TIME-SERT®

SCREW THREAD INSERTS

TIME-SERT®

PROFESSIONAL THREAD REPAIR SYSTEM
SCREW THREAD INSERTS AMERICAN & METRIC SIZES

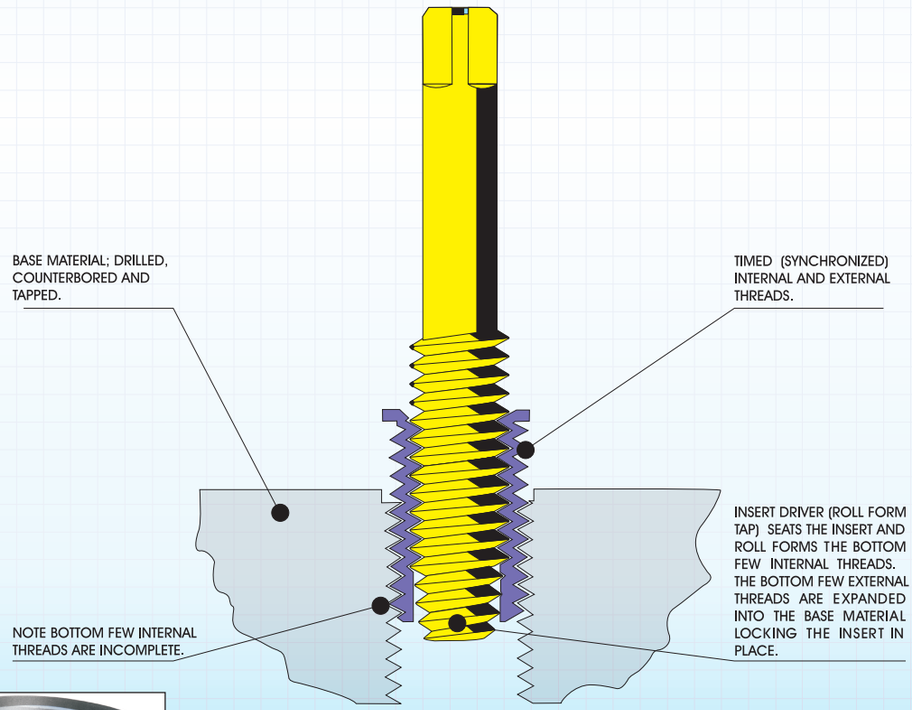
ADVANTAGES WHICH ARE CONVINCING:

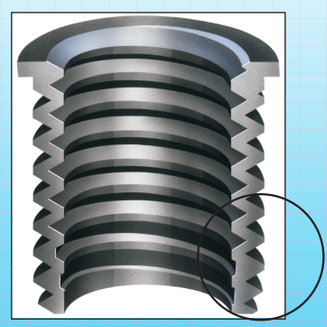
TIME-SERT® is a **solid bushing** insert. This guarantees easy installation and allows for full load use of tapped hole, ensuring protection against stress and vibration.

TIME-SERT® is **thin walled** due to synchronized internal external threads. Thin cross sectional area allows for installation in areas of limited space and clearance material.

TIME-SERT® has **positive placement.** Having a flange on the top of the insert will insure that the insert will have positive placement and cannot wind down into the newly repaired hole.

TIME-SERT® is **self locking**. On installation the bottom internal threads of the insert are cold rolled to expand the mating external threads into the base material locking the insert in place. Locking mechanism is at the bottom of the insert.





Note bottom few internal threads are incomplete.

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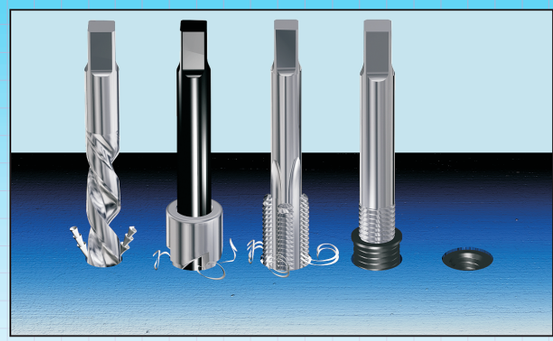
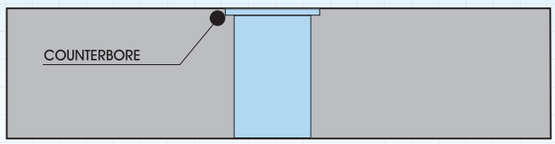
ENGINEERING DATA





Counterbores are flat bottom. We recommend step drills for production applications.

Use of a cutting fluid is recommended for drilling, counterboring and tapping.

Oil must be used on the insert driver.

Tool kits are designed for a suitable tap wrench, or power tools such as: drill press, electric or air hand drills and tappers.

Carbon steel inserts are phosphate coated. Stainless steel inserts are 303 or equilvalent.

TAPER PIPE

INSERT	DRILL		C.BORE		TAP
SIZE	DRILL	SIZE	MIN. DIA.	MIN. DEPTH	MAJOR DIA.
1/8-27	13/32	.406	.466	.055	.449
1/4-18	37/64	.578	.668	.075	.638
3/8-18	23/32	.718	.837	.075	.794
1/2-14	55/64	.859	1.000	90° CSK	.942
3/4-14	1 3/32	1.093	1.300	90° CSK	1.194

INCH

INSERT	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
12 - 26	#1	.228	.307	.075	.265
1/4 - 20	17/64	.265	.352	.075	.319
1/4 - 28	G	.261	.340	.075	.300
1/4 - 32	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
7/16 - 24	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

INSERT	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 1.0	U	.368	.440	.080	.408
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

MASTER SETS

EACH SET CONTAINS 5 COMPLETE TOOL KITS AND 20 INSERTS OF EACH SIZE (TOTAL 100 INSERTS)

INCH

COARSE	FINE
1/4-20	1/4-28
5/16-18	5/16-24
3/8-16	3/8-24
7/16-14	7/16-20
1/2-13	1/2-20
CARBON STEEL PART NO. 0010	CARBON STEEL PART NO. 0020
STAINLESS STEEL PART NO. 0011	STAINLESS STEEL PART NO. 0021

METRIC

COARSE	FINE
M5 x 0.8	M5 x 0.8
M6 x 1.0	M6 x 1.0
M8 x 1.25	M8 x 1.25
M10 x 1.5	M10 x 1.25
M12 x 1.75	M12 x 1.5
CARBON STEEL PART NO. 1000	CARBON STEEL PART NO. 1001
STAINLESS STEEL PART NO. 1002	STAINLESS STEEL PART NO. 1003

MINI MASTER

EACH SET CONTAINS 3 COMPLETE TOOL KITS AND 20 INSERTS OF EACH SIZE (TOTAL 60 INSERTS)

INCH

COARSE	FINE
1/4-20	1/4-28
5/16-18	5/16-24
3/8-16	3/8-24
CARBON STEEL PART NO. 1203	CARBON STEEL PART NO. 1204
STAINLESS STEEL PART NO. 1205	STAINLESS STEEL PART NO. 1206

METRIC

COARSE	FINE
M6 x 1.0	M6 x 1.0
M8 x 1.25	M8 x 1.25
M10 x 1.5	M10 x 1.25
CARBON STEEL PART NO. 1201	CARBON STEEL PART NO. 1202
STAINLESS STEEL PART NO. 1207	STAINLESS STEEL PART NO. 1208

MEGA MASTER

Kit includes 10 complete tool kits with tap guides and a total of 300 inserts in multiple lengths

METRIC MEGA MASTER 10 KITS!

M5x0.8, M6x1.0, M8x1.25, M10x1.5, M10x1.25 M12x1.5, M12x1.25, M12x1.75, M14x1.5, M18x1.5

P/N 2001

INCH MEGA MASTER 10 KITS!

10-32, 1/4-20, 1/4-28, 5/16-18, 5/16-24 3/8-16, 3/8-24, 7/16-14, 7/16-20, 1/2-13

P/N 3771

METRIC THREAD REPAIR KITS AND INSERTS

KIT CONTENTS

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

Bold text are insert lengths supplied in kits

METRIC KITS		INSERT LENGTH		INSERTS CARBON STEEL	INSERTS STAINLESS STEEL
SIZE	PART NO	MM	INCHES	PART NO.	PART NO.
M3x0.5	1305	**4.3**	**.169**	13051	13052
		6.0	.240	13053	13054
M4x0.7	1407	4.0	.157	14077	——
		6.0	**.240**	14071	14072
		8.0	.320	14073	14074
M5x0.8	1508	5.0	.199	15080	150802
		7.6	**.300**	15081	15082
		10.0	.400	15083	15084
		12.0	.470	15085	——
M6x1.0	1610	5.0	.199	16100	161002
		8.0	.315	16105	16106
		9.4	**.370**	16101	16102
		12.0	.470	16103	16104
		15.0	.600	161031	——
		17.0	.669	16107	——
		19.0	.748	16109	——
M7x1.0	1710	**10.0**	**.400**	17101	——
		14.0	.550	17103	——
		18.0	.708	17105	——
		20.0	.800	17107	——
M8x1.0	1810	7.5	.295	18100	——
		11.7	**.460**	18101	——
M8x1.25	1812	8.0	.315	——	18128
		9.0	.360	181210	——
		10.0	.400	18125	——
		11.7	**.460**	18121	18122
		14.0	.550	18129	18126
		16.2	.640	18123	18124
		18.0	.708	18127	181226
		20.0	.800	181213	181224
		30.0	1.180	181217	——
M8x1.75 GM Rare	1817	16.2	**.640**	18173	——
M9x1.0	1910	9.0	.354	19101	——
		12.0	**.470**	19103	——
		14.0	.550	19105	——
		18.0	.710	19107	——
M9x1.25	1912	9.0	.354	19120	——
		13.0	**.510**	19121	——
		18.0	.710	19123	——
		22.0	.866	19127	——
M10x1.0	1010	6.2	.244	10100	10106
		8.0	.315	10105	——
		9.0	.360	10101	10102
		15.0	**.600**	10103	10104
M10x1.25	1012	9.0	.354	10127	——
		14.0	.550	10121	10122
		15.0	.600	101215	
		16.2	**.650**	10123	10124
		20.0	.800	10125	10126
		25.0	.984	10129	——
M10x1.5	1015	9.4	.370	10157	10150
		11.0	.433	101511	——
		14.0	**.550**	10151	10152
		17.0	.669	101517	——
		20.0	.800	10153	10154
		22.0	.866	101522	——
		24.5	.960	10155	——
		30.0	1.180	10159	10158
		40.0	1.575	101591	——
M11x1.25	1112	**22.0**	**.870**	11123	——
		28.0	1.100	11121	——
		30.0	1.180	11127	——

METRIC KITS		INSERT LENGTH		INSERTS CARBON STEEL	INSERTS STAINLESS STEEL
SIZE	PART NO	MM	INCHES	PART NO.	PART NO.
M11x1.5	1115	**16.0**	**.630**	11151	——
		22.0	.870	11153	——
		30.0	1.180	11155	——
M11x2.0	3700	30.0	1.180	112030	HEAD BOLT KIT ONLY
M12x1.25	1212	9.0	.360	12121	——
		11.0	.430	12129	——
		15.0	**.600**	12123	12124
		24.0	.950	12125	12126
M12x1.5	1215	6.7	.263	12157	——
		9.2	.360	12151	——
		13.5	.531	121501	——
		16.2	**.640**	12153	12152
		20.0	.800	121505	——
		24.0	.950	12155	12154
		30.0	1.180	12159	12160
M12x1.75	1217	10.0	.400	12177	——
		12.0	.472	12170	——
		16.2	**.640**	12171	12172
		20.0	.800	12175	12176
		24.0	.950	12173	12174
		30.0	1.180	12179	——
M13x1.5	1315	14.0	.551	13151	——
		19.0	**.748**	13153	——
		24.0	.950	13155	——
		28.0	1.102	13157	——
M14x1.5	1415	6.6	.260	14151	——
		9.4	.370	14153	14154
		12.7	.500	14155	14156
		16.0	.630	141552	——
		17.8	**.700**	14157	141550
		24.0	.950	14158	141551
		26.0	1.023	141553	141554
		28.0	1.100	14159	141556
M14x2.0	1420	12.0	.472	14201	——
		18.0	**.710**	14203	14204
		24.0	.950	14205	——
		30.0	1.180	14207	——
M16x1.5	1615	7.0	.270	16151	16150
		12.7	**.500**	16153	16152
		16.0	.630	16159	16156
		20.0	.800	161575	16158
		24.0	.950	16155	16154
		32.0	1.250	16157	——
M16x2.0	1620	16.0	.630	16200	16202
		24.0	**.950**	16201	16204
		32.0	1.250	16203	16206
		38.0	1.496	16205	——
M18x1.5	1815	10.0	.400	18151	——
		15.0	.600	18157	——
		18.3	**.720**	18153	——
		27.0	1.060	18155	——
M20x1.5	2015	9.0	.354	20150	——
		12.0	.472	20151	——
		17.0	**.669**	20153	——
		30.0	1.180	20155	——
M22x1.5	2215C	**10.0**	**.400**	22151	——
		15.0	.590	22153	——
		20.0	.800	22155	——
M24x1.5	2415C	**7.6**	**.300**	24150	——
		10.0	.400	24151	——
		15.0	.590	24153	——
		20.0	.800	24155	——
		30.0	1.200	24157	——

INCH THREAD REPAIR KITS AND INSERTS

KIT CONTENTS

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

Bold text are insert lengths supplied in kits

INCH KITS		INSERT LENGTH		INSERTS CARBON STEEL	INSERTS STAINLESS STEEL
SIZE	PART NO.	INCHES	MM	PART NO.	PART NO.
4-40	0440	**.200**	**5.0**	04401	04402
6-32	0632	**.250**	**6.3**	06321	06322
8-32	0832	**.250** .320	**6.3** 8.0	08321 08323	08322 08324
10-24	0024	.240 **.300** .370	6.1 **7.6** 9.4	00240 00241 00243	00246 00242 00244
10-32	0032	.150 .187 .240 **.300** .370	3.8 4.7 6.1 **7.6** 9.4	00329 00325 00320 00321 00323	00327 00328 00326 00322 00324
12-24	0124	.300 **.370** .472	7.6 **9.4** 12.0	01241 01243 01245	01242 01244 01246
1/4-20	0140	.280 **.380** .500 .750 1.000	7.1 **9.4** 12.7 19.0 25.4	01400 01401 01403 01405 01407	01406 01402 01404 01408 01409
1/4-28	0148	.280 **.380** .500	7.1 **9.4** 12.7	01480 01481 01483	01486 01482 01484
1/4-26 BSF British	0146	**.380** .500	**9.4** 12.7	01461 01463	—— ——
1/4-24 Harley Davidson	0144	.280 **.380** .500	7.1 **9.4** 12.7	01441 01443 01445	—— —— ——
1/4-32	0142	.180 .250 **.380** .500	4.5 6.3 **9.4** 12.7	01421 01423 01425 01427	01422 01424 01426 01428
5/16-18	0561	.350 **.450** .620 .750	8.9 **11.4** 15.7 19.0	05610 05611 05613 05615	05617 05612 05614 05616
5/16-24	0562	.350 **.450** .620 .750	8.9 **11.4** 15.7 19.0	05620 05621 05623 05625	—— 05622 05624 ——
3/8-16	0381	.312 .400 **.520** .620 .750 .900 1.000 1.200	7.9 10.0 **13.2** 15.7 19.0 22.8 25.4 30.4	03818 03819 03811 03813 03815 038190 03810 03817	038182 038192 03812 03814 03816 —— 038102 ——

Bold text are insert lengths supplied in kits

INCH KITS		INSERT LENGTH		INSERTS CARBON STEEL	INSERTS STAINLESS STEEL
SIZE	PART NO.	INCHES	MM	PART NO.	PART NO.
3/8-24	0382	.300 .350 **.520** .750	7.6 8.9 **13.2** 19.0	—— 03825 03821 03823	03820 —— 03822 03824
7/16-14	0761	.400 **.600** .870 1.000 1.250 1.500	10.0 **15.2** 22.0 25.4 31.7 38.0	07610 07611 07613 076135 07615 07617	—— 07612 07614 07619 07618 ——
7/16-20	0762	.250 .370 .480 **.600** .870 1.000 1.370	6.3 9.4 12.2 **15.2** 22.0 25.4 34.7	07629 076320 07627 07621 07623 076231 07625	—— —— —— 07622 07624 —— ——
7/16-24	0764	.500 **.600** .800	12.7 **15.2** 20.3	07641 07643 07645	07642 —— ——
1/2-13	0121	.400 **.650** 1.000 1.250 1.500	10.0 **16.5** 25.4 31.7 38.0	01217 01211 01213 01219 01215	—— 01212 01214 —— ——
1/2-20	0122	.400 .500 **.650** 1.000 1.370	10.0 12.7 **16.5** 25.4 34.7	01225 01220 01221 01223 01227	01226 —— 01222 01224 ——
9/16-12	0961	.500 **.750** 1.120 1.500	12.7 **19.0** 28.4 38.0	09610 09611 09615 09617	—— —— —— ——
9/16-18	0968	.350 .450 **.750** 1.120	8.9 11.4 **19.0** 28.4	09687 09685 09681 09683	—— —— —— ——
5/8-11	0581	.500 **.850** 1.250 1.500	12.7 **21.6** 31.7 38.0	05810 05811 05813 05815	—— 05812 05814
5/8-18	0588	.320 .450 **.850** 1.250	8.1 11.4 **21.6** 31.7	05881 05887 05883 05885	—— —— —— ——
3/4-10	0341	.750 **1.100** 1.500	19.0 **28.0** 38.0	03415 03411 03413	—— —— ——
3/4-16	0346	.650 **1.100** 1.500	16.5 **28.0** 38.0	03460 03461 03463	—— —— ——

DRAIN PAN APPLICATIONS

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

Drain Pans Kits

M22 & M24 Drain Pans Kits

1/2-13 Drain Pan
Kit Part number 0121C Insert Part No.01217
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts .400 length

1/2-20 Aluminum Drain Pan
Kit Part number 0122A Insert Part No.01225
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts .400 length

FORD Drain Pan
1/2-20 "TIN PANS ONLY"
Kit Part number 0765 Insert Part No.07629
This kit reduces the hole size from "1/2-20 to 7/16-20"
Contains: Cbore, Driver tools, 5 inserts, 5 drain plugs with washers

5/8-18 Drain Pan
Kit Part number 0588C Insert Part No.05887
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts .450 length

3/4-16 Drain Pan
Kit Part number 0346C Insert Part No.03460
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts .650 length

3/4-10 Drain Pan
Kit Part number 0341C Insert Part No.03415
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts .750 length

M8x1.25 Drain Pan
Kit Part number 1015A Insert Part No.18125
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 10mm length

M10x1.25 Drain Pan
Kit Part number 1012A Insert Part No.10127
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 9.0mm length

M10x1.5 Drain Pan
Kit Part number 1812C Insert Part No.10157
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 9.4mm length

M12x1.25 Drain Pan
Kit Part number 1212C Insert Part number12121
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 9mm length

M12x1.5 Drain Pan
Kit Part number 1215C Insert Part No.12151
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 9.2mm length

M12x1.75 Drain Pan
Kit Part number 1217C Insert Part No.12170
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 12mm length

M14x1.5 Volkswagen,Chrylser...
Same as the 1415C but has a longer insert 12.7mm
Kit Part number 1415A Insert Part No.14155
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 12.7mm length

M14x1.5 "Aluminum Pans"
Kit Part number 1415C Insert Part No.14153
This kit can restore any aluminum drain pan back to it's original size
Contains:Drill, Cbore,Tap, Driver, Tapguide, 5 inserts 9.4mm length

M14x1.5A-PRO "Aluminum Pans"
Kit Part number 1415A-PRO Insert Part No.14155
This kit is more for the professional which requires high volume repairs.
Contains:Drill, Cbore,Tap, Driver, Tapguide, 10 inserts 12.7mm length

Honda and Acura Drain Pan Repair "Tin Pans Only"
This kit reduces the hole size from M14 x 1.5 to M12 x 1.5
Kit Part number 1485 Insert Part No.12151

M14x1.25 Drain Pan
Kit Part number 14125A Insert Part No.44127
Contains:Drill, Cbore,Tap, Driver, Tap guide,5 inserts 11mm length

M16x1.5 Drain Pan
Kit Part number 1615C Insert Part No.16153
Contains:Drill, Cbore,Tap, Driver, Tap guide,5 inserts 12.7mm length

M18x1.5 Drain Pan
Kit Part number 1815C Insert Part No.18151
Contains:Drill, Cbore,Tap, Driver, Tap guide,5 inserts 10mm length

M20x1.5 Drain Pan
Kit Part number 2015A Insert Part No.20151
Contains:Drill, Cbore,Tap, Driver, Tap guide,5 inserts 12mm length

M22x1.5 Drain Pan
Kit Part number 2215C Insert Part No.22151
Contains:Step Reamer,Tap, Driver, Tap guide, 5 inserts 10mm length

M24x1.5 Drain Pan
Kit Part number 2415C Insert Part No.24150 VW touareg length
Contains: Step Reamer, ,Tap, Driver, Tap guide, 5 inserts 7.6mm length

Master oil pan kit Metric p/n 3300 5 Full KITS
M12x1.5, M12x1.25, M12x1.75, M14x1.5 M18x1.5
Contains:Drill, Cbore,Tap, Driver, Tap guide,30 inserts per kit short medium long

Seat Recondition Cutters

Used to clean seat if leaking or not square to hole. Use with appropriate kits.
"Driver tool required to use this cutter"

Seat Cutter

Start driver tool into the hole, continue until the driver tool is approx. ¼ inch below the surface

Using a 23mm socket rotate the seat cutter FULL 360 degrees rotations. After a few turns lift the seat cutter to inspect the seat. Repeat this operation until the seat is cleaned up.

Remove tools.
REPAIR COMPLETE: Drain plug will now seal on new reconditioned seat.

Special Oil Pan Seat cutter

12x1.5 P/N 32176

1/2-20 P/N 32176

14x1.5 P/N 34156

18x1.5 P/N 38156

SPARK PLUG KITS

FORD TRITON M14x1.25
"2 or 4 Valve" P/N 5553

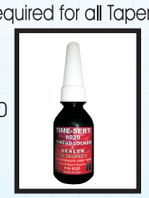
FORD Triton "3 Valve"
M16x1.5 P/N 3221

Glow Plug 10x1.25
DuraMax 6.6L Diesel
2001 to 2010 P/N 5000

Glow Plug 10x1.0
commonly used in dodge sprinter
and Volkswagen P/N 4010GP

Sealer required for all Taper seat inserts.

SEALER
P/N 6020



P/N 4010-103

RECONDITION SEAT CUTTERS
Used with kits 4412 and 4412E

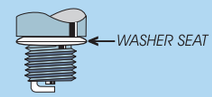
Washer seat
P/N 44197

TAPER seat
P/N 44198

SEAT RECONDITION KIT
Used for worn or damaged seats
Only intended to clean up seats.
Kit CONTENTS
Wrench
Driver
Seat cutter
Washer seat
KIT P/N
4412SRW
TAPER seat
KIT P/N
4412SRT

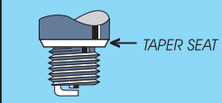
SPARK PLUG TYPES

WASHER SEAT



Washer seat spark plugs seal with a washer on plug.

TAPER SEAT



Sealer must be used when installing taper seat inserts.

KIT SIZE	PART NO.	WASHER SEAT INSERTS LENGTH MM	LENGTH INCHES	PART NO.	TAPER SEAT INSERTS LENGTH MM	LENGTH INCHES	PART NO.
1/4-32 RC engines	0142SP	4.5	.180	01421	Sealer required for all Taper seat inserts. P/N 6020		
M10 x 1.0 Standard Kit	4010 No INSERTS	9.0 12.0	.360 .472	40101 40102	—— ——	—— ——	—— ——
M10 x 1.0 Deep Hole Kit Honda MotorCycle	4010E No INSERTS	15.0 23.0	.600 .905	40103 40105	—— ——	—— ——	—— ——
M10 x 1.0 Standard Kit With (5) inserts	4010-103 (2) 9mm inserts (3) 15mm inserts	9.0 15.0	.360 .600	40101 40103	—— ——	—— ——	—— ——
M10 x 1.0 Extended Kit With (5) inserts	4010EXT-133 (2) 9mm inserts (3) 15mm inserts	9.0 15.0	.360 .600	40101 40103	—— ——	—— ——	—— ——
M10 x 1.0 GLOW PLUG	4010GP (5) 12mm inserts	12.0	.472	40102	——	——	——
M10 x 1.25 DuraMax 6.6LDiesel GLOW PLUG	5000 (5) 16.2mm inserts Aluminum inserts	16.2	.650	10123ANF	——	——	——
M12 x 1.25 Standard Kit	4212 No INSERTS	9.0 15.0	.360 .600	42121 42123	—— ——	—— ——	—— ——
M12 x 1.25 Deep Hole Kit	4212E No INSERTS	17.5 22.0 24.0	.690 .866 .945	42125 42127 42129	—— ——	—— ——	—— ——
M12 x 1.25 With (6) inserts	4212-125 (2) 9mm inserts (2) 15mm inserts (2) 17.5mm inserts	9.0 15.0 17.5	.360 .600 .690	42121 42123 42125	—— —— ——	—— —— ——	—— —— ——
M12 x 1.25 2008 FORD 3 VALVE	4212H (5) 21mm inserts And Sealer	——	——	——	21.0	.827	42126
M14 x 1.25 Standard Kit Inserts sold separately	4412 Inserts sold separately	7.0 8.0 9.4 11.0 13.5	.270 .320 .370 .430 .530	44121 44123 44125 44127 44113	7.0 10.0 —— —— ——	.270 .400 —— —— ——	44181 44183 —— —— ——
M14 x 1.25 Deep Hole Kit Inserts sold separately	4412E Inserts sold separately	15.0 16.8 23.0	.600 .660 .905	44129 44111 44112	15.7 16.8 24.0	.620 .660 .950	44185 44186 44187
M14 x 1.25 IMPORTS: Washer Seat repair	4412E-111 (5) 16.8mm inserts	16.8 Washer seat inserts	.660	44111	Sealer required for all Taper seat inserts. Not washer seat P/N 6020		
M14 x 1.25 Domestic Vehicles Taper Seat repair	4412E-187 (2) 10mm inserts (2) 15.7mm inserts (2) 24mm inserts And Sealer	—— Taper Seat inserts included ---> ——	——	——	10.0 15.7 24.0	.400 .620 .950	44183 44185 44187
M14 x 1.25 Short and long tooling	4490 Assorted length inserts 20 total	(2) p/n 44125 9.4mm, (2) p/n 44127 11mm, (2) p/n 44113 13.5mm, (2) p/n 44129 15mm, (2) p/n 44111 16.8mm, (2) p/n 44112 23mm. Taper style inserts (2) p/n 44183 10mm, (2) p/n 44185 15.7mm, (2) p/n 44186 16.8mm, (2) p/n 44187 24m					
M18 X 1.5	4815 No INSERTS	10.0 18.3	.400 .720	48151 48153	10.0 ——	.400 ——	48181 ——
7/8-18	4718 No INSERTS	11.0 20.0 24.5	.430 .780 1.000	47181 47183 47185	—— —— ——	—— —— ——	—— —— ——

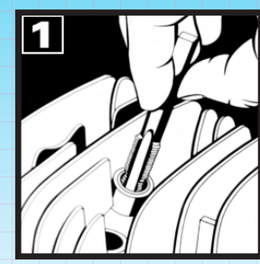
Note: M14x1.25 inserts also Available in Aluminum

SPARK PLUG THREAD REPAIR

The following instructions for kit part numbers 4412 and 4412E.

KIT CONTENTS
Step Tap
Wrench
Seat Cutter
Insert driver

Spark plug kits do not contain inserts, order separately.



Start the step tap into the hole to be repaired keeping as straight as possible.

Use the wrench provided, place wrench over tap and tap new threads. Continue to tap through until the cutting edges are approximately ¼ inch below surface. Leaving the tap 1/4 inch below the surface ensures that the seat cutter will not hit the back of the tap flutes.

Leave the step tap in the hole. Place the seat cutter over the shank. The seat cutter does two operations. First the seat cutter will cut the countersink for the flange of the insert, then it cuts a new seat for the sparkplug washer.

This operation is the same for the taper seat inserts.

Using the wrench rotate the seat cutter. After a few turns lift the seat cutter to inspect the seat. Repeat operation until the seat is completely cleaned up. Remove the step tap from the hole.

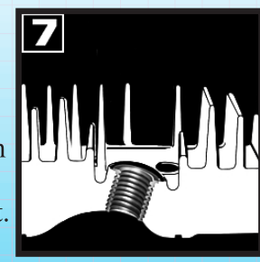
Good Seat Complete

Bad Seat incomplete

Make sure the hole is clean and dry. Lubricate the driver tool with Time-Sert driver oil. Screw the insert onto the prepared hole. If doing deep hole repairs: Lubricate the driver tool with Time-Sert driver oil or 30wt Oil. Screw the insert onto the driver then into the prepared hole.

Using the wrench provided rotate the driver into the insert. When the insert is seated the driver will tighten up. With increased pressure continue to rotate the driver through the insert until it loosens up. Then back the driver tool out of the insert.

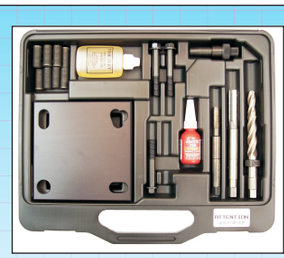
Note: Taper seat inserts
These inserts are silver plated and require sealer p/n 6020 on the outside of the insert.



Repair is complete.
Solid steel threads are square to the reconditioned seat, insuring a good spark plug seal.

MANUFACTURER KITS

GENERAL MOTORS



"2015" LS9 M12x1.75
Kit p/n EN-42385-50 Used in:
Insert P/N EN-42385-58 6.2L 4.3L 5.3L 6.2L

"2013 ECOTEC" GEN2 11x2.0 2.0 LTG / 2.5 LCV
Kit P/N 9530 Insert P/N 112030

L850 or "ECOTEC" 2.2 liter 4 cylinder
J-42385-500 kit with
J-42385-871 Bushing Insert P/N 11155

NORTH STAR 4.0/4.6 HEAD BOLT
M11x1.5 HEAD BOLT
35mm from top of block to first thread.
Kit Part No. J-42385-500 Insert Part No. 11155

NORTH STAR 4.0/4.6 Oversize
M11x1.5 HEAD BOLT BIG-SERT Second repair
Kit P/N. J-42385-500BS Insert P/N J-42385-507BS

NORTH STAR MAINBEARING 4.0/4.6
M10x1.5 MAIN BEARING
Kit Part No. J-42385-300 Insert Part No. J-42385-514

NORTH STAR 2000 HEAD BOLT
M11x1.5 There are 2 depths of holes for this block
35mm and 51mm from top of block to first thread.
Kit Part No. J-42385-2000 Insert Part No. 11155

North Star 2004 HEAD BOLT
M11x2.0 PV8 LH2 4.6 liter LXR
Kit Part number J-42385-2030 Insert Part No. 112030

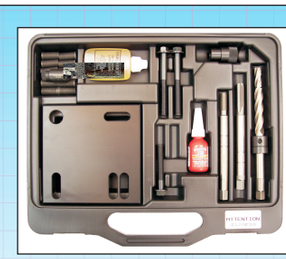
M11x2.0 High Feature 3.0 3.6 liter
USED IN BLOCKS WHERE THE FIRST THREAD STARTS
Approx. 60mm or 2.360"
Kit Part number J7330 Insert p/n 1012030

LL8 Straight 6 M11x2.0 Head Bolt
2002 -2004 GMC Envoy
2002-2004 Trail blazer
Kit Part No. 4001 Insert Part No. 112030

PV6 M11x1.5 Head bolt LX5 3.5L
1999-2002 Oldsmobile Intrigue
2001-2002 Oldsmobile Aurora
Kit Part No. 6001 Insert Part No. 11155

General Motors GEN3
M11x2.0 HEAD BOLT
1997-2004 C5 Corvette base model
1998-2002 Chevrolet Camaro Z28, SS
1998-2002 Pontiac Firebird Formula and Trans-Am
2004 Pontiac GTO
2001-2005 Holden Monaro
Kit Part number J-42385-100 Insert p/n 112030

HONDA



HONDA D16 HEAD BOLT
M10x1.25 Headbolt
1996-2000 Civic 1988-1991 Civic/CRX 1992-1995 Civic/Del Sol
Kit Part No. 4160 Insert Part No. 10129

HONDA Odyssey HEAD BOLT
M12x1.5 Headbolt
For threads that start at approx. 51mm "Includes"
1999-2005 Odyssey 2003-2005 Pilot 1998-2005 Accord V6
1997-2003 3.0-3.2 CL 1999-2005 3.2TL 2001- 2005 MDX
2005 RL
Kit Part No. 7220 Insert Part No. 12159

Honda Civic Hybrid Head Bolt
M9x1.25 2003-2005
Kit Part No. 9210 Insert Part No. 19127

HONDA/ACURA HEAD BOLT
M11x1.5 for threads that start at approx. 57mm
Honda B16 2002-2005 CR-V 2003-2005 Accord L4
2003-2005 Element 1999-2005 Civic SI 2002-2005 RSX
1986-2001 Integra 1986-1995 Legend 1991-2005 NSX
1996-2004 RL
Kit Part No. 7111 Insert Part No. 11155

HONDA/ACURA HEAD BOLT Oversize
M11x1.5 BIG-SERT Second repair
Honda B16 2002-2005 CR-V 2003-2005 Accord L4
2003-2005 Element 1999-2005 Civic SI 2002-2005 RSX
1986-2001 Integra 1986-1995 Legend 1991-2005 NSX
1996-2004 RL
Kit Part No. 7111BS Insert Part No.J-42385-507BS

HONDA MOTORS Special Kit 1/8-28 BSBP
Kit Part No. 0128 Insert Part number 01281

Honda and Acura
M14x1.5 "TIN Pans Only"
This kit reduces the hole size from M14 x 1.5 to M12 x 1.5
Kit Part number 1485 Insert Part No.12151

Honda and Acura
M14x1.5 "Aluminum Pans"
This kit can restore any aluminum drain pan back to it's original size
Kit Part number 1415C Insert Part No.14153

Honda & Acura M10x1.25
Alternator bolt thread repair
M10x1.25 Alternator bolt
1999-2005 Odyssey 2003-2005 Pilot 1998-2005 Accord V6
1997-2003 3.0-3.2 CL 1999-2005 3.2TL 2001- 2005 MDX
2005 RL Kit Part number 1012C Insert Part No. 10125

MANUFACTURER KITS

FORD

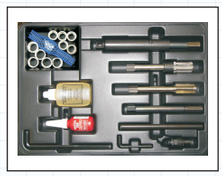
FORD SPARK PLUG REPAIR
M14x1.25 Triton 2 and 4 valve
1.9/3.8/4.6/5.4 liter engines

Kit Part No. 5553
Insert Part No 51459

FORD SPARK PLUG REPAIR
M16x1.5 3 Valve Heads

Kit Part No. 3221
Insert Part No 32214

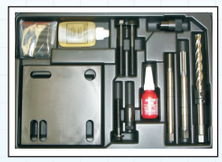
FORD TRIPLE OVERSIZED SPARK PLUG REPAIR
M14x1.25 2 & 4 Valve Heads



Kit P/N 5600

TOYOTA

Universal M11x1.5 head bolt kit



Kit Part No. 2200
Insert Part No 11155

We do not have a specific kit for Toyota head bolt.
We commonly sell the Universal M11x1.5 for the Camry and Rav4 models which use the M11x1.5 head bolt.

Harley Davidson

3/8-16 x 1.000 used in Harley Davidson Head Bolt Where depth of hole is 1.250 deep.

Kit Part No. 0381D
Insert Part No 03810

3/8-16 x 1.000
BIG-SERT OVERSIZED
Use after a helicoil failure.

Kit Part No. 5381D
Insert Part No 53815

VOLKSWAGEN

VOLKSWAGEN Touareg
Drain Pan kit M24x1.5

Kit Part No. 2415C
Insert Part No. 24150

V.W &PORSCHE CASE
KIT FOR M10 x 1.5 CASE STUDS
Kit Part No. 1085 Insert Part No. 10155

M14x1.5 Drain Pan Repair
Contains:Drill, Cbore,Tap, Driver, Tapguide and 5 inserts of a 12.7mm length
Kit Part number 1415A Insert Part No.14155

Optional Tap Guide Plate
VW and Porsche 911 style.
This plate is placed on top of the cylinder to ensure a straight tapped hole.

Plate Part No. 31084

VW SOLEX Carburetor
M8x1.0 Kit P/N 1881

VW SOLEX Carburetor
M11x1.0 Kit P/N 1181

BMW

This tooling will install a M10x1.5x24.5mm length insert in a 6mm deep countersink.

Standard kit first time repair
Kit Part No. 1090
Insert Part No 10155

BIG-SERT OVERSIZED
Use after a helicoil failure.
Kit Part No. 1090BS
Insert Part No 50155

SPECIAL APPLICATIONS

M6x1.0 Extended kit

This tooling has no counterbore.
The hole must be at least 8mm or .315 inches for the tap to access the hole
Kit Includes
6" extension drill, 4" tap, 4" driver, 5 inserts of a 17mm length.
Kit Part number 1610E2

M8x1.25 CORE KIT Rocker Arm

The core drill included will allow a special 11.7mm length no flange insert to be installed deeper than a standard kit.
Kit Includes
Core drill, , tap, driver, tap guide, 5 inserts of the 11.7mm no flange
Kit Part number 1812CORE

M8x1.25 CORE KIT Extended

The core drill included will allow a 16.2mm length insert to be installed deeper than the standard kit.
Kit Includes
Core drill, tap, driver, 5 inserts of the no flange 16.2mm length.
Kit Part number 1812ECORE

M10x1.5 CORE KIT Rocker Arm

The core drill included will allow a 11mm length insert to be installed deeper than the standard kit.
Kit Includes
Core drill, , tap, driver, tap guide, 5 inserts of the 11.mm length
Kit Part number 1015CORE

10x1.5 30mm Flush Surface kit

Kit Part No. 1015D30
Insert Part No. 10159

M10x1.5 Gm Stripped starter bolt repair

Kit Part No. 1380
Insert Part No. 10153

3/8-16 Gm stripped starter bolt repair

Kit Part No. 1535
Insert Part No. 153501

M18x1.5 O2 SENSOR KIT

Kit Part No.1815SENSOR
Insert Part No. 18152NF

M18x1.5
kit includes:
Reamer, tap,
tap guide, install driver,
5 inserts 7.5mm stainless.

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.

TIME-SERT
Standard first time repair

Universal M10x1.25 head bolt
Kit Part No.6250 Insert Part No. 10129
Includes 10 inserts of a M10x1.25x25mm length

Universal M10x1.5 head bolt
Kit Part No.7580 Insert Part No. 10155
Includes 10 inserts of a M10x1.5x24.5mm length

Universal M11x1.25 head bolt
Kit Part No.11125 Insert Part No. 11127
Includes 10 inserts of a M11x1.25x30mm length

Universal M11x1.5 head bolt
Kit Part No.2200 Insert Part No. 11155
Includes 10 inserts of a M11x1.5x30mm length

Universal M11x2.0 head bolt
Kit Part No.3700 Insert Part No. 112030
Includes 10 inserts of a M11x2.0 x30mm length

Universal M12x1.25 head bolt
Kit Part No.4700 Insert Part No. 12127
Includes 10 inserts of a M12x1.25x30mm length

Universal M12x1.5 head bolt
Kit Part No.4800 Insert Part No. 12159
Includes 10 inserts of a M12x1.5x30mm length

Universal M12x1.75 head bolt
Kit Part No.4900 Insert Part No. 12179
Includes 10 inserts of a M12x1.75x30mm length

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

BIG-SERT
OVERSIZED SECOND REPAIR

Universal M10x1.25 head bolt
Kit Part No.6250BS Insert Part No. 50125
Includes 10 inserts of a M10x1.25x25mm length

Universal M10x1.5 head bolt
Kit Part No.7580BS Insert Part No. 50155
Includes 10 inserts of a M10x1.5x24.5mm length

Universal M11x1.25 head bolt
Kit Part No.11125BS Insert Part No. 51125
Includes 10 inserts of a M11x1.25x28mm length

Universal M11x1.5 head bolt
Kit Part No.2200BS Insert Part No. J-42385-507BS
Includes 10 inserts of a M11x1.5x30mm length

Universal M11x2.0 head bolt
Kit Part No.3700BS Insert Part No. 37004
Includes 10 inserts of a M11x2.0 x30mm length

Universal M12x1.25 head bolt
Kit Part No.4700BS Insert Part No. 52125
Includes 10 inserts of a M12x1.25x30mm length

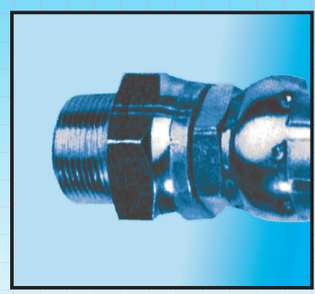
Universal M12x1.5 head bolt
Kit Part No.4800BS Insert Part No. 52155
Includes 10 inserts of a M12x1.5x30mm length

Universal M12x1.75 head bolt
Kit Part No.4900BS Insert Part No. 52175
Includes 10 inserts of a M12x1.75x30mm length

TAPER PIPE THREAD KITS

National Pipe Taper Thread (NPT)

PIPE KITS CARBON STEEL



KIT	SIZE	KIT PART NO.	INSERT PART NO.
	1/8-27	0127	01271 .360 length
	1/8-28 BSPT	0128	01281 .360 length
	1/4-18	0118	01181 .360 length
	3/8-18	0318	03181 .450 length
	1/2-14	0214	02141 .500 length
	3/4-14	0414	04141 .605 length

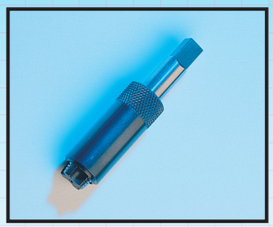
PIPE KITS STAINLESS STEEL

KIT SIZE	PART NO.	INSERT PART NO.
1/8-27	0127S	01272
1/4-18	0118S	01182
3/8-18	0318S	03182
1/2-14	0214S	02142

SAE 9/16-18 Port Repair Kit P/N 1682

USEFUL TOOLS

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.

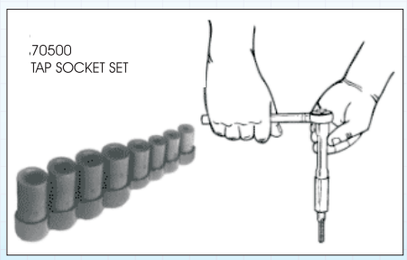
AMERICAN TAP GUIDES

SIZE	PART NO.
1/4-20	31420
1/4-28	31420
5/16-18	35168
5/16-24	35168
3/8-16	33816
3/8-24	33824
7/16-14	37164
7/16-20	37162
1/2-13	31213
1/2-20	31225
5/8-18	25885
3/4-10	33415
3/4-16	33416

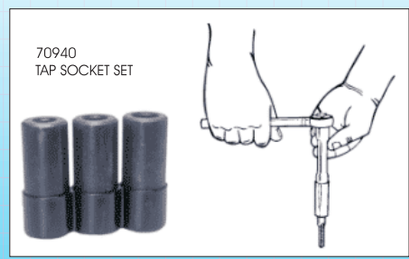
METRIC TAP GUIDES

SIZE	PART NO.
M6 x 1.0	36105
M7 x 1.0	37105
M8 x 1.25	38125
M9 x 1.25	39125
M10 x 1.0	30105
M10 x 1.5	30155
M10 X 1.25	30125
M11 X 1.25	31125
M11 X 1.5	31155
M12 X 1.5	32155
M12 X 1.25	32125
M12 X 1.75	32175
M14 X 1.5	34155
M14 X 2.0	34255
M16 X 1.5	36155
M16 X 2.0	36205
M18 X 1.5	38155
M20 x 1.5	30215
M22 x 1.5	32255
M24 x 1.5	32455

TAP SOCKET SETS



For Use in Restricted Areas
Ideal for use in areas where a T handle won't fit.
Set of 8 sockets fits all number and fractional M.C.T.I. standard taps thru 1/2". A lso fits 1/8" NPT taps and metric tapsthru 12mm manufactured to M.C.T.I. Standards. Sockets contained on a vinyl holder.
Time-Sert taps 4mm to 12mm metric / 4-40 to 1/2 inch
Sockets #1 thru #4 use 1/4 drive, rest use 3/8 drive.



Three Larger Sizes in a Convenient Set
The three largest tap sockets, are now packaged in a three piece set. Ideal for use where a T handle won't fit, especially in restricted areas. For larger, fractional M.C.T.I. standard taps. #9 socket is 5/8" (16mm), #10 is for 11/16" (18mm) and #11 is for 3/4". Sockets contained in a vinyl holder.
Time-Sert taps 13mm to 16mm metric 5/8 to 3/4 inch. use 1/2 drive socket.

USEFUL TOOLS

TAP WRENCHES

STRAIGHT TAP WRENCH

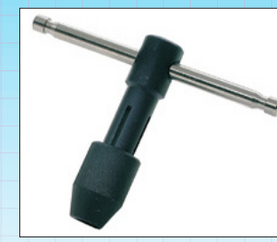
Straight Tap Wrench, Length 5 Inches, Hand Taps
Capacity 1/16 to 1/4 Inch, Taps M1.5 to M6
wrench number 00 **P/N C67201**

Straight Tap Wrench, Length 11 Inches, Hand Taps
Capacity 5/32 to 1/2 Inch, Taps M4 to M12
Time-Sert taps 4-40 - 7/16 Inch, M3 - M11 Metric
wrench number 5 **P/N C67202**

Straight Tap Wrench, Length 15 Inches, Hand Taps
Capacity 5/32 to 3/4 Inch, Taps M4 to M19
Time-Sert taps 1/4 - 9/16 Inch, M5 - M14 Metric
wrench number 6 **P/N C67203**

Straight Tap Wrench, Length 19 Inches, Hand Taps
Capacity 1/4 to 1-1/8 Inch, Taps M12 to M28
wrench number 7 **P/N C67204**

Straight Tap Wrench, Length 40 Inches, Hand Taps
Capacity 3/4 to 1-5/8 Inch, Taps M19 to M40
wrench number 8 **P/N C67205**



T-HANDLE WRENCH

T- handle wrench, Length 2-3/4
Hand Taps Capacity 1/16" to 1/4"
Inch Taps M1.5 to M6 .
Time-Sert taps M3 - M5
wrench number T11 **P/N C67208**

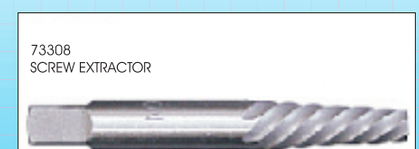
T-HANDLE WRENCH
T- handle wrench, Length 3-5/8
Hand Taps Capacity 7/32" to 1/2"
Inch Taps M5 to M12
Time-Sert taps M5 - M11
wrench number T12 **P/N C67209**

SCREW EXTRACTORS

Removes 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 12mm to 14mm metric.

Removes 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.

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



Removes broken bolts 1-1/8 to 1-3/8.
If removing a Time-Sert insert, this tool will remove our 3/4 pipe insert.

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