615 397 146 0 |
| Drive 14x18 Open End 9/16” | 615 221 010 0 | 615 397 147 0 |
| Drive 14x18 Open End 5/8” | 615 221 011 0 | 615 397 148 0 |
| Drive 14x18 Open End 11/16” | 615 221 012 0 | 615 397 149 0 |
| Drive 14x18 Open End 3/4” | 615 221 013 0 | 615 397 150 0 |
| Drive 14x18 Open End 13/16” | 615 221 014 0 | 615 397 151 0 |
| Drive 14x18 Open End 7/8” | 615 221 015 0 | 615 397 152 0 |
| Drive 14x18 Open End 15/16” | 615 221 016 0 | 615 397 153 0 |
| Drive 14x18 Open End 1” | 615 221 017 0 | 615 397 154 0 |
| Drive 14x18 Open End 1,1/8” | 615 221 018 0 | 615 397 172 0 |



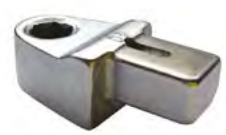
| RING BOX END - inches | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Ring Box End 1/4” | 615 936 238 0 | 615 397 092 0 |
| Drive 9x12 Ring Box End 5/16” | 615 936 239 0 | 615 397 093 0 |
| Drive 9x12 Ring Box End 3/8” | 615 936 240 0 | 615 397 094 0 |
| Drive 9x12 Ring Box End 7/16” | 615 936 241 0 | 615 397 095 0 |
| Drive 9x12 Ring Box End 1/2” | 615 936 242 0 | 615 397 096 0 |
| Drive 9x12 Ring Box End 9/16” | 615 936 243 0 | 615 397 097 0 |
| Drive 9x12 Ring Box End 5/8” | 615 936 244 0 | 615 397 098 0 |
| Drive 9x12 Ring Box End 11/16” | 615 936 245 0 | 615 397 099 0 |
| Drive 9x12 Ring Box End 3/4” | 615 936 246 0 | 615 397 100 0 |
| Drive 9x12 Ring Box End 13/16” | 615 936 247 0 | 615 397 101 0 |
| Drive 9x12 Ring Box End 7/8” | 615 936 248 0 | 615 397 102 0 |
| Drive 14x18 Box End 1/2” | 615 221 019 0 | 615 397 189 0 |
| Drive 14x18 Box End 9/16” | 615 221 020 0 | 615 397 190 0 |
| Drive 14x18 Box End 5/8” | 615 221 021 0 | 615 397 191 0 |
| Drive 14x18 Box End 11/16” | 615 221 022 0 | 615 397 192 0 |
| Drive 14x18 Box End 3/4” | 615 221 023 0 | 615 397 193 0 |
| Drive 14x18 Box End 13/16” | 615 221 024 0 | 615 397 194 0 |
| Drive 14x18 Box End 7/8” | 615 221 025 0 | 615 397 195 0 |
| Drive 14x18 Box End 15/16” | 615 221 026 0 | 615 397 196 0 |
| Drive 14x18 Box End 1” | 615 221 027 0 | 615 397 197 0 |



| FLARED END - inches | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Flared End 3/8” | 615 221 001 0 | 615 397 115 0 |
| Drive 9x12 Flared End 7/16” | 615 221 002 0 | 615 397 116 0 |
| Drive 9x12 Flared End 1/2” | 615 221 003 0 | 615 397 117 0 |
| Drive 9x12 Flared End 9/16” | 615 221 004 0 | 615 397 118 0 |
| Drive 9x12 Flared End 5/8” | 615 221 005 0 | 615 397 119 0 |
| Drive 9x12 Flared End 11/16” | 615 221 006 0 | 615 397 120 0 |
| Drive 9x12 Flared End 3/4” | 615 221 007 0 | 615 397 121 0 |



| REVERSIBLE RATCHET | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Reversible ratchet 1/4” | 615 936 191 0 | 615 397 125 0 |
| Drive 9x12 Reversible ratchet 3/8” | 615 936 192 0 | 615 397 126 0 |
| Drive 9x12 Reversible ratchet 1/2” | 615 936 193 0 | 615 397 127 0 |
| Drive 14x18 Reversible ratchet 1/2” | 615 936 224 0 | 615 397 200 0 |
| Drive 14x18 Reversible ratchet Hd 3/4” | 615 936 440 0 | 615 936 439 0 |
| Drive 21x26 Reversible ratchet 3/4” | 615 936 442 0 | 615 936 441 0 |
| Drive Ø 28 Reversible ratchet 1” | 615 936 227 0 | 615 397 204 0 |



| BITS HOLDER | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Bits Holder 1/4” | 615 221 028 0 | 615 397 128 0 |
| Drive 9x12 Bits Holder 5/16” | 615 221 029 0 | 615 397 129 0 |
| Drive 14x18 Bits Holder 5/16” | 615 221 030 0 | 615 397 202 0 |



| FIXED SQUARE DRIVE | TAG | NO TAG |
|---|---|---|
| Drive 9x12 Fixed Square Drive 1/4” | - | 615 397 122 0 |
| Drive 9x12 Fixed Square Drive 3/8” | - | 615 397 123 0 |
| Drive 9x12 Fixed Square Drive 1/2” | - | 615 397 124 0 |
| Drive 14x18 Fixed Square Drive 1/2” | - | 615 397 198 0 |
| Drive 14x18 Fixed Square Drive 3/4” | - | 615 397 199 0 |

*These accessories fit QShield / DWTA and Delta wrenches



# Quality Assurance

*Best Practices*

Ensure QA in Tightening requires:

- Initial **Tool** verification



- Routine **residual torque** online verification



- Routine & Reactive **dynamic online** verification



- Routine **tool transducer** calibration



- Routine plant **standard calibration**
  (in ISO/IEC 17025 Accredited laboratories)



- **Data retention**




## Important elements to consider in selecting your Quality Equipments

- List Torque specifications / Quality Control specifications.
- Classification of your joints (Criticity of assembly operations in the Control Plan).
- Processes for tool testing, joint testing and standard calibration equipment.
- Ensure data is collected, maintained and accessible.


Desoutter
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ASD

# Optimized Workstation

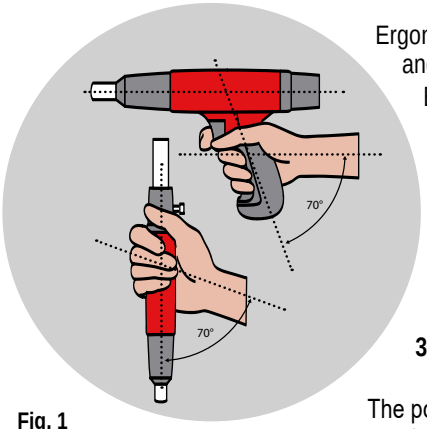



**Fig. 1**
**Holding tools in an ergonomically neutral position**

Ergonomics deals with the interactions between operators and their work equipment, work environment and work process

Ergonomically designed work systems enhance safety, effectiveness and efficiency, improve human working and living conditions, and counteract adverse effects on human health and performance

Desoutter has been developing products to improve the comfort of use and counter balance some of the below situations:

**1.** Hand position on the tool: based on application a straight or pistol grip tool is suggested (Fig. 1)

**2.** Tool position in the workspace: easy to reach and at the right height to minimize the unnecessary movement of the operator (Fig. 2 and 3)

**3.** Forces exerted: pulling force, torque reaction and the repetitiveness of these forces (Fig. 2 and 3)

The potential benefits of using Desoutter ergonomic accessories together with tools as described in this brochure are:

- Reduce repetitive stress injuries (RSI)
- Reduced operator fatigue
- Greater productivity
- Improved quality
- Reduced handling time
- Greater operator satisfaction
- Lower recruitment costs

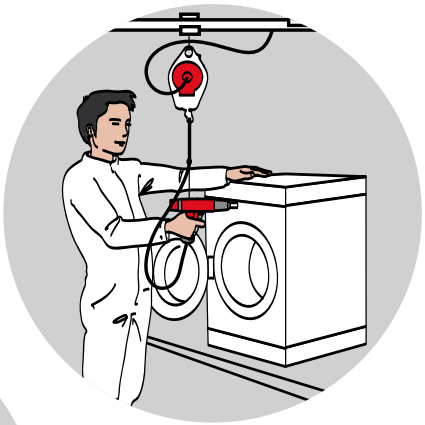


**Fig. 2**
**Desoutter balancer**

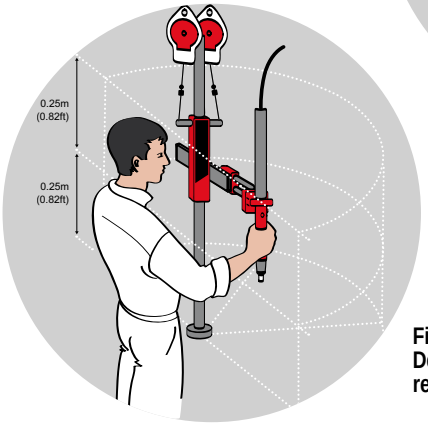
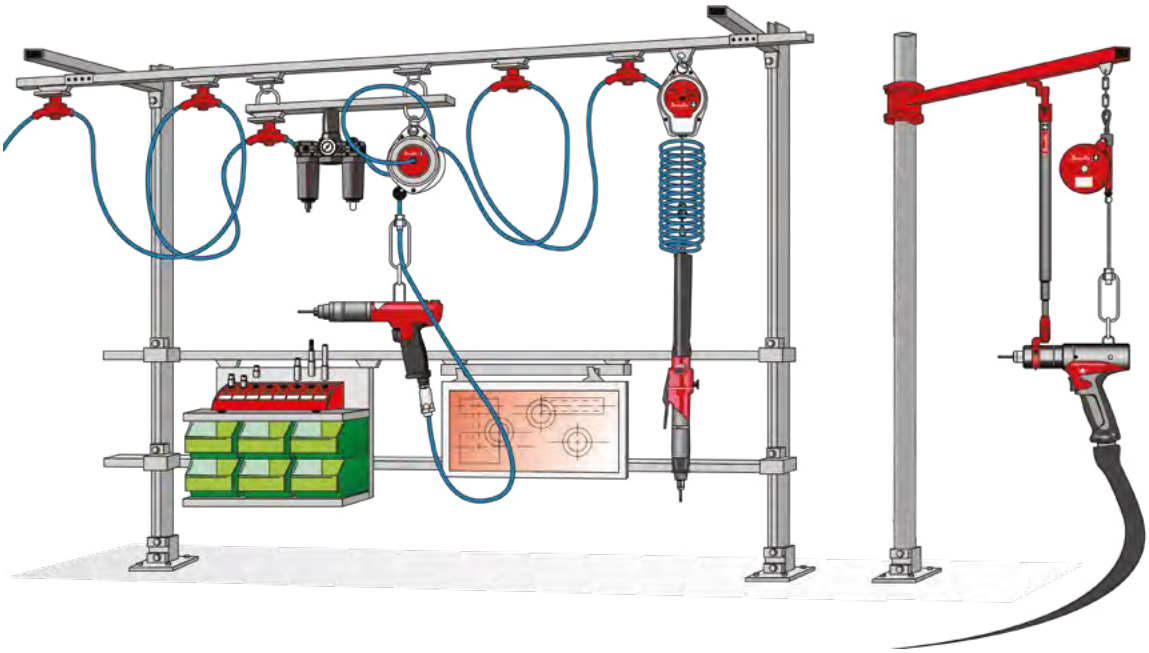
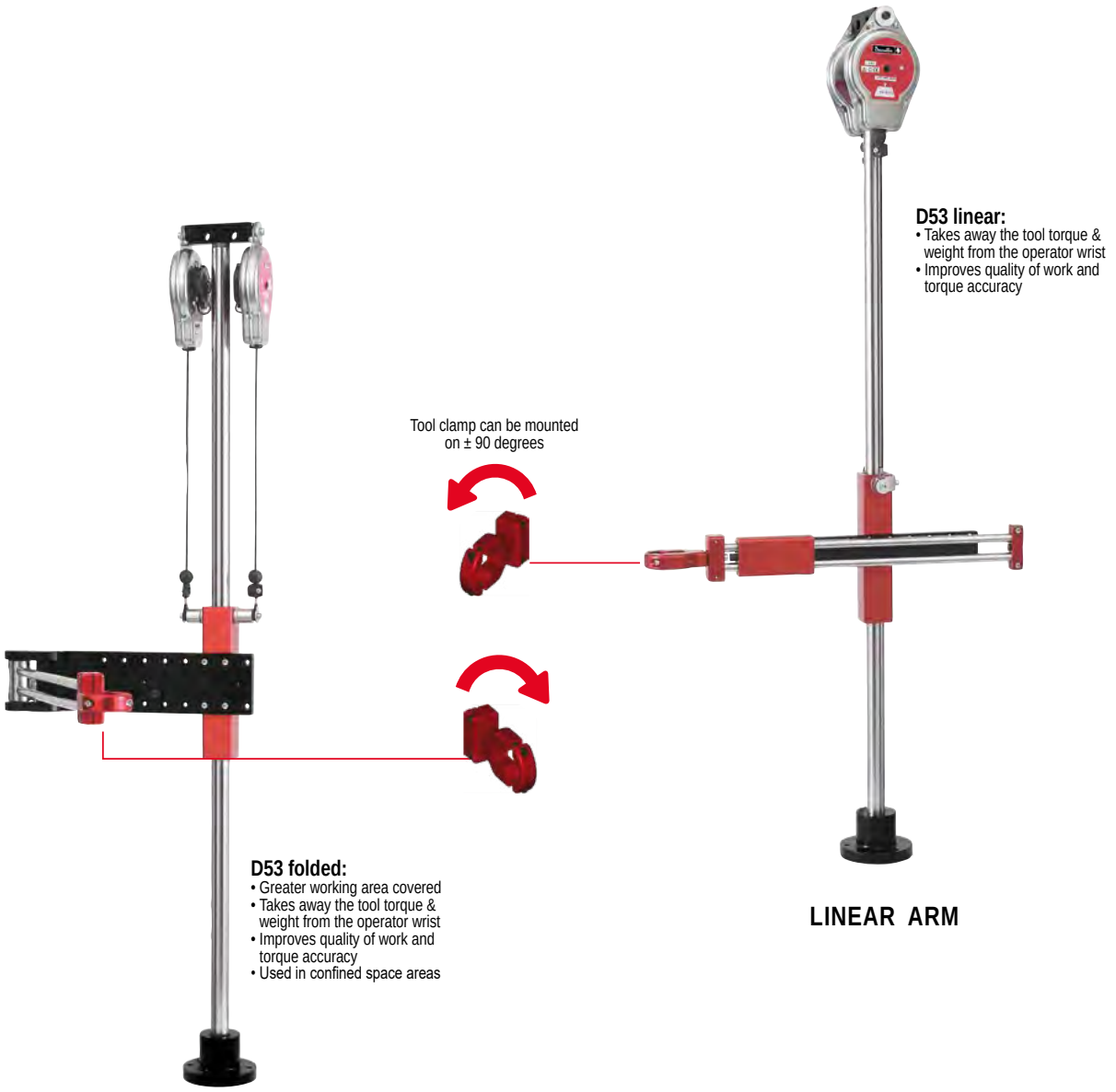



**Fig.3**
**Desoutter torque reaction arm**



# Linear and Folded torque reaction arms




**LINEAR ARM**

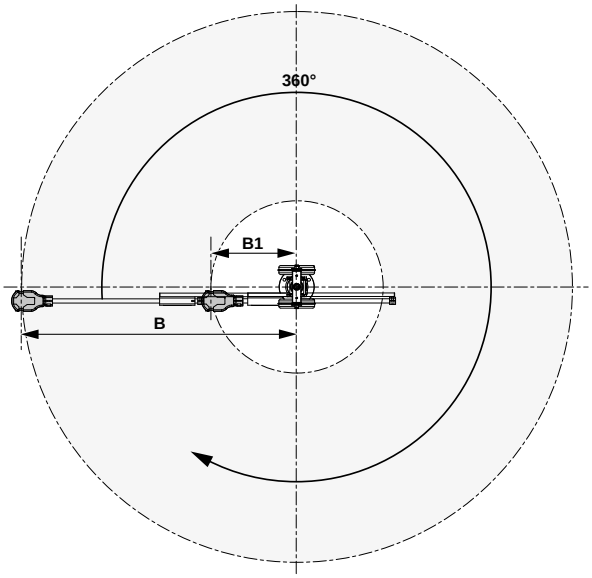
**FOLDED ARM**

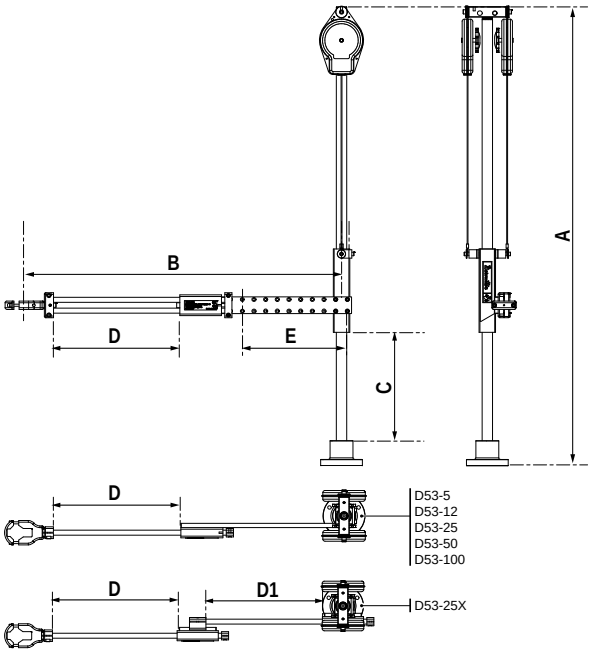
*For full tool clamp program, please see details on page 194*

| MODEL | PART NUMBER | MAXIMUM TORQUE | | MAXIMUM TOOL WEIGHT | | ARM EQUIPPED WITH | TOOL CLAMP DIAMETER (INCLUDED WITH THE ARM) | |
|---|---|---|---|---|---|---|---|---|
| | | Nm | ft. lb | kg | lb. | | mm | in. |
| **LINEAR ARM** | | | | | | | | |
| **D53-5*** | **615 810 700 0** | 5 | 3.7 | 0.8 | 1.8 | 1 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-12*** | **615 810 701 0** | 12 | 8.8 | 1.5 | 3.3 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-25*** | **615 810 702 0** | 25 | 18.4 | 2.5 | 5.5 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-25X Extended reach*** | **615 810 703 0** | 25 | 18.4 | 2.2 | 4.8 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-50** | **615 810 704 0** | 50 | 36.8 | 5.0 | 11.0 | 2 x 15D | To order separately | |
| **D53-100** | **615 810 705 0** | 100 | 73.7 | 6.0 | 13.2 | 2 x 22D | | |
| **FOLDED ARM** | | | | | | | | |
| **D53-5S*** | **615 810 706 0** | 5 | 3.7 | 0.8 | 1,8 | 1 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-12S*** | **615 810 707 0** | 12 | 8.8 | 1.5 | 3,3 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-25S*** | **615 810 708 0** | 25 | 18.4 | 2.5 | 5.5 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-50S** | **615 810 709 0** | 50 | 36.8 | 5.0 | 11.0 | 2 x 15D | To order separately | |
| **D53-100S** | **615 810 710 0** | 100 | 73.7 | 6.0 | 13.2 | 2 x 22D | | |

*(*) Universal D53 tool clamp included*

# D53 - Dimensions

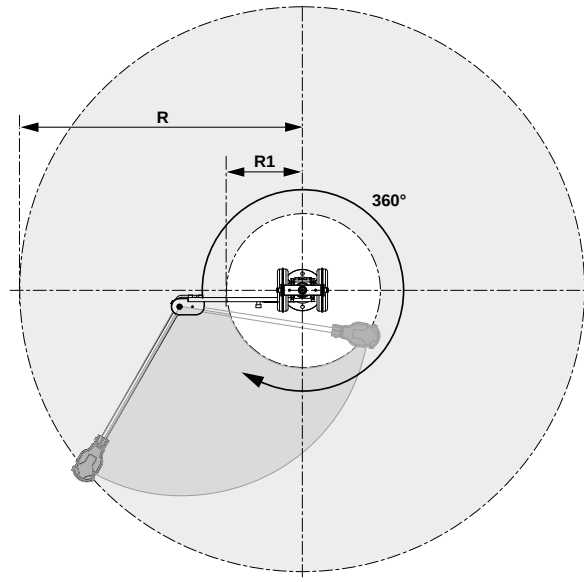


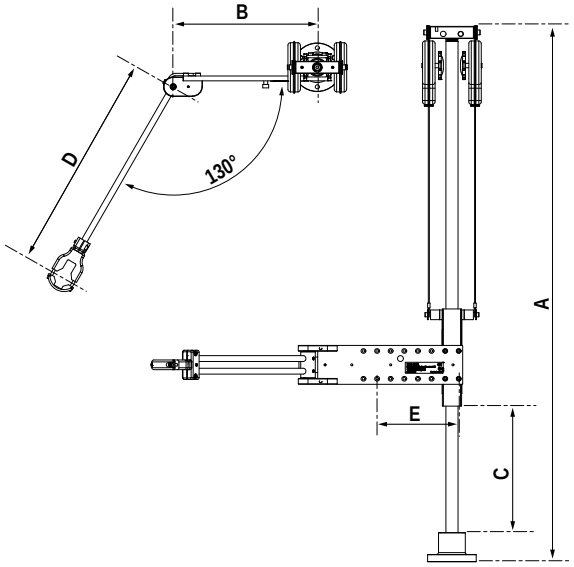




## D53 linear working area product specification

| MODEL | PART NUMBER | MAXIMUM TORQUE | | HEIGHT A | | WIDTH MAXI-B | | WIDTH MINI-B | | VERTICAL STROKE C | | HORIZONTAL STROKE D | | HORIZONTAL STROKE D1 | | FIXED STROKE E | | TOOL WEIGHT MAX | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Nm | ft. lb | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in. | kg | lb |
| **D53- 5** | **615 810 700 0** | 5 | 3.7 | 732 | 28.8 | 592* | 23.3* | 220* | 8.7* | 310 | 12.2 | 205 | 8.1 | - | - | 168 | 6.6 | 0.8 | 1.76 |
| **D53-12** | **615 810 701 0** | 12 | 8.9 | 888 | 35.0 | 710* | 28* | 260* | 10.2* | 465 | 18.3 | 255 | 10.0 | - | - | 196 | 7.7 | 1.5 | 3.3 |
| **D53-25** | **615 810 702 0** | 25 | 18.4 | 1132 | 44.6 | 779* | 30.7* | 231* | 9.1* | 615 | 24.2 | 290 | 11.4 | - | - | 252 | 9.9 | 2.5 | 5.5 |
| **D53-25X** | **615 810 703 0** | 25 | 18.4 | 1132 | 44.6 | 794* | 31.2* | 230* | 9.0* | 615 | 24.2 | 290 | 11.4 | 275 | 10.8 | - | - | 2.2 | 4.85 |
| **D53-50** | **615 810 704 0** | 50 | 36.9 | 1147 | 45.2 | 888* | 35.0* | 267** | 10.5** | 515 | 20.3 | 355 | 14.0 | - | - | 266 | 10.5 | 5.0 | 11.0 |
| **D53-100** | **615 810 705 0** | 100 | 73.8 | 1147 | 45.2 | 916* | 36.0* | 255** | 10.0** | 515 | 20.3 | 395 | 15.6 | - | - | 266 | 10.5 | 6.0 | 13.2 |

*(*) With clamp - (**) Without clamp*




## D53 folded working area product specification

| MODEL | PART NUMBER | MAXIMUM TORQUE | | HEIGHT A | | WIDTH B | | VERTICAL STROKE C | | RADIUS D | | FIXED STROKE E | | RADIUS R | | RADIUS R1 | | TOOL WEIGHT MAX | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Nm | ft. lb | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | kg | lb |
| **D53- 5S** | **615 810 706 0** | 5 | 3.7 | 732 | 28.8 | 248 | 9.76 | 270 | 10.6 | 370* | 14.6* | 168 | 6.6 | 546 | 21.5 | 140 | 5.5 | 0.8 | 1.76 |
| **D53-12S** | **615 810 707 0** | 12 | 8.9 | 888 | 35.0 | 298 | 11.73 | 425 | 16.7 | 420* | 16.5* | 168 | 6.6 | 639 | 25.2 | 146 | 5.8 | 1.5 | 3.3 |
| **D53-25S** | **615 810 708 0** | 25 | 18.4 | 1132 | 44.6 | 296 | 11.65 | 580 | 22.8 | 470* | 18.5* | 168 | 6.6 | 685 | 27 | 183 | 7.2 | 2.5 | 5.5 |
| **D53-50S** | **615 810 709 0** | 50 | 36.9 | 1147 | 45.2 | 336 | 1.1 | 520 | 20.5 | 440** | 17.3** | 228 | 9.0 | 698 | 27.5 | 154 | 6.1 | 5.0 | 11.0 |
| **D53-100S** | **615 810 710 0** | 100 | 73.8 | 1147 | 45.2 | 391 | 15.4 | 500 | 19.7 | 490** | 19.3** | 228 | 9.0 | 788 | 31 | 158 | 6.2 | 6.0 | 13.2 |

*(*) With clamp - (**) Without clamp*

# Linear high torque reaction arms

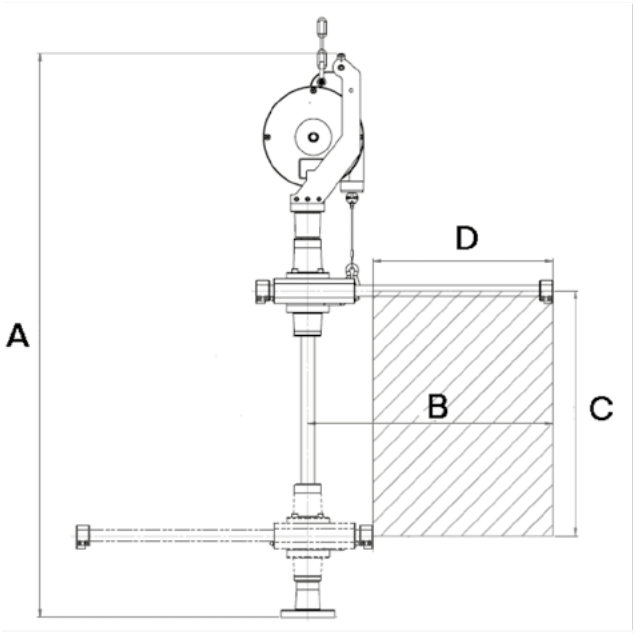


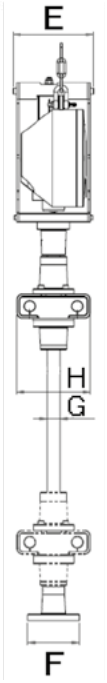
**D53-150/1000 linear:**
- High torque arms from 150 to 1000Nm (111 to 740 ft.lb)
- Standard and extended versions

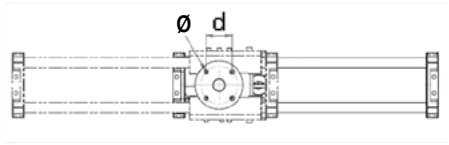
| MODEL | PART NUMBER | MAXIMUM TORQUE | | MAXIMUM TOOL WEIGHT | | BALANCER INCLUDED | TOOL CLAMP DIAMETER |
|---|---|---|---|---|---|---|---|
| | | Nm | ft. lb | kg | lb. | | |
| **D53-150** | **615 811 658 0** | 150 | 111 | 7 | 15.4 | 1 x 14DF | To order separately contact your Desoutter representatives |
| **D53-150XL** | **615 811 659 0** | 150 | 111 | 6 | 13.2 | 1 x 14DF | |
| **D53-300** | **615 811 660 0** | 300 | 222 | 14 | 30.9 | 1 x 25DF | |
| **D53-300XL** | **615 811 661 0** | 300 | 222 | 12.5 | 27.6 | 1 x 25DF | |
| **D53-500** | **615 811 662 0** | 500 | 370 | 30 | 66.2 | 1 x 35DF | |
| **D53-500XL** | **615 811 663 0** | 500 | 370 | 27.4 | 60.4 | 1 x 45DF | |
| **D53-1000** | **615 811 664 0** | 1000 | 740 | 21 | 46.3 | 1 x 35DF | |
| **D53-1000XL** | **615 811 665 0** | 1000 | 740 | 17.8 | 39.3 | 1 x 45DF | |

*For D53-150XL, a new reference is needed to fit with the new balancer (615 450 512 5 Upgrade Kit for D53-150(XL)). For others arms, new balancers are suitable with the existing arms*

# D53HT - Dimensions




| MODEL | PART NUMBER | HEIGHT A | | WIDTH (WO/CLAMP) MIN-B | | WIDTH (WO/CLAMP) MAX-B | | VERTICAL STROKE MIN-C | | VERTICAL STROKE MAX-C | | TOOL WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | mm | in | mm | in | mm | in | kg | lb |
| D53-150 | 615 811 658 0 | 1049 | 41.3 | 240 | 9.4 | 600 | 23.6 | 154.5 | 6.1 | 644 | 25.4 | 7 | 15.4 |
| D53-150XL | 615 811 659 0 | 1159 | 45.6 | 240 | 9.4 | 840 | 33.1 | 154.5 | 6.1 | 754 | 29.7 | 6 | 13.2 |
| D53-300 | 615 811 660 0 | 1216 | 47.9 | 260 | 10.2 | 660 | 26.0 | 180.0 | 7.1 | 720 | 28.3 | 14 | 30.9 |
| D53-300XL | 615 811 661 0 | 1296 | 51 | 260 | 10.2 | 860 | 33.9 | 180.0 | 7.1 | 780 | 30.7 | 12.5 | 27.6 |
| D53-500 | 615 811 662 0 | 1346 | 53 | 290 | 11.4 | 730 | 28.7 | 209.5 | 8.2 | 815 | 32.1 | 30 | 66.2 |
| D53-500XL | 615 811 663 0 | 1561 | 61.5 | 290 | 11.4 | 1090 | 42.9 | 209.5 | 8.2 | 1009 | 39.7 | 27.4 | 60.4 |
| D53-1000 | 615 811 664 0 | 1556 | 61.3 | 320 | 12.6 | 800 | 31.5 | 278.5 | 11.0 | 968 | 38.1 | 21 | 46.3 |
| D53-1000XL | 615 811 665 0 | 1691 | 66.6 | 320 | 12.6 | 1120 | 44.1 | 278.5 | 11.0 | 1078 | 42.5 | 18 | 39.3 |

| MODEL | HORIZONTAL STROKE D | | E | | F | | G | | H | |
|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | mm | in | mm | in |
| D53-150 | 360 | 14.4 | 170 | 6.7 | 90 | 3.5 | 25 | 1.0 | 150 | 5.9 |
| D53-150XL | 600 | 24 | 170 | 6.7 | 90 | 3.5 | 25 | 1.0 | 150 | 5.9 |
| D53-300 | 400 | 16 | 186 | 7.3 | 119 | 4.7 | 30 | 1.2 | 170 | 6.7 |
| D53-300XL | 600 | 24 | 186 | 7.3 | 119 | 4.7 | 30 | 1.2 | 170 | 6.7 |
| D53-500 | 440 | 17.6 | 180 | 7.1 | 119 | 4.7 | 40 | 1.6 | 170 | 6.7 |
| D53-500XL | 800 | 32 | 180 | 7.1 | 119 | 4.7 | 40 | 1.6 | 170 | 6.7 |
| D53-1000 | 480 | 19.2 | 182 | 7.2 | 129 | 5.1 | 50 | 2.0 | 220 | 8.7 |
| D53-1000XL | 800 | 32 | 182 | 7.2 | 129 | 5.1 | 50 | 2.0 | 220 | 8.7 |

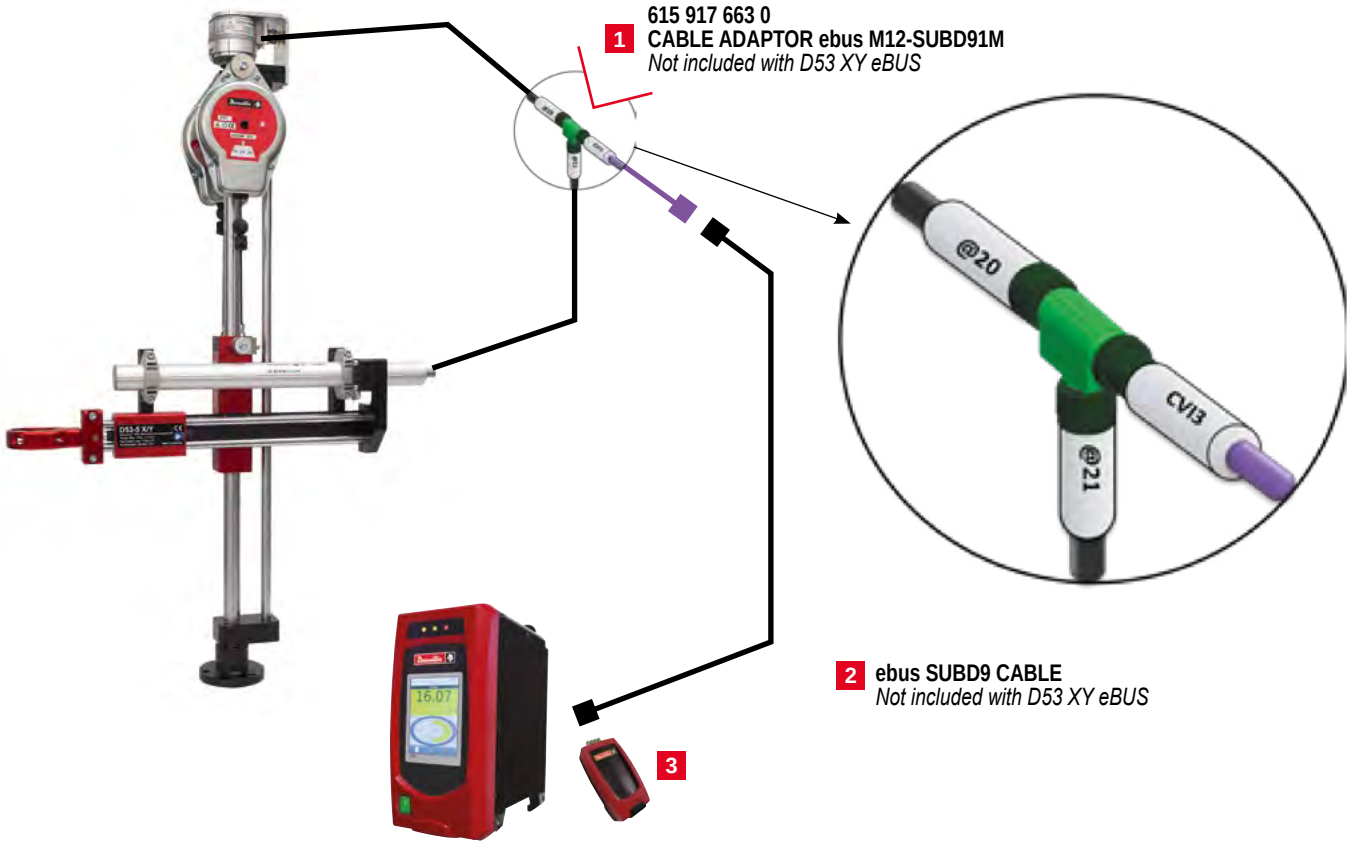
| MODEL | D | | Ø | | ARM WEIGHT | |
|---|---|---|---|---|---|---|
| | mm | in | mm | in | kg | lb |
| D53-150 | 50 | 2.0 | 11 | 0.4 | 12.5 | 27.6 |
| D53-150XL | 50 | 2.0 | 11 | 0.4 | 13.7 | 30.2 |
| D53-300 | 65 | 2.6 | 11 | 0.4 | 26.7 | 58.9 |
| D53-300XL | 65 | 2.6 | 11 | 0.4 | 28.2 | 62.2 |
| D53-500 | 65 | 2.6 | 11 | 0.4 | 40.9 | 90.2 |
| D53-500XL | 65 | 2.6 | 11 | 0.4 | 43.7 | 96.3 |
| D53-1000 | 72 | 2.8 | 13.5 | 0.5 | 57.9 | 127.7 |
| D53-1000XL | 72 | 2.8 | 13.5 | 0.5 | 61.5 | 135.7 |

# D53 X/Y – Positionning arms for CVI3

- D53 X/Y CANopen stands allows to track the tool position during assembly process
- Same tool stand as D53 standard one
- 2 different versions with encoders
- This arm is intended to be used together with our CVI3 controller
- Connected directly to the CVI3 controller
- Needs ePOD 2 or higher
- Easy positioning learning mode

**ACCESSORIES NEEDED :**

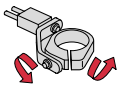
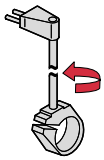
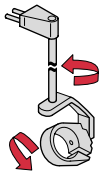
| | |
|---|---|
| **1** Cable adaptor EBUS M12 / SUBD9 | 6159176630 |
| **2 Select one of them :** | |
| eBUS SUBD9 cable 3m | 6159176080 |
| eBUS SUBD9 cable 5m | 6159176090 |
| eBUS SUBD9 cable 15m | 6159176100 |
| **3 Select one ePOD :** | |
| ePOD2 | 6159360760 |
| ePOD3 | 6159360770 |




| MODEL | PART NUMBER | MAXIMUM TORQUE | | MAXIMUM TOOL WEIGHT | | ARM EQUIPPED WITH | TOOL CLAMP DIAMETER (INCLUDED WITH THE ARM) | |
|---|---|---|---|---|---|---|---|---|
| | | Nm | ft. lb | kg | lb. | | mm | in. |
| **LINEAR ARM** | | | | | | | | |
| **D53-5 X/Y-AXLE EBUS** | **615 812 267 0** | 5 | 3.7 | 0.8 | 1.8 | 1 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-12 X/Y-AXLE EBUS** | **615 812 268 0** | 12 | 8.8 | 1.5 | 3.3 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-25 X/Y-AXLE EBUS** | **615 812 269 0** | 25 | 18.4 | 2.5 | 5.5 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-50 X/Y-AXLE EBUS** | **615 812 270 0** | 50 | 36.8 | 5.0 | 11.0 | 2 x 15D | To order separately | |
| **D53-100 X/Y-AXLE EBUS** | **615 812 271 0** | 100 | 73.7 | 6.0 | 13.2 | 2 x 22D | | |
| **FOLDED ARM** | | | | | | | | |
| **D53-5S X/Y-AXLE EBUS** | **615 812 272 0** | 5 | 3.7 | 0.8 | 1,8 | 1 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-12S X/Y-AXLE EBUS** | **615 812 273 0** | 12 | 8.8 | 1.5 | 3,3 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-25S X/Y-AXLE EBUS** | **615 812 274 0** | 25 | 18.4 | 2.5 | 5.5 | 2 x 5DU | 28.5 - 41 | 1.12 - 1.62 |
| **D53-50S X/Y-AXLE EBUS** | **615 812 275 0** | 50 | 36.8 | 5.0 | 11.0 | 2 x 15D | To order separately | |
| **D53-100S X/Y-AXLE EBUS** | **615 812 276 0** | 100 | 73.7 | 6.0 | 13.2 | 2 x 22D | | |

# Tool clamp guide for D53 arms

## Ordering Process:

| SELECT YOUR TOOL | SELECT THE ARM ACCORDING TO: - THE TORQUE APPLICATION - THE REACH NEEDED | | ADD THE TOOL CLAMP IF NOT INCLUDED WITH THE ARM | | | | | ADD ADAPTORS IF YOU USE ROTATION CLAMPS |
|---|---|---|---|---|---|---|---|---|
| **STEP 1** | **STEP 2** | | **STEP 3** | | | | | **STEP 4** |
| **TOOL MODEL** | **D53 MODELS** | | **TOOL CLAMP REFERENCES** | | | | | **COMMENTS** |
| | Linear arms | Swiveling arms | Universal Clamp | Spline | Vertical 2 axis rotation clamp Only for D53-12(S) and D53-25(S) | Horizontal 1 axe rotation clamp Only for D53-12(S) and D53-25(S) | Horizontal 2 axis rotation clamp Only for D53-12(S) and D53-25(S) | |
| | | |  | |  |  |  | |
| **SB/SBP/SC2/SC/ SCP(T)SH70 SLBN SLC(P) Nose mount ECS/ERS/ECD 5** | D53-5* / D53-12* / D53-25* * Tool clamp included | D53-5S* / D53-12S* / D53-25S* * Tool clamp included | **615 810 835 0** Included **(A)** 28.5-41mm | | **615 396 615 0 + 409083** NOT Included To be ordered | **615 396 615 0 + 409113** NOT Included To be ordered | **615 396 615 0 + 409173** NOT Included To be ordered | |
| **SD/SDP/SDT ECP 3/5/10/20** | D53-5* / D53-12* / D53-25* * Tool clamp included | D53-5S* / D53-12S* / D53-25S* * Tool clamp included | **615 810 835 0** Included **(A)** 28.5-41mm | | **615 396 615 0 + 409093** NOT Included To be ordered | **615 396 615 0 + 409123** NOT Included To be ordered | **615 396 615 0 + 409183** NOT Included To be ordered | SD Top mount: adaptor ref. **409273** To be ordered with rotation clamps SD Nose mount: **465463** for 320-1470rpm / **465443** for 2200-3500rpm - To be ordered with rotation clamps |
| **SLC Top mount** | D53-5 / D53-12 | D53-5S D53-12S | **615 810 838 0** NOT Included To be ordered **(B)** 40-50 mm | | **615 396 615 0 + 409093** NOT Included To be ordered | **615 396 615 0 + 409123** NOT Included To be ordered | **615 396 615 0 + 409183** NOT Included To be ordered | |
| **ECA 15/20/30** | D53-5 D53-12 D53-25 | D53-5S D53-12S D53-25S | **615 810 838 0** NOT Included To be ordered **(B)** 40-50 mm | | | | | |
| **SH 150/200/280/420/500 SH 700/850 ERAL1.5/2 ECS/ERS** | D53-25(X) D53-50 D53-100 | D53-25S(X) D53-50S D53-100S | | **615 811 029 0** NOT Included To be ordered **(B) 28-55 mm** | | | | |
| **ERDL 4 ECD 50/70/120** | D53-50 / D53-100 | D53-50S D53-100S | | **615 810 203 0** NOT Included To be ordered **(C)** | | | | |
| **EID 44-1200 EID 75-900 EID 65-800** | D53-50 / D53-100 | D53-50S D53-100S | | **615 812 136 0** NOT Included To be ordered **(C)** | | | | |
| **ERDL 6** | D53-100 | D53-100S | | **615 810 205 0** NOT Included To be ordered **(C)** | | | | |
| **ECD20/30** | D53-25(X) D53-50 | D53-25S(X) D53-50S | | **615 810 628 0 + 615 396 191 0** NOT Included To be ordered **( D )** | | | | Parts to be welded |
| **ERAL 4-90/110/120 ERAL 6-135 ECA 70... 150** | D53-100 | D53-100S | | **615 810 628 0 + 615 396 227 0** NOT Included To be ordered **(D)** | | | | Parts to be welded |
| **EID25-1200 EID 32-900 EDP/ERDL 1.5/2** | D53-50 | D53-50S | | **615 810 628 0 + 615 396 551 5** NOT Included To be ordered **(D)** | | | | Parts to be welded |

*For the tools not mentioned in this list, please ask your local Desoutter contact to define the tool clamp.*

# Tool clamps



A



B



C



D



E

**Specific Clamps**

| MODEL E | PART NUMBER |
|---|---|
| | |
| SD SH70/150/200/280/420/500 | 615 810 129 0 |

## D53 Tool positionning

Straight tool



Pistol grip tool



Angle nutrunner





# TRA - Telescopic reaction arms

## Telescopic carbon arm: Ideal for busy workspace!

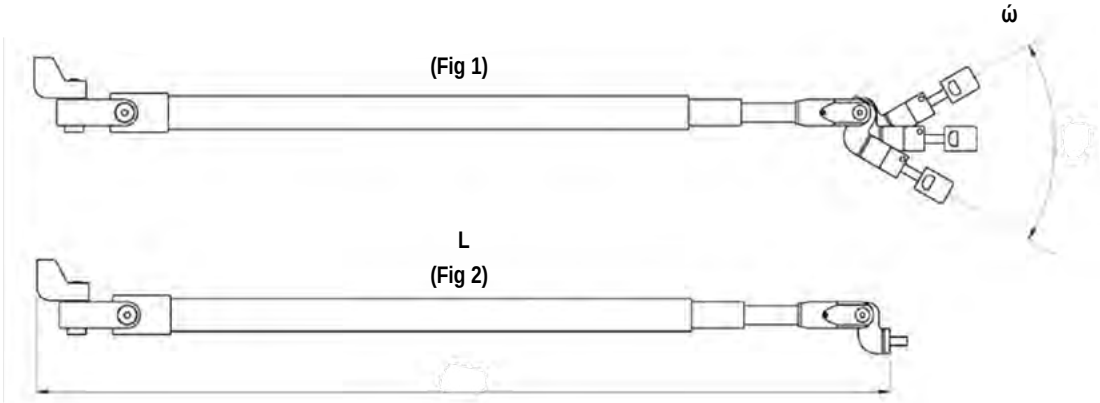
- From 12 up to 200 Nm (8.9 up to 148 ft.lb) torque capacity
- Several lengths available
- 90 degrees tool clamp interface for straight or pistol grip tools
- Limited tool clamp angle rotation to avoid side forces in the operator arm (ώ) (Fig 1)

**Benefits:**
- Extremely lightweight carbon made torque arm for improved comfort of use
- Flexible solution





Need to order
a balancer separately
see page 207



# TRA - Telescopic reaction arms







** Universal balancer adaptater

## OPTIONAL ACCESSORIES

| ITEM | DESCRIPTION | PART NUMBER |
|---|---|---|
| A | Bench stand Ø 32mm (1.26") - H 753mm (29.64") | **615 810 194 0** |
| B | Bench stand holder Ø 32mm (1.26") for TRA 12/25 | **615 810 121 0** |
| B | Bench stand holder Ø 32mm (1.26") for TRA 50/100 | **615 810 140 0** |
| C | Universal balancer adapter | **615 397 922 5** |

| MODEL | PART NUMBER | MAXIMUM TORQUE | | MAX. MIN LENGTH L | | ώ (DEG) | WEIGHT | | TOOL CLAMP DIAMETER (INCLUDED WITH THE ARM) | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Nm | ft. lb | mm | in. | | kg | lb | mm | in. |
| **TRA12 1150*** | **615 810 089 0** | 12 | 8.9 | 516-1128 | 20-44 | 170 | 0.46 | 1.01 | 28-49 | 1.10-1.92 |
| **TRA12 1600*** | **615 810 090 0** | 12 | 8.9 | 666-1578 | 26-62 | 170 | 0.51 | 1.12 | 28-49 | 1.10-1.92 |
| **TRA12 2100*** | **615 810 091 0** | 12 | 8.9 | 835-2083 | 32-82 | 170 | 0.57 | 1.26 | 28-49 | 1.10-1.92 |
| **TRA25 1150*** | **615 810 092 0** | 25 | 18.4 | 524-1124 | 20-44 | 170 | 0.60 | 1.32 | 28-49 | 1.10-1.92 |
| **TRA25 1600*** | **615 810 093 0** | 25 | 18.4 | 674-1574 | 26-62 | 170 | 0.70 | 1.54 | 28-49 | 1.10-1.92 |
| **TRA25 2100*** | **615 810 094 0** | 25 | 18.4 | 841-2075 | 33-82 | 170 | 0.77 | 1.70 | 28-49 | 1.10-1.92 |
| **TRA25 2600*** | **615 810 095 0** | 25 | 18.4 | 1007-2573 | 39-101 | 170 | 0.86 | 1.89 | 28-49 | 1.10-1.92 |
| **TRA50 1600*** | **615 810 096 0** | 50 | 36.9 | 712-1624 | 28-64 | 40 | 1.14 | 2.51 | 28-50 | 1.10-1.97 |
| **TRA50 2100*** | **615 810 097 0** | 50 | 36.9 | 878-2125 | 34-84 | 40 | 1.24 | 2.73 | 28-50 | 1.10-1.97 |
| **TRA50 2600*** | **615 810 098 0** | 50 | 36.9 | 1045-2626 | 41-103 | 40 | 1.34 | 2.95 | 28-50 | 1.10-1.97 |
| **TRA100 1600** | **615 810 099 0** | 100 | 73.8 | 722-1628 | 28-64 | 30 | 1.47 | 3.24 | To order separately (see page 200) | |
| **TRA100 2100** | **615 810 100 0** | 100 | 73.8 | 889-2129 | 35-83 | 30 | 1.41 | 3.11 | | |
| **TRA100 2600** | **615 810 101 0** | 100 | 73.8 | 1056-2630 | 41-103 | 30 | 1.53 | 3.37 | | |
| **TRA200 1600** | **615 810 102 0** | 200 | 148 | 726-1628 | 28-64 | 20 | 1.98 | 4.36 | | |
| **TRA200 2100** | **615 810 103 0** | 200 | 148 | 893-2129 | 35-84 | 20 | 2.18 | 4.80 | | |
| **TRA200 2600** | **615 810 104 0** | 200 | 148 | 1060-2630 | 41-103 | 20 | 2.39 | 5.27 | | |

*(*) Universal TRA tool clamp included (**) Universal balancer adapters: 1 kit = 7 parts for all Desoutter balancer types: Part No. 615 397 922 5*

# TRA X/Y – Positionning arms for CVI3

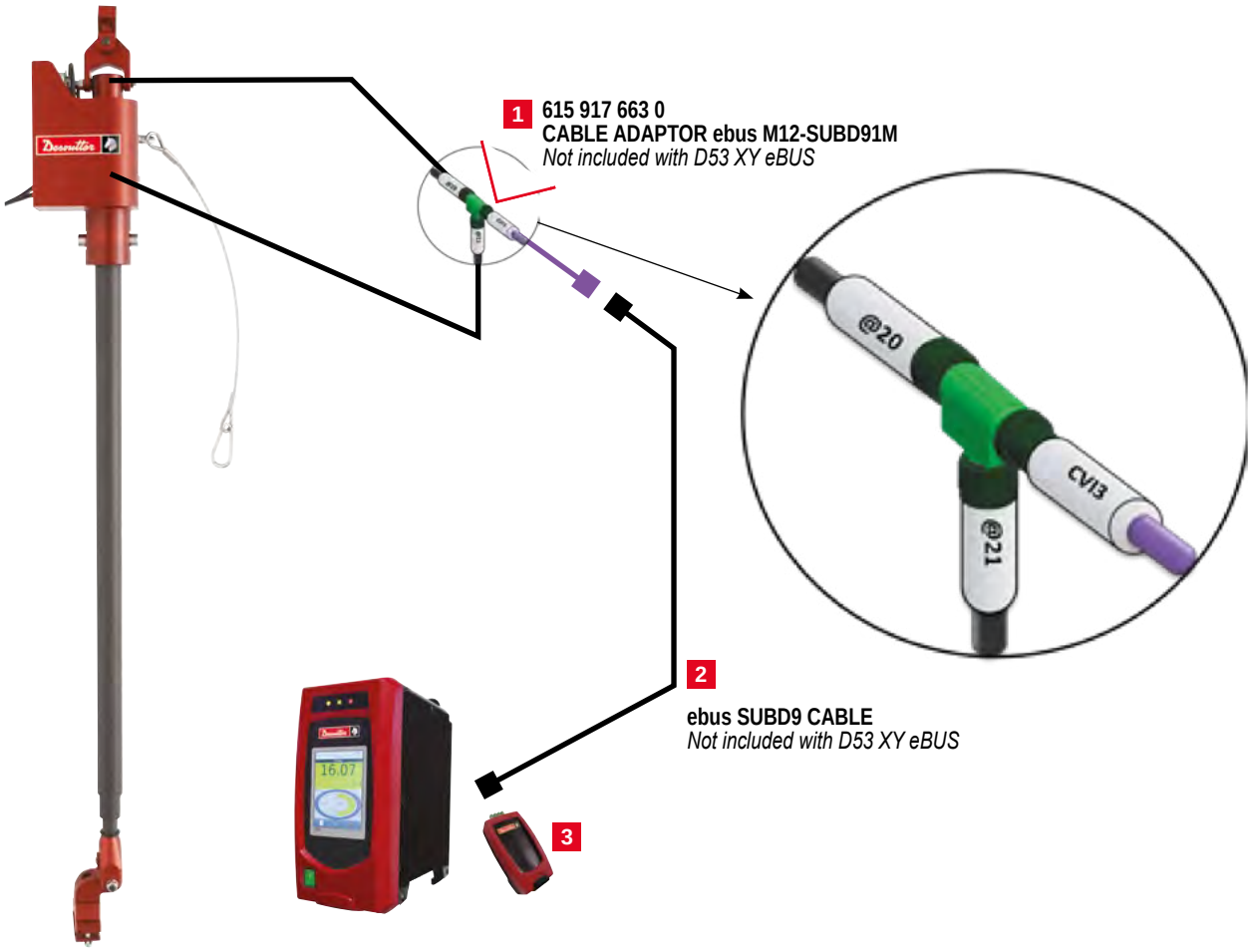
## Same telescopic arms as the standard one: up to 200Nm (148 ft.lb.) torque capacity

- TRA X/Y CANopen arms allows to track the tool position during assembly process
- 2 different versions:
  - 1 encoder: length measurement
  - 2 encoders: length measurement + angle control
- This arm is intended to be used together with our CVI3 controller
- Accuracy: +/- 5mm
- Connected directly to the CVI3 controller
- Needs ePOD 2 or higher
- Easy positioning learning mode

**ACCESSORIES NEEDED :**

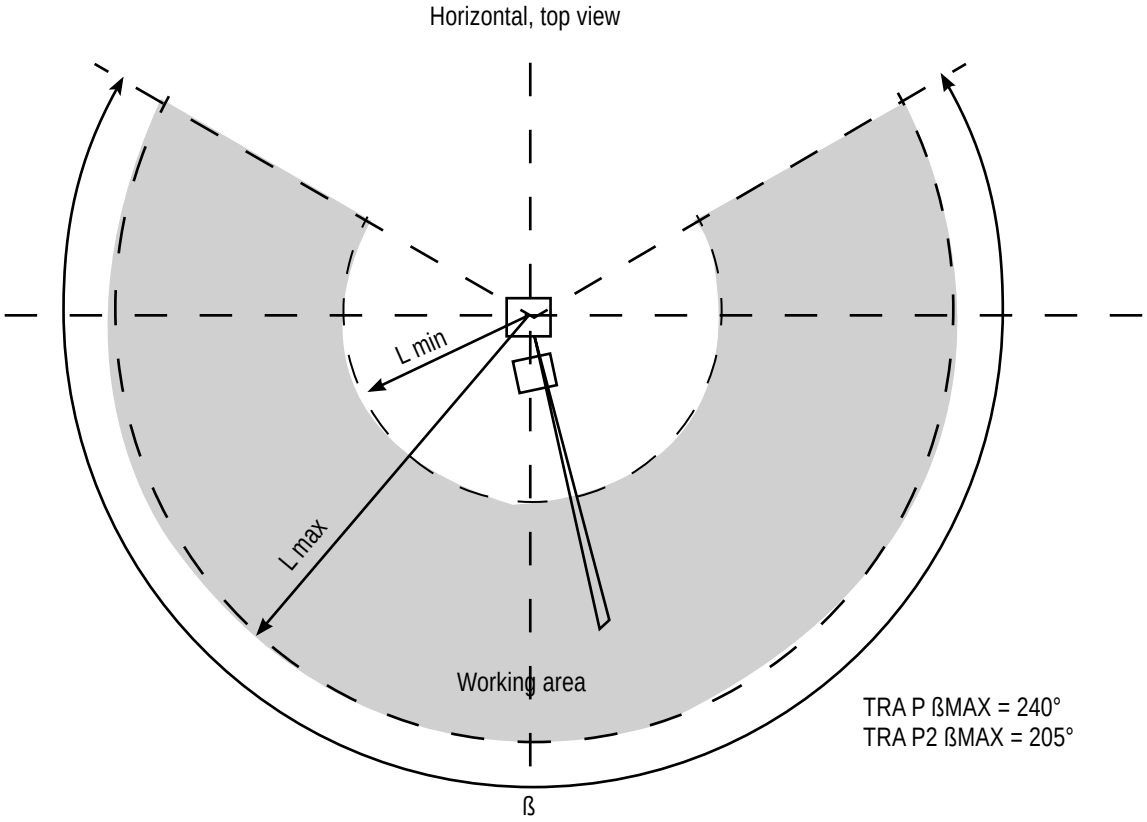
| | |
|---|---|
| **1** Cable adaptor EBUS M12 / SUBD9 | 6159176630 |
| **2** **Select one of them :** | |
| eBUS SUBD9 cable 3m | 6159176080 |
| eBUS SUBD9 cable 5m | 6159176090 |
| eBUS SUBD9 cable 15m | 6159176100 |
| **3** **Select one ePOD :** | |
| ePOD2 | 6159360760 |
| ePOD3 | 6159360770 |

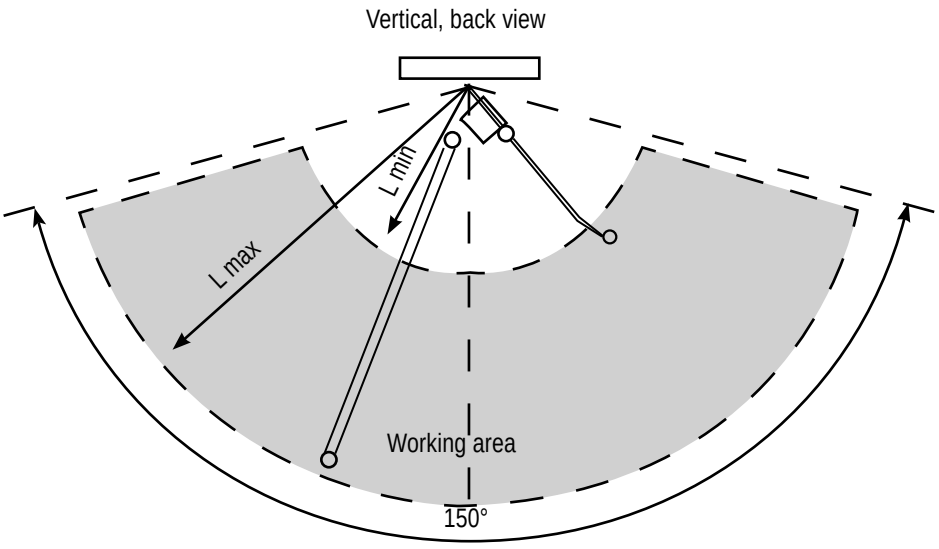
- Needs ePOD 2 or higher
- Easy positioning learning mode



# TRA X/Y – Positionning arms for CVI3

## TRA X/Y CANopen - Dimensions



# The new clamps guide for TRA

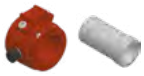
## Ordering Process:

| SELECT YOUR TOOL | SELECT THE ARM ACCORDING TO:- THE TORQUE APPLICATION - THE REACH NEEDED | ADD THE TOOL CLAMP IF NOT INCLUDED WITH THE ARM |
|---|---|---|

| STEP 1 | STEP 2 | STEP 3 | | |
|---|---|---|---|---|
| TOOL MODEL | TRA MODEL | TOOL CLAMP REFERENCE | DESCRIPTION | PHOTO |
| SB/SBP<br>SC2/SCP/SCPT<br>SD/SDP/SDT<br>SH 70/150/200/280<br>SLBN/SLC/SLCP<br>ECS<br>ECD 5 | TRA12* / 25 *<br>* Clamp included with the arm | 615 810 118 0<br>Included with the arm | Universal Clamp<br>28 - 49mm<br>(1.1 - 1.92") | A |
| ERDL 1,5/2<br>ERAL 4-90 | TRA50* / 100<br>* Clamp included with the arm | 6158101370<br>Included with TRA50.<br>To be ordered for TRA100 | Universal Clamp<br>28 - 50mm<br>(1.1 - 1.97") | B |
| SH 420/500 | TRA50<br>TRA100 | 6158129030 + 6158128940<br>6158129040 + 6158128940 | | C |
| SH 700 | TRA50<br>TRA100 | 6158129030 + 6158129000<br>6158129040 + 6158129000 | | C |
| SH 850 | TRA 100 | 6158128940 + 6158128970 | | C |
| ERAL 1,5/2 | TRA50,<br>TRA100 | 6158129030 + 6158128890<br>6158129040 + 6158128890 | | C |
| ERAL 4 | TRA50,<br>TRA100 | 6158129030 + 6158128960<br>6158129040 + 6158128960 | | |
| ECA 15/20/30 | TRA 50 | 6158129030 + 6158128930 | | C |
| ECA 40/60 | TRA 100 | 6158129040 + 6158128930 | | C |
| EAD 20/32<br>EAB(C) 26/32/45 | TRA50 | 6158129030 + 6158128880 | | C |
| EAD 50-900 | TRA50<br>TRA100 | 6158129030 + 6158128910<br>6158129040 + 6158128910 | | C |
| EAD 70/75/80/95/105<br>EAB(C) 60 | TRA50<br>TRA100 | 6158129030 + 6158128950<br>6158129040 + 6158128950 | | C |
| ERDL 4 - 60/80/135<br>ECD 50/70/120 | TRA100<br>TRA200 | 6158102030 for TRA100<br>6158102020 for TRA200<br>NOT Included with the arm<br>To be ordered | Spline G1<br>D40,5 | D |
| EID 44/65/75 | TRA100 | 6158121360 for TRA100<br>NOT Included with the arm<br>To be ordered | Spline G1<br>D40,5 | D |
| ERDL 6 - 170/220/250 | TRA200 | 6158102040<br>NOT Included with the arm<br>To be ordered | Spline G1 D50 | D |
| EDP<br>EID 25/32 | TRA 50 | 6158106280 + 6153965515<br>NOT Included with the arm<br>To be ordered | Clamp to be welded | E |
| ECD 20/30 | TRA 50 | 6158106280 + 6153961910<br>NOT Included with the arm<br>To be ordered | Clamp to be welded | E |
| ECA 70/90/115/125/150 | TRA 100 | 6158129040 + 6158128980 | | C |
| ERAL 4 - 225<br>ECA 200 | TRA200 | 6158106310 + 6153962300<br>NOT Included with the arm<br>To be ordered | Clamp to be welded | E |

A 

B 

C 

D 

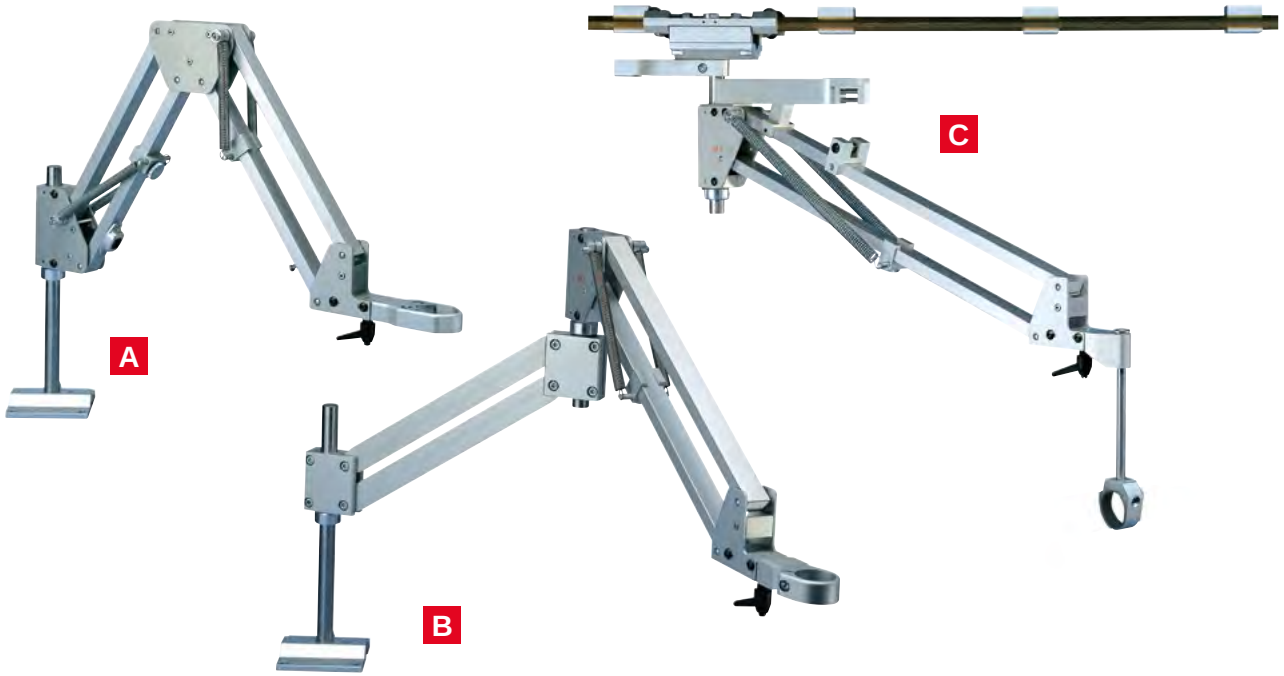
E 

*For the tools not mentioned in this list, please ask your local Desoutter contact to define the tool clamp*

# TOOL HOLDER EPD FOR REACTION ARMS

| TOOL | | TOOL HOLDER DESCRIPTION | PART NUMBER | FOR ARM | |
|---|---|---|---|---|---|
| EPD7 |  | D53 UNI HOLDER DIAM 28,5-41 (INCLUDED WITH THE ARM) | 615 810 835 0 | D53-25 | 615 810 702 0 |
| | | | | D53-25X | 615 810 703 0 |
| | | | | D53-25S | 615 810 708 0 |
| | | | | D53-25 X/Y-AXLE EBUS | 615 812 269 0 |
| | | | | D53-25S X/Y-AXLE EBUS | 615 812 274 0 |
| EPD10<br>EPD16<br>EPD20 |  | TRA UNI HOLDER DIAM 26-49 (INCLUDED WITH THE ARM) | 615 810 118 0 | TRA25-1150 | 615 810 092 0 |
| | | | | TRA25-1600 | 615 810 093 0 |
| | | | | TRA25-2100 | 615 810 094 0 |
| | | | | TRA25-2600 | 615 810 095 0 |
| | | | | TRA25-2100 P2 | 615 812 108 0 |
| |  | TT UNI HOLDER DIAM 28,5-41 (INCLUDED WITH THE ARM) | 615 812 161 0 | TT25-1150/300 | 615 812 082 0 |
| | | | | TT25-1600/600 | 615 812 261 0 |
| EDP27 |  | D53 50-100 UNI HOLDER DIAM 26-55 (NOT INCLUDED WITH THE ARM) | 615 811 029 0 | D53-50 | 615 810 704 0 |
| | | | | D53-50S | 615 810 709 0 |
| | | | | D53-50 XY AXLE EBUS | 615 812 270 0 |
| | | | | D53-50S XY AXLE EBUS | 615 812 275 0 |
| |  | RA50-100 UNI HOLDER DIAM 26-50 NCLUDED WITH THE ARM) | 615 810 137 0 | TRA 50 1600 | 615 810 096 0 |
| | | | | TRA 50 2100 | 615 810 107 0 |
| | | | | TRA 50 2600 | 615 810 108 0 |
| | | | | TRA 50 2100 UNI P | 615 812 104 0 |
| | | | | TRA 50 2100 UNI P2 | 615 812 109 0 |
| EPD40<br>EPD70 |  | OL HOLDER EPD40-70 OT INCLUDED WITH THE ARM) | 615 813 674 0 | D53-50 | 615 810 704 0 |
| | | | | D53-50S | 615 810 709 0 |
| | | | | D53-50 XY AXLE EBUS | 615 812 270 0 |
| | | | | D53-50S XY AXLE EBUS | 615 812 275 0 |
| | | | | TRA 50 1600 | 615 810 096 0 |
| | | | | TRA 50 2100 | 615 810 107 0 |
| | | | | TRA 50 2600 | 615 810 108 0 |
| | | | | TRA 50 2100 UNI P | 615 812 1040 |
| | | | | TRA 50 2100 UNI P2 | 615 812 109 0 |
| | | | | D53-100 | 615 810 705 0 |
| | | | | D53-100S | 615 810 710 0 |
| | | | | D53-100 XY AXLE EBUS | 615 812 271 0 |
| | | | | D53-100S XY AXLE EBUS | 615 812 276 0 |
| | | | | TRA 100 1600 | 615 810 099 0 |
| | | | | TRA 100 2100 | 615 810 100 0 |
| | | | | TRA 100 2600 | 615 810 101 0 |
| | | | | TRA 100 2100 UNI | 615 812 105 0 |
| | | | | TRA 100 2100 P2 | 615 812 110 0 |
| EPD110 |  | TOOL HOLDER EPD110 (NOT INCLUDED WITH THE ARM) | 615 813 675 0 | TRA 200 1600 | 615 810 102 0 |
| | | | | TRA 200 2100 | 615 810 103 0 |
| | | | | TRA 200 2600 | 615 810 104 0 |
| | | | | TRA 200 2100 P UNI | 615 812 106 0 |
| | | | | TRA 200 2100 P2 | 615 812 111 0 |

# Balancing arms D57, D58, D59

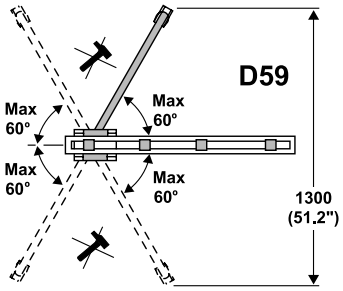


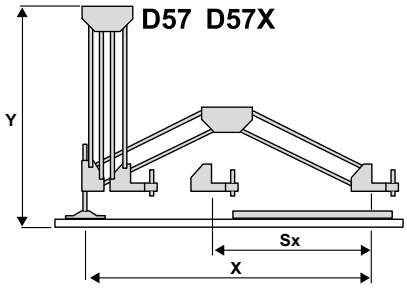

## D57/D57X/D58 How To Order

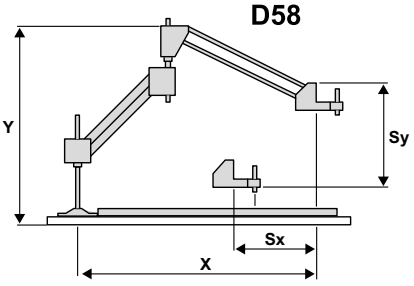
1. Basic Stand
2. Tool Holder
3. Optional Accessories

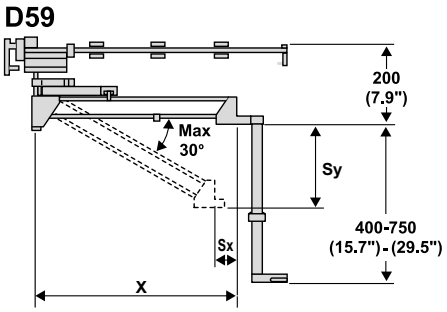
## D59 How To Order

1. Basic Stand
2. Tool Holder
3. Rail (supplied per meter, e.g. for 3m order (3) of PN. 409213)
4. Rail End Stops (2 required per complete rail)
5. Optional Accessories



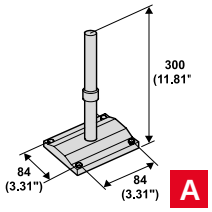



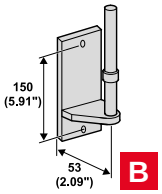



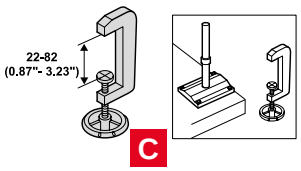

## D57 / 58 / 59 BALANCING ARMS

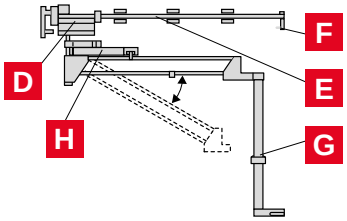
| PIC REF. | MODEL | PART NUMBER | MAXIMUM TORQUE | | OVERALL HORIZONTAL (X) | | OVERALL VERTICAL (Y) | | STROKE HORIZONTAL (SX) | | STROKE VERTICAL (SY) | | TOOL WEIGHT CAPACITY | | ACCESSORIES INCLUDED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | N.m | ft.lb | mm | in. | mm | in. | mm | in. | mm | in. | kg | lb | |
| A | D57 | 408903 | 20 | 14.75 | 700 | 25.55 | 550 | 21.6 | 510 | 20.7 | 95 | 3.74 | 2 | 4.4 | BENCH MOUNT |
| A | D57X | 408913 | 20 | 14.75 | 850 | 33.46 | 550 | 21.6 | 610 | 24.0 | 95 | 3.74 | 2 | 4.4 | BENCH MOUNT |
| B | D58 | 408923 | 20 | 14.75 | 710 | 27.95 | 600 | 23.6 | 600 | 23.6 | 180 | 7.08 | 2 | 4.4 | BENCH MOUNT |
| C | D59 | 408933 | 20 | 14.75 | 650 | 25.60 | 200 | 7.87 | 70 | 2.75 | 250 | 9.84 | 2 | 4.4 | RAIL CARRIAGE |

# Tool clamps



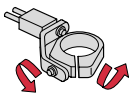
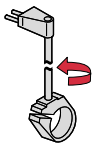
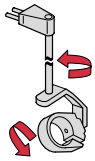




## ACCESSORIES

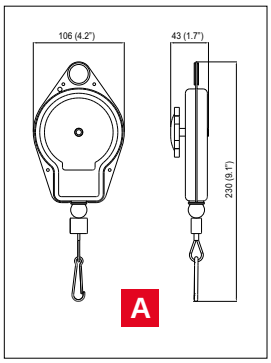
| ITEM | PART NO. | DESCRIPTION | D57 / D57X | D58 | D59 |
|---|---|---|---|---|---|
| A | 408953 | Bench Mount (Included with the stand) | ✔ | ✔ | |
| B | 408963 | Wall Mount Bracket | ✔ | ✔ | |
| C | 408973 | Table Stand Clamp | ✔ | ✔ | |
| • | 408993 | Heavy Duty Spring 1 - 2,5 kg | ✔ | | |
| D | 409253 | Rail Carriage (Included with the stand) | | | ✔ |
| E | 409213 | Rail Per Meter | | | ✔ |
| F | 409223 | Rail End Stops | | | ✔ |
| G | 409203 | Telescopic Height Adjustments | | | ✔ |
| H | 409233 | Top Arrester / Vertical Lock | | | ✔ |
| H | 409243 | Side Arrester / Horizontal Lock | | | ✔ |

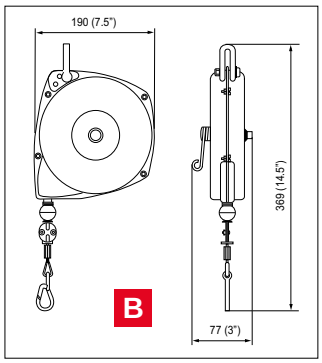
*must also order top arrester when using side arrester*

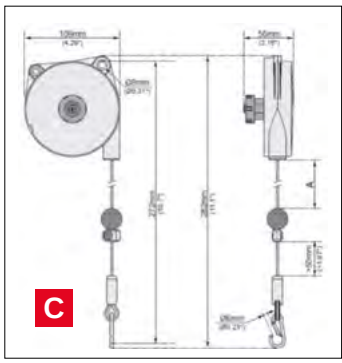
| D57/58/59 TOOL CLAMPS | Ø28.5-41MM | Ø40-50MM | VERTICAL 2 AXIS ROTATION | HORIZONTAL SINGLE AXIS ROTATION | HORIZONTAL 2 AXIS ROTATION | ADAPTOR SLEEVE BLANK (supplied as standard with tool holders) to be machined to suit the tool |
|---|---|---|---|---|---|---|
| PART NO. | 615 396 6140 | 615 396 6290 | 409083 Ø36mm (1.42)<br>409093 Ø46mm (1.8)<br>409103 Ø56mm (2.2) | 409113 Ø36mm (1.42)<br>409123 Ø46mm (1.8)<br>409133 Ø56mm (2.2) | 409173 Ø36mm (1.42)<br>409183 Ø46mm (1.8) | 409273 Ø46mm (1.8) (OUTSIDE) Ø30mm (1.18) (INSIDE)<br>409023 Ø56mm (2.2) (OUTSIDE) Ø40mm (1.57) (INSIDE) |
| |  |  |  |  |  |  |
| **Pneumatic Screwdrivers** | | | | | | |
|  | | | | | | |
| SB / SBP | ✔ | | 409083 | 409113 | 409173 | |
| SC2 / SCP / SCPT | ✔ | | 409083 | 409113 | 409173 | |
| SD / SDP | ✔ | | 409093 | 409123 | 409183 | Ring adaptor PN 409273 for SD |
| SH70 / SH150 | ✔ | | 409093 | 409123 | 409183 | |
| **Electric Screwdrivers** | | | | | | |
|  | | | | | | |
| SLBN | ✔ | | 409093 | 409123 | 409183 | Ring adaptor PN 409273 |
| SLC (nose mount) | ✔ | | 409083 | 409113 | 409173 | |
| SLC (top mount) | | ✔ | 409093 | 409123 | 409183 | |
| ECS | ✔ | | 409083 | 409113 | 409173 | |
| ECD5 | ✔ | | 409083 | 409113 | 409173 | |
| ERD5 | ✔ | | 409083 | 409113 | 409173 | |
| **Drills** | | | | | | |
|  | | | | | | |
| DR 300 | ✔ | | 409083 | 409113 | 409173 | |
| DR 350 | | | | 409113 | 409173 | |
| DR 750 | | | | 409123 | 409183 | Ring adaptor PN 409273 |

# Balancers D & HU Series



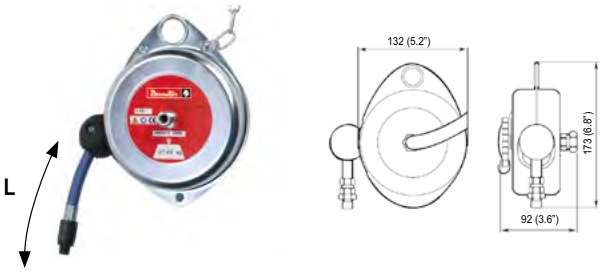




- Steel housing
- Nylon (pic A) Steel (pic B,C) cable
- Additional support chain included
- 10S / 15S / 22S with drum lock feature: operates only on spring failure

## BALANCERS - 1DU - 22S

| PIC REF | MODEL | PART NUMBER | LOAD RANGE | | | | CABLE TRAVEL | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. CAPACITY | | MAX. CAPACITY | | | | | |
| | | | kg | lb | kg | lb | m | ft | kg | lb |
| A | 1DU | 52542 | 0 | 0 | 0.5 | 1.1 | 1.5 | 4.9 | 0.6 | 1.3 |
| | 2DU | 50522 | 0.5 | 1.1 | 1.0 | 2.2 | 1.5 | 4.9 | 0.6 | 1.3 |
| | 2DUS | 54532 | 0.5 | 1.1 | 1.0 | 2.2 | 3.0 | 9.8 | 0.6 | 1.3 |
| | 3DU | 52862 | 1.0 | 2.2 | 1.5 | 3.3 | 1.5 | 4.9 | 0.6 | 1.3 |
| | 4DU | 50532 | 1.0 | 2.2 | 2.0 | 4.4 | 1.5 | 4.9 | 0.6 | 1.3 |
| | 5DU | 50542 | 1.4 | 3.1 | 2.4 | 5.3 | 1.5 | 4.9 | 0.6 | 1.3 |
| B | 10D | 50052 | 2.5 | 5.5 | 5.0 | 11.0 | 2.4 | 7.8 | 2.7 | 6.0 |
| | 15D | 50062 | 5.0 | 11.0 | 7.0 | 15.4 | 2.4 | 7.8 | 3.2 | 7.1 |
| | 22D | 50072 | 6.0 | 13.2 | 10.0 | 22.0 | 2.4 | 7.8 | 3.2 | 7.1 |
| | 10S* | 50572 | 2.0 | 4.4 | 5.0 | 11.0 | 2.4 | 7.8 | 2.7 | 6.0 |
| | 15S* | 50582 | 5.0 | 11.0 | 7.0 | 15.4 | 2.4 | 7.8 | 3.2 | 7.1 |
| | 22S* | 50592 | 6.0 | 13.2 | 10.0 | 22.0 | 2.4 | 7.8 | 3.2 | 7.1 |
| C | 2DSB | 615 812 791 0 | 0.4 | 0.88 | 1 | 2.2 | 1.6 | 5.25 | 0.57 | 1.25 |
| | 2DSBX | 615 812 794 0 | 0.4 | 0.88 | 1 | 2.2 | 3 | 9.84 | 0.57 | 1.25 |
| | 4DSB | 615 812 792 0 | 1 | 2.2 | 2 | 4.4 | 1.6 | 5.25 | 0.6 | 1.32 |

** Balancers with drum lock features*




- Steel housing
- Additionnal support chain included
- Polyurethane hose
- 1/4" thread

## HOSE BALANCERS - 1HU - 4HU

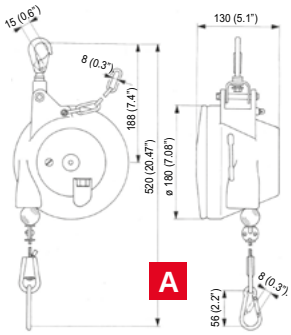
| MODEL | PART NUMBER | LOAD RANGE | | | | HOSE TRAVEL | | HOSE ID | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MIN. CAPACITY | | MAX. CAPACITY | | | | | | | |
| | | kg | lb | kg | lb | m | ft | mm | in. | kg | lb |
| 1HU | 52552 | 0 | 0 | 0.5 | 1.1 | 1.0 | 3.3 | 6.5 | 1/4 | 1.2 | 2.6 |
| 3HU | 50552 | 0.5 | 1.1 | 1.4 | 3.1 | 1.0 | 3.3 | 6.5 | 1/4 | 1.2 | 2.6 |
| 4HU | 50562 | 0.7 | 1.5 | 2.0 | 4.4 | 1.0 | 3.3 | 6.5 | 1/4 | 3.3 | 7.3 |
| 4HU-X* | 205 148 128 4 | 0.7 | 1.5 | 2.0 | 4.4 | 1.5 | 4.9 | 6.5 | 1/4 | 3.3 | 7.3 |

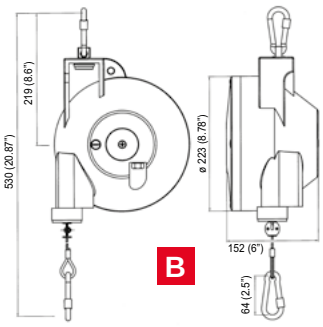
*Flow rate: 7.1 l/s (15cfm) - *L= 0.5*

# Balancers - ZG, DF & DFL Series




- Reaction free: holds the load weightless throughout the entire cable length
- Rigid and impact-resistant plastic and aluminum housing
- 360° swiveling safety hook for isolated suspension
- Screw-type safety hook for load suspension
- Standard safety chain
- Spring fracture safeguard, integrated drum lock



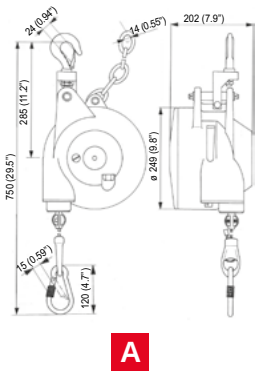

## BALANCERS - 5DF - 55 DF

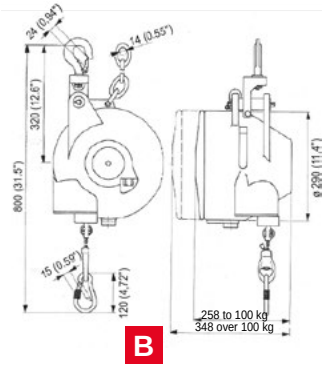
| PIC REF | MODEL | PART NUMBER | LOAD RANGE | | | | CABLE TRAVEL | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. CAPACITY | | MAX. CAPACITY | | | | | |
| | | | kg | lb | kg | lb | m | ft | kg | lb |
| A | 12ZG | 615 813 077 0 | 0,4 | 0.88 | 1,2 | 2.65 | 1,6 | 5.25 | 1.3 | 2.87 |
| | 26ZG | 615 813 078 0 | 1,2 | 2.65 | 2,6 | 5.73 | 1,6 | 5.25 | 1.4 | 3.09 |
| | 38ZG | 615 813 079 0 | 2,6 | 5.73 | 3,8 | 8.38 | 1,6 | 5.25 | 1.5 | 3.31 |
| | 52ZG | 615 813 080 0 | 3,8 | 8.38 | 5,2 | 11.46 | 1,6 | 5.25 | 1.5 | 3.31 |
| | 65ZG | 615 813 081 0 | 5,2 | 11.46 | 6,5 | 14.33 | 1,6 | 5.25 | 1.5 | 3.31 |
| | 5DF | 615 813 705 0 | 3.0 | 6.6 | 5.0 | 11.0 | 2.0 | 6.6 | 2.9 | 6.4 |
| | 7DF | 615 813 706 0 | 4.5 | 9.9 | 7.0 | 15.4 | 2.0 | 6.6 | 3.1 | 6.8 |
| | 10DF | 615 813 707 0 | 6.0 | 13.2 | 10.0 | 22.0 | 2.0 | 6.6 | 3.2 | 7.1 |
| | 14DF | 615 813 708 0 | 9.0 | 19.8 | 14.0 | 30.9 | 2.0 | 6.6 | 3.4 | 7.5 |
| | 17DF | 615 813 709 0 | 13.0 | 28.7 | 17.0 | 37.5 | 2.0 | 6.6 | 3.6 | 7.9 |
| | 21DF | 615 813 710 0 | 16.0 | 35.3 | 21.0 | 46.3 | 2.0 | 6.6 | 3.8 | 8.4 |
| B | 25DF | 615 813 711 0 | 15.0 | 33.1 | 25.0 | 55.1 | 2.0 | 6.6 | 7.8 | 17.2 |
| | 35DF | 615 813 712 0 | 25.0 | 55.1 | 35.0 | 77.2 | 2.0 | 6.6 | 8.9 | 16.6 |
| | 45DF | 615 813 713 0 | 35.0 | 77.2 | 45.0 | 99.2 | 2.0 | 6.6 | 9.5 | 20.9 |
| | 55DF | 615 813 714 0 | 45.0 | 99.2 | 55.0 | 121.2 | 2.0 | 6.6 | 9.7 | 21.4 |

*A Plastic housing* *B Aluminum housing*




- Reaction free: holds the load weightless throughout the entire cable length
- Rigid and impact-resistant aluminum housing
- 360° swiveling safety hook
- Cable extension limit stop for overload protection
- Screw-type safety hook for load suspension
- Standard safety chain
- Standard spring fracture safeguard integrated drum lock
- Ferrule for securing cable end
- Freewheel device for protection against handling errors




## BALANCERS - 20DFL - 200DFL

| PIC REF | MODEL | PART NUMBER | LOAD RANGE | | | | CABLE TRAVEL | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | MIN. CAPACITY | | MAX. CAPACITY | | | | | |
| | | | kg | lb | kg | lb | m | ft | kg | lb |
| A | 20DFL | 615 813 715 0 | 12 | 26.5 | 20 | 44.1 | 2.0 | 6.6 | 14.8 | 32.6 |
| | 30DFL | 615 813 716 0 | 20 | 44.1 | 30 | 66.1 | 2.0 | 6.6 | 15.2 | 33.5 |
| | 45DFL | 615 813 717 0 | 30 | 66.1 | 45 | 99.2 | 2.0 | 6.6 | 16.9 | 37.2 |
| | 60DFL | 615 813 718 0 | 45 | 99.2 | 60 | 132.3 | 2.0 | 6.6 | 17.3 | 38.1 |
| | 75DFL | 615 813 719 0 | 60 | 132.3 | 75 | 165.3 | 2.0 | 6.6 | 18.7 | 41.2 |
| | 90DFL | 615 813 720 0 | 75 | 165.3 | 90 | 198.4 | 2.0 | 6.6 | 19.7 | 43.4 |
| | 100DFL | 615 813 721 0 | 90 | 198.4 | 100 | 220.4 | 2.0 | 6.6 | 20.9 | 46.1 |
| B | 115DFL | 615 813 722 0 | 100 | 220.4 | 115 | 253.5 | 3.0 | 9.8 | 41.8 | 92.1 |
| | 130DFL | 615 813 723 0 | 115 | 253.5 | 130 | 286.6 | 3.0 | 9.8 | 43.2 | 95.2 |
| | 140DFL | 615 813 724 0 | 130 | 286.6 | 140 | 308.6 | 3.0 | 9.8 | 44.6 | 98.3 |
| | 150DFL | 615 813 725 0 | 140 | 308.6 | 150 | 330.7 | 3.0 | 9.8 | 46.0 | 101.4 |
| | 190DFL | 615 813 726 0 | 180 | 396.8 | 190 | 418.9 | 3.0 | 9.8 | 47.0 | 103.6 |
| | 200DFL | 615 813 727 0 | 190 | 418.9 | 200 | 440.9 | 3.0 | 9.8 | 47.3 | 104.2 |

# Tool holsters

## Desoutter Tool Holster - DTH42 - DTH-90

### DTH-42

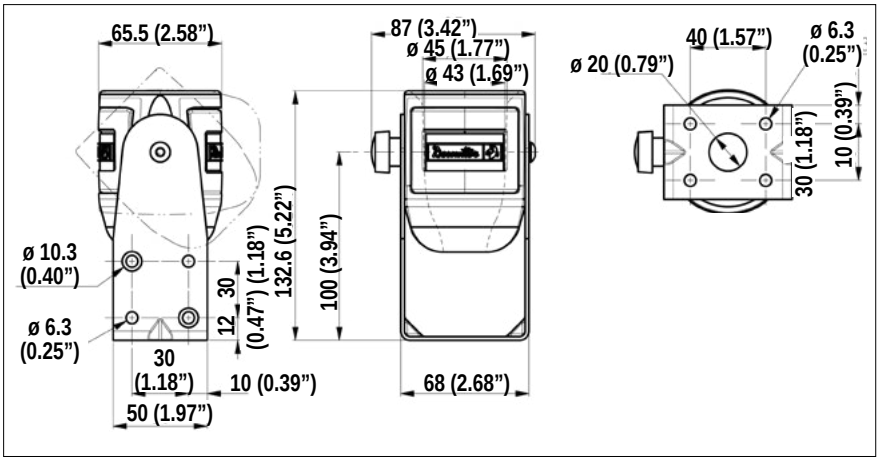
• Adapted for all **straight or pistol grip tools** with an outside diameter of maximum 42 mm
The mounting plate can be fastened in **several positions** and the plastic ring angle can be set at **different angles**

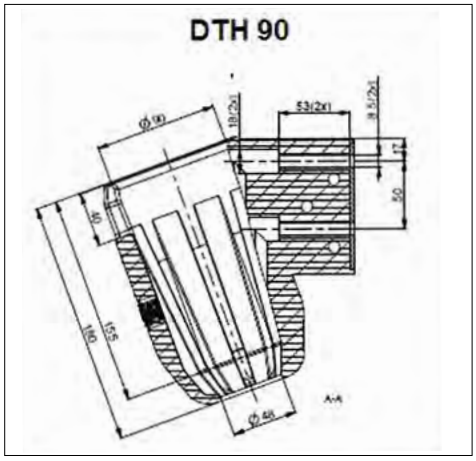



### DTH-90

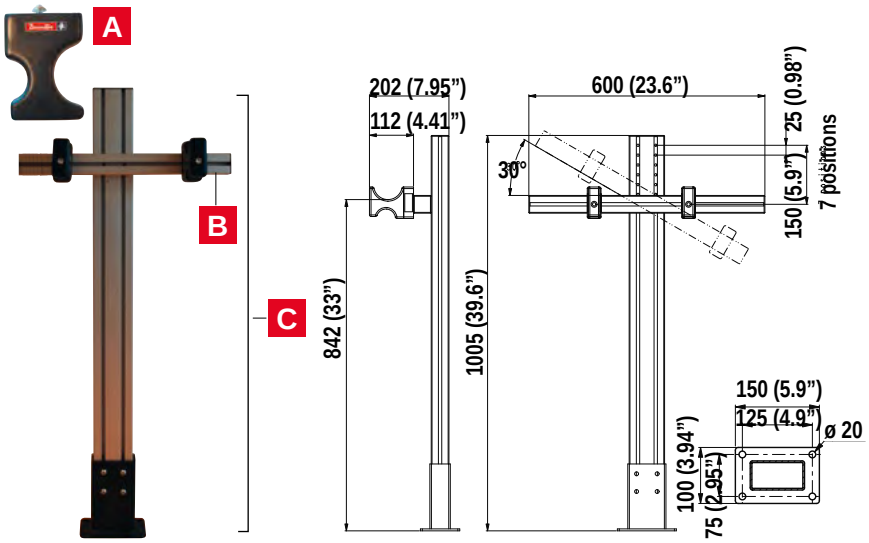
• Used for all **pistol grip tools** with an outside diameter of maximum 90 mm
- Designed with 2 holes for tool sensors presence
- Rubber material
- Mounting screws included

| PIC REF | PART NUMBER | DESCRIPTION | MAX. DIAMETER | |
|---|---|---|---|---|
| | | | mm | in. |
| A | 107 892 | DTH-42 | 42 | 1.65 |
| B | 615 812 119 0 | DTH-90 | 90 | 3.54 |




## Desoutter Tool Holster - DTH TWIN






| PIC REF | PART NUMBER | DESCRIPTION |
|---|---|---|
| A* | 615 811 411 0 | DTH TWIN (single) without rail |
| B | 615 811 412 5 | DTH TWIN rail KIT with 2 TWIN holders |
| C | 615 811 413 5 | DTH TWIN stand kit with base & 2 TWIN holders |

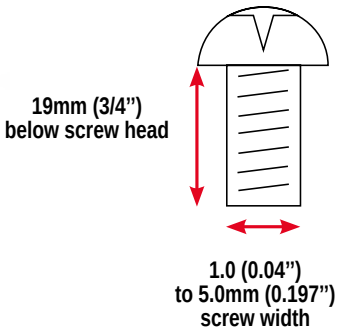
* Includes screw and fixation for rail type Bosch 10mm slot

# ASD - Automatic screw dispenser

**TO BE USED FOR THE ASSEMBLY OF:**

- Electronics: TV, mobile phones, computers
- Medical products
- Small appliances




## Boost your productivity and efficiency

- **Widest range of screw sizes:** between 1.0 (0.04") and 5.0mm (0.197") thread diameters (about 11 different screw sizes) including screws with captive washers and up to 19mm (3/4") screw length (under head)
- **Complete:** supplied with universal feeding rail to avoid buying additional and expensive spare rails
- **Fully adjustable:** vibration time, vibration intensity, and drum rotation time adjustments allow the user to optimize the screw feed rate
- **Quiet operation & easy to service**
- Includes: rail adjustment kit, AC adapter and ground wire

| PART NUMBER | POWER PLUG | SCREW RANGE | | | RAIL ADJUSTMENT KIT | DIMENSIONS | | | | | | POWER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SIZE | LENGTH | | | L | | H | | W | | |
| | | | mm | in. | | mm | in. | mm | in. | mm | in. | |
| **Automatic Screw Dispenser - ASD** | | | | | | | | | | | | |
| **615 810 472 0** | **UK** | M1.0 to M5.0 | Up to 19 (under head) | Up to 3/4" (under head) | included | 126 | 5 | 147 | 5.8 | 182 | 7.2 | AC 100 ~ 240V |
| **615 810 473 0** | **EUR** | M1.0 to M5.0 | | | | | | | | | | |
| **615 810 474 0** | **US** | 0.04" to 0.197" | | | | | | | | | | |

# Notes



# Drilling and Riveting - Selection Guide


| TOOL TYPE | PAGE |
|---|---|
| **PNEUMATIC ADVANCED DRILLING UNIT**  | 228-229 |
| **ELECTRIC ADVANCED DRILLING UNITS**  | 230-232 |
| **LIGHT AUTOMATION SOLUTIONS**  | 233 |
| **XPB -** Multifunction battery solutions  | 234-270 |
| **MULTI DRILLS - Pneumatic Quick Release solutions**  | 271-276 |
| **DRILLS -** Pneumatic solutions  | 277-286 |
| **SPECIAL TOOLS** - Tapper - Deburring - Rivet Shaver & Rack Feed Drill  | 287-290 |
| **RIVETING COMPRESSION TOOLS**  | 291-293 |
| **RIVETING HAMMERS**  | 294-297 |

# Solutions for aerospace Smart Factory

Aerospace is a fantastic and extremely demanding industry, often synonymous with highly skilled personal and cutting-edge technologies. But with a production characterized by relatively small volumes, long cycle times, large components and high variability in the production processes, this industry offers specific challenges when it comes to the dissemination of smart tools and solutions.

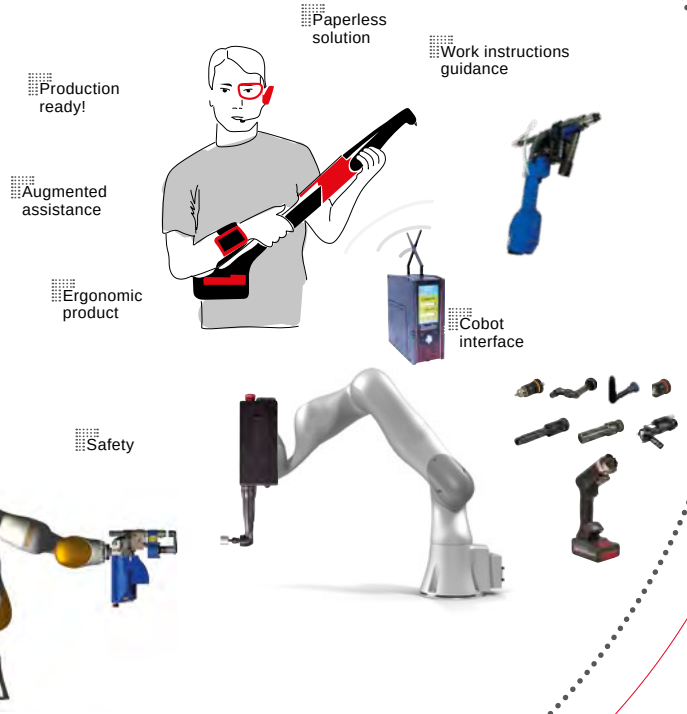
As volumes continue to grow with people travelling more & more, all major OEMs need to increase the overall process efficiency, limit quality costs and cycle times, and exclude human factors as a source of error. With intelligent software and digital networking, assembly tools can now make a key contribution. They offer far greater flexibility and can be fully linked both to each other and to manufacturers' production and quality systems.






DESOUTTER 4.0

## Intelligent assembly solutions



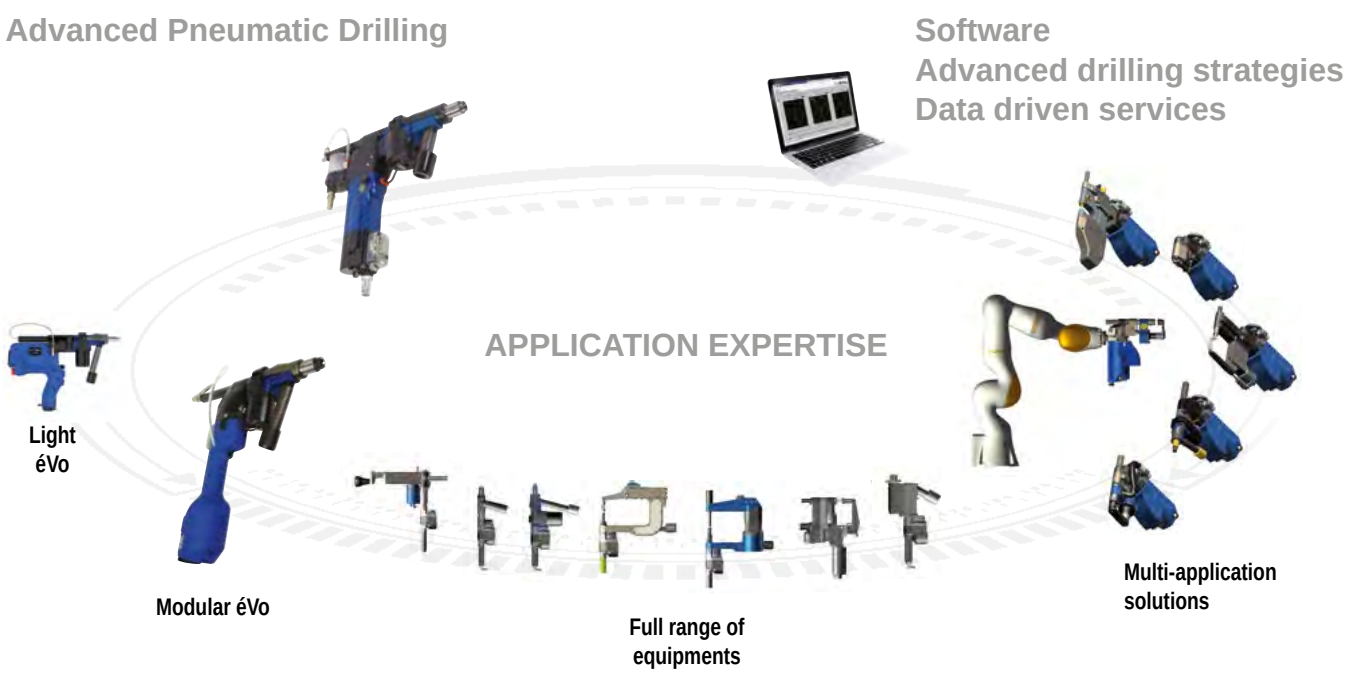
# Product range

As market leaders for advanced drilling solutions in aerospace, our experts are working daily with the most demanding customers to reach the highest level of quality, productivity and safety necessary in the aerospace market.

The Setitec semi-automated tools have been drilling thousands of holes daily, in any possible configuration, facing the most challenging environments and delivering the highest level of performance.

Building on this expertise, and faithful to its philosophy of innovation, modularity, and expertise, Setitec has used combined the potential of electric technology and drilling expertise to develop the electric range éVo, improving even further the drilling operations.

Still driving the innovation, Setitec latest range of light multi-function end-effectors will accelerate the transformation of robotic solutions in the aerospace assembly processes.




## Full Range Dedicated to Aerospace Applications

| | | | EVO RANGE | | | |
|---|---|---|---|---|---|---|
| | | PNEUMATIC RANGE | SEMI-AUTOMATED ELECTRIC RANGE | | ROBOTIC RANGE | |
| | | | Light EVO | Modular EVO | Drilling | Other applications (tightening...) |
| | Drilling strategies | Pneumatic strategies | Electric Advanced strategies | | | |
| | Software | | Software plateform | | | |
| | Control box | | Control box / additional robotic box | | | |
| | Cable | | Multi-energy cable for éVo range | | | |
| | Heads | Shared components between all ranges | | | | |
| | Support & Service | Setitec & Desoutter service & project team | | | | |

# ADU - Automatic Drilling Unit

## 1 Step operation - Drilling - Reaming - Countersinking

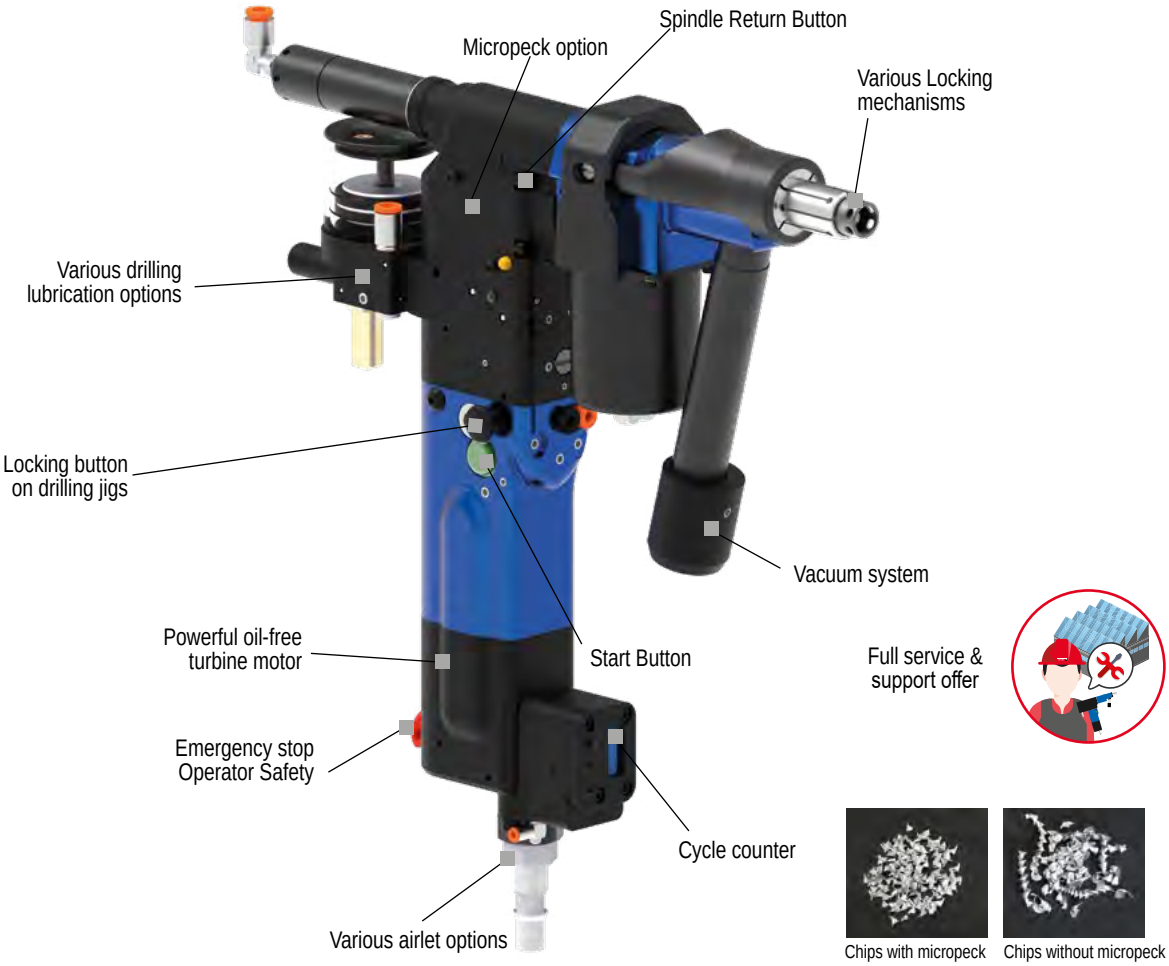


Part of Desoutter product portfolio, ADU line offers best-in class performance, quality and reliability for the most demanding drilling applications worldwide.Setitec solutions have already been adopted by all major Aircraft manufacturers worlwideThis concept is dedicated to highly demanding drilling, reaming, countersinking applications, where quality, precision and repeatability are critical. Its innovative design make one step drilling, reaming, countersinking possible, and will help driving down your cycle time.Its design based on modularity concept and the wide variety of clamping options will answer most of your applications.In addition to the current ST1200 and ST220 pneumatic range, the Electric Drilling Unit range éVo is raising the drilling performance to a new standard.

1 STEP OPERATION — **PRODUCTIVITY**

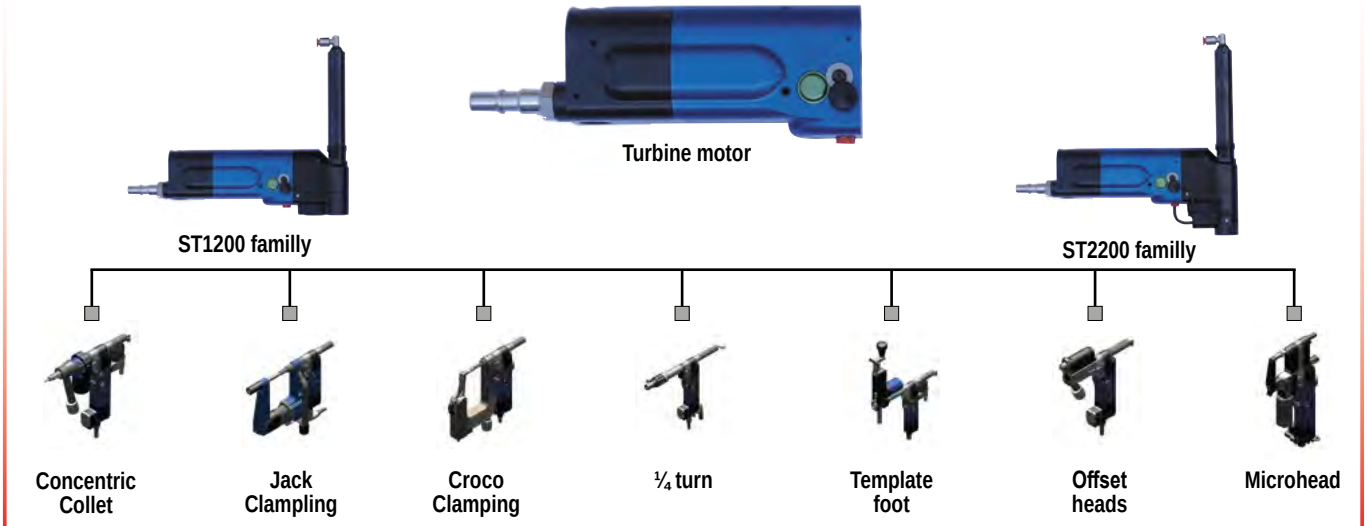
**DRILLING**
**REAMING** — **QUALITY**

**COUNTERSINKING** — **SAFETY**



# ADU - Automatic Drilling Unit

## Modular Concept




## Technical information

| | ST1200 | | ST2200 | |
|---|---|---|---|---|
| Power | 2.8 HP, with torque limiter at lower speed | | | |
| Weight | 1.5 kg (3.3lb) | | 4.2 kg (9.2lb) | |
| Stroke | Unlimited | | Unlimited | |
| Feed rate | 0,010 | mm/rev | 0,032 | mm/rev |
| | 0,021 | mm/rev | 0,047 | mm/rev |
| | 0,038 | mm/rev | 0,059 | mm/rev |
| | 0,058 | mm/rev | 0,095 | mm/rev |
| | 0,077 | mm/rev | 0,120 | mm/rev |
| | 0,095 | mm/rev | 0,146 | mm/rev |
| | 0,115 | mm/rev | 0,182 | mm/rev |
| | 0,154 | mm/rev | 0,200 | mm/rev |
| | 0,35 | mm/rev | 0,315 | mm/rev |



Any specific requirement can be handled by Setitec Line design team.
Contact your Desoutter representative for assistance.

| Rotation (RPM) | ST1200 | | ST2200 | |
|---|---|---|---|---|
| | In Line | Right Angle | In Line | Right Angle |
| | / | 11835 | 2919 | 2195 |
| | / | 8179 | 2560 | 1925 |
| | / | 6543 | 1717 | 1291 |
| | / | 6543 | 1216 | 915 |
| | / | 6000 | 2017 | 1517 |
| | 5550 | 4674 | 1770 | 1331 |
| | 3514 | 2959 | 1187 | 892 |
| | 2811 | 2367 | 841 | 632 |
| | 2428 | 2045 | 1614 | 1214 |
| | 2008 | 1691 | 1416 | 1065 |
| | 1943 | 1636 | 949 | 714 |
| | 1554 | 1309 | 672 | 506 |
| | 1388 | 1168 | 730 | 549 |
| | 1110 | 935 | 640 | 481 |
| | 878 | 740 | 429 | 323 |
| | 793 | 668 | 304 | 229 |
| | 703 | 592 | 584 | 439 |
| | 562 | 473 | 512 | 385 |
| | 502 | 423 | 343 | 258 |
| | 402 | 338 | 243 | 183 |
| | 287 | 242 | 174 | 131 |

| HOLE DIAMETER | ALUMINIUM COMPOSITE | TITANIUM HARD METAL | ALUMINIUM COMPOSITE | TITANIUM |
|---|---|---|---|---|
| | Straight hole | | Countersink hole | |
| <4,8mm - 3/16" | ST 1200 | ST 1200 | ST 1200 | ST 1200 |
| <6,35mm - 1/4" | | | | |
| <7,9mm - 5/16" | | | | |
| <9,5mm - 3/8" | | | | |
| <11,1mm - 7/16" | | | | |
| <12,7mm - 1/2" | | ST 2200 | ST 2200 | ST 2200 |
| <14,3mm - 9/16" | | | | |
| <15,9mm - 5/8" | | | | |
| <19,5mm - 3/4" | ST 2200 | | | |
| <22,2mm - 7/8" | | | | |
| <25,4mm - 1" | | | | |
| Over 25,4mm - 1" | | | | |

| | CONCENTRIC COLLET | BAYONET 1/4 TURN | CROCO CLAMP | JACK CLAMP | TEMPLATE FOOT | CROWFOOT |
|---|---|---|---|---|---|---|
| Thick jig | ST1200 ST2200 | | | | | |
| Thick jig with rail or screws | | ST1200 ST2200 | | | | ST1200 ST2200 |
| Thin jig | | | ST1200 | ST1200 | ST1200 | |
| No jig (pre-hole) | | | ST1200 | ST1200 | ST1200 | |

# EVO range

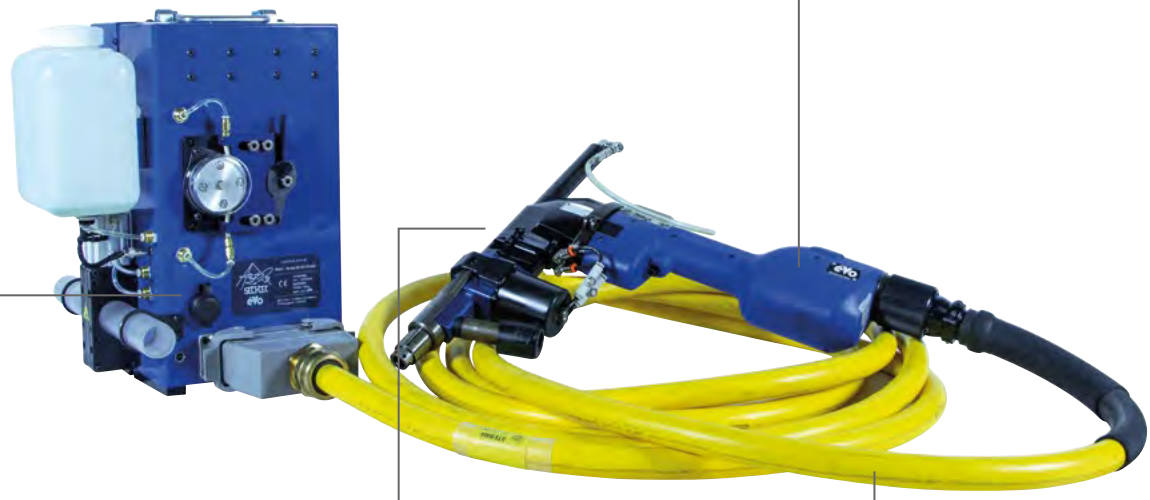


## SOFTWARE SUITE

Create and optimize your drilling cycle
Setup your tool
Setup your maintenance strategy
Live visualization of drilling operation

## UNIQUE RANGE OF TOOLS

Modular EVO
Light EVO
Robotics



## CONTROL BOX

Open architecture
Drilling cycle storage
Drilling curves storage
Ready for network integration
Drilling management of robotics applications

## HEADS & EQUIPMENTS

Wide range of heads & equipments covering all drilling applications
Full modularity between pneumatic & electric range

## MULTI ENERGY CABLE

Robust and flexible cable for:
Lubrication
Power
Air
Data

## BOOST YOUR FLEXIBILITY

### Full Modularity

- One tool to cover various applications
- Wide range of heads managed with Quick change RFID system
- Wide range of equipments, full commonality between pneumatic & electric range
- Easy rebalancing of drilling program between tools

### Easy process qualification

- Easily test & optimize your cutting tools
- Easily create & optimize your drilling program

### Ready for robotics applications

## BOOST YOUR UP TIME

### Optimized maintenance

- Cutting tool lifetime management
- Tool & head maintenance management
- Full compatibility between pneumatic/electric/ robotic range
- Gain in Overall Equipment Effectivness with easy reconfiguration of back up heads
- Full service offer

### SMART ready

- Open architecture for integration in smart factory
- Ready for smart maintenance

## BOOST YOUR PRODUCTIVITY

### Cycle time reduction

- Optimized drilling parameters for each material
- Advanced drilling strategies
- Reduced cleaning time with smart lubrication management

### Quality focus

- Advanced drilling strategies
- Poka Yoké system with RFID head identification
- Full traceability with drilling curve storage

### Reduce Health & safe issues

- Reduce lubrication on shopfloor
- Low sound levels

# EVO range

## Tool range

QUICK CHANGE HEAD SYSTEM WITH RFID IDENTIFICATION

Easily change your head to adapt to the application
Unlimited number of head per motor

FULL RANGE OF HEADS & EQUIPMENTS

Common with Pneumatic range of right angle and inline head sizes to cover all applications
Wide range of equipments to match your application

FULL SPEED RANGE COVERAGE

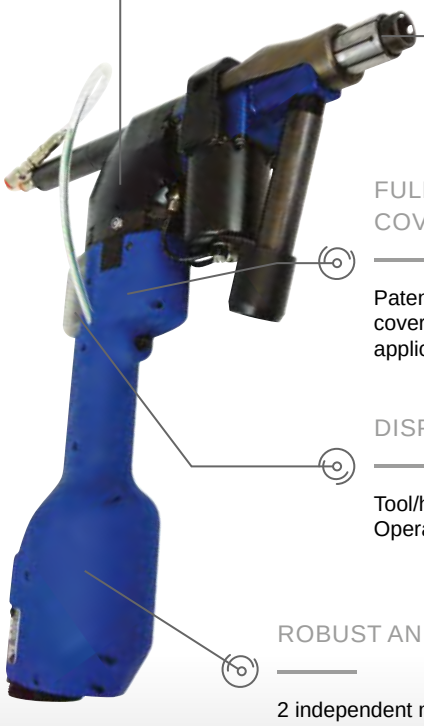
Patented winch system, to cover high speed & high torque applications

DISPLAY

Tool/head/drilling cycle information
Operator feedback

ROBUST AND POWERFUL MOTORS

2 independent motors for speed & feed



Modular EVO

MONOBLOC VERSION, equipment dedicated to the tool



Light EVO

## Tool Range

The choice between Modular & Light EVO needs to be assessed for each application:

- **Modular EVO**
  This tool can handle a wide range of drilling applications thanks to its modular design.
  Depending on the head chosen (S/L/L/XL) the M-EVO can cover all your drilling applications, from small to large holes & from CFRP to Titanium
- **Light EVO**
  This tool is more suitable for repetitive drilling operations, with smaller holes and less demanding applications

| Material drilled | HOLE DIAMETER | | | | |
|---|---|---|---|---|---|
| | mm | Ø 4.0 TO 6.4 | Ø 6.4 TO 12.7 | Ø 12.7 TO 25.4 | > Ø 25.4 |
| | in. | Ø 4/32 " TO 1/4" | Ø 5/16" TO 1/2" | Ø 1/2 " TO 1" | > Ø 1" |
| | Alu / Alu | | | | |
| | CFRP / CFRP | | | | |
| | CFRP/ Al | | | | |
| | Stack Titanium & hard metal | | | | |

L-EVO capablity

M-EVO capability

# EVO range

## Heads & equipments selection

### HEAD RECOMMENDATIONS

| Hole diameter mm | Hole diameter in. | STRAIGHT HOLE Alu/CFRP | STRAIGHT HOLE Titanium/ Hard metal | COUNTERSINK HOLE Alu/CFRP | COUNTERSINK HOLE Titanium/ Hard metal |
|---|---|---|---|---|---|
| <4,8 | <3/16" | Small | Small | Small | Small |
| <6,35 | <1/4" | | | | |
| <7,9 | <5/16" | | | | Small + GEAR |
| <9,5 | <3/8" | | | | |
| <11,1 | <7/16" | | | | |
| <12,7 | <12,7" | | | | |
| <14,3 | <14,3" | | Small + GEAR | Large | Large/GEAR |
| <15,9 | <15,9" | | | | |
| <19,05 | <19,05" | Small + GEAR | Large/GEAR | Large/ GEAR | |
| <22,2 | <22,2" | Large/ GEAR | X Large | X Large | X Large |
| <25,4 | <25,4" | | | | |
| >25,4 | >25,4" | | | | |

| HEAD | RIGHT ANGLE | IN-LINE |
|---|---|---|
| S |  |  |
| L |  |  |
| XL |  |  |

### EQUIPMENTS

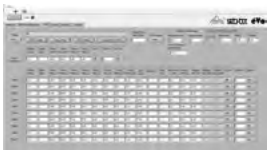


## Smart interface





- Setup your tool and heads with dedicated software
- Drilling cycle creation & optimization
  Full control over all drilling parameters to optimize cycle time & quality
- Control your cutting tool lifetime and maintenance strategies with dedicated counters
- Life drilling curves visualization
- Advanced drilling strategies



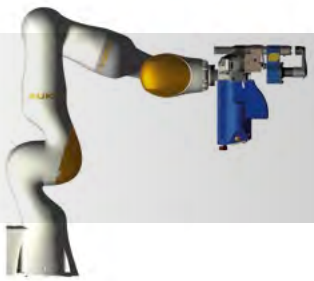


## Integration in Smart factory

- Open architecture for integration in SMART Factory
- All drilling curves stored in control box
- Smart curves analysis software package

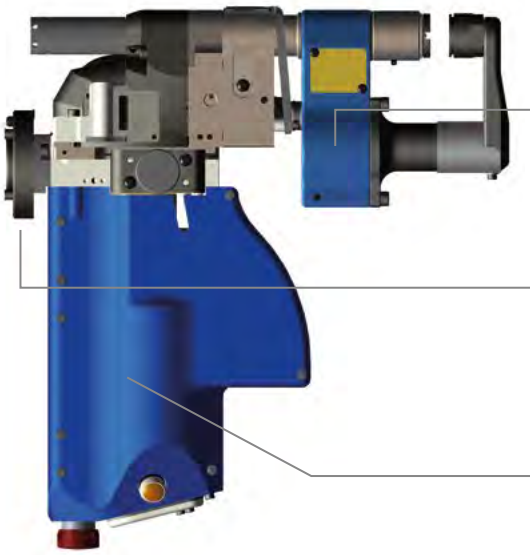


# Light automation solutions



Building on its expertise on semi-automated drilling applications with electric EVO and driven by innovation, Setitec is now developing a full range of innovative end-effectors for aerospace applications. Light, flexible, modular, this range will change the way you are integrating robotics in your factory.

## Concept



EXTREMELY LIGHT & COMPACT END-EFFECTOR

No need for heavy robotic arm
Extremely flexible in the shopfloor

FULL RANGE OF EQUIPMENTS

Fully customizable to your application
Example shown: J-Clamp with Self clamping

FIX CONNECTION TO ROBOT/COBOT

Customizable to any robot supplier

FULL MODULARITY

Same motor as Modular éVo range
Common equipment with portable éVo range
Same control box as the portable éVo range
Robotics box as “add-on”



SETITEC SOFTWARE PACKAGE

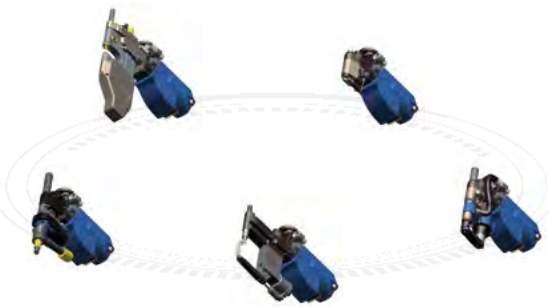
Drilling application managed by Setitec software
Simple & efficient communication between end-effector & master system

## Full Modularity with wide range of heads

All current Setitec range of heads & equipments can be adapted to the robotic end-effector.

In addition to drilling, other applications are available:
Temporary fastener installation, riveting…

All solutions can be customized on the application.
Please contact your Desoutter & Setitec representative for more information.



# XPB RANGE

*Features overview*





| | | XPB ONE | XPB MODULAR |
|---|---|---|---|
| APPLICATIONS | Drilling / Reaming / Countersink | X | X |
| | Temporary fasteners | | X |
| | Frangible collars | | X |
| FEATURES | Drilling programs | 1 | Unlimited nmber of head 1 pset per head (o)<br>6 pset per head (o) |
| | Display | | X |
| | RFID head identification | | X |
| | Maintenance counter | X | X |
| | Cycle counter | X | X |
| | Progressive trigger | X (o) | X (o) |
| | Bi-step trigger | X (o) | X (o) |
| | Working lights | X | X |
| | Reporting lights | | X |
| | Access to curves | | X |
| | Connectivity | | X (o) |

*X: available (o): optional*

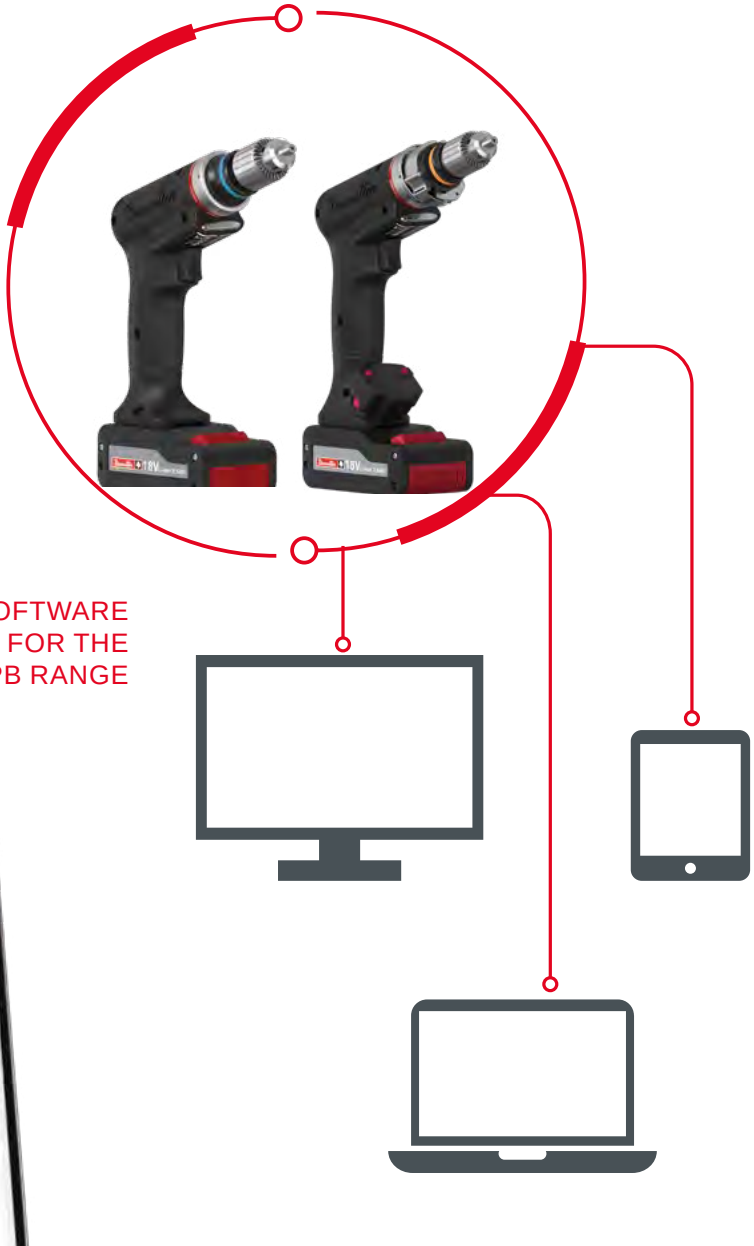
## Head / tool selection drilling focus

| | | HOLE DIAMETER | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | mm | Ø 2.4 to 3.2 | Ø 3.2 to 4.0 | Ø 4.0 to 4.8 | Ø 4.8 to 5.6 | Ø 5.6 to 6.35 | Ø 6.35 to 8 | Ø 8 to 9.5 |
| | in. | Ø 3/32" to 1/8" | Ø 1/8" to 5/32" | Ø 5/32" to 3/16" | Ø 3/16" to 7/32" | Ø 7/32 " to 1/4" | Ø 1/4" to 5/16" | Ø 5/16" to 3/8" |
| Material drilled | Al / Al | | | | | | | |
| | CFRP / CFRP | | | | | | | |
| | CFRP / Al | | | | | | | |
| | Ti & Hard metal | | | | | | | |

## Hole diameter in favor of RPM

| | | | HOLE DIAMETER | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | mm | CUTTING SPEED | Ø 2.4 to 3.2 | Ø 3.2 to 4.0 | Ø 4.0 to 4.8 | Ø 4.8 to 5.6 | Ø 5.6 to 6.35 | Ø 6.35 to 8 | Ø 8 to 9.5 |
| | in | (M.MIN-1) | Ø 3/32" to 1/8" | Ø 1/8" to 5/32" | Ø 5/32" to 3/16" | Ø 3/16" to 7/32" | Ø 7/32" to 1/4" | Ø 1/4" to 5/16" | Ø 5/16" to 3/8" |
| Material drilled | Al / Al | 80 | 7 962 | 6 369 | 5 308 | 4 550 | 4 012 | 3 185 | 2 682 |
| | CFRP / CFRP | 100 | 9 952 | 7 962 | 6 635 | 5 687 | 5 015 | 3 981 | 3 352 |
| | CFRP / Al | 80 | 7 962 | 6 369 | 5 308 | 4 550 | 4 012 | 3 185 | 2 682 |
| | Ti & Hard metal | 15 | 1 493 | 1 194 | 995 | 853 | 752 | 597 | 503 |

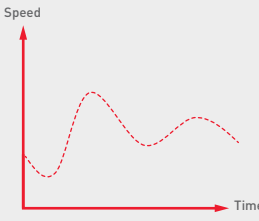
# XPB CONFIG

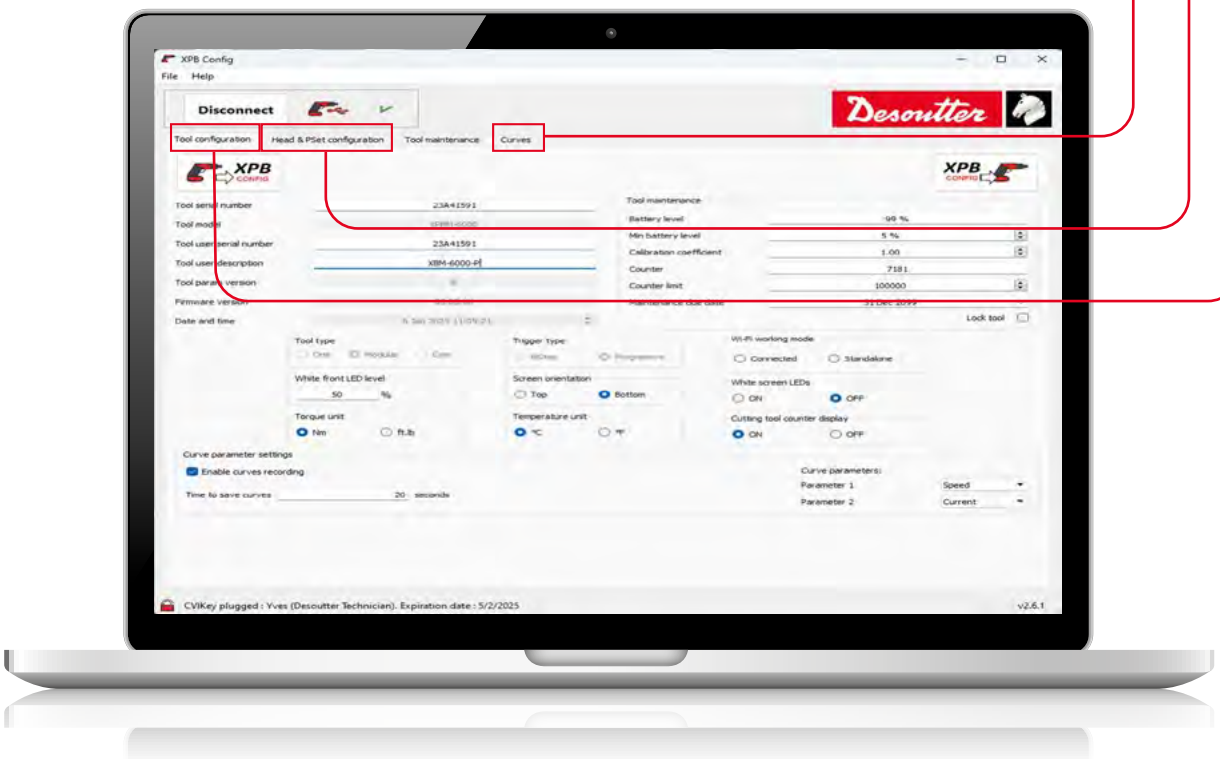


FREE SOFTWARE
SAME SOFTWARE FOR THE
WHOLE XPB RANGE



# XPB CONFIG

| | XPB-ONE | XPB MODULAR |
|---|---|---|
| Setup Tool |  |  |
| Setup cycle |  |  |
| Analyze & Improve | / |  |

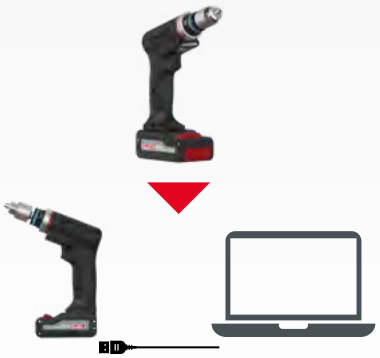


# XPB CONFIG

*Connect the tool*

## XPB ONE

Connection using
- Mini USB cable
- Desoutter eDock (not delivered with the tool)





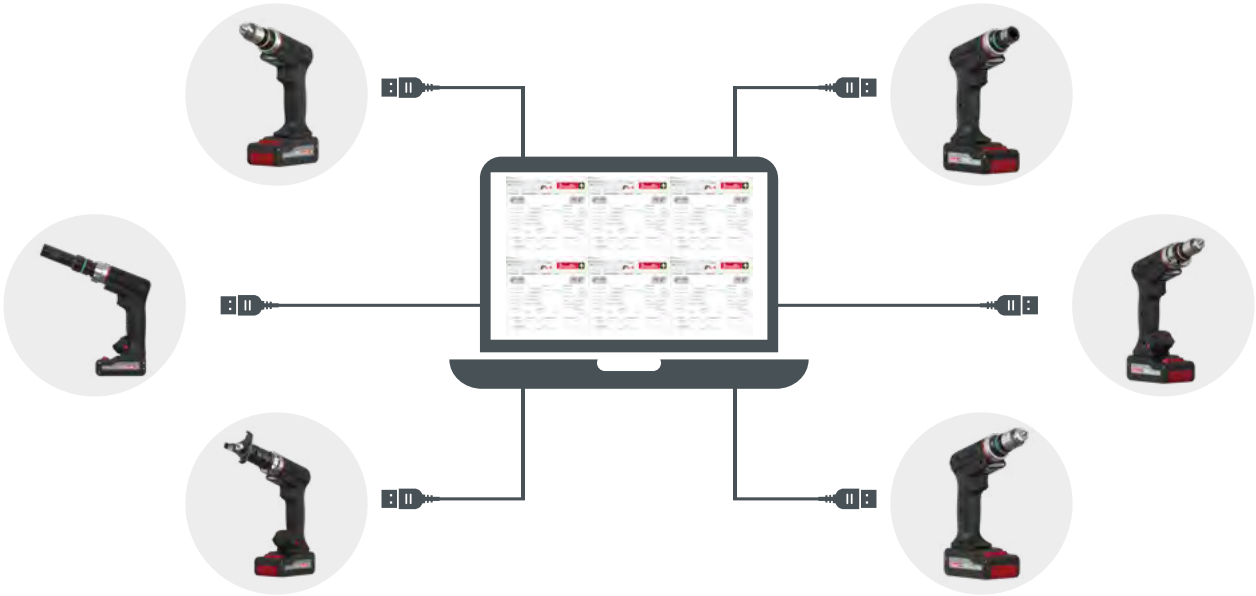
eDock + Battery
PN 615 813 400 0

## XPB Modular

Connection through the USB connector below display
- 2- Mini USB Cable



## Several XPB can be connected at the same time



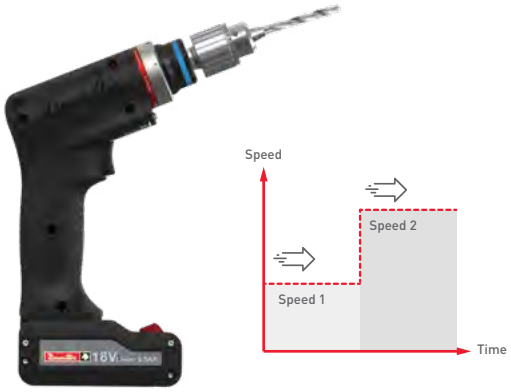
# XPB RANGE

*Trigger options*



## BI-STEP TRIGGER

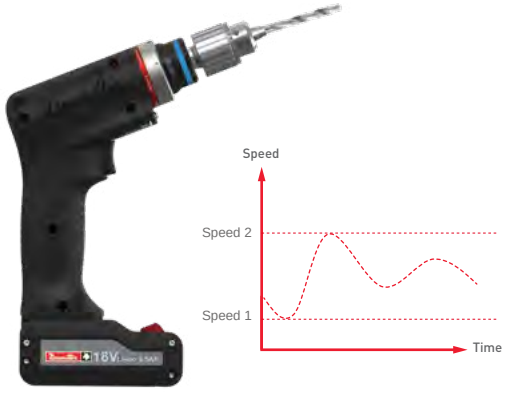
For better control over drilling parameters




- Trigger pulled half way to “hard stop” > tool rotates to speed 1
- Trigger fully pressed , tool rotation changes to speed 2

## PROGRESSIVE TRIGGER

For operator feeling




- Rotates in line with trigger pressure
- Ability to setup min/max speed

## XPB cycle counter Management



TRIGGER PRESSED FOR T>500MS

- (Initial start OR speed change)

+

AFTER THIS 500MS, CURRENT ABOVE:

- 5A(18V battery)
- 6.5A (36V battery)

=

+1

# XPB CONFIG

*Trigger management focus*

## Hardware option




**XPB RANGE (XPB-M & XPB-ONE)** can be delivered (or upgraded) with 2 different trigger blocks, each of them offering a different level of functionality

## Compatibility

| | Trigger Strategy: Bistep | Trigger Strategy: Progressive |
|---|---|---|
|  BI-STEP — Trigger block | V | X |
|  PROGRESSIVE — Trigger block | V | V |

**No hard stop between Speed 1 & Speed 2*

# XPB-ONE

*TOOL OVERVIEW*

THE RIGHT TOOL FOR THE RIGHT JOB

Several models to adapt to each application

POWER 400W (0.54HP)
WEIGHT

(without battery): 0.9kg (2lbs)

LOW SOUND LEVELS

Operator comfort

TOOL BALANCE

Perfect drilling position
Winglet for operator comfort

SPEED CHANGE

Easy speed modification via XPB config software




QUALITY FOCUS

Constant speed for optimum drilling parameters

TOOL OUTPUT OPTIONS

- 3/8"x24 threated output to adapt any accessory (chuck, countersink cages…)
- JT1 output for better run-out accuracy
- Standard Quick Release system to adapt all Desoutter pneumatic QR heads

2 TRIGGER OPTIONS

- 2 step trigger perfect for pointing & drilling
- Progressive trigger: the more you press, the faster it rotates

HIGH PERFORMANCE DESOUTTER BATTERY

- Remove air hose
- Compatible with all Desoutter products
- 2 battery positions for balance & ergonomy

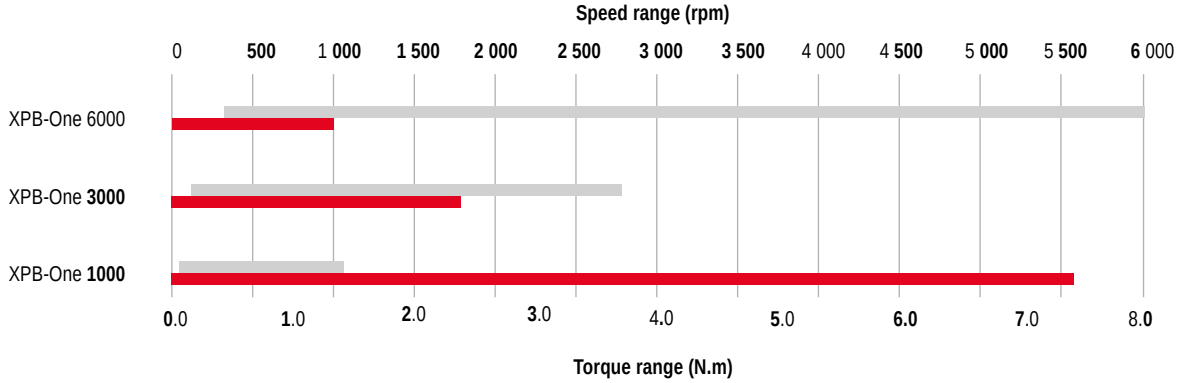
| Secure Quality | Health and safety | Flexibility | Application focus |
|---|---|---|---|
| Constant drilling speed | No more accidents linked to air hose | No air hose<br>Use your tool anywhere, anytime | Made for Aerospace<br>From 100 to 6 000 rpm |
| 2 step trigger for control over drilling speed | Great tool Ergonomics | Easy speed modification (Software) | Full tool range to fit each application (Ti / Al / CFRP) |
| No issues linked to hose inertia | Operator comfort<br>no more trailing hoses | Compatible with all Desoutter batteries | Wide range of outputs available (3/8"x24 / JT1 / QR heads) |
| | Low noise levels | Compatible with all Desoutter pneumatic heads | |
| | Low vibrations | | |

# XPB-ONE




| COLOR RING | TOOL NAME | SPEED | | MAX TORQUE | |
|---|---|---|---|---|---|
| | | min | max | Nm | in.lb |
| | XPB-One 6000 | 313 | 6 000 | 1.3 | 11.4 |
| | XPB-One 3000 | 146 | 2 786 | 2.3 | 20.5 |
| | XPB-One 1000 | 54 | 1 033 | 7.4 | 65.7 |

## XPB ONE RANGE



# XPB ONE

*Models*



A1



A3



B1



B3



C1



C3



1 Keyed chuck, 6.5 mm – 1/4" in. capacity



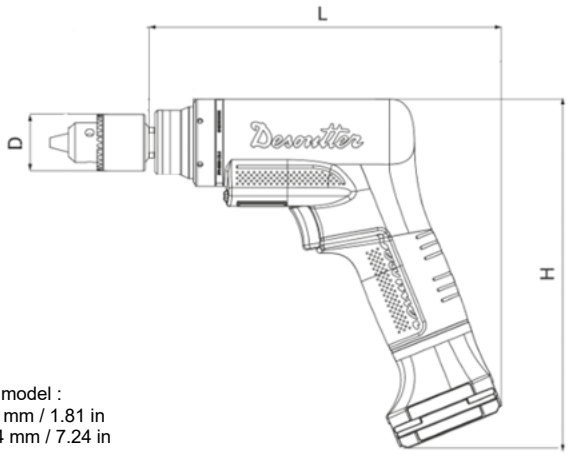
2 No chuck, 3/8"x24 threaded output

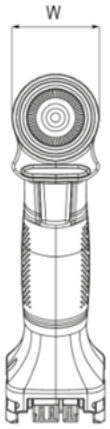


3 QR output



4 Keyless chuck output




For all model :
W : 46 mm / 1.81 in
H : 184 mm / 7.24 in

| PIC REF | PROGRESSIVE TRIGGER | | BI-STEP TRIGGER | | OUTPUT | CHUCK CAPACITY | | SPEED RANGE | | L | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | PART NUMBER | DESCRIPTION | PART NUMBER | MODEL | | mm | in. | min. | max. | mm | in. | kg | lb |
| A1 | 615 176 340 0 | XPB-6000-C6.5-P | 615 176 255 0 | XPB-6000-C6.5 | Keyed chuck | 6.5 | 1/4" | 313 | 6000 | 186 | 7.32 | 0.90 | 1.98 |
| A2 | 615 176 339 0 | XPB-6000-P | 615 176 217 0 | XPB-6000 | No chuck-3/8"x24 output | | | 313 | 6000 | 186 | 7.32 | 0.78 | 1.72 |
| A3 | 615 176 343 0 | XPB-6000-QR-P | 615 176 291 0 | XPB-6000-QR | QR | | | 313 | 6000 | 206 | 8.11 | 0.78 | 1.72 |
| A4 | 615 176 342 0 | XPB-6000-K8-P | 615 176 258 0 | XPB-6000-K8 | Keyless chuck | 8 | 5/16" | 313 | 6000 | 186 | 7.32 | 1.06 | 2.34 |
| B1 | 615 176 330 0 | XPB-3000-C6.5-P | 615 176 254 0 | XPB-3000-C6.5 | Keyed chuck | 6.5 | 1/4" | 146 | 2786 | 186 | 7.32 | 0.89 | 1.96 |
| B2 | 615 176 329 0 | XPB-3000-P | 615 176 215 0 | XPB-3000 | No chuck-3/8"x24 output | | | 146 | 2786 | 186 | 7.32 | 0.77 | 1.70 |
| B3 | 615 176 333 0 | XPB-3000-QR-P | 615 176 290 0 | XPB-3000-QR | QR | | | 146 | 2786 | 206 | 8.11 | 0.77 | 1.70 |
| B4 | 615 176 332 0 | XPB-3000-K8-P | 615 176 257 0 | XPB-3000-K8 | Keyless chuck | 8 | 5/16" | 146 | 2786 | 186 | 7.32 | 1.05 | 2.32 |
| C1 | 615 176 319 0 | XPB-1000-C6.5-P | 615 176 253 0 | XPB-1000-C6.5 | Keyed chuck | 6.5 | 1/4" | 54 | 1033 | 197 | 7.76 | 0.96 | 2.12 |
| C2 | 615 176 318 0 | XPB-1000-P | 615 176 213 0 | XPB-1000 | No chuck-3/8"x24 output | | | 54 | 1033 | 197 | 7.76 | 0.82 | 1.81 |
| C3 | 615 176 323 0 | XPB-1000-QR-P | 615 176 289 0 | XPB-1000-QR | QR | | | 54 | 1033 | 217 | 8.54 | 0.82 | 1.81 |
| C4 | 615 176 322 0 | XPB-1000-K8-P | 615 176 256 0 | XPB-1000-K8 | Keyless chuck | 8 | 5/16" | 54 | 1033 | 197 | 7.76 | 1.16 | 2.48 |

*Weight without battery & chuck

# XPB ONE

## AVAILABLE OUTPUTS



- Keyed chuck



- Keyless chuck



- No chuck
- 3/8"x24 threaded output



- No chuck
- JT1 output



- QR output

## Other models available on demand

| PROGRESSIVE TRIGGER DESCRIPTION | BI-STEP TRIGGER DESCRIPTION | OUTPUT TYPE | CHUCK CAPACITY | | SPEED RANGE | | L | | W | | H | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | in. | min | max | mm | in. | mm | in. | mm | in. | kg | lb |
| **XPB-6000-JT1-P** | **XPB-6000-JT1** | **No chuck - JT1 output** | | | 313 | 6 000 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 0.78 | 1.72 |
| **XPB-4500-C6.5-P** | **XPB-4500-C6.5** | **Keyed chuck** | 6.5 | 1/4" | 240 | 4 500 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 0.90 | 1.98 |
| **XPB-4500-P** | **XPB-4500** | **No chuck - 3/8"x24 output** | | | 240 | 4 500 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 0.78 | 1.72 |
| **XPB-4500-QR-P** | **XPB-4500-QR** | **QR** | | | 240 | 4 500 | 206 | 8.11 | 46 | 1.81 | 184 | 7.24 | 0.78 | 1.72 |
| **XPB-4500-K8-P** | **XPB-4500-K8** | **Keyless chuck** | 8 | 5/16" | 240 | 4 500 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 1.06 | 2.34 |
| **XPB-3000-JT1-P** | **XPB-3000-JT1** | **No chuck - JT1 output** | | | 146 | 2 786 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 0.77 | 1.70 |
| **XPB-2000-C6.5-P** | **XPB-2000-C6.5** | **Keyed chuck** | 6.5 | 1/4" | 110 | 2 000 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 0.96 | 2.12 |
| **XPB-2000-P** | **XPB-2000** | **No chuck - 3/8"x24 output** | | | 110 | 2 000 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 0.82 | 1.81 |
| **XPB-2000-QR-P** | **XPB-2000-QR** | **QR** | | | 110 | 2 000 | 206 | 8.11 | 46 | 1.81 | 184 | 7.24 | 0.82 | 1.81 |
| **XPB-2000-K8-P** | **XPB-2000-K8** | **Keyless chuck** | 8 | 5/16" | 110 | 2 000 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 1.16 | 2.48 |
| **XPB-2000-JT1-P** | **XPB-2000-JT1** | **No chuck - JT1 output** | | | 110 | 2 000 | 186 | 7.32 | 46 | 1.81 | 184 | 7.24 | 0.82 | 1.81 |
| **XPB-1000-JT1-P** | **XPB-1000-JT1** | **No chuck - JT1 output** | | | 54 | 1 033 | 197 | 7.76 | 46 | 1.81 | 184 | 7.24 | 0.82 | 1.81 |
| **XPB-600-C6.5-P** | **XPB-600-C6.5** | **Keyed chuck** | 6.5 | 1/4" | 35 | 600 | 197 | 7.76 | 46 | 1.81 | 184 | 7.24 | 0.96 | 2.12 |
| **XPB-600-P** | **XPB-600** | **No chuck - 3/8"x24 output** | | | 35 | 600 | 197 | 7.76 | 46 | 1.81 | 184 | 7.24 | 0.82 | 1.81 |
| **XPB-600-QR-P** | **XPB-600-QR** | **QR** | | | 35 | 600 | 217 | 8.54 | 46 | 1.81 | 184 | 7.24 | 0.82 | 1.81 |
| **XPB-600-K8-P** | **XPB-600-K8** | **Keyless chuck** | 8 | 5/16" | 35 | 600 | 197 | 7.76 | 46 | 1.81 | 184 | 7.24 | 1.24 | 2.74 |
| **XPB-600-JT1-P** | **XPB-600-JT1** | **No chuck - JT1 output** | | | 35 | 600 | 197 | 7.76 | 46 | 1.81 | 184 | 7.24 | 0.82 | 1.81 |

# XPB ONE

*Quick Release output*




HEAVY DUTY HEAD

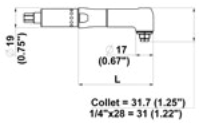


FULL RANGE OF DRILLING
OFFSET HEADS AVAILABLE

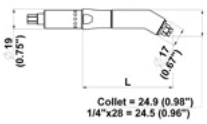
| Flexibility | Application focus |
|---|---|
| All QR outputs used with Desoutter pneumatic QR models are compatible with XPB-One QR | Avoid cutter time changing<br>For a given drilling speed, dedicate one head for each cutter required on the line |

# XPB ONE

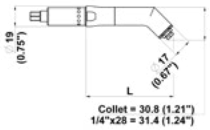
*Quick Release output*



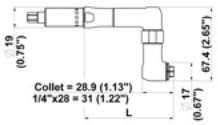

A



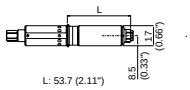

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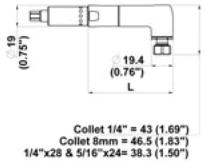

C



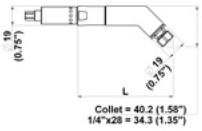

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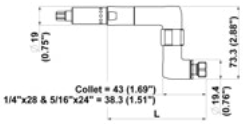

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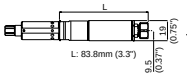

F



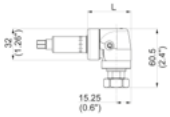

G



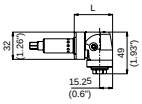

H



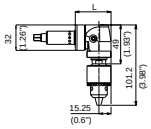

I



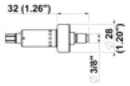
J



K



L




M

| PIC REF | DESIGNATION | PART NUMBER | LENGTH L | | COLLET MAX. CAPACITY | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| | | | mm | in. | mm | in. | kg | lb |
| **COMPACT ANGLE HEADS** | | | | | | | | |
| A | Short Compact 90° angle head Collet spindle | 205 053 981 3 | 54 | 2.13 | 5 | 3/16 | 0.15 | 0.33 |
| A | Compact 90° angle head Collet spindle | 205 050 331 3 | 72 | 2.83 | 5 | 3/16 | 0.17 | 0.37 |
| A | Compact 90° angle head 1/4" x 28 spindle | 205 050 332 3 | 72 | 2.83 | - | - | 0.17 | 0.37 |
| B | Compact 30° angle head Collet spindle | 205 050 329 3 | 82.9 | 3.26 | 5 | 3/16 | 0.17 | 0.37 |
| B | Compact 30° angle head 1/4" x 28 spindle | 205 050 330 3 | 82.9 | 3.26 | - | - | 0.17 | 0.37 |
| C | Compact 45° angle head Collet spindle | 205 050 335 3 | 81 | 3.19 | 5 | 3/16 | 0.17 | 0.37 |
| C | Compact 45° angle head 1/4" x 28 spindle | 205 050 336 3 | 79 | 3.11 | - | - | 0.17 | 0.37 |
| D | Compact 360° angle head Collet spindle | 205 050 333 3 | 81.5 | 3.21 | 5 | 3/16 | 0.25 | 0.55 |
| D | Compact 360° angle head 1/4" x 28 spindle | 205 050 334 3 | 85.2 | 3.35 | - | - | 0.25 | 0.55 |
| E | Short compact straight head Collet spindle | 615 399 569 5 | 53.7 | 2.11 | 5 | 3/16 | 0.14 | 0.31 |
| E | Short compact straight head 1/4"x28 Spindle | 615 399 570 5 | 53.7 | 2.11 | - | - | 0.14 | 0.31 |
| E | Compact straight head Collet spindle | 615 399 571 5 | 71.7 | 2.82 | 5 | 3/16 | 0.16 | 0.35 |
| E | Compact straight head 1/4"x28 Spindle | 615 399 572 5 | 71.7 | 2.82 | - | - | 0.16 | 0.35 |
| **STANDARD ANGLE HEADS** | | | | | | | | |
| F | Standard 90° angle head Collet spindle | 205 050 338 3 | 75.7 | 2.98 | 6.4 | 1/4 | 0.23 | 0.51 |
| F | Standard 90° angle head Collet spindle | 205 050 353 3 | 75.7 | 2.98 | 8 | 5/16 | 0.23 | 0.51 |
| F | Standard 90° angle head 1/4" x 28 spindle | 205 050 339 3 | 75.7 | 2.98 | - | - | 0.24 | 0.53 |
| F | Standard 90° angle head 5/16" x 24 spindle | 205 050 340 3 | 75.7 | 2.98 | - | - | 0.23 | 0.51 |
| G | Standard 45° angle head Collet spindle | 615 398 702 5 | 90.7 | 3.57 | 6.4 | 1/4 | 0.23 | 0.51 |
| G | Standard 45° angle head 1/4" x 28 spindle | 615 398 704 5 | 87.9 | 3.46 | - | - | 0.23 | 0.51 |
| H | Standard 360° angle head Collet spindle | 205 050 341 3 | 96.8 | 3.81 | 6.4 | 1/4 | 0.32 | 0.7 |
| H | Standard 360° angle head 1/4" x 28 spindle | 205 050 342 3 | 94.5 | 3.72 | - | - | 0.32 | 0.7 |
| H | Standard 360° angle head 5/16" x 24 spindle | 205 050 343 3 | 94.5 | 3.72 | - | - | 0.32 | 0.7 |
| I | Standard straight head Collet spindle | 615 399 573 5 | 83.8 | 3.3 | 6.4 | 1/4 | 0.2 | 0.44 |
| I | Standard straight head 1/4"x28 Spindle | 615 399 574 5 | 83.8 | 3.3 | - | - | 0.2 | 0.44 |
| **HEAVY DUTY HEADS** | | | | | | | | |
| J | QR THD 90° Collet output | 615 399 575 5 | 48.8 | 1.92 | 8 | 5/16 | 0.31 | 0.68 |
| K | QR HD 90° Cnomo | 615 399 576 5 | 48.8 | 1.92 | - | - | 0.3 | 0.66 |
| L | QR SHD 90° Chuck output | 615 399 577 5 | 48.8 | 1.92 | - | - | 0.43 | 0.95 |
| **STRAIGHT HEADS** | | | | | | | | |
| M | Chuck mounting 3/8" x 24 | 205 050 543 3 | 32.0 | 1.26 | - | - | 0.25 | 0.55 |

# XPB ONE

*The Smart Platform*

## ONE TOOL FOR ALL MANUAL OPERATIONS

Replace X manual tools by 1 single XPB
(Drilling / Reaming / Countersink / Temporary fastener installation / Frangible collar installation…)
Automatic head recognition with RFID technology
Unlimited number of heads per tool

## HIGH PERFORMANCE MOTOR

Easy maintenance
Same motor as XPB-One range

## ERGONOMY – HEALTH & SAFETY

Perfect balance
Ergonomic handle
Low sound levels

## CYCLE COUNTER

Get control over your tool maintenance & cutting tool lifetime (See p.15)

## GO ELECTRIC

High performance Desoutter standard batteries
2 battery positions for better accessibility




## WIDE RANGE OF HEADS DEDICATED TO EACH APPLICATION

Wide range of heads covering various applications
All information embedded in each head
Easy tool rebalancing
Up to 6 pset embedded in each head
Fully Customisable heads



## 2 TRIGGER OPTIONS

2 step trigger: Perfect for pointing & drilling
Progressive trigger: the more you press, the faster it gets (See p.13)

## OPERATOR FEEDBACK

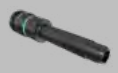
Large color display for pset selection & Customisable information

Integrated smart lighting
2 adjustable sets of LED
OK/NOK reporting on tightening




| Secure Quality | Cost Savings | Modularity | GO Electric | Smart Factory compatible |
|---|---|---|---|---|
| Adjustable and variable speed | Reduced Total Cost of ownership (reduced maintenance) | Optimised product range suited for multiple applications with common base motor | Battery tool | Open architecture for integration in smart factory |
| Adjustable torque and thrust according to application / material | Modularity – reduced quantity of devices to cover applications | | No cable | |
| | Process optimisation – non quality costs savings | | Less noise | |

# ONE TOOL FOR ALL APPLICATIONS

| Process step | | Current solution | XPB solution |
|---|---|---|---|
| Prehole Manual drilling | Drill skin through predrilled frame<br>Ø 4.8 (3/16") Speed 5 500 rpm |  |  |
| Temporary fastener installation | Install temporary fasteners for skin clamping<br>Temporary fastener Ø 4.8mm (3/16")<br>Torque 3Nm (26.6in.lb) Speed 1 000 rpm |  |  |
| Temporary fastener installation | Install Drill jig using dedicated<br>Temporary fasteners<br>Temporary fastener Ø 4.8mm (3/16")<br>Torque 1.5Nm (13.3in.lb) Speed 1 000 rpm |  |  |
| Advanced drilling | Drill one<br>shot holes to final size Ø 7,94mm (5/16") |  |  |
| Temporary fastener installation | Install temporary fasteners for skin clamping<br>Temporary fastener Ø 7,94mm (5/16")<br>Torque 6Nm (53.2in.lb) Speed 800 rpm |  |  |
| Manual drilling | Remove Drill jig |  |  |
| | Open-up holes<br>from 4.8 (3/16") to 7,94mm (5/16")<br>2 steps cascade<br>Speed 3 000 rpm |  |  |
| | Ream hole to final size<br>Ø 7.94.mm / Speed 1 000 rpm |  |  |
| | Countersink hole<br>Speed 3 000 rpm |  |  |
| | Install frangible collar |  |  |

| Application | Current setup | XPB Setup |
|---|---|---|
| Manual Drilling | 4 tools | 2 heads |
| Advanced drilling | 1 tool | 1 tool |
| Temporary fastener installation | 3 tools | 2 heads |
| Frangible collar installation | 1 tools | 1 head |
| SUM | 8 tools | 1 XPB Platform 5 heads |

# XPB M

*Drilling head range*






FULL RANGE OF STRAIGHT HEADS FOR DRILLING, COUNTERSINKING & REAMING VARIOUS MATERIALS AND HOLE DIAMETERS



FULL RANGE OF ANGLE HEADS



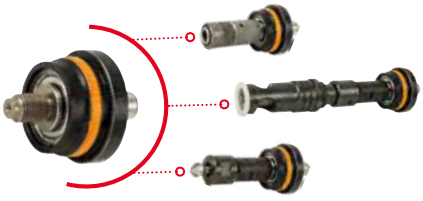
FULL RANGE OF OFFSET DRILLING HEADS



FULL RANGE OF HYDRAULIC CONTROLLED SOLUTIONS (HCU) FOR CFRP APPLICATIONS



VARIOUS OUTPUTS AVAILABLE (3/8"X24, JT1, KEYED & KEYLESS CHUCK)



EASY REUSE OF ALL EXISTING EQUIPMENT

# XPB M DRILLING HEAD

*Selective guide*

| | | HOLE DIAMETER | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | mm | Ø 2.4 to 3.2 | Ø 3.2 to 4.0 | Ø 4.0 to 4.8 | Ø 4.8 to 5.6 | Ø 5.6 to 6.35 | Ø 6.35 to 8 | Ø 8 to 9.5 |
| | in | Ø 3/32 " to 1/8" | Ø 1/8" to 5/32" | Ø 5/32" to 3/16" | Ø 3/16" to 7/32" | Ø 7/32 " to 1/4" | Ø 1/4" to 5/16" | Ø 5/16" to 3/8" |
| Material drilled | Al / Al | | | | | | | |
| | CFRP / CFRP | | | | | | | |
| | CFRP/ Al | | | | | | | |
| | Ti & Hard metal | | | | | | | |

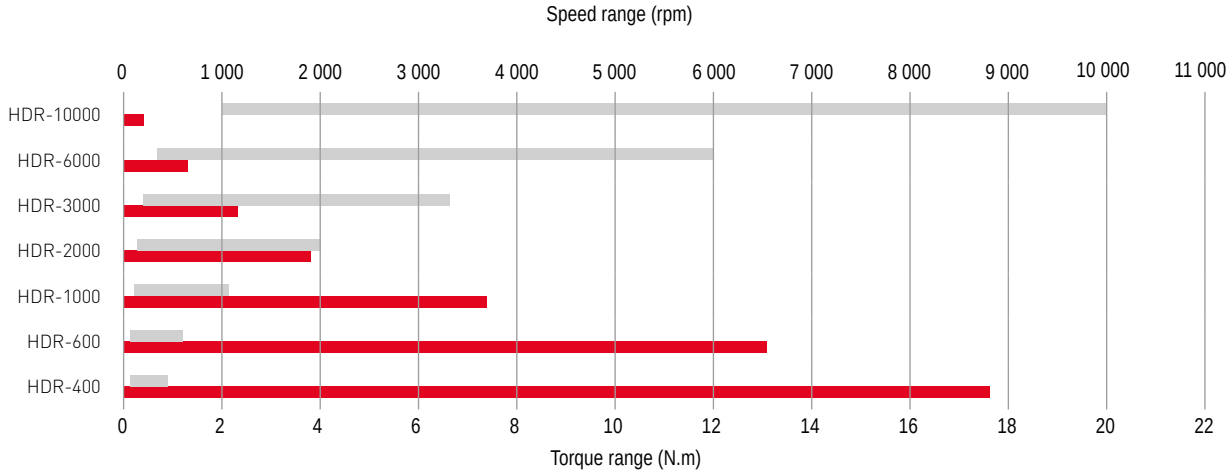
| HEAD MODEL | COLOR RING | SPEED (RPM) | | MAX TORQUE | | |
|---|---|---|---|---|---|---|
| | | min | max | N.m | in.lb | |
| HDR-10000 | | 1000 | 10 000 | 0.4 | 3.5 |  |
| HDR-6000 | | 320 | 6 000 | 1.3 | 11.4 |  |
| HDR-3000 | | 180 | 3 320 | 2.3 | 20.5 |  |
| HDR-2000 | | 110 | 2 000 | 3.8 | 34.0 |  |
| HDR-1000 | | 60 | 1 030 | 7.4 | 65.7 |  |
| HDR-600 | | 30 | 580 | 13.1 | 115.8 |  |
| HDR-400 | | 30 | 430 | 17.6 | 155.8 |  |

| | | SPEED (RPM) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | mm | CUTTING SPEED | Ø 2.4 to 3.2 | Ø 3.2 to 4.0 | Ø 4.0 to 4.8 | Ø 4.8 to 5.6 | Ø 5.6 to 6.35 | Ø 6.35 to 8 | Ø 8 to 9.5 |
| | in. | (M.MIN-1) | Ø 3/32" to 1/8" | Ø 1/8" to 5/32" | Ø 5/32" to 3/16" | Ø 3/16" to 7/32" | Ø 7/32" to 1/4" | Ø 1/4" to 5/16" | Ø 5/16" to 3/8" |
| Material drilled | Al / Al | 80 | 7 962 | 6 369 | 5 308 | 4 550 | 4 012 | 3 185 | 2 682 |
| | CFRP / CFRP | 100 | 9 952 | 7 962 | 6 635 | 5 687 | 5 015 | 3 981 | 3 352 |
| | CFRP / Al | 80 | 7 962 | 6 369 | 5 308 | 4 550 | 4 012 | 3 185 | 2 682 |
| | Ti & Hard metal | 15 | 1 493 | 1 194 | 995 | 853 | 752 | 597 | 503 |

# XPB M

*Drilling head range*

## XPB Modular Drilling Head range




| HEAD MODEL | COLOR RING | SPEED (RPM) | | MAX TORQUE | |
|---|---|---|---|---|---|
| | | min | max | N.m | in.lb |
| HDR-10000 | | 1000 | 10000 | 0.4 | 3.5 |
| HDR-6000 | | 320 | 6000 | 1.3 | 11.4 |
| HDR-3000 | | 180 | 3320 | 2.3 | 20.5 |
| HDR-2000 | | 110 | 2000 | 3.8 | 34.0 |
| HDR-1000 | | 60 | 1030 | 7.4 | 65.7 |
| HDR-600 | | 30 | 580 | 13.1 | 115.8 |
| HDR-400 | | 30 | 430 | 17.6 | 155.8 |

# DRILLING HEAD DESCRIPTION KEYS

## HDR-3000-90-T5-6

H = Head

DR = DRilling head

TH = THightening heads…

Max speed (rpm)

6000

4500

3000

2000

1000

600

400

OUTPUT TYPE

STRAIGHT HEADS

Delivered without chuck

Omitted = output threaded 3/8”x24

JT1 = conical output (type JT1)

Delivered with chuck

C6.5 = keyed chuck (max capacity: 6.5mm - 1/4”)

C8 = keyed chuck (max capacity: 8mm – 5/16”)

C10 = keyed chuck (max capacity: 10mm - 3/8”)

C13 = keyed chuck (max capacity: 13mm - 1/2”)

K8 = keyless chuck (max capacity: 8mm - 5/16”)

ANGLE HEADS

30 = angle head 30°

45 = angle head 45°

90 = angle head 90°

90S = Short angle head 90°

360 = angle head 360°

Angle head type:

T5 = Collet compact (max capacity 5mm - 3/16")

T6 = Collet standard (max capacity 6.5mm - 1/4")

T8 = Collet (max capacity 8mm - 5/16")

S5 = Threaded compact output 1/4"x28

S6 = Threaded standard output 1/4"x28

SB6 = Threaded standard output 5/16"x24

Number of Drilling cycles

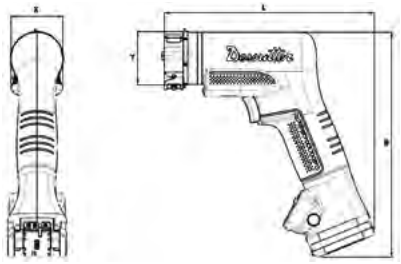
1 = 1 Pset

6 = 6 Psets

# XPB M

*Models*



| PIC | PART NUMBER | PRODUCT DES-CRIPTION | TRIGGER TYPE | L | | Ø Y | | B | | X | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm | in. | mm | in. | mm | in. | mm | in. | kg | lb |
| A | 615 176 344 0 | XPBM-6000-P | Progressive | 174 | 6.85 | 47 | 1.85 | 198 | 7.79 | 47 | 1.85 | 0.85 | 1.87 |
| A | 615 176 231 0 | XPBM-6000 | Bi-Step | 174 | 6.85 | 47 | 1.85 | 198 | 7.79 | 47 | 1.85 | 0.85 | 1.87 |

# XPB M

## *STRAIGHT DRILLING HEADS*



A



B



C



D



E



F



G



1

Keyed chuck
6.5 mm / 1/4" capacity



2

No chuck
3/8"x24 threaded output



3

No chuck
JT1 output



4

Keyless chuck
8 mm/ 5/16" capacity

| Pic ref | Color code | Head type | Output type | Chuck type | Chuck capacity | part Number | | Speed range (rpm) | | Length | | Dia | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | 1 PSET | 6 PSET | min | max | mm | in. | mm | in. | kg | lb |
| A 1 | | HDR-10000-C6.5 | 3/8"x24 | Keyed chuck | 6.5mm - 1/4" | ASC0212019 | ASC0212012 | 1000 | 10000 | 72.40 | 2.85 | 32.50 | 1.28 | 0.22 | 0.48 |
| A 2 | | HDR-10000 | 3/8"x24 | No chuck | | ASC0212005 | ASC0148000 | 1000 | 10000 | 27.90 | 1.10 | 32.50 | 1.28 | 0.10 | 0.22 |
| A 3 | | HDR-10000-JT1 | JT1 | No chuck | | On demand | On demand | 1000 | 10000 | 27.90 | 1.10 | 32.50 | 1.28 | 0.10 | 0.22 |
| B 1 | | HDR-6000-C6.5 | 3/8"x24 | Keyed chuck | 6.5mm - 1/4" | ASC0212020 | ASC0212013 | 320 | 6000 | 64.30 | 2.53 | 32.50 | 1.28 | 0.18 | 0.4 |
| B 2 | | HDR-6000 | 3/8"x24 | No chuck | | 615 401 133 0 | 615 401 140 0 | 320 | 6000 | 19.80 | 0.78 | 32.50 | 1.28 | 0.06 | 0.14 |
| B 3 | | HDR-6000-JT1 | JT1 | No chuck | | On demand | On demand | 320 | 6000 | 19.80 | 0.78 | 32.50 | 1.28 | 0.06 | 0.14 |
| C 1 | | HDR-3000-C6.5 | 3/8"x24 | Keyed chuck | 6.5mm - 1/4" | ASC0212021 | ASC0212014 | 180 | 3320 | 88.40 | 3.48 | 38.00 | 1.50 | 0.30 | 0.66 |
| C 2 | | HDR-3000 | 3/8"x24 | No chuck | | 615 401 134 0 | 615 401 141 0 | 180 | 3320 | 43.90 | 1.73 | 38.00 | 1.50 | 0.18 | 0.39 |
| C 3 | | HDR-3000-JT1 | JT1 | No chuck | | On demand | On demand | 180 | 3320 | 43.90 | 1.73 | 38.00 | 1.50 | 0.18 | 0.39 |
| D 1 | | HDR-2000-C6.5 | 3/8"x24 | Keyed chuck | 6.5mm - 1/4" | ASC0212022 | ASC0212015 | 110 | 2000 | 88.40 | 3.48 | 38.00 | 1.50 | 0.30 | 0.66 |
| D 2 | | HDR-2000 | 3/8"x24 | No chuck | | 615 401 135 0 | 615 401 142 0 | 110 | 2000 | 43.90 | 1.73 | 38.00 | 1.50 | 0.18 | 0.39 |
| D 3 | | HDR-2000-JT1 | JT1 | No chuck | | On demand | On demand | 110 | 2000 | 43.90 | 1.73 | 38.00 | 1.50 | 0.18 | 0.39 |
| E 1 | | HDR-1000-C6.5 | 3/8"x24 | Keyed chuck | 6.5mm - 1/4" | ASC0212023 | ASC0212016 | 60 | 1030 | 88.40 | 3.48 | 38.00 | 1.50 | 0.30 | 0.66 |
| E 2 | | HDR-1000 | 3/8"x24 | No chuck | | 615 401 136 0 | 615 401 143 0 | 60 | 1030 | 43.90 | 1.73 | 38.00 | 1.50 | 0.18 | 0.39 |
| E 3 | | HDR-1000-JT1 | JT1 | No chuck | | On demand | On demand | 60 | 1030 | 43.90 | 1.73 | 38.00 | 1.50 | 0.18 | 0.39 |
| F 1 | | HDR-600-C10 | 3/8"x24 | Keyed chuck | 10mm - 3/8" | ASC0212024 | ASC0212017 | 30 | 580 | 112.70 | 4.44 | 38.00 | 1.50 | 0.40 | 0.88 |
| F 2 | | HDR-600 | 3/8"x24 | No chuck | | 615 401 137 0 | 615 401 144 0 | 30 | 580 | 68.20 | 2.69 | 38.00 | 1.50 | 0.28 | 0.61 |
| F 3 | | HDR-600-JT1 | JT1 | No chuck | | On demand | On demand | 30 | 580 | 68.20 | 2.69 | 38.00 | 1.50 | 0.28 | 0.61 |
| G 1 | | HDR-400-C10 | 3/8"x24 | Keyed chuck | 10mm - 3/8" | ASC0212025 | ASC0212018 | 30 | 430 | 112.70 | 4.44 | 38.00 | 1.50 | 0.40 | 0.88 |
| G 2 | | HDR-400 | 3/8"x24 | No chuck | | 615 401 138 0 | 615 401 145 0 | 30 | 430 | 68.20 | 2.69 | 38.00 | 1.50 | 0.28 | 0.61 |
| G 3 | | HDR-400-JT1 | JT1 | No chuck | | On demand | On demand | 30 | 430 | 68.20 | 2.69 | 38.00 | 1.50 | 0.28 | 0.61 |

# XPB M

*DRILLING ANGLE HEADS*




For each model, several speed and torque levels are available



A



B



C



D

| Pic | COLOR RING | Speed |
|---|---|---|
| A | | 320 - 6 000 |
| B | | 180 - 3 320 |
| C | | 110 - 2 000 |
| D | | 60 - 1 030 |

# XPB M

*Drilling angle heads 360°*


A


B


C


D


1


2

COMPACT HEAD

| Pic ref | Color code | Head Type | Output | Collet Capacity | | part Number | | Speed range (rpm) | | Length | | Dia. | | Height | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm | in. | 1 pset | 6 pset | min | max | mm | in. | mm | in. | mm | in. | kg | lb |
| A1 | | HDR-6000-360-T5 | Collet | 5 | 3/16'' | ASC0212063 | ASC0212035 | 320 | 6 000 | 101.40 | 3.99 | 32.50 | 1.28 | 66.50 | 2.62 | 0.28 | 0.62 |
| A2 | | HDR-6000-360-S5 | Threaded spindle* | | | ASC0212151 | ASC0212115 | | | 101.40 | 3.99 | 32.50 | 1.28 | 66.50 | 2.62 | 0.28 | 0.62 |
| B1 | | HDR-3000-360-T5 | Collet | 5 | 3/16'' | ASC0212064 | ASC0212036 | 180 | 3 320 | 172.30 | 6.80 | 32.50 | 1.28 | 66.50 | 2.62 | 0.56 | 1.23 |
| B2 | | HDR-3000-360-S5 | Threaded spindle* | | | ASC0212152 | ASC0212116 | | | 172.30 | 6.80 | 32.50 | 1.28 | 66.50 | 2.62 | 0.56 | 1.23 |
| C1 | | HDR-2000-360-T5 | Collet | 5 | 3/16'' | ASC0212065 | ASC0212037 | 110 | 2 000 | 172.30 | 6.80 | 32.50 | 1.28 | 66.50 | 2.62 | 0.56 | 1.23 |
| C2 | | HDR-2000-360-S5 | Threaded spindle* | | | ASC0212153 | ASC0212117 | | | 172.30 | 6.80 | 32.50 | 1.28 | 66.50 | 2.62 | 0.56 | 1.23 |
| D1 | | HDR-1000-360-T5 | Collet | 5 | 3/16'' | ASC0212066 | ASC0212038 | 60 | 1 030 | 172.30 | 6.80 | 32.50 | 1.28 | 66.50 | 2.62 | 0.56 | 1.23 |
| D2 | | HDR-1000-360-S5 | Threaded spindle* | | | ASC0212154 | ASC0212118 | | | 172.30 | 6.80 | 32.50 | 1.28 | 66.50 | 2.62 | 0.56 | 1.23 |

* 1/4"x28 thread


A


B


C


D


1


2

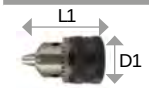
STANDARD HEADS

| Pic ref | Color code | Head Type | Output | Collet Capacity | | part Number | | Speed range (rpm) | | Length | | Dia. | | Height | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | mm | in. | 1 pset | 6 pset | min | max | mm | in. | mm | in. | mm | in. | kg | lb |
| A1 | | HDR-6000-360-T6 | Collet | 6.4 | 1/4'' | 615 401 146 0 | 615 401 150 0 | 320 | 6 000 | 115.10 | 4.52 | 32.50 | 1.28 | 73.19 | 2.88 | 0.32 | 0.70 |
| A2 | | HDR-6000-360-S6 | Threaded spindle* | | | ASC0212131 | ASC0212095 | | | 115.10 | 4.52 | 32.50 | 1.28 | 73.19 | 2.88 | 0.32 | 0.70 |
| B1 | | HDR-3000-360-T6 | Collet | 6.4 | 1/4'' | 615 401 148 0 | 615 401 152 0 | 180 | 3 320 | 186.00 | 7.33 | 38.00 | 1.50 | 73.19 | 2.88 | 0.61 | 1.34 |
| B2 | | HDR-3000-360-S6 | Threaded spindle* | | | ASC0212132 | ASC0212096 | | | 186.00 | 7.33 | 38.00 | 1.50 | 73.19 | 2.88 | 0.61 | 1.34 |
| C1 | | HDR-2000-360-T6 | Collet | 6.4 | 1/4'' | ASC0212053 | ASC0212027 | 110 | 2 000 | 186.00 | 7.33 | 38.00 | 1.50 | 73.19 | 2.88 | 0.61 | 1.34 |
| C2 | | HDR-2000-360-S6 | Threaded spindle* | | | ASC0212133 | ASC0212097 | | | 186.00 | 7.33 | 38.00 | 1.50 | 73.19 | 2.88 | 0.61 | 1.34 |
| D1 | | HDR-1000-360-T6 | Collet | 6.4 | 1/4'' | ASC0212054 | ASC0212028 | 60 | 1 030 | 186.00 | 7.33 | 38.00 | 1.50 | 73.19 | 2.88 | 0.61 | 1.34 |
| D2 | | HDR-1000-360-S6 | Threaded spindle* | | | ASC0212134 | ASC0212098 | | | 186.00 | 7.33 | 38.00 | 1.50 | 73.19 | 2.88 | 0.61 | 1.34 |

*1/4"x28

# XPB RANGE ACCESSORIES

*Chuck models*

| CHUCK PART NO. | CHUCK MOUNT | CHUCK CAPACITY | | DIMENSIONS D1 | | L1 | | WEIGHT | | KEY PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | in. | mm | in. | in. | mm | g | lb | |
|  | | | | | | | | | | |
| 205 055 272 3 | 3/8"x24 | 0.5 - 6.5 | 1/4 | 29.3 | 1.15 | 42.5 | 1.67 | 121 | 0.27 | 29182 |
| 205 053 013 3 | 3/8"x24 | 0.5 - 8 | 5/16 | 29.3 | 1.15 | 42.5 | 1.67 | 120 | 0.26 | 410213 |
| 205 052 954 3 | 3/8"x24 | 1 - 10 | 3/8 | 37 | 1.46 | 49.5 | 1.95 | 204 | 0.45 | 29232 |
| 473113 | 3/8"x24 | 1.5 - 13 | 1/2 | 42 | 1.67 | 59 | 2.32 | 371 | 0.82 | 895 101 145 3 |
| 29142 | 1/2"x20 | 1.5 - 13 | 1/2 | 42 | 1.67 | 59 | 2.32 | 362 | 0.8 | 895 101 145 3 |
| 29492 | 1JT | 0.5 - 6.5 | 1/4 | 29.3 | 1.15 | 42.5 | 1.67 | 112 | 0.25 | 29182 |
| 29042 | 1JT | 0.8 - 10 | 3/8 | 34.5 | 1.36 | 48 | 1.89 | 231 | 0.51 | 29232 |
| 34752 | 2JT | 1 - 10 | 3/8 | 42 | 1.67 | 61.5 | 2.4 | 386 | 0.85 | 895 101 145 3 |
| 34332 | 2JT | 1.5 - 13 | 1/2 | 50 | 1.97 | 67.5 | 2.66 | 900 | 1.98 | |
|  | | | | | | | | | | |
| 473433 | 3/8"x24 | 0 - 8 | 5/16 | 32 | 1.26 | 61.5 | 2.4 | 285 | 0.63 | |
| 473423 | 3/8"x24 | 0.5 - 10 | 3/8 | 35.8 | 1.4 | 66 | 2.6 | 390 | 0.86 | |
| 205 047 819 3 | 3/8"x24 | 1 - 13 | 1/2 | 40 | 1.58 | 76.3 | 3 | 559 | 1.23 | |
| 205 056 060 3 | 1/2"x20 | 1 - 13 | 1/2 | 40 | 1.58 | 76.3 | 3 | 548 | 1.21 | |
| 524.09 | 1JT | 0 - 6.5 | 1/4 | 32 | 1.26 | 59.5 | 2.34 | 284 | 0.62 | |
| 524.15 | 1JT | 0.5 - 10 | 3/8 | 35.8 | 1.4 | 66 | 2.6 | 390 | 0.86 | |
| 524.1* | 2JT | 0.5 - 10 | 3/8 | 40 | 1.58 | 87.5 | 3.4 | 636 | 1.4 | |
| 524.16* | 2JT | 1 - 13 | 1/2 | 46 | 1.8 | 91 | 3.6 | 904 | 1.99 | |

- to use 2JT chuck on XPB, add adaptor P/N 12243

## ER collet range



**COLLET HOLDER**

3/8"x24: 615 523 023 0
1/2"x20: 615 523 024 0



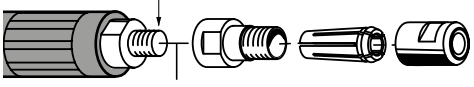
**COLLETS**



**COLLET NUT**

615 607 144 0

**3/8" - 24**



| Part Number | DESCRIPTION |
|---|---|
| 615 526 161 0 | COLLET Ø3.2mm ERICKSON Series 200 |
| 615 526 151 0 | COLLET Ø4.0mm ERICKSON Series 200 |
| 615 526 152 0 | COLLET Ø4.5mm ERICKSON Series 200 |
| 615 526 153 0 | COLLET Ø5.0mm ERICKSON Series 200 |
| 615 526 154 0 | COLLET Ø5.5mm ERICKSON Series 200 |
| 615 526 162 0 | COLLET Ø6.0mm ERICKSON Series 200 |
| 615 526 163 0 | COLLET Ø1/4" ERICKSON Series 200 |
| 615 526 155 0 | COLLET Ø7.0mm ERICKSON Series 200 |
| 615 526 156 0 | COLLET Ø7.5mm ERICKSON Series 200 |
| 615 526 164 0 | COLLET Ø8.0mm ERICKSON Series 200 |
| 615 526 157 0 | COLLET Ø8.5mm ERICKSON Series 200 |
| 615 526 158 0 | COLLET Ø9.0mm ERICKSON Series 200 |

# COLLET FOR ANGLE HEADS

## Collet for Compact angle heads (30°, 45°, 90°, 360°)



| COLLET CAPACITY | PART NO. |
|---|---|
| ø 0.8mm | 2152 |
| ø 0.9mm | 2162 |
| ø 1.0mm | 2172 |
| ø 1.1mm | 2182 |
| ø 1.2mm | 2192 |
| ø 1.3mm | 2202 |
| ø 1.4mm | 2212 |
| ø 1.5mm | 2222 |
| ø 1.6mm | 2232 |
| ø 1.7mm | 2242 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 1.8mm | 2252 |
| ø 1.9mm | 2262 |
| ø 2.0mm | 2272 |
| ø 2.1mm | 2282 |
| ø 2.2mm | 2292 |
| ø 2.3mm | 2302 |
| ø 2.4mm | 2312 |
| ø 2.5mm | 2322 |
| ø 2.6mm | 2332 |
| ø 2.7mm | 2342 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 2.8mm | 2352 |
| ø 2.9mm | 2362 |
| ø 3.0mm | 2372 |
| ø 3.1mm | 2382 |
| ø 3.2mm | 2392 |
| ø 3.3mm | 2402 |
| ø 3.4mm | 2412 |
| ø 3.5mm | 2422 |
| ø 3.6mm | 2432 |
| ø 3.7mm | 2442 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 3.8mm | 2452 |
| ø 3.9mm | 2462 |
| ø 4.0mm | 2472 |
| ø 4.1mm | 2482 |
| ø 4.2mm | 2492 |
| ø 4.3mm | 2502 |
| ø 4.4mm | 2512 |
| ø 4.5mm | 2522 |
| ø 4.6mm | 2532 |
| ø 4.7mm | 2542 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 4.8mm | 2552 |
| ø 4.9mm | 2562 |
| ø 5.0mm | 2572 |
| | |
| ø 1/16” | 91442 |
| ø 3/32” | 91452 |
| ø 1/8” | 91462 |
| ø 5/32” | 91472 |
| ø 11/64” | 108172 |
| ø 3/16” | 91482 |

## Collet for Standard angle heads (45°, 90°, 360°)



| COLLET CAPACITY | PART NO. |
|---|---|
| ø 1.6mm (1/16”) | 18922 |
| ø 1.8mm | 18932 |
| ø 2.0mm (5/64”) | 18942 |
| ø 2.2mm | 18952 |
| ø 2.4mm | 18962 |
| ø 2.6mm | 18972 |
| ø 2.8mm (7/64”) | 18982 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 4.4mm (11/64”) | 19072 |
| ø 4.6mm | 19082 |
| ø 4.8mm (3/16”) | 19092 |
| ø 5.0mm | 19102 |
| ø 5.2mm (13/64”) | 19122 |
| ø 5.4mm | 19132 |
| ø 5.6mm (7/32”) | 19142 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 3.0mm | 18992 |
| ø 3.2mm (1/8”) | 19002 |
| ø 3.4mm | 19022 |
| ø 3.6mm (9/64”) | 19032 |
| ø 3.8mm | 19042 |
| ø 4.0mm (5/32”) | 19052 |
| ø 4.2mm | 19062 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 5.8mm | 19152 |
| ø 6.0mm (15/64”) | 19162 |
| ø 6.2mm | 19172 |
| ø 6.4mm (1/4”) | 19182 |

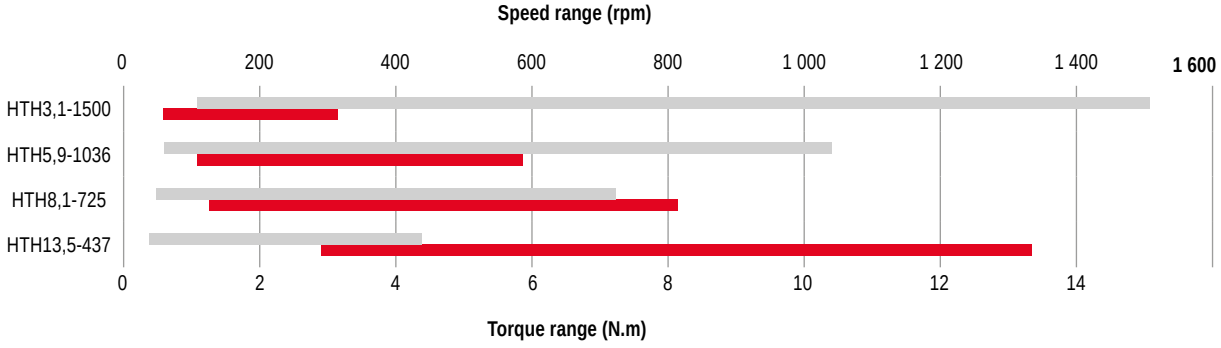
# XPB M

*Tightening applications*



**XPB M** concept offers a unique and flexible solution fully designed for aerospace applications.
On top of the large number variety of drilling applications that can be tackled, XPB-M covers as well applications tightening.
With its smart RFID head recognition, XPB M automatically identifies a tightening head, and instantly becomes a torque control tool, with a focus on temporary fastener & frangible collar installation.
The tightening heads are common between temporary fastener & frangible collar, but specific cycles can be selected via software to allocate specific strategies for those 2 applications.
Our focus? Help you improve process quality, reduce the tool footprint on the production line, control the process in a better way, streamline the assets, reducing total cost of ownership. XPB-M is the enabler for process improvement for all manual operations, and paves the way to industry 4.0.

## XPB M Tightening head range




| HEAD NAME | COLOR RING | SPEED | | MINIMUM RUNDOWN TORQUE | | MINIMUM RECOMMENDED FINAL TORQUE | | MAX TORQUE | |
|---|---|---|---|---|---|---|---|---|---|
| | | min | max | Nm | in.lb | Nm | in.lb | Nm | in.lb |
| HTH3,1-1500 | | 110 | 1 500 | 0.6 | 5.3 | 1.2 | 10.6 | 3.1 | 27.2 |
| HTH5,9-1036 | | 60 | 1 030 | 1.2 | 10.2 | 2.3 | 20.4 | 5.9 | 52.4 |
| HTH8,1-725 | | 40 | 720 | 1.7 | 15.4 | 3.5 | 30.8 | 8.1 | 71.8 |
| HTH13,5-437 | | 30 | 430 | 2.9 | 25.6 | 5.8 | 51.2 | 13.5 | 119.4 |

# TIGHTENING HEAD CONCEPT

**NOSE**



**NOSE**

**Adaptor to be designed (Desoutter or Partner design)**

**NOSE**

Thread (M34 or M20)

RFiD Tag



Female Hexagonal output shaft (with or without sleeve)

Shaft (Connection to XPB motor)

## TIGHTENING HEAD DESCRIPTION KEY

**HTH-1.9-1500-4Q-M20-6**

H = Head

DR = Drilling head

TH = THightening heads…

Max torque (Nm)

3.1

5.9

8.1

13.5

Max speed (rpm)

1500

1036

725

437

4Q = female output ¼”

Omitted = Head assembled with nose

Adaptor type

Omitted = no thread / Head assembled with nose

M20 = Thread M20x1 – Left Hand

M34 = Thread M34x1.5 - Left hand

Number of Pset/head

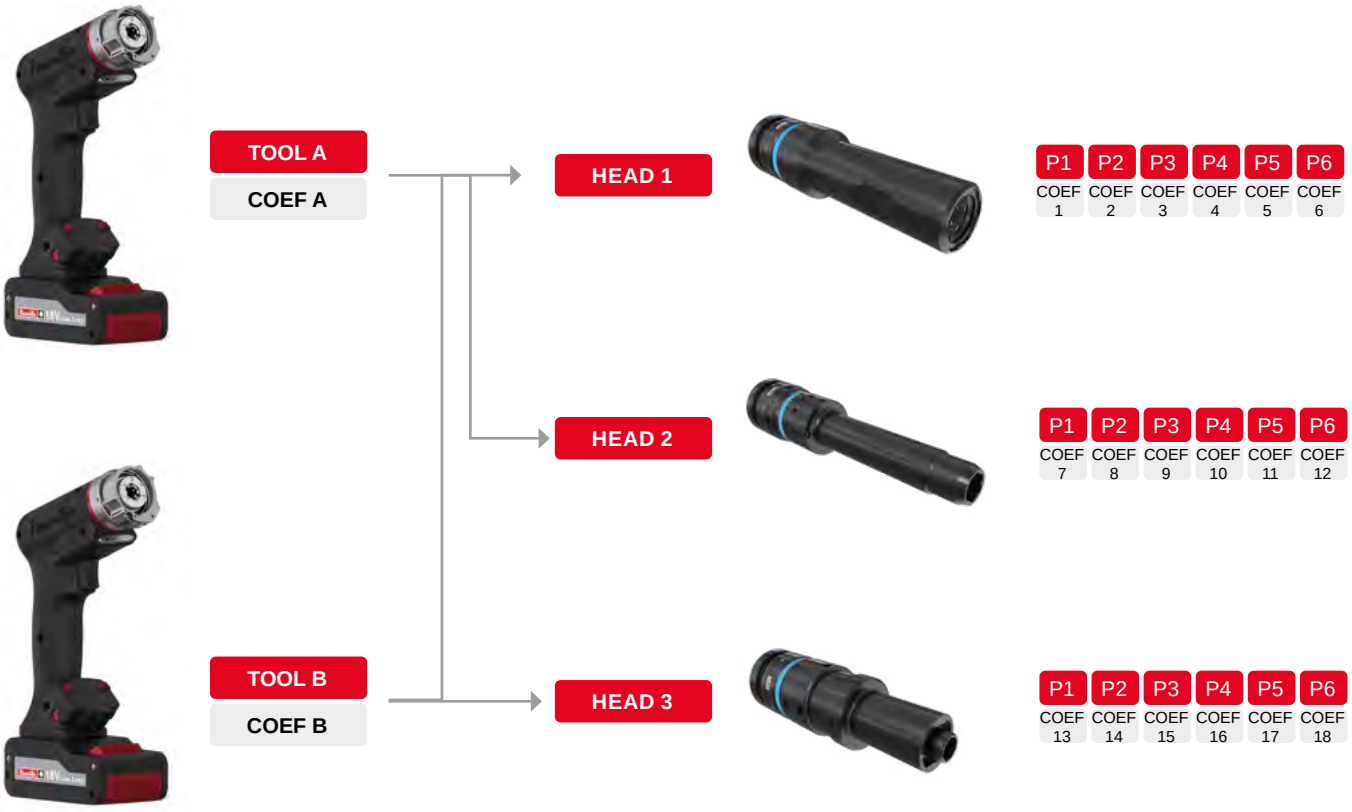
1 = 1 Pset

6 = 6 Psets

# XPB M – CALIBRATION PROCESS

*Modularity approach*

Our target: make sure your fasteners are installed at the required torque. XPB-M unique modularity means several heads installed on different tools.
Quality & process control being key, all those combinations must provide the right torque value for each single fastener installed. This is how we ensure it.




**Target torque** ✓

## TOOL CALCULATION

| Torque measurement tool | × | COEF TOOL | × | COEF PSET | = | ✓ Target torque |
|---|---|---|---|---|---|---|

# XPB RANGE

*Base tightening heads*

XPB solutions for temporary fastener installation can virtually cover the full range of application in your factory.

Either you find exactly the right solution required (Lisi or Monogram), or you just need to order the XPB head, and our project team will suport you adapt any output required.

## XPB HEAD - ADAPTOR THREAD M20x1 LH



A



B



C



D

| Pic | Color code | Speed | | Minimum rundown torque | | Minimum final Torque | | maximum Torque | | part number | | Length | | Dia. | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min | max | Nm | in.lb | Nm | in.lb | Nm | in.lb | 1 Pset | 6 Pset | mm | in. | mm | in. | kg | lb |
| A | | 110 | 1 500 | 0.6 | 5.3 | 1.2 | 10.6 | 3.1 | 27.2 | 615 401 171 0 | 615 401 178 0 | 64.90 | 2.56 | 38.00 | 1.50 | 0.18 | 0.39 |
| B | | 60 | 1 030 | 1.2 | 10.2 | 2.3 | 20.4 | 5.9 | 52.4 | 615 401 173 0 | 615 401 180 0 | 64.90 | 2.56 | 38.00 | 1.50 | 0.18 | 0.39 |
| C | | 40 | 720 | 1.7 | 15.4 | 3.5 | 30.8 | 8.1 | 71.8 | 615 401 174 0 | 615 401 181 0 | 89.20 | 3.51 | 38.00 | 1.50 | 0.28 | 0.61 |
| D | | 30 | 430 | 2.9 | 25.6 | 5.8 | 51.2 | 13.5 | 119.4 | 615 401 175 0 | 615 401 182 0 | 89.20 | 3.51 | 38.00 | 1.50 | 0.28 | 0.61 |

## XPB HEAD - ADAPTOR THREAD M34x1,5 LH



A



B



C



D

| Pic | Color code | Speed | | Minimum rundown torque | | Minimum final Torque | | maximum Torque | | part number | | Length | | Dia. | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min | max | Nm | in.lb | Nm | in.lb | Nm | in.lb | 1 Pset | 6 Pset | mm | in. | mm | in. | kg | lb |
| A | | 110 | 1 500 | 0.6 | 5.3 | 1.2 | 10.6 | 3.1 | 27.2 | 615 401 156 0 | 615 401 163 0 | 64.90 | 2.56 | 38.00 | 1.50 | 0.18 | 0.39 |
| B | | 60 | 1 030 | 1.2 | 10.2 | 2.3 | 20.4 | 5.9 | 52.4 | 615 401 158 0 | 615 401 165 0 | 64.90 | 2.56 | 38.00 | 1.50 | 0.18 | 0.39 |
| C | | 40 | 720 | 1.7 | 15.4 | 3.5 | 30.8 | 8.1 | 71.8 | 615 401 159 0 | 615 401 166 0 | 89.20 | 3.51 | 38.00 | 1.50 | 0.28 | 0.61 |
| D | | 30 | 430 | 2.9 | 25.6 | 5.8 | 51.2 | 13.5 | 119.4 | 615 401 160 0 | 615 401 167 0 | 89.20 | 3.51 | 38.00 | 1.50 | 0.28 | 0.61 |

# XPB M

*Temporary fastener head range*

**XPB-M approach is unique: Unlimited number of heads per tool Up to 6 cycles per head Wide range of fasteners covered.Now how does that compare to your current production line**






HEADS FOR MONOGRAM FASTENERS CYLINDRICAL & HEXAGONAL



HEADS FOR STANDARD & ROBOTIC LISI TEMPORARY FASTENERS



HEADS FOR OTHER TEMPORARY FASTENERS AVAILABLE ON DEMAND

# HEADS FOR MONOGRAM FASTENERS



## MONOGRAM CYLINDRICAL (CBX)





A



B



C



D

| Pic | Color code | Speed | | Minimum rundown torque | | Minimum final Torque | | maximum Torque | | part number | | Length | | Dia | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min | max | Nm | in.lb | Nm | in.lb | Nm | in.lb | 1 Pset | 6 Pset | mm | in. | mm | in. | kg | lb |
| A | | 110 | 1 500 | 0.6 | 5.3 | 1.2 | 10.6 | 3.1 | 27.2 | ASC0212203 | ASC0212187 | 135.70 | 5.34 | 39.00 | 1.54 | 0.49 | 1.09 |
| B | | 60 | 1 030 | 1.2 | 10.2 | 2.3 | 20.4 | 5.9 | 52.4 | ASC0212205 | ASC0212189 | 135.70 | 5.34 | 39.00 | 1.54 | 0.49 | 1.09 |
| C | | 40 | 720 | 1.7 | 15.4 | 3.5 | 30.8 | 8.1 | 71.8 | ASC0212206 | ASC0212190 | 160.00 | 6.30 | 39.00 | 1.54 | 0.60 | 1.31 |
| D | | 30 | 430 | 2.9 | 25.6 | 5.8 | 51.2 | 13.5 | 119.4 | ASC0212207 | ASC0212191 | 160.00 | 6.30 | 39.00 | 1.54 | 0.60 | 1.31 |

## MONOGRAM HEXAGONAL





A



B



C



D

| Pic | Color code | Speed | | Minimum rundown torque | | Minimum final Torque | | maximum Torque | | part number | | Length | | Dia. | | Weight | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | min | max | Nm | in.lb | Nm | in.lb | Nm | in.lb | 1 Pset | 6 Pset | mm | in. | mm | in. | kg | lb |
| A | | 110 | 1 500 | 0.6 | 5.3 | 1.2 | 10.6 | 3.1 | 27.2 | ASC0212211 | ASC0212195 | 140.70 | 5.54 | 39.00 | 1.54 | 0.49 | 1.09 |
| B | | 60 | 1 030 | 1.2 | 10.2 | 2.3 | 20.4 | 5.9 | 52.4 | ASC0212213 | ASC0212197 | 140.70 | 5.54 | 39.00 | 1.54 | 0.49 | 1.09 |
| C | | 40 | 720 | 1.7 | 15.4 | 3.5 | 30.8 | 8.1 | 71.8 | ASC0212214 | ASC0212198 | 165.00 | 6.50 | 39.00 | 1.54 | 0.60 | 1.31 |
| D | | 30 | 430 | 2.9 | 25.6 | 5.8 | 51.2 | 13.5 | 119.4 | ASC0212215 | ASC0212199 | 165.00 | 6.50 | 39.00 | 1.54 | 0.60 | 1.31 |

# XPB M RANGE

*HEADS FOR LISI FASTENERS*

## HEADS FOR LISI FASTENERS

Desoutter offers a wide range of solutions, covering Lisi temporary fasteners









## TEMPORARY FASTENER DESCRIPTION KEY



XPB Head + Driver + Nose

**TF-L-41-H10-H12**

**OutputType**
Omitted = head only – no Fastener
TF = Temporary Fastener
FC = Frangible Collar

**Fastener Brand**
Omitted = head only – no nose
M = Monogram
L = Lisi
C = Centrix
X = …

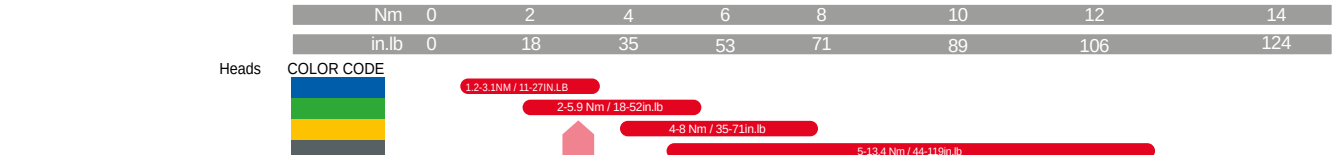
**Fastener Type**
Omitted = head only – no nose
C = Cylindrical (CBX Monogram)
H = Hexagonal (HNX Monogram)
XXX = Lisi temporary serie

**Driver Type**
Omitted = not needed
C9.5 = Cylindrical 9.5mm
C10 = Cylindrical 10mm
H9 = Hexagonal 9mm A/F
H10 = Hexagonal 10mm A/F
H13 = Hexagonal 13mm A/F
O8 = Octogonal 8mm A/F
O9.25 = Octogonal 9.25mm A/F
O12.9 = Octogonal 12.9mm A/F
O19.4 = Octogonal 19.4mm A/F

**Nose (holder) Type**
Omitted: not needed
H12 = Hexagonal 12mm A/F
H14 = Hexagonal 14mm A/F
H18 = Hexagonal 18mm A/F
H20 = Hexagonal 20mm A/F
F16 = Flat 16mm A/F
F26 = Flat 26mm A/F
F32 = Flat 32mm A/F
F38 = Flat 38mm A/F

# HEAD SELECTION GUIDE

1. Select your temporary fastener series
2. Check the nose type required within this series
3. Check application torque level to select correct head (criteria: torque range)
4. Check if head speed range in line with your requirements
5. Select 1 or 6 pset Head option




| Series | FASTENER PIC | Nose Type |
|---|---|---|
| SERIES 22 | | D10-H12 |
| SERIES 26 | | H09-H12* |
| SERIES 27 | | H09-H12* |
| SERIES 28 | | H09-H12* |
| SERIES 32 | | D10-H12 |
| SERIES 41 | | H10-H12 |
| SERIES 42 | | D10-H12 |
| SERIES 42S | | D10-H12 |
| SERIES 43 | | H10-H12 |
| SERIES 44H | | H10-H12 |
| SERIES 45G | | D10-H12 |
| SERIES45 GH | | H10-H12 |
| SERIES 49 | | D10-H14 |
| SERIES 49G | | D10-H14 |
| SERIES 49GH | | H10-H12<br>H10-H14 |
| SERIES 49H | | H10-H14<br>H13-H18* |
| SERIES 51 | | H10-H12 |
| SERIES 52 | | D10-H12 |
| SERIES 70 | | D10-H12 |
| SERIES 81 | | D10-H12<br>H13-H20* |
| SERIES M/MG | | H10-H12<br>H10-H14<br>H13-H18* |
| SERIES R/RG | | H10-H12<br>H10-H14<br>H13-H18* |
| SERIES 352 | | * |

* Please contact your Desoutter representative, If the Series you needed is not listed above.

4 3 2 Head

| COL. CODE | SPEED | | MINIMUM RUNDOWN TORQUE | | MINIMUM RE-COMMENDED FINAL TORQUE | | MAX TORQUE | | HEX10 / HEX12 | | HEX10 / HEX14 | | DIA9.5 / HEX12 | | DIA10 / HEX12 2 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | min | max | Nm | in.lb | Nm | in.lb | Nm | in.lb | 1 Pset | 6 Pset | 1 Pset | 6 Pset | 1 Pset | 6 Pset | 1 Pset | 6 Pset |
| | 110 | 1 500 | 0.6 | 5.3 | 1.2 | 10.6 | 3.1 | 27.2 | ASC0212269 | ASC0212237 | ASC0212277 | ASC0212245 | ASC0212285 | ASC0212253 | ASC0212293 | ASC0212261 |
| | 60 | 1 030 | 1.2 | 10.2 | 2.3 | 20.4 | 5.9 | 52.4 | ASC0212271 | ASC0212239 | ASC0212279 | ASC0212247 | ASC0212287 | ASC0212255 | ASC0212295 | ASC0212263 |
| | 40 | 720 | 1.7 | 15.4 | 3.5 | 30.8 | 8.1 | 71.8 | ASC0212272 | ASC0212240 | ASC0212280 | ASC0212248 | ASC0212288 | ASC0212256 | ASC0212296 | ASC0212264 |
| | 30 | 430 | 2.9 | 25.6 | 5.8 | 51.2 | 13.5 | 119.4 | ASC0212273 | ASC0212241 | ASC0212281 | ASC0212249 | ASC0212289 | ASC0212257 | ASC0212297 | ASC0212265 |

# HEAD SELECTION GUIDE

XPB-M approach is unique:

- Unlimited number of heads per tool
- Up to 6 cycles per head
- Wide range of fasteners covered
- Now how does that compare to your current production line?






RANGE OF HEADS FOR FRANGIBLE COLLARS (HOLD & DRIVE)

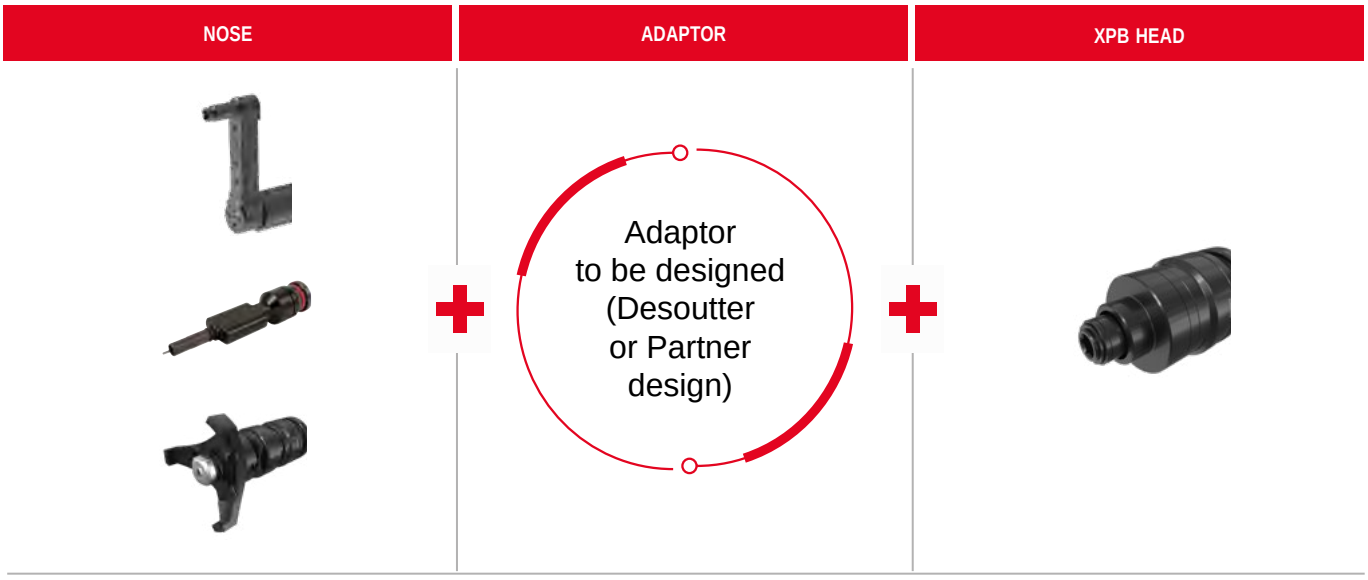


RANGE OF HEADS FOR FRANGIBLE COLLARS (WITH INTERFERENCE)



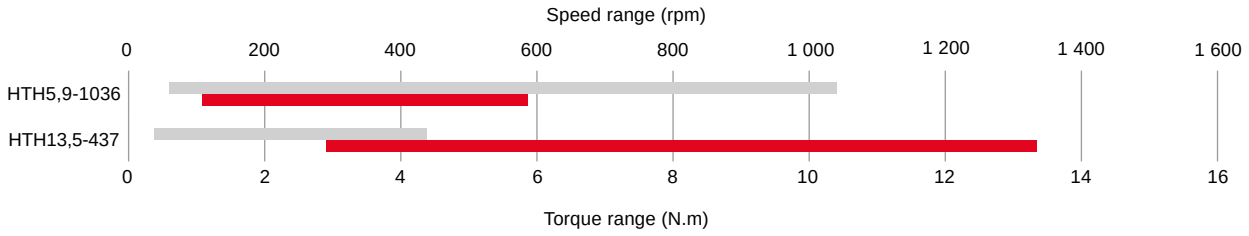
RANGE OF HEADS FOR VARIOUS BLIND FASTENERS

# FRANGIBLE HEAD CONCEPT




The XPB M can cover a wide range of frangible collar and blind fastener applications.
Please contact your local Desoutter representative

## XPB M Frangible collar head range




| COLOR CODE | HEAD | SPEED RANGE (RPM) | | MIN RUNDOWN | | MIN TORQUE | | MAX TORQUE | |
|---|---|---|---|---|---|---|---|---|---|
| | | min | max | Nm | in.lb | Nm | in.lb | Nm | in.lb |
| | HTH5,9-1036 | 60 | 1 030 | 1.2 | 10.2 | 2.3 | 20.4 | 5.9 | 52.4 |
| | HTH13,5-437 | 30 | 430 | 2.9 | 25.6 | 5.8 | 51.2 | 13.5 | 119.4 |

# XPB RANGE

*Battery pack and Charger*

## BATTERY SAFETY

Compliant with the new European standard on battery safety [IEC 62841]
This standard should be applied USA in 2020

## WARRANTY

300 charges or 1 year since the delivery

No warranty doubt about a failed battery (State of health evolution, Number of charge, Error code, aging)

## LIFETIME

Our new battery lifetime is increasing by more than 20% in relation to our current one

## BATTERY PARK MANAGEMENT

Automatic battery data collection when connecting to wireless communication tools






## BATTERY LOAD LEVEL

Load indicator information directly on the battery

## STATE OF HEALTH

Information on the state of health of the battery to know if the battery should be replaced or not



## ERGONOMY

Wider button [3 finger button] for a better grip



## LOAD INDICATOR

Load indicator to know what is the status of the battery charge

## WARNING LED

WARNING LED to inform when an error occurred during the charge




## COMPATIBILITY

Our current and new battery can be charged with this new charger [new battery could be charged on our current charger as well]



## DAISY CHAIN

Possibility daisy chain the chargers to make installation easier. The number of charger is limited by the maximum input current to 10A and it is fuse protected on each charger.

Example: Maximum input current for European mains (230V) is 1A per charger
Maximum 10 chargers linked in daisy chain for 230 Vac
Maximum 5 chargers linked in daisy chain for 115 Vac.

## INSTALLATION

4 holes to be able to fix the charger on the wall or in a cabinet

# FRANGIBLE HEAD CONCEPT

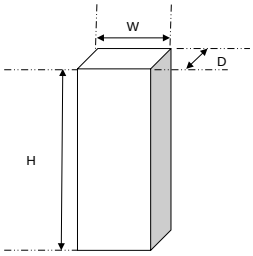



## Optional accessories

| ITEM | | PART NO. |
|---|---|---|
| | BATTERY TYPE | |
| 1 | Li-ion battery pack 18V 2.5 Ah - 0.46 kg (1,01lb) | 615 813 266 0 |
| 2 | Li-ion battery pack 36V 2.5 Ah - 0,77 kg (1,70lb) | 615 813 267 0 |
| | CHARGERS | |
| 3 | Charger Universal 18 / 36V | 615 813 270 0 |
| • | Power Cord C13-C14 L=0.3m (daisy chain cable) | 615 813 383 0 |
| | PROTECTIVE COVERS - BATTERY | |
| 6 | For Battery 18V 2.5Ah - Clear | 615 211 136 0 |
| 6 | For Battery 18V 2.5Ah - Black | 615 211 137 0 |
| 6 | For Battery 18V 2.5Ah - Red | 615 211 138 0 |
| 6 | For Battery 18V 2.5Ah - Grey | 615 211 139 0 |
| 6 | For Battery 36V 2.5Ah - Clear | 615 211 140 0 |
| 6 | For Battery 36V 2.5Ah - Black | 615 211 141 0 |
| 6 | For Battery 36V 2.5Ah - Red | 615 211 142 0 |
| 6 | For Battery 36V 2.5Ah - Grey | 615 211 143 0 |
| | MISCELLANEOUS | |
| 8 | eDOCK + Battery data interface | 615 813 400 0 |

## Charging Cabinet

4 models for different needs












| CABINET | DSM0111500 | DSM0111600 | DSM0111800 | DSM0111700 |
|---|---|---|---|---|
| Max capacity | 4 chargers | 8 chargers | 12 chargers | 24 chargers |
| H | 600 mm | 1000 mm | 1500 mm | 2100 mm |
| W | 400 mm | 800 mm | 800 mm | 800 mm |
| D | 260 mm | 400 mm | 400 mm | 400 mm |
| | Workbench or wall mounting | | Floor mounting | |

# XPB RANGE

*Service Solutions*

## MAINTENANCE SOLUTIONS

**Reduce breakdowns and extend tool life to boost cost efficiency, uptime and productivity**

**Basic Care**

- A flexible fixed price preventive maintenance program that includes wear parts and labour.

**Smart Care***

- A fixed price preventive maintenance plan and repairs included.The maintenance is optimised according to the tool usage. All wear parts are replaced at the right time.

**Peace of mind***

- Onsite maintenance and production support that includes: An optimised preventive maintenance plan and repairs included.Plus technical support for trouble shooting, optimisation and operator coaching to maximise the efficiency of your tools.

** Except in case of misuse or abuse*



## SMART START

**High performance, right from the start!**

- A fast, high quality installation with no delays that ensures tool accuracy and optimum set-up.

## PRODUCTION SUPPORT

**On-site support to help boost uptime and productivity**

**On-site technicians**

- Our certified technicians are on hand to quickly solve any on-site issues detected or identify process improvement opportunities.

**Certification Training**

- Develop your technicians' knowledge on troubleshooting and assembly technics. Improve the interaction with Desoutter for efficient remote support.

## BOOST YOUR UPTIME

- Preventive Maintenance significantly reduces breakdowns and therefore production stops. Uptime is improved.
- Our experienced on-site technicians know your applications and are on hand to support your team. This allows early detection and resolution of problems, Your uptime is further improved.

## BOOST YOUR PRODUCTIVITY

- Desoutter on-site technicians will coach and support your teams on how to get the best from your equipment. This helps to reduce errors and rework, boosting productivity and quality.
- Our on-site technicians will help your team to identify and implement process improvements to help you further boost productivity.

## BOOST YOUR MAINTENANCE COST EFFICIENCY

- Preventive Maintenance decreases breakdowns and extends tool life. This significantly reduces repair and administration costs.

## BOOST YOUR FLEXIBILITY

- Desoutter on-site technicians will coach and support your teams on how to get the best from your equipment. This helps to reduce errors and rework, boosting productivity and quality.
- Our on-site technicians will help your team to identify and implement process improvements to help you further boost productivity.

# Drill Selection Guide

**How to select your tool:**
1 Select material 2 Select hole size 3 Define speed

| TOOL TYPE | FREE SPEED | TITA-NIUM | STAINLESS STEEL | HARD CAST IRON, MEDIUM HARD STEEL | SOFT CAST IRON, MILD STEEL 1 | HARD PLASTICS | ALUMINIUM, BRASS, COPPER, BRONZE | COMPOSITE | WOOD, SOFT PLASTICS, CHIPBOARD |
|---|---|---|---|---|---|---|---|---|---|
| | rpm | | 9-15m/min | 10-20m/min | 20-35m/min | 30-40m/min | 50-80m/min | 50-100m/min | 80-120m/min |
| | Drill ø mm | | | | | | | | |
| **STRAIGHT CASE** | | | | | | | | | |
| **DR300-T** | 20000 | | | | | | | 4.0 (5/32") | 2.0 (5/64") |
| **ø8-10 mm (5/16" - 3/8") cap.** | 5500 | | | | | | 4.0 (5/32") | 5.0 (3/16") | 6.0 (1/4") |
|  | 4500 | | | | | 3.0 (1/8") | 6.0 (1/4") | | 8.0 (5/16") |
| | 3000 | | | | 4.0 (5/32") | 5.0 (3/16") | 8.0 (5/16") | | |
| | 2000 | | 3.0 (1/8") | 4.0 (5/32") | 6.0 (1/4") | 8.0 (5/16") | | | |
| | 1000 | 3.0 (1/8") | 4.0 (5/32") | 6.0 (1/4") | 8.0 (5/16") | | | | |
| | 550 | 6.0 (1/4") | 8.0 (5/16") | | | | | | |
| **30°, 45°, 90°, 360° COMPACT HEAD** | | | | | | | | | |
| **DR300-QR/-T5-S5** | 5500 | – | – | – | – | 3.0 (1/8") | 5.0 (3/16") | 5.0 (3/16") | 5.0 (3/16") |
|  | 4500 | – | – | – | – | 3.0 (1/8") | 5.0 (3/16") | 5.0 (3/16") | 5.0 (3/16") |
| | 3000 3 | – | – | – | 3.0 (1/8") 2 | 5.0 (3/16") | 5.0 (3/16") | 5.0 (3/16") | – |
| | 2000 | – | 3.0 (1/8") | 4.0 (5/32") | 5.0 (3/16") | – | – | – | – |
| | 1000 | – | 4.0 (5/32") | 5.0 (3/16") | – | – | – | – | – |
| **45°, 90°, 360° STANDARD HEAD** | | | | | | | | | |
| **DR300-QR/-T6-S6** | 5500 | – | – | – | – | 3.0 (1/8") | 6.0 (1/4") | 5.0 (3/16") | 6.5 (1/4") |
|  | 4500 | – | – | – | – | 3.0 (1/8") | 6.0 (1/4") | 5.0 (3/16") | 6.5 (1/4") |
| | 3000 | – | – | – | 3.0 (1/8") | 5.0 (3/16") | 6.5 (1/4") | 6.5 (1/4") | – |
| | 2000 | – | 3.0 (1/8") | 4.0 (5/32") | 6.5 (1/4") | 6.5 (1/4") | – | 6.5 (1/4") | – |
| | 1000 | – | 4.0 (5/32") | 6.0 (1/4") | 6.5 (1/4") | – | – | – | – |
| | 550 | 6.0 (1/4") | 6.5 (1/4") | 6.5 (1/4") | – | – | – | – | – |
| **DR450-T6/S6** | 18500 | – | – | – | – | – | – | 4.0 (5/32") | 2.0 (5/64") |
| **ø8-13 mm (5/16" - 1/2") cap.** | 5800 | – | – | – | – | – | 4.0 (5/32") | 5.0 (3/16") | 6.0 (1/4") |
|  | 4300 | – | – | – | – | 3.0 (1/8") | 6.0 (1/4") | 10.0 (13/32") | 12.0 (1/2") |
| | 2700 | – | – | 3.0 (1/8") | 4.0 (5/32") | 5.0 (3/16") | 8.0 (5/16") | 12.0 (1/2") | – |
| | 1800 | – | 3.0 (1/8") | 4.0 (5/32") | 6.0 (1/4") | 8.0 (5/16") | 10.0 (13/32") | – | – |
| | 1400 | – | 4.0 (5/32") | 5.0 (3/16") | 9.0 (11/32") | 11.0 (7/16") | – | – | – |
| **90° HEAVY DUTY** | | | | | | | | | |
| **DR300-THD/SHD** | 2000 | – | 3.0 (1/8") | 3.0 (1/8") | 6.0 (1/4") | 8.0 (5/16") | 8.0 (5/16") | 8.0 (5/16") | 8.0 (5/16") |
|  | 900 | – | 7.0 (9/32") | 8.0 (5/16") | 8.0 (5/16") | – | – | – | – |
| **DR450-THD/SHD** | 2000 | – | 3.0 (1/8") | 3.0 (1/8") | 6.0 (1/4") | 6.5 (1/4") | 6.5 (1/4") | 6.5 (1/4") | 6.5 (1/4") |
|  | 900 | – | 7.0 (9/32") | 8.0 (5/16") | 8.0 (5/16") | – | – | – | – |
| | 600 | – | 8.0 (5/16") | 10.0 (13/32") | 10.0 (13/32") | 8.0 (5/16") | – | – | – |
| **PISTOL GRIP** | | | | | | | | | |
| **DR350** | 20000 | | | | | | | 4.0 (5/32") | 2.0 (5/64") |
| **ø8-10 mm (5/16" - 3/8") cap.** | 5500 | | | | | | 4.0 (5/32") | 5.0 (3/16") | 6.0 (1/4" |
|  | 4500 | | | | | 3.0 (1/8") | 6.0 (1/4") | | 8.0 (5/16") |
| | 3000 | | | | 4.0 (5/32") | 5.0 (3/16") | 8.0 (5/16") | | |
| | 2000 | | 3.0 (1/8") | 4.0 (5/32") | 6.0 (1/4") | 8.0 (5/16") | 10.0 (13/32") | | |
| | 1000 | | 4.0 (5/32") | 6.0 (1/4") | 8.0 (5/16") | | | | |
| | 550 | 6.0 (1/4") | 8.0 (5/16") | | | | | | |
| **DR500** | 18500 | | | | | | | 4.0 (5/32") | 2.0 (5/64") |
| **ø8-13 mm (5/16" - 1/2") cap.** | 5800 | | | | | | 4.0 (5/32") | 5.0 (3/16") | 6.0 (1/4") |
|  | 4300 | | | | | 3.0 (1/8") | 6.0 (1/4") | 10.0 (13/32") | 12.0 (1/2") |
| | 2700 | | | 3.0 (1/8") | 4.0 (5/32") | 5.0 (3/16") | 8.0 (5/16") | 12.0 (1/2") | |
| | 1800 | | 3.0 (1/8") | 4.0 (5/32") | 6.0 (1/4") | 8.0 (5/16") | 10.0 (13/32") | | |
| | 1400 | | 4.0 (5/32") | 5.0 (3/16") | 9.0 (11/32") | 11.0 (7/16") | | | |
| | 1000 | | 5.0 (3/16") | 6.0 (1/4") | 10.0 (13/32") | | | | |
| | 600 | 3.0 (1/8") | 7.0 (9/32") | 8.0 (5/16") | 12.0 (1/3") | | | | |
| | 400 | 6.0 (1/4") | 8.0 (5/16") | 10.0 (13/32") | | | | | |
| **DR750** | 20000 | | | | | | 2.0 (5/64") | 2.0 (5/64") | |
| **ø8-13 mm (5/16" - 1/2") cap.** | 6000 | | | | | | 4.0 (5/32") | 5.0 (3/16") | 6.0 (1/4") |
|  | 4100 | | | | | 3.0 (1/8") | 6.0 (1/4") | 8.0 (5/16") | 10.0 (13/32") |
| | 3300 | | | | 3.0 (1/8") | 4.0 (5/32") | 8.0 (5/16") | 10.0 (13/32") | 12.0* (1/2") |
| | 2700 | | | 3.0 (1/8") | 4.0 (5/32") | 5.0 (3/16") | 10.0 (13/32") | 13.0* (1/2") | 15.0* (19/32") |
| | 1300 | | 4.0 (5/32") | 5.0 (3/16") | 9.0 (11/32") | 11.0* (7/16") | 19.0* (3/4") | | 30.0* (13/16") |
| | 750 | 3.0 (1/8") | 7.0 (9/32") | 8.0 (5/16") | 15.0* (19/32") | 19.0* (3/4") | 30.0* (13/16") | | |
| | 400 | 6.0 (1/4") | 8.0 (5/16") | 10.0 (13/32") | | | | | |

** above standard chuck capacity*

# Multi Drills





- Modular product range to boost you productivity
- Full flexibility for difficult access applications
- Lightweight and excellent ergonomics
- Robust built, reliable design and excellent run-out
- New 500W tools available in multi-drill version:
  - Pistol version with DR500-QR
  - Straight version with DR450-QR



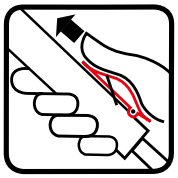

12 positions, 360° orientation

**Flexibility**
**Excellent accessibility**




Quick-Release head

**Productivity**
**1 tool for all applications**



**Safety**
**Ergonomics**
**Low weight**
**Low sound levels**
**Vacuum kits options**




Heavy Duty head



** Possibility to use ER collets with straight Quick Release attachment See p.225 for all details.*

# Multi Drills



**A**
**DR350 Series**
350 W (0.5hp) / 1000 to 5500 rpm



**B**
**DR500 Series**
500 W (0.68hp) / 1000 to 5800 rpm



**C**
**DR300 Series**
300 W (0.4hp) / 550 to 5500 rpm



**D**
**DR450 Series**
450 W (0.6hp) / 1000 to 5800 rpm



***BRB**
Button + Rear Bumper
*available as well as accessory*

ACCESSORIES
**see page 277**

| PIC REF | MODEL | PART NUMBER | FREE SPEED | MOTOR POWER | | WEIGHT | | LENGTH | | AIR FLOW | | AIR INLET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | W | hp | kg | lb | mm | in. | l/s | cfm | in. |
| **MULTI-DRILLS - PISTOL** | | | | | | | | | | | | |
| A | DR350-P5500-QR | 205 147 984 4 | 5500 | 350 | 0.5 | 0.50 | 1.10 | 169 | 6.65 | 9.5 | 20 | 1/4 |
| A | DR350-P4500-QR | 205 147 983 4 | 4500 | 350 | 0.5 | 0.50 | 1.10 | 169 | 6,65 | 9.5 | 20 | 1/4 |
| A | DR350-P3000-QR | 205 147 528 4 | 3000 | 350 | 0.5 | 0.50 | 1.10 | 169 | 6.65 | 9.5 | 20 | 1/4 |
| A | DR350-P1000-QR | 205 147 981 4 | 1000 | 350 | 0.5 | 0.58 | 1.27 | 187 | 7.36 | 9.5 | 20 | 1/4 |
| B | DR500-P5800-QR | 615 176 190 0 | 5800 | 500 | 0.68 | 0.58 | 1.25 | 174 | 6.85 | 14 | 30 | 1/4 |
| B | DR500-P4300-QR | 615 176 189 0 | 4300 | 500 | 0.68 | 0.58 | 1.25 | 174 | 6.85 | 14 | 30 | 1/4 |
| B | DR500-P2700-QR | 615 176 188 0 | 2700 | 500 | 0.68 | 0.58 | 1.25 | 174 | 6.85 | 14 | 30 | 1/4 |
| B | DR500-P1800-QR | 615 176 187 0 | 1800 | 500 | 0.68 | 0.66 | 1.45 | 188 | 7.40 | 14 | 30 | 1/4 |
| B | DR500-P1400-QR | 615 176 186 0 | 1400 | 500 | 0.68 | 0.66 | 1.45 | 188 | 7.40 | 14 | 30 | 1/4 |
| B | DR500-P1000-QR | 615 176 185 0 | 1000 | 500 | 0.68 | 0.66 | 1.45 | 188 | 7.40 | 14 | 30 | 1/4 |
| **MULTI-DRILLS - STRAIGHT** | | | | | | | | | | | | |
| C | DR300-T5500-QR | 615 176 071 0 | 5500 | 300 | 0.4 | 0.52 | 1.14 | 179 | 7.05 | 9.5 | 20 | 1/4 |
| C | DR300-T4500-QR | 615 176 070 0 | 4500 | 300 | 0.4 | 0.52 | 1.14 | 179 | 7.05 | 9.5 | 20 | 1/4 |
| C | DR300-T3000-QR | 615 176 069 0 | 3000 | 300 | 0.4 | 0.52 | 1.14 | 179 | 7.05 | 9.5 | 20 | 1/4 |
| C | DR300-T2000-QR | 615 176 068 0 | 2000 | 300 | 0.4 | 0.52 | 1.14 | 179 | 7.05 | 9.5 | 20 | 1/4 |
| C | DR300-T1000-QR | 615 176 067 0 | 1000 | 300 | 0.4 | 0.61 | 1.34 | 195.5 | 7.7 | 9.5 | 20 | 1/4 |
| C | DR300-T1000-QR - BRB* | 615 176 118 0 | 1000 | 300 | 0.4 | 0.64 | 1.41 | 217.8 | 8.57 | 9.5 | 20 | 1/4 |
| C | DR300-T550-QR | 615 176 066 0 | 550 | 300 | 0.4 | 0.61 | 1.34 | 195.5 | 7.7 | 9.5 | 20 | 1/4 |
| D | DR450-T5800-QR | 615 176 162 0 | 5800 | 450 | 0.6 | 0.64 | 1.41 | 193 | 7.60 | 14 | 30 | 1/4 |
| D | DR450-T4300-QR | 615 176 161 0 | 4300 | 450 | 0.6 | 0.64 | 1.41 | 193 | 7.60 | 14 | 30 | 1/4 |
| D | DR450-T2700-QR | 615 176 160 0 | 2700 | 450 | 0.6 | 0.64 | 1.41 | 193 | 7.60 | 14 | 30 | 1/4 |
| D | DR450-T1800-QR | 615 176 159 0 | 1800 | 450 | 0.6 | 0.72 | 1.58 | 207 | 8.15 | 14 | 30 | 1/4 |
| D | DR450-T1400-QR | 615 176 158 0 | 1400 | 450 | 0.6 | 0.72 | 1.58 | 207 | 8.15 | 14 | 30 | 1/4 |
| D | DR450-T1000-QR | 615 176 157 0 | 1000 | 450 | 0.6 | 0.72 | 1.58 | 207 | 8.15 | 14 | 30 | 1/4 |

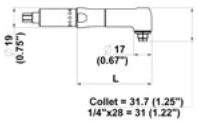
*All models: Hose int. 6 mm (1/4")*

# Multi-Drills

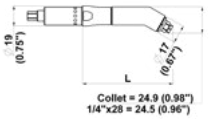
## Quick release heads

| PIC REF | DESIGNATION | PART NUMBER | LENGTH L | | COLLET MAX. CAPACITY | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|
| | | | mm | in. | mm | in. | kg | lb |
| **COMPACT ANGLE HEADS** | | | | | | | | |
| A | Short Compact 90° angle head Collet spindle | 205 053 981 3 | 54.0 | 2.13 | 5.0 | 3/16 | 0.15 | 0.33 |
| A | Compact 90° angle head Collet spindle | 205 050 331 3 | 72.0 | 2.83 | 5.0 | 3/16 | 0.17 | 0.37 |
| A | Compact 90° angle head 1/4" x 28 spindle | 205 050 332 3 | 72.0 | 2.83 | - | - | 0.17 | 0.37 |
| B | Compact 30° angle head Collet spindle | 205 050 329 3 | 82.9 | 3.26 | 5.0 | 3/16 | 0.17 | 0.37 |
| B | Compact 30° angle head 1/4" x 28 spindle | 205 050 330 3 | 82.9 | 3.26 | - | - | 0.17 | 0.37 |
| C | Compact 45° angle head Collet spindle | 205 050 335 3 | 81.0 | 3.19 | 5.0 | 3/16 | 0.17 | 0.37 |
| C | Compact 45° angle head 1/4" x 28 spindle | 205 050 336 3 | 79.0 | 3.11 | - | - | 0.17 | 0.37 |
| D | Compact 360° angle head Collet spindle | 205 050 333 3 | 81.5 | 3.21 | 5.0 | 3/16 | 0.25 | 0.55 |
| D | Compact 360° angle head 1/4" x 28 spindle | 205 050 334 3 | 85.2 | 3.35 | - | - | 0.25 | 0.55 |
| E | Short compact straight head Collet spindle | 615 399 569 5 | 53.7 | 2.11 | 5.0 | 3/16 | 0.14 | 0.31 |
| E | Short compact straight head 1/4"x28 Spindle | 615 399 570 5 | 53.7 | 2.11 | - | - | 0.14 | 0.31 |
| E | Compact straight head Collet spindle | 615 399 571 5 | 71.7 | 2.82 | 5.0 | 3/16 | 0.16 | 0.35 |
| E | Compact straight head 1/4"x28 Spindle | 615 399 572 5 | 71.7 | 2.82 | - | - | 0.16 | 0.35 |
| **STANDARD ANGLE HEADS** | | | | | | | | |
| F | Standard 90° angle head Collet spindle | 205 050 338 3 | 75.7 | 2.98 | 6.4 | 1/4 | 0.23 | 0.51 |
| F | Standard 90° angle head Collet spindle | 205 050 353 3 | 75.7 | 2.98 | 8.0 | 5/16 | 0.23 | 0.51 |
| F | Standard 90° angle head 1/4" x 28 spindle | 205 050 339 3 | 75.7 | 2.98 | - | - | 0.24 | 0.53 |
| F | Standard 90° angle head 5/16" x 24 spindle | 205 050 340 3 | 75.7 | 2.98 | - | - | 0.23 | 0.51 |
| G | Standard 45° angle head Collet spindle | 615 398 702 5 | 90.7 | 3.57 | 6.4 | 1/4 | 0.23 | 0.51 |
| G | Standard 45° angle head 1/4" x 28 spindle | 615 398 704 5 | 87.9 | 3.46 | - | - | 0.23 | 0.51 |
| H | Standard 360° angle head Collet spindle | 205 050 341 3 | 96.8 | 3.81 | 6.4 | 1/4 | 0.32 | 0.70 |
| H | Standard 360° angle head 1/4" x 28 spindle | 205 050 342 3 | 94.5 | 3.72 | - | - | 0.32 | 0.70 |
| H | Standard 360° angle head 5/16" x 24 spindle | 205 050 343 3 | 94.5 | 3.72 | - | - | 0.32 | 0.70 |
| I | Standard straight head Collet spindle | 615 399 573 5 | 83.8 | 3.3 | 6.4 | 1/4 | 0.2 | 0.44 |
| I | Standard straight head 1/4"x28 Spindle | 615 399 574 5 | 83.8 | 3.3 | - | - | 0.2 | 0.44 |
| **HEAVY DUTY HEADS** | | | | | | | | |
| J | QR THD 90° Collet output | 615 399 575 5 | 48.8 | 1.92 | 8 | 5/16 | 0.31 | 0.68 |
| K | QR HD 90° Cnomo | 615 399 576 5 | 48.8 | 1.92 | - | - | 0.3 | 0.66 |
| L | QR SHD 90° Chuck output | 615 399 577 5 | 48.8 | 1.92 | - | - | 0.43 | 0.95 |
| **STRAIGHT HEADS** | | | | | | | | |
| M | Chuck mounting 3/8" x 24 | 205 050 543 3 | 32.0 | 1.26 | - | - | 0.25 | 0.55 |

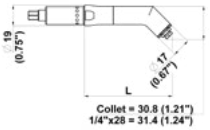
A



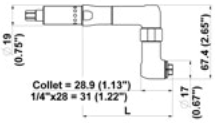

B



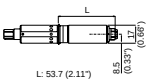

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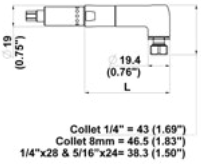

D



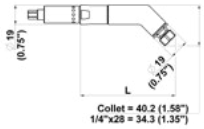

E



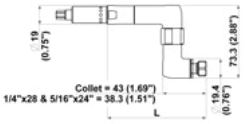

F



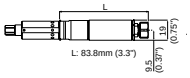

G



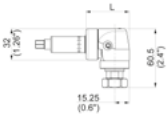

H



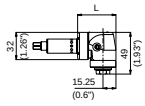

I



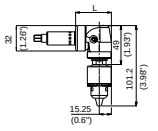

J



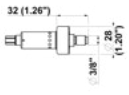

K




L




M




ACCESSORIES
**see page 277**

# Multi Drills

## Collet for Compact Angle Heads: A, B, C, D, E (30°, 45°, 90°, 360°)



| COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. |
|---|---|---|---|---|---|---|---|---|---|
| ø 0.8mm | 2152 | ø 1.8mm | 2252 | ø 2.8mm | 2352 | ø 3.8mm | 2452 | ø 4.8mm | 2552 |
| ø 0.9mm | 2162 | ø 1.9mm | 2262 | ø 2.9mm | 2362 | ø 3.9mm | 2462 | ø 4.9mm | 2562 |
| ø 1.0mm | 2172 | ø 2.0mm | 2272 | ø 3.0mm | 2372 | ø 4.0mm | 2472 | ø 5.0mm | 2572 |
| ø 1.1mm | 2182 | ø 2.1mm | 2282 | ø 3.1mm | 2382 | ø 4.1mm | 2482 | | |
| ø 1.2mm | 2192 | ø 2.2mm | 2292 | ø 3.2mm | 2392 | ø 4.2mm | 2492 | ø 1/16" | 91442 |
| ø 1.3mm | 2202 | ø 2.3mm | 2302 | ø 3.3mm | 2402 | ø 4.3mm | 2502 | ø 3/32" | 91452 |
| ø 1.4mm | 2212 | ø 2.4mm | 2312 | ø 3.4mm | 2412 | ø 4.4mm | 2512 | ø 1/8" | 91462 |
| ø 1.5mm | 2222 | ø 2.5mm | 2322 | ø 3.5mm | 2422 | ø 4.5mm | 2522 | ø 5/32" | 91472 |
| ø 1.6mm | 2232 | ø 2.6mm | 2332 | ø 3.6mm | 2432 | ø 4.6mm | 2532 | ø 11/64" | 108172 |
| ø 1.7mm | 2242 | ø 2.7mm | 2342 | ø 3.7mm | 2442 | ø 4.7mm | 2542 | ø 3/16" | 91482 |

## Collet for Standard Angle Heads : F, G, H, I (45°, 90°, 360°)



| COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. |
|---|---|---|---|---|---|---|---|
| ø 1.6mm (1/16") | 18922 | ø 3.0mm | 18992 | ø 4.4mm (11/64") | 19072 | ø 5.8mm | 19152 |
| ø 1.8mm | 18932 | ø 3.2mm (1/8") | 19002 | ø 4.6mm | 19082 | ø 6.0mm (15/64") | 19162 |
| ø 2.0mm (5/64") | 18942 | ø 3.4mm | 19022 | ø 4.8mm (3/16") | 19092 | ø 6.2mm | 19172 |
| ø 2.2mm | 18952 | ø 3.6mm (9/64") | 19032 | ø 5.0mm | 19102 | ø 6.4mm (1/4") | 19182 |
| ø 2.4mm | 18962 | ø 3.8mm | 19042 | ø 5.2mm (13/64") | 19122 | | |
| ø 2.6mm | 18972 | ø 4.0mm (5/32") | 19052 | ø 5.4mm | 19132 | | |
| ø 2.8mm (7/64") | 18982 | ø 4.2mm | 19062 | ø 5.6mm (7/32") | 19142 | | |

## Collet for Standard Angle Head: P.N. 205 050 353 3

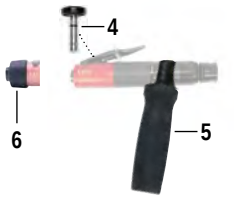


| COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. | COLLET CAPACITY | PART NO. |
|---|---|---|---|---|---|---|---|
| ø 2.0mm | 615 526 066 0 | ø 4.0mm | 615 526 071 0 | ø 5.9mm | 615 526 078 0 | ø 7.5mm | 615 526 084 0 |
| ø 2.4mm | 615 526 067 0 | ø 4.5mm | 615 526 073 0 | ø 6.0mm | 615 526 079 0 | ø 7.7mm | 615 526 085 0 |
| ø 2.5mm | 615 526 068 0 | ø 5.0mm | 615 526 075 0 | ø 6.3mm | 615 526 080 0 | ø 7.9mm | 615 526 087 0 |
| ø 3.0mm | 615 526 069 0 | ø 5.2mm | 615 526 076 0 | ø 6.5mm | 615 526 081 0 | ø 8.0mm | 615 526 088 0 |
| ø 3.5mm | 615 526 070 0 | ø 5.5mm | 615 526 077 0 | ø 7.0mm | 615 526 083 0 | | |




## ACCESSORIES INCLUDED

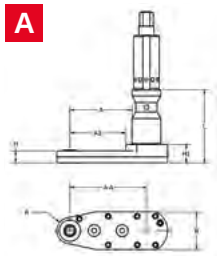
| ITEM | | PART NO. |
|---|---|---|
| **With DR300** | | |
| 2 | Safety lever | 205 050 288 3 |
| **With Angle heads A, B, C, D, E** | | |
| 3 | Collet ø 4.8mm (3/16") capacity | 2552 |
| • | Flat wrench 8mm | 615 802 069 0 |
| • | Flat wrench 10mm | 615 802 070 0 |
| **with Angle heads F, G , H, I** | | |
| 4 | Collet ø 6.4mm (1/4") capacity | 19182 |
| • | Flat wrenches 10mm | 82623 |
| **With DR300/350/450/500** | | |
| 5 | Set of color plastic rings | 615 399 250 0 |

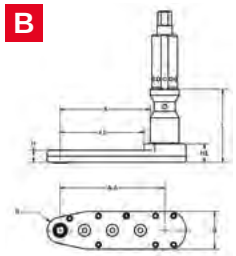


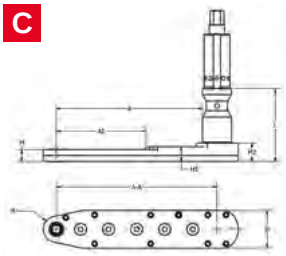

## OTHER OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| 1 | Short lever | 205 050 299 3 |
| 4 | Start button | 615 399 266 0 |
| 5 | Side handle | 615 399 265 0 |
| • | Keyed chuck C6 - 3/8"x24 (Cap. 0.5 to 6.5mm) | 205 055 272 3 |
| • | Keyed chuck C8 - 3/8"x24 (Cap. 0.5 to 8mm) | 205 053 013 3 |
| • | Flat wrenches 8-9.5mm for Angle heads A, B, C, D & E | 268263 |
| • | Flat wrenches 10-15 mm for Angle heads F, G, H & I | 82623 |
| 6 | Kit silencer NPT | 615 399 313 0 |
| 6 | Kit silencer BSP | 615 399 311 0 |
| 6 | Kit Bumper | 615 399 312 0 |

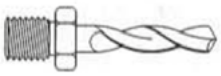
# Multi Drills - Accessories



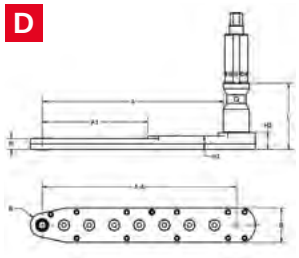

**Output**

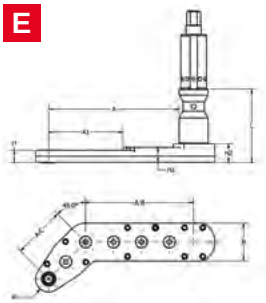


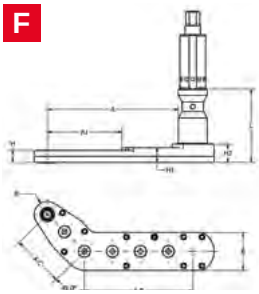
Threaded



Collet




| PIC REF | MODEL | | DRILLING DIRECTION | MAX DRILLING CAPACITY | | H | | H1 | | H2 | | A | | A1 | | A-A | | A-B | | A-C | | B | | R | | L | | A° |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Thread 9/32'-40 | Thread 1/4'X28' | | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | mm | in | |
| A | DA13S3-CP2 | DA13S2-CP2 | Backward | 5.0 | 3/16" | 7.9 | 0.31 | 12.2 | 0.48 | - | - | 40.9 | 1.61 | 36.77 | 1.45 | 50.4 | 1.98 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| A | DA13S3-CP6 | DA13S2-CP6 | Backward | 5.0 | 3/16" | 7.9 | 0.31 | 12.2 | 0.48 | - | - | 40.9 | 1.61 | 36.77 | 1.45 | 50.4 | 1.98 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| A | DA23S3-CP2 | DA23S2-CP2 | Backward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 40.9 | 1.61 | 36.77 | 1.45 | 50.4 | 1.98 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| A | DA23S3-CP6 | DA23S2-CP6 | Backward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 40.9 | 1.61 | 36.77 | 1.45 | 50.4 | 1.98 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| A | DA33S3-CP2 | DA33S2-CP2 | Backward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 40.9 | 1.61 | - | - | 50.4 | 1.98 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| A | DA33S3-CP6 | DA33S2-CP6 | Backward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 40.9 | 1.61 | - | - | 50.4 | 1.98 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| B | | DA04S2-CP2 | Forward | 3.18 | 1/8" | 7.5 | 0.30 | - | - | - | - | 34.6 | 1.36 | - | - | 45.7 | 1.80 | - | - | - | - | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | - |
| B | | DA04S2-CP4 | Forward | 5 | 3/16" | 7.5 | 0.30 | - | - | - | - | 34.72 | 1.36 | - | - | 45.7 | 1.80 | - | - | - | - | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | - |
| B | DA14S3-CP2 | DA14S2-CP2 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 12.2 | 0.48 | - | - | 59.3 | 2.33 | 55.17 | 2.17 | 68.8 | 2.71 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| B | DA14S3-CP6 | DA14S2-CP6 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 12.2 | 0.48 | - | - | 59.3 | 2.33 | 55.17 | 2.17 | 68.8 | 2.71 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| B | DA24S3-CP2 | DA24S2-CP2 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 59.3 | 2.33 | 55.17 | 2.17 | 68.8 | 2.71 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| B | DA24S3-CP6 | DA24S2-CP6 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 59.3 | 2.33 | 55.17 | 2.17 | 68.8 | 2.71 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| B | DA34S3-CP2 | DA34S2-CP2 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 59.3 | 2.33 | - | - | 68.8 | 2.71 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| B | DA34S3-CP6 | DA34S2-CP6 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 59.3 | 2.33 | - | - | 68.8 | 2.71 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| C | | DA06S2-CP2 | Forward | 3.18 | 1/8" | 7.5 | 0.30 | - | - | - | - | 57.6 | 2.26 | - | - | 68.6 | 2.70 | - | - | - | - | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | - |
| C | | DA06S2-CP4 | Forward | 5.0 | 3/16" | 7.5 | 0.30 | - | - | - | - | 57.58 | 2.26 | - | - | 68.6 | 2.70 | - | - | - | - | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | - |
| C | DA16S3-CP2 | DA16S2-CP2 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 96.1 | 3.78 | 59.0 | 2.32 | 105.6 | 4.16 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| C | DA16S3-CP6 | DA16S2-CP6 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 96.1 | 3.78 | 59.0 | 2.32 | 105.6 | 4.16 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| C | DA26S3-CP2 | DA26S2-CP2 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 96.1 | 3.78 | 59.0 | 2.32 | 105.6 | 4.16 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| C | DA26S3-CP6 | DA26S2-CP6 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 96.1 | 3.78 | 59.0 | 2.32 | 105.6 | 4.16 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| C | DA36S3-CP2 | DA36S2-CP2 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 96.1 | 3.78 | - | - | 105.6 | 4.16 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| C | DA36S3-CP6 | DA36S2-CP6 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 96.1 | 3.78 | - | - | 105.6 | 4.16 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| D | | DA08S2-CP2 | Forward | 3.18 | 1/8" | 7.5 | 0.30 | - | - | - | - | 80.44 | 3.16 | - | - | 91.4 | 3.60 | - | - | - | - | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | - |
| D | DA18S3-CP2 | DA18S2-CP2 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 132.9 | 5.23 | 77.4 | 3.05 | 142.4 | 5.61 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| D | DA18S3-CP6 | DA18S2-CP6 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 132.9 | 5.23 | 77.4 | 3.05 | 142.4 | 5.61 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| D | DA28S3-CP2 | DA28S2-CP2 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 132.9 | 5.23 | 77.4 | 3.05 | 142.4 | 5.61 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| D | DA28S3-CP6 | DA28S2-CP6 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 132.9 | 5.23 | 77.4 | 3.05 | 142.4 | 5.61 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| D | DA38S3-CP2 | DA38S2-CP2 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 132.9 | 5.23 | - | - | 142.4 | 5.61 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | - |
| D | DA38S3-CP6 | DA38S2-CP6 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 132.9 | 5.23 | - | - | 142.4 | 5.61 | - | - | - | - | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | - |
| E | | DA06R2-CP2 | Forward | 3.18 | 1/8" | 7.5 | 0.30 | - | - | - | - | 49.41 | 1.94 | - | - | - | - | 45.7 | 1.80 | 22.9 | 0.90 | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | 50° |
| E | | DA06R2-CP4 | Forward | 5.0 | 3/16" | 7.5 | 0.30 | - | - | - | - | 49.41 | 1.94 | - | - | - | - | 45.7 | 1.80 | 22.9 | 0.90 | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | 50° |
| E | DA16R3-CP2 | DA16R2-CP2 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | 45° |
| E | DA16R3-CP6 | DA16R2-CP6 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | 45° |
| E | DA26R3-CP2 | DA26R2-CP2 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | 45° |
| E | DA26R3-CP6 | DA26R2-CP6 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | 45° |
| E | DA36R3-CP2 | DA36R2-CP2 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 86.02 | 3.39 | - | - | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | 45° |
| E | DA36R3-CP6 | DA36R2-CP6 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 86.02 | 3.39 | - | - | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | 45° |
| F | | DA06L2-CP2 | Forward | 3.18 | 1/8" | 7.5 | 0.30 | - | - | - | - | 49.41 | 1.94 | - | - | - | - | 45.7 | 1.80 | 22.9 | 0.90 | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | 50° |
| F | | DA06L2-CP4 | Forward | 5.0 | 3/16" | 7.5 | 0.30 | - | - | - | - | 49.41 | 1.94 | - | - | - | - | 45.7 | 1.80 | 22.9 | 0.90 | 16 | 0.63 | 7.5 | 0.30 | 43.48 | 1.71 | 50° |
| F | DA16L3-CP2 | DA16L2-CP2 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | 45° |
| F | DA16L3-CP6 | DA16L2-CP6 | Forward | 5.0 | 3/16" | 7.9 | 0.31 | 9.8 | 0.39 | 12.2 | 0.48 | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | 45° |
| F | DA26L3-CP2 | DA26L2-CP2 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | 45° |
| F | DA26L3-CP6 | DA26L2-CP6 | Forward | 6.35 | 1/4" | 9.8 | 0.39 | 12.2 | 0.48 | - | - | 86.02 | 3.39 | 59.0 | 2.32 | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | 45° |
| F | DA36L3-CP2 | DA36L2-CP2 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 86.02 | 3.39 | - | - | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 48.21 | 1.89 | 45° |
| F | DA36L3-CP6 | DA36L2-CP6 | Forward | 8.0 | 5/16" | 12.2 | 0.48 | - | - | - | - | 86.02 | 3.39 | - | - | - | - | 71.2 | 2.80 | 34.4 | 1.35 | 25 | 0.98 | 8.6 | 0.34 | 126.9 | 4.99 | 45° |

# Angle Drills

*Compact Head - Max capacity: 5mm (3/16") Collet & 1/4" x 28 Spindle*



**A** **DR300-T...-T/S5-30 Series**
300 W (0.4hp) / 1000 to 5500 rpm



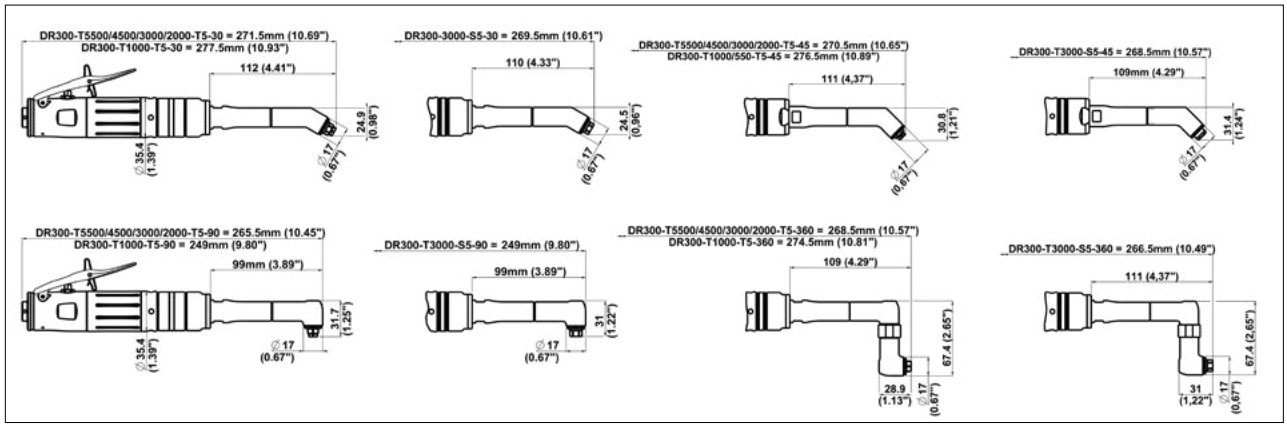
**B** **DR300-T...-T/S5-45 Series**
300 W (0.4hp) / 550 to 5500 rpm



**C** **DR300-T...-T/S5-90 Series**
300 W (0.4hp) / 1000 to 5500 rpm



**D** **DR300-T...-T/S5-360 Series**
300 W (0.4hp) / 1000 to 5500 rpm






***BRB**
Button + Rear Bumper
*available as well as accessory*

ACCESSORIES
**see page 282**

| PIC REF | MODEL | PART NUMBER | MODEL | PART NUMBER | FREE SPEED | MOTOR POWER | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | rpm | W | hp | kg | lb |
| | **30° - COLLET SPINDLE** | | **30° - 1/4" x 28 SPINDLE** | | **Max. capacity: 5mm (3/16")** | | | | |
| A | DR300-T5500-T5-30 | 615 176 077 0 | DR300-T5500-S5-30 | 615 176 133 0 | 5500 | 300 | 0.4 | 0.66 | 1.45 |
| A | DR300-T4500-T5-30 | 615 176 076 0 | DR300-T4500-S5-30 | 615 176 132 0 | 4500 | 300 | 0.4 | 0.66 | 1.45 |
| A | DR300-T3000-T5-30 | 615 176 074 0 | DR300-T3000-S5-30 | 615 176 075 0 | 3000 | 300 | 0.4 | 0.66 | 1.45 |
| A | DR300-T3000-T5-30 - BRB* | 615 176 119 0 | | | 3000 | 300 | 0.4 | 0.66 | 1.45 |
| A | DR300-T2000-T5-30 | 615 176 073 0 | DR300-T2000-S5-30 | 615 176 131 0 | 2000 | 300 | 0.4 | 0.66 | 1.45 |
| A | DR300-T1000-T5-30 | 615 176 072 0 | DR300-T1000-S5-30 | 615 176 130 0 | 1000 | 300 | 0.4 | 0.76 | 1.67 |
| | **45° - COLLET SPINDLE** | | **45° - 1/4" x 28 SPINDLE** | | **Max. capacity: 5mm (3/16")** | | | | |
| B | DR300-T5500-T5-45 | 615 176 096 0 | DR300-T5500-S5-45 | 615 176 146 0 | 5500 | 300 | 0.4 | 0.67 | 1.47 |
| B | DR300-T4500-T5-45 | 615 176 095 0 | DR300-T4500-S5-45 | 615 176 145 0 | 4500 | 300 | 0.4 | 0.67 | 1.47 |
| B | DR300-T3000-T5-45 | 615 176 093 0 | DR300-T3000-S5-45 | 615 176 094 0 | 3000 | 300 | 0.4 | 0.67 | 1.47 |
| B | DR300-T2000-T5-45 | 615 176 092 0 | DR300-T2000-S5-45 | 615 176 144 0 | 2000 | 300 | 0.4 | 0.67 | 1.47 |
| B | DR300-T1000-T5-45 | 615 176 091 0 | DR300-T1000-S5-45 | 615 176 143 0 | 1000 | 300 | 0.4 | 0.76 | 1.67 |
| B | DR300-T550-T5-45 | 615 176 090 0 | DR300-T550-S5-45 | 615 176 142 0 | 550 | 300 | 0.4 | 0.76 | 1.67 |
| | **90° - COLLET SPINDLE** | | **90° - 1/4" x 28 SPINDLE** | | **Max. capacity: 5mm (3/16")** | | | | |
| C | DR300-T5500-T5-90 | 615 176 083 0 | DR300-T5500-S5-90 | 615 176 137 0 | 5500 | 300 | 0.4 | 0.68 | 1.5 |
| C | DR300-T4500-T5-90 | 615 176 082 0 | DR300-T4500-S5-90 | 615 176 136 0 | 4500 | 300 | 0.4 | 0.68 | 1.5 |
| | DR300-T4500-T5-90 - BRB* | 615 176 120 0 | | | 4500 | 300 | 0.4 | 0.68 | 1.5 |
| C | DR300-T3000-T5-90 | 615 176 080 0 | DR300-T3000-S5-90 | 615 176 081 0 | 3000 | 300 | 0.4 | 0.68 | 1.5 |
| C | DR300-T2000-T5-90 | 615 176 079 0 | DR300-T2000-S5-90 | 615 176 135 0 | 2000 | 300 | 0.4 | 0.68 | 1.5 |
| C | DR300-T1000-T5-90 | 615 176 078 0 | DR300-T1000-S5-90 | 615 176 134 0 | 1000 | 300 | 0.4 | 0.78 | 1.72 |
| | **360° - COLLET SPINDLE** | | **360° - 1/4" x 28 SPINDLE** | | **Max. capacity: 5mm (3/16")** | | | | |
| D | DR300-T5500-T5-360 | 615 176 089 0 | DR300-T5500-S5-360 | 615 176 141 0 | 5500 | 300 | 0.4 | 0.74 | 1.63 |
| D | DR300-T4500-T5-360 | 615 176 088 0 | DR300-T4500-S5-360 | 615 176 140 0 | 4500 | 300 | 0.4 | 0.74 | 1.63 |
| D | DR300-T3000-T5-360 | 615 176 086 0 | DR300-T3000-S5-360 | 615 176 087 0 | 3000 | 300 | 0.4 | 0.74 | 1.63 |
| D | DR300-T2000-T5-360 | 615 176 085 0 | DR300-T2000-S5-360 | 615 176 139 0 | 2000 | 300 | 0.4 | 0.74 | 1.63 |
| D | DR300-T1000-T5-360 | 615 176 084 0 | DR300-T1000-S5-360 | 615 176 138 0 | 1000 | 300 | 0.4 | 0.84 | 1.85 |

*All models: Air flow: 9.5 l/s (20 cfm) - Air inlet 1/4" - Hose int. 6 mm (1/4")*

# Angle Drills

*Standard Head - Max capacity: 6.4mm (1/4") Collet & 1/4" x 28 Spindle*



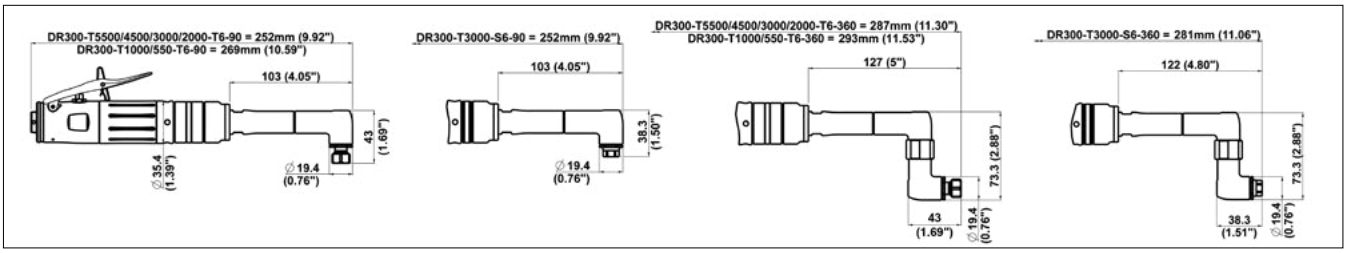
**A** **DR300-T...-T/S6-90 Series**
300 W (0.4hp) / 550 to 5500 rpm



**C** **DR300-T...-T/S6-360 Series**
300 W (0.4hp) / 550 to 5500 rpm



**B** **DR450-T...-T/S6-90 Series**
450 W (0.6hp) / 1400 to 5800 rpm






***BRB**
Button + Rear Bumper
*available as well as accessory*

ACCESSORIES
**see page 282**

| PIC REF | MODEL | PART NUMBER | MODEL | PART NUMBER | FREE SPEED | MOTOR POWER | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | rpm | W | hp | kg | lb |
| | **90° - COLLET SPINDLE** | | **90° - 1/4" x 28 SPINDLE** | | **Max. capacity: 6.4mm (1/4")** | | | | |
| A | DR300-T5500-T6-90 | 615 176 103 0 | DR300-T5500-S6-90 | 615 176 151 0 | 5500 | 300 | 0.4 | 0.7 | 1.54 |
| A | DR300-T4500-T6-90 | 615 176 102 0 | DR300-T4500-S6-90 | 615 176 150 0 | 4500 | 300 | 0.4 | 0.7 | 1.54 |
| A | DR300-T4500-T6-90 - BRB* | 615 176 124 0 | | | | | | | |
| A | DR300-T3000-T6-90 | 615 176 100 0 | | | | | | | |
| A | DR300-T3000-T6-90 - BRB* | 615 176 123 0 | DR300-T3000-S6-90 | 615 176 101 0 | 3000 | 300 | 0.4 | 0.7 | 1.54 |
| A | DR300-T2000-T6-90 | 615 176 099 0 | DR300-T2000-S6-90 | 615 176 149 0 | 2000 | 300 | 0.4 | 0.7 | 1.54 |
| A | DR300-T2000-T6-90 - BRB* | 615 176 122 0 | | | | | | | |
| A | DR300-T1000-T6-90 | 615 176 098 0 | DR300-T1000-S6-90 | 615 176 148 0 | 1000 | 300 | 0.4 | 0.79 | 1.74 |
| A | DR300-T1000-T6-90 - BRB* | 615 176 121 0 | | | | | | | |
| A | DR300-T550-T6-90 | 615 176 097 0 | DR300-T550-S6-90 | 615 176 147 0 | 550 | 300 | 0.4 | 0.79 | 1.74 |
| B | DR450-T5800-T6-90 | 615 176 167 0 | DR450-T5800-S6-90 | 615 176 172 0 | 5800 | 450 | 0.6 | 0.76 | 1.67 |
| B | DR450-T4300-T6-90 | 615 176 166 0 | DR450-T4300-S6-90 | 615 176 171 0 | 4300 | 450 | 0.6 | 0.76 | 1.67 |
| B | DR450-T2700-T6-90 | 615 176 165 0 | DR450-T2700-S6-90 | 615 176 170 0 | 2700 | 450 | 0.6 | 0.76 | 1.67 |
| B | DR450-T1800-T6-90 | 615 176 164 0 | DR450-T1800-S6-90 | 615 176 169 0 | 1800 | 450 | 0.6 | 0.85 | 1.87 |
| B | DR450-T1400-T6-90 | 615 176 163 0 | DR450-T1400-S6-90 | 615 176 168 0 | 1400 | 450 | 0.6 | 0.85 | 1.87 |
| | **360° - COLLET SPINDLE** | | **360° - 1/4" x 28 SPINDLE** | | **Max. capacity: 6.4mm (1/4")** | | | | |
| C | DR300-T5500-T6-360 | 615 176 110 0 | DR300-T5500-S6-360 | 615 176 156 0 | 5500 | 300 | 0.4 | 0.82 | 1.81 |
| C | DR300-T4500-T6-360 | 615 176 109 0 | DR300-T4500-S6-360 | 615 176 155 0 | 4500 | 300 | 0.4 | 0.82 | 1.81 |
| C | DR300-T3000-T6-360 | 615 176 107 0 | DR300-T3000-S6-360 | 615 176 108 0 | 3000 | 300 | 0.4 | 0.82 | 1.81 |
| C | DR300-T3000-T6-360 - BRB* | 615 176 125 0 | | | | | | | |
| C | DR300-T2000-T6-360 | 615 176 106 0 | DR300-T2000-S6-360 | 615 176 154 0 | 2000 | 300 | 0.4 | 0.82 | 1.81 |
| C | DR300-T1000-T6-360 | 615 176 105 0 | DR300-T1000-S6-360 | 615 176 153 0 | 1000 | 300 | 0.4 | 0.91 | 2 |
| C | DR300-T550-T6-360 | 615 176 104 0 | DR300-T550-S6-360 | 615 176 152 0 | 550 | 300 | 0.4 | 0.91 | 2 |

*All models: Air flow: 9.5 l/s (20 cfm) - Air inlet 1/4" - Hose int. 6 mm (1/4")*

# Angle Drills

*Heavy Duty 90° Angle Head*



**A**

**DR300-T...-THD-90 Series**
300 W (0.4hp) / 900 & 2000 rpm



**B**

**DR300-T...-SHD-90 Series**
300 W (0.4hp) / 900 & 2000 rpm



**C**

**DR450-T...THD-90 Series**
300 W (0.4hp) / 900 & 2000 rpm



**D**

**DR450-T...SHD-90 Series**
300 W (0.4hp) / 900 & 2000 rpm

| PIC REF | MODEL | PART NUMBER | FREE SPEED | MOTOR POWER | | WEIGHT | | LENGTH | | AIR FLOW | | AIR INLET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | W | hp | kg | lb | mm | in. | l/s | cfm. | in. |
| **90° - COLLET SPINDLE Max capacity: 8mm (5/16")** | | | | | | | | | | | | |
| A | DR300-T2000-THD-90 | 615 176 111 0 | 2000 | 300 | 0.4 | 0.73 | 1.61 | 189.5 | 7.46 | 9.5 | 20 | 1/4 |
| A | DR300-T900-THD-90 | 615 176 112 0 | 900 | 300 | 0.4 | 0.83 | 1.83 | 206 | 8.11 | 9.5 | 20 | 1/4 |
| A | DR300-T600-THD-90 | 615 176 116 0 | 600 | 300 | 0.4 | 0,83 | 1.83 | 206 | 8.11 | 9,5 | 20 | 1/4 |
| C | DR450-T3000-THD-90 | 615 176 176 0 | 3000 | 450 | 0.6 | 0.8 | 1.76 | 191.5 | 7.54 | 14 | 30 | 1/4 |
| C | DR450-T1800-THD-90 | 615 176 175 0 | 1800 | 450 | 0.6 | 0.8 | 1.76 | 191.5 | 7.54 | 14 | 30 | 1/4 |
| C | DR450-T1000-THD-90 | 615 176 174 0 | 1000 | 450 | 0.6 | 0.89 | 1.96 | 205.5 | 8.09 | 14 | 30 | 1/4 |
| C | DR450-T650-THD-90 | 615 176 173 0 | 650 | 450 | 0.6 | 0.89 | 1.96 | 205.5 | 8.09 | 14 | 30 | 1/4 |
| **90° - KEY CHUCK Max capacity: 8mm (5/16")** | | | | | | | | | | | | |
| B | DR300-T2000-SHD-90 | 615 176 113 0 | 2000 | 300 | 0.4 | 0.86 | 1.89 | 189.5 | 7.46 | 9.5 | 20 | 1/4 |
| B | DR300-T900-SHD-90 | 615 176 114 0 | 900 | 300 | 0.4 | 0.96 | 2.11 | 206 | 8.11 | 9.5 | 20 | 1/4 |
| B | DR300-T600-SHD-90 | 615 176 117 0 | 600 | 300 | 0.4 | 0.96 | 2.11 | 206 | 8.11 | 9.5 | 20 | 1/4 |
| D | DR450-T3000-SHD-90 | 615 176 180 0 | 3000 | 450 | 0.6 | 0.92 | 2.03 | 191.5 | 7.54 | 14 | 30 | 1/4 |
| D | DR450-T1800-SHD-90 | 615 176 179 0 | 1800 | 450 | 0.6 | 0.92 | 2.03 | 191.5 | 7.54 | 14 | 30 | 1/4 |
| D | DR450-T1000-SHD-90 | 615 176 178 0 | 1000 | 450 | 0.6 | 1.02 | 2.25 | 205.5 | 8.09 | 14 | 30 | 1/4 |
| D | DR450-T650-SHD-90 | 615 176 177 0 | 650 | 450 | 0.6 | 1.02 | 2.25 | 205.5 | 8.09 | 14 | 30 | 1/4 |

*All models: Air flow: Hose int. 6 mm (1/4")*

# Accessories for Angle Drills



## Collet for Compact Angle Drills DR300-T5.. - Maximum capacity: 5 mm (3/16")

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 0.8mm | 2152 |
| ø 0.9mm | 2162 |
| ø 1.0mm | 2172 |
| ø 1.1mm | 2182 |
| ø 1.2mm | 2192 |
| ø 1.3mm | 2202 |
| ø 1.4mm | 2212 |
| ø 1.5mm | 2222 |
| ø 1.6mm | 2232 |
| ø 1.7mm | 2242 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 1.8mm | 2252 |
| ø 1.9mm | 2262 |
| ø 2.0mm | 2272 |
| ø 2.1mm | 2282 |
| ø 2.2mm | 2292 |
| ø 2.3mm | 2302 |
| ø 2.4mm | 2312 |
| ø 2.5mm | 2322 |
| ø 2.6mm | 2332 |
| ø 2.7mm | 2342 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 2.8mm | 2352 |
| ø 2.9mm | 2362 |
| ø 3.0mm | 2372 |
| ø 3.1mm | 2382 |
| ø 3.2mm | 2392 |
| ø 3.3mm | 2402 |
| ø 3.4mm | 2412 |
| ø 3.5mm | 2422 |
| ø 3.6mm | 2432 |
| ø 3.7mm | 2442 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 3.8mm | 2452 |
| ø 3.9mm | 2462 |
| ø 4.0mm | 2472 |
| ø 4.1mm | 2482 |
| ø 4.2mm | 2492 |
| ø 4.3mm | 2502 |
| ø 4.4mm | 2512 |
| ø 4.5mm | 2522 |
| ø 4.6mm | 2532 |
| ø 4.7mm | 2542 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 4.8mm | 2552 |
| ø 4.9mm | 2562 |
| ø 5.0mm | 2572 |
| ø 1/16" | 91442 |
| ø 3/32" | 91452 |
| ø 1/8" | 91462 |
| ø 5/32" | 91472 |
| ø 11/64" | 108172 |
| ø 3/16" | 91482 |



## Collet for Standard Angle Drills DR300-T6.. - Maximum capacity: 6.4 mm (1/4")

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 1.6mm (1/16") | 18922 |
| ø 1.8mm | 18932 |
| ø 2.0mm (5/64") | 18942 |
| ø 2.2mm | 18952 |
| ø 2.4mm | 18962 |
| ø 2.6mm | 18972 |
| ø 2.8mm (7/64") | 18982 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 3.0mm | 18992 |
| ø 3.2mm (1/8") | 19002 |
| ø 3.4mm | 19022 |
| ø 3.6mm (9/64") | 19032 |
| ø 3.8mm | 19042 |
| ø 4.0mm (5/32") | 19052 |
| ø 4.2mm | 19062 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 4.4mm (11/64") | 19072 |
| ø 4.6mm | 19082 |
| ø 4.8mm (3/16") | 19092 |
| ø 5.0mm | 19102 |
| ø 5.2mm (13/64") | 19122 |
| ø 5.4mm | 19132 |
| ø 5.6mm (7/32") | 19142 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 5.8mm | 19152 |
| ø 6.0mm (15/64") | 19162 |
| ø 6.2mm | 19172 |
| ø 6.4mm (1/4") | 19182 |



## Collet for Heavy Duty Angle Drills DR300-THD.. - Maximum capacity: 8 mm (5/16")

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 2.4mm (3/32") | 2592 |
| ø 2.6mm | 2602 |
| ø 2.8mm (7/64") | 2612 |
| ø 3.0mm | 2622 |
| ø 3.2mm (1/8") | 2632 |
| ø 3.4mm | 2642 |
| ø 3.6mm (9/64") | 2652 |
| ø 3.8mm | 2662 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 4.0mm (5/32") | 2672 |
| ø 4.2mm | 2682 |
| ø 4.4mm | 2692 |
| ø 4.6mm | 2702 |
| ø 4.8mm (3/16") | 2712 |
| ø 5.0mm | 2722 |
| ø 5.2mm | 2732 |
| ø 5.4mm | 2742 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 5.6mm | 2752 |
| ø 5.8mm | 2762 |
| ø 6.0mm | 2772 |
| ø 6.2mm | 2782 |
| ø 6.4 (1/4") | 2792 |
| ø 6.6mm | 2802 |
| ø 6.8mm | 2812 |
| ø 7.0mm | 2822 |

| COLLET CAPACITY | PART NO. |
|---|---|
| ø 7.2mm | 2832 |
| ø 7.4mm | 2842 |
| ø 7.6mm | 2852 |
| ø 7.8mm | 2862 |
| ø 8.0mm (5/16") | 2872 |

## ACCESSORIES INCLUDED













| ITEM | | COMPACT DR300-T5.. | STANDARD DR300-T6.. | COMPACT DR300-S5 | STANDARD DR300-S6 | HEAVY DUTY DR300-THD | HEAVY DUTY DR300-SHD |
|---|---|---|---|---|---|---|---|
| | | COLLET SPINDLE | | 1/4" X 28 SPINDLE | | COLLET | CHUCK |
| 1 | ø 4.8mm (3/16") capacity collet | 2552 | | | | | |
| 2 | ø 6.4mm (1/4") capacity collet | | 19182 | | | | |
| 3 | ø 8mm (5/16") capacity collet | | | | | 2872 | |
| 4 | Chuck threaded 3/8" UNF - cap 8mm (5/16") with key | | | | | | 205 053 013 3 |
| . | Chuck key | | | | | | 410213 |
| 5 | Safety lever | 205 050 288 3 | 205 050 288 3 | 205 050 288 3 | 205 050 288 3 | 205 050 288 3 | 205 050 288 3 |
| • | Flat wrench 8-9.5mm | 268263 | | | | | |
| • | Flat wrenches 10-15mm | | 82623 | | | | |

## OTHER OPTIONAL ACCESSORIES

| ITEM | | DR300-T5.. DR300-S5.. | DR300-T6.. DR300-S6.. | DR300-THD.. | DR300-SHD.. |
|---|---|---|---|---|---|
| 6 | Inlet button with lever recess plugs | 615 399 266 0 | 615 399 266 0 | 615 399 266 0 | |
| 7 | Short lever | 205 050 299 3 | 205 050 299 3 | 205 050 299 3 | 205 050 299 3 |
| 8 | Side handle | | | | 615 399 265 0 |
| 9 | Kit silencer NPT | 615 399 313 0 | 615 399 313 0 | 615 399 313 0 | 615 399 313 0 |
| 9 | Kit silencer BSP | 615 399 311 0 | 615 399 311 0 | 615 399 311 0 | 615 399 311 0 |
| 9 | Kit Bumper | 615 399 312 0 | 615 399 312 0 | 615 399 312 0 | 615 399 312 0 |



# Pistol Grip Drills

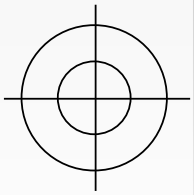


- **Wide range of pistol drills with best in class power-to-weight ratio**

## How to make the right selection?



**1**
Material drilled



**2**
Diameter



**3**
Tool power & speed



**4**
Accessory for each application

## Tool range

Our range covers a wide range of applications to answer all your requirements



DR350



DR500



DR750

# Pistol Grip Drills



A

**DR350 Series**
350 W (0.5hp) / 550 to 20000 rpm



B

**DR500 Series**
500 W (0.68hp) / 400 to 18500 rpm



C

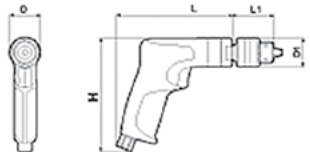
**DR750 Series**
750 W (1hp) / 400 to 20000 rpm



D

Color rings to identify your tools speed



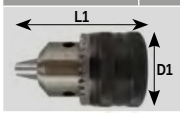
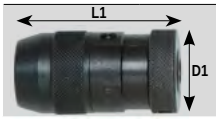



| Model | D | | H | |
|---|---|---|---|---|
| | mm | in. | mm | in. |
| DR350-P.. | 35 | 1.38 | 135 | 5.3 |
| DR500-P | 36.5 | 1.44 | 135 | 5.3 |
| DR750-P.. | 47 | 1.85 | 146 | 5.75 |

| PIC REF | MODEL | PART NUMBER | MODEL | PART NUMBER | FREE SPEED | MOTOR POWER | | STALL TORQUE | | WEIGHT W/O CHUCK | | LENGHT L | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | rpm | W | hp | Nm | in.lb | kg | lb | mm | in. |
| | **DR350 - KEY CHUCK** | | **DR350 - WITHOUT CHUCK** | | | | | | | | | | |
| A | DR350-P20000-C8 | 205 147 252 4 | DR350-P20000* | 205 147 359 4 | 20000 | 350 | 0.5 | 0.6 | 5.3 | 0.49 | 1.1 | 120 | 4.72 |
| A | DR350-P5500-C8 | 205 147 250 4 | DR350-P5500* | 205 147 358 4 | 5500 | 350 | 0.5 | 2.3 | 20.4 | 0.49 | 1.1 | 136 | 5.35 |
| A | DR350-P4500-C8 | 205 147 382 4 | DR350-P4500* | 205 147 384 4 | 4500 | 350 | 0.5 | 2.7 | 23.9 | 0.49 | 1.1 | 136 | 5.35 |
| A | DR350-P3000-C8 | 205 147 248 4 | DR350-P3000* | 205 147 357 4 | 3000 | 350 | 0.5 | 4.0 | 35.4 | 0.49 | 1.1 | 136 | 5.35 |
| A | DR350-P2000-C8 | 205 147 246 4 | DR350-P2000* | 205 147 356 4 | 2000 | 350 | 0.5 | 5.4 | 47.8 | 0.49 | 1.1 | 136 | 5.35 |
| A | DR350-P1000-C10 | 205 147 244 4 | DR350-P1000* | 205 147 355 4 | 1000 | 350 | 0.5 | 12.7 | 112.4 | 0.57 | 1.3 | 154 | 6.06 |
| A | DR350-P550-C10 | 205 147 242 4 | DR350-P550* | 205 147 354 4 | 550 | 350 | 0.5 | 18.6 | 164.6 | 0.57 | 1.3 | 154 | 6.06 |
| *All models DR350: Air Flow: 9.5 l/s (20 cfm) - Air Inlet 1/4" - Hose int. 6 mm (1/4") / * Chuck spindle 3/8" x 24 UNF* | | | | | | | | | | | | | |
| | **DR500 - KEY CHUCK** | | **DR500 - WITHOUT CHUCK** | | | | | | | | | | |
| B | DR500-P18500-C8 | 205 147 676 4 | DR500-P18500* | 205 147 678 4 | 18500 | 500 | 0.68 | 1.0 | 8.85 | 0.56 | 1.2 | 141 | 5.55 |
| B | DR500-P5800-C8 | 205 147 673 4 | DR500-P5800* | 205 147 675 4 | 5800 | 500 | 0.68 | 3.1 | 27.4 | 0.56 | 1.2 | 141 | 5.55 |
| B | DR500-P4300-C8 | 205 147 670 4 | DR500-P4300* | 205 147 672 4 | 4300 | 500 | 0.68 | 4.2 | 37.2 | 0.56 | 1.2 | 141 | 5.55 |
| B | DR500-P2700-C8 | 205 147 667 4 | DR500-P2700* | 205 147 669 4 | 2700 | 500 | 0.68 | 6.9 | 61.1 | 0.56 | 1.2 | 141 | 5.55 |
| B | DR500-P1800-C10 | 205 147 664 4 | DR500-P1800* | 205 147 666 4 | 1800 | 500 | 0.68 | 9.9 | 87.6 | 0.64 | 1.4 | 155 | 6.1 |
| B | DR500-P1400-C10 | 205 147 661 4 | DR500-P1400* | 205 147 663 4 | 1400 | 500 | 0.68 | 13.4 | 118.6 | 0.64 | 1.4 | 155 | 6.1 |
| B | DR500-P1000-C10 | 205 147 658 4 | DR500-P1000* | 205 147 660 4 | 1000 | 500 | 0.68 | 18.0 | 159 | 0.64 | 1.4 | 155 | 6.1 |
| B | DR500-P600-C13 | 205 147 655 4 | DR500-P600* | 205 147 657 4 | 600 | 500 | 0.68 | 28.7 | 254 | 0.64 | 1.4 | 155 | 6.1 |
| B | DR500-P400-C13 | 205 147 652 4 | DR500-P400* | 205 147 654 4 | 400 | 500 | 0.68 | 46.0 | 407 | 0.64 | 1.4 | 155 | 6.1 |
| *All models DR500: Air Flow: 14 l/s (30 cfm) - Air inlet: 1/4" - Hose int. 10 mm (3/8") / * Chuck spindle 3/8" x 24 UNF* | | | | | | | | | | | | | |
| | **DR750 - KEY CHUCK** | | **DR750 - WITHOUT CHUCK** | | | | | | | | | | |
| C | DR750-P20000-C8 | 205 146 659 4 | DR750-P20000* | 205 147 458 4 | 20000 | 750 | 1 | 1.6 | 14.2 | 0.9 | 2.0 | 152 | 5.98 |
| C | DR750-P6000-C8 | 1465124 | DR750-P6000* | 205 147 417 4 | 6000 | 750 | 1 | 5.3 | 46.9 | 0.9 | 2.0 | 152 | 5.98 |
| C | DR750-P4100-C8 | 1465114 | DR750-P4100* | 205 147 456 4 | 4100 | 750 | 1 | 7.1 | 62.8 | 0.9 | 2.0 | 152 | 5.98 |
| C | DR750-P3300-C10 | 1465104 | DR750-P3300* | 205 147 455 4 | 3300 | 750 | 1 | 9.6 | 85.0 | 0.9 | 2.0 | 152 | 5.98 |
| C | DR750-P2700-C10 | 1465094 | DR750-P2700* | 205 147 416 4 | 2700 | 750 | 1 | 11.1 | 98.2 | 0.9 | 2.0 | 152 | 5.98 |
| C | DR750-P1300-C10 | 1465084 | DR750-P1300* | 205 147 415 4 | 1300 | 750 | 1 | 23.9 | 211 | 1.15 | 2.5 | 184 | 7.24 |
| C | DR750-P750-C13 | 1465074 | DR750-P750** | 205 147 452 4 | 750 | 750 | 1 | 41.0 | 363 | 1.15 | 2.5 | 184 | 7.24 |
| C | DR750-P400-C13 | 205 146 658 4 | DR750-P400** | 205 147 451 4 | 400 | 750 | 1 | 55.0 | 487 | 1.15 | 2.5 | 184 | 7.24 |
| | | | **DR750 - JACOBS TAPER 1 SPINDLE - WITHOUT CHUCK** | | | | | | | | | | |
| D | | | DR750-P20000-JT1 | 205 146 667 4 | 20000 | 750 | 1 | 1.6 | 14.2 | 0.9 | 2.0 | 152 | 5.98 |
| D | | | DR750-P6000-JT1 | 205 146 666 4 | 6000 | 750 | 1 | 5.3 | 46.9 | 0.9 | 2.0 | 152 | 5.98 |
| D | | | DR750-P3300-JT1 | 205 146 664 4 | 3300 | 750 | 1 | 9.6 | 85.0 | 0.9 | 2.0 | 152 | 5.98 |
| D | | | DR750-P2700-JT1 | 205 146 663 4 | 2700 | 750 | 1 | 11.1 | 98.2 | 0.9 | 2.0 | 152 | 5.98 |
| D | | | DR750-P1300-JT1 | 205 146 662 4 | 1300 | 750 | 1 | 23.9 | 211 | 1.15 | 2.5 | 184 | 7.24 |
| D | | | DR750-P750-JT1 | 205 146 661 4 | 750 | 750 | 1 | 41.0 | 363 | 1.15 | 2.5 | 184 | 7.24 |
| D | | | DR750-P400-JT1 | 205 146 660 4 | 400 | 750 | 1 | 55.0 | 487 | 1.15 | 2.5 | 184 | 7.24 |
| *All models DR750: Air Flow: 14 l/s (30 cfm) - Air inlet: 1/4" - Hose int. 10 mm (3/8") / Chuck spindle: * 3/8" x 24 UNF / **1/2" x 20 UNF* | | | | | | | | | | | | | |

# Accessories

## CHUCK SELECTION GUIDE FOR DR300-T... / DR350-P... / DR500-P... / DR750-P.

| CHUCK PART NO. | CHUCK MOUNT | CHUCK CAPACITY | | DIMENSIONS D1 | | DIMENSIONS L1 | | WEIGHT | | PART NO. KEY | DR3..-P...C8 DR500-P...C8 DR750-P...C8 | DR3..-P...C10 DR500-P...C10 DR750-P...C10 | DR500-P...C13 DR750-P...C13 | DR750-P.. JT1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | mm | in. | mm | in. | mm | in. | g | lb | | | | | |
|  | | | | | | | | | | | | | | |
| **205 055 272 3** | 3/8"-24 | 0.5 - 6.5 | 1/4 | 29.3 | 1.15 | 42.5 | 1.67 | 121 | 0.27 | **29182** | O | O | O | |
| **205 053 013 3** | 3/8"-24 | 0.5 - 8 | 5/16 | 29.3 | 1.15 | 42.5 | 1.67 | 120 | 0.26 | **410213** | L | | | |
| **205 052 954 3** | 3/8"-24 | 1 - 10 | 3/8 | 37 | 1.46 | 49.5 | 1.95 | 204 | 0.45 | **29232** | | L | | |
| **473113** | 3/8"-24 | 1.5 - 13 | 1/2 | 42 | 1.67 | 59 | 2.32 | 371 | 0.82 | **895 101 145 3** | | | L | |
| **29142** | 1/2"-20 | 1.5 - 13 | 1/2 | 42 | 1.67 | 59 | 2.32 | 362 | 0.80 | **895 101 145 3** | | | L | |
| **29492** | 1JT | 0.5 - 6.5 | 1/4 | 29.3 | 1.15 | 42.5 | 1.67 | 112 | 0.25 | **29182** | | | | O |
| **34752** | 2JT | 1 - 10 | 3/8 | 42 | 1.67 | 61.5 | 2.4 | 386 | 0.85 | **895 101 145 3** | | | | O* |
| **34332** | 2JT | 1 - 13 | 1/2 | 50 | 1.97 | 67.5 | 2.66 | 900 | 1.98 | | | | | O* |
|  | | | | | | | | | | | | | | |
| **473433** | 3/8"-24 | 0 - 8 | 5/16 | 32 | 1.26 | 61.5 | 2.4 | 285 | 0.63 | | O | O | | |
| **473423** | 3/8"-24 | 0.5 - 10 | 3/8 | 35.8 | 1.4 | 66 | 2.6 | 390 | 0.86 | | | O | | |
| **205 047 819 3** | 3/8"-24 | 1 - 13 | 1/2 | 40 | 1.58 | 76.3 | 3 | 559 | 1.23 | | | | O | |
| **205 056 060 3** | 1/2"-20 | 1 - 13 | 1/2 | 40 | 1.58 | 76.3 | 3 | 548 | 1.21 | | | | O | |
| **524.09** | 1JT | 0 - 6.5 | 1/4 | 32 | 1.26 | 59.5 | 2.34 | 284 | 0.62 | | | | | O |
| **524.15** | 1JT | 0.5 - 10 | 3/8 | 35.8 | 1.4 | 66 | 2.6 | 390 | 0.86 | | | | | O |
| **524.10** | 2JT | 0.5 - 10 | 3/8 | 40 | 1.58 | 87.5 | 3.4 | 636 | 1.4 | | | | | O* |
| **524.16** | 2JT | 1 - 13 | 1/2 | 46 | 1.8 | 91 | 3.6 | 904 | 1.99 | | | | | O* |

* To use 1JT to 2JT adaptor : P/N 12243

I **INCLUDED WITH THE TOOL**

O **OPTIONAL ACCESSORIES**










| ACCESSORIES INCLUDED | | DR350-P...C8 DR500-P...C8 DR750-P...C8. | DR350-P...C10 DR500-P...C10 DR750-P...C10 | DR500-P...C13 DR750-P...C13 |
|---|---|---|---|---|
| ITEM | | | | |
| 1 | Chuck guard for DR350-P...C8 | **205 049 275 3** | | |
| 1 | Chuck guard for DR500-P...C8 | **205 049 486 3** | | |
| 1 | Chuck guard for DR750-P...C8 & C10 | **473143** | **473133** | |
| 2 | Side handle for DR350-P550 & P1000 | **205 049 446 3** | **205 049 446 3** | |
| 2 | Side handle for DR500-P400 to P1800 | | **205 053 102 3** | **205 053 102 3** |
| 2 | Side handle for DR750-P | **473173** | **473173** | **473173** |
| 3 | Suspension bail for DR750-P | **473153** | **473153** | **473153** |
| **With DR300/350/450/500** | | | | |
| 4 | Set of color plastic rings | **615 399 250 0** | | |




## OTHER OPTIONAL ACCESSORIES

| ITEM | | DR350-P... | DR500-P... | DR750-P... | DR750-P...JT1 MOUNT |
|---|---|---|---|---|---|
| • | Chuck guard for DR750-P...JT1 with chuck key - cap 6.5mm (1/4") | | | | **473143** |
| 2 | Side handle for DR350 / 500 | **205 049 446 3** | **205 053 102 3** | **473133** | |
| • | Adaptor - JT1 female to JT2 male (for DR750-P...JT1) | | | | **12243** |
| • | Flat wrench, 12.7mm (1/2") | | | | **15533** |

# Straight Grip Drills



A

**DR300 Series**
300 W (0.4hp) / 550 to 20000 rpm

| PIC REF | MODEL | PART NUMBER | MODEL | PART NUMBER | FREE SPEED | MOTOR POWER | | STALL TORQUE | | WEIGHT W/O CHUCK | | LENGHT W/O CHUCK | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | rpm | W | hp | Nm | in.lb | kg | lb | mm | in. |
| | **DR300 - KEY CHUCK** | | **DR300 - WITHOUT CHUCK** | | | | | | | | | | |
| A | **DR300-T20000-C8** | **615 176 065 0** | **DR300-T20000** | **615 176 064 0** | 20000 | 300 | 0.4 | 0.6 | 5.3 | 0.44 | 0.97 | 138 | 7.28 |
| A | **DR300-T5500-C8** | **615 176 063 0** | **DR300-T5500** | **615 176 062 0** | 5500 | 300 | 0.4 | 2.3 | 20.4 | 0.49 | 1.08 | 167 | 6.57 |
| A | **DR300-T4500-C8** | **615 176 061 0** | **DR300-T4500** | **615 176 060 0** | 4500 | 300 | 0.4 | 2.7 | 23.9 | 0.49 | 1.08 | 167 | 6.57 |
| A | **DR300-T3000-C8** | **615 176 059 0** | **DR300-T3000** | **615 176 058 0** | 3000 | 300 | 0.4 | 4.0 | 35.4 | 0.49 | 1.08 | 167 | 6.57 |
| A | **DR300-T2000-C8** | **615 176 057 0** | **DR300-T2000** | **615 176 056 0** | 2000 | 300 | 0.4 | 5.4 | 47.8 | 0.49 | 1.08 | 167 | 6.57 |
| A | **DR300-T1000-C10** | **615 176 055 0** | **DR300-T1000** | **615 176 054 0** | 1000 | 300 | 0.4 | 12.7 | 112.4 | 0.60 | 1.32 | 184 | 7.24 |
| A | **DR300-T550-C10** | **615 176 053 0** | **DR300-T550** | **615 176 052 0** | 550 | 300 | 0.4 | 18.6 | 164.6 | 0.60 | 1.32 | 184 | 7.24 |

*All models DR300: Air Flow: 9.5 l/s (20 cfm) - Air Inlet 1/4" - Hose int. 6 mm (1/4") / Chuck spindle 3/8" x 24 UNF*





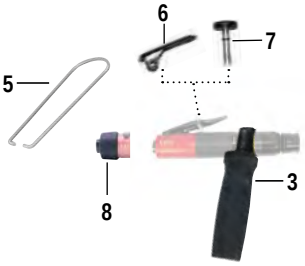


## ACCESSORIES INCLUDED

| ITEM | | DR300-P...C8 | DR300-P...C10 |
|---|---|---|---|
| 1 | Keyed chuck 3/8" UNF - cap 8mm (5/16") (with key) | **205 053 013 3** | - |
| 1 | Keyed chuck 3/8" UNF - cap 10mm (3/8') (with key) | - | **205 052 954 3** |
| • | Chuck key | **410213** | **29232** |
| 2 | Chuck guard for DR300-P...C8 | **615 049 275 3** | - |
| 3 | Side handle for DR300-T..C10 | - | **205 049 446 3** |
| 4 | Safety lever for DR300-T.. | **205 050 288 3** | **205 050 288 3** |
| • | Exhaust hose for DR300-T... | **205 051 259 3** | **205 051 259 3** |



| DESCRIPTION | PART NO. |
|---|---|
| DR300 Set of color plastic rings | **615 399 250 0** |



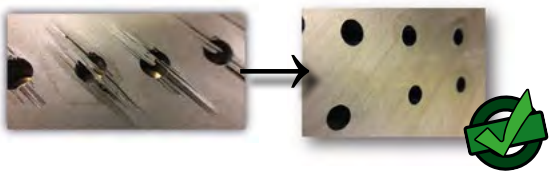

## OPTIONAL ACCESSORIES

| ITEM | | DR300 |
|---|---|---|
| 3 | Side handle for DR300 | **615 399 265 0** |
| 5 | Suspension Bail | **280893** |
| 6 | Short lever | **205 050 299 3** |
| 7 | Kit inlet button | **615 399 266 0** |
| 8 | Kit silencer NPT | **615 399 313 0** |
| 8 | Kit silencer BSP | **615 399 311 0** |
| 8 | Kit Bumper | **615 399 312 0** |

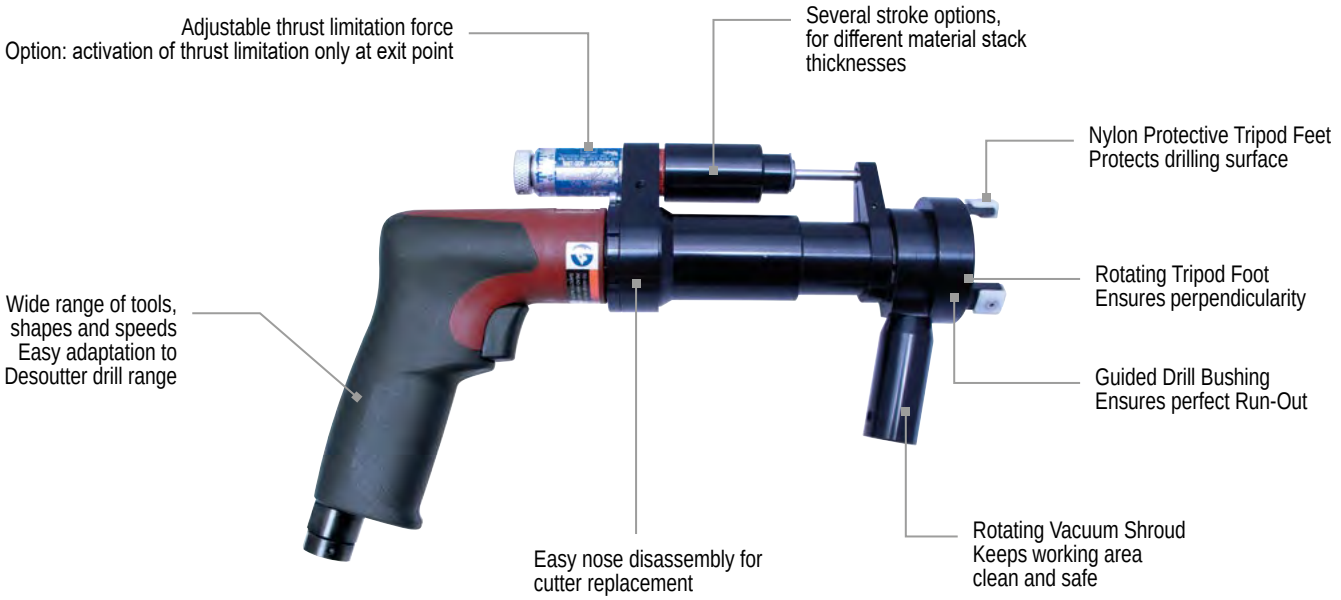
# Controlled drilling







- **Full range of solutions for composite drilling applications**
- **Avoid quality issues with thrust limitation device, which eliminates:**
  - **Composite delamination**
  - **Breakout burrs**
  - **Excessive wear on cutters**
  - **Operator dependence**
- **Easily adaptable to standard Desoutter pistol & straight drills**
- **Fully customizable (bushing, Vacuum…)**
- **Easy cutter change**




## How to order:

**DR500-P18500 - STR25 – 4.5 NVT**

1 2 3 4 5

**1 Tool power & ergonomy**
**Pistol tools: see page 206**
DR350: 350W (0,5hp)
DR500: 500W (0,68hp)
**Straight tools: see page 206**
DR300: 300W (0,4hp)
DR450: 450W (0,6hp)

**2 Tool Speed**

**3 HCU Unit Stroke**
STR25: 25mm (1")
STR37 : 37mm (1.5")
* More strokes available on demand

**4 Cutter size**
Collets Series 200

| DESCRIPTION | PART NO. |
|---|---|
| Collet Ø2.4 to 3.2mm | **615 526 061 0** |
| Collet Ø3.2 to 4mm | **615 526 151 0** |
| Collet Ø3.7 to 4.5mm | **615 526 152 0** |
| Collet Ø4.2 to 5mm | **615 526 153 0** |
| Collet Ø 5.2 to 6mm | **615 526 062 0** |
| Collet Ø7.2 to 8mm | **615 526 064 0** |
| Collet Ø 8.7 to 9.5mm | **615 526 065 0** |
| Collet Ø1/4" (Ø5.55 to 6.35mm) | **615 526 063 0** |

**5 Nose type**
N: No tripod
V: Vacuum
T: Tripod

# Tappers



A

**T500 Series**
0.5kW (0.68hp) / 400 & 600 rpm

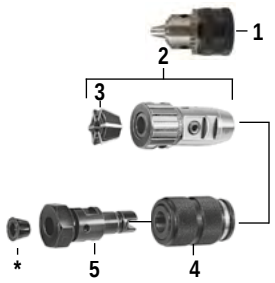


B

**T450 Series**
0.5kW (0.68hp) / 400 & 600 rpm

| PIC REF | MODEL | PART NUMBER | FREE SPEED | RE-VERSE SPEED | MOTOR POWER | | MAX. TAPPING TORQUE STEEL | MAX. TAPPING TORQUE ALUMINIUM | WEIGHT | | LENGTH | | AIR FLOW | | AIR INLET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | rpm | kW | hp | | | kg | lb | mm | in. | l/s | cfm | in. |
| **TAPPERS** | | | | | | | | | | | | | | | |
| A | T500-P400 | 205 147 995 4 | 400 | 800 | 0.5 | 0.68 | M10 | M12 | 0.64 | 1.4 | 263 | 10.35 | 14 | 30 | 1/4 |
| A | T500-P600 | 205 147 996 4 | 600 | 1200 | 0.5 | 0.86 | M10 | M12 | 0.64 | 1.4 | 263 | 10.35 | 14 | 30 | 1/4 |
| B | T450-T400 | 615 176 181 0 | 400 | 800 | 0.5 | 0.68 | M10 | M12 | 0.64 | 1.4 | 263 | 10.35 | 14 | 30 | 1/4 |
| B | T450-T600 | 615 176 182 0 | 600 | 1200 | 0.5 | 0.86 | M10 | M12 | 0.64 | 1.4 | 263 | 10.35 | 14 | 30 | 1/4 |

*All models T500-P: Hose int. 10 mm (3/8")*




## OPTIONAL ACCESSORIES

| ITEM | | PART NO. |
|---|---|---|
| 1 | Keyed chuck (1JT) - 0,5 to 6,5mm (1/4") (with key) T500-P600 | 29492 |
| • | Chuck key - T500-P400 | 29232 |
| • | Chuck key - T500-P600 | 29182 |
| 2 | Precision collet tap holder (including collet cap. M3 to M8) | 29452 |
| • | Collet capacity M3 to M7 (1/8" to 9/32") | 29482 |
| • | Collet capacity M4 to M8 (5/32" to 5/16") | 29472 |
| 3 | Collet capacity M6 to M12 (15/64" to 15/32") | 97982 |
| 4 | Quick Release Chuck (1 JT) | 16852 |
| 5 | Quick Release Tap Holder (1 JT) | 69872 |

### Collets for Tap Holders:

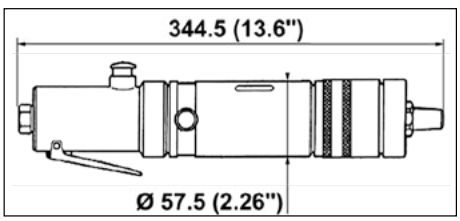


| TAP SIZE mm | TAP SIZE in. | BA | SHANK DIA. mm | PART NO |
|---|---|---|---|---|
| M2.2 & M2.5 | | 6 & 8 | 2.8 | 2612 |
| M3 | 1/8 | 5 | 3.2 | 2632 |
| M3.5 | | 4 | 3.6 | 2652 |
| M4 | | | 4.0 | 2672 |
| M4.5 | | 3 | 4.5 | 2702 |
| M5 | 3/16 | 2 | 5.0 | 2722 |
| M5.5 | 7/32 | 1 | 5.6 | 2752 |
| M6 | 1/4 | 0 | 6.3 | 2792 |
| M7 | 9/3 | | 7.1 | 2832 |
| M8 & M11 | 5/16 & 7/16 | | 8.0 | 2872 |
| M9 & M12 | 1/2 | | 9.0 | 69882 |
| M10 | 3/8 | | 10.0 | 69892 |
| *Wrench for Tap Holder collet nut | | | | 29443 |
| *2mm A/F hexagon key for Tap Holder grub screws | | | | 206773 |



A

**2H16 Series**
Variable speed setting
90 to 500 rpm - 47 to 240 Nm




| PIC REF | MODEL | PART NUMBER | LOW SPEED SETTING | HIGH SPEED SETTING | MAX. TAPPING TORQUE LOW SPEED | | MAX. TAPPING TORQUE HIGH SPEED | | WEIGHT | | AIR FLOW | | AIR INLET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | rpm | Nm | ft.lb | Nm | ft.lb | kg | lb | l/s | cfm | in. |
| **TAPPERS** | | | | | | | | | | | | | |
| A | 2H16-L-160/500-B18 | 1434264 | 160 | 500 | 140 | 103 | 47 | 34.7 | 3.1 | 6.8 | 15.6 | 33 | 3/8 |
| A | 2H16-L-90/250-B18 | 1434344 | 90 | 250 | 240 | 177 | 90 | 66.4 | 3.1 | 6.8 | 15.6 | 33 | 3/8 |

*All models 2H16-L: Hose int. 10mm (3/8")*

# Deburring tools & Rivet Shaver



**A**

**C27-LX-1450**
1450 rpm
Collet size 6,4mm (1/4")



**C**

**C27-LX300/400-T6-90 - BRB**
300-400 rpm
Collet size 6,4mm (1/4")



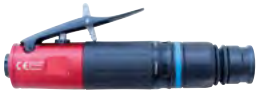
**E**

**RS450 Series**
18500 rpm



**B**

**C27-LX300-T6-45 - BRB**
300 rpm
Collet size 6,4mm (1/4")



**D**

**C27-LX300-QR**
300 rpm
Collet size 6,4mm (1/4")



**F**

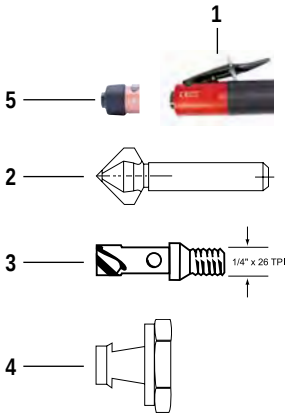
**RS500 Series**
18500 rpm



***BRB**
Button + Rear Bumper
*available as well as accessory*

| PIC REF | MODEL | PART NUMBER | FREE SPEED | COLLET SIZE | MAXIMUM CUTTER DIA. | | WEIGHT | | LENGTH | | AIR FLOW | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | mm | mm | in. | kg | lb | mm | in. | l/s | cfm | in. | mm | in. |
| **HOLE DEBURRING TOOLS** | | | | | | | | | | | | | | | |
| A | C27-LX-1450 | 615 176 115 0 | 1450 | 6.4 (1/4")* | – | – | 0.68 | 1.5 | 220.5 | 8.68 | 9.5 | 20 | 1/4 | 6 | 1/4 |
| B | C27-LX300-T6-45 - BRB* | 615 176 126 0 | 300 | 6.4 (1/4")* | – | – | 0.82 | 1.81 | 291.5 | 11.48 | 8 | 17 | 1/4 | 6 | 1/4 |
| C | C27-LX300-T6-90 - BRB* | 615 176 128 0 | 300 | 6.4 (1/4")* | – | – | 0.82 | 1.81 | 291.5 | 11.48 | 8 | 17 | 1/4 | 6 | 1/4 |
| C | C27-LX400-T6-90 - BRB* | 615 176 127 0 | 400 | 6.4 (1/4")* | – | – | 0.82 | 1.81 | 291.5 | 11.48 | 8 | 17 | 1/4 | 6 | 1/4 |
| D | C27-LX300-QR | 615 176 129 0 | 300 | 6.4 (1/4")* | – | – | 0.58 | 1.27 | 187 | 7.36 | 8 | 17 | 1/4 | 6 | 1/4 |
| **RIVET SHAVER** | | | | | | | | | | | | | | | |
| E | RS450-T-18500 (1/4"UNF) | 615 176 184 0 | 18500 | 1/4"-28 UNF | 14.3 | 9/16 | 1.2 | 2.64 | 216 | 8.5 | 14 | 30 | 1/4 | | |
| E | RS450-T-18500 (1/4"WHIT) | 615 176 183 0 | 18500 | 1/4"-26 WHIT | 14.3 | 9/16 | 1.2 | 2.64 | 216 | 8.5 | 14 | 30 | 1/4 | | |
| F | RS500-P18500 (1/4"UNF) | 205 148 129 4 | 18500 | 1/4"-28 UNF | 14.3 | 9/16 | 1.2 | 2.64 | 216 | 8.5 | 14 | 30 | 1/4 | 10 | 3/8 |
| F | RS500-P18500 (1/4"WHIT) | 205 148 130 4 | 18500 | 1/4"-26 WHIT | 14.3 | 9/16 | 1.2 | 2.64 | 216 | 8.5 | 14 | 30 | 1/4 | 10 | 3/8 |

**: If speed adjustment is needed, you can do it with flow regulator PN LC121737*




## ACCESSORIES INCLUDED

| ITEM | | C27-LX-1450 | RS450 / 500 |
|---|---|---|---|
| • | ø 6.4mm (1/4") capacity collet | 615 526 163 0 | |
| 1 | Safety lever | 205 050 288 3 | |
| 2 | Cutter (90° point) – 10mm dia | 91572 | |
| 3 | Cutter – carbide tipped (11.1mm 7/16" dia) | | 70602 |
| 4 | Cutter Guard | | 18822 |
| • | Wrench 19A/F | 615 801 005 0 | |
| • | Collet Spindle Wrench | 615 801 076 0 | 15533 |
| • | Cutter Guard Wrench | | 38873 |

## OPTIONAL ACCESSORIES

| ITEM | | RS450 / 500 |
|---|---|---|
| 3 | Cutter – carbide tipped ø6.4mm (ø1/4") | 70572 |
| 3 | Cutter – carbide tipped ø7.9mm (ø5/16") | 70582 |
| 3 | Cutter – carbide tipped ø9.5mm (ø3/8") | 70592 |
| 3 | Cutter – carbide tipped ø12.7mm (ø1/2") | 70622 |
| 4 | Cutter Guard ø6.4mm (ø1/4") | 18782 |
| 4 | Cutter Guard ø7.9mm (ø5/16") | 18792 |
| 4 | Cutter Guard ø9.5mm (ø3/8") | 18802 |
| 4 | Cutter Guard ø12.7mm (ø1/2") | 18832 |
| 4 | Cutter Guard ø14.3mm (ø9/16") | 18842 |
| 5 | Kit silencer NPT | 615 399 313 0 |
| 5 | Kit silencer BSP | 615 399 311 0 |
| 5 | Kit Bumper | 615 399 312 0 |

# Rack Feed Drills

- The Rack Feed Drill is a semi-fixtured (nose mounted) portable drilling unit, utilising a manual feed through an integral "rack and pinion" mechanism to accommodate the approach drilling and retract cycles. This provides the user with complete control of the feed rate during drilling and allows the user to "feel" the feed rate required. Versatile and flexible, especially when drilling laminates and sandwich materials.
- RFD is suitable for drilling/reaming various materials used in the Aerospace industries e.g. Inconel, Titanium, Steel, Aluminium and Composites.





■ **RFD-100**
Speed range 60 to 2800 rpm
102mm (4") adjustable stroke
13mm (1/2") chuck capacity

■ **RFDT-125**
Speed range 60 to 800 rpm
127mm (5") adjustable stroke
No. 2 Morse taper spindle



For a Vacuum Kit option, please contact your local Desoutter representative

## How to select your tool?

**1** Select material **2** Select hole size **3** Select tool

## RFD Selection

| DRILL Ø | TOOL TYPE – RPM | | | |
|---|---|---|---|---|
| | Inconel | 1 Titanium | Mild Steel | Aluminium |
| 3mm - 1/8" | RFD(T)-330/500 | RFD(T)-500 | RFD-2800 | RFD-2800 |
| 5mm - 3/16" | RFD(T)-140/330 | RFD(T)-330/500 | RFD-1850 | RFD-2800 |
| 6mm - 1/4" | RFD(T)-140 | RFD(T)-140/330 | RFD(T)-800 | RFD-1850 |
| 8mm - 5/16" | RFD(T)-140 | RFD(T)-140/330 | RFD(T)-800 | RFD(T)-800 |
| 10mm - 3/8" 2 | RFD(T)-85/140 | RFD(T)-140 3 | RFD(T)-800 | RFD(T)-800 |
| 13mm - 1/2" | RFD(T)-60/85 | RFD(T)-85/140 | RFD(T)-500 | RFD(T)-800 |
| 16mm - 5/8" | | RFD(T)-85/140 | RFD(T)-330 | RFD(T)-800 |
| 19mm - 3/4" | | RFD(T)-60/85 | RFD(T)-85/140 | RFD(T)-330/500 |
| 25mm - 1" | | | RFD(T)-60/85 | RFD(T)-140/330 |

*Use selection data as a guide only*

| MODEL | PART NUMBER | FREE SPEED | MAX STROKE | | OUTPUT SPINDLE | CHUCK SPINDLE | LENGTH | | WEIGHT | | AIR FLOW | | AIR INLET |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | rpm | mm | in. | | in. | mm | in. | kg | lb | l/s | cfm | in. |
| **RFD** | | | | | | | | | | | | | |
| **RFD-100-2800** | **681214** | 2800 | 102 | 4 | | 1/2-20 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFD-100-1850** | **681394** | 1850 | 102 | 4 | | 1/2-20 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFD-100-800** | **680084** | 800 | 102 | 4 | Chuck | 5/8-16 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFD-100-500** | **680164** | 500 | 102 | 4 | 13mm | 5/8-16 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFD-100-330** | **680244** | 330 | 102 | 4 | (1/2") | 5/8-16 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFD-100-140** | **1457364** | 140 | 102 | 4 | capacity | 5/8-16 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFD-100-85** | **1457374** | 85 | 102 | 4 | | 5/8-16 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFD-100-60** | **1457384** | 60 | 102 | 4 | | 5/8-16 UNF | 652 | 25.67 | 3.9 | 8.6 | 11.8 | 25 | 1/4 |
| **RFDT** | | | | | | | | | | | | | |
| **RFDT-125-800** | **1445654** | 800 | 127 | 5 | | | 764 | 30.08 | 5.5 | 12.1 | 11.8 | 25 | 1/4 |
| **RFDT-125-500** | **1445664** | 500 | 127 | 5 | No. 2 | | 764 | 30.08 | 5.5 | 12.1 | 11.8 | 25 | 1/4 |
| **RFDT-125-330** | **1445674** | 330 | 127 | 5 | Morse | | 764 | 30.08 | 5.5 | 12.1 | 11.8 | 25 | 1/4 |
| **RFDT-125-140** | **1445504** | 140 | 127 | 5 | Taper | | 764 | 30.08 | 5.5 | 12.1 | 11.8 | 25 | 1/4 |
| **RFDT-125-85** | **1445514** | 85 | 127 | 5 | | | 764 | 30.08 | 5.5 | 12.1 | 11.8 | 25 | 1/4 |
| **RFDT-125-60** | **1445524** | 60 | 127 | 5 | | | 764 | 30.08 | 5.5 | 12.1 | 11.8 | 25 | 1/4 |

*All models: Hose int. 10 mm (3/8")*

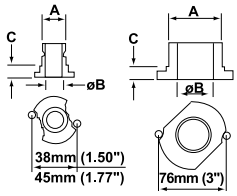
# Accessories

## ACCESSORIES INCLUDED

| | PART NUMBER | |
|---|---|---|
| | RFD | RFDT |
| • Chuck with key capacity 13mm (5/8"x16) | **29122** | - |
| • Chuck with key capacity 13mm (1/2") | **29142** | - |
| • Extended Nose (1" x 14 LH nose thread) | **251043** | - |
| • Bayonet Plate – 45mm (1.77") centres | **251063** | - |
| • Bayonet Plate – 76mm (2.99") centres | - | **35223** |

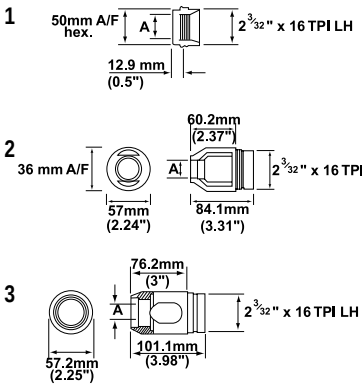
## OPTIONAL ACCESSORIES

*For more details on the following Part Numbers, please contact your local Desoutter representative*



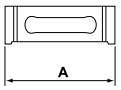

### Bayonet Plates

| | A | Ø B | C |
|---|---|---|---|
| Locating centres – 38mm (1.50") | 3/4" x 16 (LH) | 14.2mm (0.559") | 9.5mm (3/8") |
| Locating centres – 45mm (1.77") | 1" x 14 (LH) | 19.05mm (3/4") | 9.5mm (3/8") |
| Locating centres – 45mm (1.77") | 11/8" x 20 (LH) | 19.05mm (3/4") | 9.5mm (3/8") |
| Locating centres – 76mm (2.99") | 23/32" x 16 (LH) | 38.1mm (1.150") | 12.7mm (1/2") |



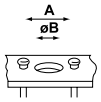

### Nose Attachments

| NOSE TYPE | TO SUIT BAYONET PLATE CENTRES | THREAD 'A' |
|---|---|---|
| 1 | 38mm (1.50") | 3/4" x 16 (LH) |
| 2 | 38mm (1.50") | 3/4" x 16 (LH) |
| 2 | 45mm (1.77") | 1" x 14 (LH) |
| 3 | - | 1-1/4" x 12 (LH) |
| 3 | - | 1-1/4" x 12 (LH) |
| 3 | - | 2" x 16 (LH) |




### Extension Tubes

| NOMINAL STROKE AVAILABLE TO DRILL | LENGTH 'A' |
|---|---|
| • 80mm (3.15") | 170mm (6.69") |




### Jig Plates

| CENTRE "A" |
|---|
| 38mm (1.50") |
| 45mm (1.77") |

### Drill bushes

| ATTACHMENT | "Ø B" |
|---|---|
| ø 14.2mm | Ø 10 to 14mm |
| ø 19.05mm | Ø 10 to 18mm |
| ø 38.01mm | Ø 22 to 35mm |

*For dimension 'ØB' please ask for details of our range of drill bushes*

# Compression Tools





## SQUEEZERS

- **Wide range of Alligator Jaws & C-Yokes tools.**
- **Excellent power-to-weight ratio.**
- **Fast and slow approach.**
- **Robust and reliable design.**

## How to select the right tool?



**1**

**Rivet**

Material
Diameter



**2**

**Application**

Accessibility
Customer specification



**3**

**Select tool**

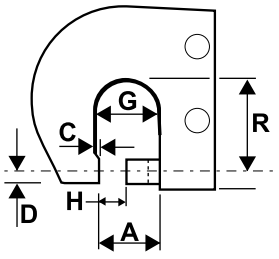
Power required
C-Yoke or Alligator
Gap & Reach figures



**4**

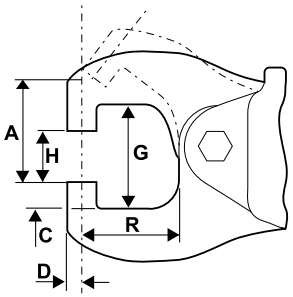
**Select Rivet set & shims**

Rivet set shank
Rivet set type
Rivet set length




**Jaw and Yoke Terminology:**
(rivet sets are not in place in this illustration)

**A** Throat gap
**C** Anvil work clearance
**D** Lower offset
**G** Total yoke gap
**H** Closed height
**R** Reach

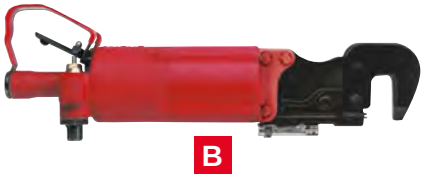



| C YOKE MODEL | A | | C | | D | | G | | H | | R | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| CP0214CELEL | 32 | 1-1/4 | – | – | 5 | 3/16 | 32 | 1-1/4 | 17.5 | 11/16 | 38 | 1-1/2 |
| CP0214FALEL | 32 | 1-1/4 | – | – | 5 | 3/16 | 32 | 1-1/4 | 17.5 | 11/16 | 38 | 1-1/2 |
| CP0214SETEL | 32 | 1-1/4 | – | – | 6.4 | 1/4 | 32 | 1-1/4 | 17.5 | 11/16 | 38 | 1-1/2 |
| CP0214KETEL | 32 | 1-1/4 | – | – | 6.4 | 1/4 | 32 | 1-1/4 | 17.5 | 11/16 | 38 | 1-1/2 |
| CP0351CUDEL | 39 | 1-17/32 | – | – | 5.5 | 7/32 | 29 | 1-5/32 | 20 | 25/32 | 54 | 2-1/8 |
| CP0351FUDEL | 39 | 1-17/32 | – | – | 5.5 | 7/32 | 29 | 1-5/32 | 20 | 25/32 | 54 | 2-1/8 |
| CP0341CUDEL | 57 | 2-1/4 | 3 | 1/8 | 9 | 11/32 | 70 | 2-3/4 | 25 | 1 | 54 | 2-1/8 |
| CP0214FAXEL | 44 | 1-3/4 | – | – | 5 | 3/16 | 44 | 1-3/4 | 17.5 | 11/16 | 50.8 | 2.5 |
| CP0214FAREL-5 | 36 | 1,417 | – | – | 8 | 0,313 | 36 | 1,417 | 17/20 | 0,669 /0,787 | 50 | 1,969 |
| CP0214 CEREL-5 | 36 | 1,417 | – | – | 8 | 0,313 | 36 | 1,417 | 17/20 | 0,669 /0,787 | 50 | 1,969 |

| ALLIGATOR MODEL | A | | D | | G | | H | | R | |
|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| CP0214ANGEL | 54 | 2-1/8 | 5.5 | 7/32 | 54 | 2-1/8 | 22 | 7/8 | 76 | 3 |
| CP0214ENGEL | 54 | 2-1/8 | 5.5 | 7/32 | 54 | 2-1/8 | 22 | 7/8 | 76 | 3 |
| CP0214ANFEL | 48 | 1-7/8 | 5.5 | 7/32 | 54 | 2-1/8 | 22 | 7/8 | 57 | 2-1/4 |
| CP0214ENFEL | 48 | 1-7/8 | 5.5 | 7/32 | 54 | 2-1/8 | 22 | 7/8 | 57 | 2-1/4 |
| CP0214ENCEL-5 | 48 | 1-7/8 | 5.5 | 7/32 | 54 | 2-1/8 | 22 | 7/8 | 57 | 2-1/4 |
| CP0214ANBEL | 38 | 1-1/2 | 5.5 | 7/32 | 41 | 1-5/8 | 22 | 7/8 | 38 | 1-1/2 |
| CP0214ENBEL | 38 | 1-1/2 | 5.5 | 7/32 | 41 | 1-5/8 | 22 | 7/8 | 38 | 1-1/2 |
| CP0351ASVEL | 62 | 2-7/16 | 5.5 | 7/32 | 56 | 2-3/16 | 19 | 3/4 | 232 | 9-1/8 |
| CP0351ESVEL | 62 | 2-7/16 | 5.5 | 7/32 | 56 | 2-3/16 | 19 | 3/4 | 232 | 9-1/8 |
| CP0351ESREL | 81 | 3-3/16 | 5.5 | 7/32 | 51 | 2 | 38 | 1-1/2 | 178 | 7 |
| CP0351ASKEL | 57 | 2-1/4 | 5.5 | 7/32 | 41 | 1-5/8 | 22 | 7/8 | 127 | 5 |
| CP0351ESKEL | 57 | 2-1/4 | 5.5 | 7/32 | 41 | 1-5/8 | 22 | 7/8 | 127 | 5 |
| CP0351ASGEL | 38 | 1-1/2 | 5.5 | 7/32 | 41 | 1-5/8 | 22 | 7/8 | 73 | 2-7/8 |
| CP0351ESGEL | 38 | 1-1/2 | 5.5 | 7/32 | 41 | 1-5/8 | 22 | 7/8 | 73 | 2-7/8 |

# Riveting Compression Tools


A


B



New available adjustable rivet set holders for C-Yoke & Alligator tools.
Comes with 5mm rivet set shank.
Search for the "-5" tools in the list below.


C

CP0214


D

CP0351


E

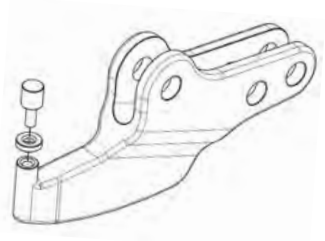
CP0341 - Pneumatic TM --> Full power through the full stroke

| PIC REF | MODEL | PART NUMBER | CAPACITY | | | | MAX FORCE | | MOVING PLUNGER | | | | STANDARD YOKE DIMENSIONS | | | | LENGTH | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | MAX TRAVEL | | FINAL PART OF STROKE | | | | | | | | | |
| | | | LIGHT | | HARD | | (90 PSI/ 6.3 BAR) | | | | AT MAX. FORCE | | REACH R | | CLOSED HEIGHT H | | | | | |
| | | | mm | in. | mm | in. | kN | lb | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | kg | lb |
| **C-YOKE (single cylinder)** | | | | | | | | | | | | | | | | | | | | |
| A | CP0214CELEL* | T012344 | 3.2 | 1/8 | 2.4 | 3/32 | 13.35 | 3,000 | 14.3 | 9/16 | 1.3 | 0.050 | 38.1 | 1-1/2 | 17.5 | 11/16 | 262 | 10.3 | 2.0 | 4.41 |
| A | CP0214CEREL-5 | 6151710160 | 3.2 | 1/8 | 2.4 | 3/32 | 13.35 | 3,000 | 14.3 | 9/16 | 1.3 | 0.050 | 50 | 1,969 | 17/20 | 0,669/0,787 | 262 | 10.3 | 2.0 | 4.41 |
| | CP0214CENEL | T018677 | Same power unit as above without yoke | | | | | | | | | | | | | | | | | |
| B | CP0351CUDEL* | T008955 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 14.3 | 9/16 | 3.2 | 0.125 | 54 | 2-1/8 | 19.8 | 25/32 | 445 | 17.5 | 5.7 | 12.6 |
| | CP0351CUNEL | T007772 | Same power unit as above without yoke | | | | | | | | | | | | | | | | | |
| **C-YOKE (tandem cylinder)** | | | | | | | | | | | | | | | | | | | | |
| A | CP0214FALEL* | T013152 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 14.3 | 9/16 | 1.6 | 0.063 | 38.1 | 1-1/2 | 17.5 | 11/16 | 356 | 14 | 2.5 | 5.5 |
| A | CP0214FAREL-5 | 6151710150 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 14.3 | 9/16 | 1.6 | 0.063 | 50 | 1,969 | 17/20 | 0,669/0,787 | 356 | 14 | 2.5 | 5.5 |
| A | CP0214FAXEL* | T022528 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 14.3 | 9/16 | 1.6 | 0.063 | 50.8 | 2.5 | 17.5 | 11/16 | 366 | 14.4 | 2.6 | 5.7 |
| | CP0214FANEL | T018430 | Same power unit as above without yoke | | | | | | | | | | | | | | | | | |
| A | CP0214KETEL** | T023475 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 14.3 | 9/16 | 1.6 | 0.063 | 38.1 | 1-1/2 | 17.5 | 11/16 | 356 | 14 | 2.5 | 5.5 |
| B | CP0351FUDEL* | T012608 | 6.4 | 1/4 | 5.6 | 7/32 | 53.40 | 12,000 | 14.3 | 9/16 | 3.2 | 0.125 | 54 | 2-1/8 | 19.8 | 25/32 | 552 | 21.7 | 6.9 | 15.2 |
| **ALLIGATOR (single cylinder)** | | | | | | | | | | | | | | | | | | | | |
| C | CP0214ANBEL* | T012343 | 3.2 | 1/8 | 2.4 | 3/32 | 13.35 | 3,000 | 15.9 | 5/8 | 1.3 | 0.050 | 38.1 | 1-1/2 | 22.2 | 7/8 | 233 | 9.17 | 1.7 | 3.75 |
| C | CP0214ANFEL* | T018671 | 2.4 | 3/32 | 2.4 | 3/32 | 9.79 | 2,200 | 22.2 | 7/8 | 2.4 | 0.094 | 57.1 | 2-1/4 | 22.2 | 7/8 | 254 | 10 | 1.9 | 4.18 |
| C | CP0214ANGEL* | T018672 | 2.4 | 3/32 | 1.6 | 1/16 | 8.01 | 1,800 | 31.8 | 1-1/4 | 1.4 | 0.056 | 76.2 | 3 | 22.2 | 7/8 | 273 | 10.7 | 2.0 | 4.41 |
| | CP0214ANPEL | T019138 | Same power unit as above without yoke | | | | | | | | | | | | | | | | | |
| D | CP0351ASGEL* | T007783 | 4.0 | 5/32 | 3.2 | 1/8 | 23.14 | 5,200 | 15.9 | 5/8 | 3.2 | 0.125 | 73 | 2-7/8 | 22.2 | 7/8 | 495 | 19.5 | 7.1 | 15.6 |
| D | CP0351ASKEL* | T007773 | 3.2 | 1/8 | 2.4 | 3/32 | 15.13 | 3,400 | 34.0 | 1-3/8 | 4.8 | 0.188 | 127 | 5 | 22.2 | 7/8 | 549 | 21.6 | 9.0 | 19.8 |
| D | CP0351ASVEL* | T009582 | 3.2 | 1/8 | 2.4 | 3/32 | 13.35 | 3,000 | 42.9 | 1-11/16 | 1.6 | 0.063 | 232 | 9-1/8 | 19.1 | 3/4 | 654 | 25.7 | 11.9 | 26.2 |
| **ALLIGATOR (tandem cylinder)** | | | | | | | | | | | | | | | | | | | | |
| C | CP0214ENGEL* | T018164 | 3.2 | 1/8 | 2.4 | 3/32 | 15.13 | 3,400 | 31.8 | 1-1/4 | 2.6 | 0.104 | 76.2 | 3 | 22.2 | 7/8 | 343 | 13.5 | 2.5 | 5.51 |
| C | CP0214ENFEL* | T018163 | 4.0 | 5/32 | 3.2 | 1/8 | 19.14 | 4,300 | 22.2 | 7/8 | 2.4 | 0.094 | 57.1 | 2-1/4 | 22.2 | 7/8 | 324 | 12.8 | 2.4 | 5.28 |
| C | CP0214ENCEL-5 | 6151710170 | 4.0 | 5/32 | 3.2 | 1/8 | 19.14 | 4,300 | 22.2 | 7/8 | 2.4 | 0.094 | 57.1 | 2-1/4 | 17.2/22.2 | 0.68/0.87 | 324 | 12.8 | 2.4 | 5.28 |
| C | CP0214ENBEL* | T018678 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 15.9 | 5/8 | 1.6 | 0.063 | 38.1 | 1-1/2 | 22.2 | 7/8 | 303 | 11.9 | 2.2 | 4.85 |
| D | CP0351ESKEL* | T012603 | 4.8 | 3/16 | 4.0 | 5/32 | 30.26 | 6,800 | 34.0 | 1-3/8 | 4.8 | 0.188 | 127 | 5 | 22.2 | 7/8 | 657 | 25.9 | 10.2 | 22.5 |
| D | CP0351ESREL* | T012604 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 42.9 | 1-11/16 | 4.8 | 0.188 | 178 | 7 | 38.1 | 1-1/2 | 708 | 27.9 | 12.2 | 26.9 |
| D | CP0351ESVEL* | T012605 | 4.8 | 3/16 | 4.0 | 5/32 | 26.70 | 6,000 | 42.9 | 1-11/16 | 1.6 | 0.063 | 232 | 9-1/8 | 19.1 | 3/4 | 762 | 30 | 13.2 | 29.1 |
| D | CP0351ESGEL* | T012602 | 6.4 | 1/4 | 4.8 | 3/16 | 46.28 | 10,400 | 15.9 | 5/8 | 3.2 | 0.125 | 73 | 2-7/8 | 22.2 | 7/8 | 603 | 23.7 | 8.4 | 18.5 |
| **C-YOKE (pneumatic™)** | | | | | | | | | | | | | | | | | | | | |
| E | CP0341CUDEL** | T022512 | 7.1 | 9/32 | 6.4 | 1/4 | 60.1 | 13,500 | 31.8 | 1-1/4 | Full stroke | | | | | | | | | |
| | CP0341CUNEL | T022493 | Same power unit as above without yoke | | | | | | | | | | | | | | | | | |

** CR1 / ** CR2 // -5 = 5mm rivet set shank*

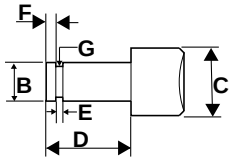
# Riveting Compression Tools

## Rivet set shank (CR1/CR2)



### SHANK DIMENSIONS FOR RIVET SETS

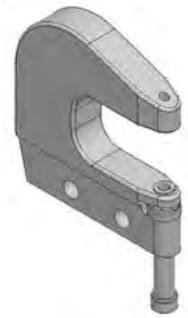
For CP0214, CP0351 and CP0341 Compression Riveters

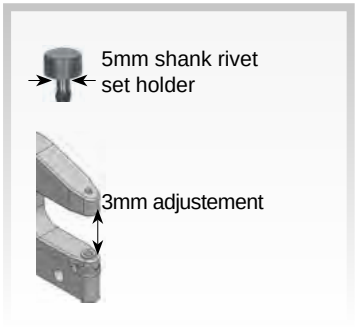


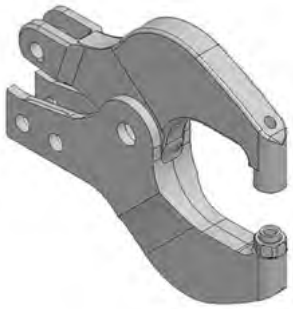

| TYPE OF RIVET SET SHANK | B | | C* | | D | | E | | F | | G | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. |
| CR-1 (ø 4.8mm 3/16") | 4.75-4.72 | 0.187-0.186 | 12.7 | 1/2 | 12.7 | 1/2 | 3.45-3.38 | 0.136-0.133 | 1.6 | 1/16 | 3.23-3.12 | 0.127-0.123 |
| CR-2 (ø 6.4mm 1/4") | 6.42-6.40 | 0.249-0.248 | 15.9 | 5/8 | 15.9 | 5/8 | 3.45-3.38 | 0.136-0.133 | 2.4 | 3/32 | 4.80-4.70 | 0.189-0.185 |

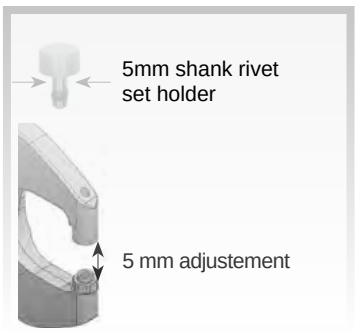
** 'C' dimension is for flush set only. 'C' varies on cupped sets according to rivet size and type of head.*

## Adjustable Rivet set shank 5mm





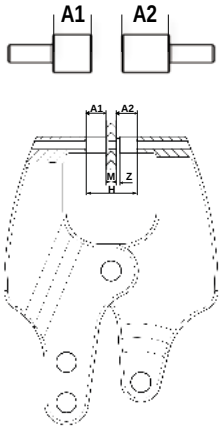



## Rivet set length calculation

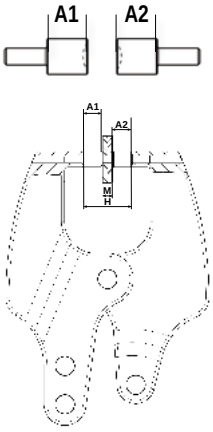
To develop maximum power, the riveter must drive (set) the rivet at the end of the riveter's stroke
For maximum power the combined length of the two rivet sets must be of the correct length

**A1+A2 = H-M-Z**

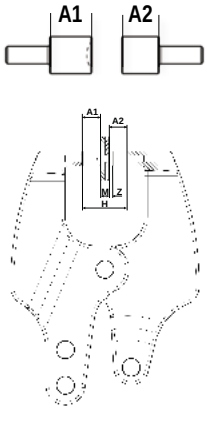
A1: Rivet set thickness (mobile jaw)
A2: Rivet set thickness (fix jaw)
H= Opening at the end of the riveting
M= Total thickness of material to be assembled
Z= height of finished rivet head (flush)




Two Flushed rivet sets




Two cupped rivet sets Z = 0




1 flushed rivet + cupped rivet set

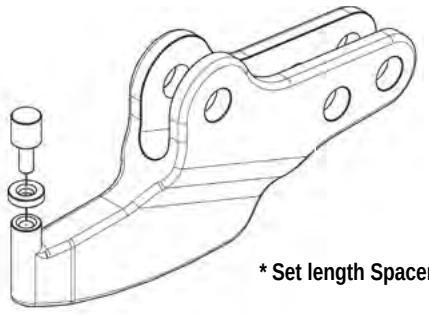
# Compression Tools - Rivet sets

## Rivet set Selection

### SET LENGTH SPACER SHIMS

| TYPE OF RIVET SET SHANK | PART NUMBER OF HARDENED SHIMS | |
|---|---|---|
| | 0.4mm (1/64") | 0.8mm (1/32") |
| CR-1 | **P083254** | **P083255** |

**RIVET SET**
*** SHIM**



*** Set length Spacer Shims**



# Riveting Hammers

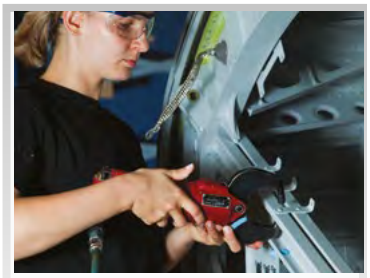


- **Wide range of hammers suitable for all applications.**
- **Recoilless series for better operator's comfort.**
- **Progressive trigger for better control.**

## How to select the right tool?



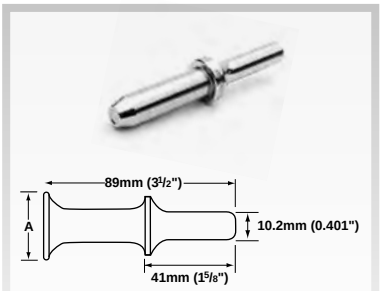
**1**
Rivet
Light/Hard Material
Diameter



**2**
Application
accessibility



**3**
Operation repetitivness
Low vibration level




**4**
Rivet set
selection

## Tool range

Our range covers a wide range of applications to answer all your requirements



CP4444



CP4447



CP4444-1



CP4450



CP4475



CP4450-5

# Riveting Hammers

*Selection guide*


A


B


C


D


E

| PIC REF | MODEL | PART NUMBER | AIR FRAME REF | BLOW PER MI-NUTE | BORE & STROKE | ENERGY PER BLOW | | CHISEL SHANK | | RIVET CAPACITY | | WEIGHT | | AIR INLET | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | mm (in.) | J | ft.lb | mm | in. | mm (in.) | mm (in.) | kg | lb | in. | mm | in. |
| **Standard** | | | | | | | | | | | | | | | | |
| A | CP4444-1 | 205 147 938 4 | 2X (200) | 2580 | 15 x 40 (19/32 x 1.47) | 4.4 | 3.2 | 10.2 | 0.401 | 3.2 (1/8) | 2.4 (3/32) | 1.2 | 2.6 | 1/8 | 10 | 3/8 |
| A | CP4444-RURAB | T022961 | 2X (200) | 2580 | 12.7 x 50.8 (1/2 x 2) | 4.0 | 2.9 | 10.2 | 0.401 | 3.2 (1/8) | 2.4 (3/32) | 1.0 | 2.2 | 1/4 | 10 | 3/8 |
| A | CP4444-RUSAB | T022962 | 3X (300) | 2160 | 12.7 x 76.2 (1/2 x 3) | 6.1 | 4.5 | 10.2 | 0.401 | 4.8 (3/16) | 4.0 (5/32) | 1.1 | 2.3 | 1/4 | 10 | 3/8 |
| A | CP4444-RUTAB | T022963 | 4X (240) | 1740 | 12.7 x 101.6 (1/2 x 4) | 8.1 | 6.0 | 10.2 | 0.401 | 6.4 (1/4) | 4.8 (3/16) | 1.3 | 2.7 | 1/4 | 10 | 3/8 |
| B | CP4447-RUSAB | T022965 | 5XB 500 | 1560 | 19.1 x 68.3 (3/4 x 2-11/18) | 12.3 | 9.1 | 12.7 | 0.498 | 6.4 (1/4) | 4.8 (3/16) | 2.2 | 4.7 | 1/4 | 10 | 3/8 |
| B | CP4447-RUTAB | T022912 | 7XB (700) | 1140 | 19.1 x 98.4 (3/4 x 3-7/8) | 17.8 | 13.1 | 12.7 | 0.498 | 7.9 (5/16) | 6.4 (1/4) | 2.3 | 5.1 | 1/4 | 10 | 3/8 |
| B | CP4447-RUVAB | T022964 | 9XB (800) | 900 | 19.1 x 147.6 (3/4 x 5-13/16) | 26.6 | 19.6 | 12.7 | 0.498 | 9.5 (3/8) | 7.9 (5/16) | 2.7 | 9.0 | 1/4 | 10 | 3/8 |
| **Vibration reduced** | | | | | | | | | | | | | | | | |
| C | CP4450-2 | T025189 | 2X (200) | 2580 | 12.7 x 50.8 (1/2 x 2) | 4.0 | 2.9 | 10.2 | 0.401 | 3.2 (1/8) | 2.4 (3/32) | 1.2 | 2.7 | 1/4 | 10 | 3/8 |
| C | CP4450-3 | T025190 | 3X (300) | 2160 | 12.7 x 76.2 (1/2 x 3) | 6.1 | 4.5 | 10.2 | 0.401 | 4.8 (3/16) | 4.0 (5/32) | 1.3 | 2.8 | 1/4 | 10 | 3/8 |
| C | CP4450-4 | T025191 | 4X (400) | 1740 | 12.7 x 101.6 (1/2 x 4) | 8.1 | 6.0 | 10.2 | 0.401 | 6.4 (1/4) | 4.8 (3/16) | 1.5 | 3.2 | 1/4 | 10 | 3/8 |
| D | CP4475-3 | T025241 | 5XB (500) | 2000 | 19.1 x 76.2 (3/4 x 3) | 13.7 | 10.1 | 12.7 | 0.498 | 6.4 (1/4) | 4.8 (3/16") | 1.8 | 3.9 | 1/4 | 10 | 3/8 |
| D | CP4475-4 | T025242 | 7XB (700) | 1700 | 19.1 x 101.6 (3/4 x 4) | 18.3 | 13.5 | 12.7 | 0.498 | 7.9 (5/16) | 6.4 (1/4) | 2.4 | 5.3 | 1/4 | 10 | 3/8 |
| D | CP4475-6 | T025243 | 9XB (800) | 1250 | 19.1 x 152.4 (3/4 x 6) | 27.5 | 20.3 | 12.7 | 0.498 | 9.5 (3/8) | 7.9 (5/16) | 2.8 | 6.2 | 1/4 | 10 | 3/8 |
| E | CP4450-S-2 | 205 146 712 4 | 2X | 2580 | 12.7 x 50.8 (1/2 x 2) | 4.0 | 2.9 | 10.2 | 0.401 | 3.2 (1/8) | 2.4 (3/32) | 1.25 | 2.8 | 1/4 | 10 | 3/8 |
| E | CP4450-S-3 | 205 146 713 4 | 3X | 2160 | 12.7 x 76.2 (1/2 x 3) | 6.1 | 4.5 | 10.2 | 0.401 | 4.8 (3/16) | 4.0 (5/32) | 1.35 | 3.0 | 1/4 | 10 | 3/8 |
| E | CP4450-S-4 | 205 146 714 4 | 4X | 1740 | 12.7 x 101.6 (1/2 x 4) | 8.1 | 6.0 | 10.2 | 0.401 | 6.4 (1/4) | 4.8 (3/16) | 1.45 | 3.2 | 1/4 | 10 | 3/8 |

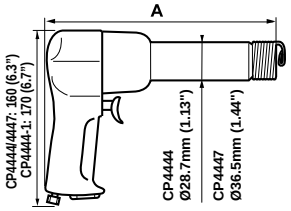
** LIGHT: Aluminium 2017 / 2117 (DCJ-DXJ / D-AD)*

*** HARD: Aluminium 7050 (DKJ / KE / E) (M) (T)*

## Dimensions

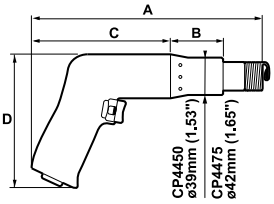
| Model | A | |
|---|---|---|
| | mm | in. |
| CP4444-1 | 111 | 4.4 |
| CP4444-RURAB | 170 | 6.7 |
| CP4444-RUSAB | 186 | 7.3 |
| CP4444-RUTAB | 211 | 8.3 |
| CP4447-RUSAB | 227 | 8.9 |
| CP4447-RUTAB | 252 | 9.9 |
| CP4447-RUVAB | 303 | 11.9 |

CP4444 / CP4447




| Model | A | | B | | C | | D | |
|---|---|---|---|---|---|---|---|---|
| | mm | in. | mm | in. | mm | in. | mm | in. |
| CP4450-2 | 213 | 8.4 | 32 | 1.26 | 102 | 4.0 | 138 | 5.4 |
| CP4450-3 | 226 | 8.9 | 32 | 1.26 | 102 | 4.0 | 138 | 5.4 |
| CP4450-4 | 251 | 9.9 | 60 | 2.36 | 102 | 4.0 | 138 | 5.4 |
| CP4475-3 | 275 | 10.8 | 54 | 2.13 | 180 | 7.1 | 140 | 5.5 |
| CP4475-4 | 300 | 11.8 | 79 | 3.11 | 180 | 7.1 | 140 | 5.5 |
| CP4475-6 | 351 | 13.8 | 130 | 5.12 | 180 | 7.1 | 140 | 5.5 |

CP4450 / CP4475

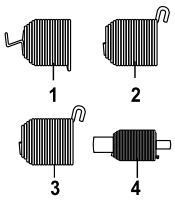


# Accessories

## CP4444 / CP4447 / CP4450 / CP4475

### ACCESSORIES INCLUDED

| | PART NUMBER | | |
|---|---|---|---|
| | CP4444-1 | CP4444<br>CP4450 | CP4447<br>CP4475 |
| • Light wire quick change retainer | 205 053 564 3 | A046095 | - |
| • Wire quick change retainer | - | - | A047095 |

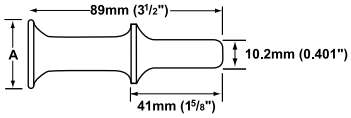



### OPTIONAL ACCESSORIES

| ITEM | CP4444<br>CP4450 | CP4447<br>CP4475 |
|---|---|---|
| 1 Zip-Quick retainer | A046094 | - |
| 2 Beehive retainer | A046096 | |
| 3 Beehive retainer | - | A047096 |

## CP4444 / CP4450

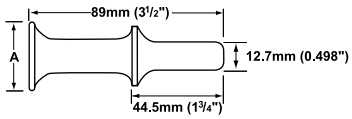
### TYPE I FLUSH RIVET SETS Ø 10.2MM (.401")




| | ØA<br>MM (IN.) | CP4444/4450<br>Ø10.2 (0.401")<br>SHANK |
|---|---|---|
| • | 25.4 (1) | A046090 |
| • | 44.5 (1-3/4) | A046091 |

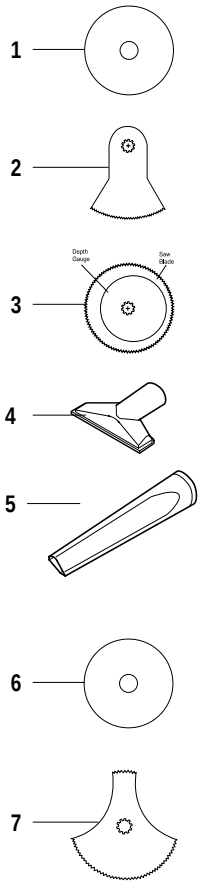
## CP4447 / CP4475

### TYPE I FLUSH RIVET SETS Ø 12.7MM (.498")




| | ØA<br>MM (IN.) | SHANK<br>Ø12.7MM (0.498") |
|---|---|---|
| • | 31.8 (1-1/4) | A047091 |

# Accessories




## D144-T-.. / D172-L / AV101

### ACCESSORIES INCLUDED

| ITEM | | APPLICATION | PART NO. D144-T | D172-L | AV101 |
|---|---|---|---|---|---|
| • | Spindle Wrench | | 164433 | 15533 | |
| • | Clamp Nut Wrench | | 29443 | | |
| • | Hex. Key – 4mm (5/32") A/F | | 204903 | 204903 | |
| 1 | Saw Blade – diamond coated 64mm (2.5") dia. | Fibreglass | 32732 | | |
| 1 | Saw Blade – 80 teeth 45mm (1.77") dia. | Soft Steel <1.2mm (3/64") | | | |
| 1 | Saw Blade 64mm (2.5") dia. | Plastics | | 90762 | |
| 1 | Saw Blade – teflon coated 80mm (3.15") dia. | Plastics | | 90772 | |
| 2 | Saw Blade 50.8mm (2") radius x 50mm (1.97") wide | Soft Wood | | 90832 | |
| 3 | Depth Gauge | | | 27262 | |
| 4 | Upholstery Nozzle | | | | 106443 |
| 5 | Crevice Nozzle | | | | 106533 |

### OPTIONAL ACCESSORIES

| ITEM | | APPLICATION | PART NO. D144-T | D172-L |
|---|---|---|---|---|
| 6 | Saw Blade 64mm (2.5") dia. | Wood | 34252 | |
| 6 | Saw Blade – diamond tipped 64mm (2.5") dia. | Fibreglass | | 16962 |
| 6 | Saw Blade – diamond tipped 1.2mm (3/64") tooth pitch - 64mm (2.5") dia. | Fibreglass | | 90722 |
| 6 | Saw Blade – diamond tipped 1.2mm (3/64") tooth pitch - 80mm (3.15") dia. | Fibreglass | | 90732 |
| 6 | Saw Blade – 1.5mm (0.06") tooth pitch 51mm (2") dia. | Soft Wood | | 90782 |
| 6 | Saw Blade – 1.8mm (0.07") tooth pitch 64mm (2.5") dia. | Soft Wood | | 90792 |
| 6 | Saw Blade – 1.5mm (0.06") tooth pitch 76mm (3") dia. | Soft Wood | | 90802 |
| 7 | Saw Blade 63.5mm (2.5") dia. 60mm (2.36") + 16mm (5/8") segments | Soft Wood | | 90842 |

# Miscellaneous



A



B



C

| PIC REF | MODEL | PART NUMBER | FREE SPEED | OSCILLATING FREQUENCY | BLADE Ø | | WEIGHT | | LENGTH | | AIR CONSUMPTION | | AIR INLET THREAD | HOSE INT. Ø | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | rpm | c/min | mm | in. | kg | lb. | mm | in. | l/s | cfm | in. | mm | in. |
| **FIBREGLASS SAW - capacity 13mm (1/2") depth** | | | | | | | | | | | | | | | |
| A | D144 | 615 170 526 0 | 3100 | | 64 | 2.5 | 0.83 | 1.83 | 214 | 8.43 | 9.4 | 19.9 | 1/4 BSP | 10 | 3/8 |
| **OSCILLATING SAW** | | | | | | | | | | | | | | | |
| C | D172 | 615 170 527 0 | - | 20000 | 80 | 3.2 | 0.76 | 1.67 | 265.2 | 10.44 | 9.5 | 20 | 1/4 BSP | 10 | 3/8 |
| **VACUUM CLEANER** | | | | | | | | | | | | | | | |
| B | AV101 | 128534 | - | - | - | - | 0.7 | 1.54 | 202 | 7.95 | 5.9 | 12.5 | 1/4 BSP | 6 | 1/4 |


Made in France
WARNING
TO REDUCE RISK OF INJURY
READ AND UNDERSTAND
SAFETY INSTRUCTIONS
SUPPLIED WITH TOOL

# Air Line Accessories

**Desoutter Air Line Accessories are specially developed to be used with Desoutter Tools & Equipments.**

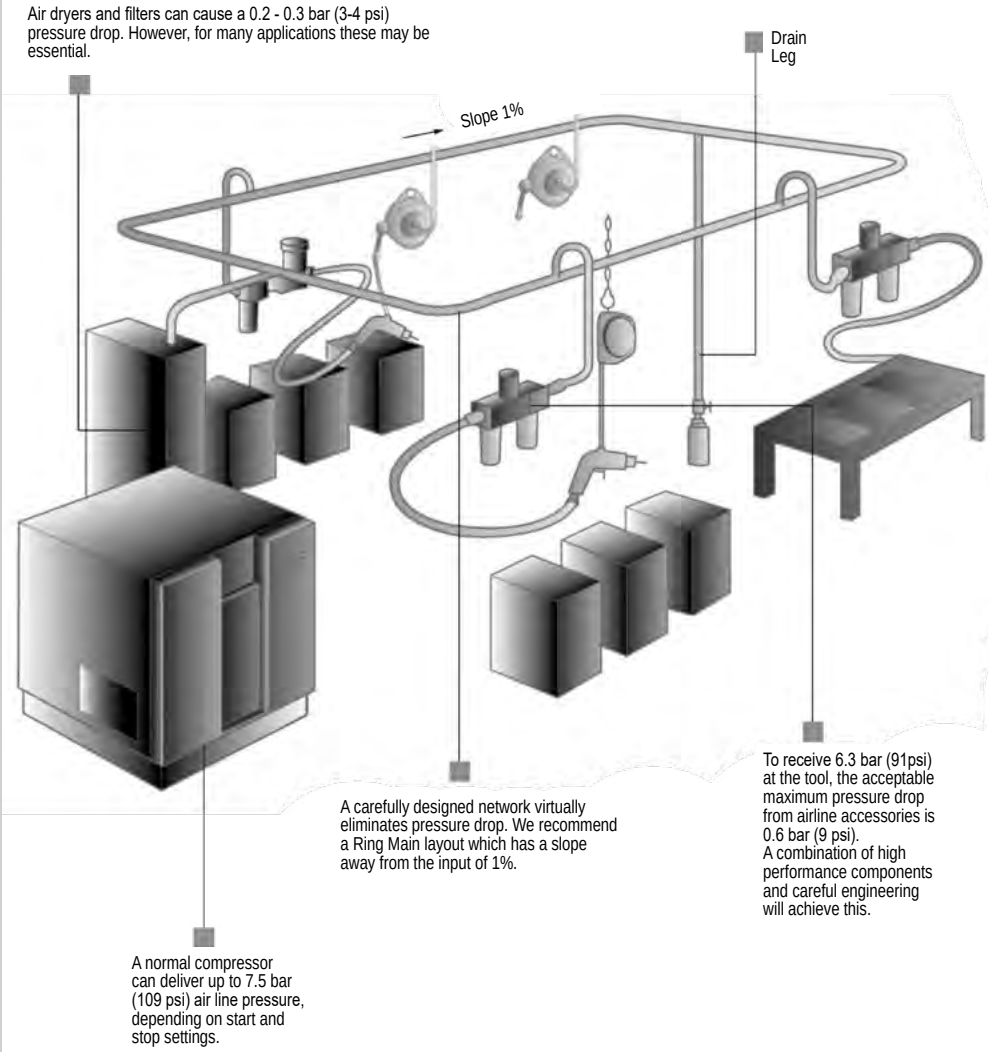
**Desoutter Air Line Accessories can also be used with other pneumatic products.**

**All accessories can be used for other applications with any pneumatic equipments.**

**Desoutter Air Preparation Units are designed to help you get maximum performance from your tools.**

**They ensure minimal pressure drop and thus minimum energy losses in the air distribution system, benefiting the environment and cutting your operating costs.**

**The lifetimes of your tools will be extended by using air preparation units and with that comes lower repair costs and less downtime. A correct air installation guarantees productivity and good total economy.**




When developing the Desoutter Air Line Accessories range, we have focused on Performance, Quality, Ergonomics and Safety. Based on this, we now offer a wide range of accessories for optimal air line installation.

Our accessories enable to reach higher productivity with lower energy consumption, a sustainable reduction of energy costs and an extended lifetime of your tools.

## Performance

In order to get the best performance out of your air line installation it is key to supply air at a constant pressure (6.3 bar) This, together with minimizing the pressure drop, is the primary focus when designing the Desoutter couplings, hoses and FRLs.

The result is not only a better performance in terms of a reduction of energy costs but also in a better lifetime of the tools.

## Ergonomics and Safety

To further improve the comfort of use for our customers we now offer hoses in our EFFI line with lower weight and more flexible. In combination with Easy Flow, Safety couplings, Airlfex and high quality balancers you can build up a workplace where the operators' safety and ergonomics are in focus.

## Quality

All our products are developed to perform in industrial applications. Desoutter Accessories are made with the highest quality materials to ensure the best possible performance and lifetime of the tools.

# Hoses

**Desoutter offers the highest quality of PVC, Rubber and Polyurethane hoses in the Industrial Line to cover the different needs of applications with Power Tools.**

**In addition to this, the EFFI series is designed with special features such as low weight and flexibility, to meet the highest ergonomic demands, as well as antistatic for applications with ESD demands.**

## HOSES

### HOSERECOMMENDATIONS

| DESCRIPTION | EFFI MAX | POLYURETHAN | RUBBER |
|---|---|---|---|
| Flexibility | ++ | ++ | + |
| Lightweigth | ++ | ++ | + |
| Outdoor | +++ | + | +++ |
| Spark resistant | +++ | - | +++ |
| Rough environment | +++ | ++ | +++ |
| Antistatic | +++ | - | +++ |
| Temperature range | -40 to +194F° -40 to +90°C | -22 to +176F° -30 to +80°C | -40 to +194F° -40 to +90°C |

*At recommended air flow the pressure drop is 0.2 bar (2.9 PSI) with a hose length of 5m (16ft).*
*Recommendation is to upgrade one size in diameter for every 10m (32.8ft) of hose length*

## EFFI Series

EFFI is a unique premium line of hoses designed with special features such as antistatic, extreme low weight, resistance and durability that will help the operator to maximize the tool productivity.

### EFFIMAXHOSES

Aimed to generic grinding applications
- Exteme low weight
- Antistatic
- Rubber hose
- Soft and flexible
- Welding spatter resistant



| DIMENSIONS (IDxOD) | | LENGTH | | MAX WORKING PRESSURE* | AIR FLOW | | WEIGHT PER 20M / 65.6FT | | PART NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| in. ID | mm | ft | m | PSI (bar) | cfm | l/s | lb | kg | |
| 3/8 | 9.5x12.5 | 65.6 | 20 | | 27.6 | 13 | 6.4 | 2.9 | **894 016 992 1** |
| 1/2 | 13x18.6 | 65.6 | 20 | 232 (16) | 44.5 | 21 | 8.6 | 3.9 | **615 810 900 0** |
| 5/8 | 16x22.5 | 65.6 | 20 | 232 (16) | 91.1 | 43 | 10.6 | 4.8 | **615 810 901 0** |
| 3/4 | 20x26.1 | 65.6 | 20 | 232 (16) | 159 | 75 | 11.9 | 5.4 | **615 810 902 0** |

### RUBBERHOSES

Aimed to the most demanding tasks in constru n, mining, shipyards, foundries etc.
- Durable
- Antistatic
- Grinding and welding spatter resistant



| DIMENSIONS (IDxOD) | | LENGTH | | MAX WORKING PRESSURE* | AIR FLOW | | WEIGHT PER 20M / 65.6FT | | PART NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| in. ID | mm | ft | m | PSI (bar) | cfm | l/s | lb | kg | |
| 3/8 | 10x16 | 65.6 | 20 | 232 (16) | 27.5 | 13 | 7.9 | 3.6 | **615 810 864 0** |
| 1/2 | 12.5x19.1 | 65.6 | 20 | 232 (16) | 44.5 | 21 | 10.4 | 4.7 | **615 810 865 0** |
| 5/8 | 16x23 | 65.6 | 20 | 232 (16) | 91.1 | 43 | 13.4 | 6.1 | **615 810 866 0** |
| 3/4 | 20x26.6 | 65.6 | 20 | 232 (16 ) | 159 | 75 | 17.2 | 7.8 | **615 810 868 0** |
| 1 | 25x34 | 65.6 | 20 | 232 (16) | 265 | 125 | 26.0 | 11.8 | **615 810 870 0** |

### POLYURETHANEHOSES

Aimed to heavy duty applications for indoor and use
- Oil resistant
- Flexible
- Long service life
- PVC free: Environment friendly



| DIMENSIONS (IDxOD) | | LENGTH | | MAX WORKING PRESSURE* | AIR FLOW | | WEIGHT PER 25M / 82FT | | PART NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| in. ID | mm | ft | m | PSI (bar) | cfm | l/s | lb | kg | |
| 1/4 | 6.5x10 | 82 | 25 | 290 (20) | 8.5 | 4.0 | 2.9 | 1.3 | **615 804 623 0** |
| 5/16 | 8x12 | 82 | 25 | 290 (20) | 15.9 | 7.5 | 4.8 | 2.2 | **615 804 624 0** |
| 3/8 | 9.5x13 | 82 | 25 | 232 (16) | 27.5 | 13.0 | 5.5 | 2.5 | **615 804 625 0** |
| 1/2 | 13x18 | 82 | 25 | 188 (13) | 44.5 | 21.0 | 8.8 | 4.0 | **615 804 626 0** |

** With a safety factor of 37.4 psi at 68F° (3 bar at 20°C)*
*(at the max temp of +140F° (+60°C) the working pressure should be reduced by 50%*

# Hoses

## HOSE KITS

Hose kits are equipped with end thread fittings and available in short length, ready to connect and ready to use.



| DIMENSIONS (IDxOD) | | MALE | LENGHT | | PART NUMBER | | HOSE MATERIAL |
|---|---|---|---|---|---|---|---|
| in. ID | mm | in. | ft | m | NPT | BSP | |
| 1/4 | 6.5x10 | 1/4 | 26.2 | 8 | **615 811 213 0** | **615 804 627 0** | **PU** |
| 5/16 | 8x12 | 1/4 | 26.2 | 8 | **615 811 214 0** | **615 804 628 0** | **PU** |
| 3/8 | 10x13 | 1/4 | 26.2 | 8 | | **615 804 629 0** | **PU** |
| 3/8 | 10x13 | 3/8 | 26.2 | 8 | **615 811 240 0** | **615 811 238 0** | **PU** |
| 1/2 | 13x18 | 1/2 | 26.2 | 8 | **615 811 216 0** | **615 804 630 0** | **PU** |
| 1/2 | 13x18 | 3/8 | 26.2 | 8 | **615 811 241 0** | **615 811 239 0** | **PU** |
| 5/8 | 16x23 | 1/2 | 26.2 | 8 | **615 811 268 0** | **615 811 267 0** | **Rubber** |

## EFFI MAX WHIPS

Always use a hose whip between the tool and the air supply hose.
It provides safety and longer tool air inlet life.



| HOSE DIAM. | | THREAD SIZE | HOSE LENGHT | | PART NUMBER | |
|---|---|---|---|---|---|---|
| in. | mm | in. | ft | m | NPT | BSP |
| 1/4 | 6.5 | 1/4 | 2.0 | 0.6 | | |
| 3/8 | 10 | 1/4 | 2.0 | 0.6 | **CA047270** | **615 811 192 0** |
| 1/2 | 13 | 3/8 | 2.0 | 0.6 | **CA049271** | **615 811 264 0** |
| 1/2 | 13 | 1/2 | 2.0 | 0.6 | **CA049270** | **615 811 193 0** |
| 5/8 | 16 | 1/2 | 2.0 | 0.6 | **615 811 266 0** | **615 811 265 0** |

## POLYURETHANE SPIRAL HOSE

Spiral hose are especially adapted for tools used at varying distances. Vertically or horizontally, together with a balancer spiral hose, it is a step forward in ergonomics. Equipped with ball bearing at one end (except the 11x16), they can be directly connected at the tool outlet, avoiding the hose to twist

- Self retractable
- Light and flexible
- Strong and durable

| DIMENSIONS (IDxOD) | | MALE THREADS | WORKING LENGTH | | LENGHT A | LENGHT B | LENGHT C | PARTNUMBER | |
|---|---|---|---|---|---|---|---|---|---|
| in. ID | mm | in. | ft | m | in. (mm) | in. (mm) | in. (mm) | NPT | BSP |
| 1/4 | 6.5x10 | 1/4 | 6.6 | 2 | 19.7 (500) | 5.5 (140) | 5.9 (150) | **615 810 967 0** | **615 804 635 0** |
| 1/4 | 6.5x10 | 1/4 | 13.1 | 4 | 19.7 (500) | 13 (330) | 5.9 (150) | **615 810 968 0** | **615 804 636 0** |
| 1/4 | 6.5x10 | 1/4 | 19.7 | 6 | 19.7 (500) | 20.1 (510) | 5.9 (150) | **615 810 969 0** | **615 804 637 0** |
| 1/4 | 6.5x10 | 1/4 | 26.2 | 8 | 19.7 (500) | 27.6 (700) | 5.9 (150) | **615 810 970 0** | **615 804 638 0** |
| 5/16 | 8x12 | 3/8 | 6.6 | 2 | 19.7 (500) | 5.1 (130) | 5.9 (150) | **615 810 971 0** | **615 804 639 0** |
| 5/16 | 8x12 | 3/8 | 13.1 | 4 | 19.7 (500) | 11.8 (300) | 5.9 (150) | **615 810 972 0** | **615 804 640 0** |
| 5/16 | 8x12 | 3/8 | 19.7 | 6 | 19.7 (500) | 18.1 (460) | 5.9 (150) | **615 810 973 0** | **615 804 641 0** |
| 5/16 | 8x12 | 3/8 | 26.2 | 8 | 19.7 (500) | 24.8 (630) | 5.9 (150) | **615 810 974 0** | **615 804 642 0** |
| 7/16 | 11x16 | 3/8 | 6.6 | 2 | 19.7 (500) | 4.7 (120) | 5.9 (150) | **615 810 975 0** | **615 804 643 0** |
| 7/16 | 11x16 | 3/8 | 13.1 | 4 | 19.7 (500) | 10.6 (270) | 5.9 (150) | **615 810 976 0** | **615 804 644 0** |
| 7/16 | 11x16 | 3/8 | 19.7 | 6 | 19.7 (500) | 16.5 (420) | 5.9 (150) | **615 810 977 0** | **615 804 645 0** |
| 7/16 | 11x16 | 3/8 | 26.2 | 8 | 19.7 (500) | 22.4 (570) | 5.9 (150) | **615 810 978 0** | **615 804 646 0** |






# AIR FLEX

## AIR FLEX RANGE




### THE NEW AIR FLEX MAKES ALL RIGID HOSES FLEXIBLE AND MULTI-DIRECTIONAL.

Easy: less effort due to hose rigidity, makes work easier in hard to reach areas.Less wear: no more premature hose wear. Comfort and safety: no twisting, the hose remains in the ideal working position and lower the risk of tendinitis.

## AIR FLEX

Aimed to improve the working ergonomy, Air flex connectors can rotate 360° eliminating efforts when working in cramped spaces

| MULTI DIRECTION SWIVEL CONNECTOR | MAX RECOMMENDED FLOW | | LENGTH | | PART NUMBER | | |
|---|---|---|---|---|---|---|---|
| | cfm | l/s | mm | in. | BSP | NPT | R |
| **Air Flex 1/4"** | 25 | 12 | 67 | 2.63 | **615 804 746 0** | **615 804 747 0** | **615 995 559 0** |
| **Air Flex 3/8"** | 74 | 35 | 82 | 3.23 | **615 804 748 0** | **615 804 749 0** | **615 995 557 0** |
| **Air Flex 1/2"** | 74 | 35 | 82 | 3.23 | **615 804 750 0** | **615 804 751 0** | **615 995 558 0** |



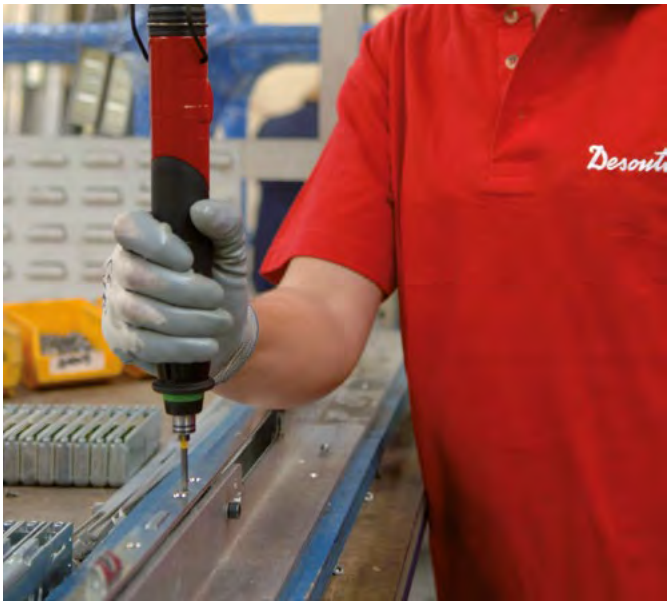
# Fastening accessories

| Fastener Head Type | Drivers | Output |
|---|---|---|
| POZIDRIV/SUPADRIV | 4mm Wing Shank | Exx — TORX SOCKET SIZE XX |
| PHILLIPS | 5mm Wing Shank | SWxx — SOCKET SIZE XX |
| TORX | 4mm Halfmoon | T — TORX SIZE XX |
| TORX TAMPER PROOF | 1/4" Hex** Insert (C6.3) (ISO1173/ DIN3126) | INxx — HEX BIT SIZE XX |
| TORX PLUS | 1/4" Hex Power Drive (E6.3) (ISO1173/ DIN3126) | XZNxx — TORX 12 BIT SIZE XX |
| INTERNAL HEX | 5/16" Hex Power Drive | |
| EXTERNAL HEX | 3mm Hex Power Drive (A3) (ISO1173) | |
| SLOT | Thread Drive | |
| TRI-WING | Square Drive | |

*** Note*: to be used with a bit holder*

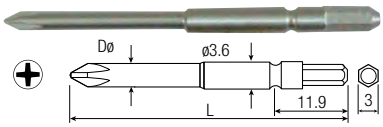
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**We can propose today a high quality range of bits and sockets with the latest Technology Support and Quality controls.**

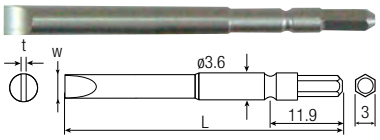


# Bits for precision screw

## Drive: ø 3mm Hex drive

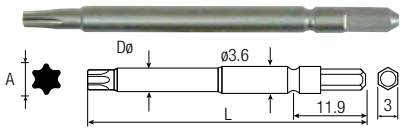



| PH | D ø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 0 | 2.5 | 0.10 | 50 | 1.97 | **615 820 227 0** |
| 1 | 4.0 | 0.16 | 50 | 1.97 | **615 820 228 0** |

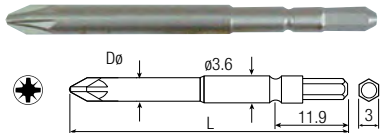



| W | t | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 3 | 0.5 | 0.02 | 50 | 1.97 | **615 820 232 0*** |
| 4 | 0.8 | 0.03 | 50 | 1.97 | **615 820 236 0** |

* Production upon your order.

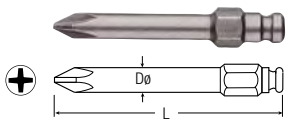



| T | A | | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| T6 | 1.7 | 0.06 | 2.2 | 0.09 | 50 | 1.97 | **615 820 240 0** |
| T10 | 2.7 | 0.11 | 3.0 | 0.12 | 50 | 1.97 | **615 820 243 0** |

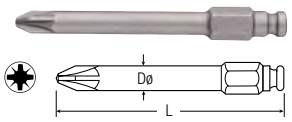



| PZ | D ø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 0 | 3 | 0.12 | 50 | 1.97 | **615 820 238 0** |
| 1 | 4 | 0.16 | 50 | 1.97 | **615 820 239 0** |

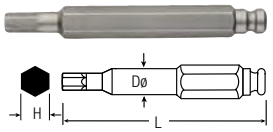
## Drive: 5/16” = 8mm Hex drive




| PH | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 1 | 4.5 | 0.18 | 50 | 1.97 | **615 820 645 0** |
| 2 | 6.0 | 0.24 | 50 | 1.97 | **615 820 646 0** |
| 2 | - | - | 93 | 3.66 | **615 820 721 0** |
| 3 | - | - | 93 | 3.66 | **615 820 722 0** |



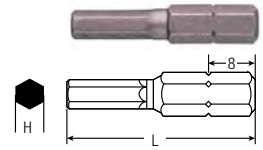

| PZ | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 1 | - | - | 92 | 3.62 | **615 820 724 0** |
| 2 | 6.0 | 0.24 | 50 | 1.97 | **615 820 647 0** |
| 2 | 6.0 | 0.24 | 92 | 3.62 | **615 820 355 0** |



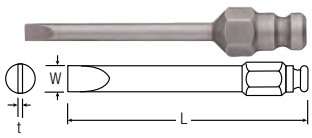

| H | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| H4 | 6.0 | 0.24 | 50 | 1.97 | **615 820 328 0*** |
| H5 | 8.0 | 0.31 | 50 | 1.97 | **615 820 329 0** |
| H6 | 8.0 | 0.31 | 50 | 1.97 | **615 820 330 0** |
| H8 | 8.0 | 0.31 | 50 | 1.97 | **615 820 331 0*** |

* Production upon your order.

## Drive: 11mm Hex drive



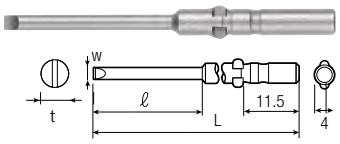

| H | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | 10 pcs |
| H6 | 70 | 2.76 | **615 820 650 0** |



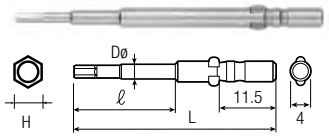

| W | t | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 3 | 0.5 | 0.02 | 76 | 2.99 | **615 820 209 0** |
| 8.8 | 1.3 | 0.05 | 52 | 2.05 | **615 820 728 0** |

# Bits for precision screw

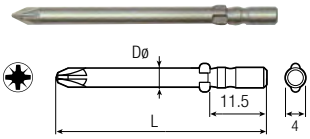
## Drive: ø 4mm shank drive - Wing shank




| W | t | | l | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | | 10 pcs |
| 2 | 0.3 | 0.01 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 423 0 |
| 2.5 | 0.3 | 0.01 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 424 0 |
| 3 | 0.4 | 0.02 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 048 0 |
| 4 | 0.5 | 0.02 | - | - | 40 | 1.57 | SLB001 | 615 820 425 0 |

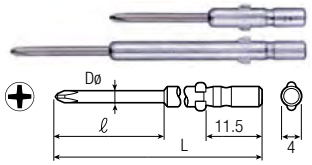



| H | Dø | | l | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | | 10 pcs |
| H1.5 | 2 | 0.08 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 426 0 |
| H2 | 3 | 0.12 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 427 0 |
| H2.5 | 3 | 0.12 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 428 0 |
| H3 | 4 | 0.16 | - | - | 60 | 2.36 | SLB001 | 615 820 429 0 |



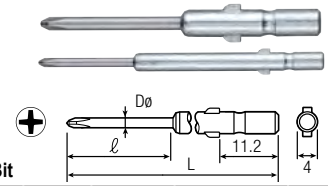

| PZ | Dø | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|
| | mm | in | mm | in | | 10 pcs |
| 0 | 4 | 0.16 | 60 | 2.36 | SLB001 | 615 820 369 0 |
| 1 | 4 | 0.16 | 60 | 2.36 | SLB001 | 615 820 370 0 |
| 2 | 4 | 0.16 | 60 | 2.36 | SLB001 | 615 820 383 0 |

## Drive: ø 4mm shank drive - Wing shank

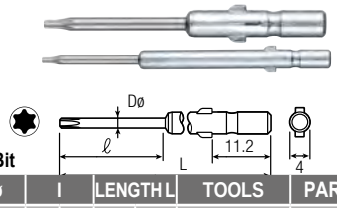



| PH | Dø | | l | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | | 10 pcs |
| 00 | 1.2 | 0.05 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 027 0 |
| 00 | 1.5 | 0.06 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 412 0 |
| 00 | 1.5 | 0.06 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 413 0 |
| 00 | 2.0 | 0.08 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 414 0 |
| 00 | 2.0 | 0.08 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 415 0 |
| 0 | 1.4 | 0.06 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 028 0 |
| 0 | 1.4 | 0.06 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 029 0 |
| 0 | 1.7 | 0.07 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 416 0 |
| 0 | 1.7 | 0.07 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 417 0 |
| 0 | 2.0 | 0.08 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 030 0 |
| 0 | 2.0 | 0.08 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 031 0 |
| 0 | 2.0 | 0.08 | 20 | 0.79 | 80 | 3.15 | ERXS / SLB001 | 615 820 032 0 |
| 0 | 2.0 | 0.08 | 20 | 0.79 | 100 | 3.94 | SLB001 | 615 820 033 0 |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 418 0 |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 419 0 |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 80 | 3.15 | SLB001 | 615 820 034 0 |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 100 | 3.94 | SLB001 | 615 820 035 0 |
| 1 | 3.0 | 0.12 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 420 0 |
| 1 | 3.0 | 0.12 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 036 0 |
| 1 | 3.0 | 0.12 | 20 | 0.79 | 80 | 3.15 | SLB001 | 615 820 037 0 |
| 1 | 3.0 | 0.12 | 20 | 0.79 | 100 | 3.94 | SLB001 | 615 820 038 0 |
| 1 | 3.0 | 0.12 | 20 | 0.79 | 120 | 4.72 | SLB001 | 615 820 442 0 |
| 1 | 4.0 | 0.16 | - | - | 40 | 1.57 | SLB001 | 615 820 421 0 |
| 1 | 4.0 | 0.16 | - | - | 60 | 2.36 | SLB001 | 615 820 039 0 |
| 2 | 4.0 | 0.16 | - | - | 40 | 1.57 | SLB001 | 615 820 422 0 |
| 2 | 4.0 | 0.16 | - | - | 60 | 2.36 | ERXS / SLB001 | 615 820 040 0 |
| 2 | 4.0 | 0.16 | - | - | 80 | 3.15 | SLB001 | 615 820 041 0 |
| 2 | 4.0 | 0.16 | - | - | 100 | 3.94 | SLB001 | 615 820 042 0 |
| 2 | 4.0 | 0.16 | - | - | 120 | 4.72 | SLB001 | 615 820 043 0 |

Shockless Bit

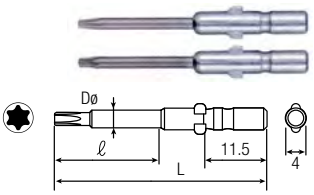



| PH | Dø | | l | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | | 10 pcs |
| 00 | 1.5 | 0.06 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 390 0 |
| 00 | 1.5 | 0.06 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 391 0 |
| 0 | 1.5 | 0.06 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 392 0 |
| 0 | 1.5 | 0.06 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 393 0 |
| 0 | 1.7 | 0.07 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 394 0 |
| 0 | 1.7 | 0.07 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 395 0 |
| 0 | 2 | 0.08 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 396 0 |
| 0 | 2 | 0.08 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 397 0 |



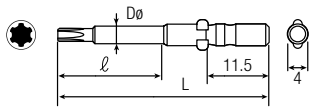

Shockless Bit

| T | Dø | | l | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | | 10 pcs |
| T5 | 2 | 0.08 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 398 0 |
| T5 | 2 | 0.08 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 399 0 |
| T6 | 2 | 0.08 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 400 0 |
| T6 | 2 | 0.08 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 401 0 |




| T | Dø | | l | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | | 10 pcs |
| T1 | 1.5 | 0.06 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 670 0 |
| T2 | 1.5 | 0.06 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 671 0 |
| T3 | 1.7 | 0.07 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 672 0 |
| T4 | 1.8 | 0.07 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 673 0 |
| T5 | 2.0 | 0.08 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 049 0 |
| T5 | 2.0 | 0.08 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 050 0 |
| T6 | 2.0 | 0.08 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 051 0 |
| T6 | 2.0 | 0.08 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 052 0 |
| T7 | 2.0 | 0.08 | 20 | 0.79 | 60 | 2.36 | SLB001 | 615 820 053 0 |
| T8 | 3.0 | 0.12 | 20 | 0.79 | 40 | 1.57 | SLB001 | 615 820 674 0 |
| T8H | 4.0 | 0.16 | - | - | 60 | 2.36 | SLB001 | 615 820 054 0 |
| T9 | 3.0 | 0.12 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 675 0 |
| T10 | 3.0 | 0.12 | 20 | 0.79 | 40 | 1.57 | ERXS / SLB001 | 615 820 676 0 |
| T10H | 4.0 | 0.16 | - | - | 60 | 2.36 | ERXS / SLB001 | 615 820 055 0 |

Torx Plus

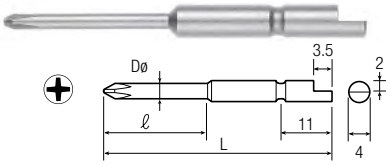



| IP | Dø | | l | | LENGTH L | | TOOLS | PART NO |
|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | | 10 pcs |
| 4IP | 1.8 | 0.07 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 371 0 |
| 5IP | 2.0 | 0.08 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 372 0 |
| 6IP | 2.5 | 0.10 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 373 0 |
| 8IP | 3.0 | 0.12 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 374 0 |
| 10IP | 3.0 | 0.12 | 20 | 0.79 | 60 | 2.36 | ERXS / SLB001 | 615 820 375 0 |

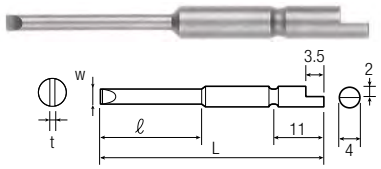
# Bits for precision screw

## Drive: ø 4mm - Halfmoon

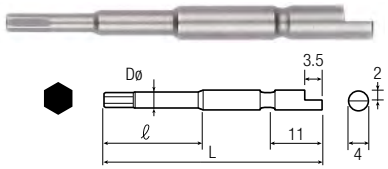




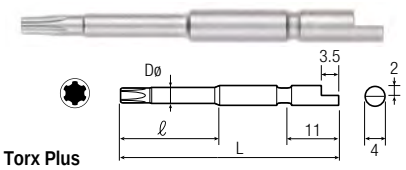

| PH | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| 00 | 1.5 | 0.06 | 20 | 0.79 | 44 | 1.73 | 615 820 406 0 |
| 00 | 1.5 | 0.06 | 20 | 0.79 | 64 | 2.52 | 615 820 407 0 |
| 00 | 2.0 | 0.08 | 20 | 0.79 | 64 | 2.52 | 615 820 078 0 |
| 0 | 1.8 | 0.07 | 20 | 0.79 | 44 | 1.73 | 615 820 076 0 |
| 0 | 1.8 | 0.07 | 20 | 0.79 | 64 | 2.52 | 615 820 077 0 |
| 0 | 2.0 | 0.08 | 20 | 0.79 | 44 | 1.73 | 615 820 408 0 |
| 0 | 2.0 | 0.08 | 20 | 0.79 | 64 | 2.52 | 615 820 409 0 |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 44 | 1.73 | 615 820 079 0 |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 64 | 2.52 | 615 820 080 0 |
| 1 | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 410 0 |
| 1 | 3.0 | 0.12 | 20 | 0.79 | 64 | 2.52 | 615 820 411 0 |
| 1 | 4.0 | 0.16 | 20 | 0.79 | 44 | 1.73 | 615 820 081 0 |
| 1 | 4.0 | 0.16 | 20 | 0.79 | 64 | 2.52 | 615 820 082 0 |
| 2 | 4.0 | 0.16 | 20 | 0.79 | 44 | 1.73 | 615 820 083 0 |
| 2 | 4.0 | 0.16 | 20 | 0.79 | 64 | 2.52 | 615 820 084 0 |




| w | t | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| 2 | 0.3 | 0.01 | 20 | 0.79 | 44 | 1.73 | 615 820 086 0 |
| 2.5 | 0.3 | 0.01 | 20 | 0.79 | 44 | 1.73 | 615 820 087 0 |
| 3 | 0.4 | 0.02 | 20 | 0.79 | 44 | 1.73 | 615 820 088 0 |
| 4 | 0.5 | 0.02 | - | - | 44 | 1.73 | 615 820 089 0 |

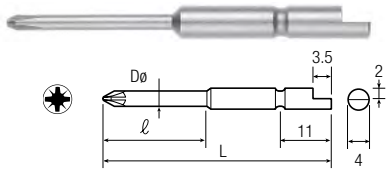



| H | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| H1.5 | 2.0 | 0.08 | 20 | 0.79 | 44 | 1.73 | 615 820 091 0 |
| H2 | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 092 0 |
| H2.5 | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 093 0 |
| H3 | 4.0 | 0.16 | - | - | 44 | 1.73 | 615 820 094 0 |

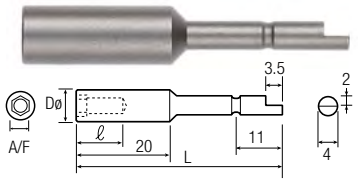



Torx Plus

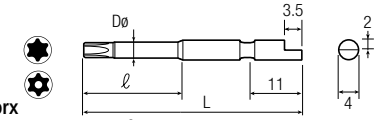
| IP | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| 2IP | 1.5 | 0.06 | 20 | 0.79 | 44 | 1.73 | 615 820 381 0 |
| 2IP | 1.5 | 0.06 | 20 | 0.79 | 64 | 2.52 | 615 820 367 0 |
| 3IP | 1.7 | 0.07 | 20 | 0.79 | 44 | 1.73 | 615 820 382 0 |
| 3IP | 1.7 | 0.07 | 20 | 0.79 | 64 | 2.52 | 615 820 368 0 |
| 4IP | 1.8 | 0.07 | 20 | 0.79 | 44 | 1.73 | 615 820 357 0 |
| 4IP | 1.8 | 0.07 | 20 | 0.79 | 64 | 2.52 | 615 820 358 0 |
| 5IP | 2.0 | 0.08 | 20 | 0.79 | 44 | 1.73 | 615 820 359 0 |
| 5IP | 2.0 | 0.08 | 20 | 0.79 | 64 | 2.52 | 615 820 360 0 |
| 6IP | 2.5 | 0.10 | 20 | 0.79 | 44 | 1.73 | 615 820 361 0 |
| 6IP | 2.5 | 0.10 | 20 | 0.79 | 64 | 2.52 | 615 820 362 0 |
| 8IP | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 363 0 |
| 8IP | 3.0 | 0.12 | 20 | 0.79 | 64 | 2.52 | 615 820 364 0 |
| 10IP | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 365 0 |
| 10IP | 3.0 | 0.12 | 20 | 0.79 | 64 | 2.52 | 615 820 366 0 |




| PZ | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 44 | 1.73 | 615 820 377 0 |
| 0 | 2.5 | 0.10 | 20 | 0.79 | 64 | 2.52 | 615 820 378 0 |
| 1 | 4.0 | 0.16 | - | - | 44 | 1.73 | 615 820 379 0 |
| 1 | 4.0 | 0.16 | - | - | 64 | 2.52 | 615 820 380 0 |




| AF | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| A/F2.3 | 4.0 | 0.16 | 5 | 0.20 | 44 | 1.73 | 615 820 095 0 |
| A/F2.5 | 4.0 | 0.16 | 5 | 0.20 | 44 | 1.73 | 615 820 096 0 |
| A/F3 | 5.0 | 0.20 | 8 | 0.31 | 44 | 1.73 | 615 820 097 0 |
| A/F4 | 7.0 | 0.28 | 10 | 0.39 | 44 | 1.73 | 615 820 098 0 |
| A/F4.5 | 7.0 | 0.28 | 10 | 0.39 | 44 | 1.73 | 615 820 099 0 |
| A/F5 | 8.0 | 0.31 | 15 | 0.59 | 44 | 1.73 | 615 820 100 0 |
| A/F5.5 | 8.0 | 0.31 | 15 | 0.59 | 44 | 1.73 | 615 820 101 0 |

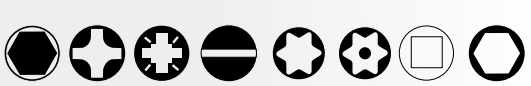


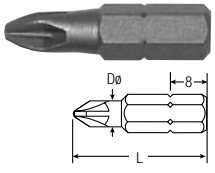

Torx
Torx Tamper Proof

| T | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| T1 | 1.5 | 0.06 | 20 | 0.79 | 44 | 1.73 | 615 820 663 0 |
| T2 | 1.5 | 0.06 | 20 | 0.79 | 44 | 1.73 | 615 820 664 0 |
| T3 | 1.7 | 0.07 | 20 | 0.79 | 44 | 1.73 | 615 820 665 0 |
| T4 | 1.8 | 0.07 | 20 | 0.79 | 44 | 1.73 | 615 820 666 0 |
| T5 | 2.0 | 0.08 | 20 | 0.79 | 44 | 1.73 | 615 820 102 0 |
| T5 | 2.0 | 0.08 | 20 | 0.79 | 64 | 2.52 | 615 820 103 0 |
| T6 | 2.0 | 0.08 | 20 | 0.79 | 44 | 1.73 | 615 820 104 0 |
| T6 | 2.0 | 0.08 | 20 | 0.79 | 64 | 2.52 | 615 820 105 0 |
| T8 | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 668 0 |
| T8H | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 106 0 |
| T8H | 3.0 | 0.12 | 20 | 0.79 | 64 | 2.52 | 615 820 107 0 |
| T9 | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 669 0 |
| T10H | 3.0 | 0.12 | 20 | 0.79 | 44 | 1.73 | 615 820 108 0 |
| T10H | 3.0 | 0.12 | 20 | 0.79 | 64 | 2.52 | 615 820 109 0 |
| T15H | 4.0 | 0.16 | 20 | 0.79 | 64 | 2.52 | 615 820 110 0 |

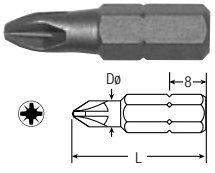
# Insert bits

## Drive: 1/4” = 6.35mm
## Hex shank DIN3126-C6.3

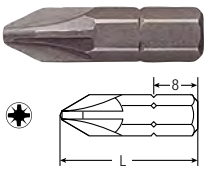





| PH | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 2 | 6.0 | 0.24 | 25.4 | 1.00 | 615 820 518 0 |



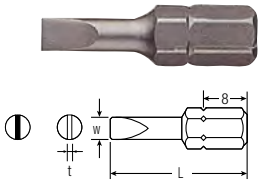

| PZ | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 1 | 4.5 | 0.18 | 25.0 | 0.98 | 615 820 690 0 |
| 2 | 6.0 | 0.24 | 25.0 | 0.98 | 615 820 450 0 |
| 2 | 6.0 | 0.24 | 50.0 | 1.97 | 615 820 694 0 |
| 3 | 6.0 | 0.24 | 25.0 | 0.98 | 615 820 693 0 |



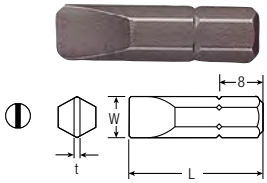

| PZ | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | 10 pcs |
| 1 | 25.4 | 1.00 | 615 820 449 0 |
| 2 | 25.4 | 1.00 | 615 820 450 0 |
| 3 | 50.0 | 1.97 | 615 820 522 0 |

# Insert bits

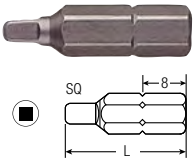
## Drive: 1/4” = 6.35mm
## Hex shank DIN3126-C6.3



| w | t | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 4 | 0.6 | 0.02 | 25.0 | 0.98 | **615 820 531 0** |
| 5 | 0.8 | 0.03 | 25.0 | 0.98 | **615 820 532 0** |

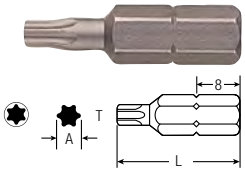


| w | t | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 4.76 | 0.9 | 0.03 | 25.4 | 1.00 | **615 820 452 0** |
| 5.55 | 1.0 | 0.04 | 25.4 | 1.00 | **615 820 453 0** |
| 6.35 | 1.1 | 0.04 | 25.4 | 1.00 | **615 820 454 0** |
| 7.14 | 1.2 | 0.05 | 25.4 | 1.00 | **615 820 455 0** |
| 7.93 | 1.3 | 0.05 | 25.4 | 1.00 | **615 820 456 0** |

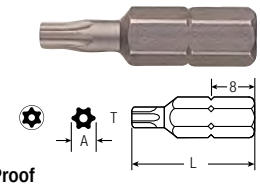


| SQ | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | 10 pcs |
| 1 (3/32”) | 25.4 | 1.00 | **615 820 461 0*** |
| 2 (1/8”) | 25.4 | 1.00 | **615 820 462 0** |
| 3 (9/64”) | 25.4 | 1.00 | **615 820 463 0** |

* Production upon your order.



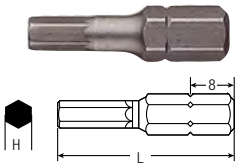
| T | A | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| T3 | 1.1 | 0.04 | 25.0 | 0.98 | **615 820 686 0** |
| T5 | 1.4 | 0.05 | 25.0 | 0.98 | **615 820 537 0** |
| T6 | 1.7 | 0.06 | 25.0 | 0.98 | **615 820 538 0** |
| T7 | 2.0 | 0.08 | 25.0 | 0.98 | **615 820 539 0** |
| T8 | 2.3 | 0.09 | 25.0 | 0.98 | **615 820 540 0** |
| T9 | 2.5 | 0.10 | 25.0 | 0.98 | **615 820 541 0** |
| T10 | 2.7 | 0.11 | 25.0 | 0.98 | **615 820 542 0** |
| T15 | 3.3 | 0.13 | 25.0 | 0.98 | **615 820 543 0** |
| T20 | 3.8 | 0.15 | 25.0 | 0.98 | **615 820 544 0** |
| T25 | 4.4 | 0.17 | 25.0 | 0.98 | **615 820 545 0** |
| T27 | 5.0 | 0.20 | 25.0 | 0.98 | **615 820 546 0** |
| T30 | 5.5 | 0.22 | 25.0 | 0.98 | **615 820 547 0** |
| T40 | 6.6 | 0.26 | 25.0 | 0.98 | **615 820 548 0** |



**Torx Tamper Proof**

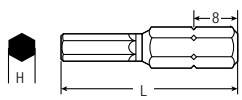
| T | A | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| T10H | 2.7 | 0.11 | 25.0 | 0.98 | **615 820 549 0** |
| T20H | 3.8 | 0.15 | 25.0 | 0.98 | **615 820 551 0** |
| T25H | 4.4 | 0.17 | 25.0 | 0.98 | **615 820 552 0** |
| T27H | 5.0 | 0.20 | 25.0 | 0.98 | **615 820 553 0*** |

* Production upon your order.

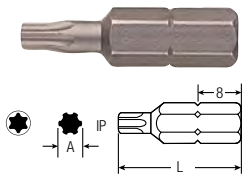


| H | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | 10 pcs |
| H1.5 | 25.0 | 0.98 | **615 820 523 0** |
| H2 | 25.0 | 0.98 | **615 820 524 0** |
| H2.5 | 25.0 | 0.98 | **615 820 525 0** |
| H3 | 25.0 | 0.98 | **615 820 526 0** |
| H4 | 25.0 | 0.98 | **615 820 527 0** |
| H5 | 25.0 | 0.98 | **615 820 528 0** |
| H6 | 25.0 | 0.98 | **615 820 529 0** |
| H8 | 25.0 | 0.98 | **615 820 530 0** |

## Drive: 5/16” = 8mm Hex.
## DIN3126-C8

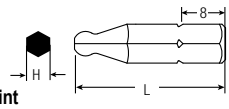


| H | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | 10 pcs |
| H5 | 34.0 | 1.34 | **615 820 533 0** |
| H6 | 34.0 | 1.34 | **615 820 534 0** |



**Torx Plus**

| IP | A | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 6IP | 1.7 | 0.06 | 25.0 | 0.98 | **615 820 257 0** |
| 8IP | 2.3 | 0.09 | 25.0 | 0.98 | **615 820 258 0** |
| 10IP | 2.7 | 0.11 | 25.0 | 0.98 | **615 820 259 0** |
| 15IP | 3.3 | 0.13 | 25.0 | 0.98 | **615 820 260 0** |
| 20IP | 3.8 | 0.15 | 25.0 | 0.98 | **615 820 261 0** |
| 25IP | 4.4 | 0.17 | 25.0 | 0.98 | **615 820 262 0** |
| 30IP | 5.5 | 0.22 | 25.0 | 0.98 | **615 820 263 0** |
| 40IP | 6.6 | 0.26 | 25.4 | 1.00 | **615 820 264 0** |

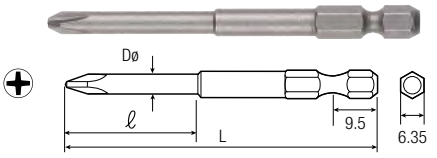


**Ball Point**

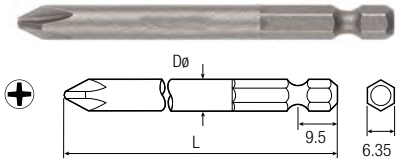
| H | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | 10 pcs |
| H2 | 25.0 | 0.98 | **615 820 114 0** |
| H2.5 | 25.0 | 0.98 | **615 820 115 0** |
| H3 | 25.0 | 0.98 | **615 820 116 0** |
| H4 | 25.0 | 0.98 | **615 820 117 0** |
| H5 | 25.0 | 0.98 | **615 820 118 0** |
| H6 | 25.0 | 0.98 | **615 820 119 0** |
| H8 | 25.0 | 0.98 | **615 820 120 0** |

# Power bits

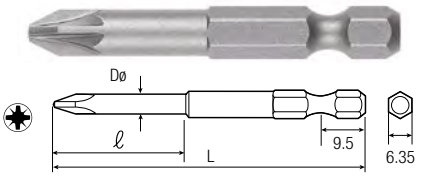
## Drive: 1/4” = 6.35mm
## Hex drive - DIN3126-E6.3



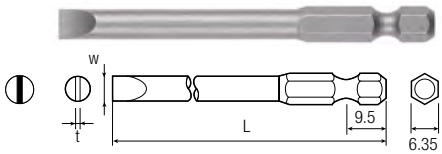

| PH | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| 00 | 1.2 | 0.05 | 20 | 0.8 | 60 | 2.4 | **615 820 056 0** |
| 00 | 1.6 | 0.06 | - | - | 49 | 1.9 | **615 820 125 0** |
| 00 | 1.6 | 0.06 | - | - | 70 | 2.8 | **615 820 348 0** |
| 00 | 1.5 | 0.06 | 20 | 0.8 | 60 | 2.4 | **615 820 057 0** |
| 00 | 1.7 | 0.07 | 20 | 0.8 | 60 | 2.4 | **615 820 058 0** |
| 00 | 2 | 0.08 | 40 | 1.57 | 60 | 2.36 | **615 820 059 0** |
| 0 | 1.4 | 0.06 | 30 | 1.2 | 60 | 2.4 | **615 820 061 0** |
| 0 | 1.7 | 0.07 | 40 | 1.6 | 80 | 3.1 | **615 820 064 0** |
| 0 | 2.5 | 0.10 | 20 | 0.8 | 60 | 2.4 | **615 820 067 0** |
| 0 | 2.5 | 0.10 | 30 | 1.2 | 100 | 3.9 | **615 820 068 0** |
| 0 | 3.0 | 0.12 | 20 | 0.8 | 60 | 2.4 | **615 820 069 0** |
| 0 | 3.0 | 0.12 | 30 | 1.2 | 100 | 3.9 | **615 820 070 0** |
| 0 | 3.2 | 0.12 | - | - | 49 | 1.9 | **615 820 464 0** |



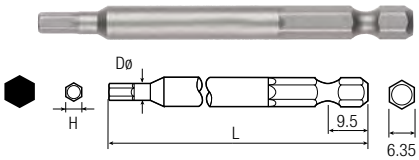

| PH | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 1 | 4.8 | 0.19 | 49 | 1.93 | **615 820 465 0** |
| 1 | 4.76 | 0.19 | 70 | 2.76 | **615 820 466 0** |
| 1 | 4.76 | 0.19 | 89 | 3.50 | **615 820 467 0** |
| 1 | 4.5 | 0.18 | 150 | 5.91 | **615 820 659 0** |
| 1 | 4.76 | 0.19 | 152 | 5.98 | **615 820 468 0** |
| 2 | 4.76 | 0.19 | 49 | 1.93 | **615 820 126 0** |
| 2 | 6.35 | 0.25 | 49 | 1.93 | **615 820 469 0** |
| 2 | 6.35 | 0.25 | 70 | 2.76 | **615 820 470 0** |
| 2 | 6.35 | 0.25 | 89 | 3.50 | **615 820 471 0** |
| 2 | 6.0 | 0.24 | 100 | 3.94 | **615 820 561 0** |
| 2 | 6.0 | 0.24 | 127 | 5.00 | **615 820 127 0** |
| 2 | 6.0 | 0.24 | 150 | 5.91 | **615 820 660 0** |
| 2 | 6.35 | 0.25 | 152 | 5.98 | **615 820 472 0** |
| 2 | 6.0 | 0.24 | 200 | 7.87 | **615 820 129 0** |
| 3 | 7.9 | 0.31 | 70 | 2.76 | **615 820 474 0** |
| 3 | 7.9 | 0.31 | 89 | 3.50 | **615 820 475 0** |
| 3 | 8.0 | 0.31 | 150 | 5.91 | **615 820 128 0** |




| PZ | Dø | | l | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | 10 pcs |
| 0 | 3.17 | 0.12 | - | - | 70 | 2.76 | **615 820 314 0** |
| 0 | 2.00 | 0.08 | 20 | 0.79 | 60 | 2.36 | **615 820 715 0** |
| 0 | 3.00 | 0.12 | 20 | 0.79 | 60 | 2.36 | **615 820 716 0** |
| 0 | 2.0 | 0.08 | 30 | 1.18 | 100 | 3.94 | **615 820 322 0** |
| 1 | 4.76 | 0.19 | - | - | 49 | 1.93 | **615 820 131 0** |
| 1 | 4.76 | 0.19 | - | - | 70 | 2.76 | **615 820 352 0** |
| 1 | 4.76 | 0.19 | - | - | 89 | 3.50 | **615 820 478 0** |
| 1 | 4.50 | 0.18 | - | - | 100 | 3.94 | **615 820 483 0** |
| 1 | 4.76 | 0.19 | 50 | 1.97 | 152 | 5.98 | **615 820 481 0** |
| 2 | 6.35 | 0.25 | - | - | 49 | 1.93 | **615 820 311 0** |
| 2 | 6.0 | 0.24 | 22 | 0.87 | 50 | 1.97 | **615 820 712 0** |
| 2 | 6.35 | 0.25 | - | - | 70 | 2.76 | **615 820 476 0** |
| 2 | 6.35 | 0.25 | - | - | 89 | 3.50 | **615 820 479 0** |
| 2 | 6.0 | 0.24 | - | - | 100 | 3.94 | **615 820 558 0** |
| 2 | 6.0 | 0.24 | - | - | 150 | 5.91 | **615 820 661 0** |
| 2 | 6.35 | 0.25 | 50 | 1.97 | 152 | 5.98 | **615 820 482 0** |
| 2 | 6.0 | 0.24 | - | - | 200 | 7.87 | **615 820 711 0** |
| 4 | 8.0 | 0.31 | - | - | 51 | 2.01 | **615 820 714 0** |




| W | t | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 3.0 | 0.50 | 0.02 | 51 | 2.01 | **615 820 566 0** |
| 3.4 | 0.66 | 0.03 | 70 | 2.76 | **615 820 135 0** |
| 3.8 | 0.76 | 0.03 | 76 | 2.99 | **615 820 137 0** |
| 4.0 | 0.60 | 0.02 | 51 | 2.01 | **615 820 567 0** |
| 4.75 | 0.86 | 0.03 | 76 | 2.99 | **615 820 138 0** |
| 5.5 | 0.80 | 0.03 | 51 | 2.01 | **615 820 568 0** |
| 6.35 | 0.91 | 0.04 | 49 | 1.93 | **615 820 489 0** |
| 3.1 | 0.56 | 0.02 | 102 | 4.02 | **615 820 144 0** |
| 3.1 | 0.56 | 0.02 | 76 | 2.99 | **615 820 136 0** |
| 3.1 | 0.56 | 0.02 | 49 | 1.93 | **615 820 132 0** |
| 9.1 | 1.27 | 0.05 | 102 | 4.02 | **615 820 152 0** |
| 4.75 | 0.86 | 0.03 | 102 | 4.02 | **615 820 147 0** |
| 3.8 | 0.55 | 0.02 | 102 | 4.02 | **615 820 146 0** |
| 3.4 | 1.27 | 0.05 | 102 | 4.02 | **615 820 145 0** |
| 9.1 | 1.17 | 0.05 | 76 | 2.99 | **615 820 143 0** |
| 7.9 | 1.067 | 0.04 | 76 | 2.99 | **615 820 142 0** |
| 6.98 | 0.96 | 0.04 | 76 | 2.99 | **615 820 141 0** |
| 5.46 | 1.27 | 0.05 | 76 | 2.99 | **615 820 139 0** |
| 9.1 | 1.17 | 0.05 | 49 | 1.93 | **615 820 493 0** |
| 7.9 | 1.067 | 0.04 | 49 | 1.93 | **615 820 492 0** |
| 6.98 | 0.96 | 0.04 | 49 | 1.93 | **615 820 491 0** |
| 6.35 | 0.91 | 0.04 | 49 | 1.93 | **615 820 490 0** |
| 5.46 | 0.86 | 0.03 | 49 | 1.93 | **615 820 488 0** |
| 3.8 | 0.55 | 0.02 | 49 | 1.93 | **615 820 134 0** |
| 3.4 | 0.66 | 0.03 | 49 | 1.93 | **615 820 133 0** |

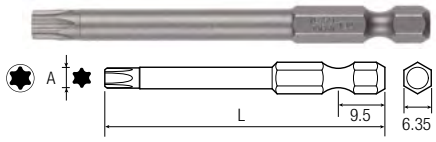



| H | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| H2 | 7.0 | 0.28 | 75 | 2.95 | **615 820 001 0** |
| H2 | 7.0 | 0.28 | 100 | 3.94 | **615 820 002 0** |
| H2 | 3.5 | 0.14 | 49 | 1.93 | **615 820 353 0** |
| H2.5 | 7.0 | 0.28 | 75 | 2.95 | **615 820 003 0** |
| H2.5 | 7.0 | 0.28 | 100 | 3.94 | **615 820 004 0** |
| H2.5 | 7.0 | 0.28 | 150 | 5.91 | **615 820 014 0** |
| H2.5 | 3.5 | 0.14 | 49 | 1.93 | **615 820 495 0** |
| H3 | 3.5 | 0.14 | 49 | 1.93 | **615 820 496 0** |
| H3 | 7.0 | 0.28 | 75 | 2.95 | **615 820 005 0** |
| H3 | 7.0 | 0.28 | 100 | 3.94 | **615 820 006 0** |
| H3 | 7.0 | 0.28 | 150 | 5.91 | **615 820 015 0** |
| H4 | 4.6 | 0.18 | 49 | 1.93 | **615 820 497 0** |
| H4 | 7.0 | 0.28 | 75 | 2.95 | **615 820 007 0** |
| H4 | 7.0 | 0.28 | 100 | 3.94 | **615 820 008 0** |
| H4 | 7.0 | 0.28 | 150 | 5.91 | **615 820 016 0** |
| H5 | 5.8 | 0.23 | 49 | 1.93 | **615 820 498 0** |
| H5 | 7.0 | 0.28 | 75 | 2.95 | **615 820 009 0** |
| H5 | 7.0 | 0.28 | 100 | 3.94 | **615 820 010 0** |
| H5 | 7.0 | 0.28 | 150 | 5.91 | **615 820 017 0** |

| H | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| H6 | - | - | 49 | 1.93 | **615 820 499 0** |
| H6 | 7.0 | 0.28 | 75 | 2.95 | **615 820 011 0** |
| H6 | 7.0 | 0.28 | 100 | 3.94 | **615 820 012 0** |
| H6 | 7.0 | 0.28 | 150 | 5.91 | **615 820 018 0** |
| H7 | 10 | 0.39 | 70 | 2.76 | **615 820 569 0** |
| H8 | - | - | 49 | 1.93 | **615 820 315 0** |
| H8 | 10 | 0.39 | 70 | 2.76 | **615 820 570 0** |
| H8 | 10 | 0.39 | 150 | 5.91 | **615 820 019 0** |
| H9 | 11 | 0.43 | 70 | 2.76 | **615 820 571 0** |
| H10 | - | - | 49 | 1.93 | **615 820 354 0** |
| H10 | 12 | 0.47 | 70 | 2.76 | **615 820 572 0** |
| H1/4” | - | - | 49 | 1.93 | **615 820 494 0** |

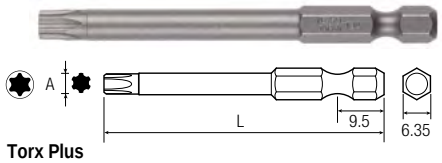
# Power bits

## Drive: 1/4” = 6.35mm
## Hex drive - DIN3126-E6.3




| T | A | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| T5 | 1.37 | 0.05 | 49 | 1.93 | **615 820 153 0** |
| T5 | 1.37 | 0.05 | 70 | 2.76 | **615 820 154 0** |
| T6 | 1.65 | 0.06 | 49 | 1.93 | **615 820 156 0** |
| T6 | 1.65 | 0.06 | 70 | 2.76 | **615 820 157 0** |
| T7 | 1.97 | 0.08 | 70 | 2.76 | **615 820 161 0** |
| T7 | 1.97 | 0.08 | 89 | 3.50 | **615 820 162 0** |
| T8 | 2.30 | 0.09 | 49 | 1.93 | **615 820 166 0** |
| T8 | 2.30 | 0.09 | 70 | 2.76 | **615 820 167 0** |
| T8 | 2.30 | 0.09 | 90 | 3.54 | **615 820 168 0** |
| T8 | 2.30 | 0.09 | 152 | 5.98 | **615 820 169 0** |
| T9 | 2.48 | 0.10 | 70 | 2.76 | **615 820 171 0** |
| T9 | 2.48 | 0.10 | 90 | 3.54 | **615 820 172 0** |
| T9 | 2.48 | 0.10 | 152 | 5.98 | **615 820 176 0** |
| T10 | 2.72 | 0.11 | 49 | 1.93 | **615 820 177 0** |
| T10 | 2.72 | 0.11 | 70 | 2.76 | **615 820 178 0** |
| T10 | 2.72 | 0.11 | 90 | 3.54 | **615 820 179 0** |
| T10 | 2.72 | 0.11 | 152 | 5.98 | **615 820 180 0** |
| T15 | 3.26 | 0.13 | 49 | 1.93 | **615 820 181 0** |
| T15 | 3.26 | 0.13 | 70 | 2.76 | **615 820 183 0** |
| T15 | 3.26 | 0.13 | 90 | 3.54 | **615 820 186 0** |
| T15 | 3.26 | 0.13 | 152 | 5.98 | **615 820 187 0*** |
| T20 | 3.84 | 0.15 | 49 | 1.93 | **615 820 188 0** |
| T20 | 3.84 | 0.15 | 70 | 2.76 | **615 820 189 0** |
| T20 | 3.84 | 0.15 | 90 | 3.54 | **615 820 190 0** |
| T20 | 3.84 | 0.15 | 152 | 5.98 | **615 820 191 0** |
| T25 | 4.40 | 0.17 | 49 | 1.93 | **615 820 192 0** |
| T25 | 4.40 | 0.17 | 70 | 2.76 | **615 820 193 0** |
| T25 | 4.40 | 0.17 | 152 | 5.98 | **615 820 316 0*** |
| T27 | 4.96 | 0.20 | 90 | 3.54 | **615 820 356 0** |
| T27 | 4.96 | 0.20 | 152 | 5.98 | **615 820 695 0** |
| T30 | 5.49 | 0.22 | 49 | 1.93 | **615 820 163 0** |
| T30 | 5.49 | 0.22 | 70 | 2.76 | **615 820 174 0** |
| T30 | 5.49 | 0.22 | 90 | 3.54 | **615 820 184 0** |
| T30 | 5.49 | 0.22 | 152 | 5.98 | **615 820 194 0** |
| T40 | 6.60 | 0.26 | 49 | 1.93 | **615 820 164 0** |
| T40 | 6.60 | 0.26 | 70 | 2.76 | **615 820 175 0** |
| T40 | 6.60 | 0.26 | 90 | 3.54 | **615 820 185 0** |
| T40 | 6.60 | 0.26 | 152 | 5.98 | **615 820 195 0** |

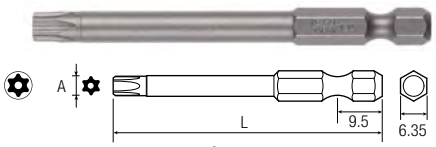
* Production upon your order.




**Torx Plus**

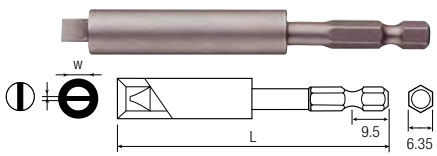
| IP | A | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| 5IP | 1.37 | 0.05 | 49 | 1.93 | **615 820 265 0** |
| 5IP | 1.37 | 0.05 | 70 | 2.76 | **615 820 266 0** |
| 6IP | 1.65 | 0.06 | 152 | 5.98 | **615 820 270 0** |
| 7IP | 1.97 | 0.08 | 49 | 1.93 | **615 820 271 0** |
| 7IP | 1.97 | 0.08 | 70 | 2.76 | **615 820 272 0** |
| 7IP | 1.97 | 0.08 | 90 | 3.54 | **615 820 273 0** |
| 7IP | 1.97 | 0.08 | 152 | 5.98 | **615 820 274 0** |
| 8IP | 2.30 | 0.09 | 49 | 1.93 | **615 820 275 0** |
| 8IP | 2.30 | 0.09 | 90 | 3.54 | **615 820 277 0** |
| 8IP | 2.30 | 0.09 | 152 | 5.98 | **615 820 278 0** |
| 9IP | 2.48 | 0.10 | 49 | 1.93 | **615 820 280 0.** |
| 9IP | 2.48 | 0.10 | 70 | 2.76 | **615 820 281 0*** |
| 9IP | 2.48 | 0.10 | 90 | 3.54 | **615 820 286 0*** |
| 9IP | 2.48 | 0.10 | 152 | 5.98 | **615 820 279 0*** |
| 10IP | 2.72 | 0.11 | 49 | 1.93 | **615 820 287 0** |
| 10IP | 2.72 | 0.11 | 152 | 5.98 | **615 820 294 0** |
| 15IP | 3.26 | 0.13 | 49 | 1.93 | **615 820 295 0** |
| 15IP | 3.26 | 0.13 | 90 | 3.54 | **615 820 301 0*** |
| 15IP | 3.26 | 0.13 | 152 | 5.98 | **615 820 302 0** |
| 20IP | 3.84 | 0.15 | 49 | 1.93 | **615 820 303 0** |
| 20IP | 3.84 | 0.15 | 70 | 2.76 | **615 820 304 0** |
| 20IP | 3.84 | 0.15 | 90 | 3.54 | **615 820 305 0*** |
| 20IP | 3.84 | 0.15 | 152 | 5.98 | **615 820 306 0** |
| 25IP | 4.40 | 0.17 | 49 | 1.93 | **615 820 282 0*** |
| 25IP | 4.40 | 0.17 | 70 | 2.76 | **615 820 283 0*** |
| 25IP | 4.40 | 0.17 | 90 | 3.54 | **615 820 284 0*** |
| 25IP | 4.40 | 0.17 | 152 | 5.98 | **615 820 285 0*** |
| 27IP | 4.96 | 0.20 | 49 | 1.93 | **615 820 289 0** |
| 27IP | 4.96 | 0.20 | 90 | 3.54 | **615 820 291 0*** |
| 30IP | 5.49 | 0.22 | 49 | 1.93 | **615 820 297 0*** |
| 30IP | 5.49 | 0.22 | 70 | 2.76 | **615 820 298 0*** |
| 30IP | 5.49 | 0.22 | 90 | 3.54 | **615 820 299 0*** |
| 30IP | 5.49 | 0.22 | 152 | 5.98 | **615 820 300 0** |
| 40IP | 6.60 | 0.26 | 49 | 1.93 | **615 820 307 0*** |
| 40IP | 6.60 | 0.26 | 70 | 2.76 | **615 820 308 0*** |
| 40IP | 6.60 | 0.26 | 90 | 3.54 | **615 820 309 0*** |
| 40IP | 6.60 | 0.26 | 152 | 5.98 | **615 820 310 0** |

* Production upon your order.



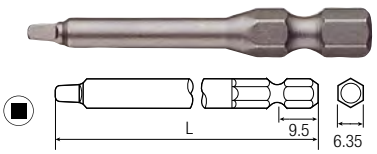

**Torx Tamper Proof**

| T | A | | LENGTH L | | PART NO |
|---|---|---|---|---|---|
| | mm | in | mm | in | 10 pcs |
| T10H | 2.72 | 0.11 | 49 | 1.93 | **615 820 196 0** |
| T10H | 2.72 | 0.11 | 70 | 2.76 | **615 820 198 0** |
| T20H | 3.84 | 0.15 | 49 | 1.93 | **615 820 197 0** |
| T20H | 3.84 | 0.15 | 70 | 2.76 | **615 820 199 0** |




**Finder Sleeve Combined**

| W | t | | screw head | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|
| | mm | in | | mm | in | 10 pcs |
| 4.90 | 0.91 | 0.04 | 4-5 | 95 | 3.74 | **111062** |
| 0.91 | 0.91 | 0.04 | 5-6 | 95 | 3.74 | **615 820 503 0** |
| 6.12 | 0.97 | 0.04 | 6-8 | 95 | 3.74 | **111072** |
| 7.37 | 1.07 | 0.04 | 8-10 | 95 | 3.74 | **615 804 741 0** |
| 8.89 | 1.17 | 0.05 | 10-12 | 95 | 3.74 | **615 804 742 0** |
| 10.03 | 1.27 | 0.05 | 12-14 | 98 | 3.86 | **615 804 743 0** |

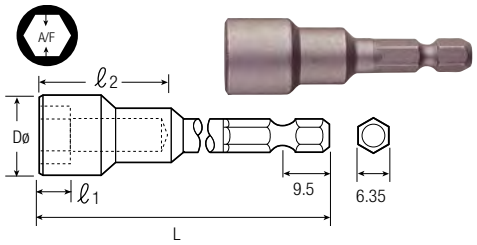



| SQ | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | 10 pcs |
| 1 (3/32”) | 70 | 2.76 | **615 820 500 0** |
| 3 (9/64”) | 70 | 2.76 | **615 820 502 0** |

# Nut setters

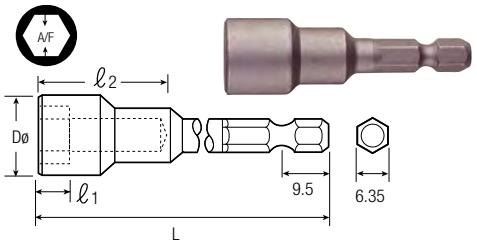
## Drive: 1/4” = 6.35mm
## Hex drive - DIN3126-E6.3

### Non magnetic nut setters




| A/F | | Dø | | l1 | | l2 | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | in | mm | in | mm | in | mm | in | mm | in | 10 pcs |
| 4.0 | 0.2 | 8.0 | 0.3 | 3.0 | 0.1 | 15.0 | 0.6 | 50 | 2.0 | **615 820 573 0** |
| 4.0 | 0.2 | 8.0 | 0.3 | 3.0 | 0.1 | 25.0 | 1.0 | 100 | 3.9 | **615 820 599 0** |
| 4.5 | 0.2 | 8.0 | 0.3 | 3.0 | 0.1 | 15.0 | 0.6 | 50 | 2.0 | **615 820 574 0*** |
| 4.5 | 0.2 | 8.0 | 0.3 | 3.0 | 0.1 | 25.0 | 1.0 | 100 | 3.9 | **615 820 600 0** |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 15.0 | 0.6 | 50 | 2.0 | **615 820 575 0*** |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 25.0 | 1.0 | 75 | 3.0 | **615 820 588 0** |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 25.0 | 1.0 | 100 | 3.9 | **615 820 601 0** |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 25.0 | 1.0 | 150 | 5.9 | **615 820 210 0** |
| 5.5 | 0.2 | 9.0 | 0.4 | 3.5 | 0.1 | 15.0 | 0.6 | 50 | 2.0 | **615 820 576 0** |
| 5.5 | 0.2 | 9.0 | 0.4 | 3.5 | 0.1 | 25.0 | 1.0 | 75 | 3.0 | **615 820 589 0** |
| 5.5 | 0.2 | 9.0 | 0.4 | 3.5 | 0.1 | 25.0 | 1.0 | 100 | 3.9 | **615 820 602 0** |
| 5.5 | 0.2 | 9.0 | 0.4 | 3.5 | 0.1 | 25.0 | 1.0 | 150 | 5.9 | **615 820 211 0** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 15.0 | 0.6 | 50 | 2.0 | **615 820 577 0** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 25.0 | 1.0 | 75 | 3.0 | **615 820 590 0** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 25.0 | 1.0 | 100 | 3.9 | **615 820 603 0** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 25.0 | 1.0 | 150 | 5.9 | **615 820 212 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 15.0 | 0.6 | 50 | 2.0 | **615 820 578 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 25.0 | 1.0 | 75 | 3.0 | **615 820 591 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 25.0 | 1.0 | 100 | 3.9 | **615 820 604 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 25.0 | 1.0 | 150 | 5.9 | **615 820 213 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 15.0 | 0.6 | 50 | 2.0 | **615 820 579 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 30.0 | 1.2 | 75 | 3.0 | **615 820 592 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 30.0 | 1.2 | 100 | 3.9 | **615 820 605 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 30.0 | 1.2 | 150 | 5.9 | **615 820 214 0** |
| 9.0 | 0.4 | 14.0 | 0.6 | 5.5 | 0.2 | 15.0 | 0.6 | 50 | 2.0 | **615 820 580 0** |
| 9.0 | 0.4 | 14.0 | 0.6 | 5.5 | 0.2 | 30.0 | 1.2 | 75 | 3.0 | **615 820 593 0** |
| 9.0 | 0.4 | 14.0 | 0.6 | 5.5 | 0.2 | 30.0 | 1.2 | 100 | 3.9 | **615 820 606 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 15.0 | 0.6 | 50 | 2.0 | **615 820 581 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 30.0 | 1.2 | 75 | 3.0 | **615 820 594 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 30.0 | 1.2 | 100 | 3.9 | **615 820 607 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 30.0 | 1.2 | 150 | 5.9 | **615 820 215 0** |
| 11.0 | 0.4 | 17.0 | 0.7 | 7.0 | 0.3 | 15.0 | 0.6 | 50 | 2.0 | **615 820 582 0** |
| 11.0 | 0.4 | 17.0 | 0.7 | 7.0 | 0.3 | 30.0 | 1.2 | 75 | 3.0 | **615 820 595 0** |
| 11.0 | 0.4 | 17.0 | 0.7 | 7.0 | 0.3 | 30.0 | 1.2 | 100 | 3.9 | **615 820 608 0** |
| 12.0 | 0.5 | 18.0 | 0.7 | 7.5 | 0.3 | 30.0 | 1.2 | 75 | 3.0 | **615 820 596 0** |
| 12.0 | 0.5 | 18.0 | 0.7 | 7.5 | 0.3 | 30.0 | 1.2 | 100 | 3.9 | **615 820 609 0** |
| 12.0 | 0.5 | 18.0 | 0.7 | 7.5 | 0.3 | 30.0 | 1.2 | 150 | 5.9 | **615 820 216 0** |
| 13.0 | 0.5 | 19.0 | 0.7 | 8.0 | 0.3 | 15.0 | 0.6 | 50 | 2.0 | **615 820 584 0** |
| 13.0 | 0.5 | 19.0 | 0.7 | 8.0 | 0.3 | 30.0 | 1.2 | 100 | 3.9 | **615 820 610 0** |
| 13.0 | 0.5 | 19.0 | 0.7 | 8.0 | 0.3 | 30.0 | 1.2 | 150 | 5.9 | **615 820 217 0** |
| 14.0 | 0.6 | 20.0 | 0.8 | 8.0 | 0.3 | 15.0 | 0.6 | 50 | 2.0 | **615 820 585 0** |
| 14.0 | 0.6 | 20.0 | 0.8 | 8.0 | 0.3 | 30.0 | 1.2 | 75 | 3.0 | **615 820 598 0** |
| 14.0 | 0.6 | 20.0 | 0.8 | 8.0 | 0.3 | 30.0 | 1.2 | 100 | 3.9 | **615 820 611 0** |

### Magnetic nut setters

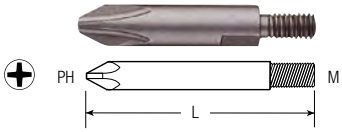



| A/F | | Dø | | l1 | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|---|---|
| mm | in | mm | in | mm | in | mm | in | 10 pcs |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 50 | 2.0 | **615 820 612 0** |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 75 | 3.0 | **615 820 623 0** |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 100 | 3.9 | **615 820 634 0** |
| 5.0 | 0.2 | 8.5 | 0.3 | 3.5 | 0.1 | 150 | 5.9 | **615 820 218 0** |
| 5.5 | 0.2 | 9.0 | 0.4 | 3.5 | 0.1 | 50 | 2.0 | **615 820 613 0** |
| 5.5 | 0.2 | 9.0 | 0.4 | 3.5 | 0.1 | 75 | 3.0 | **615 820 624 0*** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 50 | 2.0 | **615 820 614 0** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 75 | 3.0 | **615 820 625 0** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 100 | 3.9 | **615 820 636 0** |
| 6.0 | 0.2 | 10.0 | 0.4 | 4.0 | 0.2 | 150 | 5.9 | **615 820 220 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 4.5 | 0.2 | 50 | 2.0 | **615 820 615 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 4.5 | 0.2 | 75 | 3.0 | **615 820 626 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 4.5 | 0.2 | 100 | 3.9 | **615 820 637 0** |
| 7.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 150 | 5.9 | **615 820 221 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 50 | 2.0 | **615 820 616 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 75 | 3.0 | **615 820 627 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 100 | 3.9 | **615 820 638 0** |
| 8.0 | 0.3 | 13.0 | 0.5 | 5.0 | 0.2 | 150 | 5.9 | **615 820 222 0** |
| 9.0 | 0.4 | 14.0 | 0.6 | 5.5 | 0.2 | 50 | 2.0 | **615 820 617 0** |
| 9.0 | 0.4 | 14.0 | 0.6 | 5.5 | 0.2 | 75 | 3.0 | **615 820 628 0** |
| 9.0 | 0.4 | 14.0 | 0.6 | 5.5 | 0.2 | 100 | 3.9 | **615 820 639 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 50 | 2.0 | **615 820 618 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 75 | 3.0 | **615 820 629 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 100 | 3.9 | **615 820 640 0** |
| 10.0 | 0.4 | 16.0 | 0.6 | 6.5 | 0.3 | 150 | 5.9 | **615 820 223 0** |
| 11.0 | 0.4 | 17.0 | 0.7 | 7.0 | 0.3 | 50 | 2.0 | **615 820 619 0** |
| 11.0 | 0.4 | 17.0 | 0.7 | 7.0 | 0.3 | 75 | 3.0 | **615 820 630 0** |
| 11.0 | 0.4 | 17.0 | 0.7 | 7.0 | 0.3 | 100 | 3.9 | **615 820 641 0** |
| 12.0 | 0.5 | 18.0 | 0.7 | 7.5 | 0.3 | 50 | 2.0 | **615 820 620 0** |
| 12.0 | 0.5 | 18.0 | 0.7 | 7.5 | 0.3 | 75 | 3.0 | **615 820 631 0** |
| 12.0 | 0.5 | 18.0 | 0.7 | 7.5 | 0.3 | 100 | 3.9 | **615 820 642 0** |
| 12.0 | 0.5 | 18.0 | 0.7 | 7.5 | 0.3 | 150 | 5.9 | **615 820 224 0** |
| 13.0 | 0.5 | 19.0 | 0.7 | 8.0 | 0.3 | 50 | 2.0 | **615 820 621 0** |
| 13.0 | 0.5 | 19.0 | 0.7 | 8.0 | 0.3 | 75 | 3.0 | **615 820 632 0** |
| 13.0 | 0.5 | 19.0 | 0.7 | 8.0 | 0.3 | 100 | 3.9 | **615 820 643 0** |
| 13.0 | 0.5 | 19.0 | 0.7 | 8.0 | 0.3 | 150 | 5.9 | **615 820 225 0** |
| 14.0 | 0.6 | 20.0 | 0.8 | 8.0 | 0.3 | 50 | 2.0 | **615 820 622 0** |
| 14.0 | 0.6 | 20.0 | 0.8 | 8.0 | 0.3 | 75 | 3.0 | **615 820 633 0** |
| 14.0 | 0.6 | 20.0 | 0.8 | 8.0 | 0.3 | 100 | 3.9 | **615 820 644 0** |

* Production upon your order.

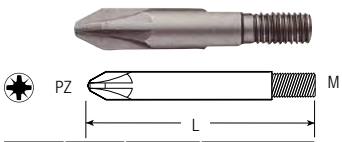
# Screw shanks

## Screw shank driver bit

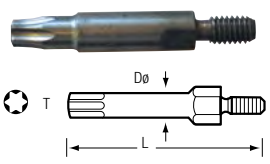



| PH | M | LENGTHL | | PART NO |
|---|---|---|---|---|
| | | mm | in | 10 pcs |
| 2 | M4 | 34 | 1.34 | **615 820 654 0** |
| 2 | M5 | 34 | 1.34 | **615 820 657 0** |

* Production upon your order.



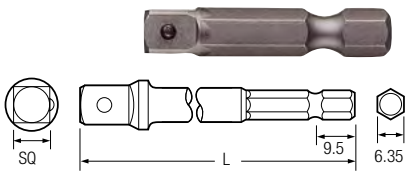

| PZ | M | LENGTHL | | PART NO |
|---|---|---|---|---|
| | | mm | in | 10 pcs |
| 2 | M5 | 34 | 1.34 | **615 820 658 0** |




| T | M | Dø | | LENGTH L | | PART NO |
|---|---|---|---|---|---|---|
| | | mm | in | mm | in | 10 pcs |
| T10 | M4 | 6 | 0.24 | 33 | 1.3 | **105782** |
| T20 | M4 | 6 | 0.24 | 33 | 1.3 | **105802** |
| T15 | M5 | 7 | 0.28 | 33 | 1.3 | **105842** |
| T20 | M5 | 7 | 0.28 | 33 | 1.3 | **105852** |
| T25 | M5 | 7 | 0.28 | 33 | 1.3 | **105862** |
| T30 | M5 | 7 | 0.28 | 33 | 1.3 | **105882** |

# Adapters

## Drive: 1/4” = 6.35mm Hex drive - DIN3126-E6.3




| SQ | LENGTH L | | PART NO |
|---|---|---|---|
| | mm | in | |
| 1/4” | 35 | 1.38 | **95352** |
| 1/4” | 51 | 2.01 | **615 820 508 0** |
| 1/4” | 76 | 2.99 | **615 820 509 0** |
| 1/4” | 102 | 4.02 | **615 820 510 0** |
| 1/4” | 152 | 5.98 | **615 820 511 0** |
| 3/8” | 43 | 1.69 | **95362** |
| 3/8” | 51 | 2.01 | **615 820 512 0** |
| 3/8” | 76 | 2.99 | **615 820 513 0** |
| 3/8” | 102 | 4.02 | **615 820 514 0** |
| 3/8” | 152 | 5.98 | **615 820 515 0** |

# Bits holders

## Drive: 1/4” = 6.35mm Hex drive - DIN3126-C6.3



| | TIP SIZE | LENGTH L | | MAGNETIC | PART NO |
|---|---|---|---|---|---|
| | | mm | in | | |
| | T10 | 33 | 1.30 | yes | **615 820 247 0** |
| ✪ | T15 | 33 | 1.30 | yes | **615 820 245 0** |
| | T20 | 33 | 1.30 | yes | **615 820 246 0** |
| | T25 | 33 | 1.30 | yes | **615 820 253 0** |
| ✪ | PH1 | 33 | 1.30 | yes | **615 820 248 0** |
| | PH2 | 33 | 1.30 | yes | **615 820 249 0** |
| ✪ | PZ1 | 33 | 1.30 | yes | **615 820 250 0** |
| | PZ2 | 33 | 1.30 | yes | **615 820 251 0** |



| | TIP SIZE | LENGTH L | | PART NO |
|---|---|---|---|---|
| | | mm | in | 10 pcs |
| ✪ | T10 | 49 | 1.93 | **615 820 340 0** |
| | T10 | 70 | 2.76 | **615 820 341 0** |
| | T15 | 49 | 1.93 | **615 820 702 0** |
| | T20 | 49 | 1.93 | **615 820 342 0** |
| | T20 | 75 | 2.95 | **615 820 343 0** |
| | T20 | 150 | 5.91 | **615 820 344 0** |
| | T25 | 49 | 1.93 | **615 820 704 0** |
| | T25 | 70 | 2.76 | **615 820 705 0** |

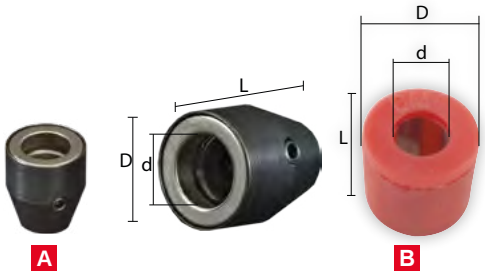


| PART NO | TIP SIZE | DRIVE | LENGTH L | | DIAMETER ø | | MAGNETIC | DIN 3126-C6.3 | DIN 3126-E6.3 | DOUBLE ENDED BITS DIN 3126-E6.3 | DOUBLE ENDED BITS DIN 3126-C6.3 | SPECIFIC BIT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | mm | in | mm | in | | | | | | |
| **615 820 557 0** | | 5/16” | 70 | 2.8 | 12.7 | 0.51 | Yes | X | | | | |
| **11502** | | 5/16” | 54 | 2.2 | 11.1 | 0.44 | Yes | X | | | | |
| **615 820 556 0** | | 5/16” | 50 | 2.0 | 11.1 | 0.44 | No | X | | | | |
| **615 820 443 0** | | 1/4” | 71 | 2.8 | 17 | 0.68 | Yes | X | | | | |
| **615 820 404 0** | | 1/4” | 60 | 2.4 | 11.1 | 0.44 | Yes | X | | | | |
| **615 820 555 0** | | 1/4” | 75 | 3.0 | 9.1 | 0.36 | Yes | | | X | | |
| **110102** | | 1/4” | 150 | 6.0 | 11.1 | 0.44 | Yes | X | | | | |
| **615 820 506 0** | | 1/4” | 100 | 4.0 | 11.1 | 0.44 | Yes | X | | | | |
| **615 820 402 0** | | 1/4” | 60 | 2.4 | 11.1 | 0.44 | No | | | X | | |
| **615 820 504 0** | | 1/4” | 100 | 4.0 | 11.1 | 0.44 | No | X | | | | |
| **615 820 505 0** | | 1/4” | 150 | 6.0 | 11.1 | 0.44 | No | X | | | | |
| **615 820 405 0** | | 1/4” | 62 | 2.5 | 14.4 | 0.58 | Yes | | | | X | |
| **615 820 403 0** | | 1/4” | 62 | 2.5 | 14.4 | 0.58 | No | | | | X | |
| **615 820 254 0** | T10 | 1/4” | 49 | 2.0 | - | - | Yes | | | | | X |
| **615 820 255 0** | T10 | 1/4” | 70 | 2.8 | - | - | Yes | | | | | X |
| **615 820 698 0** | T15 | 1/4” | 49 | 2.0 | - | - | Yes | | | | | X |
| **615 820 256 0** | T20 | 1/4” | 49 | 2.0 | - | - | Yes | | | | | X |
| **615 820 244 0** | T20 | 1/4” | 75 | 3.0 | - | - | Yes | | | | | X |
| **615 820 252 0** | T20 | 1/4” | 150 | 6.0 | - | - | Yes | | | | | X |
| **615 820 700 0** | T25 | 1/4” | 49 | 2.0 | - | - | Yes | | | | | X |
| **615 820 701 0** | T25 | 1/4” | 70 | 2.8 | - | - | Yes | | | | | X |

# Sockets and adaptors range

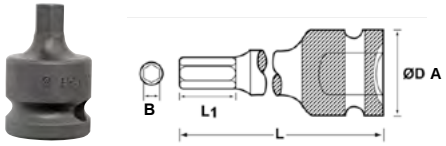
## Ring magnet sleeves

| PICTURE | d Max | | D | | L | | PART NO |
|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | |
| A | 3.1 | 0.12 | 9 | 0.35 | 16 | 0.63 | **615 811 423 0** |
| | 3.8 | 0.15 | 9 | 0.35 | 16 | 0.63 | **615 811 424 0** |
| | 4.5 | 0.18 | 9 | 0.35 | 16 | 0.63 | **615 811 425 0** |
| | 5 | 0.2 | 9 | 0.35 | 16 | 0.63 | **615 811 426 0** |
| | 6.1 | 0.26 | 11 | 0.43 | 16 | 0.63 | **615 811 427 0** |
| | 7.1 | 0.28 | 14 | 0.55 | 16 | 0.63 | **615 811 428 0** |
| | 8.2 | 0.32 | 14 | 0.55 | 16 | 0.63 | **615 811 429 0** |
| | 14 | 0.55 | 23.5 | 0.93 | 18 | 0.71 | **615 811 432 0** |
| B | 7 | 0.27 | 14 | 0.54 | 13 | 0.51 | **615 804 978 0** |



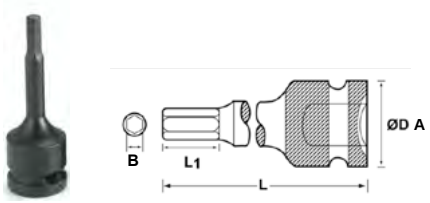

## 3/8'' Hexagonal drives

| A | B | | L | | L1 | | ØD | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | mm | in | |
| 3/8'' | 4 | 0.16 | 60 | 1.97 | 16 | 0.63 | 19 | 0.75 | **909 201 378 1** |
| 3/8'' | 5 | 0.2 | 60 | 1.97 | 16 | 0.63 | 19 | 0.75 | **909 201 381 1** |
| 3/8'' | 8 | 0.31 | 60 | 1.97 | 16 | 0.63 | 19 | 0.75 | **909 201 387 1** |
| 3/8'' | 10 | 0.39 | 60 | 1.97 | 16 | 0.63 | 19 | 0.75 | **909 201 390 1** |



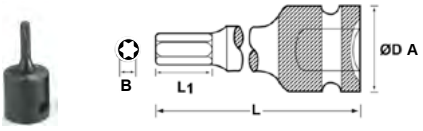

## 1/2'' Hexagonal drives

| A | B | | L | | L1 | | ØD | | PART NO |
|---|---|---|---|---|---|---|---|---|---|
| | mm | in | mm | in | mm | in | mm | in | |
| 1/2" | 6 | 0.24 | 78 | 3,1 | 9 | 0,4 | 25 | 0.98 | **615 811 763 0** |
| 1/2" | 8 | 0.31 | 78 | 3,1 | 16 | 0,6 | 25 | 0.98 | **909 201 396 1** |
| 1/2" | 10 | 0.39 | 78 | 3,1 | 16 | 0,6 | 25 | 0.98 | **909 201 399 1** |
| 1/2" | 14 | 0.55 | 78 | 3,1 | 20 | 0,8 | 25 | 0.98 | **909 201 405 1** |




## Internal Torx drives

| A | B | L | | L1 | | ØD | | PART NO. |
|---|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | mm | in | |
| 3/8'' | T25 | 40 | 2.95 | 3 | 0.12 | 22 | 0.87 | **615 811 434 0** |
| 3/8'' | T30 | 40 | 2.95 | 3.8 | 0.15 | 22 | 0.87 | **615 811 435 0** |
| 3/8'' | T40 | 40 | 2.95 | 3.8 | 0.15 | 22 | 0.87 | **615 811 436 0** |
| 1/2'' | T40 | 55 | 2.95 | 3.8 | 0.15 | 25 | 0.98 | **615 811 437 0** |

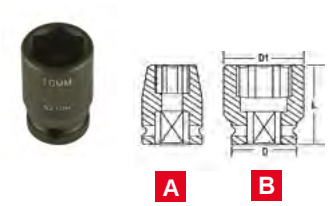


# Sockets and adaptors range

## 1/4” = 6.35mm Square drive sockets

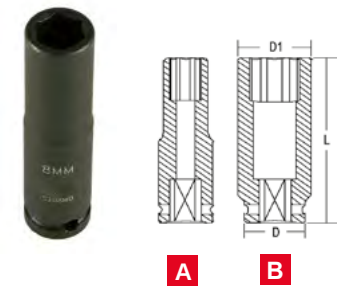
### 1/4” Standard

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S2055M | 5.5 | 0.22 | A | 13 | 0.51 | 9.4 | 0.37 | 23.1 | 0.91 | **894 016 367 5** |
| S208M | 8 | 0.31 | A | 13 | 0.51 | 12.2 | 0.48 | 23.1 | 0.91 | **894 016 367 8** |
| S210M | 10 | 0.39 | B | 13 | 0.51 | 14.7 | 0.58 | 23.1 | 0.91 | **894 016 368 0** |
| S213M | 13 | 0.51 | B | 13 | 0.51 | 18.8 | 0.74 | 23.1 | 0.91 | **894 016 368 3** |



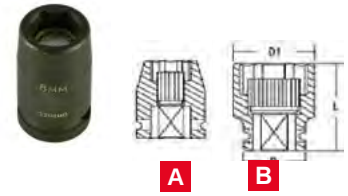

### 1/4” Deep

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S210MD | 10 | 2.5 | B | 13 | 0.51 | 14.7 | 0.58 | 50.0 | 1.97 | **894 016 370 4** |



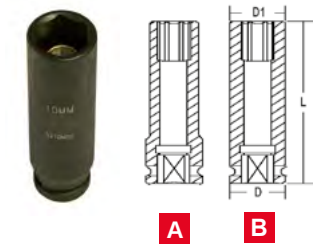

### 1/4” Magnetic

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S208MG | 8 | 2 | A | 13 | 0.51 | 12.2 | 0.48 | 23.1 | 0.91 | **894 016 374 3** |




### 1/4” Deep Magnetic

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S208MDG | 8 | 0.31 | A | 13 | 0.51 | 12.2 | 0.48 | 50.0 | 1.97 | **894 016 376 5** |
| S210MDG | 10 | 0.39 | B | 13 | 0.51 | 14.5 | 0.57 | 50.0 | 1.97 | **894 016 376 7** |

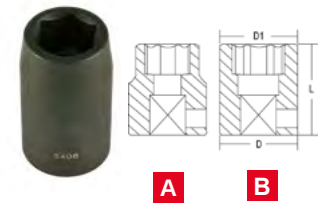


# Sockets and adaptors range

## 3/8'' = 9.52mm Square drive sockets

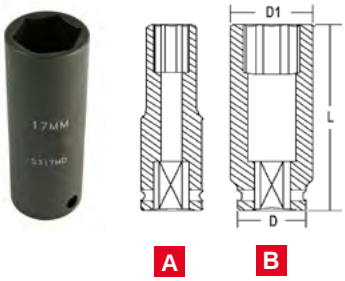
### 3/8" Standard

| MODEL | OUTPUT SIZE | | DESSIN | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S310M | 10 | 0.39 | A | 19.0 | 0.75 | 15.2 | 0.6 | 29.5 | 1.16 | **894 016 378 8** |
| S311M | 11 | 0.43 | A | 19.0 | 0.75 | 17.0 | 0.67 | 29.5 | 1.16 | **894 016 378 9** |
| S312M | 12 | 0.47 | B | 19.0 | 0.75 | 19.0 | 0.75 | 29.5 | 1.16 | **894 016 379 0** |
| S313M | 13 | 0.51 | B | 19.0 | 0.75 | 19.0 | 0.75 | 29.5 | 1.16 | **894 016 379 1** |
| S314M | 14 | 0.55 | B | 20.0 | 0.79 | 20.0 | 0.79 | 29.5 | 1.16 | **894 016 379 2** |
| S315M | 15 | 0.59 | B | 22.1 | 0.87 | 22.1 | 0.87 | 29.5 | 1.16 | **894 016 379 3** |
| S316M | 16 | 0.63 | B | 23.6 | 0.93 | 23.6 | 0.93 | 30.0 | 1.18 | **894 016 379 4** |
| S317M | 17 | 0.67 | B | 23.9 | 0.94 | 23.9 | 0.94 | 30.0 | 1.18 | **894 016 379 5** |
| S318M | 18 | 0.71 | B | 24.9 | 0.98 | 24.9 | 0.98 | 30.0 | 1.18 | **894 016 379 6** |
| S319M | 19 | 0.75 | B | 25.9 | 1.02 | 25.9 | 1.02 | 30.0 | 1.18 | **894 016 379 7** |
| S322M | 22 | 0.87 | B | 30.0 | 1.18 | 30.0 | 1.18 | 30.0 | 1.18 | **894 016 380 0** |




### 3/8" Deep

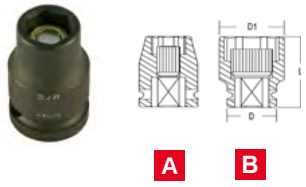
| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S308MD | 8 | 0.31 | A | 19.0 | 0.75 | 12.7 | 0.50 | 65.0 | 2.56 | **894 016 381 4** |
| S310MD | 10 | 0.39 | A | 19.0 | 0.75 | 15.2 | 0.60 | 65.0 | 2.56 | **894 016 381 6** |
| S311MD | 11 | 0.43 | A | 19.0 | 0.75 | 17.0 | 0.67 | 65.0 | 2.56 | **894 016 381 7** |
| S313MD | 13 | 0.51 | B | 19.0 | 0.75 | 19.0 | 0.75 | 65.0 | 2.56 | **894 016 381 9** |
| S317MD | 17 | 0.67 | B | 23.9 | 0.94 | 23.9 | 0.94 | 65.0 | 2.56 | **894 016 382 3** |



# Sockets and adaptors range

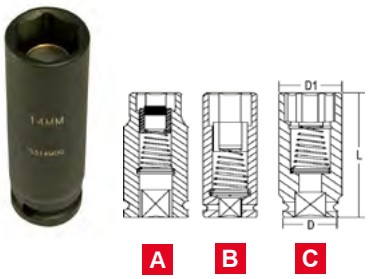
## 3/8" Magnetic

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S310MG | 10 | 0.39 | A | 19.0 | 0.75 | 15.2 | 0.6 | 29.5 | 1.16 | **894 016 389 5** |
| S313MG | 13 | 0.51 | A | 22.1 | 0.87 | 19.3 | 0.8 | 29.5 | 1.16 | **894 016 389 8** |
| S314MG | 14 | 0.55 | A | 22.1 | 0.87 | 20.3 | 0.8 | 29.5 | 1.16 | **894 016 389 9** |




## 3/8" Deep magnetic

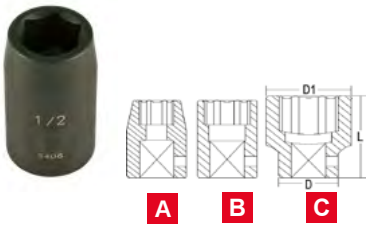
| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S313MDG | 13 | 0.51 | B | 19.0 | 0.75 | 18.8 | 0.74 | 63 | 2.5 | **894 016 392 0** |



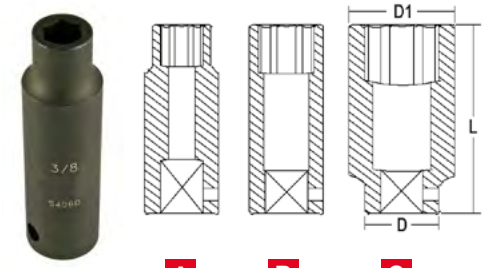

# 1/2” = 12.7mm Square drive sockets

## 1/2” Standard

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S408M | 8 | 0.31 | A | 22.1 | 0.87 | 14.5 | 0.57 | 38.1 | 1.5 | **894 016 395 0** |
| S409M | 9 | 0.35 | A | 22.1 | 0.87 | 15.5 | 0.61 | 38.1 | 1.5 | **894 016 395 1** |
| S410M | 10 | 0.39 | A | 22.1 | 0.87 | 16.8 | 0.66 | 38.1 | 1.5 | **894 016 395 2** |
| S412M | 12 | 0.47 | A | 22.1 | 0.87 | 19.0 | 0.75 | 38.1 | 1.5 | **894 016 395 4** |
| S413M | 13 | 0.51 | A | 23.8 | 0.94 | 20.3 | 0.8 | 38.1 | 1.5 | **894 016 395 5** |
| S415M | 15 | 0.59 | A | 24.9 | 0.98 | 23.1 | 0.91 | 38.1 | 1.5 | **894 016 395 7** |
| S417M | 17 | 0.67 | B | 25.9 | 1.02 | 25.9 | 1.02 | 38.1 | 1.5 | **894 016 395 9** |
| S418M | 18 | 0.71 | B | 26.4 | 1.04 | 26.4 | 1.04 | 38.1 | 1.5 | **894 016 396 0** |
| S419M | 19 | 0.75 | B | 27.9 | 1.1 | 27.9 | 1.1 | 38.1 | 1.5 | **894 016 396 1** |
| S420M | 20 | 0.79 | B | 30.0 | 1.18 | 30.0 | 1.18 | 38.1 | 1.5 | **894 016 396 2** |
| S421M | 21 | 0.83 | B | 30.0 | 1.18 | 30.0 | 1.18 | 38.1 | 1.5 | **894 016 396 3** |
| S422M | 22 | 0.87 | B | 32.0 | 1.26 | 32.0 | 1.26 | 38.1 | 1.5 | **894 016 396 4** |
| S424M | 24 | 0.94 | B | 34.0 | 1.34 | 34.0 | 1.34 | 38.1 | 1.5 | **894 016 396 6** |
| S426M | 26 | 1.02 | B | 36.0 | 1.42 | 36.0 | 1.42 | 38.1 | 1.5 | **894 016 396 8** |
| S427M | 27 | 1.06 | B | 38.1 | 1.5 | 38. | 1.50 | 39.9 | 1.57 | **894 016 396 9** |
| S428M | 28 | 1.10 | B | 39.8 | 1.57 | 39.9 | 1.57 | 39.9 | 1.57 | **894 016 397 0** |
| S429M | 29 | 1.14 | B | 39.8 | 1.57 | 39.9 | 1.57 | 39.9 | 1.57 | **894 016 397 1** |
| S430M | 30 | 1.18 | C | 38.1 | 1.5 | 41.9 | 1.65 | 39.9 | 1.57 | **894 016 397 2** |
| S431M | 31 | 1.22 | C | 38.1 | 1.5 | 43.9 | 1.73 | 39.9 | 1.57 | **894 016 397 3** |
| S432M | 32 | 1.26 | C | 38.1 | 1.5 | 43.9 | 1.73 | 39.9 | 1.57 | **894 016 397 4** |

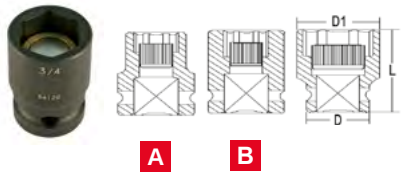


# Sockets and adaptors range



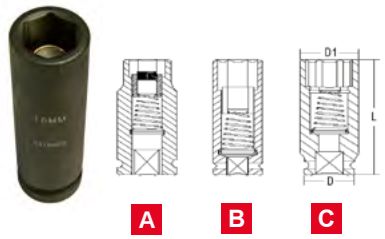

## 1/2" Deep

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S409MD | 9 | 0.35 | A | 22.1 | 0.87 | 15.5 | 0.61 | 78.0 | 3.07 | **894 016 399 9** |
| S411MD | 11 | 0.43 | A | 22.1 | 0.87 | 18.0 | 0.71 | 78.0 | 3.07 | **894 016 400 1** |
| S412MD | 12 | 0.47 | A | 22.1 | 0.87 | 19.0 | 0.75 | 78.0 | 3.07 | **894 016 400 2** |
| S413MD | 13 | 0.51 | A | 23.9 | 0.94 | 20.3 | 0.8 | 78.0 | 3.07 | **894 016 400 3** |
| S414MD | 14 | 0.55 | A | 23.9 | 0.94 | 21.6 | 0.85 | 78.0 | 3.07 | **894 016 400 4** |
| S415MD | 15 | 0.59 | B | 23.9 | 0.94 | 23.9 | 0.94 | 78.0 | 3.07 | **894 016 400 5** |
| S416MD | 16 | 0.63 | B | 24.9 | 0.98 | 24.9 | 0.98 | 78.0 | 3.07 | **894 016 400 6** |
| S417MD | 17 | 0.67 | B | 25.9 | 1.02 | 25.9 | 1.02 | 78.0 | 3.07 | **894 016 400 7** |
| S418MD | 18 | 0.71 | B | 25.9 | 1.02 | 25.9 | 1.02 | 78.0 | 3.07 | **894 016 400 8** |
| S419MD | 19 | 0.75 | B | 27.9 | 1.1 | 27.9 | 1.1 | 78.0 | 3.07 | **894 016 400 9** |
| S420MD | 20 | 0.79 | B | 30.0 | 1.18 | 30.0 | 1.18 | 78.0 | 3.07 | **894 016 772 2** |
| S421MD | 21 | 0.83 | B | 30.0 | 1.18 | 30.0 | 1.18 | 78.0 | 3.07 | **894 016 401 0** |
| S422MD | 22 | 0.87 | B | 32.0 | 1.26 | 32.0 | 1.26 | 78.0 | 3.07 | **894 016 772 3** |
| S423MD | 23 | 0.91 | B | 32.0 | 1.26 | 32.0 | 1.26 | 78.0 | 3.07 | **894 016 772 4** |
| S424MD | 24 | 0.94 | B | 34.0 | 1.34 | 34.0 | 1.34 | 78.0 | 3.07 | **894 016 772 5** |
| S425MD | 25 | 0.98 | B | 36.1 | 1.42 | 36.1 | 1.42 | 78.0 | 3.07 | **894 016 772 6** |
| S427MD | 27 | 1.06 | B | 38.1 | 1.5 | 38.1 | 1.5 | 78.0 | 3.07 | **894 016 401 2** |
| S430MD | 30 | 1.18 | C | 38.1 | 1.5 | 41.9 | 1.65 | 78.0 | 3.07 | **894 016 401 5** |
| S431MD | 31 | 1.22 | C | 38.1 | 1.5 | 43.9 | 1.73 | 78.0 | 3.07 | **894 016 401 6** |
| S432MD | 32 | 1.26 | C | 38.1 | 1.5 | 43.9 | 1.73 | 78.0 | 3.07 | **894 016 401 7** |
| S433MD | 33 | 1.3 | C | 38.1 | 1.5 | 45.0 | 1.77 | 78.0 | 3.07 | **894 016 401 8** |
| S434MD | 34 | 1.34 | C | 38.1 | 1.5 | 46.0 | 1.81 | 78.0 | 3.07 | **894 016 401 9** |
| S435MD | 35 | 1.38 | C | 38.1 | 1.5 | 50.0 | 1.97 | 78.0 | 3.07 | **894 016 402 0** |
| S436MD | 36 | 1.42 | C | 38.1 | 1.5 | 50.0 | 1.97 | 78.0 | 3.07 | **894 016 402 1** |




## 1/2" Magnetic

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S419MG | 19 | 0.75 | A | 29.9 | 1.18 | 27.9 | 1.1 | 38.1 | 1.5 | **894 016 410 2** |
| S421MG | 21 | 0.83 | B | 29.9 | 1.18 | 29.9 | 1.18 | 38.1 | 1.5 | **894 016 410 4** |

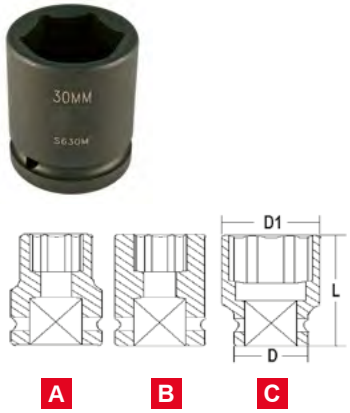



## 1/2" Deep Magnetic

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S414MDG | 14 | 0.55 | A | 24.9 | 0.98 | 21.6 | 0.85 | 78 | 3.07 | **894 016 412 0** |

## 3/4" = 19mm Square Drive Sockets

### 3/4" Standard



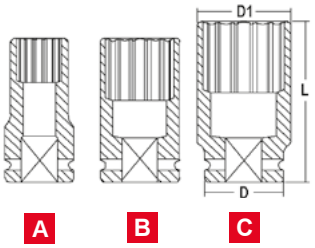

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S620M | 20 | 0.79 | A | 38.1 | 1.5 | 31.0 | 1.22 | 52.1 | 2.05 | **894 016 418 1** |
| S622M | 22 | 0.87 | A | 38.1 | 1.5 | 34.0 | 1.34 | 52.1 | 2.05 | **894 016 418 3** |
| S623M | 23 | 0.91 | A | 38.1 | 1.5 | 35.0 | 1.38 | 52.1 | 2.05 | **894 016 418 4** |
| S624M | 24 | 0.94 | A | 38.1 | 1.5 | 36.0 | 1.42 | 52.1 | 2.05 | **894 016 418 5** |
| S625M | 25 | 0.98 | B | 38.1 | 1.5 | 38.1 | 1.5 | 52.1 | 2.05 | **894 016 418 6** |
| S626M | 26 | 1.02 | B | 39.8 | 1.57 | 39.9 | 1.57 | 52.1 | 2.05 | **894 016 418 7** |
| S627M | 27 | 1.06 | B | 39.8 | 1.57 | 39.9 | 1.57 | 52.1 | 2.05 | **894 016 418 8** |
| S628M | 28 | 1.1 | B | 41.9 | 1.65 | 41.9 | 1.65 | 52.1 | 2.05 | **894 016 418 9** |
| S629M | 29 | 1.14 | B | 41.9 | 1.65 | 41.9 | 1.65 | 52.1 | 2.05 | **894 016 419 0** |
| S630M | 30 | 1.18 | B | 43.9 | 1.73 | 43.9 | 1.73 | 52.1 | 2.05 | **894 016 419 1** |
| S631M | 31 | 1.22 | B | 43.9 | 1.73 | 43.9 | 1.73 | 55.9 | 2.2 | **894 016 419 2** |
| S632M | 32 | 1.26 | B | 43.9 | 1.73 | 43.9 | 1.73 | 55.9 | 2.2 | **894 016 419 3** |
| S633M | 33 | 1.3 | C | 43.9 | 1.73 | 47.0 | 1.85 | 55.9 | 2.2 | **894 016 419 4** |
| S634M | 34 | 1.34 | C | 43.9 | 1.73 | 48 | 1.89 | 55.9 | 2.2 | **894 016 419 5** |
| S635M | 35 | 1.38 | C | 43.9 | 1.73 | 50.0 | 1.97 | 55.9 | 2.2 | **894 016 419 6** |
| S636M | 36 | 1.42 | C | 43.9 | 1.73 | 51.0 | 2.01 | 55.9 | 2.2 | **894 016 419 7** |
| S637M | 37 | 1.46 | C | 43.9 | 1.73 | 52.1 | 2.05 | 55.9 | 2.2 | **894 016 419 8** |
| S638M | 38 | 1.5 | C | 43.9 | 1.73 | 53.1 | 2.09 | 55.9 | 2.2 | **894 016 419 9** |
| S640M | 40 | 1.57 | C | 43.9 | 1.73 | 55.9 | 2.2 | 62.0 | 2.44 | **894 016 420 0** |
| S641M | 41 | 1.61 | C | 43.9 | 1.73 | 57.9 | 2.28 | 62.0 | 2.44 | **894 016 420 1** |
| S642M | 42 | 1.65 | C | 43.9 | 1.73 | 61.0 | 2.4 | 62.0 | 2.44 | **894 016 420 2** |
| S643M | 43 | 1.69 | C | 43.9 | 1.73 | 63.0 | 2.48 | 63.0 | 2.48 | **894 016 420 3** |
| S644M | 44 | 1.73 | C | 43.9 | 1.73 | 65.0 | 2.56 | 63.0 | 2.48 | **894 016 420 4** |
| S646M | 46 | 1.81 | C | 43.9 | 1.73 | 67.0 | 2.64 | 63.0 | 2.48 | **894 016 420 5** |

# Sockets and adaptors range

## 3/4" Deep

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S619MD | 19 | 0.75 | A | 38.1 | 1.5 | 30.0 | 1.18 | 85.1 | 3.35 | **894 016 424 8** |
| S621MD | 21 | 0.83 | A | 38.1 | 1.5 | 32.0 | 1.26 | 85.1 | 3.35 | **894 016 425 0** |
| S622MD | 22 | 0.87 | A | 38.1 | 1.5 | 34.0 | 1.34 | 85.1 | 3.35 | **894 016 425 1** |
| S623MD | 23 | 0.91 | A | 38.1 | 1.5 | 35.0 | 1.38 | 85.1 | 3.35 | **894 016 425 2** |
| S624MD | 24 | 0.94 | A | 38.1 | 1.5 | 36.0 | 1.42 | 85.1 | 3.35 | **894 016 425 3** |
| S625MD | 25 | 0.98 | B | 38.1 | 1.5 | 38.1 | 1.5 | 85.1 | 3.35 | **894 016 425 4** |
| S627MD | 27 | 1.06 | B | 39.9 | 1.57 | 39.9 | 1.57 | 85.1 | 3.35 | **894 016 425 6** |
| S630MD | 30 | 1.18 | B | 43.9 | 1.73 | 43.9 | 1.73 | 85.1 | 3.35 | **894 016 425 9** |
| S631MD | 31 | 1.22 | B | 43.9 | 1.73 | 43.9 | 1.73 | 85.1 | 3.35 | **894 016 426 0** |
| S632MD | 32 | 1.26 | B | 43.9 | 1.73 | 43.9 | 1.73 | 85.1 | 3.35 | **894 016 426 1** |
| S633MD | 33 | 1.3 | C | 43.9 | 1.73 | 47.0 | 1.85 | 85.1 | 3.35 | **894 016 426 2** |
| S634MD | 34 | 1.34 | C | 43.9 | 1.73 | 48.0 | 1.89 | 85.1 | 3.35 | **894 016 426 3** |
| S635MD | 35 | 1.38 | C | 43.9 | 1.73 | 50.0 | 1.97 | 85.1 | 3.35 | **894 016 426 4** |
| S636MD | 36 | 1.42 | C | 43.9 | 1.73 | 51.0 | 2.01 | 85.1 | 3.35 | **894 016 426 5** |
| S638MD | 38 | 1.5 | C | 43.9 | 1.73 | 53.1 | 2.09 | 85.1 | 3.35 | **894 016 426 7** |
| S640MD | 40 | 1.57 | C | 43.9 | 1.73 | 55.9 | 2.2 | 85.1 | 3.35 | **894 016 426 8** |
| S641MD | 41 | 1.61 | C | 43.9 | 1.73 | 57.9 | 2.28 | 85.1 | 3.35 | **894 016 426 9** |
| S642MD | 42 | 1.65 | C | 43.9 | 1.73 | 60.1 | 2.4 | 85.1 | 3.35 | **894 016 427 0** |
| S643MD | 43 | 1.69 | C | 43.9 | 1.73 | 63.0 | 2.48 | 95.0 | 3.74 | **894 016 427 1** |
| S644MD | 44 | 1.73 | C | 43.9 | 1.73 | 65.0 | 2.56 | 95.0 | 3.74 | **894 016 427 2** |
| S646MD | 46 | 1.81 | C | 43.9 | 1.73 | 67.1 | 2.64 | 95.0 | 3.74 | **894 016 427 3** |



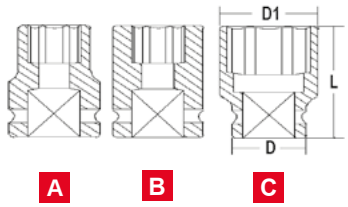




# 1'' = 25.4mm Square Drive Sockets

## 1" Standard

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S819M | 19 | 0.75 | A | 51.0 | 2.01 | 36.1 | 1.42 | 57.9 | 2.28 | **894 016 432 3** |
| S821M | 21 | 0.83 | A | 51.0 | 2.01 | 38.1 | 1.5 | 57.9 | 2.28 | **894 016 432 4** |
| S822M | 22 | 0.87 | A | 51.0 | 2.01 | 39.1 | 1.54 | 57.9 | 2.28 | **894 016 432 5** |
| S823M | 23 | 0.91 | A | 51.0 | 2.01 | 39.9 | 1.57 | 57.9 | 2.28 | **894 016 432 6** |
| S824M | 24 | 0.94 | A | 51.0 | 2.01 | 39.9 | 1.57 | 57.9 | 2.28 | **894 016 432 7** |
| S825M | 25 | 0.98 | A | 51.0 | 2.01 | 40.9 | 1.61 | 57.9 | 2.28 | **894 016 432 8** |
| S827M | 27 | 1.06 | A | 51.0 | 2.01 | 43.9 | 1.73 | 57.9 | 2.28 | **894 016 433 0** |
| S828M | 28 | 1.1 | A | 51.0 | 2.01 | 45.0 | 1.77 | 57.9 | 2.28 | **894 016 433 1** |
| S829M | 29 | 1.14 | A | 51.0 | 2.01 | 46.0 | 1.81 | 59.9 | 2.36 | **894 016 433 2** |
| S830M | 30 | 1.18 | A | 51.0 | 2.01 | 48.0 | 1.89 | 59.9 | 2.36 | **894 016 433 3** |
| S832M | 32 | 1.26 | B | 51.0 | 2.01 | 51.0 | 2.01 | 59.9 | 2.36 | **894 016 433 4** |
| S833M | 33 | 1.3 | C | 52.1 | 2.05 | 53.1 | 2.09 | 62.0 | 2.44 | **894 016 433 5** |
| S835M | 35 | 1.38 | C | 52.1 | 2.05 | 54.1 | 2.13 | 62.0 | 2.44 | **894 016 433 6** |
| S836M | 36 | 1.42 | C | 52.1 | 2.05 | 55.9 | 2.2 | 62.0 | 2.44 | **894 016 433 7** |
| S838M | 38 | 1.5 | C | 52.1 | 2.05 | 57.9 | 2.28 | 62.0 | 2.44 | **894 016 433 8** |
| S840M | 40 | 1.57 | C | 52.1 | 2.05 | 59.9 | 2.36 | 62.0 | 2.44 | **894 016 433 9** |
| S841M | 41 | 1.61 | C | 52.1 | 2.05 | 61.5 | 2.42 | 62.0 | 2.44 | **894 016 434 0** |
| S843M | 43 | 1.69 | C | 52.0 | 2.05 | 64.8 | 2.55 | 64.0 | 2.52 | **894 016 434 2** |
| S844M | 44 | 1.73 | C | 57.9 | 2.28 | 65.8 | 2.59 | 64.0 | 2.52 | **894 016 434 3** |
| S846M | 46 | 1.81 | C | 57.9 | 2.28 | 68.1 | 2.68 | 64.0 | 2.52 | **894 016 434 5** |



# Sockets and adaptors range

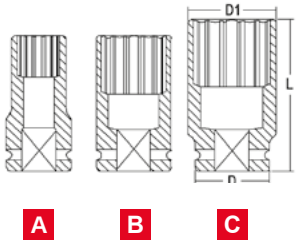
## 1" Standard

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S852M | 52 | 2.05 | C | 57.9 | 2.28 | 74.9 | 2.95 | 70.1 | 2.76 | **894 016 434 7** |
| S854M | 54 | 2.13 | C | 57.9 | 2.28 | 78.0 | 3.07 | 70.1 | 2.76 | **894 016 434 8** |
| S855M | 55 | 2.17 | C | 62.0 | 2.44 | 79.0 | 3.11 | 71.9 | 2.83 | **894 016 434 9** |
| S856M | 56 | 2.2 | C | 61.2 | 2.44 | 80.0 | 3.15 | 73.9 | 2.91 | **894 016 435 0** |
| S858M | 58 | 2.28 | C | 61.0 | 2.44 | 85.1 | 3.35 | 74.9 | 2.95 | **894 016 435 1** |
| S860M | 60 | 2.36 | C | 61.0 | 2.44 | 87.1 | 3.43 | 78.0 | 3.07 | **894 016 435 2** |
| S865M | 65 | 2.56 | C | 61.0 | 2.44 | 93.0 | 3.66 | 80.0 | 3.15 | **894 016 435 3** |
| S870M | 70 | 2.76 | C | 62.0 | 2.44 | 98.0 | 3.86 | 85.1 | 3.35 | **894 016 435 4** |

## 1" Deep

| MODEL | OUTPUT SIZE | | SHAPE | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D | | D1 | | L | | |
| | mm | in | | mm | in | mm | in | mm | in | |
| S821MD | 21 | 0.83 | A | 51.0 | 2.01 | 38.1 | 1.5 | 89.9 | 3.54 | **894 016 440 4** |
| S824MD | 24 | 0.94 | A | 51.0 | 2.01 | 39.9 | 1.57 | 89.9 | 3.54 | **894 016 440 7** |
| S827MD | 27 | 1.06 | A | 51.0 | 2.01 | 43.9 | 1.73 | 89.9 | 3.54 | **894 016 441 0** |
| S829MD | 29 | 1.14 | A | 51.0 | 2.01 | 46.0 | 1.81 | 89.9 | 3.54 | **894 016 441 2** |
| S830MD | 30 | 1.18 | A | 51.0 | 2.01 | 48.0 | 1.89 | 89.9 | 3.54 | **894 016 441 3** |
| S832MD | 32 | 1.26 | B | 51.0 | 2.01 | 51.0 | 2.01 | 89.9 | 3.54 | **894 016 441 4** |
| S833MD | 33 | 1.3 | C | 52.1 | 2.05 | 53.1 | 2.09 | 89.9 | 3.54 | **894 016 441 5** |
| S834MD | 34 | 1.34 | C | 52.1 | 2.05 | 54.1 | 2.13 | 89.9 | 3.54 | **894 016 441 6** |
| S835MD | 35 | 1.38 | C | 52.1 | 2.05 | 54.1 | 2.13 | 89.9 | 3.54 | **894 016 441 7** |
| S836MD | 36 | 1.42 | C | 52.1 | 2.05 | 55.9 | 2.2 | 89.9 | 3.54 | **894 016 441 8** |
| S838MD | 38 | 1.5 | C | 52.1 | 2.05 | 57.9 | 2.28 | 91.9 | 3.62 | **894 016 441 9** |
| S841MD | 41 | 1.61 | C | 52.1 | 2.05 | 61.5 | 2.42 | 91.9 | 3.62 | **894 016 442 1** |
| S842MD | 42 | 1.65 | C | 52.1 | 2.05 | 63.0 | 2.48 | 91.9 | 3.62 | **894 016 442 2** |
| S843MD | 43 | 1.69 | C | 52.1 | 2.05 | 65.0 | 2.56 | 91.9 | 3.62 | **894 016 442 3** |
| S844MD | 44 | 1.73 | C | 57.9 | 2.28 | 66.0 | 2.6 | 91.9 | 3.62 | **894 016 442 4** |
| S845MD | 45 | 1.77 | C | 57.9 | 2.28 | 67.0 | 2.64 | 91.9 | 3.62 | **894 016 442 5** |
| S846MD | 46 | 1.81 | C | 57.9 | 2.28 | 68.0 | 2.68 | 91.9 | 3.62 | **894 016 442 6** |
| S850MD | 50 | 1.97 | C | 57.9 | 2.28 | 72.9 | 2.87 | 95.0 | 3.74 | **894 016 442 7** |
| S852MD | 52 | 2.05 | C | 57.9 | 2.28 | 74.9 | 2.95 | 95.0 | 3.74 | **894 016 442 8** |
| S854MD | 54 | 2.13 | C | 57.9 | 2.28 | 78.0 | 3.07 | 95.0 | 3.74 | **894 016 442 9** |
| S855MD | 55 | 2.17 | C | 62.0 | 2.44 | 79.0 | 3.11 | 100.1 | 3.94 | **894 016 443 0** |
| S856MD | 56 | 2.2 | C | 62.0 | 2.44 | 80.0 | 3.15 | 100.1 | 3.94 | **894 016 443 1** |
| S858MD | 58 | 2.28 | C | 62.0 | 2.44 | 85.1 | 3.35 | 104.9 | 4.13 | **894 016 443 2** |
| S860MD | 60 | 2.36 | C | 62.0 | 2.44 | 87.1 | 3.43 | 104.9 | 4.13 | **894 016 443 3** |
| S865MD | 65 | 2.56 | C | 62.0 | 2.44 | 93.0 | 3.66 | 119.9 | 4.72 | **894 016 443 4** |
| S831D* | | 1-15/16" | C | 57.9 | 2.28 | 71.9 | 2.83 | 91.9 | 3.62 | **894 016 437 4** |
| S832D* | | 2" | C | 57.9 | 2.28 | 73.9 | 2.91 | 95.0 | 3.74 | **894 016 437 5** |
| S833D* | | 2-1/16" | C | 57.9 | 2.28 | 74.9 | 2.95 | 95.0 | 3.74 | **894 016 437 6** |
| S835D* | | 2-3/16" | C | 62.0 | 2.44 | 80.0 | 3.15 | 100.1 | 3.94 | **894 016 437 8** |
| S836D* | | 2-1/4" | C | 62.0 | 2.44 | 84.1 | 3.31 | 100.1 | 3.94 | **894 016 437 9** |
| S837D* | | 2-5/16" | C | 62.0 | 2.44 | 86.1 | 3.39 | 104.9 | 4.13 | **894 016 438 0** |
| S839D* | | 2-7/16" | C | 62.0 | 2.44 | 88.9 | 3.5 | 110.0 | 4.33 | **894 016 438 2** |
| S840D* | | 2-1/2" | C | 62.0 | 2.44 | 90.9 | 3.58 | 110.0 | 4.33 | **894 016 438 3** |
| S841D* | | 2-9/16" | C | 62.0 | 2.44 | 93.0 | 3.66 | 119.9 | 4.72 | **894 016 438 4** |
| S843D* | | 2-11/16" | C | 62.0 | 2.44 | 97.0 | 3.82 | 123.9 | 4.88 | **894 016 438 6** |





# Sockets and adaptors range

## O-Ring & Retaining Pins

| A | | ØB | | PART NO. |
|---|---|---|---|---|
| mm | in | mm | in | O-Ring |
| 19.05 | 3/4 | 31.7 | 1 1/4 | **C155467** |
| 19.05 | 3/4 | 36.5 | 1 4/9 | **C155468** |
| 19.05 | 3/4 | 41.3 | 1 5/8 | **C134690** |
| 19.05 | 3/4 | 44.4 | 1 3/4 | **C134691** |
| 25.4 | 1 | 44.4 | 1 3/4 | **C155470** |
| 25.4 | 1 | 50.8 | 2 | **C155471** |
| 25.4 | 1 | 54.0 | 2 1/8 | **C155472** |
| 25.4 | 1 | 57.1 | 2 1/4 | **C134692** |
| 38.1 | 1 1/2 | 73.0 | 2 7/8 | **C134693** |
| 38.1 | 1 1/2 | 85.7 | 3 3/8 | **C134694** |
| 38.1 | 1 1/2 | 98.4 | 3 7/8 | **C134695** |
| 38.1 | 1 1/2 | 111.1 | 4 3/8 | **C134696** |

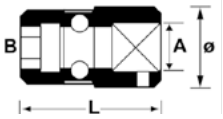


## Bit Adaptors

| A | B | L | | Ø MAX | | RETENTION | PART NO. |
|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | | |
| 3/8" | Hex 1/4" (D6.3)* | 32 | 1.26 | 16 | 0.63 | Ball retention | **21792** |
| 3/8" | Hex 1/4" (F6.3)** | 46 | 1.81 | 22 | 0.87 | Q/R | **108052** |
| 1/2" | Hex 1/4" (D6.3)* | 45 | 1.77 | 22 | 0.87 | Q/R | **615 812 306 0** |

*Insert **Direct

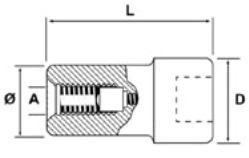





## Stud Runners

| A | B | L | | Ø | | D | | PART NO. |
|---|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | mm | in | |
| 3/8" | M5 x 80 | 50 | 2 | 15 | 0.59 | 19 | 0.75 | **615 811 727 0** |
| 3/8" | M6 x 100 | 50 | 2 | 15 | 0.59 | 19 | 0.75 | **615 811 728 0** |
| 3/8" | M8 x 125 | 50 | 2 | 17 | 0.67 | 19 | 0.75 | **615 811 729 0** |
| 3/8" | M10 x 150 | 50 | 2 | 19 | 0.75 | 24 | 0.94 | **615 811 730 0** |
| 1/2" | M6 x 100 | 55 | 2.2 | 22 | 0.87 | 24 | 0.94 | **615 811 731 0** |
| 1/2" | M8 x 125 | 55 | 2.2 | 24 | 0.94 | 24 | 0.94 | **615 811 732 0** |
| 1/2" | M10 x 125 | 55 | 2.2 | 24 | 0.94 | 24 | 0.94 | **615 811 733 0** |
| 1/2" | M10 x 150 | 55 | 2.2 | 24 | 0.94 | 24 | 0.94 | **615 811 734 0** |
| 1/2" | M12 x 175 | 55 | 2.2 | 24 | 0.94 | 24 | 0.94 | **615 811 735 0** |
| 1/2" | M14 x 150 | 55 | 2.2 | 24 | 0.94 | 24 | 0.94 | **615 811 736 0** |
| 1/2" | M14 x 200 | 55 | 2.2 | 24 | 0.94 | 24 | 0.94 | **615 811 737 0** |
| 1/2" | M16 x 200 | 55 | 2.2 | 24 | 0.94 | 24 | 0.94 | **615 811 738 0** |

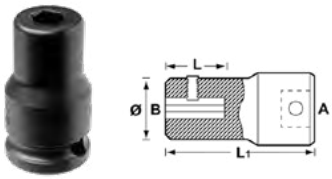




# Sockets and adaptors range

## Bit Adaptors - Positive Retention

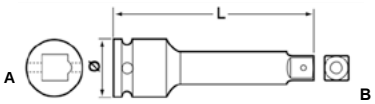
| A | B | L | | Ø MAX | | L1 | | PART NO. |
|---|---|---|---|---|---|---|---|---|
| | | mm | in | mm | in | mm | in | |
| 3/8" | Hex 1/4" | 14 | 0.55 | 14 | 0.55 | 38 | 1.5 | **615 812 206 0** |




### Extension Bars

| A | B | L | | ØD | | PART NO. |
|---|---|---|---|---|---|---|
| | | mm | in | mm | in | |
| 3/8" | 3/8" | 45 | 1.77 | 19 | 0.75 | **894 016 598 5** |
| 3/8" | 3/8" | 75 | 2.95 | 19 | 0.75 | **894 016 598 6** |
| 3/8" | 3/8" | 150 | 5.91 | 19 | 0.75 | **894 016 598 7** |
| 1/2" | 1/2" | 75 | 2.95 | 30 | 1.18 | **894 016 599 4** |
| 1/2" | 1/2" | 127 | 5 | 30 | 1.18 | **894 016 599 5** |
| 1/2" | 1/2" | 178 | 7.01 | 30 | 1.18 | **894 016 599 6** |
| 1/2" | 1/2" | 254 | 10 | 30 | 1.18 | **894 016 599 7** |
| 3/4" | 3/4" | 75 | 2.95 | 44 | 1.73 | **894 016 600 4** |
| 3/4" | 3/4" | 175 | 6.89 | 44 | 1.73 | **894 016 600 5** |
| 3/4" | 3/4" | 254 | 10 | 44 | 1.73 | **894 016 600 6** |
| 3/4" | 3/4" | 330 | 12.99 | 44 | 1.73 | **894 016 600 7** |
| 1" | 1" | 178 | 7.01 | 54 | 2.13 | **894 016 601 2** |
| 1" | 1" | 254 | 10 | 54 | 2.13 | **894 016 601 3** |
| 1" | 1" | 330 | 12.99 | 54 | 2.13 | **894 016 601 4** |

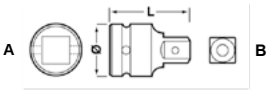





### Adaptors

| A | B | L | | Ø | | PART NO. |
|---|---|---|---|---|---|---|
| | | mm | in | mm | in | |
| 1/4" | 3/8" | 13 | 0.51 | 26 | 1.02 | **894 016 597 8** |
| 3/8" | 1/4" | 22 | 0.87 | 32 | 1.26 | **894 016 598 3** |
| 3/8" | 1/2" | 22 | 0.87 | 32 | 1.26 | **894 016 598 4** |
| 1/2" | 3/8" | 25 | 0.98 | 38 | 1.5 | **894 016 599 2** |
| 1/2" | 3/4" | 30 | 1.18 | 48 | 1.89 | **894 016 599 3** |
| 3/4" | 1/2" | 44 | 1.73 | 56 | 2.2 | **894 016 600 1** |
| 3/4" | 1" | 44 | 1.73 | 63 | 2.48 | **894 016 600 2** |
| 1" | 3/4" | 54 | 2.13 | 75 | 2.95 | **894 016 600 9** |

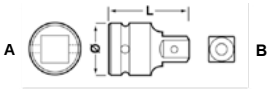





### Universal Joints

| A | B | L | | Ø | | PART NO. |
|---|---|---|---|---|---|---|
| | | mm | in | mm | in | |
| 1/4" | 1/4" | 44 | 1.73 | 20 | 0.79 | **894 016 598 2** |
| 1/2" | 1/2" | 63 | 2.48 | 34 | 1.34 | **894 016 599 8** |
| 3/4" | 3/4" | 90 | 3.54 | 49.2 | 1.94 | **894 016 600 8** |
| 1" | 1" | 114 | 4.49 | 59.2 | 2.33 | **894 016 601 5** |

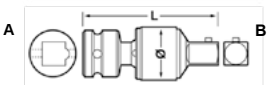





### Quick Change Adapters

| A | B | L | | ØD | | PART NO. |
|---|---|---|---|---|---|---|
| | | mm | in | mm | in | |
| 3/8" | 3/8" | 46 | 1.81 | 19 | 0.75 | **615 811 589 0** |
| 1/2" | 1/2" | 60 | 2.36 | 25 | 0.98 | **615 811 590 0** |
| 3/4" | 3/4" | 78 | 3.07 | 44 | 1.73 | **615 811 591 0** |
| 3/8" | 1/2" | 60 | 2.36 | 20 | 0.79 | **615 811 592 0** |
| 1/2" | 3/8" | 54 | 2.13 | 25 | 0.98 | **615 811 593 0** |
| 3/4" | 1/2" | 70 | 2.76 | 44 | 1.73 | **615 811 595 0** |





# Sleeve drive socket - Pulse tools*

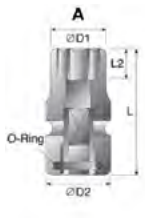
*For Desoutter PTF models and all Japanese pulse tools*

## Drive 3/8”



| OUTPUT SIZE A | | DIMENSIONS D2 | | D1 | | L2 | | L | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | in | mm | in | mm | in | mm | in | mm | in | |
| 8 | 0.31 | 19 | 0.75 | 13 | 0.51 | 7 | 0.28 | 43 | 1.69 | **615 811 777 0** |
| 10 | 0.39 | 19 | 0.75 | 16 | 0.63 | 7 | 0.28 | 43 | 1.69 | **615 811 778 0** |
| 11 | 0.43 | 19 | 0.75 | 17.5 | 0.69 | 8 | 0.31 | 43 | 1.69 | **615 811 779 0** |
| 12 | 0.47 | 19 | 0.75 | 18.5 | 0.73 | 9 | 0.35 | 43 | 1.69 | **615 811 780 0** |
| 13 | 0.51 | 22 | 0.87 | 20 | 0.79 | 9 | 0.35 | 43 | 1.69 | **615 811 781 0** |
| 14 | 0.55 | 22 | 0.87 | 21 | 0.83 | 9 | 0.35 | 43 | 1.69 | **615 811 782 0** |
| 17 | 0.67 | 22 | 0.87 | 25 | 0.98 | 12 | 0.47 | 43 | 1.69 | **615 811 783 0** |
| 18 | 0.71 | 22 | 0.87 | 26 | 1.02 | 12 | 0.47 | 43 | 1.69 | **615 811 784 0** |
| 19 | 0.75 | 22 | 0.87 | 27 | 1.06 | 12 | 0.47 | 43 | 1.69 | **615 811 785 0** |

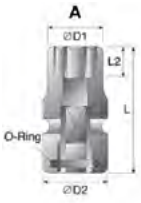
*Not suitable for Desoutter PT models




## Drive 1/2”



| OUTPUT SIZE A | | DIMENSIONS D2 | | D1 | | L2 | | L | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| mm | in | mm | in | mm | in | mm | in | mm | in | |
| 12 | 0.47 | 25 | 0.98 | 20 | 0.79 | 12 | 0.47 | 52 | 2.05 | **615 811 788 0** |
| 13 | 0.51 | 25 | 0.98 | 21 | 0.83 | 12 | 0.47 | 52 | 2.05 | **615 811 789 0** |
| 14 | 0.55 | 25 | 0.98 | 22.5 | 0.89 | 12 | 0.47 | 52 | 2.05 | **615 811 790 0** |
| 15 | 0.59 | 30 | 1.18 | 23.5 | 0.93 | 12 | 0.47 | 52 | 2.05 | **615 811 791 0** |
| 16 | 0.63 | 30 | 1.18 | 25 | 0.98 | 12 | 0.47 | 52 | 2.05 | **615 811 792 0** |
| 17 | 0.67 | 30 | 1.18 | 26 | 1.02 | 13 | 0.51 | 52 | 2.05 | **615 811 793 0** |
| 18 | 0.71 | 30 | 1.18 | 27.5 | 1.08 | 13 | 0.51 | 52 | 2.05 | **615 811 794 0** |
| 19 | 0.75 | 30 | 1.18 | 28.5 | 1.12 | 13 | 0.51 | 52 | 2.05 | **615 811 795 0** |
| 21 | 0.83 | 30 | 1.18 | 31 | 1.22 | 14 | 0.55 | 52 | 2.05 | **615 811 797 0** |
| 22 | 0.87 | 30 | 1.18 | 32 | 1.26 | 14 | 0.55 | 52 | 2.05 | **615 811 798 0** |
| 23 | 0.91 | 30 | 1.18 | 34 | 1.34 | 14 | 0.55 | 52 | 2.05 | **615 811 799 0** |
| 24 | 0.94 | 30 | 1.18 | 35 | 1.38 | 15 | 0.59 | 52 | 2.05 | **615 811 800 0** |
| 25 | 0.98 | 30 | 1.18 | 36 | 1.42 | 15 | 0.59 | 57 | 2.24 | **615 811 801 0** |
| 27 | 1.06 | 30 | 1.18 | 38.5 | 1.52 | 17 | 0.67 | 57 | 2.24 | **615 811 803 0** |
| 30 | 1.18 | 30 | 1.18 | 42 | 1.65 | 18 | 0.71 | 57 | 2.24 | **615 811 806 0** |
| 32 | 1.26 | 30 | 1.18 | 44 | 1.73 | 20 | 0.79 | 62 | 2.44 | **615 811 807 0** |




## 3/8” Hexagonal Drives

| OUTPUT SIZE A | | DIMENSIONS D2 | | L1 | | L | | PART NO. |
|---|---|---|---|---|---|---|---|---|
| mm | in | mm | in | mm | in | mm | in | |
| 4 | 0.16 | 22 | 0.87 | 11 | 0.43 | 75 | 2.95 | **615 811 824 0** |
| 5 | 0.20 | 22 | 0.87 | 11 | 0.43 | 75 | 2.95 | **615 811 825 0** |
| 6 | 0.24 | 22 | 0.87 | 11 | 0.43 | 75 | 2.95 | **615 811 826 0** |
| 8 | 0.31 | 22 | 0.87 | 16 | 0.63 | 75 | 2.95 | **615 811 827 0** |
| 10 | 0.39 | 22 | 0.87 | 16 | 0.63 | 75 | 2.95 | **615 811 828 0** |






## 1/2” Hexagonal Drives

| OUTPUT SIZE A | | DIMENSIONS D2 | | L1 | | L | | PART NO. |
|---|---|---|---|---|---|---|---|---|
| mm | in | mm | in | mm | in | mm | in | |
| 6 | 0.24 | 25 | 0.98 | 15 | 0.59 | 75 | 2.95 | **615 811 829 0** |
| 8 | 0.31 | 25 | 0.98 | 25 | 0.98 | 75 | 2.95 | **615 811 830 0** |
| 10 | 0.39 | 25 | 0.98 | 25 | 0.98 | 75 | 2.95 | **615 811 831 0** |
| 17 | 0.67 | 25 | 0.98 | 25 | 0.98 | 75 | 2.95 | **615 811 833 0** |
| 19 | 0.75 | 25 | 0.98 | 25 | 0.98 | 75 | 2.95 | **615 811 834 0** |





# Sleeve drive socket - Pulse tools*

*For Desoutter PTF models and all Japanese pulse tools*

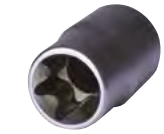
## Internal Torx

| DRIVE A | OUTPUT SIZE TORX B | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|
| | | D2 | | L1 | | L | | |
| | | mm | in | mm | in | mm | in | |
| 3/8" | T20 | 22 | 0.87 | 2.8 | 0.11 | 75 | 2.95 | **615 811 841 0** |
| 3/8" | T25 | 22 | 0.87 | 3 | 0.12 | 75 | 2.95 | **615 811 842 0** |
| 3/8" | T30 | 22 | 0.87 | 3.8 | 0.15 | 75 | 2.95 | **615 811 843 0** |
| 3/8" | T40 | 22 | 0.87 | 3.8 | 0.15 | 75 | 2.95 | **615 811 844 0** |
| 1/2" | T40 | 25 | 0.98 | 3.8 | 0.15 | 75 | 2.95 | **615 811 845 0** |




## External Torx

| DRIVE A | OUTPUT B | DIMENSIONS | | | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | D2 | | D1 | | L2 | | L | | |
| | | mm | in | mm | in | mm | in | mm | in | |
| 3/8" | E8 | 19 | 0.75 | 11 | 0.43 | 6.5 | 0.26 | 43 | 1.69 | **615 811 846 0** |
| 3/8" | E10 | 19 | 0.75 | 13 | 0.51 | 7.5 | 0.30 | 43 | 1.69 | **615 811 847 0** |
| 3/8" | E12 | 19 | 0.75 | 15.5 | 0.61 | 8.5 | 0.33 | 43 | 1.69 | **615 811 848 0** |
| 3/8" | E14 | 22 | 0.87 | 17.5 | 0.69 | 10 | 0.39 | 43 | 1.69 | **615 811 849 0** |
| 1/2" | E10 | 25 | 0.98 | 14 | 0.55 | 7.5 | 0.30 | 52 | 2.05 | **615 811 8500** |
| 1/2" | E12 | 25 | 0.98 | 16 | 0.63 | 8.5 | 0.33 | 52 | 2.05 | **615 811 851 0** |
| 1/2" | E14 | 25 | 0.98 | 18 | 0.71 | 10 | 0.39 | 52 | 2.05 | **615 811 852 0** |
| 1/2" | E16 | 25 | 0.98 | 20 | 0.79 | 11 | 0.43 | 52 | 2.05 | **615 811 853 0** |
| 1/2" | E18 | 25 | 0.98 | 22 | 0.87 | 12.5 | 0.49 | 52 | 2.05 | **615 811 854 0** |

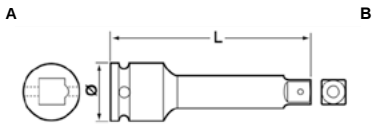





## Extension Bars

| DRIVE A | OUTPUT B | DIMENSIONS | | | | PART NO. |
|---|---|---|---|---|---|---|
| | | D2 | | L | | |
| | | mm | in | mm | in | |
| 3/8" | 3/8 | 22 | 0.87 | 75 | 2.95 | **615 811 859 0** |
| 3/8" | 3/8 | 22 | 0.87 | 125 | 4.92 | **615 811 861 0** |
| 3/8" | 3/8 | 22 | 0.87 | 250 | 9.84 | **615 811 864 0** |
| 1/2" | 1/2 | - | - | 75 | 2.95 | **615 811 865 0** |
| 1/2" | 1/2 | - | - | 125 | 4.92 | **615 811 867 0** |
| 1/2" | 1/2 | - | - | 175 | 6.89 | **615 811 869 0** |
| 1/2" | 1/2 | 25 | 0.98 | 250 | 9.84 | **615 811 871 0** |



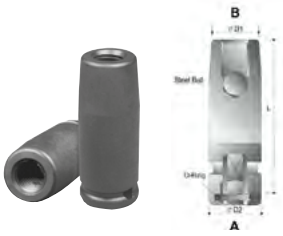


# Sleeve drive socket - Pulse tools*

*For Desoutter PTF models and all Japanese pulse tools*

## Stud setter sockets

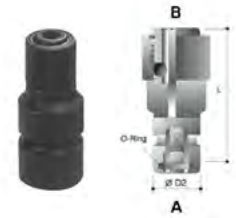
| DRIVE A | OUTPUT B | DIMENSIONS | | | | | | PART NO. |
|---|---|---|---|---|---|---|---|---|
| | | D2 | | D1 | | L | | |
| | | mm | in | mm | in | mm | in | |
| 3/8'' | M6 x P1 | 22 | 0.87 | 12.5 | 0.49 | 50 | 1.97 | **615 811 876 0** |
| 3/8'' | M8 x P1.25 | 22 | 0.87 | 14.5 | 0.57 | 50 | 1.97 | **615 811 877 0** |
| 3/8'' | M10 x P1.5 | 22 | 0.87 | 17 | 0.67 | 50 | 1.97 | **615 811 878 0** |
| 1/2'' | M6 x P1 | 25 | 0.98 | 13 | 0.51 | 75 | 2.95 | **615 811 879 0** |
| 1/2'' | M8 x P1.25 | 25 | 0.98 | 15 | 0.59 | 75 | 2.95 | **615 811 880 0** |
| 1/2'' | M10 x P1.5 | 25 | 0.98 | 17 | 0.67 | 75 | 2.95 | **615 811 881 0** |
| 1/2'' | M12 x P1.75 | 25 | 0.98 | 19 | 0.75 | 75 | 2.95 | **615 811 882 0** |
| 1/2'' | M14 X P2 | 25 | 0.98 | 22 | 0.87 | 75 | 2.95 | **615 811 883 0** |
| 1/2'' | M16 x P2 | 30 | 1.18 | 27 | 1.06 | 75 | 2.95 | **615 811 884 0** |




## Bit adaptors

| DRIVE A | OUTPUT B | DIMENSIONS | | | | PART NO. |
|---|---|---|---|---|---|---|
| | | D2 | | L | | |
| | | mm | in | mm | in | |
| 3/8'' | 1/4 | 22 | 0.87 | 52 | 2.05 | **615 811 885 0** |
| 1/2'' | 1/4 | 25 | 0.98 | 60 | 2.36 | **615 811 887 0** |

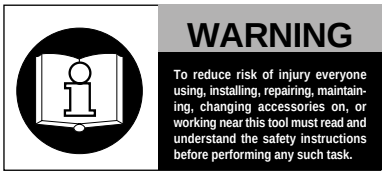
*Not suitable for Desoutter PT models



# Safety Instructions

*General Safety Instructions for the Operation of Power Tools*

The goal of Desoutter is to produce tools that help the operator work safely and efficiently.
The most important safety device for this or any other tool is the operator. Care and good judgement are the best protection against injury.
All possible hazards cannot be covered here, but we have tried to highlight some of the important ones.
Individuals should look for and obey Caution, Warning and Danger signs placed on tools and displayed in the workplace. Operators should read and follow safety instructions packed with each tool. For a copy of these instructions, contact your local Desoutter representative.
Learn how each tool works. Even if you have




previously used similar tools, carefully check out each tool before you use it. Get the 'feel' of it and know its capabilities, limitations, potential hazards, how it operates and how it stops.
All tools are designed to operate at a line pressure of 6.3 bar +/- 0.15bar in accordance with ISO2787, 8NTC1.2.
Sound levels +/- 3dB(A)* are measured in accordance with EN ISO15744. Vibration values* are measured in accordance with ISO8662 & ISO28927.
*These declared values were obtained by laboratory type testing in accordance with the stated standards and are suitable for comparison with the declared values of other tools tested in accordance with the same standards. These declared values are not adequate for use in risk assessments and values measured in individual work places may be higher. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, the workpiece and the workstation design, as well upon the exposure time and the physical condition of the user.
We, Desoutter, cannot be held liable for the consequences of using the declared values, instead of values reflecting the actual exposure, in an individual risk assessment in a work place situation over which we have no control.
Tools are CE marked to comply with European Machinery Directive.
Specifications subject to change without prior notice.
Further occupational health and safety information can be obtained from the following web sites:
**http://www.osha.gov (USA )http://europe.osha.eu.int (Europe).**



## COMPRESSED AIR HAZARDS

- Air under pressure can cause injury. Never point an air hose at yourself or anyone else. Never blow your clothes free of dust with compressed air. Always direct exhaust air away from yourself and others in the work area.
- Always check for damaged or loose hoses and fittings before using an air tool, and replace if necessary. Whipping hoses can cause serious injury.
- Disconnect the tool from the air supply when not in use, before changing accessories, setting the torque, or when making repairs.
- Do not exceed rated air pressure to increase the output of the tool. This could cause injury and shorten tool life.
- Do not assemble quick coupler on the tool. Vibration can cause breakage resulting in a whipping air hose. Instead, use quick couplers on the end of a short leader hose.
- When universal twist couplings are used, lock pins must be installed to prevent accidental hose disconnection.
- Air tools are not intended for use in explosive atmospheres and are not insulated for contact with electric power sources.



## ELECTRICAL HAZARDS

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adaptor plugs with earthed (grounded) power tools and equipment. Unmodifed plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded metal surfaces. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- Do not expose electric power tools and equipment to wet conditions.
- Do not operate power tools in explosive atmospheres. Power tools create sparks which may ignite dust, fumes or flammable liquids.
- Have electric power tools and equipment serviced by a qualified repair person using only identical replacement parts.



## PROJECTILE HAZARDS

- Always wear impact resistant eye and face protection when involved with or near the operation or repair of tools.



## BREATHING HAZARDS

- Proper breathing protection must be worn when working with materials, which produce airborne particles.



## NOISE HAZARDS

- Hearing loss can result from prolonged exposure to excessive sound levels.
- Use hearing protection as recommended by your employer or Occupational Health and Safety Regulations.



## VIBRATION HAZARDS

- Repetitive work motions, awkward positions, and exposure to vibration may be harmful to your hands and arms.
- If numbness, tingling, pain or whitening of the skin occurs, stop using tool and consult a physician.



## ENTANGLEMENT HAZARDS

- To reduce the risk of injury from entanglement, do not wear loose clothing when using rotating accessories.



## ADDITIONAL HAZARDS

- Slip/Trip/Fall is a major cause of serious injury or death. Beware of excessive hose/cord left on the walking or work surface.
- Operators and maintenance personnel must be physically fit to perform job tasks, and handle the bulk, weight and power of the tool.
- Deburring tools should be used to reduce the risk of cuts and abrasions due to burrs.
- Wear gloves to protect hands from sharp edges.

In addition to the General Safety Instructions, the following are safety instructions and warnings that apply to the safe operation of specific power tool groups.



## COMPRESSION TOOLS

- To reduce the risk of injury always keep hands and fingers away from yoke and moving jaws, sets or dies. If possible, hold the tool body with both hands.

# Safety Instructions

*Specific Safety Instructions for Power Tool Groups*

- Inspect the yoke daily for cracks. Injury may result if a cracked yoke fails during use.
- All yokes have a life limitation based on cycles and riveting force. This tool and its accessories must not be modified.



## DRILLS & TAPPERS

- Keep away from rotating bit and chuck. You can become cut or burned if you come into contact with the drill bit or tap, chips/swarf, or work surface.
- Use intermittent drill feed pressure to avoid long shaved chips/swarf.
- The drill bit or tap can suddenly bind and cause the workpiece or tool to rotate, causing arm and shoulder injuries.
- It is recommended that side handles are used for operator comfort and safety on high torque drilling applications above 4Nm (3 lbft) on straight case tools and 10Nm (7.4 lbft) on pistol grip drills. Drills with a chuck capacity larger than 10mm (3/8») should always be used with a side handle.



## PERCUSSIVE TOOLS

(Riveting Hammers, Air Scribe)

- All chisels, rivet sets and other associated accessories should be checked for cracks, excessive wear, or other physical damage before each use. Accessories that show signs of damage should be replaced immediately.
- Never use a tool without the proper accessory retainer.



## PULSE TOOLS

- Never use hand sockets or accessories. Use only impact sockets and accessories in good condition. Sockets in poor condition reduce impact power and could also shatter, resulting in personal injury.
- When using a universal joint, never operate the tool off the work. It may run too fast and cause the joint to be thrown from the tool.
- Always use the simplest hook up possible. Long springy extension bars and adaptors absorb impact power and could break loose resulting in personal injury. Instead, use deep sockets wherever possible.
- For tools using the pin and o-ring socket retainer, use the o-ring to securely retain the socket pin or use a one-piece retainer ring to retain the socket.
- Serious injury can result from overtorqued or under-torqued fasteners, which can break, or loosen and separate. Released assemblies can become projectiles. Assemblies requiring a specific torque must be checked using a torque meter.

NOTE: So-called 'click' torque wrenches do not check for potentially dangerous over-torqued conditions.



## ANGLE WRENCHES

- Never use hand sockets or accessories Use only power drive sockets and accessories.
- To reduce the risk of injury, always support the handle securely in the direction opposite of the spindle rotation to minimize torque reaction.



## ACCESSORIES

- Always use accessories of correct size and design for the tool. Tool and accessories must not be modified in any way.
- Never use a tool without the proper accessory retainer.
- Do not use a tool or attachment for a purpose not intended by the manufacturer.



## OTHER TOOLS

(e.g. Screwdrivers,Shears, Saws, etc.)

- Specific instructions/warnings affecting this group of tools are contained in product-specific documents accompanying each product.



## ABRASIVE TOOLS

- Before grinding, test grinding wheel by briefly running tool at full throttle. Be sure to use a barrier (such as under a heavy work table) to protect yourself from possible broken wheel parts.
- Never mount a grinding wheel on a sander.
- Never use a grinding wheel rated at a speed lower than the air grinder speed.
- All grinding wheels and polishing/sanding accessories should be checked for cracks or other damage before mounting and use.
- Always use the recommended wheel guard to prevent injury when performing grinding operations. If a guard has withstood wheel or disk breakage, it must be replaced.
- Position a guard between the grinding wheel or disc and the operator.
- Use barriers to protect others from fragments and grinding sparks.
- Make sure grinding wheels are mounted according to manufacturer's specifications: always use correct mounting flanges.
- Never tamper with or remove a speed governor from a tool to make it run faster. Periodically check tool speed with a tachometer.

**For complete safety instructions, please see the documentation provided with each tool.**

*All products in this catalog are subject to Californian Proposition 65.*

**Warning**

*Cancer and reproductive harm - http://www.P65warnings.ca.gov.*

# Notes

# Notes

## Conversion table

| LENGTH | | |
|---|---|---|
| 1 in. | = | 0.0254 m |
| 1 m | = | 39.3701 in / 3.2808 ft |
| 1 mm | = | 0.0393701 in |

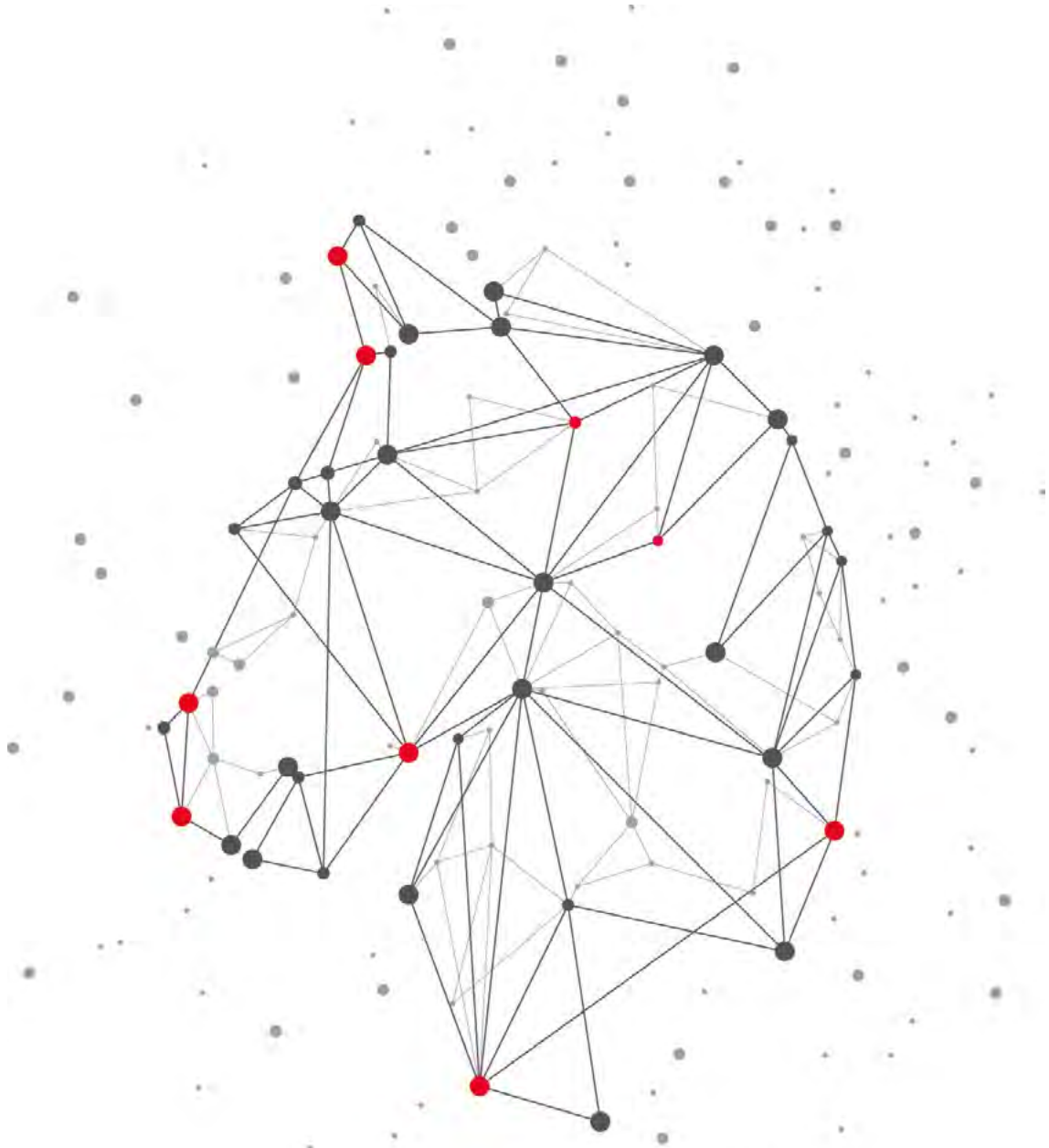
| WEIGHT | | |
|---|---|---|
| 1 lb | = | 0.4536 kg |
| 1 kg | = | 2.2046 lb |

| TORQUE | | |
|---|---|---|
| 1 kpm | = | 9.8067 Nm |
| 1 ft-lb | = | 1.3558 Nm |
| 1 in-lb | = | 0.1130 Nm |
| 1 Nm | = | 0.1020 kpm |
| 1 Nm | = | 0.7376 ft-lbs |

| POWER | | |
|---|---|---|
| 1 kpm/s | = | 9.8067 W |
| 1 hp | = | 745.7 W |
| 1 hp | = | 101.972 kpm/s |
| 1 KW | = | 1.3410 hp |

| AIR PRESSURE | | |
|---|---|---|
| 1 bar | = | 100 kPa |
| 1 kp/cm² (at) | = | 98.0665 kPa |
| 1 psi | = | 6.8948 kPa |
| 1 kPa | = | 0.0101972 kp/cm² (at) |

| AIR FLOW | | |
|---|---|---|
| 1 $m^3$/min | = | 16.6667 l/s |
| 1 cfm | = | 0.4720 l/s |
| 1$m^3$/h | = | 0.2778 l/s |
| 1 l/s | = | 2.1189 cfm |



# DESOUTTER 4.0

# More Than Productivity



ENG
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