

# 3arm®

america

**JUNE 2019**

3arm<sup>®</sup>  
america

## Quick Start

### WHAT TOOL DO YOU WANT TO HOLD?

TYPE:
MAKE:
MODEL:
ORIENTATION:
WEIGHT:
3D DRAWING OF THE TOOL (STP file):

### WHAT ARE YOUR APPLICATION REQUIREMENTS?

HORIZONTAL REACH:
VERTICAL REACH:
MOUNTING ORIENTATION: <input type="checkbox"/> BOTTOM <input type="checkbox"/> TOP <input type="checkbox"/> WALL
MOUNTING SOLUTIONS: <input type="checkbox"/> TABLE <input type="checkbox"/> ELEVATOR <input type="checkbox"/> CLAMP <input type="checkbox"/> BEAM <input type="checkbox"/> COLUMN <input type="checkbox"/> SWING <input type="checkbox"/> RAIL <input type="checkbox"/> MAGNET <input type="checkbox"/> BALUSTRADE
BRAKES: <input type="checkbox"/> NONE <input type="checkbox"/> MANUAL BASE LOCK <input type="checkbox"/> MANUAL <input type="checkbox"/> MANUAL BASE + ARM <input type="checkbox"/> PNEUMATIC <input type="checkbox"/> TOOL TRIGGER ACTIVATED
TORQUE REQUIREMENTS:

NOTES:
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3arm<sup>®</sup> is a division of the Tecnospiro Machine Tool Company located in Sant Joan de Vilatorrada, a small village about 40 miles west of Barcelona. The company is family owned and has been in business since 1947. Utilizing a state of the art manufacturing facility and a dynamic engineering staff that has been very innovative in design and inventing new products. The 3arm ergonomic arm is the strongest most dependable arm available in the world market place today. It can be used for assistance in assembly, deburring, off line machining, and all types of lifting operations. Wherever operator fatigue is concern for employee safety, productivity, or quality 3arm has a solution. The EuroLink has been the North American representative and importer since 2006.

Each 3arm<sup>®</sup> is customized for your tool and application. We optimize the arm for your process so it's ready to work, right out of the box.

### Head Member Configuration

Determine the tools you need to use with your 3arm<sup>®</sup>. This will also help you select a head member based on the type of application and neccessary orientations. To ensure proper fit a 3D STP file of the tool is required.

### Balanced Design

Tool weight is key to determining which arm will suit your application. All of our arms are precision calibrated at the factory to balance the weight of the tool.

### Great Reach

A 3arm<sup>®</sup> can be bottom mounted, top mounted or wall mounted. You can easily add precision reach by applying a rail, make it mobile with a trolley or add vertical reach with a mounting column. See more on page 24.

### Integrated Braking

Tool trigger braking of the arm is available. Effortlessly position your tool, stop it in place, release trigger and float it to the next job. (Brakes are necessary for certain applications)

### Handling Force

The durable closed-case design of 3arm<sup>®</sup> is able to absorb considerable force. Knowing your requirements for torque can help us determine the best 3arm<sup>®</sup> configuration.

**SAFETY WARNING** 3arm-America<sup>®</sup> products are engineered and manufactured with safety in mind. The heat treat specifications exceed or meet all standards. All of the products manufactured by 3arm-America<sup>®</sup> are designed to perform without any undue safety issues when caution, common sense and proper safety practices are followed. The use of cutting tools and toolholders is safe when proper application and protection guidelines are observed. Even when these proper precautions are taken, it is possible that fragments of a cutting tool, cutting material, or holding device may be thrown at a very high rate of speed and have potential to cause severe bodily harm. It is imperative that general safety precautions and safety glasses be used at all times.

**WARRANTY** 3arm-America<sup>®</sup> arms carry a full one year warranty of the arm against manufacturer defects. The warranty does not cover any damage caused by overloads, improper use and handling, and using the arm for anything other than its intended use. Our warranty covers labor and parts during the one year period.

4 Markets and Applications

5 The Versatile Ergonomic Solution

6 **SERIES 0**

8 **SERIES 1**

10 **SERIES 2**

12 **SERIES 3**

14 **SERIES 4**

16 **SERIES 6**

18 **ENCODER**

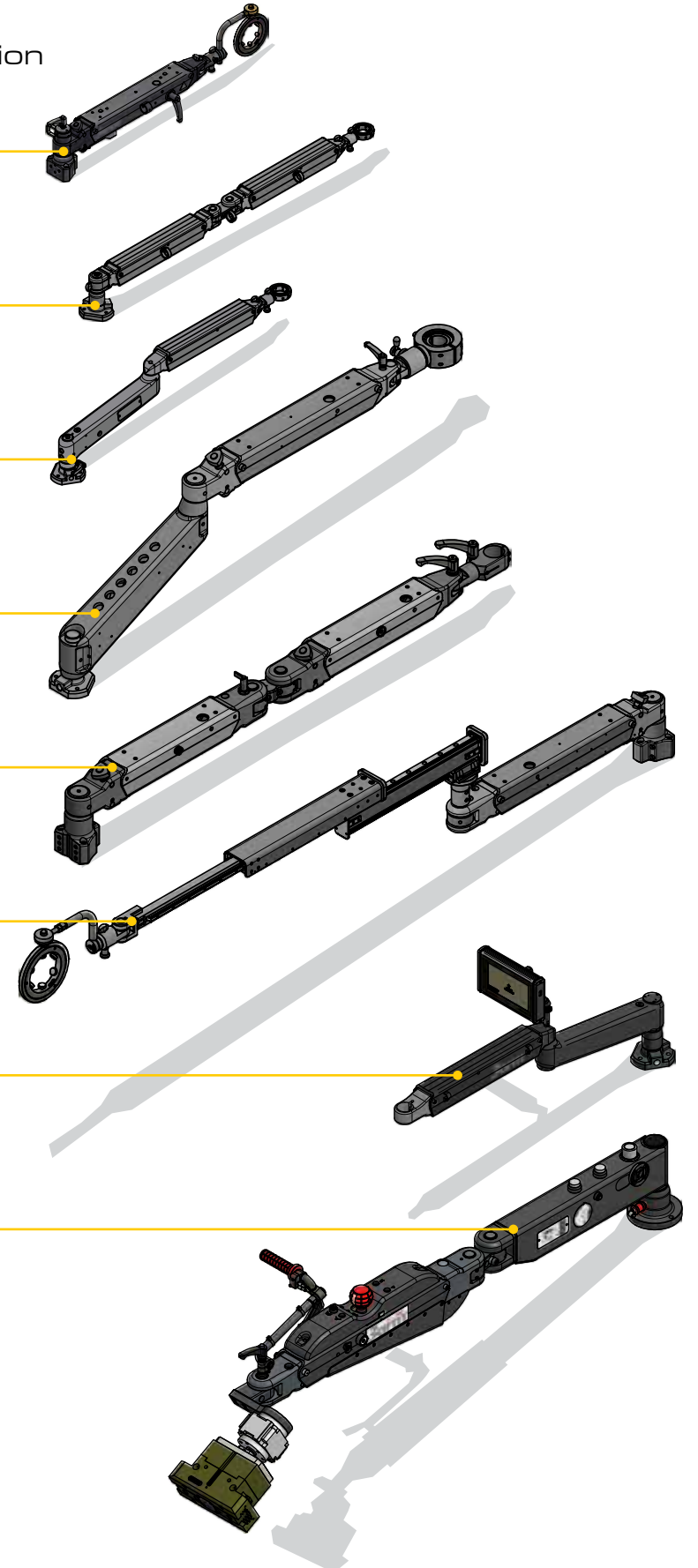
20 **MANIPULATOR**

22 Head Members + Brakes

24 Mounting Solutions

26 The Facts of Worker Injury

27 Ergonomic Safety







**Machine Shops**



**Fabrication**



**Welding**



**Automotive**



**Assembly**



**Aerospace**



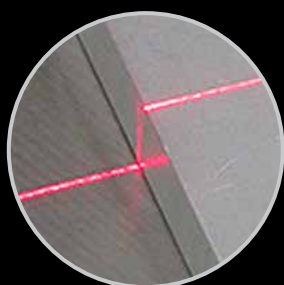
**Medical**



**Mechanical**



**Chemical**



**Metrology**



**Painting**



**Construction**



**Food  
Processing**



**Marine**

## Versatility and Productivity

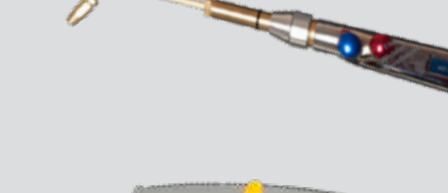
3arm® has been designed to keep weightless any tool and device, including more than 29 head systems. Allowing the tool to be fixed in any position according to its accessories. We have more than 1 million configurations available to suit any application.

## Ergonomic Safety

The weightlessness and strength to absorb considerable tool torque reaction, and the option to lock the arm in any position and movement, helps prevent operator fatigue and injury, giving them high work sensitivity and increased productivity.

## The 3arm® Solution

- Allows the full range of motion required to complete any task efficiently and safely.
- Permits use of heavy tools more accurately.
- Eliminates tool weight, providing not only an ergonomic benefit, but also increased productivity and precision.
- Reduces operator fatigue and the chance of injury due to strain.
- Holds any tool up to 77 lbs, keeping the tool weightless, while eliminating possible damage caused by dropping the tool.
- A Simple Ergonomic Solution



SERIES 0

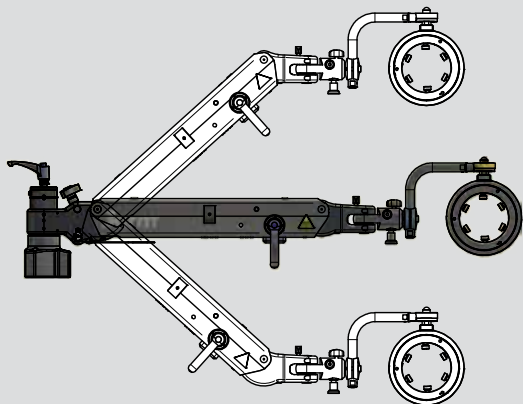
REACH

↑ VERT. 42 in

→ HORZ. 36 in

MAX. up to 77 lbs

A single tilting arm for the most simple applications. Three different arm lengths with all brake and headmembers offering available.



ARM BOTTOM MOUNT		REACH		MAX LBS
		VERT	HORZ	
SNDS	Extra Short Tilting	19.8	20	65
SNBS	Short Tilting	26.3	24.3	77
SNBM	Large Tilting	44.5	36.4	43

TOP MOUNT		VERT	HORZ	MAX LBS
STDS	Extra Short Tilting	19.8	20	65
STBS	Short Tilting	26.3	24.3	77
STBM	Large Tilting	44.5	36.4	43

COMPATIBLE HEAD MEMBERS

All

See Headmembers, pg 22

BRAKE OPTIONS

L00 No brakes

L11 Manual

L22 Pneumatic

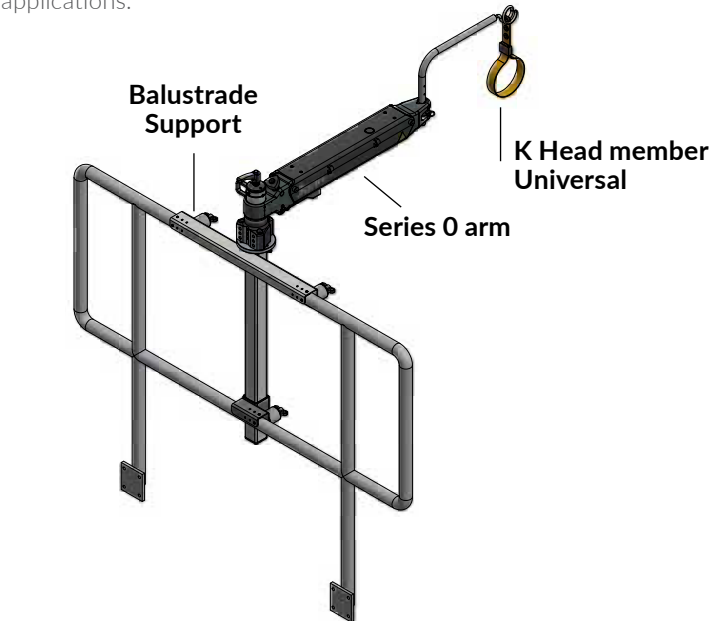
L50 Manual Locking Base

L92 Tool Trigger Activated

See Brakes, pg 22

3arm<sup>®</sup> Solutions

A Series 0 arm configured with a balustrade support for lifters is a perfect solution for construction and electrical applications.



ONE ARM IS BETTER ...  
THAN NONE

Pure  
simplicity  
for holding  
tools



Series 0 Pictured:  
SNBS+K0+L00

TORQUE RECOMMENDATIONS

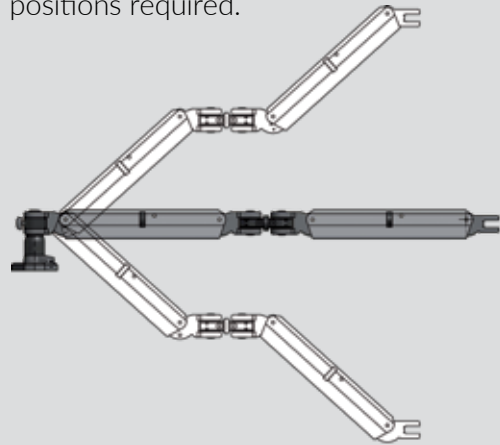
Work	Head Member	Max. Torque	
		Nm	ft-lbs
	VERTICAL		
	B3: Stationary Flat with Ring	650	479
	E3: Flat Articulated with Ring	120	88
	R3: Revolving	300	221
	HORIZONTAL		
	B3: Stationary Flat with Ring	250	184
	E3: Flat Articulated with Ring	120	88
	R3: Revolving	250	184
	ANY ANGLE		
	E3: Flat Articulated with Ring	120	88
	R3: Revolving	200	147



## SERIES 1

REACH  
 ▲ VERT. 44in  
 ➡ HORZ. 43in  
 MAX. up to 22 lbs

Series 1 arms are capable of the most difficult operations and positions required.



ARM EDP	ORIENTATION
1SN1DS	Bottom Mounted
1AM1DS	Top Mounted

### COMPATIBLE HEAD MEMBERS

**B, BA, C, E, EA, F, G, K, N, T**

See Headmembers, pg 22

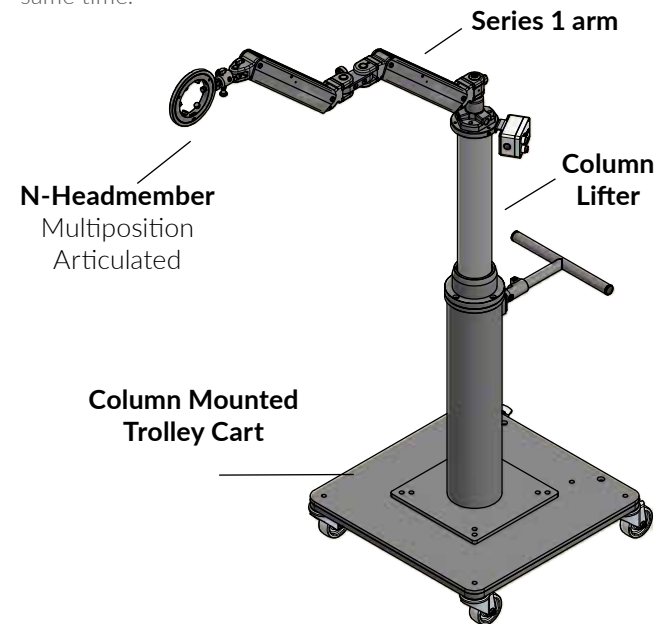
### BRAKE OPTIONS

**L00** Not Required

See Brakes, pg 24

### 3arm Solutions

A Trolley Column with Lifter can add the mobility needed for your application and add even more vertical reach at the same time.



Series 1 Pictured:  
1SN1DS+T0

Dual  
tilting arms add  
extra vertical  
reach

COME AT IT ...  
FROM ANY  
DIRECTION

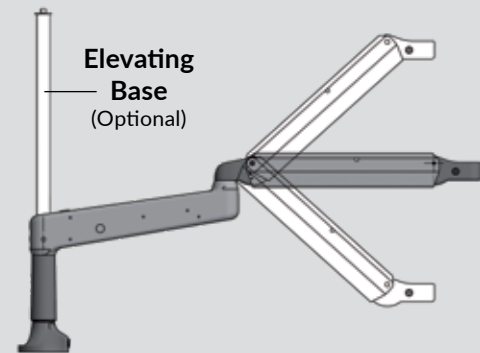


Light and nimble with great vertical reach

## SERIES 2

REACH		MAX. up to <b>22</b> lbs	TORQUE up to <b>120</b> Nm
↑ VERT.	→ HORZ.		
<b>22</b> in	<b>34</b> in		

A combination radial arm and tilting arm, each capable of 360° rotation. Two arms of different length give you the ability to reach separate working areas. A range of headmembers options offer solutions for a wide variety of tools and devices.



The perfect solution for small work areas

# THE PERFECT BALANCE ... IN YOUR WORK



A compact multi-purpose arm for use when brakes are not required



ARM EDP	BASE
<b>BB</b>	Bottom Mounted
<b>BE</b>	Elevating Base
<b>BA</b>	Top Mounted

### COMPATIBLE HEAD MEMBERS

**B, BA, C, E, EA, F, G, K, N**

See Headmembers, pg 22

### BRAKE OPTIONS

None

### TORQUE RECOMMENDATIONS

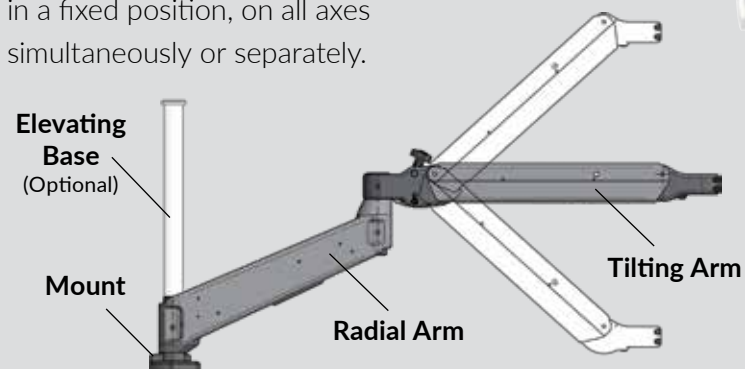
Work	Head Member	MAX. TORQUE	
		Nm	ft-lbs
	VERTICAL		
	<b>B2:</b> Stationary Flat with Ring	<b>120</b>	<b>88</b>
	<b>E2:</b> Flat Articulated with Ring	<b>60</b>	<b>44</b>
	HORIZONTAL		
	<b>B2:</b> Stationary Flat with Ring	<b>90</b>	<b>66</b>
	<b>E2:</b> Flat Articulated with Ring	<b>60</b>	<b>44</b>
	ANY ANGLE		
	<b>E2:</b> Articulated Flat + Ring	<b>60</b>	<b>44</b>



## SERIES 3

REACH		MAX. up to <b>77 lbs</b>	TORQUE up to <b>650 Nm</b>
↑ VERT.	→ HORZ.		
<b>42 in</b>	<b>55 in</b>		

The most popular 3arm® due to versatility. Features “turning & tilting” brake locking systems (pneumatic or manual) allowing the operator to immobilize the arm, in a fixed position, on all axes simultaneously or separately.



ARM	BOTTOM MOUNTED	REACH		MAX LBS
		VERT	HORZ	
<b>PSBS</b>	Short Radial + Short Tilting	27.8	41.7	77
<b>PSBM</b>	Short Radial + Long Tilting	44.5	53.5	40
<b>PLBS</b>	Long Radial + Short Tilting	27.8	55.9	77
<b>PLBM</b>	Long Radial + Long Tilting	44.5	67.6	40
<b>TOP MOUNTED</b>				
<b>ASBS</b>	Short Radial + Short Tilting	27.8	41.7	77
<b>ASBM</b>	Short Radial + Long Tilting	44.5	53.5	40
<b>ALBS</b>	Long Radial + Short Tilting	27.8	55.9	77
<b>ALBM</b>	Long Radial + Long Tilting	44.5	67.6	40
<b>ELEVATING BASE</b>				
<b>PEBS</b>	Elevating Radial + Short Tilting	27.8	43.7	77
<b>PEBM</b>	Elevating Radial + Long Tilting	44.5	55.8	40

### COMPATIBLE HEAD MEMBERS

**ALL**

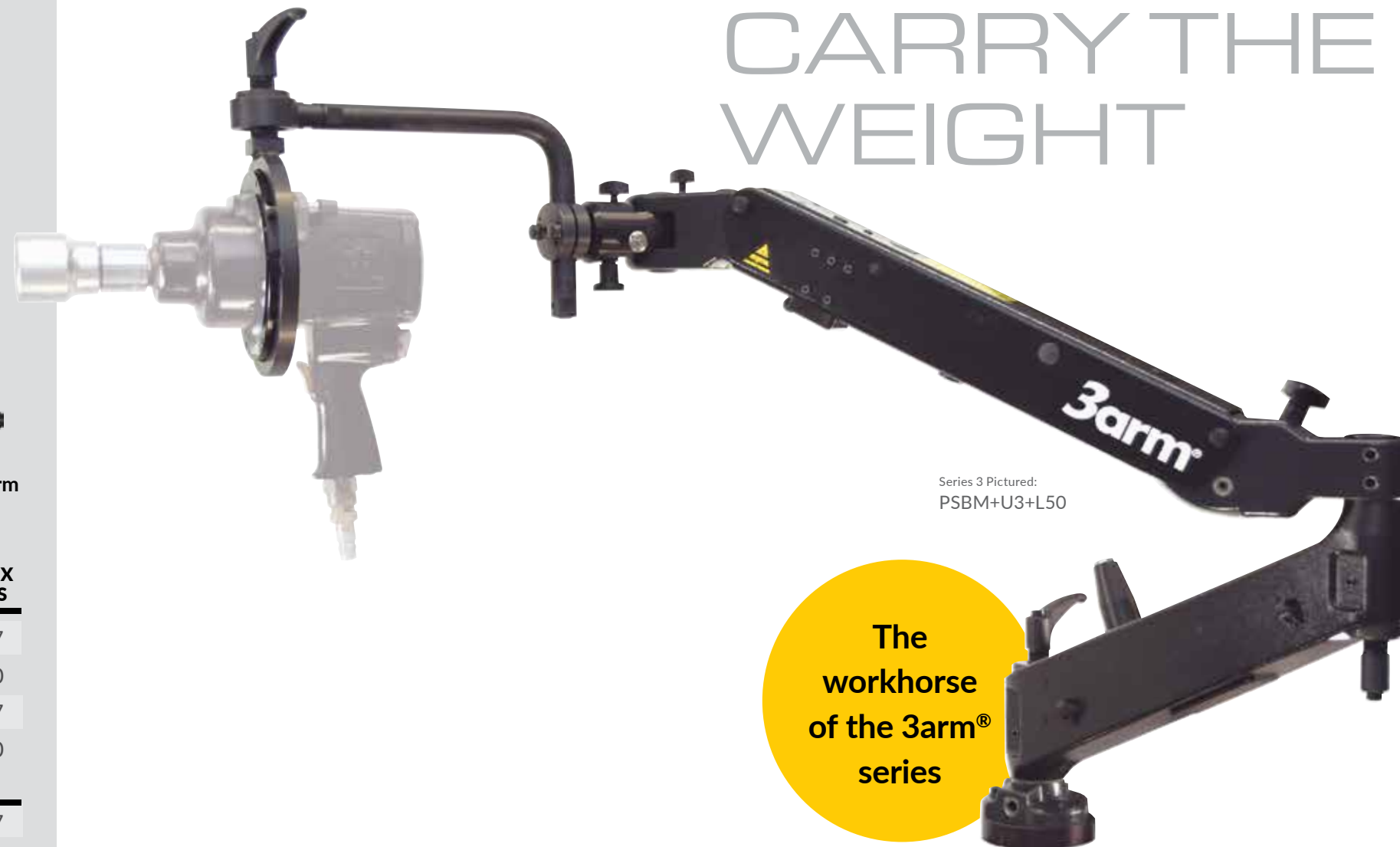
See Headmembers, pg 22

### BRAKE OPTIONS

- L00** None
- L11** Manual
- L22** Pneumatic
- L50** Manual Locking Base
- L92** Tool Trigger Activated

See Brakes, pg 22

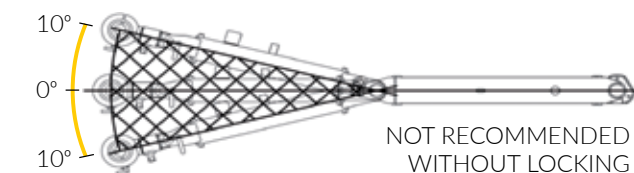
# THE CAPABILITY TO ... CARRY THE WEIGHT



Series 3 Pictured:  
PSBM+U3+L50

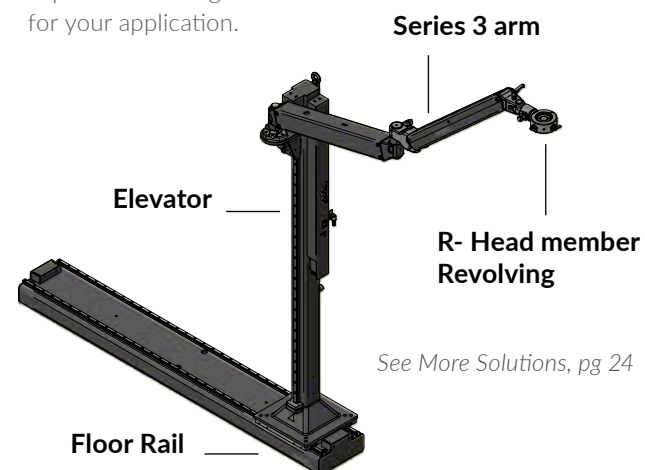


Long reach and the ability to carry the heaviest loads



## 3arm Solutions

A Floor Rail plus an Elevator provide expanded working area for your application.



See More Solutions, pg 24

### TORQUE RECOMMENDATIONS

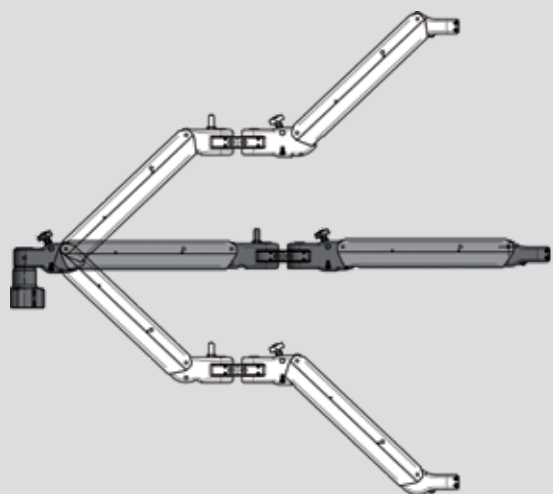
Work	Head Member	MAX. TORQUE	
		Nm	ft-lbs
	VERTICAL		
	<b>B3:</b> Stationary Flat with Ring	<b>650</b>	<b>479</b>
	<b>E3:</b> Flat Articulated with Ring	<b>120</b>	<b>88</b>
	<b>R3:</b> Revolving	<b>300</b>	<b>221</b>
	HORIZONTAL		
	<b>B3:</b> Stationary Flat with Ring	<b>250</b>	<b>184</b>
	<b>E3:</b> Flat Articulated with Ring	<b>120</b>	<b>88</b>
	<b>R3:</b> Revolving	<b>250</b>	<b>184</b>
	ANY ANGLE		
	<b>E3:</b> Flat Articulated with Ring	<b>120</b>	<b>88</b>
	<b>R3:</b> Revolving	<b>200</b>	<b>147</b>

\*Series 3 - LOCKING RECOMMENDED

## SERIES 4

REACH		MAX. up to <b>53 lbs</b>	TORQUE up to <b>300 Nm</b>
↑ VERT.	→ HORZ.		
<b>52 in</b>	<b>57 in</b>		

The innovative connections between the parts of the arm allow completely free movement of rolling up, down and sideways. Capable of reaching the most difficult positions or work with weightless precision.



ARM EDP	DESCRIPTION	REACH		MAX LBS
		VERT	HORZ	
<b>DS</b>	Bottom Mount, Short Arm	40	48	43
<b>DM</b>	Bottom Mount, Long Arm	52	57.5	53
<b>ADS</b>	Top Mount, Short Arm	40	48	43
<b>ADM</b>	Top Mount, Long Arm	52	57.5	53

COMPATIBLE  
HEAD MEMBERS

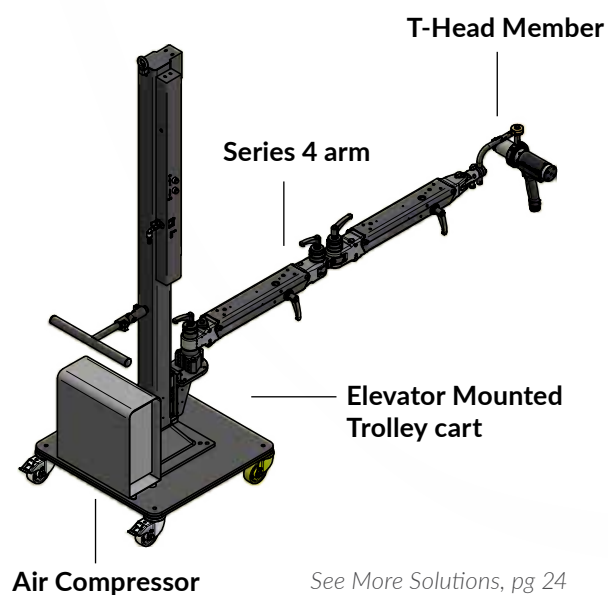
**ALL**

See Headmembers, pg 22

BRAKE OPTIONS

- L00** None
- L11** Manual
- L22** Pneumatic
- L50** Manual Locking Base
- L92** Tool Trigger Activated

See Brakes, pg 22



See More Solutions, pg 24

# THE RIGHT ANGLE ... MAKES ALL THE DIFFERENCE

Series 4 Pictured:  
DM+R4+L92

**Dual tilting  
arms expand  
the range of  
movement**



Extended vertical reach with uncompromised strength

### TORQUE RECOMMENDATIONS

Work	Head Member	MAX. TORQUE	
		Nm	ft-lbs
	VERTICAL		
	<b>B4:</b> Stationary Flat with Ring	<b>300</b>	<b>221</b>
	<b>E4:</b> Flat Articulated with Ring	<b>120</b>	<b>88</b>
	<b>R4:</b> Revolving	<b>300</b>	<b>221</b>
	HORIZONTAL		
	<b>B4:</b> Stationary Flat with Ring	<b>250</b>	<b>184</b>
	<b>E4:</b> Flat Articulated with Ring	<b>120</b>	<b>88</b>
	<b>R4:</b> Revolving	<b>250</b>	<b>184</b>
	ANY ANGLE		
	<b>E4:</b> Flat Articulated with Ring	<b>120</b>	<b>88</b>
	<b>R4:</b> Revolving	<b>200</b>	<b>147</b>

\*Series 4 - LOCKING REQUIRED



SERIES 6

REACH

↑ VERT. 26in

→ HORZ. 82in

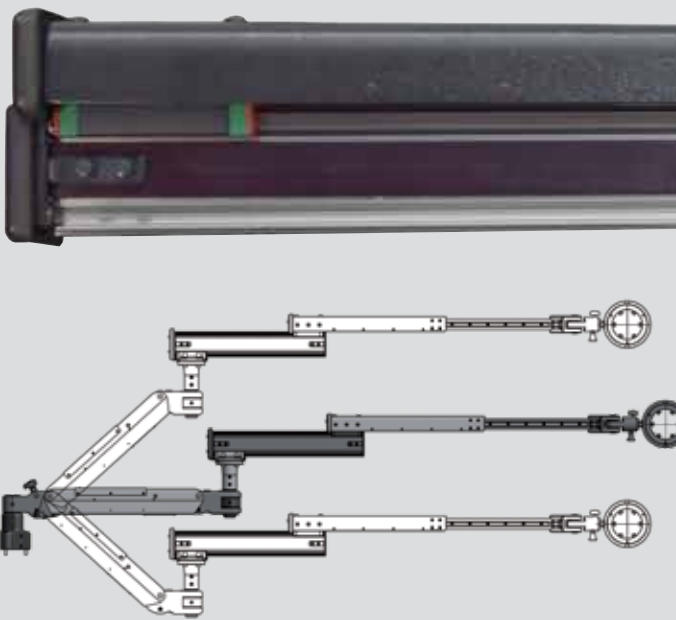
MAX.

up to 40lbs

TORQUE

up to 300 Nm

An extendable arm with ball linear guideways attached to a pendulum base arm, both capable of 360° rotation. A compact arm that offers versatility for any type of tool. The telescopic top arm allows the user to work on hard to reach areas comfortably, quickly and safely. Built for a wide variety of applications.



ARM EDP		REACH		MAX LBS
		VERT	HORZ	
BPRASC	Short	26	68	40
BPRASM	Long	26	82	22

COMPATIBLE HEAD MEMBERS

**BPRASC: ALL**  
**BPRASM: N, T**

See Headmembers, pg 22

BRAKE OPTIONS

**L00** None  
**L22** Pneumatic  
**L92** Tool Trigger Activated

See Brakes, pg 22

EVERYTHING ...  
WITHIN  
REACH



Series 6 Pictured:  
BPRASM+T6+L00



Extended horizontal reach spans more than 7 ft.

Get your  
tool into  
tight spaces  
safely

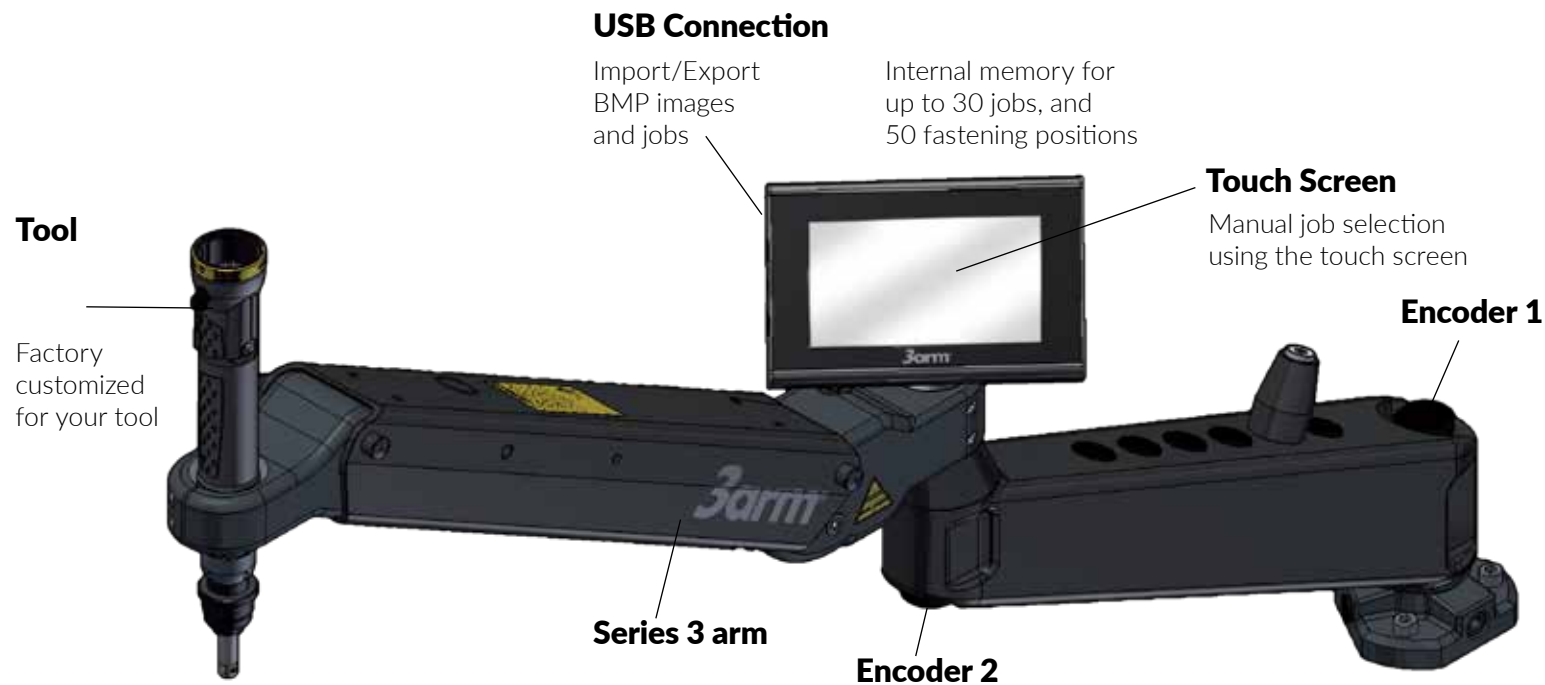
TORQUE RECOMMENDATIONS

	Head Member	Max. Torque	
		Nm	ft-lbs
	VERTICAL		
	B6: Stationary Flat with Ring	300	221
	E6 Flat Articulated with Ring	120	88
	R6: Revolving	300	221
	HORIZONTAL		
	B6: Stationary Flat with Ring	250	184
	E6: Flat Articulated with Ring	120	88
	R6: Revolving	250	184
	ANY ANGLE		
	E6: Flat Articulated with Ring	120	88
	R6: Revolving	200	147

\*Series 6 - LOCKING REQUIRED

## ENCODER

Precision programming of jobs that define fastening position and sequence.



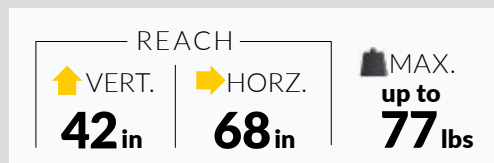
### SmartControl

Encoder SmartControl system integration available on Series 2 and 3 3arm®

**Quickly and easily  
create new sequences**

**Increase productivity  
and safety**

**Adaptable headmember  
for a wide variety of tools**



#### ARM STYLE

<b>BB2L+L80</b>	Series 2 Base
<b>PSBS+L80</b>	Series 3, Short + Short
<b>PSBM+L80</b>	Series 3, Short + Long
<b>PLBS+L80</b>	Series 3, Long + Short
<b>PLBM+L80</b>	Series 3, Long + Long

#### COMPATIBLE HEADMEMBERS

**A, B, BR, C, D, E,**

See Headmembers, pg

### Versatile

- Additional programs previously created to add or modify fastening positions and modify the precision parameters and programming of torque (the fastening sequence cannot be edited)
- Possibility of working with up to 7 different fastening programs in the same job
- Communication with the tool controller to select the different fastening programs (I/O)
- Communication with the tool controller to enable or block the functioning of the tool (I/O)
- Communication with the tool controller to receive the correct/incorrect fastening signal (I/O)
- Counting of parts remaining to complete the current job and parts completed
- Configuration in 3 languages (Spanish, English and French)
- Possibility of password protection for the system
- Possibility of inlaying a representative BMP image into the jobs
- Identifier (overprinted message) of jobs finished correctly

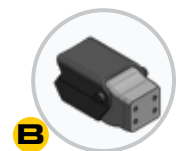




## GRIPPING SYSTEM



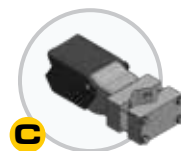
## HEAD MEMBERS



**B**  
Vertical  
Flat



**BA**  
Vertical with  
Ring



**C**  
Vertical  
Adjustable



**E**  
Flat Articulated



**EA**  
Flat Articulated  
with Ring



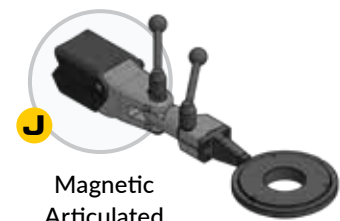
**F**  
Articulated  
Adjustable



**G**  
Quick Change



**H**  
Heavy-Duty  
Applications



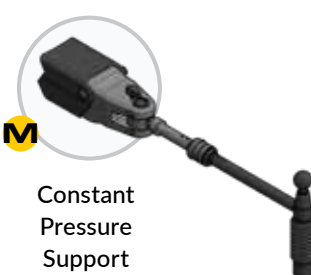
**J**  
Magnetic  
Articulated  
Drill



**K**  
Universal  
Strap



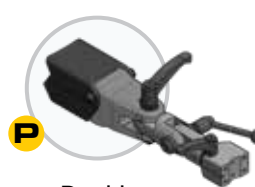
**LA**  
Vertical Pneumatic  
Ball and Socket



**M**  
Constant  
Pressure  
Support



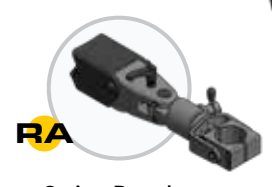
**N**  
Multiposition  
Articulated



**P**  
Double  
Articulated  
Flat



**Q**  
Heavy-Duty  
Multiposition  
Articulated



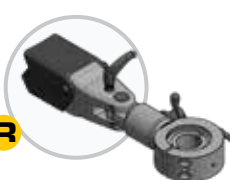
**RA**  
Swing Revolver



**RB**  
Revolver  
Pistol



**RC**  
Vertical &  
Horizontal



**R**  
Revolver



**SN**  
Giraffe  
Multiposition



**SQ**  
Heavy-Duty  
Giraffe  
Multiposition



**SP**  
Giraffe  
Revolver



**T**  
Multiposition  
Articulated  
Pistol



**U**  
Heavy-Duty  
Multiposition  
Articulated  
Pistol



**Z**  
Fork

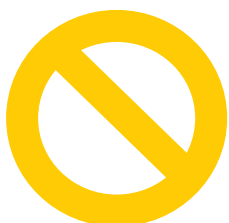
Ask us about a **custom**  
toolholding solution.



## BRAKES

**L00**

**Not  
Required**  
No Brakes



**L11**

**Manual  
Brakes**  
Manually  
turned  
handle



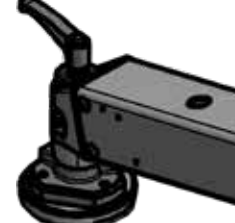
**L22**

**Pneumatic  
Brakes**



**L50**

**Manual  
Locking  
Base**  
Handle at  
base only



**L51**

**Base Brake  
& Tilting  
Arm Brake**



**L92**

**Tool  
Trigger  
Activated**  
Pneumatic,  
activated  
through the  
tool





## MOUNTING SOLUTIONS



**Large Clamp**  
RA0002A  
5" x 5" x 2 1/2"  
capacity



**Radial Extension**  
RA0188A  
19" x 2.7"

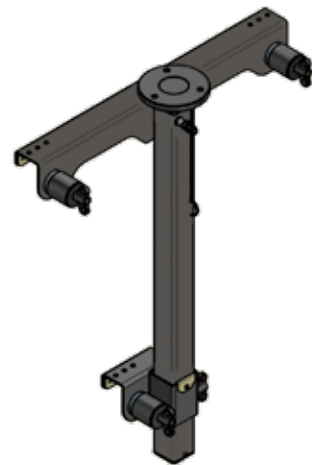


**Arm Limiting Base**  
RA00104A



**Swing Beam**  
RA0035A  
39" x 10 1/2"

Add reach to your build with a Swing Beam



**Balustrade Support**  
RCL108500A  
22.75" x 28.5"

**We will engineer the perfect solution for your application**

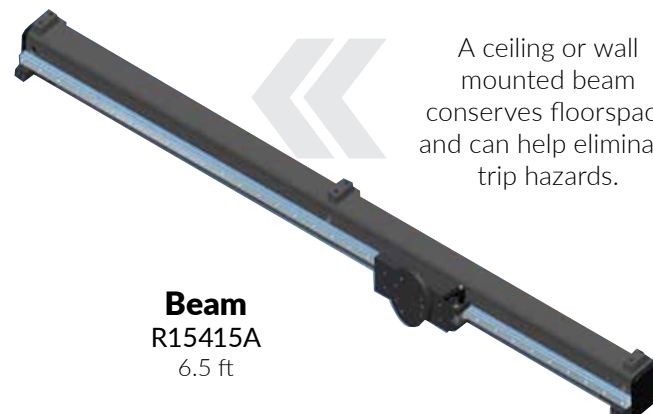
Our experts will ensure your 3arm® build is properly balanced with your accessory.

## More Reach



**Rail**  
RA0045A  
6.5 ft

Easily add dependable reach to your arm.



**Beam**  
R15415A  
6.5 ft

A ceiling or wall mounted beam conserves floorspace and can help eliminate trip hazards.

## Vertical Reach

Custom sizes available



**Mounting Column**  
RA0010A  
13 3/4" x 13 3/4" x 29 1/2"



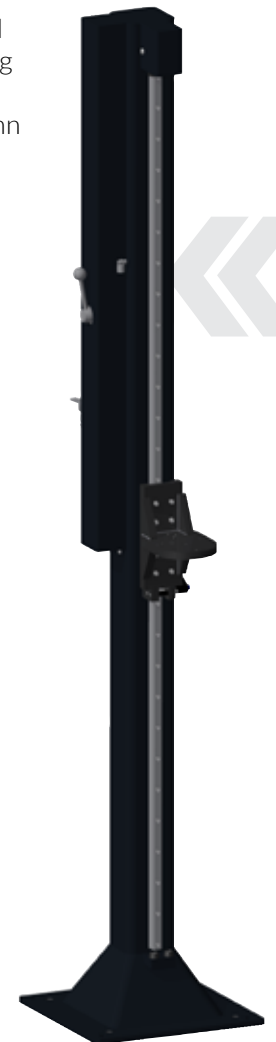
**Trolley with Column**  
RA0007A  
27.55" x 27.55" x 37"

Add mobility and reach by mounting your 3arm® on a Trolley with Column

**Lifter**  
RA0012A  
19.4"



Add even more vertical reach to your Column



Achieve extreme vertical reach with an Elevator

**Elevator**  
R76100A  
57.1"

## Mobile Work Space

Custom sizes available



**Medium Table**  
U1102A  
34 1/2" x 34 1/2" x 28"



**Large Table**  
RA0006A  
43 5/16" x 33 7/16" x 33 7/16"

## Manufacturing Industry Worker INJURY

SOURCE: U.S. BUREAU OF LABOR STATISTICS

### MOST COMMON Type of Injury



Sprains & Strains



Cuts & Lacerations



Fractures

### MOST COMMON Cause of Injury



Overexertion

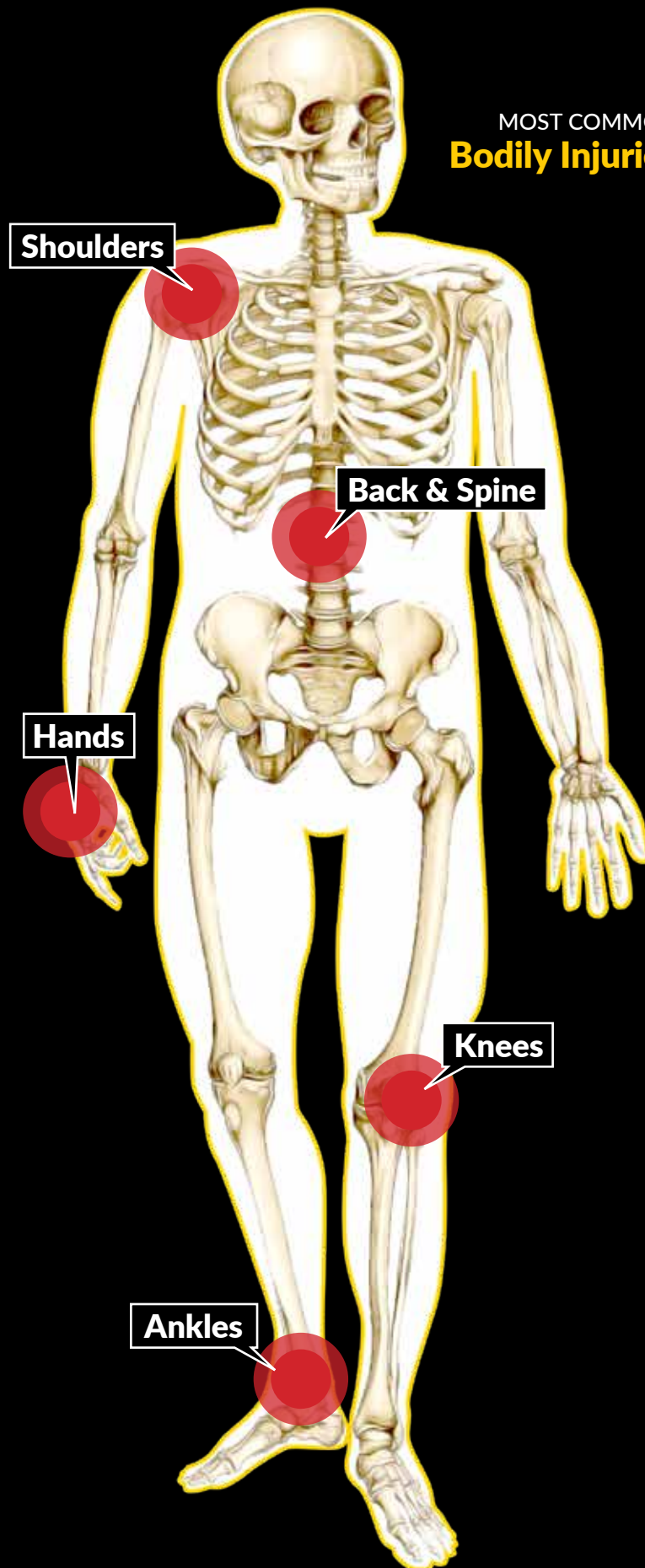


Repetitive Motions



Struck, Cut or Caught by Equipment

### MOST COMMON Bodily Injuries



IF INJURY NECESSITATES  
**Missed Work**

25% MISS  
**31**  
DAYS  
OR MORE

MEDIAN  
MISSED  
**7**  
DAYS

ONLY  
**16%**  
MISSED  
**1 DAY**  
OR FEWER

THE COST  
of Worker Injury

EMPLOYERS SPEND  
**MORE THAN**  
**\$2000**  
ANNUALLY  
PER EMPLOYEE

**MORE THAN**  
**60%**  
OF WORKER INJURY  
IS POTENTIALLY  
PREVENTABLE

## SAVE AN ARM AND A LEG

**3arm®**

APPLYING  
**Ergonomics**



Weightload is taken off  
of the worker



Worker can be more productive  
with less strain



Eliminate the most common  
causes of worker injury

WORKER  
**Safety**



Worker's limbs are kept at a  
safe distance from hazards



Get the tool into tight spaces, while  
keeping workers safe.



Eliminate the high costs of  
worker injury



# 3arm<sup>®</sup>

america

## Our Customer Commitment

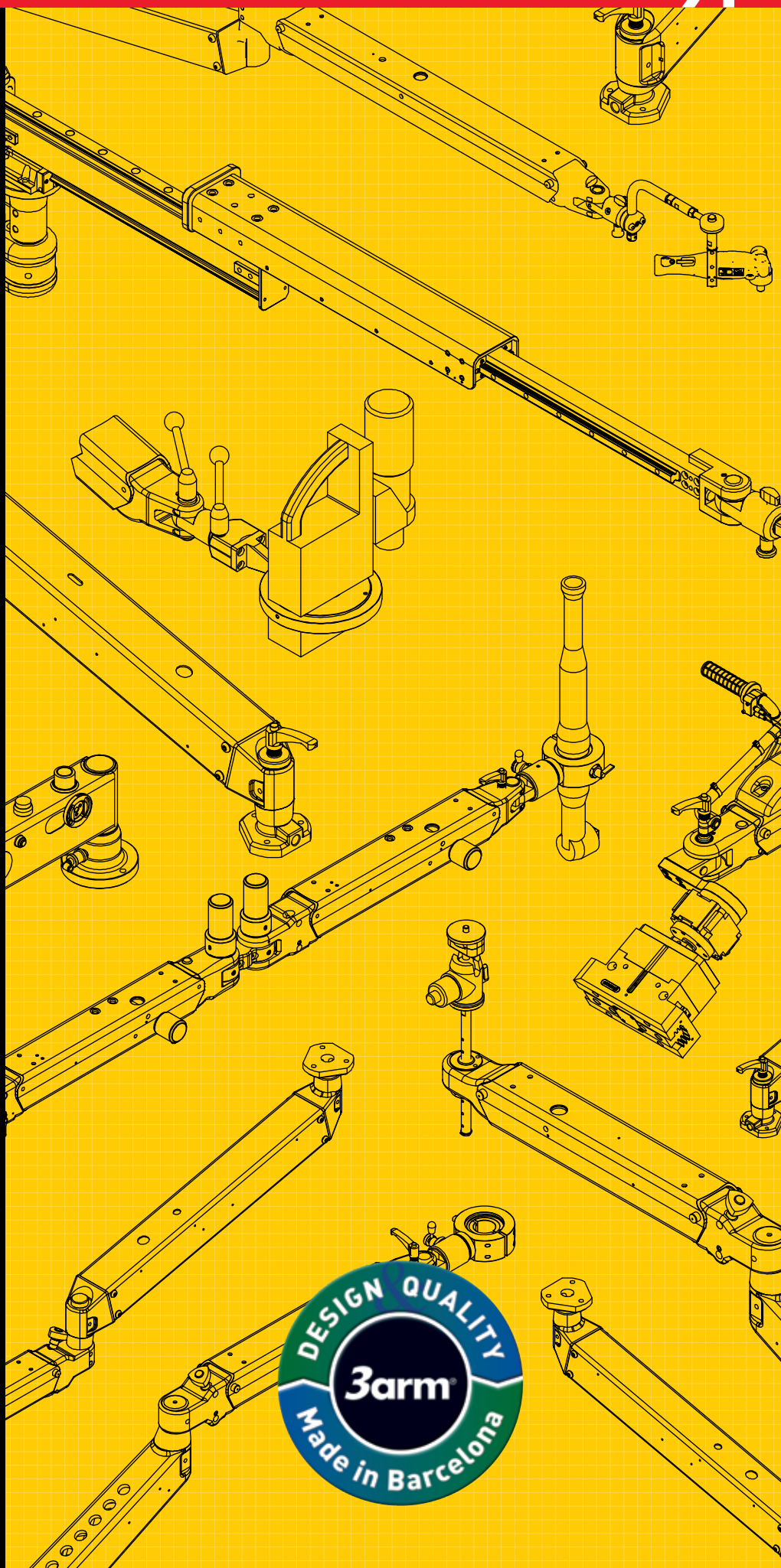
To work hard everyday to be regarded in the marketplace as a supplier that is friendly, helpful and easy to do business with - EVERY DAY, EVERY TIME. To offer innovative high quality solutions at a competitive price. To be receptive & proactive in identifying solutions for our customer's needs & requirements.

Another Quality Product from



GJ052119

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