



Tangless Wire Thread Inserts



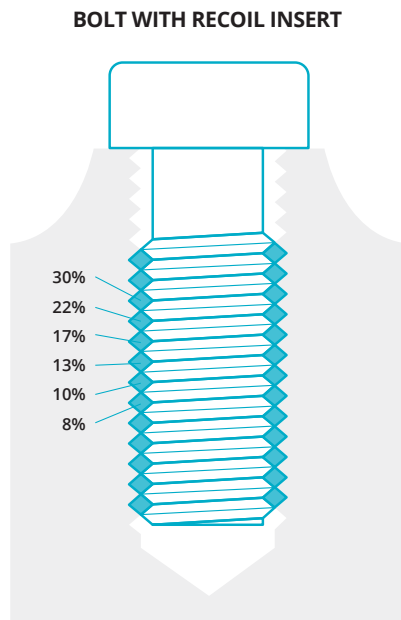
Recoil® Tangless® Inserts

Next Step in Wire Thread Insert Evolution

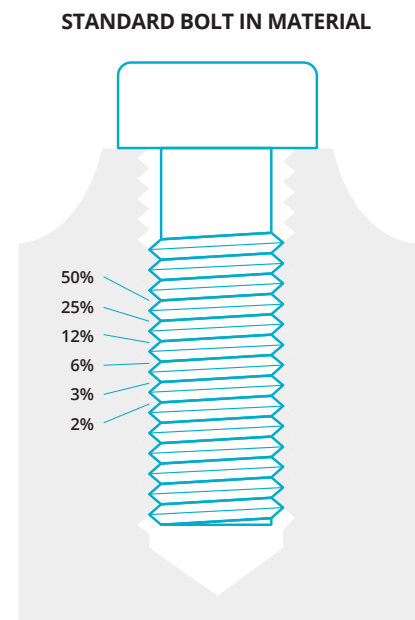


Recoil Tangless wire thread inserts offer you an advanced solution with all of the engineered strength and ease of installation that standard Recoil inserts are known for, but with no tang to break off post-installation. This saves installation time and eliminates the risk of tangs becoming foreign object debris in your assemblies.

Once installed, these Tangless inserts share the load over the entire bolt and hole to improve joint strength and pull-out resistance.



High strength:
Stress spread more evenly

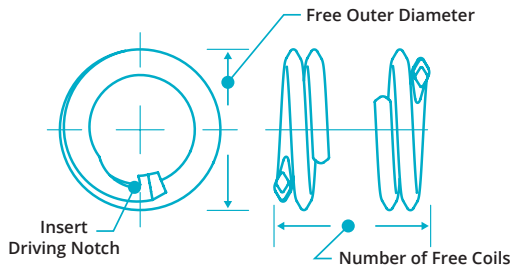


Lower strength:
Stress concentrated on first threads

Tangless Inserts Offer Increased Speed and Flexibility

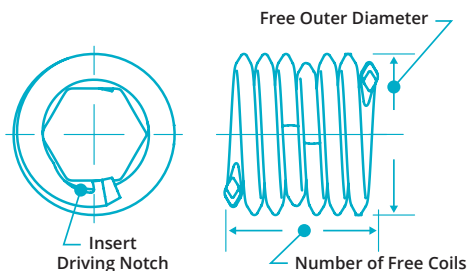
- ✓ Ideal for automated, high-volume installation
- ✓ Easily adjusted or removed after installation
- ✓ Eliminates steps for tang vacuuming, extraction or counting
- ✓ Removal tools prevent damage by never touching application
- ✓ Bi-directional design eliminates time-consuming insert checking
- ✓ Eliminates loose tangs that can damage finished product

Recoil® Tangless® Insert Options



Free-Running Tangless Inserts

Free-Running Tangless® inserts are quick and easy to install, even when using basic hand tooling. These proven inserts create high-strength threads in even soft, low-strength materials. Available in both imperial and metric versions, UNC and UNF.



Locking Tangless Inserts

Locking Tangless inserts are designed to retain screws or bolts under the most severe vibration or temperature conditions. Upon bolt entry, the straight segments are flexed outwardly, creating pressure on the bolt. The pressure applied between the flanks of the bolt maximizes contact area. Available in both imperial and metric versions, UNC and UNF.



Strip Feed Tangless Inserts

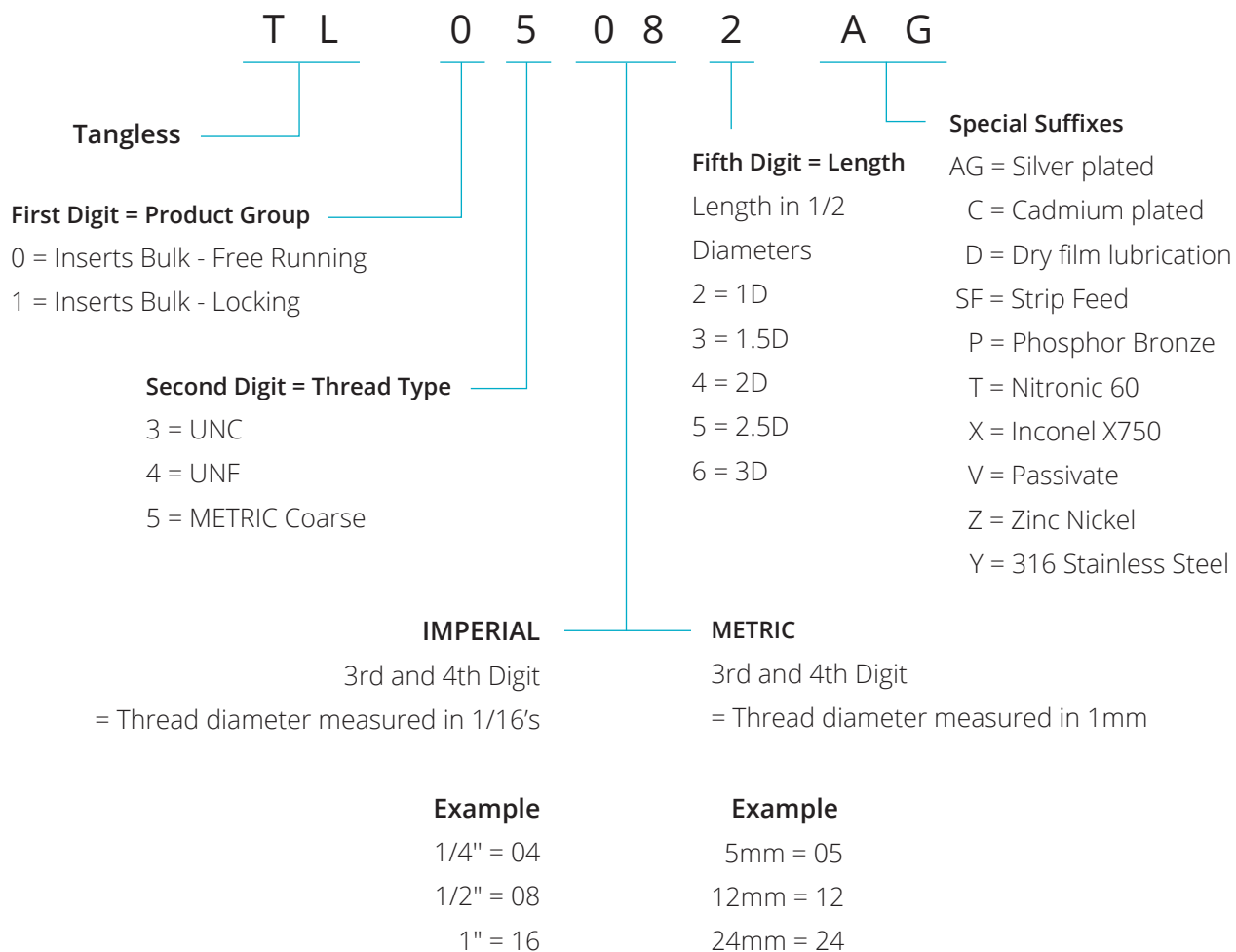
Strip feed Tangless inserts, deliver optimal production efficiency by increasing installation cycles and reducing operator fatigue. Each insert is retained in a plastic strip which is passed through a slot in the front-end assembly nozzle, indexing the insert to the installation mandrel.

Tangless® Inserts are designed to replace tanged helical coil inserts as specified in MA3279 through MA3281 (standard thread) and MA3329 through MA3331 (locking thread). Inch MS122076 through to MS124690 (free running) and NASM21209 (locking). They install in standard STI tapped holes per MA1567 and MIL-I-8846. Installed inserts provide a finished thread meeting the requirements of FED-STD-H28, M Profile, Tolerance Classes 4H or 5H, as well as ISO metric thread specifications, and accept standard or MJ profile bolts or screws.

Tangless Inserts

The Recoil insert product part numbering system uses a logically structured 5-digit part number. Suffixes are typically added to differentiate between special or non-standard features. This guide defines the structure of Recoil part numbers and may be used as a reference to identify a Recoil insert from its part number. Note: Please refer to Recoil Technical Catalog for tap and gage information.

Insert Part Numbering System



Inch Tangless Series

Free-Running Bulk (UNC)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D
#2-56	TL03522	2TNC-02C-0086	0.086	1D
	TL03523	2TNC-02C-0129	0.129	1.5D
	TL03524	2TNC-02C-0172	0.172	2D
	TL03525	2TNC-02C-0215	0.215	2.5D
	TL03526	2TNC-02C-0258	0.258	3D
#4-40	TL03542	2TNC-04C-0112	0.112	1D
	TL03543	2TNC-04C-0168	0.168	1.5D
	TL03544	2TNC-04C-0224	0.224	2D
	TL03545	2TNC-04C-0280	0.280	2.5D
	TL03546	2TNC-04C-0336	0.336	3D
#6-32	TL03562	2TNC-06C-0138	0.138	1D
	TL03563	2TNC-06C-0207	0.207	1.5D
	TL03564	2TNC-06C-0276	0.276	2D
	TL03565	2TNC-06C-0345	0.345	2.5D
	TL03566	2TNC-06C-0414	0.414	3D
#8-32	TL03582	2TNC-2C-0164	0.164	1D
	TL03583	2TNC-2C-0246	0.246	1.5D
	TL03584	2TNC-2C-0328	0.328	2D
	TL03585	2TNC-2C-0410	0.414	2.5D
	TL03586	2TNC-2C-0492	0.492	3D
#10-24	TL03602	2TNC-3C-0190	0.190	1D
	TL03603	2TNC-3C-0285	0.285	1.5D
	TL03604	2TNC-3C-0380	0.380	2D
	TL03605	2TNC-3C-0475	0.475	2.5D
	TL03606	2TNC-3C-0570	0.570	3D
1/4-20	TL03042	2TNC-4C-0250	0.250	1D
	TL03043	2TNC-4C-0375	0.375	1.5D
	TL03044	2TNC-4C-0500	0.500	2D
	TL03045	2TNC-4C-0625	0.625	2.5D
	TL03046	2TNC-4C-0750	0.750	3D
5/16-18	TL03052	2TNC-5C-0312	0.312	1D
	TL03053	2TNC-5C-0469	0.469	1.5D
	TL03054	2TNC-5C-0625	0.625	2D
	TL03055	2TNC-5C-0781	0.781	2.5D
	TL03056	2TNC-5C-0938	0.938	3D
3/8-16	TL03062	2TNC-6C-0375	0.375	1D
	TL03063	2TNC-6C-0562	0.562	1.5D
	TL03064	2TNC-6C-0750	0.750	2D
	TL03065	2TNC-6C-0938	0.938	2.5D
	TL03066	2TNC-6C-1125	1.125	3D
1/2-13	TL03082	-	0.500	1D
	TL03083	-	0.750	1.5D
	TL03084	-	1.000	2D
	TL03085	-	1.250	2.5D
	TL03086	-	1.500	3D

Locking Bulk (UNC)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D
#2-56	TL13522	2TLC-02C-0086	0.086	1D
	TL13523	2TLC-02C-0129	0.129	1.5D
	TL13524	2TLC-02C-0172	0.172	2D
	TL13525	2TLC-02C-0215	0.215	2.5D
	TL13526	2TLC-02C-0258	0.258	3D
#4-40	TL13542	2TLC-04C-0112	0.112	1D
	TL13543	2TLC-04C-0168	0.168	1.5D
	TL13544	2TLC-04C-0224	0.224	2D
	TL13545	2TLC-04C-0280	0.280	2.5D
	TL13546	2TLC-04C-0336	0.336	3D
#6-32	TL13562	2TLC-06C-0138	0.138	1D
	TL13563	2TLC-06C-0207	0.207	1.5D
	TL13564	2TLC-06C-0276	0.276	2D
	TL13565	2TLC-06C-0345	0.345	2.5D
	TL13566	2TLC-06C-0414	0.414	3D
#8-32	TL13582	2TLC-2C-0164	0.164	1D
	TL13583	2TLC-2C-0246	0.246	1.5D
	TL13584	2TLC-2C-0328	0.328	2D
	TL13585	2TLC-2C-0410	0.414	2.5D
	TL13586	2TLC-2C-0492	0.492	3D
#10-24	TL13602	2TLC-3C-0190	0.190	1D
	TL13603	2TLC-3C-0285	0.285	1.5D
	TL13604	2TLC-3C-0380	0.380	2D
	TL13605	2TLC-3C-0475	0.475	2.5D
	TL13606	2TLC-3C-0570	0.570	3D
1/4-20	TL13042	2TLC-4C-0250	0.250	1D
	TL13043	2TLC-4C-0375	0.375	1.5D
	TL13044	2TLC-4C-0500	0.500	2D
	TL13045	2TLC-4C-0625	0.625	2.5D
	TL13046	2TLC-4C-0750	0.750	3D
5/16-18	TL13052	2TLC-5C-0312	0.312	1D
	TL13053	2TLC-5C-0469	0.469	1.5D
	TL13054	2TLC-5C-0625	0.625	2D
	TL13055	2TLC-5C-0781	0.781	2.5D
	TL13056	2TLC-5C-0938	0.938	3D
3/8-16	TL13062	2TLC-6C-0375	0.375	1D
	TL13063	2TLC-6C-0562	0.562	1.5D
	TL13064	2TLC-6C-0750	0.750	2D
	TL13065	2TLC-6C-0938	0.938	2.5D
	TL13066	2TLC-6C-1125	1.125	3D

Inch Tangless Series (continued)

Free-Running Bulk (UNF)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D
#10-32	TL04602	2TNF-3C-0190	0.190	1D
	TL04603	2TNF-3C-0285	0.285	1.5D
	TL04604	2TNF-3C-0380	0.380	2D
	TL04605	2TNF-3C-0475	0.475	2.5D
	TL04606	2TNF-3C-0570	0.570	3D
1/4-28	TL04042	2TNF-4C-0250	0.250	1D
	TL04043	2TNF-4C-0375	0.375	1.5D
	TL04044	2TNF-4C-0500	0.500	2D
	TL04045	2TNF-4C-0625	0.625	2.5D
	TL04046	2TNF-4C-0750	0.750	3D
5/16-24	TL04052	2TNF-5C-0312	0.312	1D
	TL04053	2TNF-5C-0469	0.468	1.5D
	TL04054	2TNF-5C-0625	0.624	2D
	TL04055	2TNF-5C-0781	0.780	2.5D
	TL04056	2TNF-5C-0938	0.936	3D
3/8-24	TL04062	2TNF-6C-0375	0.375	1D
	TL04063	2TNF-6C-0562	0.563	1.5D
	TL04064	2TNF-6C-0750	0.750	2D
	TL04065	2TNF-6C-0938	0.938	2.5D

Locking Bulk (UNF)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D
#10-32	TL14602	2TLF-3C-0190	0.190	1D
	TL14603	2TLF-3C-0285	0.285	1.5D
	TL14604	2TLF-3C-0380	0.380	2D
	TL14605	2TLF-3C-0475	0.475	2.5D
	TL14606	2TLF-3C-0570	0.570	3D
1/4-28	TL14042	2TLF-4C-0250	0.250	1D
	TL14043	2TLF-4C-0375	0.375	1.5D
	TL14044	2TLF-4C-0500	0.500	2D
	TL14045	2TLF-4C-0625	0.625	2.5D
	TL14046	2TLF-4C-0750	0.750	3D
5/16-24	TL14052	2TLF-5C-0312	0.312	1D
	TL14053	2TLF-5C-0469	0.468	1.5D
	TL14054	2TLF-5C-0625	0.624	2D
	TL14055	2TLF-5C-0781	0.780	2.5D
	TL14056	2TLF-5C-0938	0.936	3D
3/8-24	TL14062	2TLF-6C-0375	0.375	1D
	TL14063	2TLF-6C-0562	0.563	1.5D
	TL14064	2TLF-6C-0750	0.750	2D
	TL14065	2TLF-6C-0938	0.938	2.5D



Tangless Free Running Inserts



Tangless Locking Inserts

Stripfeed Series

Free-Running Stripfeed (UNC)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D	QTY / REEL
#2-56	TL03522SF	2TNC-02C-0086SF	0.086	1D	1000
	TL03523SF	2TNC-02C-0129SF	0.129	1.5D	1000
	TL03524SF	2TNC-02C-0172SF	0.172	2D	1000
#4-40	TL03542SF	2TNC-04C-0112SF	0.112	1D	1000
	TL03543SF	2TNC-04C-0168SF	0.168	1.5D	1000
	TL03544SF	2TNC-04C-0224SF	0.224	2D	1000
#6-32	TL03562SF	2TNC-06C-0138SF	0.138	1D	1000
	TL03563SF	2TNC-06C-0207SF	0.207	1.5D	1000
	TL03564SF	2TNC-06C-0276SF	0.276	2D	1000
#8-32	TL03582SF	2TNC-2C-0164SF	0.164	1D	1000
	TL03583SF	2TNC-2C-0246SF	0.246	1.5D	1000
	TL03584SF	2TNC-2C-0328SF	0.328	2D	1000
#10-24	TL03602SF	2TNC-3C-0190SF	0.190	1D	1000
	TL03603SF	2TNC-3C-0285SF	0.285	1.5D	500
	TL03604SF	2TNC-3C-0380SF	0.380	2D	500
1/4-20	TL03042SF	2TNC-4C-0250SF	0.250	1D	500
	TL03043SF	2TNC-4C-0375SF	0.375	1.5D	500
	TL03044SF	2TNC-4C-0500SF	0.500	2D	250
5/16-18	TL03052SF	2TNC-5C-0312SF	0.312	1D	250
	TL03053SF	2TNC-5C-0469SF	0.469	1.5D	250
	TL03054SF	2TNC-5C-0625SF	0.625	2D	250
3/8-16	TL03062SF	2TNC-6C-0375SF	0.375	1D	250
	TL03063SF	2TNC-6C-0562SF	0.562	1.5D	250
	TL03064SF	2TNC-6C-0750SF	0.750	2D	250

Locking Stripfeed (UNC)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D	QTY / REEL
#2-56	TL13522SF	2TLC-02C-0086SF	0.086	1D	1000
	TL13523SF	2TLC-02C-0129SF	0.129	1.5D	1000
	TL13524SF	2TLC-02C-0172SF	0.172	2D	1000
#4-40	TL13542SF	2TLC-04C-0112SF	0.112	1D	1000
	TL13543SF	2TLC-04C-0168SF	0.168	1.5D	1000
	TL13544SF	2TLC-04C-0224SF	0.224	2D	1000
#6-32	TL13562SF	2TLC-06C-0138SF	0.138	1D	1000
	TL13563SF	2TLC-06C-0207SF	0.207	1.5D	1000
	TL13564SF	2TLC-06C-0276SF	0.276	2D	1000
#8-32	TL13582SF	2TLC-2C-0164SF	0.164	1D	1000
	TL13583SF	2TLC-2C-0246SF	0.246	1.5D	1000
	TL13584SF	2TLC-2C-0328SF	0.328	2D	1000
#10-24	TL13602SF	2TLC-3C-0190SF	0.190	1D	1000
	TL13603SF	2TLC-3C-0285SF	0.285	1.5D	500
	TL13604SF	2TLC-3C-0380SF	0.380	2D	500
1/4-20	TL13042SF	2TLC-4C-0250SF	0.250	1D	500
	TL13043SF	2TLC-4C-0375SF	0.375	1.5D	500
	TL13044SF	2TLC-4C-0500SF	0.500	2D	250
5/16-18	TL13052SF	2TLC-5C-0312SF	0.312	1D	250
	TL13053SF	2TLC-5C-0469SF	0.469	1.5D	250
	TL13054SF	2TLC-5C-0625SF	0.625	2D	250
3/8-16	TL13062SF	2TLC-6C-0375SF	0.375	1D	250
	TL13063SF	2TLC-6C-0562SF	0.562	1.5D	250
	TL13064SF	2TLC-6C-0750SF	0.750	2D	250

Free-Running Stripfeed (UNF)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D	QTY / REEL
#10-32	TL04602SF	2TNF-3C-0190SF	0.190	1D	1000
	TL04603SF	2TNF-3C-0285SF	0.285	1.5D	500
	TL04604SF	2TNF-3C-0380SF	0.380	2D	500
1/4-28	TL04042SF	2TNF-4C-0250SF	0.250	1D	500
	TL04043SF	2TNF-4C-0375SF	0.375	1.5D	500
	TL04044SF	2TNF-4C-0500SF	0.500	2D	500
5/16-24	TL04052SF	2TNF-5C-0312SF	0.312	1D	250
	TL04053SF	2TNF-5C-0469SF	0.468	1.5D	250
	TL04054SF	2TNF-5C-0625SF	0.624	2D	250
3/8-24	TL04062SF	2TNF-6C-0375SF	0.375	1D	250
	TL04063SF	2TNF-6C-0562SF	0.563	1.5D	250
	TL04064SF	2TNF-6C-0750SF	0.750	2D	250

Locking Stripfeed (UNF)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (IN)	D	QTY / REEL
#10-32	TL14602SF	2TLF-3C-0190SF	0.190	1D	1000
	TL14603SF	2TLF-3C-0285SF	0.285	1.5D	500
	TL14604SF	2TLF-3C-0380SF	0.380	2D	500
1/4-28	TL14042SF	2TLF-4C-0250SF	0.250	1D	500
	TL14043SF	2TLF-4C-0375SF	0.375	1.5D	500
	TL14044SF	2TLF-4C-0500SF	0.500	2D	500

Metric Tangless Series

Free-Running Bulk (Metric Coarse)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (MM)	D
M2-0.4	TL05022	2TNM-2X.4C-2	2.0	1D
	TL05023	2TNM-2X.4C-3	3.0	1.5D
	TL05024	2TNM-2X.4C-4	4.0	2D
	TL05025	-	5.0	2.5D
	TL05026	-	6.0	3D
M2.5X0.45	TL05252	2TNM-2.5X.45C-2.5	2.5	1D
	TL05253	2TNM-2.5X.45C-3.8	3.8	1.5D
	TL05254	2TNM-2.5X.45C-5	5.0	2D
	TL05255	2TNM-2.5X.45C-6.3	6.3	2.5D
	TL05256	2TNM-2.5X.45C-7.5	7.5	3D
M3-0.5	TL05032	2TNM-3X.5C-3	3.0	1D
	TL05033	2TNM-3X.5C-4.5	4.5	1.5D
	TL05034	2TNM-3X.5C-6	6.0	2D
M4-0.7	TL05042	2TNM-4X.7C-4	4.0	1D
	TL05043	2TNM-4X.7C-6	6.0	1.5D
	TL05044	2TNM-4X.7C-8	8.0	2D
M5-0.8	TL05052	2TNM-5X.8C-5	5.0	1D
	TL05053	2TNM-5X.8C-7.5	7.5	1.5D
	TL05054	2TNM-5X.8C-10	10	2D
M6-1.0	TL05062	2TNM-6X1C-6	6.0	1D
	TL05063	2TNM-6X1C-9	9.0	1.5D
	TL05064	2TNM-6X1C-12	12	2D
M8-1.25	TL05082	2TNM-8X1.25C-8	8.0	1D
	TL05083	2TNM-8X1.25C-12	12	1.5D
	TL05084	2TNM-8X1.25C-16	16	2D
M10-1.5	TL05102	2TNM-10X1.5C-10	10	1D
	TL05103	2TNM-10X1.5C-15	15	1.5D
	TL05104	2TNM-10X1.5C-20	20	2D
M12X1.75	TL05122	2TNM-12X1.75C-12	12	1D
	TL05123	2TNM-12X1.75C-18	18	1.5D
	TL05124	2TNM-12X1.75C-24	24	2D
M14-2	TL05142	-	14	1D
	TL05143	-	21	1.5D
	TL05144	-	28	2D
	TL05145	-	35	2.5D
M16-2	TL05162	-	16	1D
	TL05163	-	24	1.5D
	TL05164	-	32	2D
	TL05165	-	40	2.5D

Locking Bulk (Metric Coarse)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (MM)	D
M2.5X0.45	TL15252	2TLM-2.5X.45C-2.5	2.5	1D
	TL15253	2TLM-2.5X.45C-3.8	3.8	1.5D
	TL15254	2TLM-2.5X.45C-5	5.0	2D
	TL15255	2TLM-2.5X.45C-6.3	6.3	2.5D
	TL15256	2TLM-2.5X.45C-7.5	7.5	3D
M3-0.5	TL15032	2TLM-3X.5C-3	3.0	1D
	TL15033	2TLM-3X.5C-4.5	4.5	1.5D
	TL15034	2TLM-3X.5C-6	6.0	2D
M4-0.7	TL15042	2TLM-4X.7C-4	4.0	1D
	TL15043	2TLM-4X.7C-6	6.0	1.5D
	TL15044	2TLM-4X.7C-8	8.0	2D
M5-0.8	TL15052	2TLM-5X.8C-5	5.0	1D
	TL15053	2TLM-5X.8C-7.5	7.5	1.5D
	TL15054	2TLM-5X.8C-10	10	2D
M6-1.0	TL15062	2TLM-6X1C-6	6.0	1D
	TL15063	2TLM-6X1C-9	9.0	1.5D
	TL15064	2TLM-6X1C-12	12	2D
M8-1.25	TL15082	2TLM-8X1.25C-8	8.0	1D
	TL15083	2TLM-8X1.25C-12	12	1.5D
	TL15084	2TLM-8X1.25C-16	16	2D
M10-1.5	TL15102	2TLM-10X1.5C-10	10	1D
	TL15103	2TLM-10X1.5C-15	15	1.5D
	TL15104	2TLM-10X1.5C-20	20	2D
M12X1.75	TL15122	2TLM-12X1.75C-12	12	1D
	TL15123	2TLM-12X1.75C-18	18	1.5D
	TL15124	2TLM-12X1.75C-24	24	2D

Metric Tangless Series

Free-Running Stripfeed (Metric Coarse)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (MM)	D	QTY / REEL
M2.5X0.45	TL05252SF	2TNM-2.5X.45C-2.5SF	2.5	1D	1000
	TL05253SF	2TNM-2.5X.45C-3.8SF	3.8	1.5D	1000
	TL05254SF	2TNM-2.5X.45C-5SF	5.0	2D	1000
M3-0.5	TL05032SF	2TNM-3X.5C-3SF	3.0	1D	1000
	TL05033SF	2TNM-3X.5C-4.5SF	4.5	1.5D	1000
	TL05034SF	2TNM-3X.5C-6SF	6.0	2D	1000
M4-0.7	TL05042SF	2TNM-4X.7C-4SF	4.0	1D	1000
	TL05043SF	2TNM-4X.7C-6SF	6.0	1.5D	1000
	TL05044SF	2TNM-4X.7C-8SF	8.0	2D	1000
M5-0.8	TL05052SF	2TNM-5X.8C-5SF	5.0	1D	1000
	TL05053SF	2TNM-5X.8C-7.5SF	7.5	1.5D	500
	TL05054SF	2TNM-5X.8C-10SF	10	2D	500
M6-1.0	TL05062SF	2TNM-6X1C-6SF	6.0	1D	500
	TL05063SF	2TNM-6X1C-9SF	9.0	1.5D	500
	TL05064SF	2TNM-6X1C-12SF	12	2D	500
M8-1.25	TL05082SF	2TNM-8X1.25C-8SF	8.0	1D	1000
	TL05083SF	2TNM-8X1.25C-12SF	12	1.5D	500
	TL05084SF	2TNM-8X1.25C-16SF	16	2D	500
M10-1.5	TL05102SF	2TNM-10X1.5C-10SF	10	1D	500
	TL05103SF	2TNM-10X1.5C-15SF	15	1.5D	500
	TL05104SF	2TNM-10X1.5C-20SF	20	2D	500
M12X1.75	TL05122SF	2TNM-12X1.75C-12SF	12	1D	125
	TL05123SF	2TNM-12X1.75C-18SF	18	1.5D	125
	TL05124SF	2TNM-12X1.75C-24SF	24	2D	125

Locking Stripfeed (Metric Coarse)

SIZE	PART NO.	ALTERNATE NO.	LENGTH (MM)	D	QTY / REEL
M2.5X0.45	TL15252SF	2TLM-2.5X.45C-2.5SF	2.5	1D	1000
	TL15253SF	2TLM-2.5X.45C-3.8SF	3.8	1.5D	1000
	TL15254SF	2TLM-2.5X.45C-5SF	5.0	2D	1000
M3-0.5	TL15032SF	2TLM-3X.5C-3SF	3.0	1D	1000
	TL15033SF	2TLM-3X.5C-4.5SF	4.5	1.5D	1000
	TL15034SF	2TLM-3X.5C-6SF	6.0	2D	1000
M4-0.7	TL15042SF	2TLM-4X.7C-4SF	4.0	1D	1000
	TL15043SF	2TLM-4X.7C-6SF	6.0	1.5D	1000
	TL15044SF	2TLM-4X.7C-8SF	8.0	2D	1000
M5-0.8	TL15052SF	2TLM-5X.8C-5SF	5.0	1D	1000
	TL15053SF	2TLM-5X.8C-7.5SF	7.5	1.5D	500
	TL15054SF	2TLM-5X.8C-10SF	10	2D	500
M6-1.0	TL15062SF	2TLM-6X1C-6SF	6.0	1D	500
	TL15063SF	2TLM-6X1C-9SF	9.0	1.5D	500
	TL15064SF	2TLM-6X1C-12SF	12	2D	500
M8-1.25	TL15082SF	2TLM-8X1.25C-8SF	8.0	1D	500
	TL15083SF	2TLM-8X1.25C-12SF	12	1.5D	500
	TL15084SF	2TLM-8X1.25C-16SF	16	2D	500
M10-1.5	TL15102SF	2TLM-10X1.5C-10SF	10	1D	500
	TL15103SF	2TLM-10X1.5C-15SF	15	1.5D	500
	TL15104SF	2TLM-10X1.5C-20SF	20	2D	500
M12X1.75	TL15122SF	2TLM-12X1.75C-12SF	12	1D	125
	TL15123SF	2TLM-12X1.75C-18SF	18	1.5D	125
	TL15124SF	2TLM-12X1.75C-24SF	24	2D	125

Tangless Tooling

There are a number of options for installing Tangless inserts – using a prewinder, hand/electric tools, or pneumatic tools. The optimal selection of tooling is based on the type of application and how many inserts will be installed.



Manual



Electric



Pneumatic

Tooling Part Numbering System

To select tools and components for a new system, or as replacement parts, use this chart to ensure the accuracy of your order.

Ordering Guide

COMPONENT	PART NO.
Tool	TL5XXX7
Pawl	TL5XXX2
Pawl Kit (Includes 2 x Pins & 2 x Springs)	TL5XXX2K
Replacement Mandrel	TL5XXX7M
Adjusting Sleeve Housing (Nylon Guard not Included)	TL5XXXH

xxx signifies size designation & thread type.

Last Digit

0	Front End Assembly	4	Extraction Pawl
7	Electric	H	Adjusting Housing Sleeve
1	Prewinder	M	Hex Electric Mandrel
2	Replacement Pawl	E	Electric FEA Assembly
7L	Electric Locking	EM	Electric FEA Mandrel
2L	Electric Locking Replacement Pawl	GH	Gage Holder
3	Extraction Tool	RM	Round Spare Mandrel
9	FEA Mandrel	2K	Spare Pawl Kit

Example: T L 5 4 6 0 M

10-32# Hex Electric Mandrel

Tangless Prewinder Tooling

Hand Tooling

This tool is ideal for installing inserts in small production runs or in areas where compressed air or electricity are not available. This tool also offers a quicker alternative to the simple hand installation tool and is suitable for use with both free running and locking inserts.



Inch Prewinder Table

SIZE	DESCRIPTION	PART NO.	ALTERNATE NO.
UNC 2-56	Free Running & Locking	TL53521	2KPHC-02
	Replacement Pawl	TL53522	2KIPC-02
UNC 4-40	Free Running & Locking	TL53541	2KPHC-04
	Replacement Pawl	TL53542	2KIPC-04
UNC 6-32	Free Running & Locking	TL53561	2KPHC-06
	Replacement Pawl	TL53562	2KIPC-06
UNC 8-32	Free Running & Locking	TL53581	2KPHC-2
	Replacement Pawl	TL53582	2KIPC-2
UNC 10-24	Free Running & Locking	2KPHC-3	-
	Replacement Pawl	2KIPC-3	-
UNC 1/4-20	Free Running & Locking	2KPHC-4	-
	Replacement Pawl	2KIPC-4	-
UNC 5/16-18	Free Running & Locking	2KPHC-5	-
	Replacement Pawl	2KIPC-5	-
UNC 3/8-16	Free Running & Locking	2KPHC-6	-
	Replacement Pawl	2KIPC-6	-
UNF 10-32	Free Running & Locking	TL54601	2KPHF-3
	Replacement Pawl	TL54602	2KIPF-3
UNF 1/4-28	Free Running & Locking	TL54041	2KPHF-4
	Replacement Pawl	TL54042	2KIPF-4
UNF 5/16-24	Free Running & Locking	2KPHF-5	-
	Replacement Pawl	2KIPF-5	-
UNF 3/8-24	Free Running & Locking	2KPHF-6	-
	Replacement Pawl	2KIPF-6	-

Metric Prewinder Table

SIZE	DESCRIPTION	PART NO.	ALTERNATE NO.
M2-0.4	Free Running & Locking	2KPHM-2	-
	Replacement Pawl	2KIPM-2	-
M2.5 x 0.45	Free Running & Locking	TL55251	2KPHM-2.5
	Replacement Pawl	TL55252	2KIPM-2.5
M3 x 0.5	Free Running & Locking	TL55031	2KPHM-3
	Replacement Pawl	TL55032	2KIPM-3
M4 x 0.7	Free Running & Locking	TL55041	2KPHM-4
	Replacement Pawl	TL55042	2KIPM-4
M5 x 0.8	Free Running & Locking	TL55051	2KPHM-5
	Replacement Pawl	TL55052	2KIPM-5
M6 x 1	Free Running & Locking	TL55061	2KPHM-6
	Replacement Pawl	TL55062	2KIPM-6
M8 x 1.25	Free Running & Locking	TL55081	2KPHM-8
	Replacement Pawl	TL55082	2KIPM-8
M10 x 1.25	Free Running & Locking	TL55101	2KPHM-10
	Replacement Pawl	TL55102	2KIPM-10
M12 x 1.75	Free Running & Locking	TL55121	2KPHM-12
	Replacement Pawl	TL55122	2KIPM-12

Hand Installation Handles

DESCRIPTION	PART NO.	ALTERNATE NO.
Plastic Star-Style Handle (included with all Hex electric installation tools)	PW3SK	-
Metal Gage-Style Handle	TL5000	2KREH-UI

Tangless Tooling

Installation Drivers

Recoil HEX KHE Series tooling can be used either manually, with electric tooling, or with battery tooling. The electric version uses a small motor to install fasteners at a much higher rate than a manual installation tool or pre-winder tool. This tool is ideal for installation of medium-to-large quantities of inserts.



Electric

REC-12 US Electric Driver Kit
Installs: M2-M12 or #2-56 - 1/2"

*Includes power transformer and driver to fit all sizes



Battery

REC-20 US Battery Driver Kit
Installs: M2-M12 or #2-56 - 1/4"

*Compatible with tangless electric mandrels

Hex Electric Tool - KHE Series

RECOIL Electric HEX Installation Tool Includes Mandrel, Pin, Star-Styled Handle, Pawl and Spring.

Hex Installation Tool

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53527	2KHEC-02*
UNC #4-40	TL53547	2KHEC-04*
UNC #6-32	TL53567	2KHEC-06*
UNC #8-32	TL53587	2KHEC-2*
UNC #10-24	2KHEC-3*	-
UNC 1/4-20	2KHEC-4*	-
UNC 5/16-18	TL53057	2KHEC-5*
UNC 3/8-16	TL53067	2KHEC-6*
UNC 1/2-13	TL53087	-
UNF #10-32	TL54607	2KHEF-F3*
METRIC		
M2-0.4	2CT10-M2F*	-
M2.5-0.45	TL55257	2KHEM-F2.5*
M3-0.5	TL55037	2KHEM-F3*
M4-0.7	TL55047	2KHEM-F4*
M5-0.8	TL55057	2KHEM-F5*
M6-1.0	TL55067	2KHEM-F6*
M8-1.25	TL55087	2KHEM-F8*
M10-1.5	TL55107	2KHEM-F10*
M12-1.75	TL55127	2KHEM-F12*
M14-2	TL55147	-
M16-2	TL55167	-

Hex Installation Tool Spare Mandrel

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53527M	2KHEC-02M
UNC #4-40	TL53547M	2KHEC-04M
UNC #6-32	TL53567M	2KHEC-06M
UNC #8-32	TL53587M	2KHEC-2M
UNC #10-24	2KHEC-3M	-
UNC 1/4-20	2KHEC-4M	-
UNC 5/16-18	TL53057M	2KHEC-5M
UNC 3/8-16	TL53067M	2KHEC-6M
UNC 1/2-13	TL53087M	-
UNF #10-32	TL54607M	2KHEF-F3M
METRIC		
M2-0.4	2KHEM-F2M	-
M2.5-0.45	TL55257M	2KHEM-F2.5M
M3-0.5	TL55037M	2KHEM-F3M
M4-0.7	TL55047M	2KHEM-F4M
M5-0.8	TL55057M	2KHEM-F5M
M6-1.0	TL55067M	2KHEM-F6M
M8-1.25	TL55087M	2KHEM-F8M
M10-1.5	TL55107M	2KHEM-F10M
M12-1.75	TL55127M	2KHEM-F12M
M14-2	TL55147M	-
M16-2	TL55167M	-

Hex Installation Tool Spare Pawl

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53522	2KIPC-02
UNC #4-40	TL53542	2KIPC-04
UNC #6-32	TL53562	2KIPC-06
UNC #8-32	TL53582	2KIPC-2
UNC #10-24	2KIPC-3	-
UNC 1/4-20	2KIPC-4	-
UNC 5/16-18	2KIPC-5	-
UNC 3/8-16	2KIPC-6	-
UNC 1/2-13	TL53082K†	-
UNF #10-32	TL54602	2KIPF-3
UNF 1/4-28	TL54042	2KIPF-4
UNF 5/16-24	2KIPF-5	-
UNF 3/8-24	2KIPF-6	-
METRIC		
M2-0.4	2KIPM-2	-
M2.5-0.45	TL55252	2KIPM-2.5
M3-0.5	TL55032	2KIPM-3
M4-0.7	TL55042	2KIPM-4
M5-0.8	TL55052	2KIPM-5
M6-1.0	TL55062	2KIPM-6
M8-1.25	TL55082	2KIPM-8
M10-1.5	TL55102	2KIPM-10
M12-1.75	TL55122	2KIPM-12
M14-2	TL55142K†	-
M16-2	TL55162K†	-

*Does not include star-styled handle

† K= Spare Pawl Kit (includes 2 x pins and 2 x springs)

Tangless Tooling

Hand/Electric Tooling



Hex Installation Tool Locking

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNF #10-32	TL54607L	2KHEF-L3*
METRIC		
M2.5-0.45	2KHEM-L2.5*	-
M3-0.5	2KHEM-L3*	-
M4-0.7	2KHEM-L4*	-
M5-0.8	2KHEM-L5*	-
M6-1.0	2KHEM-L6*	-
M8-1.25	2KHEM-L8*	-
M10-1.5	2KHEM-L10*	-
M12-1.75	2KHEM-L12*	-

Hex Installation Tool Locking Spare Mandrel

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNF #10-32	2KHEF-L3M	-
METRIC		
M2.5-0.45	2KHEM-L2.5M	-
M3-0.5	2KHEM-L3M	-
M4-0.7	2KHEM-L4M	-
M5-0.8	2KHEM-L5M	-
M6-1.0	2KHEM-L6M	-
M8-1.25	2KHEM-L8M	-
M10-1.5	2KHEM-L10M	-
M12-1.75	2KHEM-L12M	-

Removal Tools

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53523	2KRTC-02*
UNC #4-40	TL53543	2KRTC-04*
UNC #6-32	TL53563	2KRTC-06*
UNC #8-32	TL53583	2KRTC-2*
UNC #10-24	2KRTC-3*	-
UNC 1/4-20	2KRTC-4*	-
UNC 5/16-18	2KRTC-5*	-
UNC 3/8-16	2KRTC-6*	-
UNF #10-32	TL54603	2KRTF-3*
UNF 1/4-28	2KRTF-4*	-
UNF 5/16-24	2KRTF-5*	-
UNF 3/8-24	2KRTF-6*	-
METRIC		
M2-0.4	2CT30-M2F*	-
M2.5-0.45	2CT30-M2.5F*	-
M3-0.5	2CT30-M3F*	-
M4-0.7	2CT30-M4F*	-
M5-0.8	2CT30-M5F*	-
M6-1.0	2CT30-M6F*	-
M8-1.25	2CT30-M8F*	-
M10-1.5	2CT30-M10F*	-
M12-1.75	2CT30-M12F*	-

Removal Spare Pawls

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53524	2KRPC-02
UNC #4-40	TL53544	2KRPC-04
UNC #6-32	TL53564	2KRPC-06
UNC #8-32	TL53584	2KRPC-2
UNC #10-24	2KRPC-3	-
UNC 1/4-20	2KRPC-4	-
UNC 5/16-18	2KRPC-5	-
UNC 3/8-16	2KRPC-6	-
UNF #10-32	TL54604	2KRPF-3
UNF 1/4-28	2KRPF-4	-
UNF 5/16-24	TL54054	2KRPF-5
UNF 3/8-24	TL54064	2KRPF-6
METRIC		
M2-0.4	2KRPM-2	-
M2.5-0.45	2KRPM-2.5	-
M3-0.5	2KRPM-3	-
M4-0.7	2KRPM-4	-
M5-0.8	2KRPM-5	-
M6-1.0	2KRPM-6	-
M8-1.25	2KRPM-8	-
M10-1.5	2KRPM-10	-
M12-1.75	2KRPM-12	-

*Does not include star-styled handle

Tangless Tooling

Electric Round Tooling



Power Supply and Installation Drivers

SIZE	PART NO.
Electric Driver Kit M2 - M12 or #2-56 - 1/2"	REC-12US*

*Includes power transformer and driver to fit all sizes

Hand Installation Handles

DESCRIPTION	PART NO.	ALTERNATE NO.
Metal Gage-Style Handle (included with all Round electric installation tools)	TL5000	2KREH-UI



Round Installation Tools

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53527GH	2KREC-02
UNC #4-40	TL53547GH	2KREC-04
UNC #6-32	TL53567GH	2KREC-06
UNC #8-32	TL53587GH	2KREC-2
UNC #10-24	2KREC-3	-
UNC 1/4-20	2KREC-4	-
UNC 5/16-18	TL53057GH	2KREC-5
UNC 3/8-16	TL53067GH	2KREC-6
UNF #10-32	TL54607GH	2KREF-F3
METRIC		
M2-0.4	2KREM-F2	-
M2.5-0.45	TL55257GH	2KREM-F2.5
M3-0.5	TL55037GH	2KREM-F3
M4-0.7	TL55047GH	2KREM-F4
M5-0.8	TL55057GH	2KREM-F5
M6-1.0	TL55067GH	2KREM-F6
M8-1.25	TL55087GH	2KREM-F8
M10-1.5	TL55107GH	2KREM-F10
M12-1.75	TL55127GH	2KREM-F12

Round Installation Tool Spare Mandrel

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53527RM	2KREC-02M
UNC #4-40	TL53547RM	2KREC-04M
UNC #6-32	TL53567RM	2KREC-06M
UNC #8-32	TL53587RM	2KREC-2M
UNC #10-24	2KREC-3M	-
UNC 1/4-20	2KREC-4M	-
UNC 5/16-18	TL53057RM	2KREC-5M
UNC 3/8-16	TL53067RM	2KREC-6M
UNF #10-32	TL54607RM	2KREF-F3M
METRIC		
M2-0.4	2KREM-F2M	-
M2.5-0.45	TL55257RM	2KREM-F2.5M
M3-0.5	TL55037RM	2KREM-F3M
M4-0.7	TL55047RM	2KREM-F4M
M5-0.8	TL55057RM	2KREM-F5M
M6-1.0	TL55067RM	2KREM-F6M
M8-1.25	TL55087RM	2KREM-F8M
M10-1.5	TL55107RM	2KREM-F10M
M12-1.75	TL55127RM	2KREM-F12M

Round Spare Pawls

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC #2-56	TL53522	2KIPC-02
UNC #4-40	TL53542	2KIPC-04
UNC #6-32	TL53562	2KIPC-06
UNC #8-32	TL53582	2KIPC-2
UNC #10-24	2KIPC-3	-
UNC 1/4-20	2KIPC-4	-
UNC 5/16-18	TL53052	2KIPC-5
UNC 3/8-16	TL53062	2KIPC-6
UNF #10-32	TL54602	2KIPF-3
UNF 1/4-28	TL54042	2KIPF-4
UNF 5/16-24	2KIPF-5	-
UNF 3/8-24	2KIPF-6	-
METRIC		
M2-0.4	2KIPM-2	-
M2.5-0.45	TL55252	2KIPM-2.5
M3-0.5	TL55032	2KIPM-3
M4-0.7	TL55042	2KIPM-4
M5-0.8	TL55052	2KIPM-5
M6-1.0	TL55062	2KIPM-6
M8-1.25	TL55082	2KIPM-8
M10-1.5	TL55102	2KIPM-10
M12-1.75	TL55122	2KIPM-12

Tangless Tooling

Pneumatic Tooling

Recoil pneumatic powered installation tooling uses a standard air supply to install fasteners at a much higher rate than a manual installation tool or prewinder tool. This tool is ideal for installation of medium-to-large quantities of inserts, especially when used in combination with strip feed.

REC-10K Air Driver Kit

- ✓ 1 Air Motor
- ✓ 1 Small Adapter (for sizes up to/including M6 and ¼")
- ✓ 1 Large Adapter (for sizes M7-M12 and 5/16" to ½")
- ✓ 4 Spanner Wrenches

All packaged in a blow molded plastic case or purchase as individual tools



Front End Assembly

Choose from the table below depending on your thread form and diameter



Front End Assembly Table

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC 2-56	TL53520	2KPAC-02
UNC 4-40	TL53540	2KPAC-04
UNC 6-32	TL53560	2KPAC-06
UNC 8-32	TL53580	2KPAC-2
UNC 10-24	2KPAC-3	-
UNC 1/4-20	2KPAC-4	-
UNC 5/16-18	2KPAC-5	-
UNC 3/8-16	2KPAC-6	-
UNF 10-32	TL54600	2KPAF-3
UNF 1/4-28	TL54040	2KPAF-4
UNF 5/16-24	TL54050	2KPAF-5
UNF 3/8-24	TL54060	2KPAF-6
METRIC		
M2.5 x 0.45	TL55250	2KPAM-2.5
M3 x 0.5	TL55030	2KPAM-3
M4 x 0.7	TL55040	2KPAM-4
M5 x 0.8	TL55050	2KPAM-5
M6 x 1	TL55060	2KPAM-6
M8 x 1.25	TL55080	2KPAM-8
M10 x 1.5	2KPAM-10	-
M12 x 1.75	2KPAM-12	-

Front End Assembly Spare Mandrel

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC 2-56	TL53520M	2KPAC-02M
UNC 4-40	TL53540M	2KPAC-04M
UNC 6-32	TL53560M	2KPAC-06M
UNC 8-32	TL53580M	2KPAC-2M
UNC 10-24	2KPAC-3M	-
UNC 1/4-20	2KPAC-4M	-
UNC 5/16-18	2KPAC-5M	-
UNC 3/8-16	2KPAC-6M	-
UNF 10-32	TL54600M	2KPAF-3M
UNF 1/4-28	TL54040M	2KPAF-4M
UNF 5/16-24	TL54050M	2KPAF-5M
UNF 3/8-24	TL54060M	2KPAF-6M
METRIC		
M2.5 x 0.45	TL55250M	2KPAM-2.5M
M3 x 0.5	TL55030M	2KPAM-3M
M4 x 0.7	TL55040M	2KPAM-4M
M5 x 0.8	TL55050M	2KPAM-5M
M6 x 1	TL55060M	2KPAM-6M
M8 x 1.25	TL55080M	2KPAM-8M
M10 x 1.25	2KPAM-10M	-
M12 x 1.75	2KPAM-12M	-

Front End Assembly Spare Pawl

SIZE	PART NO.	ALTERNATE NO.
INCH		
UNC 2-56	TL53522	2KIPC-02
UNC 4-40	TL53542	2KIPC-04
UNC 6-32	TL53562	2KIPC-06
UNC 8-32	TL53582	2KIPC-2
UNC 10-24	2KIPC-3	-
UNC 1/4-20	2KIPC-4	-
UNC 5/16-18	2KIPC-5	-
UNC 3/8-16	2KIPC-6	-
UNF 10-32	TL54602	2KIPF-3
UNF 1/4-28	TL54042	2KIPF-4
UNF 5/16-24	2KIPF-5	-
UNF 3/8-24	2KIPF-6	-
METRIC		
M2.5 x 0.45	TL55252	2KIPM-2.5
M3 x 0.5	TL55032	2KIPM-3
M4 x 0.7	TL55042	2KIPM-4
M5 x 0.8	TL55052	2KIPM-5
M6 x 1	TL55062	2KIPM-6
M8 x 1.25	TL55082	2KIPM-8
M10-1.5	TL55102	2KIPM-10
M12-1.75	TL55122	2KIPM-12



Howmet Fastening Systems

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