



Thread Kits Company

A division of KATO Fastening Systems

YOUR THREAD REPAIR SPECIALIST



PERMA-COIL, PERMA-RIVET, PERMA-KEE & MORE!



Thread Kits Company is a division of KATO Fastening Systems, Inc., the original inventor and manufacturer of the revolutionary bi-directional Tangles® insert. Founded in 1984, Thread Kits Company is a leading global manufacturer and supplier of high quality thread repair products for over 35 years.

Thread repair solutions is our specialty. It began with Perma-Coil® - a registered trademark in the USA and several foreign countries, that's become a recognized brand name in the automotive, industrial and production rebuilder industries. Today Thread Kits Company offers a broad range of thread repair products to satisfy a variety of applications including our very popular Perma-Plug, Perma-Rivet, Perma-Kee, Time-Sert, and Big-Sert.

At Thread Kits Company, our mission is to achieve Satisfaction-Plus by providing our customers with superior products, service and support that meets and exceeds their expectations.



MAINTENANCE - REPAIR - OVERHAUL

PERMA-COIL®

Perma-Coil Kits (Screw Thread Inserts for Maintenance, Repair and Overhaul) are universally accepted method of repairing stripped threads in all types of materials. By using Perma-Coil Kits, damaged threads can be brought back to the original thread size, and better than new. Thread wear, corrosion and galling will be virtually eliminated, and the assembly will be stronger than the original with Perma-Coil inserts. Unlike threaded solid bushing type fasteners, Perma-Coil inserts provide space and weight savings. In addition, Perma-Coil inserts eliminate the need for oversized drilling and tapping, thread welding, or plugging of damaged holes.

At Thread Kits, there is only one standard of quality for original equipment or repair. Perma-Coil inserts meet or exceed all applicable military, aerospace, and commercial standards.



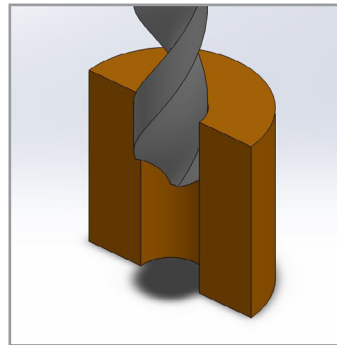


Proudly made in the USA.

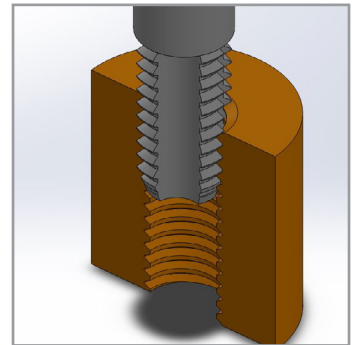
EACH KIT CONSISTS OF:

- Aerospace quality free-running tanged inserts; in the most popular 1.5D nominal length
- Perma-Coil STI Tap
- All steel threaded installation tool
- Complete and fool-proof instructions

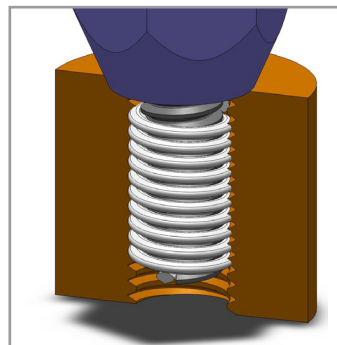
THREAD REPAIR MADE EASY



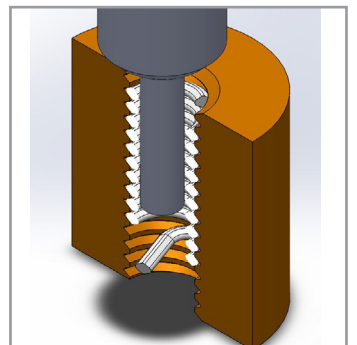
1. Drill out damaged threads.



2. Tap new threads.



3. Install new Perma-Coil insert. (Prewinding tool shown is used for fine thread applications only).



4. Remove tang from insert. You now have a permanently repaired thread.



insert pack

PERMA-COIL KITS

| Thread Size | Repair Kits ¹ | | Replacement Parts | | | | Bulk Inserts | Drill Size |
|-----------------------|--------------------------|-----------------|-------------------|-------------|---------------------------|------------------|---------------------|------------|
| | Part No. | Inserts Per Kit | Installation Tool | Tap | Inserts Pack ² | Inserts Per Pack | Perma-Coil Part No. | |
| Unified Coarse | | | | | | | | |
| 4-40 | 1208-014 | (12/PKG) | 1172-014 | 1428-014 | 208-014 | (12/PKG) | TNC-04C-0168 | 1/8 |
| 5-40 | 1208-015 | (12/PKG) | 1172-015 | 1428-015 | 208-015 | (12/PKG) | TNC-05C-0188 | 9/64 |
| 6-32 | 1208-016 | (12/PKG) | 1182-016 | 1428-016 | 208-016 | (12/PKG) | TNC-06C-0207 | 5/32 |
| 8-32 | 1208-018 | (12/PKG) | 1182-018 | 1428-018 | 208-018 | (12/PKG) | TNC-2C-0246 | 11/64 |
| 10-24 | 1208-101 | (12/PKG) | 1182-101 | 1428-101 | 208-101 | (12/PKG) | TNC-3C-0285 | 13/64 |
| 12-24 | 1208-102 | (12/PKG) | 1182-102 | 1428-102 | 208-102 | (12/PKG) | TNC-1C-0324 | 15/64 |
| 1/4-20 | 1208-104 | (12/PKG) | 1182-104 | 1428-104 | 208-104 | (12/PKG) | TNC-4C-0375 | 17/64 |
| 5/16-18 | 1208-105 | (12/PKG) | 1182-105 | 1428-105 | 208-105 | (12/PKG) | TNC-5C-0469 | 21/64 |
| 3/8-16 | 1208-106 | (12/PKG) | 1182-106 | 1428-106 | 208-106 | (12/PKG) | TNC-6C-0562 | 25/64 |
| 7/16-14 | 1208-107 | (6/PKG) | 1182-107 | 1428-107 | 208-107 | (6/PKG) | TNC-7C-0656 | 29/64 |
| 1/2-13 | 1208-108 | (6/PKG) | 1182-108 | 1428-108 | 208-108 | (6/PKG) | TNC-8C-0750 | 17/32 |
| 9/16-12 | 1208-109 | (6/PKG) | 1182-109 | 1428-109 | 208-109 | (6/PKG) | TNC-9C-0844 | 19/32 |
| 5/8-11 | 1208-110 | (6/PKG) | 1182-110 | 1428-110 | 208-110 | (6/PKG) | TNC-10C-0938 | 21/32 |
| 3/4-10 | 1208-112 | (4/PKG) | 1182-112 | 1428-112 | 208-112 | (4/PKG) | TNC-12C-1125 | 25/32 |
| 7/8-9 | 3208-C14 | (6/PKG) | 1182-114 | 1043-14CP3 | 108-114 | (1/PKG) | TNC-14C-1312 | 29/32 |
| 1-8 | 3208-C16 | (6/PKG) | 1182-116 | 1043-16CP3 | 108-116 | (1/PKG) | TNC-16C-1500 | 1 1/32 |
| 1 1/8-7 | 3208-C18 | (5/PKG) | 1182-118 | 1043-18CP3 | 108-118 | (1/PKG) | TNC-18C-1688 | 1 11/64 |
| 1 1/4-7 | 3208-C20 | (4/PKG) | 1182-120 | 1043-20CP3 | 108-120 | (1/PKG) | TNC-20C-1875 | 1 19/64 |
| 1 3/8-6 | 3208-C22 | (4/PKG) | 1182-122 | 1043-22CP3 | 108-122 | (1/PKG) | TNC-22C-2062 | 1 27/64 |
| 1 1/2-6 | 3208-C24 | (4/PKG) | 1182-124 | 1043-24CP3 | 108-124 | (1/PKG) | TNC-24C-2250 | 1 35/64 |
| Unified Fine | | | | | | | | |
| 10-32 | 1208-201 | (12/PKG) | 1172-201 | 1428-201 | 208-201 | (12/PKG) | TNF-3C-0285 | 13/64 |
| 1/4-28 | 1208-204 | (12/PKG) | 1172-204 | 1428-204 | 208-204 | (12/PKG) | TNF-4C-0375 | 17/64 |
| 5/16-24 | 1208-205 | (12/PKG) | 1172-205 | 1428-205 | 208-205 | (12/PKG) | TNF-5C-0312 | 21/64 |
| 3/8-24 | 1208-206 | (12/PKG) | 1172-206 | 1428-206 | 208-206 | (12/PKG) | TNF-6C-0562 | 25/64 |
| 7/16-20 | 1208-207 | (6/PKG) | 1172-207 | 1428-207 | 208-207 | (6/PKG) | TNF-7C-0656 | 29/64 |
| 1/2-20 | 1208-208 | (6/PKG) | 1172-208 | 1428-208 | 208-208 | (6/PKG) | TNF-8C-0750 | 33/64 |
| 9/16-18 | 1208-209 | (6/PKG) | 1172-209 | 1428-209 | 208-209 | (6/PKG) | TNF-9C-0844 | 37/64 |
| 5/8-18 | 1208-210 | (6/PKG) | 1172-210 | 1428-210 | 208-210 | (6/PKG) | TNF-10C-0938 | 41/64 |
| 3/4-16 | 1208-212 | (4/PKG) | 1172-212 | 1428-212 | 208-212 | (4/PKG) | TNF-12C-1125 | 49/64 |
| 7/8-14 | 3208-F14 | (6/PKG) | 1039-14F | 1043-14FP3 | 108-214 | (1/PKG) | TNF-14C-1312 | 57/64 |
| 1-14 | 3208-F164 | (6/PKG) | 1039-164F | 1043-164FP3 | 108-2164 | (1/PKG) | TNF-164C-1500 | 1 1/64 |
| 1-12 | 3208-F16 | (6/PKG) | 1039-16F | 1043-16FP3 | 108-216 | (1/PKG) | TNF-161C-1500 | 1 1/64 |
| 1 1/8-12 | 3208-F18 | (5/PKG) | 1039-18F | 1043-18FP3 | 108-218 | (1/PKG) | TNF-18C-1688 | 1 5/32 |
| 1 1/4-12 | 3208-F20 | (4/PKG) | 1039-20F | 1043-20FP3 | 108-220 | (1/PKG) | TNF-20C-1875 | 1 9/32 |
| 1 3/8-12 | 3208-F22 | (4/PKG) | 1039-22F | 1043-22FP3 | 208-222 | (1/PKG) | TNF-22C-2062 | 1 13/32 |
| 1 1/2-12 | 3208-F24 | (4/PKG) | 1039-24F | 1043-24FP3 | 108-224 | (1/PKG) | TNF-24C-2250 | 1 17/32 |

PERMA-COIL KITS

| Thread Size | Repair Kits ¹ | | Replacement Parts | | | | Bulk Inserts | Drill Size |
|-----------------------|--------------------------|-----------------|-------------------|--------------|---------------------------|------------------|---------------------|------------|
| | Part No. | Inserts Per Kit | Installation Tool | Tap | Inserts Pack ² | Inserts Per Pack | Perma-Coil Part No. | |
| Unified Coarse | | | | | | | | |
| M3X0.5 | 1221-303 | (12/PKG) | 1287-303 | 1448-303 | 206-303 | (12/PKG) | TNM-3X.5C-4.5 | 1/8 |
| M4X0.7 | 1221-304 | (12/PKG) | 1287-304 | 1448-304 | 206-304 | (12/PKG) | TNM-4X.7C-6 | 11/64 |
| M5X0.8 | 1221-305 | (12/PKG) | 1287-305 | 1448-305 | 206-305 | (12/PKG) | TNM-5X.8C-7.5 | 13/64 |
| M6X1 | 1221-306 | (12/PKG) | 1287-306 | 1448-306 | 206-306 | (12/PKG) | TNM-6X1C-9 | 1/4 |
| M7X1 | 1221-307 | (12/PKG) | 1289-307 | 1448-307 | 206-307 | (12/PKG) | TNM-7X1C-10.5 | 9/32 |
| M8X1.25 | 1221-308 | (12/PKG) | 1289-308 | 1448-308 | 206-308 | (12/PKG) | TNM-8X1.25C-12 | 21/64 |
| M9X1.25 | 1221-309 | (12/PKG) | 1289-309 | 1448-309 | 206-309 | (12/PKG) | TNM-9x1.25C-13.5 | 3/8 |
| M10X1.5 | 1221-310 | (12/PKG) | 1289-310 | 1448-310 | 206-310 | (12/PKG) | TNM-10X1.5C-15 | 13/32 |
| M11X1.5 | 1221-311 | (6/PKG) | 1289-311 | 1448-311 | 106-311 | (6/PKG) | TNM-11X1.5C-16.5 | 29/64 |
| M12X1.75 | 3221-M12C | (6/PKG) | 1289-312 | 5043-120CP4 | 106-312 | (6/PKG) | TNM-12X1.75C-18 | 31/64 |
| M14X2 | 3221-M14C | (6/PKG) | 1289-314 | 5043-140CP4 | 106-314 | (6/PKG) | TNM-14X2C-21 | 37/64 |
| M16X2 | 3221-M16C | (6/PKG) | 1289-316 | 5043-160CP4 | 106-316 | (6/PKG) | TNM-16X2C-24 | 21/32 |
| M18X2.5 | 3221-M18C | (6/PKG) | 1289-318 | 5043-180CP4 | 106-318 | (6/PKG) | TNM-18X2.5C-27 | 47/64 |
| M20X2.5 | 3221-M20C | (6/PKG) | 1289-320 | 5043-200CP4 | 106-320 | (6/PKG) | TNM-20X2.5C-30 | 13/16 |
| Unified Fine | | | | | | | | |
| M8X1.0 | 1221-M8F | (6/PKG) | 1287-608 | 1448-608 | 106-608 | (6/PKG) | TNM-8X1C-12 | 21/64 |
| M10X1.0 | 1221-M1010 | (6/PKG) | 1287-61010 | 1448-61010 | 106-61010 | (6/PKG) | TNM-10X1C-15 | 13/32 |
| M10X1.25 | 3221-M10F | (12/PKG) | 1287-610 | 1448-610 | 106-610 | (12/PKG) | TNM-10X1.25C-15 | 13/32 |
| M11X1.0 | 1221-M11F | (6/PKG) | 1287-611 | 1448-611 | 106-611 | (6/PKG) | TNM-11X1C-16.5 | 7/16 |
| M11X1.25 | 1221-M1125 | (6/PKG) | 1287-61125 | 1448-61125 | 106-61125 | (6/PKG) | TNM-11X1.25C-16.5 | 29/64 |
| M12X1.25 | 3221-M12F | (6/PKG) | 1287-612 | 5043-120FP4 | 106-612 | (6/PKG) | TNM-12X1.25C-18 | 31/64 |
| M12X1.5 | 3221-M1215 | (6/PKG) | 1287-61215 | 5043-1215FP4 | 106-61215 | (6/PKG) | TNM-12X1.5C-18 | 31/64 |
| M14X1.5 | 3221-M14F | (6/PKG) | 1287-614 | 5043-140FP4 | 106-614 | (6/PKG) | TNM-14X1.5C-21 | 9/16 |
| M16X1.5 | 3221-M16F | (6/PKG) | 1287-616 | 5043-160FP4 | 106-616 | (6/PKG) | TNM-16X1.5C-24 | 21/32 |

1. Perma-Coil repair kits include: Inserts, Installation Tool, and Tap.
2. Perma-Coil insert packs contain inserts only.
3. The above packs and insert bags contain inserts whose length is 1-1/2 times their diameter (For example, the 1/4-20 insert is 3/8" long).
4. Other sizes and lengths are available.






HIGH QUALITY & DURABILITY

MASTER THREAD REPAIR KITS

Perma-Coil Master Thread Repair Kits are designed for professionals and mechanics. The Master Thread Repair Kits contain the most popular thread sizes used in automotive and light truck applications. By using Perma-Coil Thread Repair Kits, damaged threads can be brought back to the original thread size, and made better than new. Thread wear, corrosion and galling will be virtually eliminated, and the assembly will be even stronger than the original with Perma-Coil inserts.

EACH MASTER THREAD REPAIR KIT CONSISTS OF:

- 30 (6 of each size) Aerospace quality free-running tapered inserts; in the most popular 1.5 Dia. nominal length.
- 5 Perma-Coil STI Tap.
- 5 All steel threaded installation mandrel.
- 5 Molded Prewinder Sleeve for Unified Fine (1208-FMK).
- 3 Molded Prewinder Sleeve for Metric (1221-MMK).
- Step by Step instructions including drill sizes.

| 1208-CMK | 1208-FMK | 1221-MMK |
|---|---|---|
|  |  |  |
| Unified Coarse | Unified Fine | Metric Coarse |
| 1/4-20 | 1/4-28 | M5X0.8 |
| 5/16-18 | 5/16-24 | M6X1.0 |
| 3/8-16 | 3/8-24 | M8X1.25 |
| 7/16-14 | 7/16-20 | M10X1.25 |
| 1/2-13 | 1/2-20 | M10X1.5 |



SPARK PLUG REPAIR MADE EASY

PERMA-PLUG® KITS

Perma-Plug Kit is a professional spark plug thread repair kit that provides everything you'll need to quickly and easily repair worn or stripped spark plug threads. Perma-Plug works in aluminum and cast iron assemblies and provides a positive locking system. Perma-Plug requires no drilling, simply tap the hole with the included piloted tap tool. The Perma-Plug kit includes three insert lengths to accommodate all applications. With Perma-Plug the repaired threads are better than new, and the assembly is stronger than the original! Perma-Plug Kit can be used with taper seat or gasket type spark plugs.

EACH PERMA-PLUG KIT CONSISTS OF:

- Three solid bushing inserts (one each).
- 2214-S, M14X1.25 X 3/8" for short reach.
- 2214-N, M14X1.25 X 1/2" for normal reach.
- 2214-L, M14X1.25 X 3/4" for long reach.
- Expanding tool (swaging tool).
- Piloted Tap - No Drilling Required.



| Complete Kit | | | |
|--------------|----------|-------------|-----------------|
| Thread Size | Part No. | Reach | Inserts Per Kit |
| M14X1.25 | 2200-14 | 3/8" Short | 1 |
| | | 1/2" Normal | 1 |
| | | 3/4" Long | 1 |

| Kit Content and Replacements Parts | | | | |
|------------------------------------|---------|-------------|----------|----------|
| Tool | Tap | Reach | Part No. | Quantity |
| 2294-14 | 2258-14 | 3/8" Short | 2214-S | 1 |
| | | 1/2" Normal | 2214-N | 1 |
| | | 3/4" Long | 2214-L | 1 |

| Complete Display Center: Part No. 1400-1 | | |
|--|----------|----------|
| Tools | Part No. | Quantity |
| M14X1.25 Perma Plug Kit | 2200-14 | 3 |
| M14X1.25 x 3/8" Perma Plug Short Reach Insert | 2214-S | 4 |
| M14X1.25 x 1/2" Perma Plug Normal Reach Insert | 2214-N | 4 |
| M14X1.25 x 3/4" Perma Plug Long Reach Insert | 2214-L | 4 |

SPARK PLUG SERIES

Perma-Coil Spark Plug Kits is a quick and easy way to repair worn or stripped spark plug threads. Spark Plug kits are available in 10, 12, 14, and 18mm sizes.

Each kit includes the appropriate reamer/tap and installation tool for all sizes. For the 12 & 14mm, you choose the reach and quantity of Perma-Coil stainless steel inserts required. **It's not recommended to use Perma-Coil wire spark plug inserts to repair taper seat spark plug ports.**



| Thread Size | Reach | Kit | Inserts Per Kit | Inserts Pack | Inserts Per Pack | Tap | Tool | Bulk Inserts |
|-------------|-------|-----------------------|-----------------|--------------|------------------|----------|----------|----------------|
| 10-1.0mm | 1/2" | 1210-410 | (6/PKG) | 410-500 | (6/PKG) | 1458-100 | 1094-100 | SP1010-01-0500 |
| 12-1.25mm | 1/2" | 1212-412 ¹ | 0 | 412-500 | (6/PKG) | 1458-123 | 1094-123 | SP1213-01-0500 |
| | 3/4" | | 0 | 412-750 | (6/PKG) | | | SP1213-01-0750 |
| 14-1.25mm | 3/8" | 1214-414 ¹ | 0 | 414-375 | (6/PKG) | 1458-143 | 1094-143 | SP1413-01-0375 |
| | 7/16" | | 0 | 414-438 | (6/PKG) | | | SP1413-01-0438 |
| | 1/2" | | 0 | 414-500 | (6/PKG) | | | SP1413-01-0500 |
| | 3/4" | | 0 | 414-750 | (6/PKG) | | | SP1413-01-0750 |
| 18-1.50mm | 1/2" | 1218-500 | (6/PKG) | 418-500 | (6/PKG) | 1458-185 | 1094-185 | SP1815-01-0500 |

1. 12mm and 14mm spark plug kits contain tap and installation tool ONLY - NO inserts in kit. Purchase packages of inserts separately. Same tools are applicable regardless of insert reach.

PIPE THREAD SERIES

| Thread Size | Repair Packs | | Replacement Parts | | | | Bulk Inserts | Drill Size |
|-------------|--------------|------------------|-------------------|----------|-------------|------------------|---------------------|------------|
| | Part No. | Inserts Per Pack | Installation Tool | Tap | Inserts Bag | Inserts Per Pack | Perma-Coil Part No. | |
| 1/8-27 | 3218-2 | 12 | 1189-2 | 1188-2P | 318-2 | 12 | 218-2 | 3/8 |
| 1/4-18 | 3218-4 | 12 | 1189-4 | 1188-4P | 318-4 | 12 | 218-4 | 33/64 |
| 3/8-18 | 3218-6 | 10 | 1189-6 | 1188-6P | 318-6 | 10 | 218-6 | 21/32 |
| 1/2-14 | 3218-8 | 10 | 1189-8 | 1188-8P | 318-8 | 10 | 218-8 | 13/16 |
| 3/4-14 | 3218-12 | 10 | 1189-12 | 1188-12P | 318-12 | 10 | 218-12 | 1 1/64 |
| 1-11 1/2 | 3218-16 | 6 | 1189-16 | 1188-16P | 318-16 | 6 | 218-16 | 1 9/32 |

SPECIAL APPLICATIONS

| Thread Size | Repair Kits | | Replacement Parts | | | | Bulk Inserts | Drill Size |
|-------------|-------------|------------------|-------------------|-------------|---------------|------------------|---------------------|------------|
| | Part No. | Inserts Per Pack | Installation Tool | Tap | Inserts Pack | Inserts Per Pack | Perma-Coil Part No. | |
| 7/8-20 | 3208-1420 | 10 | 1037-1420 | 1043-1420P2 | 208-1420 | 1 | TNF-141C-0330 | 57/64 |
| 1-20 | 3208-1620 | 10 | 1037-1620 | 1043-1620P2 | 208-1620 | 1 | TNF-162C-0325 | 1 1/64 |
| 11/16-16 | 3424-1250 | 9 | 1424-1 | 1043-1116 | 324-1116-1250 | 3 | TNF-11C-1250 | 45/64 |
| 1/4-24 | 1208-404 | 12 | 1182-404 | 1428-404 | 208-404 | 12 | TNF-41C-0500 | 17/64 |
| 3/8-20 | 1208-406 | 6 | 1172-406 | 1428-406 | 208-406 | 6 | TNF-61C-0375 | 25/64 |

CROSS REFERENCE

| Size | Kits | | Inserts Packages | |
|---------------------------|------------|----------|------------------|-----------|
| | Perma-Coil | Helicoil | Perma-Coil | Helicoil |
| Inch Series Coarse | | | | |
| 8-32 | 1208-018 | 5521-2 | 208-018 | R1185-2 |
| 10-24 | 1208-101 | 5521-3 | 208-101 | R1185-3 |
| 12-24 | 1208-102 | 5521-1 | 208-102 | R1185-1 |
| 1/4-20 | 1208-104 | 5521-4 | 208-104 | R1185-4 |
| 5/16-18 | 1208-105 | 5521-5 | 208-105 | R1185-5 |
| 3/8-16 | 1208-106 | 5521-6 | 208-106 | R1185-6 |
| 7/16-14 | 1208-107 | 5521-7 | 208-107 | R1185-7 |
| 1/2-13 | 1208-108 | 5521-8 | 208-108 | R1185-8 |
| 9/16-12 | 1208-109 | 5521-9 | 208-109 | R1185-9 |
| 5/8-11 | 1208-110 | 5521-10 | 208-110 | R1185-10 |
| 3/4-10 | 1208-112 | 5521-12 | 208-112 | R1185-12 |
| 7/8-9 | 3208-C14 | 5521-14 | 108-114 | K1185-14 |
| 1-8 | 3208-C16 | 5521-16 | 108-116 | K1185-16 |
| 1 1/8-7 | 3208-C18 | 5521-18 | 108-118 | K1185-18 |
| 1 1/4-7 | 3208-C20 | 5521-20 | 108-120 | K1185-20 |
| 1 3/8-6 | 3208-C22 | 5521-22 | 108-122 | K1185-22 |
| 1 1/2-6 | 3208-C24 | 5521-24 | 108-124 | K1185-24 |
| Inch Series Fine | | | | |
| 10-32 | 1208-201 | 5528-3 | 208-201 | R1191-3 |
| 1/4-28 | 1208-204 | 5528-4 | 208-204 | R1191-4 |
| 5/16-24 | 1208-205 | 5528-5 | 208-205 | R1191-5 |
| 3/8-24 | 1208-206 | 5528-6 | 208-206 | R1191-6 |
| 7/16-20 | 1208-207 | 5528-7 | 208-207 | R1191-7 |
| 1/2-20 | 1208-208 | 5528-8 | 208-208 | R1191-8 |
| 9/16-18 | 1208-209 | 5528-9 | 208-209 | R1191-9 |
| 5/8-18 | 1208-210 | 5528-10 | 208-210 | R1191-10 |
| 3/4-16 | 1208-212 | 5528-12 | 208-212 | R1191-12 |
| 7/8-14 | 3208-F14 | 5528-14 | 108-214 | K1191-14 |
| 1-14 | 3208-F164 | 5528-16 | 108-2164 | K1191-16 |
| 1-12 | 3208-F16 | 5528-161 | 108-216 | K1191-161 |
| 1 1/8-12 | 3208-F18 | 5528-18 | 108-218 | K1191-18 |
| 1 1/4-12 | 3208-F20 | 5528-20 | 108-220 | K1191-20 |
| 1 3/8-12 | 3208-F22 | 5528-22 | 108-222 | K1191-22 |
| 1 1/2-12 | 3208-F24 | 5528-24 | 108-224 | K1191-24 |

| Size | Kits | | Inserts Packages | |
|---------------------------|------------|----------|------------------|----------|
| | Perma-Coil | Helicoil | Perma-Coil | Helicoil |
| Metric Series Fine | | | | |
| M3X0.5 | 1221-303 | 5546-3 | 206-303 | R1084-3 |
| M4X0.7 | 1221-304 | 5546-4 | 206-304 | R1084-4 |
| M5X0.8 | 1221-305 | 5546-5 | 206-305 | R1084-5 |
| M6X1 | 1221-306 | 5546-6 | 206-306 | R1084-6 |
| M7X1 | 1221-307 | 5546-7 | 206-307 | R1084-7 |
| M8X1.25 | 1221-308 | 5546-8 | 206-308 | R1084-8 |
| M9X1.25 | 1221-309 | 5546-9 | 206-309 | R1084-9 |
| M10X1.5 | 1221-310 | 5546-10 | 206-310 | R1084-10 |
| M11X1.5 | 1221-311 | 5546-11 | 206-311 | R1084-11 |
| M12X1.75 | 3221-M12C | 5546-12 | 106-312 | R1084-12 |
| M14X2 | 3221-M14C | 5546-14 | 106-314 | R1084-14 |
| M16X2 | 3221-M16C | 5546-16 | 106-316 | R1084-16 |
| M18X2.5 | 3221-M18C | 5546-18 | 106-318 | R1084-18 |
| M20X2.5 | 3221-M20C | 5546-20 | 106-320 | R1084-20 |
| Metric Series Fine | | | | |
| M8X1.0 | 1221-M8F | 5542-8 | 106-608 | R4255-8 |
| M10X1.0 | 1221-M1010 | 5542-10 | 106-61010 | R4255-10 |
| M11X1.0 | 1221-M11F | 5543-10 | 106-611 | R4255-10 |
| M11X1.25 | 1221-M1125 | 5543-11 | 106-61125 | R4649-11 |
| M12X1.25 | 3221-M12F | 5543-12 | 106-612 | R4649-12 |
| M12X1.5 | 3221-M1215 | 5544-12 | 106-61215 | R3745-12 |
| M14X1.5 | 3221-M14F | 5544-14 | 106-614 | R3745-14 |
| M16X1.5 | 3221-M16F | 5544-16 | 106-616 | R3745-16 |

SPARK PLUG SERIES (WIRE TYPE)

| Size | Kits | | Inserts Packages | |
|----------|------------|----------|------------------|----------|
| | Perma-Coil | Helicoil | Perma-Coil | Helicoil |
| M10X1 | 1210-410 | 5523-10 | 410-500 | R474-4 |
| M12X1.25 | 1212-412 | 5523-12 | 412-500 | R482-1 |
| | | | 412-750 | R482-2 |
| M14X1.25 | 1214-414 | 5523-14 | 414-375 | R512 |
| | | | 414-438 | R513 |
| | | | 414-500 | R513-13 |
| | | | 414-750 | R513-10 |
| M18X1.25 | 1218-500 | 5523-18 | 414-800 | R514-6 |

SPARK PLUG SERIES (SOLID TYPE)

| Size | Kits | | Inserts Packages | |
|----------|------------|----------|------------------|----------|
| | Perma-Coil | Helicoil | Perma-Coil | Helicoil |
| M14X1.25 | 2200-14 | 5334-14 | 2214-L | R5326-L |
| | | | 2214-N | R5326-N |
| | | | 2214-S | R5326-S |



Complete Display Center: Part No. **1208-5**
Inch Coarse & Spark Plug



Complete Display Center: Part No. **1221-3**
Metric Threads

| Insert Kits - Includes One Each | | |
|---------------------------------|-----------|------------|
| Thread Size | Part No. | Kits |
| 1/4-20 | 1208-104 | Repair Kit |
| 5/16-18 | 1208-105 | Repair Kit |
| 3/8-16 | 1208-106 | Repair Kit |
| 7/16-14 | 1208-107 | Repair Kit |
| 1/2-13 | 1208-108 | Repair Kit |
| M14 x 1.25 | 2200 - 14 | Repair Kit |

| Insert Kits - Includes One Each | | |
|---------------------------------|-----------|------------|
| Thread Size | Part No. | Kits |
| M5X0.8 | 1221-305 | Repair Kit |
| M6X1 | 1221-306 | Repair Kit |
| M8X1.25 | 1221-308 | Repair Kit |
| M10X1.5 | 1221-310 | Repair Kit |
| M10X1.25 | 3221-M10F | Repair Kit |
| M12X1.75 | 3221-M12C | Repair Kit |
| M12X1.25 | 3221-M12F | Repair Kit |

| Insert Packs - Includes One Each | | |
|----------------------------------|----------|--------------|
| Thread Size | Part No. | Insert Packs |
| 1/4-20 | 208-104 | Insert pack |
| 5/16-18 | 208-105 | Insert pack |
| 3/8-16 | 208-106 | Insert pack |
| 7/16-14 | 208-107 | Insert pack |
| 1/2-13 | 208-108 | Insert pack |
| M14 x 3/8 | 2214 - S | Insert pack |
| M14 x 1/2 | 2214 - N | Insert pack |
| M14 x 3/4 | 2214 - L | Insert pack |

| Insert Packs - Includes One Each | | |
|----------------------------------|----------|--------------|
| Thread Size | Part No. | Insert Packs |
| M5X0.8 | 206-305 | Insert pack |
| M6X1 | 206-306 | Insert pack |
| M8X1.25 | 206-308 | Insert pack |
| M10X1.5 | 206-310 | Insert pack |
| M10X1.25 | 106-610 | Insert pack |
| M12X1.75 | 106-312 | Insert pack |
| M12X1.25 | 106-612 | Insert pack |

1. Solid Type Perma-Plug Inserts

DISPLAYS



Complete Display Center: Part No. **1208-1**
Inch Coarse Threads



Complete Display Center: Part No. **1208-2**
Inch Fine Threads

| Insert Kits - Includes One Each | | |
|----------------------------------|----------|-------------|
| Thread Size | Part No. | Kits |
| 4-40 | 1208-014 | Repair Kit |
| 5-40 | 1208-015 | Repair Kit |
| 6-32 | 1208-016 | Repair Kit |
| 8-32 | 1208-018 | Repair Kit |
| 10-24 | 1208-101 | Repair Kit |
| 12-24 | 1208-102 | Repair Kit |
| 1/4-20 | 1208-104 | Repair Kit |
| 5/16-18 | 1208-105 | Repair Kit |
| 3/8-16 | 1208-106 | Repair Kit |
| 7/16-14 | 1208-107 | Repair Kit |
| 1/2-13 | 1208-108 | Repair Kit |
| 9/16-12 | 1208-109 | Repair Kit |
| 5/8-11 | 1208-110 | Repair Kit |
| 3/4-10 | 1208-112 | Repair Kit |
| Insert Packs - Includes One Each | | |
| Thread Size | Part No. | Insert pack |
| 4-40 | 208-014 | Insert pack |
| 5-40 | 208-015 | Insert pack |
| 6-32 | 208-016 | Insert pack |
| 8-32 | 208-018 | Insert pack |
| 10-24 | 208-101 | Insert pack |
| 12-24 | 208-102 | Insert pack |
| 1/4-20 | 208-104 | Insert pack |
| 5/16-18 | 208-105 | Insert pack |
| 3/8-16 | 208-106 | Insert pack |
| 7/16-14 | 208-107 | Insert pack |
| 1/2-13 | 208-108 | Insert pack |
| 9/16-12 | 208-109 | Insert pack |
| 5/8-11 | 208-110 | Insert pack |
| 3/4-10 | 208-112 | Insert pack |

| Insert Kits - Includes One Each | | |
|---------------------------------|----------|------------|
| Thread Size | Part No. | Kits |
| 10-32 | 1208-201 | Repair Kit |
| 1/4-28 | 1208-204 | Repair Kit |
| 5/16-24 | 1208-205 | Repair Kit |
| 3/8-24 | 1208-206 | Repair Kit |
| 7/16-20 | 1208-207 | Repair Kit |
| 1/2-20 | 1208-208 | Repair Kit |
| 5/8-18 | 1208-210 | Repair Kit |

| Insert Packs - Includes One Each | | |
|----------------------------------|----------|--------------|
| Thread Size | Part No. | Insert Packs |
| 10-32 | 208-201 | Insert pack |
| 1/4-28 | 208-204 | Insert pack |
| 5/16-24 | 208-205 | Insert pack |
| 3/8-24 | 208-206 | Insert pack |
| 7/16-20 | 208-207 | Insert pack |
| 1/2-20 | 208-208 | Insert pack |
| 5/8-18 | 208-210 | Insert pack |

HIGH SPEED STEEL STI TAPS

STI (Screw Thread Insert) Taps are designed specifically to create internal threads that will accommodate a Perma-Coil insert. STI taps can be used in a range of materials including aluminum, magnesium, steel, plastics, and other free machining materials. Thread Kits taps are manufactured from high speed steel for durability and prolonged tooling life.



| Thread Size | Plug Tap | | | | Bottoming Tap | | | |
|-----------------------|--------------|----------|--------------|----------|---------------|----------|--------------|----------|
| | 3B | Helicoil | 2B | Helicoil | 3B | Helicoil | 2B | Helicoil |
| Unified Coarse | | | | | | | | |
| 4-40 | CTC-04SRP-H1 | 04CPB | CTC-04SRP-H2 | 04CPA | CTC-04SRB-H1 | 04CBB | CTC-04SRB-H2 | 04CBA |
| 5-40 | CTC-05SRP-H1 | 05CPB | CTC-05SRP-H2 | 05CPA | CTC-05SRB-H1 | 05CBB | CTC-05SRB-H2 | 05CBA |
| 6-32 | CTC-06SRP-H2 | 06CPB | CTC-06SRP-H3 | 06CPA | CTC-06SRB-H2 | 06CBB | CTC-06SRB-H3 | 06CBA |
| 8-32 | CTC-2SRP-H2 | 2CPB | CTC-2SRP-H3 | 2CPA | CTC-2SRB-H2 | 2CBB | CTC-2SRB-H3 | 2CBA |
| 10-24 | CTC-3SRP-H2 | 3CPB | CTC-3SRP-H3 | 3CPA | CTC-3SRB-H2 | 3CBB | CTC-3SRB-H3 | 3CBA |
| 12-24 | CTC-1SRP-H2 | 1CPB | CTC-1SRP-H3 | 1CPA | CTC-1SRB-H2 | 1CBB | CTC-1SRB-H3 | 1CBA |
| 1/4-20 | CTC-4SRP-H2 | 4CPB | CTC-4SRP-H3 | 4CPA | CTC-4SRB-H2 | 4CBB | CTC-4SRB-H3 | 4CBA |
| 5/16-18 | CTC-5SRP-H3 | 5CPB | CTC-5SRP-H4 | 5CPA | CTC-5SRB-H3 | 5CBB | CTC-5SRB-H4 | 5CBA |
| 3/8-16 | CTC-6SRP-H3 | 6CPB | CTC-6SRP-H4 | 6CPA | CTC-6SRB-H3 | 6CBB | CTC-6SRB-H4 | 6CBA |
| 7/16-14 | CTC-7SRP-H3 | 7CPB | CTC-7SRP-H4 | 7CPA | CTC-7SRB-H3 | 7CBB | CTC-7SRB-H4 | 7CBA |
| 1/2-13 | CTC-8SRP-H3 | 8CPB | CTC-8SRP-H4 | 8CPA | CTC-8SRB-H3 | 8CBB | CTC-8SRB-H4 | 8CBA |
| 9/16-12 | CTC-9SRP-H3 | 187-9 | CTC-9SRP-H4 | 38187-9 | CTC-9SRB-H3 | 4187-9 | CTC-9SRB-H4 | 43187-9 |
| 5/8-11 | CTC-10SRP-H3 | 8187-10 | CTC-10SRP-H4 | 18187-10 | CTC-10SRB-H3 | 10187-10 | CTC-10SRB-H4 | 20187-10 |
| 3/4-10 | CTC-12SRP-H3 | 8187-12 | CTC-12SRP-H5 | 18187-12 | CTC-12SRB-H3 | 10187-12 | CTC-12SRB-H5 | 20187-12 |
| 7/8-9 | CTC-14SRP-H3 | 8187-14 | CTC-14SRP-H5 | 18187-14 | CTC-14SRB-H3 | 10187-14 | CTC-14SRB-H5 | 20187-14 |
| 1-8 | CTC-16SRP-H4 | 8187-16 | CTC-16SRP-H6 | 18187-16 | CTC-16SRB-H4 | 10187-16 | CTC-16SRB-H6 | 20187-16 |
| 1 1/8-7 | CTC-18SRP-H4 | 8187-18 | CTC-18SRP-H6 | 18187-18 | CTC-18SRB-H4 | 10187-18 | CTC-18SRB-H6 | 20187-18 |
| 1 1/4-7 | CTC-20SRP-H4 | 8187-20 | CTC-20SRP-H6 | 18187-20 | CTC-20SRB-H4 | 10187-20 | CTC-20SRB-H6 | 20187-20 |
| 1 3/8-6 | CTC-22SRP-H6 | 8187-22 | CTC-22SRP-H8 | 18187-22 | CTC-22SRB-H6 | 10187-22 | CTC-22SRB-H8 | 20187-22 |
| 1 1/2-6 | CTC-24SRP-H6 | 8187-24 | CTC-24SRP-H8 | 18187-24 | CTC-24SRB-H6 | 10187-24 | CTC-24SRB-H8 | 20187-24 |
| Unified Fine | | | | | | | | |
| 10-32 | CTF-3SRP-H2 | 3FPB | CTF-3SRP-H3 | 3FPA | CTF-3SRB-H2 | 3FBB | CTF-3SRB-H3 | 3FBA |
| 1/4-28 | CTF-4SRP-H2 | 4FPB | CTF-4SRP-H3 | 4FPA | CTF-4SRB-H2 | 4FBB | CTF-4SRB-H3 | 4FBA |
| 5/16-24 | CTF-5SRP-H2 | 5FPB | CTF-5SRP-H3 | 5FPA | CTF-5SRB-H2 | 5FBB | CTF-5SRB-H3 | 5FBA |
| 3/8-24 | CTF-6SRP-H2 | 6FPB | CTF-6SRP-H3 | 6FPA | CTF-6SRB-H2 | 6FBB | CTF-6SRB-H3 | 6FBA |
| 7/16-20 | CTF-7SRP-H3 | 7FPB | CTF-7SRP-H4 | 7FPA | CTF-7SRB-H3 | 7FBB | CTF-7SRB-H4 | 7FBA |
| 1/2-20 | CTF-8SRP-H3 | 8FPB | CTF-8SRP-H4 | 8FPA | CTF-8SRB-H3 | 8FBB | CTF-8SRB-H4 | 8FBA |
| 9/16-18 | CTF-9SRP-H3 | 38193-9 | CTF-9SRP-H4 | 18193-9 | CTF-9SRB-H3 | 43193-9 | CTF-9SRB-H4 | 20193-9 |
| 5/8-18 | CTF-10SRP-H3 | 8193-10 | CTF-10SRP-H4 | 18193-10 | CTF-10SRB-H3 | 10193-10 | CTF-10SRB-H4 | 20193-10 |
| 3/4-16 | CTF-12SRP-H3 | 8193-12 | CTF-12SRP-H4 | 18193-12 | CTF-12SRB-H3 | 10193-12 | CTF-12SRB-H4 | 20193-12 |
| 7/8-14 | CTF-14SRP-H3 | 8193-14 | CTF-14SRP-H4 | 18193-14 | CTF-14SRB-H3 | 10193-14 | CTF-14SRB-H4 | 20193-14 |
| 1-12 | CTF-16SRP-H4 | 8193-16 | CTF-16SRP-H6 | 18193-16 | CTF-16SRB-H4 | 10193-16 | CTF-16SRB-H6 | 20193-16 |
| 1 1/8-12 | CTF-18SRP-H4 | 8193-18 | CTF-18SRP-H6 | 18193-18 | CTF-18SRB-H4 | 10193-18 | CTF-18SRB-H6 | 20193-18 |
| 1 1/4-12 | CTF-20SRP-H4 | 8193-20 | CTF-20SRP-H6 | 18193-20 | CTF-20SRB-H4 | 10193-20 | CTF-20SRB-H6 | 20193-20 |
| 1 3/8-12 | CTF-22SRP-H6 | 8193-22 | CTF-22SRP-H8 | 18193-22 | CTF-22SRB-H6 | 10193-22 | CTF-22SRB-H8 | 20193-22 |
| 1 1/2-12 | CTF-24SRP-H6 | 8193-24 | CTF-24SRP-H8 | 18193-24 | CTF-24SRB-H6 | 10193-24 | CTF-24SRB-H8 | 20193-24 |

HIGH SPEED STEEL STI TAPS

| Thread Size | Plug Tap | | | | Bottoming Tap | | | |
|----------------------|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
| | 3B | Helicoil | 2B | Helicoil | 3B | Helicoil | 2B | Helicoil |
| Metric Coarse | | | | | | | | |
| M3X0.5 | CTM-3X.5SRP-4H | 4687-3 | CTM-3X.5SRP-5H | 2087-3 | CTM-3X.5SRB-4H | 4693-3 | CTM-3X.5SRB-5H | 2093-3 |
| M4X0.7 | CTM-4X.7SRP-4H | 4687-4 | CTM-4X.7SRP-5H | 2087-4 | CTM-4X.7SRB-4H | 4693-4 | CTM-4X.7SRB-5H | 2093-4 |
| M5X0.8 | CTM-5X.8SRP-4H | 4687-5 | CTM-5X.8SRP-5H | 2087-5 | CTM-5X.8SRB-4H | 4693-5 | CTM-5X.8SRB-5H | 2093-5 |
| M6X1 | CTM-6X1SRP-4H | 4687-6 | CTM-6X1SRP-5H | 2087-6 | CTM-6X1SRB-4H | 4693-6 | CTM-6X1SRB-5H | 2093-6 |
| M7X1 | CTM-7X1SRP-4H | 4687-7 | CTM-7X1SRP-5H | 2087-7 | CTM-7X1SRB-4H | 4693-7 | CTM-7X1SRB-5H | 2093-7 |
| M8X1.25 | CTM-8X1.25SRP-4H | 4687-8 | CTM-8X1.25SRP-5H | 2087-8 | CTM-8X1.25SRB-4H | 4693-8 | CTM-8X1.25SRB-5H | 2093-8 |
| M10X1.5 | CTM-10X1.5SRP-4H | 4687-10 | CTM-10X1.5SRP-5H | 2087-10 | CTM-10X1.5SRB-4H | 4693-10 | CTM-10X1.5SRB-5H | 2093-10 |
| M12X1.75 | CTM-12X1.75SRP-4H | 4687-12 | CTM-12X1.75SRP-5H | 2087-12 | CTM-12X1.75SRB-4H | 4693-12 | CTM-12X1.75SRB-5H | 2093-12 |
| M14X2 | CTM-14X2SRP-4H | 4687-14 | CTM-14X2SRP-5H | 2087-14 | CTM-14X2SRB-4H | 4693-14 | CTM-14X2SRB-5H | 2093-14 |
| M16X2 | CTM-16X2SRP-4H | 4687-16 | CTM-16X2SRP-5H | 2087-16 | CTM-16X2SRB-4H | 4693-16 | CTM-16X2SRB-4H | 2093-16 |
| M18X2.5 | CTM-18X2.5SRP-4H | 4687-18 | CTM-18X2.5SRP-5H | 2087-18 | CTM-18X2.5SRB-4H | 4693-18 | CTM-18X2.5SRB-5H | 2093-18 |
| M20X2.5 | CTM-20X2.5SRP-4H | 4687-20 | CTM-20X2.5SRP-5H | 2087-20 | CTM-20X2.5SRB-4H | 4693-20 | CTM-20X2.5SRB-5H | 2093-20 |
| Metric Fine | | | | | | | | |
| M8X1.0 | CTM-8X1SRP-4H | 5484-8 | CTM-8X1SRP-5H | 4984-8 | CTM-8X1SRB-4H | 5486-8 | CTM-8X1SRB-5H | 4986-8 |
| M10X1.0 | CTM-10X1SRP-4H | 5484-10 | CTM-10X1SRP-5H | 4984-10 | CTM-10X1SRB-4H | 5486-10 | CTM-10X1SRB-5H | 4986-10 |
| M10X1.25 | CTM-10X1.25SRP-4H | 5444-10 | CTM-10X1.25SRP-5H | 4944-10 | CTM-10X1.25SRB-4H | 5445-10 | CTM-10X1.25SRB-5H | 4945-10 |
| M12X1.25 | CTM-12X1.25SRP-4H | 5444-12 | CTM-12X1.25SRP-5H | 4944-12 | CTM-12X1.25SRB-4H | 5445-12 | CTM-12X1.25SRB-5H | 4945-12 |
| M12X1.5 | CTM-12X1.5SRP-4H | 5476-12 | CTM-12X1.5SRP-5H | 4976-12 | CTM-12X1.5SRB-4H | 5477-12 | CTM-12X1.5SRB-5H | 4977-12 |
| M14X1.5 | CTM-14X1.5SRP-4H | 5476-14 | CTM-14X1.5SRP-5H | 4976-14 | CTM-14X1.5SRB-4H | 5477-14 | CTM-14X1.5SRB-5H | 4977-14 |
| M16X1.5 | CTM-16X1.5SRP-4H | 5476-16 | CTM-16X1.5SRP-5H | 4976-16 | CTM-16X1.5SRB-4H | 5477-16 | CTM-16X1.5SRB-5H | 4977-16 |

REMOVAL TOOL



The **KATO Removal Tool (KRT)** is designed with a wedge-shaped tip and an integrated handle. The sharp tip is used to dig into the installed tanged insert (a hammer may be required). The handle is then used to turn the tool counter-clockwise while applying pressure until the insert is extracted from the parent material. Extraction of a tanged insert is only possible if the insert isn't installed too deep, and the KRT can reach it.

| Thread Size | Tang Removal | Helicoil |
|-----------------------------|--------------|----------|
| Unified Thread Sizes | | |
| 2-56 | KRTV-02 | 1227-02 |
| #3 - #8 | KRTV-06 | 1227-06 |
| #10 - #3/8 | KRTV-6 | 1227-6 |
| #7/16 - #1 | KRTV-16 | 1227-16 |
| #1-1/8 - #1-1/2 | KRTV-24 | 1227-24 |
| Metric Thread Sizes | | |
| M2.2 - M2.5 | KRTV-02 | 1227-02 |
| M3 - M4 | KRTV-06 | 1227-06 |
| M5 - M10 | KRTV-6 | 1227-6 |
| M12 - M24 | KRTV-16 | 1227-16 |
| M26 - M39 | KRTV-24 | 1227-24 |

PREWINDER HAND TOOL

The **KATO Prewinder Hand (KPH)** installation tool is designed for higher volume users of Perma-Coil inserts. Unlike competitors that utilize plastic body parts, the all-steel construction of the KPH tool makes them sturdy and dependable. The KPH tool is designed with precision and durability in mind for manual installation of Perma-Coil inserts.



| Thread Size | Part No. | Helicoil |
|----------------|----------|----------|
| Unified Coarse | | |
| 4-40 | KPHC-04 | 7551-04 |
| 5-40 | KPHC-05 | 7551-05 |
| 6-32 | KPHC-06 | 7551-06 |
| 8-32 | KPHC-2 | 7551-1 |
| 10-24 | KPHC-3 | 7551-2 |
| 12-24 | KPHC-1 | 7551-3 |
| 1/4-20 | KPHC-4 | 7551-4 |
| 5/16-18 | KPHC-5 | 7551-5 |
| 3/8-16 | KPHC-6 | 7551-6 |
| 7/16-14 | KPHC-7 | 7551-7 |
| 1/2-13 | KPHC-8 | 7551-8 |
| 9/16-12 | KPHC-9 | 3724-9 |
| 5/8-11 | KPHC-10 | 3724-10 |
| 3/4-10 | KPHC-12 | 3724-12 |
| 7/8-9 | KPHC-14 | 3724-14 |
| 1-8 | KPHC-16 | 3724-16 |
| 11/8-7 | KPHC-18 | 3724-18 |
| 11/4-7 | KPHC-20 | 3724-20 |
| 13/8-6 | KPHC-22 | 3724-22 |
| 11/2-6 | KPHC-24 | 3724-24 |

| Thread Size | Part No. | Helicoil |
|--------------|----------|----------|
| Unified Fine | | |
| 10-32 | KPHF-3 | 7552-3 |
| 1/4-28 | KPHF-4 | 7552-4 |
| 5/16-24 | KPHF-5 | 7552-5 |
| 3/8-24 | KPHF-6 | 7552-6 |
| 7/16-20 | 2KIPF-7 | 7552-7 |
| 1/2-20 | 2KIPF-8 | 7552-8 |
| 9/16-18 | KPHF-9 | 535-9 |
| 5/8-18 | KPHF-10 | 535-10 |
| 3/4-16 | KPHF-12 | 535-12 |
| 7/8-14 | KPHF-14 | 535-14 |
| 1-12 | KPHF-16 | 535-161 |
| 11/8-12 | KPHF-18 | 535-18 |
| 11/4-12 | KPHF-20 | 535-20 |
| 13/8-12 | KPHF-22 | 535-22 |
| 11/2-12 | KPHF-24 | 535-24 |

| Thread Size | Part No. | Helicoil |
|---------------|--------------|----------|
| Metric Coarse | | |
| M3X0.5 | KPHM-3 | 7751-3 |
| M4X0.7 | KPHM-4 | 7751-4 |
| M5X0.8 | KPHM-5 | 7751-5 |
| M6X1 | KPHM-6 | 7751-6 |
| M7X1 | KPHM-7 | 7751-7 |
| M8X1.25 | KPHM-8 | 7751-8 |
| M10X1.5 | KPHM-10 | 7751-10 |
| M12X1.75 | KPHM-12 | 7751-12 |
| M14X2 | KPHM-14 | 7751-14 |
| M16X2 | KPHM-16 | 7751-16 |
| M18X2.5 | KPHM-18 | 7751-18 |
| M20X2.5 | KPHM-20 | 7751-20 |
| Metric Fine | | |
| M8X1.0 | KPHM-8X1 | 7755-8 |
| M10X1.0 | KPHM-10X1 | 7755-10 |
| M10X1.25 | KPHM-10X1.25 | 7756-10 |
| M12X1.25 | KPHM-12X1.25 | 7756-12 |
| M12X1.5 | KPHM-12X1.5 | 7753-12 |
| M14X1.5 | KPHM-14X1.5 | 7753-14 |
| M16X1.5 | KPHM-16X1.5 | 7753-16 |

TANG BREAK-OFF TOOL

The **KATO Tang Break-Off Tool (KTBT)**, as the name implies is a spring-loaded punch designed to cleanly break the tang off of conventional Perma-Coil inserts once they are installed. KATO recommends the tang be removed from the insert after installation.

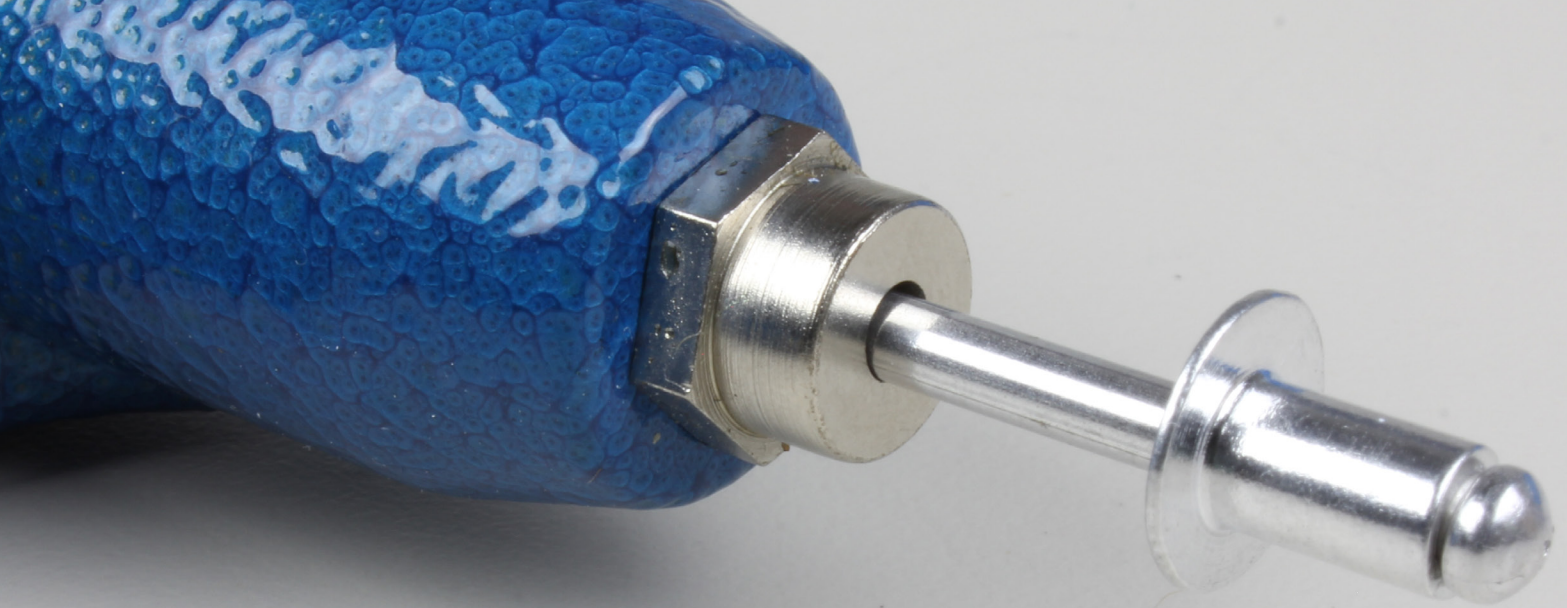


TANG BREAK-OFF TOOL

| Thread Size | Tang Break-Off Tool (1, 1.5 & 2D) | Helicoil | Replacement Punch | Tang Break-Off Tool (2.5 & 3D) | Replacement Punch | Helicoil |
|-----------------------|-----------------------------------|----------|-------------------|--------------------------------|-------------------|----------|
| Unified Coarse | | | | | | |
| 4-40 | KTBT-04 | 3695-04 | KTBT-04RP | KTBT-04-30 | KTBT-04RP-30 | 3697-04 |
| 5-40 | KTBT-04 | 3695-04 | KTBT-04RP | KTBT-04-30 | KTBT-04RP-30 | 3697-04 |
| 6-32 | KTBT-06 | 3695-06 | KTBT-06RP | KTBT-06-30 | KTBT-06RP-30 | 3697-06 |
| 8-32 | KTBT-2 | 3695-2 | KTBT-2RP | KTBT-2-30 | KTBT-2RP-30 | 3697-2 |
| 10-24 | KTBT-3 | 3695-3 | KTBT-3RP | KTBT-3-30 | KTBT-3RP-30 | 3697-3 |
| 12-24 | KTBT-3 | 3695-3 | KTBT-3RP | KTBT-3-30 | KTBT-3RP-30 | 3697-3 |
| 1/4-20 | KTBT-4 | 3695-4 | KTBT-4RP | KTBT-4-30 | KTBT-4RP-30 | 3697-4 |
| 5/16-18 | KTBT-5 | 3695-5 | KTBT-5RP | KTBT-5-30 | KTBT-5RP-30 | 3643-5 |
| 3/8-16 | KTBT-6 | 3695-6 | KTBT-6RP | KTBT-6-30 | KTBT-6RP-30 | 3643-6 |
| 7/16-14 | KTBT-7 | 3695-7 | KTBT-7RP | KTBT-7-30 | KTBT-7RP-30 | 3643-7 |
| 1/2-13 | KTBT-8 | 3695-8 | KTBT-8RP | KTBT-8-30 | KTBT-8RP-30 | 3643-8 |
| Unified Fine | | | | | | |
| 3-56 | KTBT-02 | 3695-02 | KTBT-02RP | KTBT-02-30 | KTBT-02RP-30 | 3697-02 |
| 4-48 | KTBT-04 | 3695-04 | KTBT-04RP | KTBT-04-30 | KTBT-04RP-30 | 3697-04 |
| 6-40 | KTBT-06 | 3695-06 | KTBT-06RP | KTBT-06-30 | KTBT-06RP-30 | 3697-06 |
| 8-36 | KTBT-2 | 3695-2 | KTBT-2RP | KTBT-2-30 | KTBT-2RP-30 | 3697-2 |
| 10-32 | KTBT-3 | 3695-3 | KTBT-3RP | KTBT-3-30 | KTBT-3RP-30 | 3697-3 |
| 1/4-28 | KTBT-4 | 3695-4 | KTBT-4RP | KTBT-4-30 | KTBT-4RP-30 | 3697-4 |
| 5/16-24 | KTBT-5 | 3692-5 | KTBT-5RP | KTBT-5-30 | KTBT-5RP-30 | 3645-5 |
| 3/8-24 | KTBT-6 | 3692-6 | KTBT-6RP | KTBT-6-30 | KTBT-6RP-30 | 3645-6 |
| 7/16-20 | KTBT-7 | 3692-7 | KTBT-7RP | KTBT-7-30 | KTBT-7RP-30 | 3645-7 |
| 1/2-20 | KTBT-8 | 3692-8 | KTBT-8RP | KTBT-8-30 | KTBT-8RP-30 | 3645-8 |

| Thread Size | Tang Break-Off Tool (1, 1.5 & 2D) | Helicoil | Replacement Punch | Tang Break-Off Tool (2.5 & 3D) | Replacement Punch | Helicoil |
|----------------------|-----------------------------------|----------|-------------------|--------------------------------|-------------------|----------|
| Metric Coarse | | | | | | |
| M3X0.5 | KTBT-04 | 4238-3 | KTBT-04RP | KTBT-04-30 | KTBT-04RP-30 | 3697-04 |
| M3.5X0.6 | KTBT-06 | 4238-3 | KTBT-06RP | KTBT-06-30 | KTBT-06RP-30 | 3697-04 |
| M4X0.7 | KTBT-2 | 4238-4 | KTBT-2RP | KTBT-2-30 | KTBT-2RP-30 | 3697-2 |
| M5X0.8 | KTBT-3 | 4238-5 | KTBT-3RP | KTBT-3-30 | KTBT-3RP-30 | 3697-3 |
| M6X1 | KTBT-4 | 4238-6 | KTBT-4RP | KTBT-4-30 | KTBT-4RP-30 | 3697-4 |
| M7X1 | KTBT-4 | 4238-7 | KTBT-4RP | KTBT-4-30 | KTBT-4RP-30 | 4436-7 |
| M8X1.25 | KTBT-5 | 4238-8 | KTBT-5RP | KTBT-5-30 | KTBT-5RP-30 | 3643-5 |
| M10X1.5 | KTBT-6 | 4238-10 | KTBT-6RP | KTBT-6-30 | KTBT-6RP-30 | 4436-10 |
| M12X1.75 | KTBT-8 | 4238-12 | KTBT-8RP | KTBT-8-30 | KTBT-8RP-30 | 4436-12 |
| Metric Fine | | | | | | |
| M8X1 | KTBT-5 | 4238-8 | KTBT-5RP | KTBT-5-30 | KTBT-5RP-30 | 3643-5 |
| M10X1 | KTBT-6 | 4238-10 | KTBT-6RP | KTBT-6-30 | KTBT-6RP-30 | 4436-10 |
| M10X1.25 | KTBT-6 | 4238-10 | KTBT-6RP | KTBT-6-30 | KTBT-6RP-30 | 4436-10 |
| M12X1.25 | KTBT-8 | 4238-12 | KTBT-8RP | KTBT-8-30 | KTBT-8RP-30 | 4436-12 |
| M12X1.5 | KTBT-8 | 4238-12 | KTBT-8RP | KTBT-8-30 | KTBT-8RP-30 | 4436-12 |

1. For sizes larger than 1/2" and M12 use long-nosed pliers; bend tang up and down to snap off a notch.



LARGE SELECTION OF MATERIALS & STYLES

PERMA-RIVET®

Thread Kits Company offers a full line of headed rivets for general consumer and industrial applications. The materials and manufacturing processes used to head rivet bodies increase their shear and tensile values over a stamped eyelet-style rivet.

Perma-Rivets are used to fasten together two or more pieces of material of varying thickness. The rivet body alloy, in addition to being chosen for strength requirements, should also be selected for compatibility with the material to be joined to avoid galvanic corrosion caused by coupling dissimilar metals.





RIVET MATERIALS

In order to meet a variety of requirements for strength, corrosion and rust consideration and application materials, Perma-Rivets are offered in specific materials and material combinations.

| Type | Application |
|-----------------|---|
| All Steel | High Strength: Use with steel. |
| Aluminum | LightWeight: Use with Aluminum areas susceptible to rust & corrosion. |
| Alum./Steel | Combines features of both materials |
| All Stainless | Very High Strength: Use with stainless & steel. Prevents corrosion or rust. |
| Stainless/Steel | Very High Strength: Applications where corrosion resistance is not a major factor. |
| Copper | Electrical conductivity. |

INSTALLATION

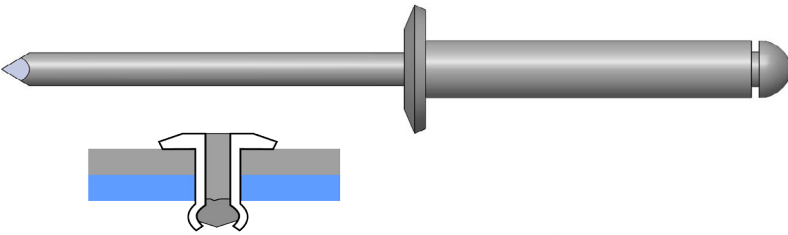
Perma-Rivets consist of two parts: (A) rivet body and (B) setting mandrel. In operation, the mandrel is pulled back to expand the rivet body and form a tight vibration-free faster. The mandrel breaks off automatically after the rivet is set.



1. After selecting the proper rivet, drill a hole corresponding to the diameter of the rivet through the materials to be fastened. When using countersunk head rivets, a 120° countersunk bit is required. Use Perma-Rivet Part No. P60928 for countersink drilling.
2. Open the handle of the rivet tool and insert the rivet mandrel in the nosepiece of the tool.
3. Place the rivet body in the predrilled hole. Then squeeze the rivet tool handles until the rivet mandrel breaks off.

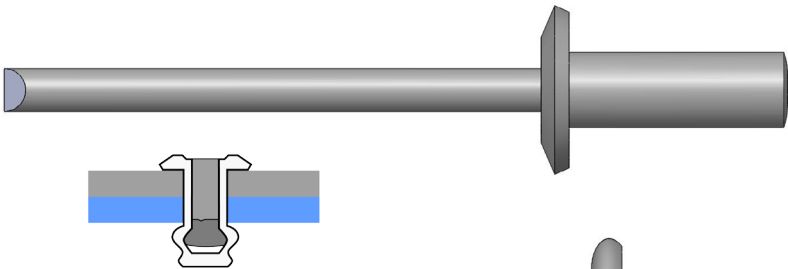
PERMA-RIVET STYLES

RIVET STYLES



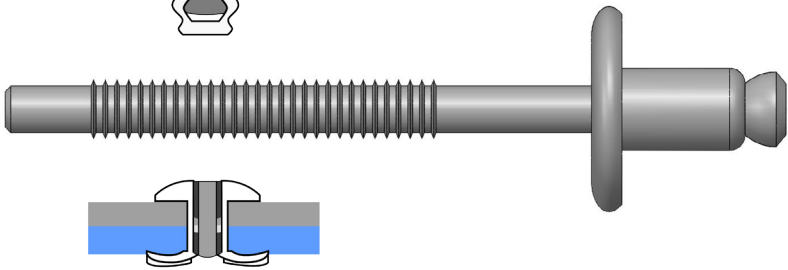
OPEN END

Designed for a wide range of applications, they resemble conventional tubular rivets when set, but retain the mandrel within the rivet body for added strength. Open end rivets are available in variety of materials in buttonhead, countersunk or large flange head styles.



CLOSED END

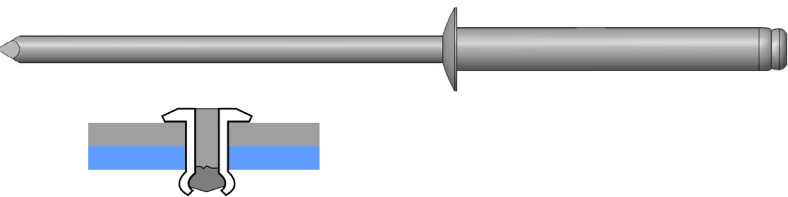
Specially configured with a cup-shaped end that forms a tight seal, Perma-Rivet closed end rivets are much stronger than open-end rivets. They are available in button head, and countersunk head styles.



T-RIVETS

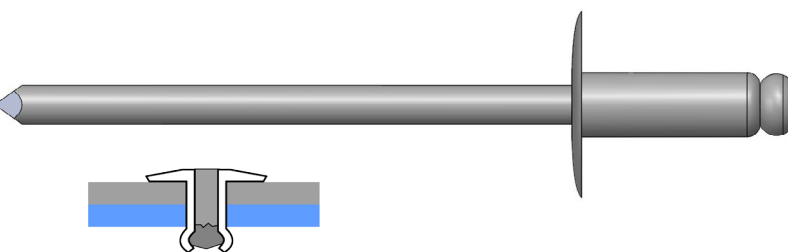
Made for structural and high-stress applications. They feature a hardened steel mandrel, which splits the rivit body into a trifurcated shape. This provides high clamping strength even in thin or fragile manterial.

HEAD STYLES



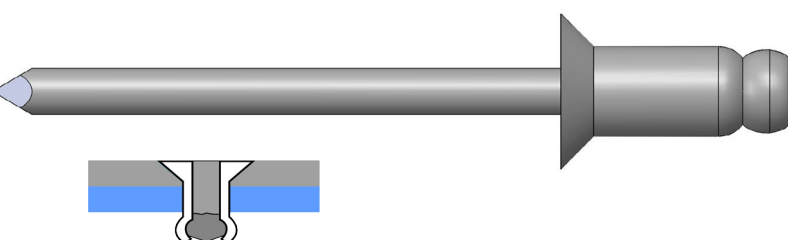
BUTTON HEAD

Low profile design and neat appearance, this style is very versatile and most commonly used. The head size is twice the diameter of the rivet body. It provides enough bearing surface for all applications except soft or brittle material.



LARGE FLANGE

Features twice the under-head bearing surface as the button style. It is ideal for fastening soft or brittle materials to a rigid backing surace.



COUNTERSUNK

Designed with a 120 head profile for flush surface mounting applications.

PERMA-RIVET TOOLS



P39000

The P39000 is our most popular rivet tool, providing both quality and durability. The high-leverage handles are designed to have superior pulling power along with easy one hand operation. The P39000 sets rivets up to 3/16" diameter and comes with four interchangeable nosepieces (3/32", 1/8", 5/32", 3/16") and a wrench. Replacement jaws are sold separately.



P39005

The P39005 Pivot-Head rivet tool features a 360° rotating head designed for easy access to hard to reach applications. This patented tool is constructed of hardened steel and cast aluminum for longer life. The P39005 also includes built-in threaded nosepiece storage holes and a service wrench. The P39005 sets up to 3/16" steel rivets. Replacement jaws are sold separately.



P39010

The P39010 professional grade rivet tool is our most powerful hand riveter, taking the hard work out of setting large diameter blind rivets. With its unique collapsible handle design, the P39010 handles extend to provide excellent leverage and permits working a foot beyond natural reach. The P39010 easily sets from 1/8" to 1/4" diameter Perma-Rivets in all alloys. Furnished with standard nosepieces to set up to 1/4", wrenches and plastic storage case. Replacement parts sold separate.



P39040

The P39040 is a perfect medium-duty tool for the do-it-yourself or occasional user, setting all 1/8" - 5/32" steel, and 3/16" all aluminum Perma-Rivets. Nosepieces and wrench included. No replacement parts available.

PERMA-RIVET PART NUMBERS

A BL 6 -4 A

Rivet Material:

- **A** - Aluminum
- **S** - Carbon Steel
- **SS** - Stainless Steel

Head Style:

- **B** - Buttonhead
- **BL** - Buttonhead, Large Flange
- **C** - Countersunk

Rivet Diameter:

- In 32nds of an inch
6/32 = 3/16"

Max. Grip Length:

- In 16ths of an inch
4/16 = 1/4"

Mandrel Material:

- **A** - Aluminum
- **S** - Carbon Steel
- **CLD** - Closed End
- **Blank** - Steel

| Rivet Dia | Head Dia | Grip Range | Plated Steel Rivet Steel Mandrel | | | Stainless Steel Rivet Steel Mandrel | | | Stainless Steel Rivet Stainless Steel Mandrel | | |
|--------------------------|----------|--------------|-------------------------------------|---------|---------|--|---------|---------|--|---------|---------|
| | | | Code No. | 100 PC. | 500 PC. | Code No. | 100 PC. | 500 PC. | Code No. | 100 PC. | 500 PC. |
| Open End Rivets | | | | | | | | | | | |
| 3/32 | 3/16 | Up to 1/8 | SB3-2 | P59435 | P60435 | | | | | | |
| | 3/16 | 1/8 to 1/4 | SB3-4 | P59436 | P60436 | | | | | | |
| 1/8 | 1/4 | 1/32 to 1/16 | SB4-1 | P59437 | P60437 | | | | | | |
| | 1/4 | 1/16 to 1/8 | SB4-2 | P59438 | P60438 | SSB4-2 | P59560 | P60560 | SSB4-2S | P59540 | P60540 |
| | .220 | 1/16 to 1/8 | SC4-2 | P59439 | P60439 | | | | | | |
| | 3/8 | 1/16 to 1/8 | SBL4-2 | P59440 | P60440 | | | | | | |
| | 1/4 | 1/8 to 3/16 | SB4-3 | P59441 | P60441 | SSB4-3 | P59561 | P60561 | SSB4-3S | P59541 | P60541 |
| | 1/4 | 3/16 to 1/4 | SB4-4 | P59442 | P60442 | SSB4-4 | P59562 | P60562 | SSB4-4S | P59542 | P60542 |
| | .220 | 3/16 to 1/4 | SC4-4 | P59443 | P60443 | | | | | | |
| | 3/8 | 3/16 to 1/4 | SBL4-4 | P59444 | P60444 | | | | | | |
| | 1/4 | 1/4 to 5/16 | SB4-5 | P59445 | P60445 | | | | | | |
| | | 1/4 | 5/16 to 3/8 | SB4-6 | P59446 | P60446 | SSB4-6 | P59563 | P60563 | SSB4-6S | P59543 |
| | 1/4 | 3/8 to 1/2 | SB4-8 | P59447 | P60447 | SSB4-8 | P59573 | P60573 | SSB4-8S | P59544 | P60544 |
| 5/32 | 5/16 | 1/16 to 1/8 | SB5-2 | P59448 | P60448 | SSB5-2 | P59564 | P60564 | SSB5-2S | P59545 | P60545 |
| | 5/16 | 1/8 to 3/16 | SB5-3 | P59449 | P60449 | | | | | | |
| | 5/16 | 3/16 to 1/4 | SB5-4 | P59450 | P60450 | SSB5-4 | P59565 | P60565 | SSB5-4S | P59546 | P60546 |
| | 5/16 | 1/4 to 3/8 | SB5-6 | P59451 | P60451 | SSB5-6 | P59566 | P60566 | SSB5-6S | P59547 | P60547 |
| 3/16 | 3/8 | 1/16 to 1/8 | SB6-2 | P59453 | P60453 | SSB6-2 | P59567 | P60567 | SSB6-2S | P59548 | P60548 |
| | 3/8 | 1/8 to 1/4 | SB6-4 | P59454 | P60454 | SSB6-4 | P59568 | P60568 | SSB6-4S | P59549 | P60549 |
| | 5/8 | 1/8 to 1/4 | SBL6-4 | P59455 | P60455 | | | | | | |
| | 3/8 | 1/4 to 3/8 | SB6-6 | P59456 | P60456 | SSB6-6 | P59569 | P60569 | SSB6-6S | P59550 | P60550 |
| | 5/8 | 1/4 to 3/8 | SBL6-6 | P59457 | P60457 | | | | | | |
| | 3/8 | 3/8 to 1/2 | SB6-8 | P59458 | P60458 | SSB6-8 | P59570 | P60570 | SSB6-8S | P59551 | P60551 |
| | 5/8 | 3/8 to 1/2 | SBL6-8 | P59459 | P60459 | | | | | | |
| | 3/8 | 1/2 to 5/8 | SB6-10 | P59460 | P60460 | | | | | | |
| | 5/8 | 1/2 to 5/8 | SBL6-10 | P59461 | P60461 | | | | | | |
| | 3/8 | 5/8 to 3/4 | SB6-12 | P59462 | P60462 | | | | | | |
| | 5/8 | 5/8 to 3/4 | SBL6-12 | P59463 | P60463 | | | | | | |
| 1/4 | 1/2 | 1/16 to 1/4 | SB8-4 | P59464 | P60464 | | | | | | |
| | 1/2 | 1/4 to 3/8 | SB8-6 | P59465 | P60465 | | | | | | |
| | 1/2 | 3/8 to 1/2 | SB8-8 | P59466 | P60466 | | | | | | |
| | 1/2 | 5/8 to 3/4 | SB8-12 | P59467 | P60467 | | | | | | |
| Closed End Rivets | | | | | | | | | | | |
| 3/16 | 3/8 | 1/8 to 1/4 | SB6-4CLD | P59640 | P60640 | | | | | | |
| 1/4 | 1/2 | 1/8 to 1/4 | SB8-4CLD | P59642 | P60642 | | | | | | |

| Hole Size | Material | Code No. | 100PC | Thrift Pack | |
|-----------|----------|----------|----------|-------------|---------|
| | | | Part No. | Part No. | Pkg/Qty |
| 1/8 | Steel | SS-8 | P59660 | P57660 | 40 |
| 1/8 | Aluminum | AS-8 | P59661 | P57661 | 30 |
| 3/16 | Aluminum | AS-10 | P59662 | P57662 | 30 |

BACK-UP WASHERS

Back-up washers are .056" - .062" thick. They are used when fastening soft materials or to compensate for oversize holes where access to both sides of work is possible.



| Rivet Dia | Head Dia | Grip Range | Aluminum Rivet Aluminum Mandrel | | | Aluminum Rivet Steel Mandrel | | | Cooper Rivet Steel Mandrel | | |
|--------------------------|-------------|--------------|------------------------------------|---------|---------|---------------------------------|---------|---------|-------------------------------|---------|---------|
| | | | Code No. | 100 PC. | 500 PC. | Code No. | 100 PC. | 500 PC. | Code No. | 100 PC. | 500 PC. |
| Open End Rivets | | | | | | | | | | | |
| 3/32 | 3/16 | Up to 1/8 | AB3-2A | P59470 | P60470 | AB3-2 | P59503 | P60503 | | | |
| | 3/16 | 1/8 to 1/4 | AB3-4A | P59471 | P60471 | AB3-4 | P59504 | P60504 | | | |
| 1/8 | 1/4 | 1/32 to 1/16 | AB4-1A | P59472 | P60472 | AB4-1 | P59505 | P60505 | | | |
| | 1/4 | 1/16 to 1/8 | AB4-2A | P59473 | P60473 | AB4-2 | P59506 | P60506 | CB4-2 | P59571 | P60571 |
| | .220 | 1/16 to 1/8 | AC4-2A | P59474 | P60474 | AC4-2 | P59507 | P60507 | | | |
| | 3/8 | 1/16 to 1/8 | ABL4-2A | P59475 | P60475 | ABL4-2 | P59508 | P60508 | | | |
| | 1/4 | 1/8 to 3/16 | AB4-3A | P59476 | P60476 | AB4-3 | P59509 | P60509 | | | |
| | .220 | 1/8 to 3/16 | | | | AC4-3 | P59510 | P60510 | | | |
| | 1/4 | 3/16 to 1/4 | AB4-4A | P59477 | P60477 | AB4-4 | P59511 | P60511 | CB4-4 | P59572 | P60572 |
| | .220 | 3/16 to 1/4 | | | | AC4-4 | P59512 | P60512 | | | |
| | 3/8 | 3/16 to 1/4 | ABL4-4A | P59478 | P60478 | ABL4-4 | P59513 | P60513 | | | |
| | 1/4 | 1/4 to 5/16 | AB4-5A | P59479 | P60479 | AB4-5 | P59514 | P60514 | | | |
| | 1/4 | 5/16 to 3/8 | AB4-6A | P59480 | P60480 | AB4-6 | P59515 | P60515 | | | |
| 1/4 | 3/8 to 1/12 | AB4-8A | P59481 | P60481 | AB4-8 | P59516 | P60516 | | | | |
| 5/32 | 5/16 | 1/16 to 1/8 | AB5-2A | P59482 | P60482 | AB5-2 | P59517 | P60517 | | | |
| | 5/16 | 1/8 to 3/16 | AB5-3A | P59483 | P60483 | AB5-3 | P59518 | P60518 | | | |
| | 5/16 | 3/16 to 1/4 | AB5-4A | P59484 | P60484 | AB5-4 | P59519 | P60519 | | | |
| | 5/16 | 1/4 to 3/8 | AB5-6A | P59485 | P60485 | AB5-6 | P59520 | P60520 | | | |
| | 5/16 | 3/8 to 1/12 | AB5-8A | P59486 | P60486 | AB5-8 | P59521 | P60521 | | | |
| 3/16 | 3/8 | 1/16 to 1/8 | AB6-2A | P59487 | P60487 | AB6-2 | P59522 | P60522 | | | |
| | 3/8 | 1/8 to 1/4 | AB6-4A | P59488 | P60488 | AB6-4 | P59523 | P60523 | | | |
| | 5/8 | 1/8 to 1/4 | ABL6-4A | P59489 | P60489 | ABL6-4 | P59524 | P60524 | | | |
| | 3/8 | 1/4 to 3/8 | AB6-6A | P59490 | P60490 | AB6-6 | P59525 | P60525 | | | |
| | 5/8 | 1/4 to 3/8 | ABL6-6A | P59491 | P60491 | ABL6-6 | P59526 | P60526 | | | |
| | 3/8 | 3/8 to 1/2 | AB6-8A | P59492 | P60492 | AB6-8 | P59527 | P60527 | | | |
| | 5/8 | 3/8 to 1/2 | ABL6-8A | P59493 | P60493 | ABL6-8 | P59528 | P60528 | | | |
| | 3/8 | 1/2 to 5/8 | AB6-10A | P59494 | P60494 | AB6-10 | P59529 | P60529 | | | |
| | 5/8 | 1/2 to 5/8 | ABL6-10A | P59495 | P60495 | ABL6-10 | P59530 | P60530 | | | |
| | 3/8 | 5/8 to 3/4 | AB6-12A | P59496 | P60496 | AB6-12 | P59531 | P60531 | | | |
| 1/4 | 1/2 | 1/16 to 1/4 | AB8-4A | P59498 | P60498 | AB8-4 | P59533 | P60533 | | | |
| | 1/2 | 1/4 to 3/8 | AB8-6A | P59499 | P60499 | AB8-6 | P59534 | P60534 | | | |
| | 1/2 | 3/8 to 1/2 | | | | AB8-8 | P59535 | P60535 | | | |
| | 1/2 | 5/8 to 3/4 | AB8-12A | P59500 | P60500 | AB8-12 | P59536 | P60536 | | | |
| Closed End Rivets | | | | | | | | | | | |
| 1/8 | .236 | 1/16 to 1/8 | AB4-2ACL | P59620 | P60620 | AB4-2CLD | P59590 | P60590 | | | |
| | .236 | 1/8 to 3/16 | | | | AB4-3CLD | P59604 | P60604 | | | |
| | .236 | 3/16 to 1/4 | AB4-4ACL | P59621 | P60621 | AD4-4CLD | P59592 | P60592 | | | |
| | .236 | 3/16 to 1/4 | | | | AC4-4CLD | P59593 | P60593 | | | |
| | .236 | 1/4 to 5/16 | | | | AB4-5CLD | P59608 | P60608 | CB4-5CLD | P59644 | P60644 |
| | .236 | 3/8 to 1/2 | | | | AB4-8CLD | P59595 | P60595 | | | |
| 5/32 | 5/16 | 1/16 to 1/8 | | | | AB5-2CLD | P59596 | P60596 | | | |
| | 5/16 | 1/8 to 3/16 | | | | AB5-3CLD | P59609 | P60609 | | | |
| | 5/16 | 1/8 to 3/16 | | | | AC5-3CLD | P59607 | P60607 | | | |
| | 5/16 | 1/16 to 1/4 | AB5-4ACL | P59622 | P60622 | | | | | | |
| | 5/16 | 3/16 to 5/16 | | | | AB5-5CLD | P59597 | P60597 | | | |
| 3/16 | 3/8 | 1/8 to 1/4 | AB6-4ACL | P59624 | P60624 | AB6-4CLD | P59599 | P60599 | | | |
| | 3/8 | 1/4 to 3/8 | | | | AB6-6CLD | P59605 | P60605 | | | |
| | 3/8 | 3/8 to 1/2 | | | | AB6-8CLD | P59601 | P60601 | | | |
| 1/4 | 1/2 | 1/8 to 1/4 | | | | AB8-4CLD | P59606 | P60606 | | | |
| | 1/2 | 1/4 to 3/8 | | | | AB8-6CLD | P59603 | P60603 | | | |
| T-Rivets | | | | | | | | | | | |
| 1/4 | .510 | 1/32 to 9/64 | | | | AD8-140T | P59580 | P60580 | | | |
| | .510 | 9/64 to 3/16 | | | | AD8-187T | P59581 | P60581 | | | |
| | .510 | 33/64 to 5/8 | | | | AD8-620T | P59582 | P60582 | | | |

THRIFT PACKS

Perma-Rivet offers nine of the most popular sizes, packaged in sturdy, clear plastic, resealable clamshell. Great for do-it-yourself use.

| Rivet Dia | Head Dia | Grip Range | Steel Rivet Steel Mandrel | | Aluminum Rivet Aluminum Mandrel | | Package Quantity |
|-----------------|----------|------------|------------------------------|----------|------------------------------------|----------|------------------|
| | | | Part No. | Code No. | Part No. | Code No. | |
| Open End Rivets | | | | | | | |
| 1/8 | 1/4 | 1/16-1/8 | P57438 | SB4-2 | P57473 | AB4-2A | 25 |
| | 1/4 | 3/16-1/4 | P57442 | SB4-4 | P57477 | AB4-4A | 20 |
| | 1/4 | 5/16-3/8 | P57446 | SB4-6 | P57480 | AB4-6A | 15 |
| 3/16 | 3/8 | Up to 1/8 | | | P57487 | AB6-2A | 15 |
| | 3/8 | 1/8-1/4 | | | P57488 | AB6-4A | 15 |
| | 3/8 | 1/4-3/8 | | | P57490 | AB6-6A | 15 |



SPECIAL APPLICATION RIVETS

| Rivet Dia | Head Dia | Applications | Steel Rivet Steel Mandrel | | Aluminum Rivet Aluminum Mandrel | | Aluminum Rivet Steel Mandrel | | Stainless Steel Rivet Steel Mandrel | |
|--------------------------|----------|--------------------------------|------------------------------|----------|------------------------------------|----------|---------------------------------|-----------|--|----------|
| | | | Part No. | Code No. | Part No. | Code No. | Part No. | Code No. | Part No. | Code No. |
| Shop Packs - 100 Per Box | | | | | | | | | | |
| 1/8 | 1/4 | Aluminum Trim Channel Rivet | | | P59477 | AB4-4A | | | | |
| 1/4 | .510 | Window Regulator Rivet | | | | | P59580 | AD8-140T | | |
| 1/4 | .510 | Outside Door Handle Rivet | | | | | P59581 | AD8-187T | | |
| 1/4 | .510 | Glass Stop Rivet | | | | | P59582 | AD8-620T | | |
| 5/32 | 5/16 | Swivel Emblem Trunk Lock Rivet | | | | | P59607 | AC5-3CLD | | |
| 1/4 | 1/2 | Bumper Rivet | P59800 | SB8-4038 | | | | | | |
| 3/16 | 3/8 | Bumper Fascia Rivet | P59801 | SB6-6025 | | | | | | |
| 1/8 | 13/64 | Std. Aluminum Trim Clip Rivet | | | P59802 | ABN4-3A | | | | |
| 1/8 | 13/64 | Long Aluminum Trim Clip Rivet | | | P59803 | ABN4-4A | | | | |
| 1/8 | 13/64 | Std. Stainless Trim Clip Rivet | | | | | | | P59804 | SSBN4-3 |
| 1/8 | .318 | Rear Window Gasket Rivet | | | | | P59805 | ABL4-3318 | | |
| 1/8 | 1/4 | Multi Purpose Rivet | | | | | P59806 | ABL4-3 | | |
| Pro Packs - 500 Per Box | | | | | | | | | | |
| 1/8 | 1/4 | Aluminum Trim Channel Rivet | | | P60477 | AB4-4A | | | | |
| 1/4 | .510 | Window Regulator Rivet | | | | | P60580 | AD8-140T | | |
| 1/4 | .510 | Outside Door Handle Rivet | | | | | P60581 | AD8-187T | | |
| 1/4 | .510 | Glass Stop Rivet | | | | | P60582 | AD8-620T | | |
| 5/32 | 5/16 | Swivel Emblem Trunk Lock Rivet | | | | | P60607 | AC5-3CLD | | |
| 1/4 | 1/2 | Bumper Rivet | P60800 | SB8-4038 | | | | | | |
| 3/16 | 3/8 | Bumper Fascia Rivet | P60801 | SB6-6025 | | | | | | |
| 1/8 | 13/64 | Std. Aluminum Trim Clip Rivet | | | P60802 | ABN4-3A | | | | |
| 1/8 | 13/64 | Long Aluminum Trim Clip Rivet | | | P60803 | ABN4-4A | | | | |
| 1/8 | 13/64 | Std. Stainless Trim Clip Rivet | | | | | | | P60804 | SSBN4-3 |
| 1/8 | .318 | Rear Window Gasket Rivet | | | | | P60805 | ABL4-3318 | | |
| 1/8 | 1/4 | Multi Purpose Rivet | | | | | P60806 | ABL4-3 | | |

PLASTIC PERMA-RIVET

Plastic Perma-Rivets are the same precision-molded all nylon rivets used in today's automobiles for both original equipment and replacement parts. Plastic rivets are ideal for use in conductive and corrosive applications. Our plastic Perma-Rivets fasten plastic to plastic, plastic to metal, and plastic to fiberglass. As they set, three "legs" form to securely lock the components in place and prevent pullout, leaving an attractive finished appearance.

- Precision-molded, all-nylon.
- Secure lock prevents pull-out.
- Fastens plastic to plastic, plastic to metal or plastic to fiberglass.



| Part No. | Rivet Dia. | Suggested Drill Size | Grip Range | Head Dia. | Replaces OEM Plastic Rivet Part No. |
|----------|------------|----------------------|------------|-----------|---|
| P57712 | 5.0mm | 7/32 | .059 -.177 | .472 | GM 20423647, Ford N803170S, Ford N804189S |
| P57714 | 5.0mm | 7/32 | .118 -.177 | .472 | AMC 8934202855, Ford N804863S, Chry 34202855, Chry 6500859 |
| P57715 | 5.0mm | 7/32 | .118 -.236 | .472 | AMC8934202652, Chry 6500899, GM 20432975, Ford N804343S, VW 175-853-577 |
| P57720 | 5.0mm | 7/32 | .236 -.394 | .472 | Chry 6500898, Chry 6500982 |
| P57721 | 6.0mm | 1/4 | .157 -.335 | .512 | GM - BOC 25524005 |
| P57732 | 6.3mm | 1/4 | .157-.236 | .669 | Chry 4370132, GM 14070914 |
| P57735 | 6.3mm | 1/4 | .157-.236 | .669 | Chry 6500911, GM14063981, GM-CPC 15506827, GM-T&B 15506921, Ford/Mazda KA01500Z1, Ford N803043S |
| P57736 | 6.3mm | 1/4 | .157 -.394 | .512 | GM 20452072, Ford N803862S |
| P57737 | 6.3mm | 1/4 | .157 -.394 | .669 | AMC 8934201631, AMC 8934201835 |
| P57741 | 6.3mm | 1/4 | .315 -.472 | .661 | Chry 4370138, Ford N804675S |
| P57747 | 6.6mm | 9/32 | .098 -.197 | .512 | GM 20421672 |
| P57748 | 6.6mm | 9/32 | .098 -.197 | .709 | GM 20433026, VW 175-853-577A |
| P57752 | 7.0mm | 5/16 | .098 -.236 | .709 | GM 1019689, GM-CPC 10087278 |

P48005

This long-reach tool is exactly what is needed for today's hard-to-reach spots, especially in automotive applications such as flexible bumpers, wheel wells, license plate brackets and bumper reinforcements. In addition to the tool's long-reach, it offers a one-stroke setting and a universal nosepiece that sets all plastic rivets.



DISPLAYS



Complete Display Center: Part No. **P5835**



Complete Display Center: Part No. **P5856**

| Perma-Rivet Thrift Pack Display | | | | | |
|-----------------------------------|----------|------------|------------|------------------|------------------|
| Part No. | Head Dia | Grip Range | Rivet Dia. | Display Quantity | Package Quantity |
| Steel Rivet / Steel Mandrel | | | | | |
| P57438 | SB4-2 | 1/16 - 1/8 | 1/8 | 5 | 25 |
| P57422 | SB4-4 | 3/16 - 1/4 | 1/8 | 5 | 20 |
| P57446 | SB4-6 | 5/16 - 3/8 | 1/8 | 5 | 15 |
| Aluminum Rivet / Aluminum Mandrel | | | | | |
| P57473 | AB4-2A | 1/16 - 1/8 | 1/8 | 5 | 25 |
| P57477 | AB4-4A | 3/16 - 1/4 | 1/8 | 5 | 20 |
| P57480 | AB4-6A | 5/16 - 3/8 | 1/8 | 5 | 15 |
| P57487 | AB6-2A | Up to 1/8 | 3/16 | 5 | 15 |
| P57488 | AB6-4A | 1/8 - 1/4 | 3/16 | 5 | 15 |
| P57490 | AB6-6A | 1/4 - 3/8 | 3/16 | 5 | 15 |
| Back Up Plates | | | | | |
| P57660 | SS-8 | 1/8 Hole | Steel | 3 | 40 |
| P57661 | AS-8 | 1/8 Hole | Aluminum | 3 | 30 |
| P57662 | AS-10 | 3/16 Hole | Aluminum | 3 | 30 |
| Tools | | | | | |
| P39000 | GR12 | | | 4 | |

| Perma-Rivet Shop Pack Display | | | | | |
|-----------------------------------|----------|------------|------------|------------------|------------------|
| Part No. | Head Dia | Grip Range | Rivet Dia. | Display Quantity | Package Quantity |
| Steel Rivet / Steel Mandrel | | | | | |
| P59438 | SB4-2 | 1/16 - 1/8 | 1/8 | 3 | 100 |
| P59439 | SC4-2 | 1/16 - 1/8 | 1/8 | 2 | 100 |
| P59442 | SB4-4 | 3/16 - 1/4 | 1/8 | 6 | 100 |
| P59443 | SC4-4 | 3/16 - 1/4 | 1/8 | 3 | 100 |
| P59446 | SB4-6 | 5/16 - 3/8 | 1/8 | 4 | 100 |
| P59447 | SB4-8 | 3/8 - 1/2 | 1/8 | 3 | 100 |
| Aluminum Rivet / Aluminum Mandrel | | | | | |
| P59473 | AB4-2A | 1/16 - 1/8 | 1/8 | 2 | 100 |
| P59477 | AB4-4A | 3/16 - 1/4 | 1/8 | 4 | 100 |
| P59480 | AB4-6A | 5/16 - 3/8 | 1/8 | 2 | 100 |
| P59488 | AB6-4A | 1/8 - 1/4 | 3/16 | 3 | 100 |
| P59490 | AB6-6A | 1/4 - 3/8 | 3/16 | 2 | 100 |
| P57490 | AB6-6A | 1/4 - 3/8 | 3/16 | 5 | 100 |
| Tools | | | | | |
| P39000 | GR12 | | | 2 | |

DISPLAYS



Complete Display Center: Part No. [P5870](#)

| Perma-Rivet Plastic Rivet Display | | | | | |
|-----------------------------------|----------------------|-------------|------------|------------------|------------------|
| Part No. | Head Dia | Grip Range | Rivet Dia. | Display Quantity | Package Quantity |
| Steel Rivet / Steel Mandrel | | | | | |
| P57712 | N/A | .059 - .177 | 5.0mm | 2 | 25 |
| P57714 | N/A | .118 - .177 | 5.0mm | 2 | 25 |
| P57715 | N/A | .188 - .236 | 5.0mm | 2 | 25 |
| P57720 | N/A | .236 - .394 | 5.0mm | 2 | 25 |
| P57721 | N/A | .157 - .335 | 6.0mm | 2 | 25 |
| P57732 | N/A | .157 - .236 | 6.3mm | 2 | 25 |
| P57735 | N/A | .157 - .236 | 6.3mm | 2 | 25 |
| P57736 | N/A | .157 - .394 | 6.3mm | 2 | 25 |
| P57737 | N/A | .157 - .394 | 6.3mm | 2 | 25 |
| P57741 | N/A | .315 - .472 | 6.3mm | 2 | 25 |
| P57747 | N/A | .098 - .197 | 6.6mm | 2 | 25 |
| P57748 | N/A | .098 - .197 | 6.6mm | 2 | 25 |
| P57752 | N/A | .098 - .236 | 7.0mm | 2 | 25 |
| Tools | | | | | |
| P48005 | Plastic Rivet Setter | | | 4 | |



ULTIMATE STRENGTH IN THREAD REPAIR

PERMA-KEE™

Perma-Kee inserts are solid, one piece, kee-locking inserts used to repair stripped or damaged threads in all types of metals and applications. When installed, locking-kees are driven into the surrounding parent material, locking the insert into place and keeping it from rotating due to vibration or torsion. No special taps are needed.

Perma-Kee inserts are available in carbon or stainless steel, both inch and metric series, and a variety of wall thickness – thinwall, heavy duty, extra heavy duty and solid styles.

Perma-Kee inserts are sold in bulk quantities. Installation tools sold separately.



THINWALL - INCH

| Inserts | | | | | Installation | | | | | | Removal | |
|--------------------------|------------------------|--------------------------|---------------------------------|------------|--------------|----------------------|----------------|--------------------------------------|---------------|------------|---------|-------|
| TK Part No. ¹ | Aronic Carbon Part No. | Internal Thread Class 2B | External Thread (Mod.) Class 2A | Length in. | TK Tool | Tool Aronic Part No. | Tap Drill Size | Countersink Diameter (+.010 / -.000) | Thread Tap | | Drill | |
| | | | | | | | | | Size Class 2B | Min. Depth | Size | Depth |
| PKTC-3 | 73601 | 10-24 | 5/16-18 | 0.31 | PKT-3T | 72190 | I | 0.32 | 5/16-18 | 0.37 | 7/32 | 1/8 |
| PKTF-3 | 74601 | 10-32 | | | | | | | | | | |
| PKTC-4 | 73041 | 1/4-20 | 3/8-16 | 0.37 | PKT-4T | 72250 | Q | 0.38 | 3/8-16 | 0.43 | 9/32 | 3/16 |
| PKTF-4 | 74041 | 1/4-28 | | | | | | | | | | |
| PKTC-5 | 73051 | 5/16-18 | 7/16-14 | 0.43 | PKT-5T | 72312 | X | 0.44 | 7/16-14 | 0.50 | 11/32 | 3/16 |
| PKTF-5 | 74051 | 5/16-24 | | | | | | | | | | |
| PKTC-6 | 73061 | 3/8-16 | 1/2-13 | 0.50 | PKT-6T | 72375 | 29/64 | 0.51 | 1/2-13 | 0.56 | 13/32 | 3/16 |
| PKTF-6 | 74061 | 3/8-24 | | | | | | | | | | |
| PKTC-7 | 73071 | 7/16-14 | 9/16-12 | 0.56 | PKT-7T | 72375 | 33/64 | 0.57 | 9/16-12 | 0.62 | 15/32 | 3/16 |
| PKTF-7 | 74071 | 7/16-20 | | | | | | | | | | |
| PKTC-8 | 73081 | 1/2-13 | 5/8-11 | 0.62 | PKT-8T | 72500 | 37/64 | 0.63 | 5/8-11 | 0.68 | 17/32 | 3/16 |
| PKTF-8 | 74081 | 1/2-20 | | | | | | | | | | |

THINWALL - METRIC

| Inserts | | | | | Installation | | | | | | Removal | |
|--------------------------|------------------------|--------------------------|--------------------------|------------|--------------|----------------------|----------------|------------------------------------|---------------|------------|---------|-------|
| TK Part No. ¹ | Aronic Carbon Part No. | Internal Thread Class 6H | External Thread Class 6g | Length in. | TK Tool | Tool Aronic Part No. | Tap Drill Size | Countersink Diameter (+.25 / -.00) | Thread Tap | | Drill | |
| | | | | | | | | | Size Class 6H | Min. Depth | Size | Depth |
| PKTM-5X.8 | 75051 | M5-8 | M8-1.25 | 8.0 | PKTM-5T | 72190 | 6.9 | 8.25 | M8-1.25 | 9.5 | 5.50 | 4.00 |
| PKTM-6X1 | 75061 | M6-1 | M10-1.25 | 10.0 | PKTM-6T | 72250 | 8.8 | 10.25 | M10-1.25 | 11.5 | 7.50 | 4.75 |
| PKTM-8X1 | 77081 | M8-1 | M12-1.25 | 12.0 | PKTM-8T | 72312 | 10.8 | 12.25 | M12-1.25 | 13.5 | 9.50 | 4.75 |
| PKTM-8X1.25 | 75081 | M8-1.25 | | | | | | | | | | |
| PKTM-10X1.25 | 77101 | M10-1.5 | M14-1.5 | 14.0 | PKTM-10T | 72375 | 12.8 | 14.25 | M14-1.5 | 15.5 | 11.50 | 4.75 |
| PKTM-10X1.5 | 75101 | M10-1.25 | | | | | | | | | | |
| PKTM-12X1.25 | 78121 | M12-1.25 | M16-1.5 | 16.0 | PKTM-12T | 72500 | 14.75 | 16.25 | M16-1.5 | 17.5 | 13.50 | 4.75 |
| PKTM-12X1.75 | 75121 | M12-1.75 | | | | | | | | | | |

1. Available in stainless steel (Add a S to the end of the part number. Example: PKTC-3S)

HEAVY DUTY - INCH

| Inserts | | | | | Installation | | | | | | Removal | |
|--------------------------|------------------------|--------------------------|---------------------------------|------------|--------------|----------------------|----------------|--------------------------------------|---------------|------------|---------|-------|
| TK Part No. ¹ | Aronic Carbon Part No. | Internal Thread Class 2B | External Thread (Mod.) Class 2A | Length in. | TK Tool | Tool Aronic Part No. | Tap Drill Size | Countersink Diameter (+.010 / -.000) | Thread Tap | | Drill | |
| | | | | | | | | | Size Class 2B | Min. Depth | Size | Depth |
| PKHC-2 | 73582 | 8-32 | 5/16-18 | 0.31 | PKH-2T | 70582 | I | 0.32 | 5/16-18 | 0.37 | 7/32 | 1/8 |
| PKHC-3 | 73607 | 10-24 | 3/8-16 | 0.31 | PKH-3T | 72190 | Q | 0.38 | 3/8-16 | 0.37 | 9/32 | 1/8 |
| PKHF-3 | 74607 | 10-32 | | | | | | | | | | |
| PKHC-4 | 73047 | 1/4-20 | 7/16-14 | 0.37 | PKH-4T | 72250 | X | 0.44 | 7/16-14 | 0.43 | 11/32 | 3/16 |
| PKHF-4 | 74047 | 1/4-28 | | | | | | | | | | |
| PKHC-5 | 73057 | 5/16-18 | 1/2-13 | 0.43 | PKH-5T | 72312 | 29/64 | 0.51 | 1/2-13 | 0.50 | 13/32 | 3/16 |
| PKHF-5 | 74057 | 5/16-24 | | | | | | | | | | |
| PKHC-6 | 73067 | 3/8-16 | 9/16-12 | 0.50 | PKH-6T | 72375 | 33/64 | 0.57 | 9/16-12 | 0.56 | 15/32 | 3/16 |
| PKHF-6 | 74067 | 3/8-24 | | | | | | | | | | |
| PKHC-7 | 73077 | 7/16-14 | 5/8-11 | 0.62 | PKH-7T | 72375 | 37/64 | 0.63 | 5/8-11 | 0.68 | 17/32 | 3/16 |
| PKHF-7 | 74077 | 7/16-20 | | | | | | | | | | |
| PKHC-8 | 73082 | 1/2-13 | 3/4-16 | 0.62 | PKH-8T | 72500 | 45/64 | 0.76 | 3/4-16 | 0.68 | 21/32 | 3/16 |
| PKHF-8 | 74082 | 1/2-20 | | | | | | | | | | |
| PKHC-9 | 73092 | 9/16-12 | 3/4-16 | 0.81 | PKH-9T | 72500 | 45/64 | 0.76 | 3/4-16 | 0.94 | 21/32 | 3/16 |
| PKHF-9 | 74092 | 9/16-18 | | | | | | | | | | |
| PKHC-10 | 73102 | 5/8-11 | 7/8-14 | 0.87 | PKH-10T | 72625 | 53/64 | 0.88 | 7/8-14 | 1.00 | 25/32 | 5/16 |
| PKHF-10 | 74102 | 5/8-18 | | | | | | | | | | |
| PKHC-12 | 73122 | 3/4-10 | 1 1/8-12 | 1.12 | PKH-12T | 72875 | 1 1/16 | 1.14 | 1 1/8-12 | 1.31 | 31/32 | 5/16 |
| PKHF-12 | 74122 | 3/4-16 | | | | | | | | | | |
| PKHC-14 | 73142 | 7/8-9 | 1 1/4-12 | 1.25 | PKH-14T | 72875 | 1 3/16 | 1.27 | 1 1/4-12 | 1.44 | 1 3/32 | 5/16 |
| PKHF-14 | 74142 | 7/8-14 | | | | | | | | | | |
| PKHC-16 | 73162 | 1-8 | 1 3/8-12 | 1.37 | PKH-16T | 72100 | 1 5/16 | 1.39 | 1 3/8-12 | 1.56 | 1 7/32 | 5/16 |
| PKHF-16 | 74162 | 1-12 | | | | | | | | | | |
| PKHF-164 | 74162-14 | 1-14 | | | | | | | | | | |

1. Available in stainless steel (Add a S to the end of the part number. Example: PKHC-2S)

HEAVY DUTY - METRIC

| Inserts | | | | | Installation | | | | | | Removal | |
|--------------------------|------------------------|--------------------------|--------------------------|------------|--------------|----------------------|----------------|------------------------------------|---------------|------------|---------|-------|
| TK Part No. ¹ | Aronic Carbon Part No. | Internal Thread Class 6H | External Thread Class 6g | Length in. | TK Tool | Tool Aronic Part No. | Tap Drill Size | Countersink Diameter (+.25 / -.00) | Thread Tap | | Drill | |
| | | | | | | | | | Size Class 2B | Min. Depth | Size | Depth |
| PKHM-4X.7 | 75042 | M4-.7 | M8-1.25 | 8.0 | PKHM-4T | 71042 | 6.90 | 8.25 | M8-1.25 | 9.5 | 5.50 | 4.00 |
| PKHM-5X.8 | 75052 | M5-.8 | M10-1.25 | 10.0 | PKHM-5T | 72190 | 8.80 | 10.25 | M10-1.25 | 12.5 | 7.50 | 4.75 |
| PKHM-6X1 | 75062 | M6-1 | M12-1.25 | 12.0 | PKHM-6T | 72250 | 10.80 | 12.25 | M12-1.25 | 14.5 | 9.50 | 4.75 |
| PKHM-8X1 | 77082 | M8-1 | M14-1.5 | 14.0 | PKHM-8T | 72312 | 12.80 | 14.25 | M14-1.5 | 16.5 | 11.50 | 4.75 |
| PKHM-8X1.25 | 75082 | M8-1.25 | | | | | | | | | | |
| PKHM-10X1.25 | 77102 | M10-1.25 | M16-1.5 | 16.0 | PKHM-10T | 72375 | 14.75 | 16.25 | M16-1.5 | 18.5 | 13.50 | 4.75 |
| PKHM-10X1.5 | 75102 | M10-1.5 | | | | | | | | | | |
| PKHM-12X1.25 | 78122 | M12-1.25 | M18-1.5 | 18.0 | PKHM-12T | 72500 | 16.75 | 18.25 | M18-1.5 | 20.5 | 15.50 | 4.75 |
| PKHM-12X1.5 | 75122 | M12-1.5 | | | | | | | | | | |
| PKHM-14X1.5 | 77142 | M14-1.5 | M20-1.5 | 20.0 | PKHM-14T | 71142 | 18.75 | 20.25 | M20-1.5 | 22.5 | 17.50 | 4.75 |
| PKHM-14X2 | 75142 | M14-2 | | | | | | | | | | |
| PKHM-16X1.5 | 77162 | M16-1.5 | M22-1.5 | 22.0 | PKHM-16T | 72625 | 20.50 | 22.25 | M22-1.5 | 24.5 | 17.75 | 6.35 |
| PKHM-16X2 | 75162 | M16-2 | | | | | | | | | | |
| PKHM-18X1.5 | 78182 | M18-1.5 | M24-1.5 | 24.0 | PKHM-18T | 71182 | 22.50 | 24.25 | M24-1.5 | 26.5 | 19.75 | 6.35 |
| PKHM-20X1.5 | 78202 | M20-1.5 | M30-2 | 30.0 | PKHM-20T | 72875 | 28.00 | 30.25 | M30-2 | 34.5 | 25.75 | 6.35 |
| PKHM-20X2.5 | 75202 | M20-2.5 | | | | | | | | | | |
| PKHM-22X1.5 | 78222 | M22-1.5 | M32-2 | 32.0 | PKHM-22T | 71222 | 30.00 | 32.25 | M32-2 | 36.5 | 27.75 | 6.35 |
| PKHM-24X2 | 75242 | M24-2 | M33-2 | 33.0 | PKHM-24T | 71242 | 31.00 | 33.25 | M33-2 | 37.5 | 28.75 | 6.35 |
| PKHM-24X3 | 77242 | M24-3 | | | | | | | | | | |

1. Available in stainless steel (Add a S to the end of the part number. Example: PKHM-4X.7S)



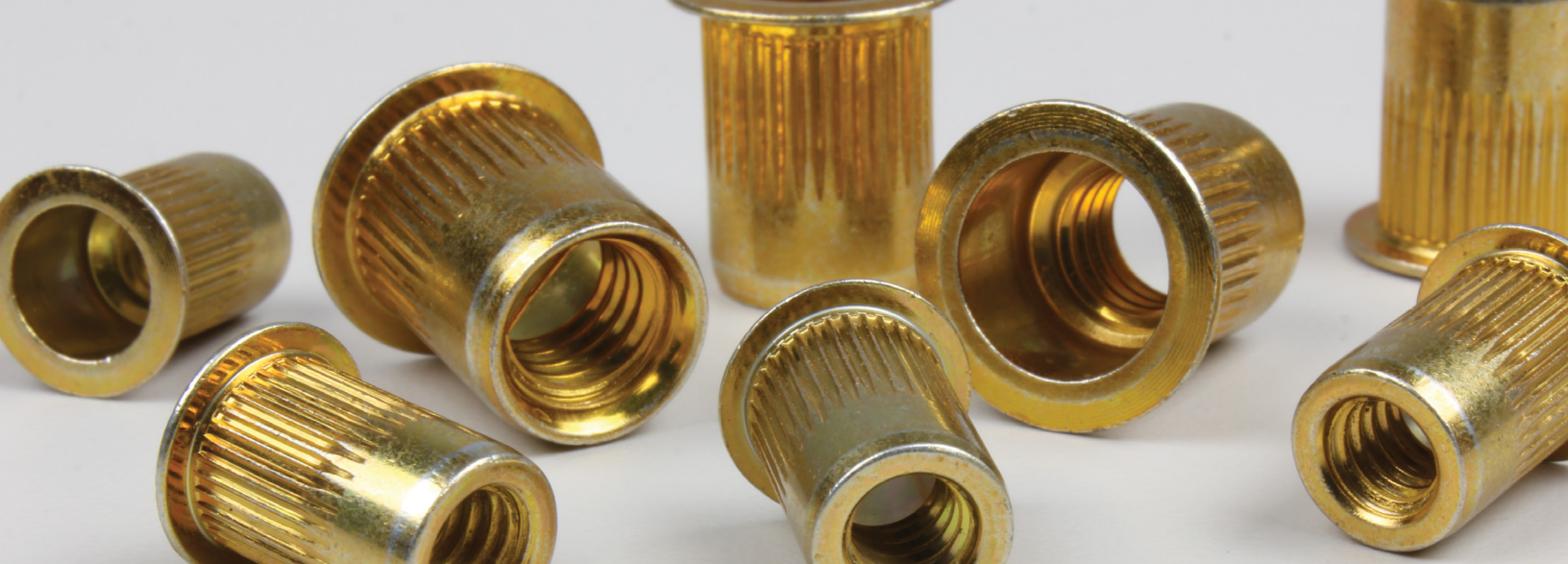
LEAK-PROOF AND SECURE

PERMA S-NUT™

The Perma S-Nut is a flanged rubber bushing with a brass nut molded into one end and used anywhere a leak-proof seal is required. By tightening a conventional machine screw into the threaded brass nut, the Perma S-Nut expands against the inner side of the parent material, making a secure fastening.

Perma S-Nuts do not require special tooling.

| Perma Seal-Nut | | | | |
|----------------|-------------|----------------|------------|------------------|
| Part Number | Thread Size | Work Thickness | Drill Size | Package Quantity |
| P57205 | 6-32 | .015 - .156 | 5/16 | 25 |
| P57207 | 8-32 | .015 - .156 | 5/16 | 25 |
| P57219 | 10-32 | .015 - .192 | 3/8 | 25 |
| P57243 | 1/4-20 | .031 - .187 | 1/2 | 20 |
| P57255 | 5/16-18 | Up To .187 | 5/8 | 12 |
| P57259 | 3/8-16 | .015 - .438 | 3/4 | 6 |
| P57220 | M5 x 0.8 | .015 - .192 | 3/8 | 25 |
| P57244 | M6 x 1.0 | .031 - .187 | 1/2 | 20 |
| P57256 | M8 x 1.25 | Up To .187 | 5/8 | 12 |



VIBRATION PROOF AND SECURE

PERMA RIVET-NUT™

Perma-Rivet Nuts are designed to provide placement of permanent threads in thin materials, to thin for tapped threads. Installed from one side, Perma-Rivet Nuts are perfect for sheet metal, fiberglass and rigid plastic. Perma-Rivet Nuts are made of steel (with a yellow zinc dichromate finish for corrosion-resistant threads) and are ribbed to keep them from loosening under vibration and will not rotate when attached to the mating material.

Perma-Rivet Nuts are available in a variety of sizes: 6-32 thru 3/8, M5 thru M10.

| Perma Rivet-Nut | | | |
|-----------------|-------------|----------------|------------------|
| Part Number | Thread Size | Work Thickness | Package Quantity |
| P57821 | 6-32 | .020 - .080 | 50 |
| P57822 | 8-32 | .020 - .080 | 50 |
| P57823 | 10-24 | .020 - .130 | 50 |
| P57824 | 10-32 | .020 - .130 | 50 |
| P57825 | 1/4-20 | .027 - .165 | 40 |
| P57827 | 5/16-18 | .027 - .150 | 25 |
| P57829 | 3/8-16 | .027 - .150 | 20 |
| P57832 | M5X0.8 | .5mm - 3.3mm | 50 |
| P57833 | M6X1 | .7mm - 4.2mm | 40 |
| P57834 | M8X1.25 | .7mm - 3.8mm | 25 |
| P57835 | M10X1.5 | .7mm - 3.8mm | 20 |
| P57836 | 6-32 | .080 - .130 | 50 |
| P57837 | 8-32 | .080 - .130 | 50 |
| P57838 | 10-24 | .130 - .225 | 50 |
| P57839 | 10-32 | .130 - .225 | 50 |
| P57840 | 1/4-20 | .165 - .260 | 40 |
| P57842 | 5/16-18 | .150 - .312 | 25 |
| P57844 | 3/8-16 | .150 - .312 | 20 |



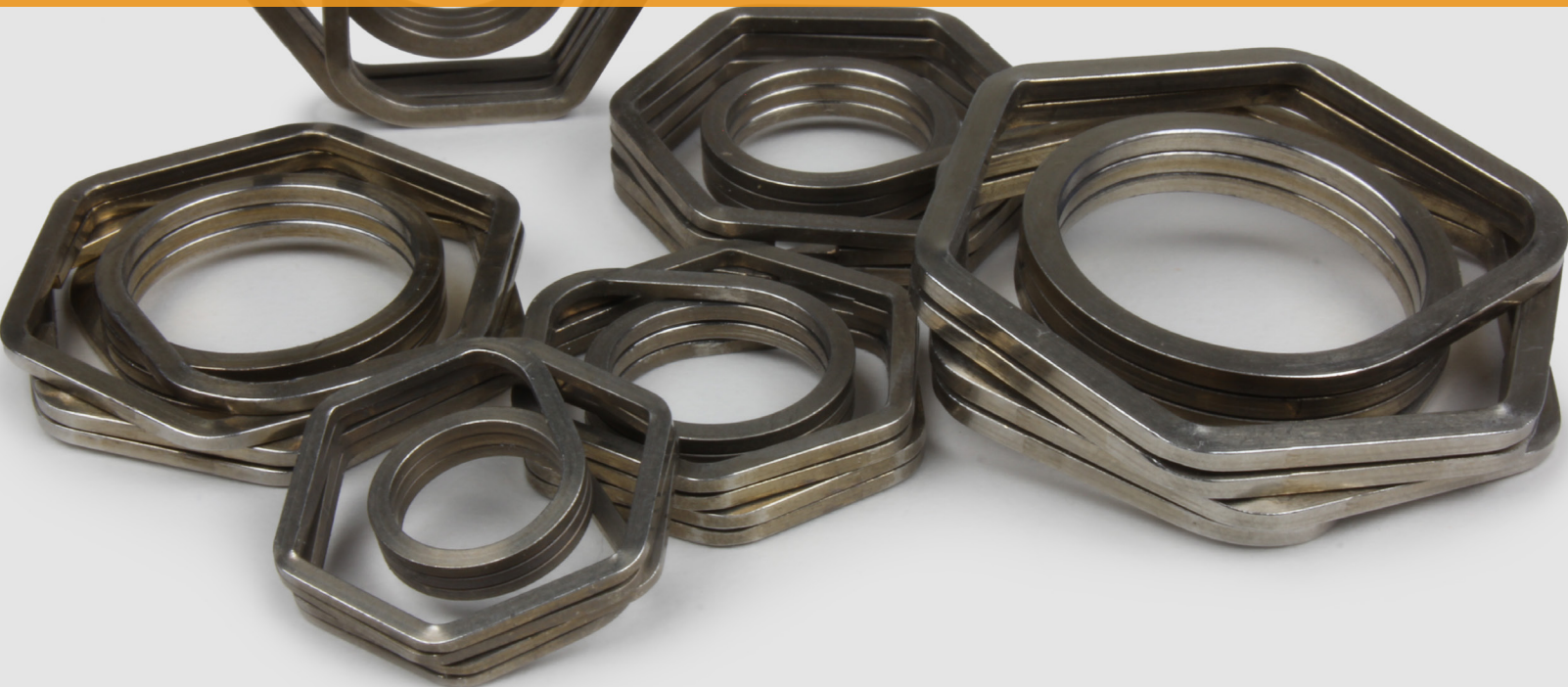
P39300



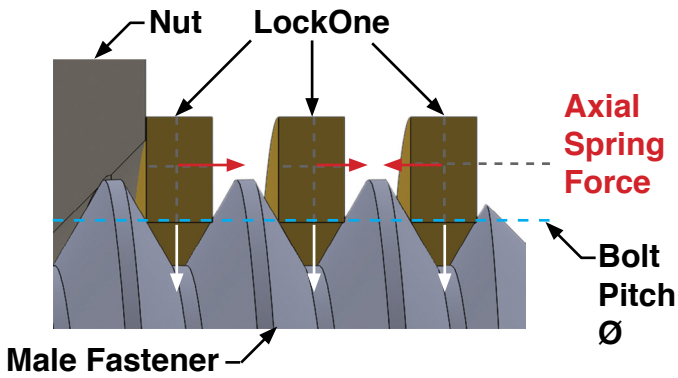
A SUPERIOR LOCKING FORCE

KATO LOCKONE®

LockOne is a revolutionary positive locking fastener designed to prevent a standard nut from loosening free under vibration. Upon installation, LockOne coils stretch, providing a superior locking force. Unlike nuts with nylon or locking compounds, LockOne does not degrade with each use. Due to the unique LockOne design, the assembly is FOD free. Save on assembly cost! No expensive replacement nuts! LockOne's lightweight design is perfect for use on weight sensitive applications. KATO LockOne replaces nylon nuts, double nuts (jam nuts), cotter pins, safety-wire, and thread locking compounds.



SUPERIOR FORCE



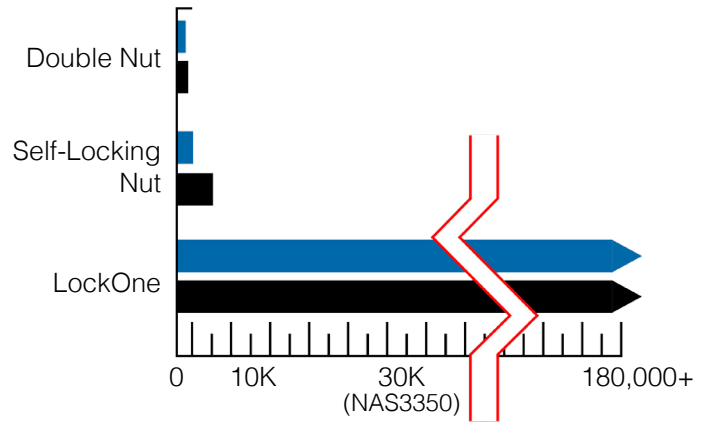
Once positioned in front of nut, LockOne engages the bolt along pitch diameter inducing spring forces axially and radially. These forces hold LockOne in place, preventing bolts and nuts from loosening free under vibration.

PART NUMBERS

| Unified Sizes | | Metric Sizes | |
|---------------|----------|--------------|----------|
| Thread Size | Part No. | Thread Size | Part No. |
| 1/4-20 | KLOC-4 | M4X.7 | KLOM-4 |
| 5/16-18 | KLOC-5 | M5X.8 | KLOM-5 |
| 3/8-16 | KLOC-6 | M6X1 | KLOM-6 |
| 7/16-14 | KLOC-7 | M8X1.25 | KLOM-8 |
| 1/2-13 | KLOC-8 | M10X1.5 | KLOM-10 |
| 5/8-11 | KLOC-10 | M12X1.75 | KLOM-12 |
| 3/4-10 | KLOC-12 | M16X2 | KLOM-16 |
| 7/8-9 | KLOC-14 | M20X2.5 | KLOM-20 |
| 1-8 | KLOC-16 | M22X2.5 | KLOM-22 |
| | | M24X3 | KLOM-24 |

VIBRATION TESTED IN ACCORDANCE WITH NAS3350. LOCKONE CAN BE EASILY SUBSTITUTED INTO EXISTING DESIGNS.

PERFORMANCES



Vibration Cycle

LockOne surpasses the testing requirements of NAS3350 (National Aerospace Specification for impact type vibration test)

INSTALLATION IS EASY



Simply load LockOne into the 12-Point socket.



Load the standard nut on the top of LockOne.



Tighten to application requirements.



If there is a gap between LockOne and the nut, simply hand tighten LockOne until it is flush with the nut.



FOR AUTOMOTIVE PROFESSIONALS

TIME-SERTS®

Time-Sert a thread repair system that uses a thin-walled solid bushing insert made out of carbon or stainless steel. The unique style of this insert allows for easy installation, using a flanged top for positive placement in the tapped hole and is self-locking. On installation, the bottom internal threads of the insert are cold rolled to expand the mating external thread into the parent material, locking the insert in place.

Time-Sert inserts come in a variety of lengths and sizes along with having special application kits, head bolt kits, spark plug kits and manufacturer kits.



TIME-SERT DATA



EACH KIT CONSISTS OF:

- Drill
- Counterbore
- Cutting tap
- Insert driver
- Five (5) steel inserts

TAPER PIPE

| Inserts | | Drill | | C. Bore | | Tap |
|---------|--------|-------|-----------|------------|------------|-----|
| Size | Drill | Size | Min. Dia. | Min. Depth | Major Dia. | |
| 1/8-27 | 13/32 | 0.406 | 0.466 | 0.055 | 0.449 | |
| 1/4-18 | 37/64 | 0.578 | 0.668 | 0.075 | 0.638 | |
| 3/8-18 | 23/32 | 0.718 | 0.837 | 0.075 | 0.794 | |
| 1/2-14 | 55/64 | 0.859 | 1.000 | 90 csk | 0.942 | |
| 3/4-14 | 1 3/32 | 1.093 | 1.300 | 90 csk | 1.194 | |

| Inch | | | | | | |
|---------|-------|-------|-----------|------------|------------|-----|
| Inserts | | Drill | | C. Bore | | Tap |
| Size | Drill | Size | Min. Dia. | Min. Depth | Major Dia. | |
| 4-40 | #31 | .120 | .170 | .055 | .147 | |
| 6-32 | #26 | .147 | .218 | .070 | .182 | |
| 8-32 | #17 | .173 | .241 | .065 | .208 | |
| 10-24 | 13/64 | .203 | .288 | .075 | .247 | |
| 10-32 | 13/64 | .203 | .274 | .075 | .234 | |
| 12-24 | #1 | .228 | .307 | .075 | .265 | |
| 1/4-20 | 17/64 | .265 | .352 | .075 | .319 | |
| 1/4-28 | G | .261 | .340 | .075 | .300 | |
| 5/16-18 | 21/64 | .328 | .430 | .085 | .388 | |
| 5/16-24 | P | .323 | .410 | .080 | .368 | |
| 3/8-16 | X | .397 | .495 | .085 | .460 | |
| 3/8-24 | W | .386 | .473 | .080 | .432 | |
| 7/16-14 | 29/64 | .453 | .571 | .110 | .534 | |
| 7/16-20 | 29/64 | .453 | .547 | .085 | .506 | |
| 1/2-13 | 33/64 | .515 | .648 | .110 | .604 | |
| 1/2-20 | 33/64 | .515 | .610 | .085 | .569 | |
| 9/16-12 | 19/32 | .593 | .711 | .130 | .675 | |
| 9/16-18 | 37/64 | .578 | .668 | .110 | .638 | |
| 5/8-11 | 21/32 | .656 | .787 | .135 | .748 | |
| 5/8-18 | 41/64 | .640 | .740 | .110 | .701 | |
| 3/4-10 | 25/32 | .781 | .935 | .135 | .885 | |
| 3/4-16 | 49/64 | .765 | .870 | .110 | .835 | |

| Metric | | | | | | |
|------------|-------|-------|-----------|------------|------------|-----|
| Inserts | | Drill | | C. Bore | | Tap |
| Size | Drill | Size | Min. Dia. | Min. Depth | Major Dia. | |
| M3 X 0.5 | 1/8 | .125 | .170 | .055 | .140 | |
| M4 X 0.7 | #19 | .166 | .226 | .065 | .194 | |
| M5 X 0.8 | #8 | .199 | .279 | .075 | .238 | |
| M6 X 1.0 | D | .246 | .319 | .075 | .290 | |
| M7 X 1.0 | L | .290 | .351 | .075 | .330 | |
| M8 X 1.0 | P | .323 | .409 | .080 | .369 | |
| M8 X 1.25 | P | .323 | .419 | .080 | .381 | |
| M9 X 1.25 | U | .368 | .440 | .080 | .422 | |
| M10 X 1.0 | 13/32 | .406 | .466 | .080 | .449 | |
| M10 X 1.25 | 13/32 | .406 | .500 | .085 | .463 | |
| M10 X 1.5 | 13/32 | .406 | .500 | .085 | .474 | |
| M11 X 1.25 | 29/64 | .453 | .542 | .085 | .503 | |
| M11 X 1.5 | 29/64 | .453 | .552 | .085 | .516 | |
| M12 X 1.25 | 31/64 | .484 | .560 | .085 | .540 | |
| M12 X 1.5 | 31/64 | .484 | .595 | .085 | .552 | |
| M12 X 1.75 | 1/2 | .500 | .605 | .110 | .567 | |
| M13 X 1.5 | 17/32 | .531 | .612 | .085 | .594 | |
| M14 X 2.0 | 37/64 | .578 | .685 | .110 | .660 | |
| M14 X 1.5 | 37/64 | .578 | .668 | .110 | .634 | |
| M16 X 1.5 | 21/32 | .656 | .743 | .110 | .713 | |
| M16 X 2.0 | 21/32 | .656 | .787 | .115 | .741 | |
| M18 X 1.5 | 23/32 | .718 | .837 | .125 | .794 | |
| M20 X 1.5 | 51/64 | .797 | .925 | .120 | .890 | |
| M22 X 1.5 | 7/8 | .875 | .950 | .100 | .940 | |
| M24 X 1.5 | 24.5 | .963 | 1.030 | .750 | 1.010 | |

TIME-SERT INCH KITS

Bold text are insert lengths supplied in kits.

| Kits | | Insert Length | | Carbon Steel | Stainless Steel |
|------------------------|----------|---------------|-------------|--------------|-----------------|
| Sizes | Part No. | MM | Inches | Part No. | Part No. |
| 4-40 | TS0440 | .200 | 5.0 | TS04401 | TS04402 |
| 6-32 | TS0632 | .250 | 6.3 | TS06321 | TS06322 |
| 8-32 | TS0832 | .250 | 6.3 | TS08321 | TS08322 |
| | | .320 | 8.0 | TS08323 | TS08324 |
| 10-24 | TS0024 | .240 | 6.1 | TS00240 | TS00246 |
| | | .300 | 7.6 | TS00241 | TS00242 |
| 10-32 | TS0032 | .370 | 9.4 | TS00243 | TS00244 |
| | | .150 | 3.8 | TS00329 | TS00327 |
| | | .187 | 4.7 | TS00325 | TS00328 |
| | | .240 | 6.1 | TS00320 | TS00326 |
| | | .300 | 7.6 | TS00321 | TS00322 |
| 12-24 | TS0124 | .370 | 9.4 | TS00323 | TS00324 |
| | | .300 | 7.6 | TS01241 | TS01242 |
| | | .370 | 9.4 | TS01243 | TS01244 |
| 1/4-20 | TS0140 | .472 | 12.0 | TS01245 | TS01246 |
| | | .280 | 7.1 | TS01400 | TS01406 |
| | | .380 | 9.4 | TS01401 | TS01402 |
| 1/4-28 | TS0148 | .500 | 12.7 | TS01403 | TS01404 |
| | | .750 | 19.0 | TS01405 | TS01408 |
| | | 1.000 | 25.4 | TS01407 | TS01409 |
| | | .280 | 7.1 | TS01480 | TS01486 |
| 1/4-24 Harley Davidson | TS0144 | .380 | 9.4 | TS01481 | TS01482 |
| | | .500 | 12.7 | TS01483 | TS01484 |
| | | .280 | 7.1 | TS01441 | ----- |
| 1/4-32 | TS0142 | .500 | 12.7 | TS01443 | ----- |
| | | .180 | 4.5 | TS01445 | ----- |
| | | .250 | 6.3 | TS01421 | TS01422 |
| | | .380 | 9.4 | TS01423 | TS01424 |
| 5/16-18 | TS0561 | .500 | 12.7 | TS01425 | TS01426 |
| | | .350 | 8.9 | TS01427 | TS01428 |
| | | .450 | 11.4 | TS05610 | TS05617 |
| | | .620 | 15.7 | TS05611 | TS05612 |
| 5/16-24 | TS0562 | .750 | 19.0 | TS05613 | TS05614 |
| | | .350 | 8.9 | TS05615 | TS05616 |
| | | .450 | 11.4 | TS05620 | ----- |
| | | .620 | 15.7 | TS05621 | TS05622 |
| 3/8-16 | TS0381 | .750 | 19.0 | TS05623 | TS05624 |
| | | .312 | 7.9 | TS05625 | ----- |
| | | .400 | 10.0 | TS03818 | TS038182 |
| | | .520 | 13.2 | TS03819 | TS038192 |
| | | .620 | 15.7 | TS03811 | TS03812 |
| | | .750 | 19.0 | TS03813 | TS03814 |
| | | .900 | 22.8 | TS03815 | TS03816 |
| 3/8-24 | TS0382 | 1.000 | 25.4 | TS03817 | ----- |
| | | 1.200 | 30.4 | TS03810 | TS038102 |
| | | .300 | 7.6 | ----- | TS03820 |
| | | .350 | 8.9 | TS03825 | ----- |
| | | .520 | 13.2 | TS03821 | TS03822 |
| | | .750 | 19.0 | TS03823 | TS03824 |

| Kits | | Insert Length | | Carbon Steel | Stainless Steel |
|---------|----------|---------------|-------------|--------------|-----------------|
| Sizes | Part No. | MM | Inches | Part No. | Part No. |
| 7/16-14 | TS0761 | .400 | 10.0 | TS07610 | ----- |
| | | .600 | 15.2 | TS07611 | TS07612 |
| | | .870 | 22.0 | TS07613 | TS07614 |
| | | 1.000 | 25.4 | TS076135 | TS07619 |
| | | 1.250 | 31.7 | TS07615 | TS07618 |
| | | 1.500 | 38.0 | TS07617 | ----- |
| 7/16-20 | TS0762 | .250 | 6.3 | TS07629 | ----- |
| | | .370 | 9.4 | TS07620 | ----- |
| | | .480 | 12.2 | TS07627 | ----- |
| | | .600 | 15.2 | TS07621 | TS07622 |
| | | .870 | 22.0 | TS07623 | TS07624 |
| | | 1.000 | 25.4 | TS076231 | ----- |
| | | 1.370 | 34.7 | TS07625 | ----- |
| 7/16-24 | TS0764 | .500 | 12.7 | TS07641 | TS07642 |
| | | .600 | 15.2 | TS07643 | ----- |
| 1/2-13 | TS0121 | .800 | 20.3 | TS07645 | ----- |
| | | .400 | 10.0 | TS01217 | ----- |
| | | .650 | 16.5 | TS01211 | TS01212 |
| | | 1.00 | 25.4 | TS01213 | TS01214 |
| 1/2-20 | TS0122 | 1.250 | 31.7 | TS01219 | ----- |
| | | 1.500 | 38.0 | TS01215 | ----- |
| | | .400 | 10.0 | TS01225 | TS01226 |
| | | .500 | 12.7 | TS01220 | ----- |
| 9/16-12 | TS0961 | .650 | 16.5 | TS01221 | TS01222 |
| | | 1.000 | 25.4 | TS01223 | TS01224 |
| | | 1.370 | 34.7 | TS01227 | ----- |
| | | .500 | 12.7 | TS09610 | ----- |
| 9/16-18 | TS0968 | .750 | 19.0 | TS09611 | ----- |
| | | 1.120 | 28.4 | TS09615 | ----- |
| | | 1.500 | 38.0 | TS09617 | ----- |
| | | .350 | 8.9 | TS09687 | ----- |
| 5/8-11 | TS0581 | .450 | 11.4 | TS09685 | ----- |
| | | .750 | 19.0 | TS09681 | ----- |
| | | 1.120 | 28.4 | TS09683 | ----- |
| | | .500 | 12.7 | TS05810 | ----- |
| 5/8-18 | TS0588 | .850 | 21.6 | TS05811 | TS05812 |
| | | 1.250 | 31.7 | TS05813 | TS05814 |
| | | 1.500 | 38.0 | TS08815 | ----- |
| | | .320 | 8.1 | TS05881 | ----- |
| 3/4-10 | TS0341 | .450 | 11.4 | TS05887 | ----- |
| | | .850 | 21.6 | TS05883 | ----- |
| | | 1.250 | 31.7 | TS05885 | ----- |
| | | .750 | 19.0 | TS03415 | ----- |
| 3/4-16 | TS0346 | 1.100 | 28.0 | TS03411 | ----- |
| | | 1.500 | 38.0 | TS03413 | ----- |
| | | .650 | 16.5 | TS03460 | ----- |
| | | 1.100 | 28.0 | TS03461 | ----- |
| | | 1.500 | 38.0 | TS03463 | ----- |

TIME-SERT METRIC KITS

Bold text are insert lengths supplied in kits.

| Kits | | Insert Length | | Carbon Steel | Stainless Steel |
|--------------------|----------|---------------|-------------|--------------|-----------------|
| Sizes | Part No. | MM | Inches | Part No. | Part No. |
| M3x0.5 | TS1305 | 4.3 | .163 | TS13051 | TS13052 |
| | | 6.0 | .240 | TS13053 | TS13054 |
| M4X0.7 | TS1407 | 4.0 | .157 | TS14077 | ---- |
| | | 6.0 | .240 | TS14073 | TS14072 |
| M5X0.8 | TS1508 | 8.0 | .320 | TS14073 | TS14074 |
| | | 5.0 | .199 | TS15080 | TS150802 |
| | | 7.6 | .300 | TS15081 | TS15082 |
| | | 10.0 | .400 | TS15083 | TS15084 |
| M6X1.0 | TS1610 | 12.0 | .470 | TS15085 | ---- |
| | | 5.0 | .199 | TS16100 | TS161002 |
| | | 8.0 | .315 | TS16105 | TS16106 |
| | | 9.4 | .370 | TS16101 | TS16102 |
| | | 12.0 | .470 | TS16103 | TS16104 |
| | | 15.0 | .600 | TS161031 | ---- |
| M7X1.0 | TS1710 | 17.0 | .669 | TS16107 | ---- |
| | | 19.0 | .748 | TS16109 | ---- |
| | | 10.0 | .400 | TS17101 | ---- |
| | | 14.0 | .550 | TS17103 | ---- |
| M8X1.0 | TS1810 | 18.0 | .708 | TS17105 | ---- |
| | | 20.0 | .800 | TS17107 | ---- |
| | | 7.5 | .295 | TS18100 | ---- |
| M8X1.25 | TS1812 | 11.7 | .460 | TS18101 | ---- |
| | | 8.0 | .315 | ---- | TS18128 |
| | | 9.0 | .360 | TS181210 | ---- |
| | | 10.0 | .400 | TS18125 | ---- |
| | | 11.7 | .460 | TS18121 | TS18122 |
| | | 14.0 | .550 | TS18129 | TS18126 |
| | | 16.2 | .640 | TS18123 | TS18124 |
| | | 18.0 | .708 | TS18127 | TS181226 |
| | | 20.0 | .800 | TS181213 | TS181224 |
| 30.0 | 1.180 | TS181217 | ---- | | |
| M8X1.75 GM Rare | TS1817 | 16.2 | .640 | TS18173 | ---- |
| M9x1.25 | TS1912 | 9.0 | .354 | TS19120 | ---- |
| | | 13.0 | .510 | TS19121 | ---- |
| | | 18.0 | .710 | TS19123 | ---- |
| | | 22.0 | .866 | TS19127 | ---- |
| M10X1.0 | TS1010 | 6.2 | .244 | TS10100 | TS10106 |
| | | 8.0 | .315 | TS10105 | ---- |
| | | 9.0 | .360 | TS10101 | TS10102 |
| | | 15.0 | .600 | TS10103 | TS10104 |
| M10X1.25 | TS1012 | 9.0 | .354 | TS10127 | ---- |
| | | 14.0 | .550 | TS10121 | TS10122 |
| | | 16.2 | .650 | TS10123 | TS10124 |
| | | 20.0 | .800 | TS10125 | TS10126 |
| M10X1.5 | TS1015 | 25.0 | .984 | TS10129 | ---- |
| | | 9.4 | .370 | TS10157 | TS10150 |
| | | 11.0 | .433 | TS101511 | ---- |
| | | 14.0 | .550 | TS10151 | TS10152 |
| | | 17.0 | .669 | TS101517 | ---- |
| | | 20.0 | .800 | TS10153 | TS10154 |
| | | 22.0 | .866 | TS101522 | ---- |
| 24.5 | .960 | TS10155 | ---- | | |
| M11X1.25 | TS1112 | 30.0 | 1.180 | TS10159 | TS10158 |
| | | 40.0 | 1.575 | TS101591 | ---- |
| | | 22.0 | .870 | TS11123 | ---- |
| | | 28.0 | 1.100 | TS11121 | ---- |
| | | 30.0 | 1.180 | TS11127 | ---- |

| Kits | | Insert Length | | Carbon Steel | Stainless Steel |
|----------|----------|---------------|-------------|--------------|-----------------|
| Sizes | Part No. | MM | Inches | Part No. | Part No. |
| M11X1.5 | TS1115 | 16.0 | .630 | TS11151 | ---- |
| | | 22.0 | .870 | TS11153 | ---- |
| | | 30.0 | 1.180 | TS11155 | ---- |
| M12X1.25 | TS1212 | 9.0 | .360 | TS12121 | ---- |
| | | 11.0 | .430 | TS12129 | ---- |
| | | 15.0 | .600 | TS12123 | TS12124 |
| | | 24.0 | .950 | TS12125 | TS12126 |
| M12X1.5 | TS1215 | 6.7 | .263 | TS12157 | ---- |
| | | 9.2 | .360 | TS12151 | ---- |
| | | 13.5 | .531 | TS121501 | ---- |
| | | 16.2 | .640 | TS12153 | TS12152 |
| | | 20.0 | .800 | TS121505 | ---- |
| | | 24.0 | .950 | TS12155 | TS12154 |
| | | 30.0 | 1.180 | TS12159 | TS12160 |
| M12X1.75 | TS1217 | 10.0 | .400 | TS12177 | ---- |
| | | 12.0 | .472 | TS12170 | ---- |
| | | 16.2 | .640 | TS12171 | TS12172 |
| | | 20.0 | .800 | TS12175 | TS12176 |
| | | 24.0 | .950 | TS12173 | TS12174 |
| | | 30.0 | 1.180 | TS12179 | ---- |
| | | 14.0 | .551 | TS13151 | ---- |
| M13X1.5 | TS1315 | 19.0 | .748 | TS13153 | ---- |
| | | 24.0 | .950 | TS13155 | ---- |
| | | 28.0 | 1.102 | TS13157 | ---- |
| | | 6.6 | .260 | TS14151 | ---- |
| M14X1.5 | TS1415 | 9.4 | .370 | TS14153 | TS14154 |
| | | 12.7 | .500 | TS14155 | TS14156 |
| | | 16.0 | .630 | TS141552 | ---- |
| | | 17.8 | .700 | TS14157 | TS141550 |
| | | 24.0 | .950 | TS14158 | TS141551 |
| | | 26.0 | 1.023 | TS141553 | TS141554 |
| | | 28.0 | 1.100 | TS14159 | TS141556 |
| M14X2.0 | TS1420 | 12.0 | .472 | TS14201 | ---- |
| | | 18.0 | .710 | TS14203 | TS14204 |
| | | 24.0 | .950 | TS14205 | ---- |
| M16X1.5 | TS1615 | 30.0 | 1.180 | TS14207 | ---- |
| | | 7.0 | .270 | TS16151 | TS16150 |
| | | 12.7 | .500 | TS16153 | TS16152 |
| | | 16.0 | .630 | TS16159 | TS16156 |
| | | 20.0 | .800 | TS161575 | TS16158 |
| | | 24.0 | .950 | TS16155 | TS16154 |
| M16X2.0 | TS1620 | 32.0 | 1.250 | TS16157 | ---- |
| | | 16.0 | .630 | TS16200 | TS16202 |
| | | 24.0 | .950 | TS16201 | TS16204 |
| | | 32.0 | 1.250 | TS16203 | TS16206 |
| M18X1.5 | TS1815 | 38.0 | 1.496 | TS16205 | ---- |
| | | 10.0 | .400 | TS18151 | ---- |
| | | 15.0 | .600 | TS18157 | ---- |
| M20X1.5 | TS2015 | 18.3 | .720 | TS18153 | ---- |
| | | 27.0 | 1.060 | TS18155 | ---- |
| | | 9.0 | .354 | TS20150 | ---- |
| | | 12.0 | .472 | TS20151 | ---- |
| M22X1.5 | TS2215C | 17.0 | .669 | TS20153 | ---- |
| | | 30.0 | 1.180 | TS20155 | ---- |
| | | 10.0 | .400 | TS22151 | ---- |
| M24X1.5 | TS2415C | 15.0 | .590 | TS22153 | ---- |
| | | 20.0 | .800 | TS22155 | ---- |
| | | 7.6 | .300 | TS24150 | ---- |
| | | 10.0 | .400 | TS24151 | ---- |
| | | 15.0 | .590 | TS24153 | ---- |
| | | 20.0 | .800 | TS24155 | ---- |
| | | 30.0 | 1.200 | TS24157 | ---- |



SHOP KITS

THREAD MASTER KITS

Each Set Contains 5 Complete Tool Kits and 20 Inserts of Each Size **(Total 100 inserts)**

| Inch | | Metric | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Coarse | Fine | Coarse | Fine |
| 1/4-20 | 1/4-28 | M5 X 0.8 | M5 X 0.8 |
| 5/16-18 | 5/16-24 | M6 X 1.0 | M6 X 1.0 |
| 3/8-16 | 3/8-24 | M8 X 1.25 | M8 X 1.25 |
| 7/16-14 | 7/16-20 | M10 X 1.5 | M10 X 1.25 |
| 1/2-13 | 1/2-20 | M12 X 1.75 | M12 X 1.5 |
| Carbon Steel No. TS 0010 | Carbon Steel No. TS0020 | Carbon Steel No. TS1000 | Carbon Steel No. TS1001 |
| Stainless Steel Part No. TS0011 | Stainless Steel Part No. TS0021 | Stainless Steel Part No. TS1002 | Stainless Steel Part No. TS1003 |

MINI MASTER KITS

Each Set Contains 3 Complete Tool Kits and 20 Inserts of Each Size **(Total 60 inserts)**

| Inch | | Metric | |
|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|
| Coarse | Fine | Coarse | Fine |
| 1/4-20 | 1/4-28 | M6 X 1.0 | M6 X 1.0 |
| 5/16-18 | 5/16-24 | M8 X 1.25 | M8 X 1.25 |
| 3/8-16 | 3/8-24 | M10 X 1.5 | M10 X 1.25 |
| Carbon Steel No. TS1203 | Carbon Steel No. TS1204 | Carbon Steel No. TS1201 | Carbon Steel No. TS1202 |
| Stainless Steel Part No. TS1205 | Stainless Steel Part No. TS1206 | Stainless Steel Part No. TS1207 | Stainless Steel Part No. TS1208 |



DRAIN PAN REPAIR

DRAIN PAN KITS

All kits include all the tools plus 5 inserts and tap guide.

| Drain Pan | Kit Part No. | Insert Part No. | Insert Length | Contains |
|---|--------------|-----------------|---------------|--|
| 1/2-13 | TS0121C | TS01217 | .400 | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| 1/2-20 (Aluminum) | TS0122A | TS01225 | .400 | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| 1/2-20 reduces to 7/16-20 (Ford) ¹ | TS0765 | TS07629 | --- | Cbore, Driver, 5 inserts, 5 drain plugs with washers |
| 3/4-16 | TS0346C | TS03460 | .650 | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| 3/4-10 | TS0341C | TS03415 | .750 | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M10X1.5 | TS1015A | TS10157 | 9.4mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M12X1.25 | TS1212C | TS12121 | 9mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M12X1.5 | TS1215C | TS12151 | 9.2mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M12X1.75 | TS1217C | TS12170 | 9.2mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M14X1.5 (VW, Chrysler..) | TS1415A | TS14155 | 12.7mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M14X1.5 (Aluminum) | TS1415C | TS14153 | 9.4mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M14X1.5 reduces to M12X1.5 (Honda & Acura) ¹ | TS1485 | TS12151 | --- | --- |
| M14X1.25 | TS14125A | TS44127 | 11mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M16X1.5 | TS1615C | TS16153 | 12.7mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M18X1.5 | TS1815C | TS18151 | 10mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M20X1.5 | TS2015A | TS20151 | 12mm | Drill, Cbore, Tap, Driver, Tap guide, 5 inserts |
| M22X1.5 | TS2215C | TS22151 | 10mm | Step Reamer, Tap, Driver, Tap guide, 5 inserts |
| M24X1.5 | TS2415C | TS24150 | 7.6mm | Step Reamer, Tap, Driver, Tap guide, 5 inserts |

1. Tin Pan ONLY

SPARK PLUG KITS

Part No. **TS4412**



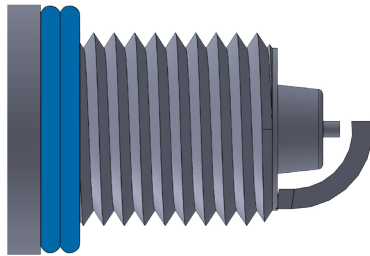
Part No. **TS4412E**



TS4412 & TS4412E Kits “DO NOT” include inserts.

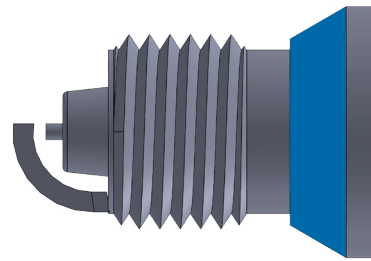
SPARK PLUG INSERTS

WASHER SEAT



Spark plugs seal with a washer on plug.

TAPER SEAT



Must be used when installing taper seat inserts.

| Washer Seat | | |
|-------------|------|--------|
| Part No. | MM | Inches |
| TS44121 | 7.0 | .270 |
| TS44123 | 8.0 | .320 |
| TS44125 | 9.4 | .370 |
| TS44127 | 11.0 | .430 |
| TS44113 | 13.5 | .530 |
| TS44129 | 15.0 | .600 |
| TS44111 | 16.8 | .660 |
| TS44112 | 23.0 | .905 |

| Taper Seat | | |
|--|------|--------|
| Part No. | MM | Inches |
| TS44181 | 7.0 | .270 |
| TS44183 | 10.0 | .400 |
| TS44184 | 13.5 | .530 |
| TS44185 | 15.7 | .620 |
| TS44186 | 16.8 | .660 |
| TS44187 | 24.0 | .950 |
| Sealer required for all Taper seat inserts. P/N 6020 | | |

Spark plug kits do not contain inserts, order separately.

SPARK PLUG KITS

| Kit Size | Kit Part No. | Length | | Washer Seat Part No. |
|---|----------------------------|--------|--------|----------------------|
| | | MM | Inches | |
| 1/4-32 RC engines | TS0142SP | 4.5 | .180 | TS01421 |
| M10X1.0 Standard Kit | TS4010 | 9.0 | .350 | TS40101 |
| | | 12.0 | .472 | TS40102 |
| M10X1.0 Deep Hole Kit | TS4010E | 15.0 | .600 | TS40103 |
| | | 23.0 | .905 | TS40105 |
| M10X1.0 Glow Plug | TS4010GP | 12.0 | .472 | TS40102 |
| M10X1.25 Glow Plug | TS5000 DuraMax 6.6L Diesel | 16.2 | .650 | TS10123ANF |
| M12x1.25 | TS4212 | 9.0 | .360 | TS42121 |
| | | 15.0 | .600 | TS42123 |
| | | 17.5 | .690 | TS42125 |
| | | 22.0 | .866 | TS42127 |
| M12x1.25 2008 Ford 3 Valve | TS4212H | ----- | ----- | ----- |
| M14x1.25 Standard Kit | TS4412 | 7.0 | .270 | TS44121 |
| | | 8.0 | .320 | TS44123 |
| | | 9.4 | .370 | TS44125 |
| | | 11.0 | .430 | TS44127 |
| M14x1.25 DeepHole Kit For Holes 6" Deep | TS4412E | 13.5 | .530 | TS44113 |
| | | 15.0 | .600 | TS44129 |
| | | 16.8 | .660 | TS44111 |
| | | 23.0 | .905 | TS44112 |
| M18X1.5 | TS4815 | 10.0 | .400 | TS48151 |
| | | 18.3 | .720 | TS48153 |
| 7/8-18 | TS4718 | 11.0 | .430 | TS47181 |
| | | 20.0 | .780 | TS47183 |
| | | 24.5 | 1.000 | TS47185 |

| Kit Size | Kit Part No. | Length | | Taper Seat Part No. |
|---|--------------|--------|--------|---------------------|
| | | MM | Inches | |
| M12x1.25 2008 Ford 3 Valve | TS4212H | 21.0 | .827 | TS42126 |
| M14x1.25 Standard Kit | TS4412 | 7.0 | .270 | TS44181 |
| | | 10.0 | .400 | TS44183 |
| | | ----- | ----- | ----- |
| | | ----- | ----- | ----- |
| M14x1.25 DeepHole Kit For Holes 6" Deep | TS4412E | 15.7 | .620 | TS44185 |
| | | 16.8 | .660 | TS44816 |
| | | 24.0 | .950 | TS44817 |
| M18X1.5 | TS4815 | 10.0 | .400 | TS48181 |
| | | ----- | ----- | ----- |

Special Seats Cutters

For use on some taper seat spark plug repairs that have limited access to the spark plug hole.

| | |
|---------------------|--------------------------|
| M14 x 1.25 | Part No. TS44196 |
| M18 x 1.5 | Part No. TS48196 |
| M14 x 1.25 Extended | Part No. TS44196E |

Seat Cutter Guide

Used when the step tap cannot be threaded deep enough to allow use of the seat cutter.

M14 x 1.25 Part No. **TS44196**

Insert Driver Oil

This oil is superior for installing inserts.
Part No. **TS6010**

Sealer

This sealer must be used when installing taper seat inserts.
Part No. **TS6020**

Anti-Seize

Part No. **TS37229**

UNIVERSAL HEAD BOLT KITS

Universal head bolt kits can be used in any application of bolt size listed below. A simple tool setup is all that is required.

| Universal Head Bolt | | | | |
|---------------------|--------------|-----------------|-----------------|---------------|
| Thread Size | Kit Part No. | Insert Part No. | Insert Quantity | Insert Length |
| M10X1.25 | TS6250 | TS10129 | (10/PKG) | 25mm |
| M10X1.5 | TS7580 | TS10155 | (10/PKG) | 24.5mm |
| M11X1.25 | TS11125 | TS11127 | (10/PKG) | 30mm |
| M11X1.5 | TS2200 | TS11155 | (10/PKG) | 30mm |
| M11X2.0 | TS3700 | TS112030 | (10/PKG) | 30mm |
| M12X1.25 | TS4700 | TS12127 | (10/PKG) | 30mm |
| M12X1.5 | TS4800 | TS12159 | (10/PKG) | 30mm |
| M12X1.75 | TS4900 | TS12179 | (10/PKG) | 30mm |



Universal head bolt kits also available in oversize “BIG-SERT” versions.

TAPER PIPE THREAD KITS

National Pipe Thread (NPT)

| Taper Pipe Thread Kits | | | |
|------------------------|-----------------|-----------------|---------------|
| Thread Size | Insert Part No. | Insert Quantity | Insert Length |
| 1/8-27 | TS01271 | (5/PKG) | .360 |
| 1/4-18 | TS01181 | (5/PKG) | .360 |
| 3/8-18 | TS03181 | (5/PKG) | .450 |
| 1/2-14 | TS02141 | (5/PKG) | .500 |
| 3/4-14 | TS04141 | (5/PKG) | .605 |

TAP GUIDES

Tap guides insure that the threads are square to the surface of the hole.



The lower portion of the tap guide should remain as square as possible to the engine surface. Turn the tap slowly while making sure the guide remains flush.

| American Tap Guides | |
|---------------------|----------|
| Size | Part No. |
| 1/4-20 | TS31420 |
| 1/4-28 | TS31420 |
| 5/16-18 | TS35168 |
| 5/16-24 | TS35168 |
| 3/8-16 | TS33816 |
| 3/8-24 | TS33824 |
| 7/16-14 | TS37164 |
| 7/16-20 | TS37162 |
| 1/2-13 | TS31213 |
| 1/2-20 | TS31225 |
| 5/8-18 | TS25885 |
| 3/4-10 | TS33415 |
| 3/4-16 | TS33416 |

| Metric Tap Guides | |
|-------------------|----------|
| Size | Part No. |
| M6X1.0 | TS36105 |
| M7X1.0 | TS37105 |
| M8X1.25 | TS38125 |
| M10X1.0 | TS30105 |
| M10X1.5 | TS30155 |
| M10X1.25 | TS30125 |
| M11X1.25 | TS31125 |
| M11X1.5 | TS31155 |
| M12X1.5 | TS32155 |
| M12X1.25 | TS32125 |
| M12X1.75 | TS32175 |
| M14X1.5 | TS34155 |
| M14X2.0 | TS34255 |
| M16X1.5 | TS36155 |
| M18X1.5 | TS38155 |
| M20X1.5 | TS30215 |
| M22X1.5 | TS32255 |
| M24X1.5 | TS32455 |

SCREW EXTRACTORS



TS73406

Remove broken bolts 5/8 to 7/8.
If removing a Time-Sert insert, this tool will remove inserts from **1/2 to 9/16 inch or 14mm to 14mm** metric.

TS73415

5 pc set 3/32 to 5/8
If removing a Time-Sert inserts, this set will remove inserts from **4-40 to 7/16 or 4mm to 11mm** metric.

TS73307

Remove broken bolts 7/8 to 1-1/8.
If removing a Time-Sert insert, this tool will remove inserts from **5/8 to 3/4 inch or 16mm to 20mm** metric.

TS73308

Remove broken bolts 1-1/8 to 1-3/8.
If removing a Time-Sert insert, this tool will remove inserts from **3/4 pipe insert**.



OVERSIZED THREAD REPAIR KITS

BIG-SERT®

Big-Sert is a heavy wall solid bushing. Easy to install with positive placement.

Big-Sert gives increased load protection for critical use.

Big-Sert wall repair oversize holes which have previously been repaired.

The install driver seats the insert and completes the bottom internal threads locking the insert in place. This pushes the pin out to contact the threaded hole. Back out of the insert is prevented by the cam lock effect of the pin.



BIG-SERT DATA

| Inch | | | | | |
|----------|-------|------|-----------|------------|------------|
| Inserts | Drill | | C. Bore | | Tap |
| Part No. | Drill | Size | Min. Dia. | Min. Depth | Major Dia. |
| 10-32 | G | .261 | .340 | .050 | .300 |
| 1/4-20 | 7.8mm | .307 | .355 | .050 | .359 |
| 1/4-28 | L | .290 | .330 | .055 | .330 |
| 5/16-18 | 13/32 | .406 | .474 | .085 | .474 |
| 5/16-24 | 13/32 | .406 | .474 | .085 | .474 |
| 3/8-16 | 31/64 | .484 | .552 | .085 | .552 |
| 3/8-24 | 31/64 | .484 | .552 | .085 | .552 |
| 7/16-14 | 37/64 | .578 | .634 | .085 | .634 |
| 7/16-20 | 37/64 | .578 | .634 | .085 | .634 |
| 1/2-13 | 41/64 | .640 | .701 | .085 | .701 |
| 1/2-20 | 41/64 | .640 | .701 | .085 | .701 |

| Metric | | | | | |
|----------|-------|------|-----------|------------|------------|
| Inserts | Drill | | C. Bore | | Tap |
| Part No. | Drill | Size | Min. Dia. | Min. Depth | Major Dia. |
| M5X0.8 | D | .246 | .290 | .050 | .290 |
| M6X1.0 | L | .290 | .330 | .085 | .330 |
| M7X1.0 | U | .368 | .440 | .080 | .422 |
| M8X1.25 | 13/32 | .406 | .474 | .085 | .474 |
| M10X1.0 | 31/64 | .484 | .552 | .085 | .552 |
| M10X1.25 | 31/64 | .484 | .552 | .085 | .552 |
| M10X1.5 | 31/64 | .484 | .552 | .085 | .552 |
| M12X1.5 | 37/64 | .578 | .634 | .085 | .634 |
| M12X1.75 | 37/64 | .578 | .634 | .085 | .634 |
| M12X1.25 | 37/64 | .578 | .634 | .085 | .634 |

EACH KIT CONSISTS OF:

- Drill
- Counterbore
- Cutting tap
- Insert driver
- Five (5) steel inserts



BIG-SERT KITS

| Kit | | Inch | | Insert Part |
|---------|-------------|-------------|-------------|-------------|
| Size | Part No. | Inches | MM | |
| 1/4-20 | 5420 | .380 | 9.4 | TS54201 |
| | | .500 | 12.7 | TS54203 |
| 1/4-28 | 5448 | .380 | 9.4 | TS54481 |
| | | .500 | 12.7 | TS54483 |
| 5/16-18 | 5561 | .450 | 11.4 | TS55611 |
| | | .620 | 15.7 | TS55613 |
| 5/16-24 | 5562 | .450 | 11.4 | TS55621 |
| | | .620 | 15.7 | TS55623 |
| 3/8-16 | 5381 | .400 | 10.1 | TS53810 |
| | | .520 | 13.2 | TS53811 |
| | | .750 | 19.0 | TS53813 |
| | | 1.000 | 25.4 | TS53815 |
| | | 1.250 | 31.7 | TS53817 |
| 3/8-24 | 5382 | .520 | 13.2 | TS53821 |
| | | .750 | 19.0 | TS53823 |
| 7/16-14 | 5761 | .600 | 15.2 | TS57611 |
| | | .870 | 22.0 | TS57613 |
| | | 1.000 | 25.4 | TS57615 |
| | | 1.250 | 31.7 | TS57617 |
| 7/16-20 | 5762 | .600 | 15.2 | TS57621 |
| | | .870 | 22.0 | TS57623 |
| 1/2-13 | 5121 | .480 | 12.2 | TS51210 |
| | | .650 | 16.5 | TS51211 |
| | | 1.00 | 25.4 | TS51213 |
| 1/2-20 | 5122 | .650 | 16.5 | TS51221 |
| | | 1.000 | 25.4 | TS51223 |

We recommend using sealer 6020 on external thread of insert for added strength.

Bold text are insert lengths supplied in kits.

| Kit | | Metric | | Insert Part |
|-----------------------|--------------|--------------|-------------|-------------|
| Size | Part No. | Inches | MM | |
| M5X0.8 | 5508 | .300 | 7.6 | TS55081 |
| | | .394 | 10.0 | TS55083 |
| M6X1.0 | 5610 | .370 | 9.4 | TS56101 |
| | | .470 | 12.0 | TS56103 |
| M7X1.0 | 5710 | .394 | 10.0 | TS57101 |
| | | .550 | 14.0 | TS57103 |
| | | .708 | 18.0 | TS57105 |
| | | .800 | 20.0 | TS57107 |
| M8x1.0 | 5810 | .460 | 11.7 | TS58101 |
| M8X1.25 | 5812 | .460 | 11.7 | TS58121 |
| | | .640 | 16.2 | TS58123 |
| | | .708 | 18.0 | TS58125 |
| M10X1.0 | 5011 | .360 | 9.0 | TS50111 |
| | | .600 | 15.0 | TS50113 |
| M10X1.25 | 5012 | .550 | 14.0 | TS50121 |
| | | .800 | 20.0 | TS50123 |
| | | .960 | 24.5 | TS50125 |
| M10X1.5 | 5015 | .550 | 14.0 | TS50121 |
| | | .800 | 20.0 | TS50123 |
| | | .960 | 24.5 | TS50125 |
| M11X1.25 ¹ | 5112D | 1.180 | 30.0 | TS51125 |
| M12X1.25 | 5212 | .360 | 9.0 | TS52120 |
| | | .600 | 15.0 | TS52121 |
| | | .689 | 17.5 | TS52122 |
| | | .950 | 24.0 | TS52123 |
| M12X1.5 | 5215 | 1.180 | 30.0 | TS52125 |
| | | .360 | 9.2 | TS52150 |
| | | .640 | 16.2 | TS52151 |
| | | .950 | 24.0 | TS52153 |
| M12X1.75 | 5217 | 1.180 | 30.0 | TS52155 |
| | | .472 | 12.0 | TS52170 |
| | | .640 | 16.2 | TS52171 |
| | | .950 | 24.0 | TS52173 |
| | | 1.180 | 30.0 | TS52175 |

1. Not for Deep Holes

BIG-SERT SPARK PLUG KITS

M14X1.25 Spark Plug Repair Kits & Inserts.
 Repair Oversized holes as large as .660 inches or 16.8 mm



Part No. **TS5141S**



Part No. **TS5141E**

TS5141S & TS5141E Kits "DO NOT" include inserts.

SPARK PLUG INSERTS

| Washer Seat | | |
|-------------|--------|------|
| Part No. | Inches | MM |
| TS51401 | .370 | 9.4 |
| TS51403 | .430 | 11.0 |
| TS51405 | .600 | 15.0 |
| TS51407 | .660 | 16.8 |
| TS51409 | .905 | 23.0 |

| Taper Seat | | |
|----------------------|--------|------|
| Part No. | Inches | MM |
| TS51453 | .430 | 11.0 |
| TS51455 | .600 | 15.0 |
| TS51457 | .660 | 16.8 |
| TS51459 ¹ | .660 | 16.8 |
| TS51460 ² | .950 | 24.0 |

- 1) Ford Triton
- 2) Ford Z-tech

FORD TRITON KIT



Part No. **TS5553**

Includes (5) inserts

Part No. **TS5600**
(not recommended for virgin holes use TS5553 Kit)
 Ford Triple Oversized Spark Plug Kit
 M14X1.25 Repair holes from 17mm to 18.5mm or (.670 in) to (.730 in).



Part No. **TS5588**

"Add On Kit"
 Ford Triple Oversized Reducer to M14X1.25

This is a special kit that is used in conjunction with **(TS5553 or TS5141E)**
 You must have 1 of these kits above to use this addon repair.

The kit will repair holes as large as .730 inches by installing a special oversized insert that will accept our 3/4 reach M14X1.25 BIG-SERT inserts TS51459, TS51407 or TS51457

UNIVERSAL HEAD BOLT KITS

Universal head bolt kits can be used in any application of bolt size listed right. A simple tool setup is all that is required.

| Universal Head Bolt | | | | |
|---------------------|--------------|-----------------|-----------------|---------------|
| Thread Size | Kit Part No. | Insert Part No. | Insert Quantity | Insert Length |
| M10X1.25 | TS6250BS | TS50125 | (10/PKG) | 25mm |
| M10X1.5 | TS7580BS | TS50155 | (10/PKG) | 24.5mm |
| M11X1.25 | TS11125BS | TS51125 | (10/PKG) | 28mm |
| M11X1.5 | TS2200BS | TSJ-42385-507BS | (10/PKG) | 30mm |
| M11X2.0 | TS3700BS | TS37004 | (10/PKG) | 30mm |
| M12X1.25 | TS4700BS | TS52125 | (10/PKG) | 30mm |
| M12X1.5 | TS4800BS | TS52155 | (10/PKG) | 30mm |
| M12X1.75 | TS4900BS | TS52175 | (10/PKG) | 30mm |

TAP GUIDES



Tap guides insure that the threads are square to the surface of hole.

| Inch Tap Guide | |
|----------------|----------|
| Size | Part No. |
| 1/4-20 | TS75405 |
| 1/4-28 | TS75405 |
| 5/16-18 | TS75515 |
| 5/16-24 | TS75515 |
| 3/8-16 | TS75315 |
| 3/8-24 | TS75315 |
| 7/16-14 | TS57655 |
| 7/16-20 | TS57655 |
| 1/2-13 | TS75115 |
| 1/2-20 | TS75115 |

| Metric Tap Guide | |
|------------------|----------|
| Size | Part No. |
| M6X1.0 | TS75605 |
| M8X1.25 | TS75825 |
| M10X1.0 | TS75025 |
| M10X1.5 | TS75025 |
| M10X1.25 | TS75025 |
| M12X1.5 | TS75255 |
| M12X1.25 | TS75255 |
| M12X1.75 | TS75255 |