



**YOUR SOURCE FOR CRUISE SHIP TECHNICAL CONSUMABLES**



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***As the Cruise Industry continues to grow, Metric Marine is uniquely positioned to grow with the needs of the Cruise Lines.***

*Metric Marine and Industrial was founded in 1988 and is still owned and operated by Frank A. Bourne and Claus Espe. Both Frank and Claus were educated in maritime fields and have decades of experience in the Marine Industry and Marine Supply.*

*Frank began his career in the Maritime Industry as a graduate of the United States Merchant Marine Academy and Claus began training in Maritime Apprenticeship with large ship suppliers in Copenhagen, Denmark.*

*From a small warehouse in San Rafael, California, Metric Marine began servicing the maritime industry in a wide variety of markets – from the Alaska fishing fleet, the Gulf Oil Rigs, and the ship chandlers from coast to coast. With the increasing popularity of the cruise industry and the prevalence of European ships operating in North America, Metric Marine continued to develop a diverse inventory of specialty maritime products with competitive pricing.*

*Metric Marine has earned a place as a leader in the cruise industry through decades of hard work, innovation, and dedication. Along with our extensive and growing inventory and competitive pricing, we have earned our excellent reputation for providing the Cruise Lines with outstanding customer service and accountability.*

*We stand by the values that have made our company successful and look forward to providing our customers with top notch service for years to come.*

*- The Team at Metric Marine*



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# **BRUSHES AND PAINT SUPPLIES**



**PAINT BRUSHES**



**RADIATOR BRUSH**

Black 100% China bristle, bent metal ferrule.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
10 001	1"	51 01 65
10 002	1 1/2"	51 01 66
10 003	2"	51 01 67
10 004	2 1/2"	51 01 68
10 005	3"	51 01 69
10 006	4"	



**FLAT PAINT BRUSH**

Pure black 100% China bristle, metal ferrule. #2600

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
10 011	1"	51 01 01
10 012	1 1/2"	51 01 02
10 013	2"	51 01 03
10 014	2 1/2"	51 01 04
10 015	3"	51 01 05
10 056	4"	51 01 07



**FLAT POLY CHIP PAINT BRUSH.**

Black Polyester bristle, plastic handle.

<u>PART #</u>	<u>SIZE</u>
10 016	1"
10 017	1 1/2"
10 018	2"
10 019	2 1/2"
10 020	3"
10 069	4"



**ROUND PAINT BRUSH**

White 100% China bristle, plastic ring.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
10 041	16mm	51 01 34
10 042	19mm	51 01 35
10 043	25mm	51 01 36
10 044	40mm	51 01 37
10 045	50mm	51 01 38

**PAINT BRUSHES**

**FLAT PROFESSIONAL VARNISH BRUSH**

Pure white 100% China bristle, metal ferrule.  
#PRO



<u>PART #</u>	<u>SIZE</u>
10 036	1"
10 037	1 1/2"
10 038	2"
10 039	3"
10 040	4"

**SASH BRUSH, FLAT ANGLE**

100% solid tapered polyester bristle for all paints and fine finishes. #2600



10 031	1"
10 032	1 1/2"
10 033	2"
10 034	2 1/2"
10 035	3"

**PENCIL BRUSH**

White 100% China bristle, metal ferrule.



<u>PART #</u>	<u>NO.</u>	<u>ISSA #</u>
10 021	2	51 01 81
10 022	4	51 01 82
10 023	6	51 01 83
10 024	8	51 01 84
10 025	10	51 01 85
10 026	12	51 01 86
10 027	14	51 01 87
10 028	16	51 01 88
10 029	18	51 01 89
10 030	22	

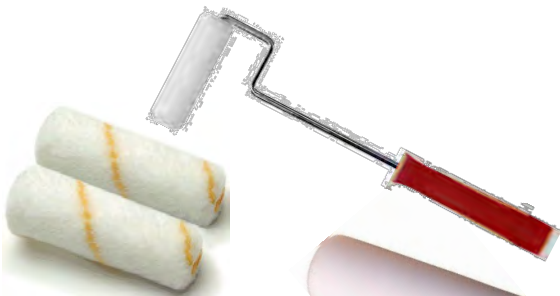
**DOGLEG TAR BRUSH**

White 100% China bristle, metal ring, 34 cm long handle.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
10 137	30mm	51 01 75
10 138	45mm	51 01 76

**PAINT ROLLERS**



**“MINI” RADIATOR PAINT ROLLERS**

Mini rollers - also called mouse rollers.

<u>PART #</u>	<u>DESCRIPTION</u>	<u>ISSA</u>
<b>Complete</b>		
10 140	4" complete with handle	51 04 61
10 144	6-1/2" complete w/handle	

<u>Refills</u>		
10 155	4" woven, 11 mm nap	51 04 62
10 053	4" wool, 4 mm nap	
10 055	4" foam, white	
10 145	6-1/2" woven, 11 mm nap	



<u>Handles (only)</u>		
10 146	4" wide x 12" long for mini rollers	
10 147	4" wide x 16" long for mini rollers	



**PAINT ROLLER HANDLES**

Cage style handle, 6mm wire, plastic handle.

<u>PART #</u>	<u>SIZE</u>
10 141	4" wide
10 142	7" wide
10 143	9" wide



**PAINT ROLLER REFILLS**

Cage Roller covers, Solvent Resistant Core, durable polyester fabric.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
10 156	4" wide	51 04 42
10 153	7" wide, 6 mm nap	51 04 55
10 157	7" wide, 11 mm nap	51 04 45
10 154	7" wide, 20 mm nap	51 04 35
10 158	9" wide, 11 mm nap	51 04 46
10 159	9" wide, 20 mm nap	51 04 36



**PAINT ROLLER EXTENSION POLES**

Pro-Design fiberglass handle and aluminum slider. External chuck & collet locking devise.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
10 160	2' - 4'	51 04 88
10 161	4' - 8'	51 04 89
10 165	6' x 12'	
10 163	6' - 18'	51 04 93
10 162	8' - 16'	51 04 91
10 164	8' - 24'	

**CLEANING PRODUCTS**



**FLOW-THRU BRUSHES**

Plastic block with black rubber bumper, chemical resistant.

<u>PART #</u>	<u>SIZE</u>	
10 170	10" very soft	Green
10 171	10" soft	Blue
10 172	10" Stiff	Yellow
10 173	10" very stiff (deck brush)	Naturel
10 174	5" round mini-wash	Blue

**FLOW-THRU TELESCOPING POLES**

Patented water-fed extension pole with insulated foam handle. Attaches to standard garden hose.

<u>PART #</u>	<u>SIZE</u>	<u>REACH</u>
10 007	3'-6'	11'
10 008	4'-8'	13'
10 009	6'-12'	17'

**SQUEEGEES & WASHERS**

Pro-design swivel handle cleaning tools, spring release allows the user to change blades quickly..



<u>PART #</u>	<u>SIZE</u>	<u>SIZE</u>
10 190	14"	Washers
10 191	18"	Washers
10 192	12"	Window Squeegees
10 193	18"	Window Squeegees
10 194	18"	Floor squeegees
10 195	22"	Floor squeegees
10 196	30"	Floor squeegees

**BROOM HANDLES**

Wooden handles 5 foot long



<u>PART #</u>	<u>SIZE</u>
10 150	Tapered end
10 151	Metal threaded

**CLEANING PRODUCTS**



**PLASTIC BUCKETS**

Plastic buckets with handle

<u>PART #</u>	<u>SIZE</u>
10 180	6 gallon Yellow
10 181	5 gallon Gray divided
10 182	35 QT Bucket w/ Wringer



**DOODLE BUG HOLDER & PADS**

Sturdy plastic design, 180 degree swivel joint, fits any standard handle  
Utility pads for cleaning, stripping and polishing

<u>PART#</u>	<u>COLOR</u>	<u>SIZE</u>
10 185	Pad holder	10" x 4-1/2"
10 186BLU	Blue pad	10" x 4-1/2" x 1"
10 186WHT	White pad	10" x 4-1/2" x 1"
10 186BRN	Brown	10" x 4-1/2" x 1"



**NON WOVEN HAND PADS**

Non-woven industrial-strength hand pads for cleaning, scuffing, deburring, fine finishing. 6" x 9", sold in box only!

<u>PART#</u>	<u>COLOR</u>	<u>SIZE</u>
10 184WHT	White pad	Box of 20
10 184GRY	Grey pad	Box of 20
10 184MRN	Maroon	Box of 20
10 184GRN	Green	Box of 20
10 184BLK	Black	Box of 20
10 184TAN	Tan	Box of 10



**FLOOR MAINTENANCE PADS**

Assorted grains for specific uses, double sided, Polyester and nylon fibers bonded with elastic synthetic resin. 1" thick. Sold in pack of 5 only!

10 188WHT	17" White	Dry polishing
10 188RED	17" Red	Dry buffing
10 188GRN	17" Green	Wet scrubbing
10 188BLU	17" Blue	Cleaning
10 188BLK	17" Black	Stripping
10 189WHT	20" White	Dry polishing
10 189RED	20" Red	Dry buffing
10 189GRN	20" Green	Wet scrubbing
10 189BLU	20" Blue	Cleaning
10 189BLK	20" Black	Stripping



**BOILER TUBE BRUSHES**

**BOILER TUBE BRUSH, STEEL**

Double stem, spiral type with male thread.



<u>PART #</u>	<u>DIA x THR</u>	<u>ISSA #</u>
10 057	6mm x 1/4"	
10 058	8mm x 1/4"	
10 059	10mm x 1/4"	51 07 01
10 060	12mm x 1/4"	51 07 02
10 061	14mm x 1/4"	
10 062	16mm x 5/16"	51 07 05
10 063	18mm x 5/16"	
10 064	20mm x 5/16"	51 07 08
10 065	22mm x 5/16"	51 07 11
10 066	25mm x 1/2"	51 07 12
10 068	38mm x 1/2"	51 07 13
10 070	50mm x 1/2"	51 07 14
10 072	63mm x 1/2"	51 07 15
10 074	75mm x 1/2"	51 07 16

**BOILER TUBE BRUSH, BRASS**

Double stem, spiral type with male thread.



<u>PART #</u>	<u>DIA x THR</u>	<u>ISSA #</u>
10 075	6mm x 1/4"	
10 076	8mm x 1/4"	
10 077	10mm x 1/4"	51 07 21
10 078	12mm x 1/4"	51 07 22
10 079	14mm x 1/4"	
10 080	16mm x 5/16"	51 07 25
10 081	18mm x 5/16"	
10 082	20mm x 5/16"	51 07 28

**BOILER TUBE BRUSH, NYLON**

Double stem, spiral type with male thread.



<u>PART #</u>	<u>DIA x THR</u>	<u>ISSA #</u>
10 209	6mm x 1/4"	
10 210	8mm x 1/4"	
10 211	10mm x 1/4"	51 07 36
10 212	12mm x 1/4"	51 07 37
10 213	14mm x 1/4"	
10 214	16mm x 5/16"	51 07 40
10 215	18mm x 5/16"	
10 216	20mm x 5/16"	51 07 43

**WIRE BRUSHES**

**CRIMPED WIRE CUP BRUSH**

Filled with tempered carbon steel wire.



<u>PART #</u>	<u>DIA.</u>	<u>ARBOR</u>	<u>ISSA #</u>
10 090	75mm	5/8" + M10	51 07 61
10 091	75mm	M14 x 2.0 Thr	
10 093	100mm	M14 x 2.0 Thr	
10 094	100mm	M22.2 Plain	
10 095	100mm	5/8" - 11 Thr	51 07 62
10 096	125mm	M22.2 Plain	
10 097	125mm	5/8" - 11 Thr	
10 098	150mm	M22.2 Plain	51 07 63
10 099	150mm	5/8" - 11 Thr	

**Multi-Thread**



**KNOTTED WIRE CUP BRUSH**

Single row, twisted knot style.

<u>PART #</u>	<u>DIA.</u>	<u>ARBOR</u>	<u>ISSA #</u>
10 100	75mm	5/8" + M10	51 07 66
10 101	75mm	M14 x 2.0 Thr	
10 110	75mm	5/8"-11 & M14 x 2.0 <b>(Multi-thread)</b>	
10 111 *	75mm	M16 hole <b>(for MAG-40)</b>	
10 103	100mm	M14 x 2.0 Thr	
10 104	100mm	M22.2 Plain	
10 105	100mm	5/8" - 11 Thr	51 07 67
10 106	125mm	M14 x 2.0 Thr	
10 107	125mm	M22.2 Plain	
10 108	125mm	5/8" - 11 Thr	
10 109	150mm	5/8" - 11 Thr	51 07 68

\* this brush fits MAG-40

**WIRE CUP BRUSH WITH SHANK**

Crimped carbon steel and brass wire cup brush with 1/4" shank.



<u>PART #</u>	<u>DIA.</u>
10 135	50mm Steel
10 136	75mm Steel
10 133	50 mm Brass
10 134	75 mm Brass

**WIRE BRUSHES**



**WIRE END BRUSH WITH SHANK**

Crimped and knotted steel and stainless steel end brushes with 1/4" shank

<u>PART #</u>	<u>DIA.</u>
10 112	19 mm steel crimped
10 113	25 mm steel crimped
10 114	19 mm steel knotted
10 128	25mm <a href="#">stainless steel</a> Crimped
10 129	25mm <a href="#">stainless steel</a> Knotted



**WIRE WHEELS**

Crimped and knotted wire wheels, flexible for small to medium jobs.

<u>PART #</u>	<u>DIA.xWIDTH</u>	<u>ISSA #</u>
<b><u>Crimped</u></b>		
10 118	75 x 10mm	51 07 71
10 119	100 x 25mm	51 07 72
10 120	150 x 25mm	51 07 74
10 122	200 x 25mm	51 07 75
10 123	250 x 28mm	51 07 76
10 124	300 x 30mm	51 07 77
<b><u>Knotted</u></b>		
10 125	4"X1/2"X5/8"-11 - STEEL	
10 126	5"X1/2"X5/8"-11 - STEEL	
10 127	6"X5/8"X5/8"-11 - STEEL	
10 117	4"X1/2"X5/8"-11 - <a href="#">STAINLESS</a>	

**WIRE WHEELS WITH 1/4" SHANK**

Circular wire wheels, crimped wire.



<u>PART #</u>	<u>DIA.</u>	<u>SHANK</u>	<u>ISSA</u>
<b><u>STEEL</u></b>			
10 130	50mm	6 x 35mm	51 07 86
10 131	75mm	6 x 35mm	
<b><u>STAINLESS STEEL</u></b>			
10 132	40 mm	6 x 35 mm	
10 139	50 mm	6 x 35 mm	
10 121	75 mm	6 x 35 mm	

**BRUSHES**



**WIRE SCRATCH BRUSH**

4x19 row hand wire brush, straight handle.

<u>PART #</u>	<u>DESCRIPTION</u>	<u>ISSA #</u>
10 085	Brass	51 06 67
10 087	Steel, straight	51 06 62
10 088	Steel, shoe handle	
10 086	Stainless Steel straight	
10 089	Stainless Steel shoe handle	



**CAULKING GUNS**

For standard cartridges, ratchet type  
Quick-release thumb lever

<u>PART #</u>	<u>DESCRIPTION</u>
10 050	Half barrel style, blue Std. 10 oz cartridge



<u>PART #</u>	<u>DESCRIPTION</u>
10 051	Skeleton style, red H.D. Uni-rail construction



<u>PART #</u>	<u>DESCRIPTION</u>
10 052	Revolving Barrel style, red/blk Revolving easy-load barrel with no-drip feature.

# **CUTTING TOOLS**



## JOBBER'S DRILL BITS - METRIC



### METRIC JOBBERS DRILL BITS

Will perform in a broad range of materials and in various types of drilling equipment, both machine and portable.

**High Speed:** Broad range of materials

**Cobalt Steel:** Stainless Steel and Titanium

### HIGH SPEED STEEL (BRIGHT FINISH)

<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA.</u>
20 001	.25mm	20 013	4.0mm	20 025	10.0mm
20 002	.30mm	20 014	4.5mm	20 026	10.5mm
20 003	.35mm	20 015	5.0mm	20 027	11.0mm
20 004	.40mm	20 016	5.5mm	20 028	11.5mm
20 005	.45mm	20 017	6.0mm	20 029	12.0mm
20 006	.50mm	20 018	6.5mm	20 030	12.5mm
20 007	1.0mm	20 019	7.0mm	20 031	13.0mm
20 008	1.5mm	20 020	7.5mm	20 032	13.5mm
20 009	2.0mm	20 021	8.0mm	20 033	14.0mm
20 010	2.5mm	20 022	8.5mm	20 034	14.5mm
20 011	3.0mm	20 023	9.0mm	20 035	15.0mm
20 039	3.2mm	20 024	9.5mm	20 036	15.5mm
20 012	3.5mm			20 037	16.0mm

### COBALT STEEL

<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA</u>	<u>PART #</u>	<u>DIA</u>
20 007C	1.0mm	20 017C	6.0mm	20 028C	11.5mm
20 008C	1.5mm	20 018C	6.5mm	20 029C	12.0mm
20 009C	2.0mm	20 019C	7.0mm	20 030C	12.5mm
20 010C	2.5mm	20 020C	7.5mm	20 031C	13.0mm
20 011C	3.0mm	20 021C	8.0mm	20 032C	13.5mm
20 039C	3.2mm	20 022C	8.5mm	20 033C	14.0mm
20 012C	3.5mm	20 023C	9.0mm	20 034C	14.5mm
20 013C	4.0mm	20 024C	9.5mm	20 035C	15.0mm
20 014C	4.5mm	20 025C	10.0mm	20 036C	15.5mm
20 015C	5.0mm	20 026C	10.5mm	20 037C	16.0mm
20 016C	5.5mm	20 027C	11.0mm		

**JOBBER'S DRILL BITS - FRACTIONAL****FRACTIONAL JOBBERS DRILL BITS**

Will perform in a broad range of materials and in various types of drilling equipment, both machine and portable.

**High Speed:** Broad range of materials

**Cobalt Steel:** Stainless Steel and Titanium

**HIGH SPEED STEEL (BRIGHT FINISH)**

<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA.</u>
21 001	1/64"	21 015	1/4"	21 030	17/32"
21 002	1/32"	21 016	17/64"	21 031	35/64"
21 003	3/64"	21 017	9/32"	21 032	9/16"
21 004	1/16"	21 018	19/64"	21 033	37/64"
21 005	5/64"	21 019	21/64"	21 034	19/32"
21 006	3/32"	21 020	3/8"	21 035	39/64"
21 007	7/64"	21 021	25/64"	21 036	5/8"
21 008	1/8"	21 022	13/32"	21 037	41/64"
21 009	9/64"	21 023	27/64"	21 038	21/32"
21 010	5/32"	21 024	7/16"	21 039	43/64"
21 011	11/64"	21 025	29/64"	21 040	11/16"
21 061	3/16"	21 026	15/32"		
21 012	13/64"	21 027	31/64"		
21 013	7/32"	21 028	1/2"		
21 014	15/64"	21 029	33/64"		

**COBALT STEEL**

<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA.</u>
21 001C	1/64"	21 015C	1/4"
21 002C	1/32"	21 016C	17/64"
21 003C	3/64"	21 017C	9/32"
21 004C	1/16"	21 018C	19/64"
21 005C	5/64"	21 019C	21/64"
21 006C	3/32"	21 020C	3/8"
21 007C	7/64"	21 021C	25/64"
21 008C	1/8"	21 022C	13/32"
21 009C	9/64"	21 023C	27/64"
21 010C	5/32"	21 024C	7/16"
21 011C	11/64"	21 025C	29/64"
21 061C	3/16"	21 026C	15/32"
21 012C	13/64"	21 027C	31/64"
21 013C	7/32"	21 028C	1/2"
21 014C	15/64"		

## JOBBERS DRILL BITS



### METRIC JOBBERS DRILL BIT SETS

High speed and cobalt steel in metal index.

<u>PART #</u>	<u>DESCRIPTION</u>	<u>BITS</u>	<u>ISSA #</u>
	<b><u>HIGH SPEED</u></b>		
20 177	1.5- 6.5mm by 0.5mm	13	63 02 52
20 175	1-10.0mm by 0.5mm	19	63 02 54
20 176	1-13.0mm by 0.5mm	25	63 02 55
	<b><u>COBALT STEEL</u></b>		
20 209	1-6.0 mm by 0.5 mm	13	
20 178	1-10.0mm by 0.5mm	19	
20 179	1-13.0mm by 0.5mm	25	



### FRACTIONAL JOBBERS DRILL BIT SETS

High speed and cobalt steel in metal index.

<u>PART #</u>	<u>DESCRIPTION</u>	<u>BITS</u>
	<b><u>HIGH SPEED</u></b>	
20 454	1/16"-1/4" by 64ths	13
20 455	1/16"-3/8" by 64ths	21
20 456	1/16"-1/2" by 64ths	29
	<b><u>COBALT STEEL</u></b>	
20 457	1/16"-1/4" by 64ths	13
20 458	1/16"-3/8" by 64ths	21
20 459	1/16"-1/2" by 64ths	29



### STEP DRILLS

Ideal for drilling multiple diameter holes in steel, copper, brass, aluminum, PVC, wood, and laminates up to 1/8" thick

<u>PART#</u>	<u>SIZE</u>	
20 240	1/8"-1/2"	step 1/32"
20 241	1/4"-3/4"	step 1/16"
20 242	1/4"-1-3/8"	step 1/8"
20 248	1/8"-7/8"	
20 247	5-pc metric set	
	4-12mm, 9 steps with 6 mm shank	
	4-12mm, 5 steps with 6mm shank	
	6-18mm, 7 steps with 8 mm shank	
	4-22mm, 10 steps with 8 mm shank	
	6-35mm, 13 steps with 10 mm shank	

**TAPER SHANK DRILL BITS - METRIC****METRIC TAPER SHANK DRILL BITS**

High speed steel.

Metric taper shank drills are made to fit tapered holders.

<u>PART #</u>	<u>DIA.</u>	<u>M.T.</u>	<u>ISSA #</u>	<u>PART #</u>	<u>DIA.</u>	<u>M.T.</u>	<u>ISSA #</u>
20 058	10.0mm	2 MT	63 03 01	20 091	23.5mm	3 MT	63 03 28
20 059	10.5mm	2 MT	63 03 02	20 092	24.0mm	3 MT	63 03 29
20 060	11.0mm	2 MT	63 03 03	20 093	24.5mm	3 MT	63 03 30
20 061	11.5mm	2 MT	63 03 04	20 094	25.0mm	3 MT	63 03 31
20 062	12.0mm	2 MT	63 03 05	20 095	25.5mm	3 MT	63 03 32
20 063	12.5mm	2 MT	63 03 06	20 096	26.0mm	3 MT	63 03 33
20 070	13.0mm	2 MT	63 03 07	20 097	26.5mm	3 MT	63 03 34
20 071	13.5mm	2 MT	63 03 08	20 098	27.0mm	4 MT	63 03 35
20 072	14.0mm	2 MT	63 03 09	20 099	27.5mm	4 MT	63 03 36
20 073	14.5mm	2 MT	63 03 10	20 100	28.0mm	4 MT	63 03 37
20 074	15.0mm	2 MT	63 03 11	20 101	28.5mm	4 MT	63 03 38
20 075	15.5mm	2 MT	63 03 12	20 102	29.0mm	4 MT	63 03 39
20 076	16.0mm	2 MT	63 03 13	20 103	29.5mm	4 MT	63 03 40
20 077	16.5mm	2 MT	63 03 14	20 104	30.0mm	4 MT	63 03 41
20 078	17.0mm	2 MT	63 03 15	20 105	31.0mm	4 MT	63 03 43
20 079	17.5mm	2 MT	63 03 16	20 106	32.0mm	4 MT	63 03 45
20 080	18.0mm	2 MT	63 03 17	20 107	33.0mm	4 MT	63 03 46
20 081	18.5mm	2 MT	63 03 18	20 108	34.0mm	4 MT	63 03 47
20 082	19.0mm	2 MT	63 03 19	20 109	35.0mm	4 MT	63 03 48
20 083	19.5mm	2 MT	63 03 20	20 110	36.0mm	4 MT	63 03 49
20 084	20.0mm	3 MT	63 03 21	20 111	37.0mm	5 MT	63 03 50
20 085	20.5mm	3 MT	63 03 22	20 112	38.0mm	5 MT	63 03 51
20 086	21.0mm	3 MT	63 03 23	20 113	39.0mm	5 MT	63 03 52
20 087	21.5mm	3 MT	63 03 24	20 114	40.0mm	5 MT	63 03 53
20 088	22.0mm	3 MT	63 03 25	20 395	45.0mm	5 MT	
20 090	23.0mm	3 MT	63 03 27	20 396	50.0mm	5 MT	

**REDUCED SHANK DRILLS**



**REDUCED SHANK DRILLS.**

1/2" Shank, Silver and Deming drills, H.S. steel, 118 degree point.

<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA.</u>	<u>PART #</u>	<u>DIA.</u>
20 710	13.0 mm	20 722	19.0 mm	20 735	25.0 mm
20 711	13.5 mm	20 723	19.5 mm	20 736	25.5 mm
20 712	14.0 mm	20 724	20.0 mm	20 737	26.0 mm
20 713	14.5 mm	20 725	20.5 mm	20 738	26.5 mm
20 714	15.0 mm	20 726	21.0 mm	20 739	27.0 mm
20 715	15.5 mm	20 727	21.5 mm	20 740	27.5 mm
20 716	16.0 mm	20 728	22.0 mm	20 741	28.0 mm
20 717	16.5mm	20 729	22.5 mm	20 742	28.5 mm
20 718	17.0 mm	20 730	23.0mm	20 743	29.0 mm
20 719	17.5 mm	20 731	23.5 mm	20 744	29.5 mm
20 720	18.0 mm	20 732	24.0 mm	20 745	30.0 mm
20 721	18.5 mm	20 734	24.5 mm	20 746	30.5 mm
				20 747	31.0 mm

**DRILL SLEEVES**



**DRILL SLEEVES**

Designed for drilling with morse taper shanks.

<u>PART #</u>	<u>M.T. SIZE</u>	<u>ISSA #</u>
20 595	1 X 2	63 23 51
20 596	2 X 3	63 23 53
20 597	3 X 4	63 23 55
20 598	4 X 5	63 23 58
20 599	1 X 3	63 23 52
20 593	2 X 4	63 23 54
20 594	3 X 5	63 23 56



**METRIC END MILLS**



**METRIC END MILLS, H.S.**

High speed steel, single end, 4 flute.

<u>PART #</u>	<u>DIA.</u>	<u>SHANK</u>	<u>O.L.</u>	<u>FLUTE</u>	<u>PART #</u>	<u>DIA.</u>	<u>SHANK</u>	<u>O.L.</u>	<u>FLUTE</u>
20 149	3mm	10mm	60mm	13mm	20 155	9mm	10mm	60mm	15mm
20 147	3.5mm	10mm	60mm	13mm	20 156	10mm	10mm	64mm	20mm
20 150	4mm	10mm	60mm	13mm	20 157	11mm	10mm	64mm	20mm
20 148	4.5mm	10mm	60mm	13mm	20 158	12mm	12mm	75mm	25mm
20 151	5mm	10mm	60mm	13mm	20 159	13mm	12mm	80mm	28mm
20 173	5.5mm	10mm	60mm	15mm	20 160	14mm	12mm	80mm	28mm
20 152	6mm	10mm	60mm	15mm	20 161	16mm	12mm	84mm	33mm
20 174	6.5mm	10mm	60mm	15mm	20 162	18mm	12mm	84mm	33mm
20 153	7mm	10mm	60mm	15mm	20 163	20mm	19mm	95mm	38mm
20 154	8mm	10mm	60mm	15mm	20 164	24mm	22mm	95mm	38mm
20 139	8.5mm	10mm	60mm	15mm	20 165	26mm	25mm	105mm	42mm



**METRIC END MILLS, CARBIDE**

Solid Carbide, single end, 4 flute.

Center cutting geometry, used for finishing operation.

Made of premium sub micron grain carbide

<u>PART #</u>	<u>DIA.</u>	<u>SHANK</u>	<u>O.L.</u>	<u>FLUTE</u>	<u>PART #</u>	<u>DIA.</u>	<u>SHANK</u>	<u>O.L.</u>	<u>FLUTE</u>
20 149C	3mm	3mm	38mm	12mm	20 158C	12mm	12mm	75mm	25mm
20 147C	3.5mm	4mm	50mm	12mm	20 159C	13mm	14mm	89mm	32mm
20 150C	4mm	4mm	50mm	14mm	20 160C	14mm	14mm	89mm	32mm
20 148C	4.5mm	6mm	50mm	16mm	20 161C	16mm	16mm	89mm	32mm
20 151C	5mm	6mm	50mm	16mm	20 162C	18mm	18mm	100mm	38mm
20 173C	5.5mm	6mm	50mm	19mm	20 163C	20mm	20mm	100mm	38mm
20 152C	6mm	6mm	50mm	19mm	20 164C	22mm	22mm	100mm	38mm
20 153C	7mm	8mm	63mm	20mm	20 165C	25mm	25mm	100mm	38mm
20 154C	8mm	8mm	63mm	20mm					
20 155C	9mm	10mm	75mm	22mm					
20 156C	10mm	10mm	75mm	22mm					
20 157C	11mm	12mm	75mm	25mm					



**COMB. DRILL & COUNTERSINK**

Center drills, H.H.S., 60 degree, A-type.

<u>PART #</u>	<u>DRILL x BODY</u>	<u>NO.</u>	<u>ISSA #</u>
20 049	1.0 x 3.15mm	#0	63 05 01
20 050	1.6 x 4.0mm	#1	63 05 02
20 051	2.0 x 5.0mm	#2	63 05 03
20 052	2.5 x 6.3mm	#3	63 05 04
20 053	3.15 x 8.0mm	#4	63 05 05
20 054	4.0 x 10.0mm	#5	63 05 06
20 055	5.6 x 12.7mm	#6	
20 056	6.3 x 16.0mm	#7	63 05 07
20 057	10.0 x 25.0mm	#8	63 05 08



**COMB. DRILL & COUNTERSINK SET**

Center drill set, H.H.S., 60 degree, A-type.

<u>PART #</u>	<u>DESCRIPTION</u>
20 042	5-Pc set 1.0 x 3.15 mm 2.0 x 4.76 mm 2.7 x 6.3 mm 3.15 x 8.0 mm 4.7 x 11.0 mm



**CENTER REAMER SET**

Single flutes will countersink holes much smaller than multi-flute tools.

5-Pc set, 1/4", 3/8", 1/2", 3/4" & 1"

<u>PART #</u>	<u>DESCRIPTION</u>
20 044	60 DEG.
20 046	82 DEG.
20 064	90 DEG.

**EXTRACTORS**



**SCREW EXTRACTOR SETS**

Chrome Molybdenum steel in molded plastic box.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
20 615	# 1-6	63 24 87
20 616	# 1-8	



**SCREW EXTRACTOR SETS**

Spiral and Multi-Spline extractors, Bolt extractors and left-hand Cobalt drill bits. Molded plastic case.

<u>PART #</u>	<u>SIZE</u>
20 249	25-Pc set, 1/8" - 1/2"
20 250	48-Pc set, 1/8" - 1/2"



**BOLT-GRIP EXTRACTOR SETS**

Reverse spiral flutes are designed to bite down to provide maximum gripping power. High Carbon steel. Set includes plastic case.

<u>PART #</u>	<u>SIZE</u>
20 460	9-Pc set, 6-19 mm
20 463	9-Pc set, 8-19 mm
20 465	13-Pc set, 6-19 mm



**TAP EXTRACTOR SETS**

The hardened steel fingers of Tap Extractors fit in the flutes of a broken tap to back it out simply and safely.

<u>PART#</u>	<u>CONTENTS</u>
20 065	6-Pc, 3/16", 1/4", 5/16", 3/8", 7/16" & 1/2"
20 066	6-Pc, 1/4", 5/16", 3/8", 7/16", 1/2" & 5/8"
20 067	6-Pc, 5/16", 3/8", 7/16", 1/2", 9/16" & 5/8"
20 068	11-Pc, 1/8", 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4", 7/8", 1"



**METRIC TAP SETS**

Tungsten steel.

Metric: Set of 3 taps: taper, plug & bottoming

B.S.P.: Set of 2 taps: taper & parallel thread

B.S.W: Set of 3 taps: taper, plug & bottoming

**STANDARD COARSE THREAD**

<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>
20 320	M2 x 0.4	20 327	M7 x 1.0	20 334	M16 x 2.0
20 321	M3 x 0.5	20 328	M8 x 1.25	20 335	M18 x 2.5
20 322	M3.5 x 0.6	20 329	M9 x 1.25	20 336	M20 x 2.5
20 323	M4 x 0.7	20 330	M10 x 1.50	20 337	M22 x 2.5
20 324	M4.5 x 0.75	20 331	M11 x 1.50	20 338	M24 x 3.0
20 325	M5 x 0.8	20 332	M12 x 1.75	20 339	M27 x 3.0
20 326	M6 x 1.0	20 333	M14 x 2.00	20 340	M30 x 3.5

**SPECIAL FINE THREAD**

<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>
20 382	M4 x 0.5	20 704	M14 x 1.5	20 346	M22 x 1.0
20 383	M5 x 0.75	20 343	M14 x 1.75	20 639	M22 x 1.25
20 384	M6 x 0.5	20 635	M16 x 1.0	20 643	M22 x 1.5
20 385	M6 x 0.75	20 344	M16 x 1.25	20 706	M22 x 2.0
20 701	M8 x 0.5	20 345	M16 x 1.5	20 644	M24 x 1.0
20 386	M8 x 0.75	20 391	M16 x 1.75	20 645	M24 x 1.25
20 341	M8 x 1.0	20 636	M18 x 1.0	20 347	M24 x 1.5
20 702	M10 x 0.75	20 641	M18 x 1.25	20 707	M24 x 2.0
20 342	M10 x 1.0	20 392	M18 x 1.5	20 640	M24 x 2.5
20 387	M10 x 1.25	20 637	M18 x 1.75	20 479	M27 x 1.0
20 388	M12 x 1.0	20 393	M18 x 2.0	20 708	M27 x 1.5
20 703	M12 x 1.25	20 638	M20 x 1.0	20 646	M27 x 2.0
20 389	M12 x 1.50	20 642	M20 x 1.25	20 709	M30 x 1.0
20 390	M14 x 1.25	20 705	M20 x 1.5	20 348	M30 x 1.5
		20 394	M20 x 2.0	20 358	M30 x 2.0

**B.S.P. (BRITISH STANDARD PIPE THREAD)**

<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>
20 370	1/8" x 28	20 374	5/8" x 14	20 378	1-1/8" x 11
20 371	1/4" x 19	20 375	3/4" x 14	20 379	1-1/4" x 11
20 372	3/8" x 19	20 376	7/8" x 14	20 380	1-1/2" x 11
20 373	1/2" x 14	20 377	1" x 11	20 381	2" x 11

**B.S.W. (BRITISH STANDARD WHITWORTH)**

<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>
20 350	1/8" x 40	20 356	3/8" x 16	20 364	7/8" x 9
20 351	5/32" x 32	20 357	7/16" x 14	20 365	1" x 8
20 352	3/16" x 24	20 360	1/2" x 12	20 366	1-1/8" x 7
20 353	7/32" x 24	20 361	9/16" x 12	20 367	1-1/4" x 7
20 354	1/4" x 20	20 362	5/8" x 11	20 368	1-1/2" x 6
20 355	5/16" x 18	20 363	3/4" x 10	20 369	2" x 4.5

**ROUND ADJUSTABLE DIES**

Tungsten steel.

**STANDARD COARSE THREAD**

<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>
20 253	M2 x 0.4	20 260	M7 x 1.0	20 267	M16 x 2.0
20 254	M3 x 0.5	20 261	M8 x 1.25	20 268	M18 x 2.5
20 255	M3.5 x 0.6	20 262	M9 x 1.25	20 269	M20 x 2.5
20 256	M4 x 0.7	20 263	M10 x 1.50	20 270	M22 x 2.5
20 257	M4.5 x 0.75	20 264	M11 x 1.50	20 271	M24 x 3.0
20 258	M5 x 0.8	20 265	M12 x 1.75	20 272	M27 x 3.0
20 259	M6 x 1.0	20 266	M14 x 2.00	20 273	M30 x 3.5

**SPECIAL FINE THREAD**

<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>	<u>PART#</u>	<u>SIZExPITCH</u>
20 304	M4 x .5	20 315	M14 x 1.5	20 431	M20 x 2.0
20 305	M5 x .75	20 316	M14 x 1.75	20 648	M22 x 1.0
20 306	M6 x .5	20 623	M16 x 1.0	20 649	M22 x 1.25
20 307	M6 x .75	20 627	M16 x 1.25	20 432	M22 x 1.5
20 308	M8 x .5	20 401	M16 x 1.5	20 433	M22 x 2.0
20 309	M8 x .75	20 408	M16 x 1.75	20 632	M24 x 1.0
20 310	M8 x 1.0	20 628	M18 x 1.0	20 633	M24 x 1.25
20 045	M8 x 1.5	20 629	M18 x 1.25	20 434	M24 x 1.5
20 317	M10 x .75	20 409	M18 x 1.5	20 475	M24 x 2.0
20 318	M10 x 1.0	20 647	M18 x 1.75	20 476	M24 x 2.5
20 319	M10 x 1.25	20 429	M18 x 2.0	20 700	M27 x 1.5
20 311	M12 x 1.0	20 630	M20 x 1.0	20 634	M27 x 2.0
20 312	M12 x 1.25	20 631	M20 x 1.25	20 477	M30 x 1.0
20 313	M12 x 1.50	20 430	M20 x 1.5	20 478	M30 x 1.5
20 314	M14 x 1.25			20 359	M30 x 2.0

**B.S.P. (BRITISH STANDARD PIPE THREAD)**

<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>
20 292	1/8" x 28	20 296	5/8" x 14	20 300	1-1/8" x 11
20 293	1/4" x 19	20 297	3/4" x 14	20 301	1-1/4" x 11
20 294	3/8" x 19	20 298	7/8" x 14	20 302	1-1/2" x 11
20 295	1/2" x 14	20 299	1" x 11	20 303	2" x 11

**B.S.W. (BRITISH STANDARD WHITWORTH)**

<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>	<u>PART#</u>	<u>SIZExTHREAD</u>
20 274	1/8" x 40	20 280	3/8" x 16	20 286	7/8" x 9
20 275	5/32" x 32	20 281	7/16" x 14	20 287	1" x 8
20 276	3/16" x 24	20 282	1/2" x 12	20 288	1-1/8" x 7
20 277	7/32" x 24	20 283	9/16" x 12	20 289	1-1/4" x 7
20 278	1/4" x 20	20 284	5/8" x 11	20 290	1-1/2" x 6
20 279	5/16" x 18	20 285	3/4" x 10	20 291	2" x 4.5



**HEXAGON RE-THREADING DIES**

Tungsten steel.

**METRIC COARSE THREAD**

<u>PART #</u>	<u>SIZE x PITCH</u>	<u>PART #</u>	<u>SIZE x PITCH</u>	<u>PART #</u>	<u>SIZE x PITCH</u>
20 180	M2 x 0.4	20 187	M7 x 1.0	20 194	M16 x 2.0
20 181	M3 x 0.5	20 188	M8 x 1.25	20 195	M18 x 2.5
20 182	M3.5 x 0.6	20 189	M9 x 1.25	20 196	M20 x 2.5
20 183	M4 x 0.7	20 190	M10 x 1.5	20 197	M22 x 2.5
20 184	M4.5 x 0.75	20 191	M11 x 1.5	20 198	M24 x 3.0
20 185	M5 x 0.8	20 192	M12 x 1.75	20 199	M27 x 3.0
20 186	M6 x 1.0	20 193	M14 x 2.0	20 200	M30 x 3.5

**B.S.P. (BRITISH STANDARD PIPE THREAD)**

<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR.</u>
20 228	1/8" x 28	20 232	5/8" x 14	20 236	1 1/8" x 11
20 229	1/4" x 19	20 233	3/4" x 14	20 237	1 1/4" x 11
20 230	3/8" x 19	20 234	7/8" x 14	20 238	1 1/2" x 11
20 231	1/2" x 14	20 235	1" x 11	20 239	2" x 11

**B.S.W. (BRITISH STANDARD WHITWORTH)**

<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR.</u>
20 210	1/8" x 40	20 216	3/8" x 16	20 222	7/8" x 9
20 211	5/32" x 32	20 217	7/16" x 14	20 223	1" x 8
20 212	3/16" x 24	20 218	1/2" x 12	20 224	1 1/8" x 7
20 213	7/32" x 24	20 219	9/16" x 12	20 225	1 1/4" x 7
20 214	1/4" x 20	20 220	5/8" x 11	20 226	1 1/2" x 6
20 215	5/16" x 18	20 221	3/4" x 10	20 227	2" x 4.5



**NPT TAPER PIPE TAPS**

High Speed Steel

**NPT PIPE TAPS**

<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR</u>
20 750	1/16" x 27	20 755	3/4" x 14	20 760	2-1/2" x 8
20 751	1/8" x 27	20 756	1" x 11-1/2	20 761	3" x 8
20 752	1/4" x 18	20 757	1 1/4" x 11-1/2	20 762	3-1/2" x 8
20 753	3/8" x 18	20 758	1 1/2" x 11-1/2	20 763	4" x 8
20 754	1/2" x 14	20 759	2" x 11-1/2		



**NPT HEXAGON PIPE DIES**

High Speed Steel

**NPT HEX PIPE DIES**

<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR.</u>	<u>PART #</u>	<u>SIZE x THR</u>
20 767	1/16" x 27	20 772	3/4" x 14	20 777	2-1/2" x 8
20 768	1/8" x 27	20 773	1" x 11-1/2	20 778	3" x 8
20 769	1/4" x 18	20 774	1 1/4" x 11-1/2	20 779	3-1/2" x 8
20 770	3/8" x 18	20 775	1 1/2" x 11-1/2		
20 771	1/2" x 14	20 776	2" x 11-1/2		

**TAP WRENCHES & DIE STOCKS**



**TAP WRENCH - "T"-HANDLE**

Spring type with 4 jaws of hardened steel.

<u>PART #</u>	<u>CAPACITY</u>	<u>NO.</u>	<u>ISSA #</u>
20 410	3 to 6mm	1	63 34 12
20 411	5 to 10mm	2	63 34 13
20 412	6 to 13mm	3	63 34 14



**TAP WRENCH - RATCHET**

Spring type with 2 jaws of hardened steel.

<u>PART #</u>	<u>CAPACITY</u>	<u>NO.</u>
20 413	3 to 10mm	1
20 414	5 to 12mm	2



**TAP WRENCH - ADJUSTABLE**

Die casted body, steel handle.

<u>PART #</u>	<u>CAPACITY</u>	<u>NO.</u>	<u>ISSA#</u>
20 403	0 to 6mm	0	63 34 01
20 415	1 to 10mm	4	63 34 02
20 416	3 to 13mm	5	63 34 03
20 417	6 to 20mm	6	63 34 04
20 418	10 to 25mm	7	63 34 05



**DIE STOCKS**

Die casted body, steel handle, for round dies.

<u>PART #</u>	<u>DIE DIA</u>	<u>ISSA #</u>
20 419	20mm	63 34 22
20 420	25mm	63 34 23
20 421	30mm	
20 422	38mm	63 34 24
20 423	45mm	
20 424	50mm	63 34 25
20 425	63mm	63 34 27
20 426	75mm	63 34 29

## TAP & DIE SETS



### TAP & DIE SET - 2 to 6MM

High quality tungsten steel. 20-pc. set.  
(2,2.5,3,3.5,4,4.5,5,5.5,6mm coarse thread)

<u>PART #</u>	<u>DESCRIPTION</u>
20 492	9 Plug taps
	9 Round dies
	1 Adjustable tap wrench
	1 Die stock 1" OD
	Weight: 1.5 Lbs.

**ISSA # 63 22 11**



### TAP & DIE SET - 3 to 12MM

High quality tungsten steel. 39-pc. set.  
( 3,4,5,6,7,8,10,12mm coarse & fine thread.

<u>PART #</u>	<u>DESCRIPTION</u>
20 400	17 taps, 17 round dies
	2 tap wrenches
	1 Adjustable tap wrench
	1 Die stock 1" O.D.
	1 Metric screw pitch gauge
	1 Screwdriver
	Weight: 3.0 Lbs.

**ISSA # 63 22 09**



### TAP & DIE SET - 6 to 24MM

High quality tungsten steel. 45-pc. set.  
(6,8,10,12,14,16,18,20,22,24mm) NC/NF

<u>PART #</u>	<u>DESCRIPTION</u>
20 402	20 taps, 20 round dies
	2 Adjustable tap wrenches
	1 Die stock 2" OD
	1 Die Adaptor, 1 screwdriver
	Weight: 11 lbs.

**ISSA # 63 22 03**

## TAP & DIE SETS



### TAP & DIE SET - 1/4" to 1/2" NC/NF

High quality tungsten steel. 39-pc. set. NC/NF  
( 4-40,6-32,8-32,10-24,12-24,1/4",5/16",3/8",7/16",1/2")

<u>PART #</u>	<u>DESCRIPTION</u>
<b>20 398</b>	17 taps, 17 round dies 2 tap wrenches 1 Adjustable tap wrench 1 Die stock 1" O.D. 1 Metric screw pitch gauge 1 Screwdriver Weight: 3.0 Lbs.



### TAP & DIE SET - 1/4" to 1" NC/NF

High quality tungsten steel. 45-pc. set.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>20 399</b>	20 taps 20 dies  Weight: 5.4 lbs.



### TAP & DIE SET - 1/8" to 1" NPT

High quality tungsten steel. 12-pc. set.  
(1/8", 1/4", 3/8", 1/2", 3/4", 1")

<u>PART #</u>	<u>DESCRIPTION</u>
<b>20 404</b>	6 taps 6 Hex dies  Weight: 5.4 lbs.

## TAP & DIE SETS



### TAP & DIE SET - 1/4" to 1" B.S.W.

High quality tungsten steel. 21-pc. set.  
(1/4", 5/16", 3/8", 7/16", 1/2", 5/8", 3/4", 7/8", 1")

**PART #**  
**20 405**

#### DESCRIPTION

9 Plug taps  
9 Round dies  
2 Adjustable tap wrenches  
1 Die stock 2" O.D.  
Weight: 13 lbs.

**ISSA # 63 22 35**



### TAP & DIE SET - 1/8" to 1" B.S.P.

High quality tungsten steel. 20-pc. set.  
(1/8", 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1")

**PART #**  
**20 407**

#### DESCRIPTION

8 Taper taps  
8 Round dies  
2 Adjustable tap wrenches  
2 Die stocks 2" & 2-1/2" O.D.  
Weight: 15 lbs.

**ISSA # 63 22 53**



### TAP & DIE SET - FRACTIONAL/METRIC

High carbon steel. **110-pc. set.**

UNC/UNF/UNS/NPT/METRIC

#4-3/4", 6mm-18mm, 1/4"-24, 1/4"-32, 1/8" & 1/4" NPT

**PART #**  
**20 406**

#### DESCRIPTION

35 Taper taps, 35 Bottom taps  
35 Round dies  
2 Adjustable tap wrenches  
1 T-handle tap wrench  
2 Die stocks 1" & 1-1/2" O.D.  
Weight: 15 lbs.

TAPS INCLUDED (NOT SHOWN)



**CARBIDE TOOL BITS**

**STRAIGHT TURNING TOOL - STYLE A**



<u>LEFT HAND</u>		<u>RIGHT HAND</u>
<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>
20 480	6x6x0mm	20 489
20 481	8x8x57mm	20 490
20 482	10x10x63mm	20 491
20 484	12x12x90mm	20 493
20 485	16x16x100mm	20 494
20 486	20x20x115mm	20 495
20 487	25x25x175mm	20 496

**STRAIGHT TURNING TOOL - STYLE B**



<u>LEFT HAND</u>		<u>RIGHT HAND</u>
<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>
20 780	6x6x50mm	20 789
20 781	8x8x57mm	20 790
20 782	10x10x63mm	20 791
20 784	12x12x90mm	20 793
20 785	16x16x100mm	20 794
20 786	20x20x115mm	20 795
20 787	25x25x175mm	20 796

**SQUARE NOSE TOOL - STYLE C**



<u>PART #</u>	<u>SIZE</u>	<u>NO.</u>
20 513	6x6x50mm	4
20 514	8x8x57mm	5
20 515	10x10x63mm	6
20 517	12x12x90mm	8
20 518	16x16x100mm	10
20 519	20x20x115mm	12
20 501	25x25x175mm	16

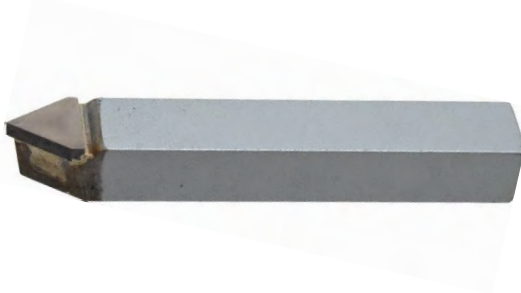
**POINTED NOSE TOOL 80 - STYLE D**



<u>PART #</u>	<u>SIZE</u>	<u>NO.</u>
20 505	6x6x50mm	4
20 506	8x8x57mm	5
20 507	10x10x63mm	6
20 509	12x12x90mm	8
20 510	16x16x100mm	10
20 511	20x20x115mm	12
20 512	25x25x175mm	16

**CARBIDE TIPPED TOOL BITS**

**THREADING TOOL 60 DEGR. - STYLE E**



<u>PART #</u>	<u>SIZE</u>	<u>NO.</u>
20 498	6x6x50mm	4
20 499	8x8x57mm	5
20 500	10x10x63mm	6
20 502	12x12x90mm	8
20 503	16x16x100mm	10
20 504	20x20x115mm	12
20 521	25x25x175mm	16

**OFFSET THREADING TOOL**

Offset cutting tool, style EL & ER



<u>EL</u>		<u>ER</u>
<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>
20 170	6x6x50mm	20 140
20 171	10x10x63mm	20 141
20 172	12x12x90mm	20 142

**OFFSET CUTTING TOOL - STYLE F**

End cutting tool, style FR & FL



<u>LEFT HAND</u>		<u>RIGHT HAND</u>
<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>
20 115	12x12x90mm	20 119
20 116	16x16x100mm	20 120
20 117	20x20x115mm	20 121
20 118	25x25x175mm	20 122

**OFFSET CUTTING TOOL - STYLE G**

Side cutting tool, style GR & GL



<u>LEFT HAND</u>		<u>RIGHT HAND</u>
<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>
20 243	12x12x90mm	20 143
20 244	16x16x100mm	20 144
20 245	20x20x115mm	20 146
20 246	25x25x175mm	20 145

## LATHE TOOLS

### CARBIDE TIPPED PARTING TOOLS



<u>PART #</u>	<u>TIP</u>	<u>HEIGHT</u>	<u>LENGTH</u>	<u>ISSA #</u>
20 128	4mm	25mm	125mm	63 30 41
20 129	5mm	25mm	125mm	63 30 42
20 130	6mm	25mm	125mm	63 30 43
20 131	8mm	25mm	125mm	63 30 44
20 132	10mm	32mm	125mm	63 30 45

### CARBIDE TIPPED BORING TOOL



<u>PART #</u>	<u>SHANK</u>	<u>LENGTH</u>	<u>ISSA #</u>
20 133	10mm	100mm	
20 134	12mm	140mm	63 30 56
20 135	16mm	160mm	63 30 57
20 136	20mm	180mm	63 30 58
20 137	25mm	200mm	63 30 59

### BORING TOOL HOLDERS

A-Type round boring bar with square shank.  
For square tool bits.



<u>PART #</u>	<u>BIT SIZE</u>	<u>LENGTH</u>	<u>ISSA #</u>
20 610	3.0mm	115mm	
20 611	5.0mm	135mm	63 32 21
20 612	6.0mm	170mm	63 32 22
20 613	8.0mm	235mm	63 32 23
20 614	10.0mm	295mm	63 32 24

### BORING BARS

Plain round boring bar with square holes in  
each end for square tool bits.



<u>PART #</u>	<u>BIT</u>	<u>SHANK</u>	<u>ISSA #</u>
20 166	5mm	16x250mm	63 32 31
20 167	6mm	19x300mm	63 32 32
20 168	8mm	25x300mm	63 32 33
20 169	10mm	32x400mm	63 32 34

## LATHE TOOLS



### TURNING TOOL HOLDERS

For square tool bits. Complete with wrench.  
Tool bits **not** included.

#### LEFT HAND

<u>PART #</u>	<u>BIT SIZE</u>
<b>20 524</b>	5mm
<b>20 525</b>	6mm
<b>20 526</b>	8mm
<b>20 527</b>	10mm
<b>20 529</b>	12mm

#### STRAIGHT

<u>PART #</u>	<u>BIT SIZE</u>
<b>20 523</b>	5mm
<b>20 530</b>	6mm
<b>20 531</b>	8mm
<b>20 532</b>	10mm
<b>20 534</b>	12mm

#### RIGHT HAND

<u>PART #</u>	<u>BIT SIZE</u>
<b>20 522</b>	5mm
<b>20 535</b>	6mm
<b>20 536</b>	8mm
<b>20 537</b>	10mm
<b>20 539</b>	12mm



### SPRING CUT-OFF TOOL HOLDER

Complete with wrench. Blade **not** included.  
For trapezoid cut-off blades.

#### LEFT HAND

<u>PART #</u>	<u>BIT SIZE</u>
<b>20 540</b>	2.4 x 12.7mm
<b>20 541</b>	2.4 x 15.9mm
<b>20 542</b>	3.2 x 19.0mm
<b>20 543</b>	3.2 x 22.0mm
<b>20 544</b>	4.8 x 25.4mm

#### STRAIGHT

<u>PART #</u>	<u>BIT SIZE</u>
<b>20 546</b>	2.4 x 12.7mm
<b>20 547</b>	2.4 x 15.9mm
<b>20 548</b>	3.2 x 19.0mm
<b>20 549</b>	3.2 x 22.0mm
<b>20 550</b>	4.8 x 25.4mm

#### RIGHT HAND

<u>PART #</u>	<u>BIT SIZE</u>
<b>20 552</b>	2.4 x 12.7mm
<b>20 553</b>	2.4 x 15.9mm
<b>20 554</b>	3.2 x 19.0mm
<b>20 555</b>	3.2 x 22.0mm
<b>20 556</b>	4.8 x 25.4mm

**LATHE TOOLS**



**INDEXABLE EXTERNAL  
THREADING TOOL HOLDERS**

Right hand external threads cut.

<u>PART #</u>	<u>SHANK</u>	<u>OAL</u>	<u>INSERT</u>
20 508	3/8X3/8	2-1/2	3/8
20 516	1/2X1/2	3-1/4	3/8
20 520	5/8X5/8	5	3/8
20 528	3/4X3/4	5	3/8
20 533	1X1	6	3/8



**INDEXABLE EXTERNAL  
THREADING TOOL HOLDER KITS**

Right hand external threads cut.

Kit includes; 1 tool holder, 10 TiN coated carbide insert, 1 Torx wrench, complete with case

<u>PART #</u>	<u>SHANK</u>	<u>INSERT</u>
20 800	5/16	08ERA60
20 801	3/8	11ERA60
20 802	1/2	11ERA60
20 803	5/8	16ERAG60
20 804	3/4	16ERAG60

**INDEXABLE INTERNAL  
THREADING TOOL HOLDERS**

Right hand internal threads cut.



<u>PART #</u>	<u>SHANK</u>	<u>OAL</u>	<u>INSERT</u>
20 810	3/8	4	1/4
20 811	5/8	7	3/8
20 812	3/4	7	3/8
20 813	3/4	8	3/8
20 814	3/4	10	1/2
20 815	1"	7	3/8
20 816	1"	10	1/2



**INDEXABLE INTERNAL  
THREADING TOOL HOLDER KITS**

Right hand external threads cut.

Kit includes; 1 tool holder, 10 TiN coated carbide insert, 1 Torx wrench, complete with case

<u>PART #</u>	<u>SHANK</u>	<u>INSERT</u>
20 817	3/8	11ERA60
20 818	1/2	11ERA60
20 819	5/8	16ERAG60
20 820	3/4	16ERAG60

**LATHE TOOLS**

**TIN COATED 60\* THREADING CARBIDE INSERTS**



60\* V partial profile threading insert.

<u>PART #</u>	<u>INSERT</u>	<u>I.C.</u>
20 792	08ERA60	8mm
20 797	11ERA60	11mm
20 798	11IRA60	11mm
20 799	16ERAG60	16mm
20 783	16IRAG60	16mm



**CUT-OFF & GROOVING CARBIDE INSERTS**

C-2 for cast iron and general purpose

C-6 for all steel and general purpose

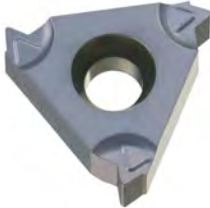
TiN (C-6) for increased productivity

<u>C-2</u>		<u>C-6</u>		<u>TiN (C-6)</u>	
<u>PART #</u>	<u>INSERT</u>	<u>PART #</u>	<u>INSERT</u>	<u>PART #</u>	<u>INSERT</u>
20 821	GTN-2	20 828	GTN-2	20 835	GTN-2
20 822	GTN-2.4	20 829	GTN-2.4	20 836	GTN-2.4
20 823	GTN-3	20 830	GTN-3	20 837	GTN-3
20 824	GTN-4	20 831	GTN-4	20 838	GTN-4
20 825	GTN-4.8	20 832	GTN-4.8	20 839	GTN-4.8
20 826	GTN-5	20 833	GTN-5	20 840	GTN-5
20 827	GTN-6	20 834	GTN-6	20 841	GTN-6



**THREADING INSERTS****INTERNAL THREADING CARBIDE INSERTS  
(METRIC)**

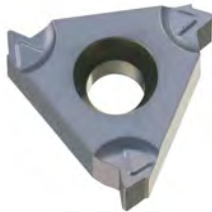
Triangular Carbide , partial 60 degrees



<u>PART #</u>	<u>INSERT</u>	<u>I.C.</u>	<u>PITCH</u>
<b>6006-1006</b>	RT16.01N-1.25GM	3/8"	1.25
<b>6006-1007</b>	RT16.01N-1.50GM	3/8"	1.50
<b>6006-1008</b>	RT16.01N-1.75GM	3/8"	1.75
<b>6006-1009</b>	RT16.01N-2.00GM	3/8"	2.00
<b>6006-1010</b>	RT16.01N-2.50GM	3/8"	2.50
<b>6006-1011</b>	RT16.01N-3.00GM	3/8"	3.00

**EXTERNAL THREADING CARBIDE INSERTS  
(METRIC)**

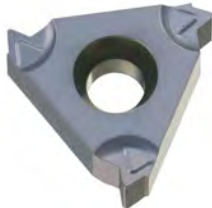
Triangular Carbide , partial 60 degrees



<u>PART #</u>	<u>INSERT</u>	<u>I.C.</u>	<u>PITCH</u>
<b>6006-3006</b>	RT16.0W-1.25GM	3/8"	1.25
<b>6006-3007</b>	RT16.0W-1.50GM	3/8"	1.50
<b>6006-3008</b>	RT16.0W-1.75GM	3/8"	1.75
<b>6006-3009</b>	RT16.0W-2.00GM	3/8"	2.00
<b>6006-3010</b>	RT16.0W-2.50GM	3/8"	2.50
<b>6006-3011</b>	RT16.0W-3.00GM	3/8"	3.00

**INTERNAL THREADING CARBIDE INSERTS  
(INCH)**

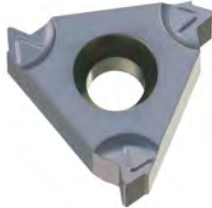
Triangular Carbide , partial 60 degrees



<u>PART #</u>	<u>INSERT</u>	<u>I.C.</u>	<u>PITCH</u>
<b>6006-4008</b>	RT16.01N-8UN	3/8"	8 TPI
<b>6006-4010</b>	RT16.01N-10UN	3/8"	10 TPI
<b>6006-4012</b>	RT16.01N-12UN	3/8"	12 TPI
<b>6006-4014</b>	RT16.01N-14UN	3/8"	14 TPI
<b>6006-4016</b>	RT16.01N-16UN	3/8"	16 TPI
<b>6006-4018</b>	RT16.01N-18UN	3/8"	18 TPI
<b>6006-4020</b>	RT16.01N-20UN	3/8"	20 TPI

**THREADING INSERTS****EXTERNAL THREADING CARBIDE INSERTS  
(INCH)**

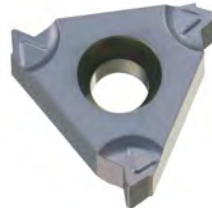
Triangular Carbide , partial 60 degrees



<u>PART #</u>	<u>INSERT</u>	<u>I.C.</u>	<u>PITCH</u>
6006-4108	RT16.01N-8UN	3/8"	8 TPI
6006-4110	RT16.01N-10UN	3/8"	10 TPI
6006-4112	RT16.01N-12UN	3/8"	12 TPI
6006-4114	RT16.01N-14UN	3/8"	14 TPI
6006-4116	RT16.01N-16UN	3/8"	16 TPI
6006-4118	RT16.01N-18UN	3/8"	18 TPI
6006-4120	RT16.01N-20UN	3/8"	20 TPI

**EXTERNAL THREADING CARBIDE INSERTS  
(INCH)**

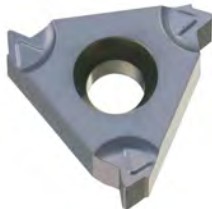
Triangular Carbide , partial 60 degrees



<u>PART #</u>	<u>INSERT</u>	<u>I.C.</u>	<u>PITCH</u>
6006-6011	RT16.001N-11.5NPT	.375"	11.5 TPI
6006-6014	RT16.001N-14NPT	.375"	14 TPI
6006-6018	RT16.001N-18NPT	.375"	18 TPI
6006-6027	RT16.001N-27NPT	.375"	27 TPI

**EXTERNAL THREADING CARBIDE INSERTS  
(INCH)**

Triangular Carbide , partial 60 degrees



<u>PART #</u>	<u>INSERT</u>	<u>I.C.</u>	<u>PITCH</u>
6006-6111	RT16.001W-11.5NPT	.375"	11.5 TPI
6006-6114	RT16.001W-14NPT	.375"	14 TPI
6006-6118	RT16.001W-18NPT	.375"	18 TPI
6006-6127	RT16.001W-27NPT	.375"	27 TPI

**LATHE TOOLS**



**INDEXABLE CUT-OFF TOOLS & KITS**

**15-PC KIT**

<b><u>PART #</u></b>	
<b>20 850</b>	5/8" shank
Content:	1 tool block 1 blade 10 inserts 1 insert holder 1 allen wrench 1 case

**16-PC KIT**

<b><u>PART #</u></b>	
<b>20 851</b>	3/4" shank
Content:	1 tool block 2 blade 10 inserts 2 insert holder 1 allen wrench 1 case

**22-PC KIT**

<b><u>PART #</u></b>	
<b>20 852</b>	1" shank
Content:	1 tool block 6 blade 12 inserts 1 insert holder 1 allen wrench 1 case

**INDEXABLE CUT-OFF BLADES**



<b><u>PART #</u></b>	<b><u>WIDTH</u></b>	<b><u>OAL</u></b>	<b><u>STYLE</u></b>
<b>20 860</b>	3/4	3.4	19-2
<b>20 861</b>	1-1/32	4-1/4	26-2
<b>20 862</b>	1-1/32	4-1/4	26-3
<b>20 863</b>	1-1/32	4-1/4	26-4
<b>20 864</b>	1-1/32	4-1/4	26-5
<b>20 865</b>	1-1/32	4-1/4	26-6
<b>20 866</b>	1-1/4	5-7/8	32-3
<b>20 867</b>	1-1/4	5-7/8	32-4
<b>20 868</b>	1-1/4	5-7/8	32-5
<b>20 869</b>	1-1/4	5-7/8	32-6

**INDIVIDUAL TOOL BLOCKS**



<b><u>PART #</u></b>	<b><u>WIDTH</u></b>	<b><u>OAL</u></b>	<b><u>BLADE WIDTH</u></b>
<b>20 870</b>	1.02	3.4	3/4"
<b>20 871</b>	1.31	3.4	1-1/32"
<b>20 872</b>	1.45	3.4	1-1/32"
<b>20 873</b>	1.50	3.95	1-1/4"
<b>20 874</b>	1.75	4.33	1-1/4"
<b>20 875</b>	1.90	4.33	1-1/4"

## TOOL BITS

### SQUARE TOOL BITS

High speed steel.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
20 435	3 x 3 x 63mm	
20 436	5 x 5 x 63mm	63 26 01
20 437	6 x 6 x 63mm	63 26 02
20 438	8 x 8 x 63mm	63 26 03
20 439	10 x 10 x 75mm	63 26 04
20 441	12 x 12 x 100mm	63 26 05
20 442	16 x 16 x 115mm	63 26 06
20 443	20 x 20 x 125mm	63 26 07

### SQUARE TOOL BITS - LONG

High speed steel.



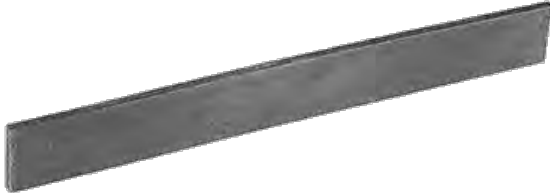
<u>PART #</u>	<u>SIZE</u>
20 444	6 x 6 x 100 mm
20 445	6 x 6 x 150mm
20 446	6 x 6 x 200mm
20 447	8 x 8 x 150mm
20 448	10 x 10 x 100mm
20 449	10 x 10 x 150mm
20 450	10 x 10 x 200mm
20 452	12 x 12 x 150mm
20 453	12 x 12 x 200mm

### ROUND TOOL BITS

High speed steel.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
20 201	4x70mm	63 26 61
20 202	5x85mm	63 26 62
20 203	6x100mm	63 26 63
20 204	8x110mm	63 26 64
20 205	10x125mm	63 26 65
20 206	12x150mm	63 26 66
20 207	16x150mm	63 26 67
20 208	20x150mm	63 26 68

**TOOL BITS****CUT-OFF BLADES**

High speed trapezoid cut-off blade.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
<b>20 470</b>	2.4x12.7x115mm	63 26 51
<b>20 471</b>	2.4x15.9x125mm	63 26 52
<b>20 472</b>	3.2x19.0x150mm	63 26 53
<b>20 473</b>	3.2x22.0x175mm	
<b>20 474</b>	4.8x25.4x200mm	63 26 54

**KNURLING TOOL HOLDER**

High quality self centering knuckle, pivoted head, fitted with 1 pair of knurls, Type A.



<u>PART #</u>	<u>SIZE</u>	<u>KNURL DIA.</u>	<u>ISSA #</u>
<b>20 560</b>	10x22x140mm	16mm	63 32 41
<b>20 561</b>	13x29x165mm	19mm	63 32 42
<b>20 562</b>	16x35x191mm	19mm	63 32 43

**KNURLING TOOL HOLDER**

High quality self centering knuckle, revolving head, fitted with 3 pair of knurls, Type B.

<u>PART #</u>	<u>SIZE</u>	<u>KNURL DIA.</u>	<u>ISSA #</u>
<b>20 563</b>	10x22x140mm	16mm	63 32 44
<b>20 564</b>	13x29x165mm	19mm	63 32 45
<b>20 565</b>	16x35x191mm	19mm	63 32 46

**ROLLING LIVE CENTERS**

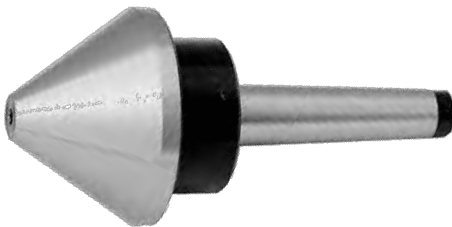
**ROLLING LIVE CENTERS**

High speed rolling center with taper roller bearing.



<u>PART #</u>	<u>M.T.</u>	<u>ANGLE</u>	<u>ISSA #</u>
20 566	#1	60	63 24 21
20 567	#2	60	63 24 22
20 568	#3	60	63 24 23
20 569	#4	60	63 24 24
20 580	#5	60	63 24 25
20 581	#6	60	63 24 26

**H.D. BULL NOSE LIVE CENTERS**



<u>PART #</u>	<u>M.T.</u>	<u>BEV. DIA.</u>	<u>ANGLE</u>	<u>ISSA #</u>
20 570	#2	12 x 63mm	70	63 24 41
20 571	#3	18 x 78mm	70	63 24 42
20 572	#3	32 x 102mm	75	63 24 43
20 573	#4	32x 102mm	75	63 24 44
20 574	#4	35 x 128mm	75	63 24 45
20 575	#5	32 x 120mm	75	63 24 46
20 576	#5	35 x 152mm	75	63 24 47

**LIVE CENTER SETS, 7-PC**

High grade tool steel hardened and ground. Precision needle bearings used for high accuracy with long life. Accuracy 0.0012-0.0039" at center head. Complete with fitted case.



<u>PART #</u>	<u>M.T.</u>	<u>THRUST LOAD LBS.</u>
20 551	#2	650
20 557	#3	900
20 558	#4	1200
20 559	#5	1600

**INTERCHANGEABLE POINT LIVE CENTER SETS, 7-PC**

Includes live Center Body, 3 Bull Nose Point, 2 Cone Shape Point, 1 Serrated Point, 1 Wrench Tool.



<u>PART #</u>	<u>M.T.</u>	<u>LOAD LBS.</u>
20 582	#2	650
20 583	#3	900
20 584	#4	2600
20 586	#5	4400



**DRILL CHUCKS**



**DRILL CHUCKS WITH KEY, TAPERED**

Heavy duty type for portable and bench type power tools with tapered spindles.

<u>PART #</u>	<u>CAPACITY</u>	<u>M.T.</u>	<u>ISSA #</u>
20 680	0-6.5 mm	#1	63 23 34
20 681	1.5-10 mm	#2	63 23 37
20 682	1.5-13 mm	#2	63 23 38
20 683	3-16 mm	#3	63 23 40
20 684	5-20 mm	#3	63 23 41



**DRILL CHUCKS WITH KEY, THREADED**

Heavy duty type for portable and bench type power tools with threaded spindles.

<u>PART #</u>	<u>CAPACITY</u>	<u>THREAD</u>
20 585	0-6.5 mm	3/8"-24
20 588	1.5-10 mm	3/8"-24
20 589	1.5-10 mm	1/2"-20
20 590	1.5-13 mm	3/8"-24
20 591	1.5-13 mm	1/2"-20
20 592	3-16 mm	5/8"-16



**DRILL CHUCK KEYS**

<u>PART #</u>	<u>SIZE</u>	<u>NO.</u>
20 125	10mm	5
20 126	13mm	6
20 127	16mm	7

**DRILL CHUCKS**

**H.D. KEYLESS DRILL CHUCK**

Keyless chuck used for precision drilling. Self-tightening design. Solid steel body.



<u>PART #</u>	<u>CAPACITY</u>	<u>TAPER MOUNT.</u>
20 600	0-10 mm	#2
20 601	0-10 mm	#33
20 602	0-13 mm	#33
20 603	0-13 mm	#2
20 123	0-13 mm	#6
20 604	3-16 mm	#6

**ULTRA PRECISION KEYLESS DRILL CHUCK W/INTEGRAL SHANKS**

Integrated design maximizes rigidity & accuracy. Integral shank is more compact and eliminates the chuck slipping on its arbor.



<u>PART #</u>	<u>CAPACITY</u>	<u>SHANK</u>
20 607	0-13 mm	CAT40
20 608	3-16 mm	CAT40
20 609	0-13 mm	BT30
20 617	0-13 mm	BT40
20 618	3-16 mm	BT40
20 692	0-13 mm	R8
20 693	3-16 mm	R8
20 694	0-13 mm	MT3
20 695	0-13 mm	MT4
20 696	3-16 mm	MT3
20 697	3-16 mm	MT4
20 698	0-13 mm	40NMTB
20 699	3-16 mm	40NBTM





**VALVE SEAT CUTTER**

The valve seat cutter is ideal for re-surfacing of the valve seat surfaces on most types of valves. Set is supplied with five cutter sizes.

**PART #**  
41 169

**CONTENTS**  
Spindle, fixing bed, handle,  
lock nut & adj. screw.  
Cutters: 1-2-3-4 & 5"

ISSA # 63 34 51



**GRINDING WHEEL DRESSER**

Designed for dressing round grinding stones.

**PART #**  
20 041

**DESCRIPTION**  
Complete tool

20 043

Spare wheels  
Set of 4 pc.

**A**



**B**



**NUT SPLITTER - MECHANICAL**

Chrome Vanadium steel.

<u>PART #</u>	<u>SIZE</u>
20 619	A: 9-12mm
20 624	12-16mm
20 625	16-22mm
20 626	22-27mm
20 038	B: 12-23mm Heavy duty.



**NUT SPLITTER SET - HYDRAULIC**

Heat treated steel. Splits frozen or rusted nuts without damage to the bolt. Hydraulic ram attachment & 5 nut splitters in carrying case.

<u>PART#</u>	<u>CAPACITY</u>
20 069	5 to 26mm Weight: 9.5 Lbs.



**STUD SETTER & REMOVER**

Chrome Vanadium steel.

<u>PART #</u>	<u>CAPACITY</u>	<u>ISSA #</u>
20 620	5-10mm	
20 621	8-19mm	61 04 86
20 622	18-25mm	



**FLANGE JACKS—2 PIECE SET**

Solid cast iron jacks exert tremendous pressure smoothly and evenly.

<u>PART #</u>	<u>DESCRIPTION</u>
20 040	50-500mm dia. pipe size.
	ISSA # 61 51 84

**CARBIDE ROTARY BURS – 1/4" Shank**



**CYLINDRICAL  
SA**

<u>PART #</u>	<u>SIZE</u>	<u>NO.</u>	<u>ISSA #</u>
20 650	4mm	SA-12	63 25 02
20 651	6mm	SA-1	63 25 03
20 652	8mm	SA-2	63 25 04
20 653	10mm	SA-3	63 25 05
20 654	12mm	SA-5	63 25 06
20 655	4mm	SC-12	63 25 12
20 656	6mm	SC-1	63 25 13
20 657	8mm	SC-2	63 25 14
20 658	10mm	SC-3	63 25 15
20 659	12mm	SC-5	63 25 16

**CYLINDRICAL  
BALL NOSE**



20 660	4mm	SD-12	63 25 22
20 661	6mm	SD-1	
20 662	8mm	SD-2	63 25 23
20 663	10mm	SD-3	63 25 24
20 664	12mm	SD-5	63 25 25

**BALL SHAPE  
SD**



**TREE SHAPE  
SF**



20 665	4mm	SF-12	63 25 31
20 666	6mm	SF-1	63 25 32
20 667	8mm	SF-2	63 25 33
20 668	10mm	SF-3	63 25 34
20 669	12mm	SF-5	63 25 35

**CONE SHAPE  
BALL NOSE  
SL**



20 670	6mm	SL-1	63 25 43
20 671	8mm	SL-2	63 25 44
20 672	10mm	SL-3	63 25 45
20 673	12mm	SL-5	63 25 46
20 674	16mm	SL-6	63 25 47

**POINTED TREE  
SHAPE  
SG**



20 675	6mm	SG-1	63 25 52
20 676	8mm	SG-2	63 25 53
20 690	10mm	SG-3	
20 691	12mm	SG-5	



**FLAME SHAPE  
SH**

20 677	6mm	SH-1	63 25 56
20 678	10mm	SH-2	63 25 57
20 679	12mm	SH-5	63 25 58
20 685	16mm	SH-6	63 25 59

**CONE SHAPE  
SM**



20 686	6mm	SM-1	63 25 61
20 687	10mm	SM-3	63 25 62
20 688	12mm	SM-5	



**CARBIDE ROTARY BUR SET**

Solid carbide steel with 1/4" shank in metal case.

<u>PART #</u>	<u>DESCRIPTION</u>
20 689	8-pc. set

# **FASTENERS**





**HEXAGON HEAD CAP SCREWS**

8.8 GRADE MILD STEEL, din 933  
fully threaded, zinc-plated.

**\*\*ZINC-PLATED STEEL\*\***

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
30 800	M3 x 12	30 140	M8 x 12	30 128	M12 x 20
30 801	M3 x 20	30 830	M8 x 20	30 847	M12 x 30
30 802	M3 x 25	30 831	M8 x 25	30 848	M12 x 35
30 803	M3 x 30	30 008	M8 x 30	30 019	M12 x 40
30 804	M3 x 35	30 832	M8 x 35	30 849	M12 x 45
30 805	M3 x 40	30 009	M8 x 40	30 020	M12 x 50
30 799	M3 x 50	30 833	M8 x 45	30 850	M12 x 55
		30 010	M8 x 50	30 021	M12 x 60
30 806	M4 x 12	30 834	M8 x 55	30 851	M12 x 65
30 807	M4 x 20	30 011	M8 x 60	30 852	M12 x 70
30 808	M4 x 25	30 835	M8 x 65	30 022	M12 x 75
30 809	M4 x 30	30 012	M8 x 70	30 853	M12 x 80
30 810	M4 x 35	30 836	M8 x 75	30 854	M12 x 90
30 811	M4 x 40	30 837	M8 x 80	30 855	M12 x 100
30 812	M4 x 45	30 838	M8 x 90	30 856	M12 x 110
30 813	M4 x 50	30 839	M8 x 100	30 857	M12 x 120
		30 141	M8 x 110		
30 814	M5 x 12			30 143	M14 x 25
30 815	M5 x 20	30 046	M10 x 20	30 142	M14 x 35
30 816	M5 x 25	30 087	M10 x 25	30 858	M14 x 40
30 817	M5 x 30	30 013	M10 x 30	30 859	M14 x 45
30 818	M5 x 35	30 840	M10 x 35	30 023	M14 x 50
30 001	M5 x 40	30 014	M10 x 40	30 860	M14 x 55
30 819	M5 x 45	30 841	M10 x 45	30 861	M14 x 60
30 002	M5 x 50	30 015	M10 x 50	30 862	M14 x 65
30 043	M5 x 60	30 842	M10 x 55	30 863	M14 x 70
30 047	M5 x 80	30 843	M10 x 60	30 864	M14 x 75
		30 844	M10 x 65	30 024	M14 x 80
30 086	M6 x 10	30 016	M10 x 70	30 865	M14 x 90
30 042	M6 x 12	30 845	M10 x 75	30 025	M14 x 100
30 045	M6 x 16	30 017	M10 x 80	30 866	M14 x 110
30 820	M6 x 20	30 846	M10 x 90	30 867	M14 x 120
30 821	M6 x 25	30 018	M10 x 100	30 190	M14 x 150
30 003	M6 x 30				
30 822	M6 x 35				
30 004	M6 x 40				
30 823	M6 x 45				
30 005	M6 x 50				
30 824	M6 x 55				
30 006	M6 x 60				
30 825	M6 x 65				
30 826	M6 x 70				
30 827	M6 x 75				
30 007	M6 x 80				
30 828	M6 x 90				
30 829	M6 x 100				

**Zinc-plated steel cap screws  
cont.....**

<u>PART #</u>	<u>SIZE</u>
30 188	M16 x 30
30 868	M16 x 40
30 869	M16 x 45
30 026	M16 x 50
30 870	M16 x 55
30 027	M16 x 60
30 871	M16 x 65
30 872	M16 x 70
30 873	M16 x 75
30 028	M16 x 80
30 874	M16 x 90
30 029	M16 x 100
30 875	M16 x 110
30 030	M16 x 120
30 876	M18 x 40
30 877	M18 x 45
30 878	M18 x 50
30 879	M18 x 55
30 031	M18 x 60
30 880	M18 x 65
30 881	M18 x 70
30 882	M18 x 75
30 032	M18 x 80
30 883	M18 x 90
30 033	M18 x 100
30 884	M18 x 110
30 885	M18 x 120

<u>PART #</u>	<u>SIZE</u>
30 189	M20 x 40
30 886	M20 x 50
30 887	M20 x 55
30 034	M20 x 60
30 888	M20 x 65
30 889	M20 x 70
30 890	M20 x 75
30 035	M20 x 80
30 891	M20 x 90
30 036	M20 x 100
30 892	M20 x 110
30 893	M20 x 120
30 894	M22 x 60
30 895	M22 x 65
30 896	M22 x 70
30 897	M22 x 75
30 037	M22 x 80
30 898	M22 x 90
30 038	M22 x 100
30 899	M22 x 110
30 900	M22 x 120
30 901	M24 x 60
30 902	M24 x 65
30 903	M24 x 70
30 904	M24 x 75
30 039	M24 x 80
30 905	M24 x 90
30 040	M24 x 100
30 906	M24 x 110
30 907	M24 x 120
30 144	M24 x 150



**HEXAGON NUTS**

Class 8 alloy steel, DIN 934  
Zinc-plated.

<u>PART #</u>	<u>SIZE</u>
30 048	M2
30 195	M3
30 196	M4
30 197	M5
30 198	M6
30 199	M8
30 200	M10
30 201	M12
30 202	M14
30 203	M16
30 204	M18
30 205	M20
30 206	M22
30 207	M24
30 208	M27
30 209	M30



**HEXAGON HEAD CAP SCREWS**

A-2 Stainless steel, DIN 933-A2  
Fully threaded.

**\*\*STAINLESS STEEL\*\***

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
30 909	M3 x 12	30 939	M8 x 20	30 960	M12 x 30
30 910	M3 x 20	30 940	M8 x 25	30 961	M12 x 35
30 911	M3 x 25	30 057	M8 x 30	30 962	M12 x 40
30 912	M3 x 30	30 941	M8 x 35	30 065	M12 x 45
30 913	M3 x 35	30 058	M8 x 40	30 066	M12 x 50
30 914	M3 x 40	30 942	M8 x 45	30 963	M12 x 55
		30 059	M8 x 50	30 067	M12 x 60
30 915	M4 x 12	30 943	M8 x 55	30 964	M12 x 65
30 916	M4 x 20	30 944	M8 x 60	30 068	M12 x 70
30 917	M4 x 25	30 945	M8 x 65	30 965	M12 x 75
30 918	M4 x 30	30 060	M8 x 70	30 069	M12 x 80
30 919	M4 x 35	30 946	M8 x 75	30 966	M12 x 90
30 920	M4 x 40	30 947	M8 x 80	30 967	M12 x 100
30 921	M4 x 45	30 948	M8 x 90	30 968	M12 x 110
30 922	M4 x 50	30 949	M8 x 100	30 969	M12 x 120
30 923	M5 x 12	30 950	M10 x 30	30 970	M14 x 40
30 924	M5 x 20	30 951	M10 x 35	30 971	M14 x 45
30 925	M5 x 25	30 061	M10 x 40	30 070	M14 x 50
30 050	M5 x 30	30 952	M10 x 45	30 972	M14 x 55
30 926	M5 x 35	30 062	M10 x 50	30 071	M14 x 60
30 051	M5 x 40	30 953	M10 x 55	30 973	M14 x 65
30 927	M5 x 45	30 063	M10 x 60	30 072	M14 x 70
30 052	M5 x 50	30 954	M10 x 65	30 974	M14 x 75
		30 064	M10 x 70	30 073	M14 x 80
30 089	M6 x 12	30 956	M10 x 75	30 975	M14 x 90
30 125	M6 x 16	30 957	M10 x 80	30 976	M14 x 100
30 928	M6 x 20	30 958	M10 x 90	30 977	M14 x 110
30 929	M6 x 25	30 959	M10 x 100	30 978	M14 x 120
30 053	M6 x 30				
30 930	M6 x 35				
30 054	M6 x 40				
30 931	M6 x 45				
30 055	M6 x 50				
30 932	M6 x 55				
30 933	M6 x 60				
30 934	M6 x 65				
30 056	M6 x 70				
30 935	M6 x 75				
30 936	M6 x 80				
30 937	M6 x 90				
30 938	M6 x 100				

**Stainless steel cap screws  
continued.....**

<u>PART #</u>	<u>SIZE</u>
30 979	M16 x 40
30 980	M16 x 45
30 981	M16 x 50
30 074	M16 x 55
30 075	M16 x 60
30 982	M16 x 65
30 983	M16 x 70
30 984	M16 x 75
30 076	M16 x 80
30 985	M16 x 90
30 077	M16 x 100
30 986	M16 x 110
30 987	M16 x 120
30 988	M18 x 40
30 989	M18 x 45
30 990	M18 x 50
30 991	M18 x 55
30 992	M18 x 60
30 993	M18 x 65
30 994	M18 x 70
30 995	M18 x 75
30 996	M18 x 80
30 997	M18 x 90
30 998	M18 x 100
30 999	M18 x 110
31 000	M18 x 120
31 001	M20 x 50
31 002	M20 x 55
30 078	M20 x 60
31 003	M20 x 65
30 079	M20 x 70
31 004	M20 x 75
30 080	M20 x 80
31 005	M20 x 90
30 081	M20 x 100
31 006	M20 x 110
31 007	M20 x 120
31 008	M22 x 60
31 009	M22 x 65
31 010	M22 x 70
31 011	M22 x 75
31 012	M22 x 80
31 013	M22 x 90
31 014	M22 x 100
31 015	M22 x 110
31 016	M22 x 120
31 017	M24 x 60
31 018	M24 x 65
30 082	M24 x 70

31 019	M24 x 75
30 083	M24 x 80
31 020	M24 x 90
30 084	M24 x 100
31 021	M24 x 110
31 022	M24 x 120



**HEXAGON NUTS**

A-2 Stainless steel, DIN 934-A2

<u>PART #</u>	<u>SIZE</u>
30 049	M2
30 085	M2.5
30 210	M3
30 211	M4
30 212	M5
30 213	M6
30 214	M8
30 215	M10
30 216	M12
30 217	M14
30 218	M16
30 219	M18
30 220	M20
30 221	M22
30 222	M24
30 126	M30



**WING NUTS**

Stainless steel, DIN 315

30 300	M4
30 301	M5
30 302	M6
30 303	M8
30 304	M10
30 305	M12
30 306	M14
30 307	M16



**NYLON INSERT LOCK NUT**

Stainless steel, DIN 985

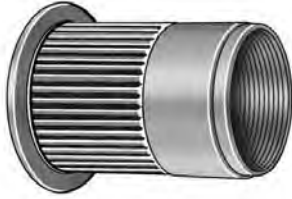
<u>PART #</u>	<u>SIZE</u>
30 251	M3
30 252	M4
30 253	M5
30 254	M6
30 255	M8
30 256	M10
30 257	M12
30 258	M14
30 259	M16
30 260	M18
30 261	M20
30 262	M24



**DOME NUTS**

Stainless steel, DIN 1587

30 310	M3
30 311	M4
30 312	M5
30 313	M6
30 314	M8
30 315	M10
30 316	M12
30 317	M14
30 318	M16
30 319	M18
30 320	M20



**RIVET NUTS**

Large Flange, Knurled Body, Thin Wall  
Steel, zinc yellow or **Stainless Steel**

**STEEL**

**STAINLESS STEEL**

<b><u>PART #</u></b>	<b><u>THREAD</u></b>	<b><u>GRIP RANGE</u></b>	<b><u>PART#</u></b>
<b>30 177</b>	M4 x .0.7	0.50-2.00	<b>30 395</b>
<b>30 178</b>	M4 X 0.7	2.00-3.30	<b>30 396</b>
<b>30 179</b>	M5 X 0.8	0.50-3.30	<b>30 397</b>
<b>30 180</b>	M5 X 0.8	3.30-5.70	<b>30 398</b>
<b>30 181</b>	M6 X 1.0	0.70-4.20	<b>30 399</b>
<b>30 182</b>	M6 X 1.0	4.20-6.60	<b>30 400</b>
<b>30 183</b>	M8 X 1.25	0.70-3.80	<b>30 401</b>
<b>30 184</b>	M8 X 1.25	3.80-7.90	<b>30 402</b>
<b>30 185</b>	M10 X 1.5	0.70-3.80	<b>30 403</b>
<b>30 186</b>	M10 X 1.5	3.80-7.90	<b>30 404</b>
<b>30 187</b>	M12 X 1.75	1.60-5.10	<b>30 405</b>
<b>30 230</b>	M12 X 1.75	5.10-8.90	<b>30 406</b>
	M12 x 1.75	8.90-12.70	<b>30 407</b>

**SOCKET HEAD CAP SCREWS**

8.8 grade mild steel, black finish, , DIN 912  
 A-2 Stainless steel, DIN 912-A2

**MILD STEEL**

<u>PART #</u>	<u>SIZE</u>
30 639	M5 x 30
30 640	M5 x 40
30 641	M5 x 50
30 642	M6 x 30
30 643	M6 x 40
30 644	M6 x 50
30 645	M6 x 60
30 638	M6 x 70
30 646	M6 x 80
30 647	M8 x 30
30 648	M8 x 40
30 649	M8 x 50
30 650	M8 x 60
30 651	M8 x 70
30 636	M8 x 80
30 652	M10 x 30
30 653	M10 x 40
30 654	M10 x 50
30 637	M10 x 60
30 655	M10 x 70
30 656	M10 x 80
30 657	M10 x 100
30 658	M12 x 40
30 659	M12 x 50
30 660	M12 x 60
30 661	M12 x 70
30 676	M12 x 80
30 679	M12 x 100
30 662	M14 x 50
30 677	M14 x 60
30 678	M14 x 70
30 663	M14 x 80
30 664	M14 x 100
30 665	M16 x 50
30 666	M16 x 60
30 669	M16 x 70
30 667	M16 x 80
30 668	M16 x 100
30 670	M18 x 60
30 671	M18 x 80
30 672	M18 x 100
30 673	M20 x 60
30 674	M20 x 80
30 675	M20 x 100

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
30 685	M5 x 30
30 686	M5 x 40
30 687	M5 x 50
30 688	M6 x 30
30 689	M6 x 40
30 690	M6 x 50
30 717	M6 x 60
30 691	M6 x 70
30 718	M6 x 80
30 692	M8 x 30
30 693	M8 x 40
30 694	M8 x 50
30 719	M8 x 60
30 695	M8 x 70
30 720	M8 x 80
30 721	M10 x 30
30 696	M10 x 40
30 697	M10 x 50
30 698	M10 x 60
30 699	M10 x 70
30 722	M10 x 80
30 723	M10 x 100
30 700	M12 x 40
30 701	M12 x 50
30 702	M12 x 60
30 703	M12 x 70
30 704	M12 x 80
30 724	M12 x 100
30 705	M14 x 50
30 706	M14 x 60
30 707	M14 x 70
30 708	M14 x 80
30 725	M14 x 100
30 709	M16 x 50
30 710	M16 x 60
30 726	M16 x 70
30 711	M16 x 80
30 712	M16 x 100
30 713	M20 x 60
30 714	M20 x 70
30 715	M20 x 80
30 716	M20 x 100





**FLAT WASHERS**

Mild steel, Zinc-plated, DIN 125  
A-2 Stainless steel, DIN 125-A2

**STEEL**

<u>PART #</u>	<u>SIZE</u>
30 360	M3
30 361	M4
30 362	M5
30 363	M6
30 364	M8
30 365	M10
30 366	M12
30 367	M14
30 368	M16
30 369	M18
30 370	M20
30 371	M22
30 372	M24
30 373	M27
30 374	M30

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
30 380	M3
30 381	M4
30 382	M5
30 383	M6
30 384	M8
30 385	M10
30 386	M12
30 387	M14
30 388	M16
30 389	M18
30 390	M20
30 391	M22
30 392	M24
30 393	M27
30 394	M30



**LOCK WASHERS**

Mild steel, Zinc-plated, DIN 127  
A-2 Stainless steel, DIN 127-A2

**STEEL**

<u>PART #</u>	<u>SIZE</u>
30 410	M3
30 411	M4
30 412	M5
30 413	M6
30 414	M8
30 415	M10
30 416	M12
30 417	M14
30 418	M16
30 419	M18
30 420	M20
30 421	M22
30 422	M24
30 423	M27
30 424	M30

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
30 430	M3
30 431	M4
30 432	M5
30 433	M6
30 434	M8
30 435	M10
30 436	M12
30 437	M14
30 438	M16
30 439	M18
30 440	M20
30 441	M22
30 442	M24
30 443	M27
30 444	M30



**OVERSIZE FLAT WASHERS**

Stainless steel, DIN 9021

**STAINLESS STEEL**

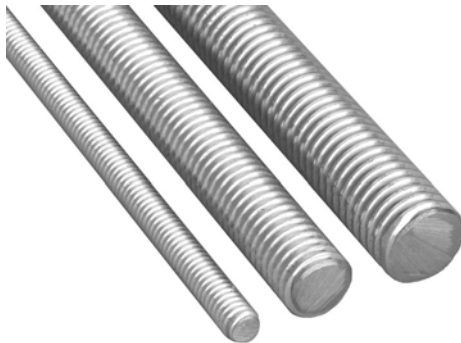
<u>PART #</u>	<u>SIZE</u>
30 330	M5
30 331	M6
30 332	M8
30 333	M10
30 334	M12
30 335	M14
30 336	M16
30 337	M18
30 338	M20
30 339	M22
30 340	M24



**LIFTING EYE BOLT**

Zinc-plated steel, DIN 580

<u>PART #</u>	<u>THREAD SIZE</u>
30 130	M6 x 1.0
30 131	M8 x 1.25
30 132	M10 x 1.5
30 133	M12 x 1.75
30 134	M14 x 2.0
30 135	M16 x 2.0
30 136	M18 x 2.5
30 137	M20 x 2.5
30 138	M22 x 2.5
30 139	M24 x 3.0



**THREADED RODS**

4.6 grade steel, Zinc-plated, DIN 975  
A-2 Stainless steel, DIN 975-A2  
1 meter lengths (39")

**PLATED STEEL**

<u>PART #</u>	<u>DIA. x PITCH</u>
30 145	M3 x 0.5
30 146	M4 x 0.7
30 147	M5 x 0.8
30 148	M6 x 1.0
30 149	M8 x 1.25
30 150	M10 x 1.5
30 151	M12 x 1.75
30 152	M14 x 2.0
30 153	M16 x 2.0
30 154	M18 x 2.5
30 155	M20 x 2.5
30 156	M22 x 2.5
30 157	M24 x 3.0
30 158	M27 x 3.0
30 159	M30 x 3.5
30 160	M36 x 3.5

**STAINLESS STEEL**

<u>PART #</u>	<u>DIA. x PITCH</u>
30 161	M3 x 0.5
30 162	M4 x 0.7
30 163	M5 x 0.8
30 164	M6 x 1.0
30 165	M8 x 1.25
30 166	M10 x 1.5
30 167	M12 x 1.75
30 168	M14 x 2.0
30 169	M16 x 2.0
30 170	M18 x 2.5
30 171	M20 x 2.5
30 172	M22 x 2.5
30 173	M24 x 3.0
30 174	M27 x 3.0
30 175	M30 x 3.5
30 176	M36 x 3.5

**HOSE CLAMPS - STAINLESS STEEL**

Extremely flexible one-piece clamp in stainless steel with gear drive adjusting screw.



<u>PART #</u>	<u>NO.</u>	<u>SIZE</u>
80 579	4	6-16mm
80 580	6	13-23mm
80 581	8	16-25mm
80 582	10	14-27mm
80 583	12	18-32mm
80 584	16	21-38mm
80 585	20	21-44mm
80 586	24	27-51mm
80 587	28	32-57mm
80 588	32	40-63mm
80 589	36	46-70mm
80 590	40	52-76mm
80 591	44	59-82mm
80 592	48	65-89mm
80 593	52	72-95mm
80 594	56	78-101mm
80 595	60	84-108mm
80 596	64	91-114mm
80 597	68	98-120mm
80 598	72	105-127mm
80 599	80	118-140mm
80 600	88	130-152mm
80 601	96	141-165mm
80 602	104	155-178mm
80 603	116	175-197mm
80 604	128	194-216mm
80 605	152	181-254mm
80 606	188	238-311mm

**STRAPPING STEEL AND BUCKLES**

304 Stainless Steel strapping steel band and Screw-lokt buckles



30 090	1/4" x 100' stainless steel band
30 091	1/2" x 100' stainless steel band
30 092	1/4" screw-lokt buckles, box of 50
30 093	1/2" screw-lokt buckles, box of 25

**METRIC ASSORTMENT KITS**

Solid transparent box with easy to read label, a conveniently arranged table of content and a lockable lid.



**FIBER WASHER KIT**

**PART #**                      **CONTENTS**  
**30 474**                      6-8-10-12-14-16-18-20 mm  
 8 sizes, 800 pcs.  
 GE-224



**BONDED SEAL WASHER KIT**

**PART #**                      **CONTENTS**  
**30 482**                      10-12-14-16-18-20-22-24 mm  
 8 sizes, 110 pcs.  
 GE-314



**O-RING KIT**

**PART #**                      **CONTENTS**  
**30 477**                      **BUNA-N** rubber (NBR)  
 3 to 50mm I.D.  
 32 sizes, 419 pcs.  
**ISSA # 81 30 72**

**30 468**                      **VITON** O-ring kit  
 2 to 20mm I.D.  
 30 sizes 180 pc.



**O-RING SPLICING KIT**

**PART #**                      **CONTENTS**  
**30 481**                      1.6-1.9-2.4-3.0-3.5-5.7-8.4 mm  
 7 sizes.  
 Cutting block, marker, knife

**ISSA # 81 30 70**



**O-RING WAREHOUSE KIT**

This 18 compartment kit has a wide variety of O-ring sizes. The box is a multi-drawer unit made of sturdy styrene plastic 15"W x 18"H x 6"D. 150 sizes, 1110 pc

**PART #**                      **CONTENTS**  
**30 463**                      **BUNA-N** rubber (NBR)  
 Sizes: 001 to 932,  
**30 462**                      **VITON**  
 Sizes: 001 to 932

**METRIC ASSORTMENT KITS**

Solid transparent box with easy to read label, a conveniently arranged table of content and a lockable lid.



**HEX BOLT W/NUTS, PLATED**

<u>PART #</u>	<u>CONTENTS</u>
<b>30 469</b>	4x16mm to 8x40mm 12 sizes, 216 pc. total
<b>30 465</b>	5x20mm to 12x50mm 15 sizes, 316 pc. total



**HEX BOLT W/NUTS, S.S.**

<u>PART #</u>	<u>CONTENTS</u>
<b>30 466</b>	4x16mm to 8x40mm 12 sizes, 216 pc. total
<b>30 467</b>	5x20mm to 12x50mm 15 sizes, 316 pc. total



**SELF-TAPPING SCREWS, PLATED**

<u>PART #</u>	<u>CONTENTS</u>
<b>30 470</b>	3x10mm to 6x25mm 8 sizes, 365 pc. total



**COTTER PINS, STEEL**

<u>PART #</u>	<u>CONTENTS</u>
<b>30 478</b>	2.5x25mm to 5x50mm 6 sizes, 495 pc. total



**TAPER PINS, STEEL**

<u>PART #</u>	<u>CONTENTS</u>
<b>30 483</b>	2 X 12mm to 6x40mm 18 sizes, 345 pc. total



**METRIC ASSORTMENT KITS**

Solid transparent box with easy to read label, a conveniently arranged table of content and a lockable lid.



**SPRING TENSION PINS, STEEL**

<b><u>PART #</u></b>	<b><u>CONTENTS</u></b>
<b>30 471</b>	2x20 to 8X50 mm 16 sizes, 300 pcs. GE-208



**RETAINING RING KITS**

<b><u>PART #</u></b>	<b><u>CONTENTS</u></b>
<b>30 475</b>	<b>Internal:</b> 20-45 mm 8 sizes, 250 pcs. GE-281
<b>30 476</b>	<b>External:</b> 20-45 mm 8 sizes, 250 pcs. GE-280
<b>30 480</b>	<b>Internal &amp; External:</b> 8-15 mm 7 sizes, 625 pcs. GE-266



**E-TYPE RETAINING RING KIT**

<b><u>PART #</u></b>	<b><u>CONTENTS</u></b>
<b>30 479</b>	2.5-12 mm 9 sizes, 1300 pcs. GE-261



**GREASE FITTINGS**

<b><u>PART #</u></b>	<b><u>CONTENTS</u></b>
<b>41 207</b>	<b>Metric</b> 6,8,10 & 12mm 12 sizes, 140 pc. total
<b>41 208</b>	<b>B.S.P.</b> 1/8", 1/4" & 3/8" B.S.P. 12 sizes, 218 pc. total



**COPPER WASHERS**



**COPPER WASHERS**

Annealed, 100% copper, DIN 7603-A

<u>PART #</u>	<u>I.D.</u>	<u>O.D.</u>	<u>THICKNESS</u>
30 490	M4	M8	1mm
30 491	M6	M10	1mm
30 494	M6	M12	1mm
30 492	M8	M12	1mm
30 497	M8	M14	1mm
30 498	M10	M14	1mm
30 493	M10	M16	1mm
30 495	M12	M16	1.5mm
30 496	M12	M18	1.5mm
30 499	M14	M18	1.5mm
30 501	M14	M20	1.5mm
30 500	M16	M20	1.5mm
30 502	M16	M22	1.5mm
30 504	M17	M25	2mm
30 506	M18	M24	1.5mm
30 507	M20	M26	1.5mm
30 508	M22	M27	1.5mm
30 509	M24	M30	2mm
30 510	M26	M32	2mm
30 511	M28	M34	2mm
30 512	M30	M36	2mm
30 513	M32	M40	2mm
30 514	M35	M45	2mm

**COPPER WASHER KITS**



**PART #**  
**30 472**      **CONTENTS**  
 6-8-10-12-14-16-18-20 mm  
 8 sizes, 240 pcs.  
 GE-227

**ISSA # 81 30 80**

**30 473**      4-6-8-10-12-14-16-18  
 20-22-24-26-28-30 mm  
 29 sizes, 530 pcs.  
 GE-727

# **HAND TOOLS**

**WRENCHES**



**ADJUSTABLE WRENCHES**

Chrome Vanadium Steel, millimeter graduation head for quick adjustment. Handle weight less by 10%. Rubber TPR cushion handle.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
46 106	4" (stubby)	61 13 31
46 102	6"	61 13 32
46 103	8"	61 13 33
46 104	10"	61 13 34
46 105	12"	61 13 35

**JUMBO ADJUSTABLE WRENCHES**

Heat treated and chrome plated, polished heads

46 107	15"	61 13 36
46 108	18"	61 13 37
46 109	24"	61 13 38



**ADJUSTABLE WRENCH SET, 3-PC**

Wide-jaw wrench set, 6", 8" and 10"  
Cushion-grip handles

<u>PART#</u>	<u>SIZE</u>
40 010	6", 8" AND 10"

**ADJUSTABLE WRENCH-BAHCO**

ERGO adjustable wrench in high grade phosphated steel with laser-engraved metric scale.



<u>PART #</u>	<u>BAHCO#</u>	<u>SIZE</u>	<u>ISSA #</u>
40 001	8069	4"	61 61 01
40 002	8070	6"	61 61 02
40 003	8071	8"	61 61 03
40 004	8072	10"	61 61 04
40 005	8073	12"	61 61 05
40 006	8074	15"	61 61 06
40 007	8075	18"	61 61 07
40 015	86	24"	61 61 08
40 016	87	30"	61 61

**WRENCHES**



**ADJUSTABLE WRENCH-BAHCO 31**

ERGO Adjustable wrench with alligator jaw and laser-engraved metric scale. Phosphated steel.

<u>PART #</u>	<u>BAHCO#</u>	<u>SIZE</u>
40 025	31	8"



**BIG-MOUTH ADJUSTABLE WRENCH**

ERGO Adjustable wrench with extra wide opening Jaws with shorter handles. Thermoplastic cushion grip and laser-engraved metric scale. Phosphated steel.

<u>PART #</u>	<u>BAHCO#</u>	<u>SIZE</u>
40 085	9031	8"
40 086	9033	10"
40 087	9035	12"



**ADJUSTABLE WRENCH**

ERGO Adjustable wrench with thermoplastic cushion grip and laser-engraved metric scale. Phosphated steel.

<u>PART #</u>	<u>BAHCO#</u>	<u>SIZE</u>
40 088	9070	6"
40 089	9071	8"
40 090	9072	10"
40 091	9073	12"



**ADJUSTABLE/PIPE WRENCH-**

ERGO Adjustable wrench with reversible pipe grip jaw, thermoplastic cushion grip and laser-engraved metric scale.

<u>PART #</u>	<u>BAHCO#</u>	<u>SIZE</u>
40 008	9070-P	6"
40 009	9071-P	8"
40 092	9072-P	10"
40 093	9073-P	12"

**COMBINATION WRENCHES**



**COMBINATION WRENCHES-METRIC**

High quality European style wrenches. Chrome-Vanadium steel, satin finish with polished head. DIN 3113

<u>PART #</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 030	5mm	40 041	16mm	40 235	28mm
40 017	5.5mm	40 042	17mm	40 236	29mm
40 031	6mm	40 043	18mm	40 237	30mm
40 032	7mm	40 044	19mm	40 048	32mm
40 033	8mm	40 045	20mm	40 067	33mm
40 034	9mm	40 046	21mm	40 049	34mm
40 035	10mm	40 047	22mm	40 050	36mm
40 036	11mm	40 230	23mm	40 051	38mm
40 037	12mm	40 231	24mm	40 052	41mm
40 038	13mm	40 232	25mm	40 028	42mm
40 039	14mm	40 233	26mm	40 053	46mm
40 040	15mm	40 234	27mm	40 054	50mm
				40 055	55mm
				40 056	60mm

**COMBINATION WRENCH SETS**

High quality European style wrenches in a vinyl pouch.



**PART #**                      **SIZES**  
**40 132**                      8-pc set from 10-19 mm  
 10,11,12,13,14,15,17 & 19mm

**PART #**                      **SIZES**  
**40 115**                      14-pc set, from 8-24mm.  
 8, 9, 10, 11, 12, 13, 14, 15,  
 16,17, 19, 21, 22 & 24mm  
**ISSA # 61 05 31**

**PART #**                      **SIZES**  
**40 116**                      16-pc set, from 8-32mm  
 7,8,9,10,11,12,13,14,15,17,  
 19,22,24,27,30,32

**COMBINATION WRENCHES**



**COMBINATION WRENCHES - S.A.E.**

High quality European style wrenches in inch sizes. Chrome-Vanadium steel, satin finish with polished head. DIN 3113

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
48 100	1/4"	61 08 01
48 101	5/16"	61 08 02
48 102	3/8"	61 08 03
48 103	7/16"	61 08 04
48 104	1/2"	61 08 05
48 105	9/16"	61 08 06
48 106	5/8"	61 08 07
48 108	11/16"	61 08 08
48 109	3/4"	61 08 09
48 110	13/16"	61 08 10
48 111	7/8"	61 08 11
48 112	15/16"	61 08 12
48 113	1"	61 08 13
48 114	1 1/16"	61 08 14
48 115	1 1/8"	61 08 15
48 116	1 3/16"	
48 117	1 1/4"	61 08 16
48 118	1 5/16"	
48 120	1-3/8"	
48 121	1-1/2"	



**COMBINATION WRENCH SET-S.A.E.**

High quality wrenches in inch sizes. Chrome-Vanadium steel, satin finish, polished head.

<u>PART #</u>	<u>SIZES</u>
48 119	10-pc. set, 1/4" to 1" 1/4", 5/16", 3/8", 7/16", 1/2" 9/16", 5/8", 3/4", 7/8" & 1"
48 200	16-pc. set, 1/4" to 1-1/4" 1/4", 5/16", 3/8", 7/16", 1/2" 9/16", 5/8", 11/16", 3/4", 13/16", 15/16", 7/8", 1", 1-1/16", 1-1/8" & 1-1/4"



**COMBINATION WRENCHES**



**RATCHET COMBINATION WRENCHES**

High quality European style wrenches.  
Chrome-Vanadium steel. 72 Teeth Ratchet

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 620	8mm	40 627	15mm	41 941	25mm
40 621	9mm	40 628	16mm	41 942	26mm
40 622	10mm	40 629	17mm	41 943	27mm
40 623	11mm	40 630	18mm	41 944	28mm
40 624	12mm	40 631	19mm	41 945	30mm
40 625	13mm	40 632	22mm	41 946	32mm
40 626	14mm	40 633	24mm		



**STUBBY RATCHET COMBO WRENCHES**

High quality European style wrenches.  
Chrome-Vanadium steel. 72 Teeth Ratchet

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 634	8mm	40 640	14mm
40 635	9mm	40 641	15mm
40 636	10mm	40 642	16mm
40 637	11mm	40 643	17mm
40 638	12mm	40 644	18mm
40 639	13mm	40 645	19mm



**RATCHET COMBINATION WRENCH SET**

**Reversible** High quality European style wrench set in metal box. Chrome Vanadium Steel, Satin chrome plated finish. Two-way reversible gear design, 72 teeth ratchet,

<u>PART #</u>	<u>SIZES</u>
40 084	8-pc set, from 8-19 mm 8, 10, 11, 12, 13, 14, 17 & 19
40 127	12-pc set, from 8-19mm. 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 & 19 mm



**COMBINATION WRENCHES**

**FLEX-HEAD RATCHET COMBINATION WRENCHES**

Reversible, high quality European style wrenches. Chrome-Vanadium steel. 72 Teeth Ratchet



<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
41 578	8mm	5.5"
41 579	9mm	6"
41 580	10mm	6.25"
41 581	11mm	6.75"
41 582	12mm	7"
41 583	13mm	7.5"
41 584	14mm	7.75"
41 585	15mm	8"
41 586	16mm	8.25"
41 587	17mm	9"
41 588	18mm	9.5"
41 589	19mm	10"



**FLEX-HEAD RATCHET COMBINATION WRENCH SET**

**Reversible** High quality European style wrench set in metal box. Chrome Vanadium Steel, Satin chrome plated finish. Two-way reversible gear design, 72 teeth ratchet,

<u>PART #</u>	<u>SIZES</u>
41 590	12-pc set, from 8-19mm. 8, 9, 10,11, 12, 13, 14, 15, 16, 17, 18 & 19 mm

**OPEN END WRENCHES**



**DOUBLE OPEN END WRENCH**

High quality European wrenches.  
 Chrome-Vanadium steel, satin finish with polished head. DIN 3110

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
45 054	4 x 5mm	45 071	12 x 13mm	45 090	24 x 26mm
45 057	5.5 x 7mm	45 072	12 x 14mm	45 091	24 x 27mm
45 058	6 x 7mm	45 075	13 x 17mm	45 092	25 x 28mm
45 059	7 x 8mm	45 077	14 x 17mm	45 094	27 x 30mm
45 061	8 x 9mm	45 079	16 x 17mm	45 095	27 x 32mm
45 062	8 x 10mm	45 081	17 x 19mm	45 096	30 x 32mm
45 063	9 x 10mm	45 083	18 x 19mm	45 097	30 x 36mm
45 064	9 x 11mm	45 013	19 x 21mm	45 098	32 x 36mm
45 065	10 x 11mm	45 084	19 x 22mm	45 099	34 x 36mm
45 066	10 x 12mm	45 086	20 x 22mm	45 100	36 x 41mm
45 067	10 x 13mm	45 087	21 x 23mm	45 101	41 x 46mm
45 069	11 x 13mm	45 088	22 x 24mm	45 102	46 x 50mm



**DOUBLE OPEN END WRENCH SETS**

High quality European wrenches.  
 Chrome-Vanadium steel, satin finish with polished head. DIN 3110

**PART #**                      **SIZES**  
**40 118**                      8-pc. set, 6-22mm  
 6x7,8x9,10x11,12x13,  
 14x15,16x17,18x19&20x22  
**ISSA # 61 05 04**

**PART #**                      **SIZES**  
**40 119**                      12-pc set 6-32 mm  
 6x7,8x9,10x11,12x13,14x15,  
 16x17,18x19,20x22,21x23,  
 24x27,25x28 & 30x32

**OPEN END WRENCHES**



**DOUBLE OPEN END WRENCH-SAE**

High quality European wrenches.  
 Chrome-Vanadium steel, satin finish with  
 polished head. DIN 3110

<u>PART #</u>	<u>SIZE</u>
49 053	1/4"x9/32"
49 054	1/4"x5/16"
49 055	5/16"x11/32"
49 056	5/16"x3/8"
49 057	3/8"x7/16"
49 058	7/16"x1/2"
49 059	1/2"x9/16"
49 060	9/16"x5/8"
49 061	19/32"x5/8"
49 062	9/16"x11/16"
49 063	19/32"x11/16"
49 064	5/8"x11/16"

<u>PART #</u>	<u>SIZE</u>
49 065	11/16"x3/4"
49 066	3/4"x7/8"
49 067	13/16"x7/8"
49 068	7/8"x15/16"
49 069	15/16"x1"
49 070	1"x1-1/8"
49 071	1-1/16"x1-1/4"
49 072	1-1/8"x1-5/16"
49 073	1-3/16"x1-5/16"
49 075	1-15/16"x1-1/2"
49 076	1-3/8"x1-1/2"
49 077	1-7/16"x1-5/8"



**DOUBLE OPEN END WRENCH SETS-SAE**

High quality European wrenches.  
 Chrome-Vanadium steel, satin finish with  
 polished head. DIN 3110

<u>PART#</u>	<u>SIZES</u>
40 124	6-pc set, 3/8"-1"
40 125	10-pc set, 3/8"-1-1/4"

**OPEN END WRENCHES**



**FLARE NUT WRENCHES 6-PT**

Chrome Vanadium Steel. Thick head to ensure a strong grip on the nut, specially designed for use with nuts fitted in hydraulic, oil and compressed air systems.

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
41 935	8 x 9mm	130mm
41 936	8 x 10mm	130mm
41 937	10 x 11mm	150mm
40 938	10 x 12mm	150mm
40 939	11 x 13mm	170mm
40 947	12 x 13mm	170mm
40 948	12 x 14mm	170mm



**SINGLE OPEN END WRENCH**

DIN 894, Black phosphated finish.

<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>
40 145	6mm	40 156	17mm	45 041	46mm
40 146	7mm	40 157	19mm	45 042	50mm
40 147	8mm	40 158	22mm	45 043	55mm
40 148	9mm	40 159	24mm	45 044	60mm
40 149	10mm	40 240	25mm	45 045	65mm
40 150	11mm	40 241	27mm	45 046	70mm
40 151	12mm	40 242	30mm	45 047	75mm
40 152	13mm	40 243	32mm	45 048	80mm
40 153	14mm	40 244	36mm	45 049	85mm
40 154	15mm	40 020	38mm	40 018	90mm
40 155	16mm	45 040	41mm	40 019	100mm

**OPEN END WRENCHES**



**HOOK SPANNER, ADJUSTABLE**

Black phosphated finish.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
44 013	35-105mm	61 12 01
44 014	95-165mm	61 12 02



**CROWFOOT WRENCHES**

Supplied without tommy bar. DIN 3114

<u>PART#</u>	<u>SIZE</u>		
40 141	13mm	40 021	22mm
40 142	14mm	40 102	24mm
40 097	16mm	40 103	27mm
40 143	17mm	40 104	30mm
40 098	18mm	40 099	32mm
40 144	19mm	40 100	36mm
40 114	21mm		



**CROWFOOT WRENCH SET**

3/8" Drive, Forged and Hardened Steel, Chrome Plated. Includes metal storage rail.

<u>PART#</u>	<u>SIZES</u>
40-100S	10-24mm



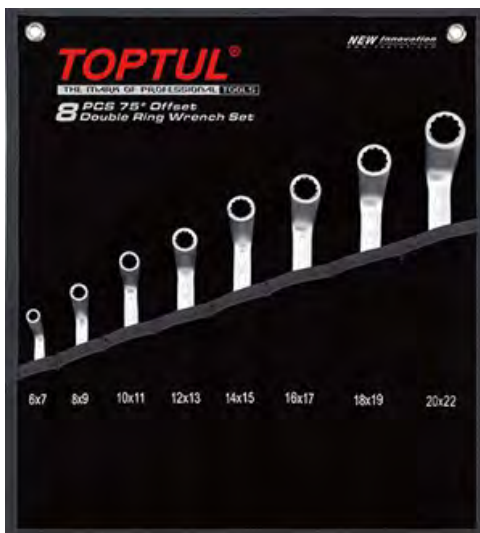
## DOUBLE BOX WRENCHES



### DOUBLE BOX WRENCH

High quality European style wrenches.  
Chrome-Vanadium steel, satin finish with polished head. DIN 838

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
45 127	6 x 7mm	45 140	16 x 17mm	45 150	25 x 28mm
45 128	8 x 9mm	45 141	16 x 18mm	45 152	27 x 30mm
45 129	8 x 10mm	45 142	17 x 19mm	45 153	27 x 32mm
45 131	10 x 11mm	45 143	18 x 19mm	45 154	30 x 32mm
45 132	10 x 12mm	45 144	19 x 22mm	45 156	32 x 36mm
45 120	11 x 13mm	45 145	20 x 22mm	45 157	36 x 41mm
45 134	12 x 13mm	45 146	21 x 23mm	45 158	41 x 46mm
45 135	12 x 14mm	45 147	22 x 24mm	45 122	46 x 50mm
45 138	14 x 15mm	45 148	24 x 26mm		
45 139	14 x 17mm	45 149	24 x 27mm		



### DOUBLE BOX WRENCH SET

High quality European style wrench,  
Chrome-Vanadium steel, mirror finish with polished head.

<u>PART #</u>	<u>SIZES</u>
40 120	8-pc. set, 6-24mm 6x7, 8x9, 10x11, 12x13, 14x15, 16x17, 18x19 & 22x24mm

#### **ISSA # 61 05 17**

<u>PART #</u>	<u>SIZES</u>
40 121	12-pc set from 6x7 to 30-32mm 6x7,8x9,10x11,12x13,14x15,16x17, 18x19,20x22,21x23,24x27,25x28, 30x32mm

**DOUBLE BOX WRENCHES**



**DOUBLE BOX WRENCH-SAE**

High quality European style wrenches.  
 Chrome-Vanadium steel, satin finish with  
 polished head. DIN 838

<u>PART #</u>	<u>SIZE</u>
49 125	1/4"x5/16"
49 126	5/16"x3/8"
49 127	3/8"x7/16"
49 128	7/16"x1/2"
49 129	1/2"x9/16"
49 130	9/16"x5/8"
49 131	19/32"x11/16"
49 132	5/8"x11/16"
49 133	5/8"x3/4"
49 134	11/16"x3/4"
49 135	3/4"x25/32"
49 136	3/4"x13/16"

<u>PART #</u>	<u>SIZE</u>
49 137	3/4"x7/8"
49 138	13/16"x7/8"
49 139	7/8"x15/16"
49 140	15/16"x1"
49 141	1"x1-1/8"
49 142	1-1/16"x1-1/8"
49 143	1-1/16"x1-1/4"
49 144	1-1/8"x1-1/4"
49 145	1-1/8"x1-5/16"
49 146	1-1/4"x1-7/16"
49 147	1-5/16"x1-1/2"
49 148	1-5/8"x1-13/16"



**DOUBLE BOX WRENCH SET-SAE**

High quality European style wrench,  
 Chrome-Vanadium steel, satin finish with  
 polished head.

<u>PART#</u>	<u>SIZES</u>
40 122	6-pc set, 3/8"-1"
40 123	10-pc set, 3/8"-1-1/4"

**BOX WRENCHES****RATCHETING DOUBLE BOX WRENCHES**

Gear type double ratcheting box wrenches.

<u>PART #</u>	<u>SIZE</u>
41 930	8 x 9 mm
41 931	10 x 11 mm
41 932	12 x 13 mm
41 933	14 x 15 mm
40 079	16 x 18 mm
41 934	17 x 19 mm

**RATCHETING DOUBLE BOX WRENCH SET**

Gear type double ratcheting box wrench set with 6 wrenches in plastic case

<u>PART #</u>	<u>SIZE</u>
40 096	6 x 8, 8 x 9, 10 x 11 mm 13 x 14, 15 x 17, 19 x 22 mm

**RATCHETING REFRIGERATION BOX WRENCHES**

These square head wrenches each have four sizes

<u>PART #</u>	<u>SIZE</u>
40 094	3/16"-1/4"-5/16"-3/8"
40 095	3/16"-1/4"-1/2"-9/16"

**TUBULAR BOX WRENCH**

Double ended 6-pt., Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>
46 010	6 x 7mm
46 011	8 x 9mm
46 012	10 x 11mm
46 013	12 x 13mm
46 014	14 x 15mm
46 015	16 x 17mm
46 016	18 x 19mm
46 017	20 x 22mm
46 018	21 x 23mm
46 019	24 x 27mm
46 020	25 x 28mm
46 021	27 x 32mm
46 022	30 x 36mm
46 023	36 x 41mm

**BOX WRENCHES****HALF MOON WRENCH**

Starter wrench or Obstruction wrench,  
Chrome-Vanadium steel.

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
45 198	8 X 9mm	137mm
45 197	10 x 12mm	142mm
45 034	11 x 13mm	166mm
45 036	14 x 17mm	190mm
45 206	16 x 18mm	220mm
45 207	19 x 22mm	256mm

**HALF MOON WRENCH SET**

Starter wrench, Chrome-Vanadium steel.  
Hard blow case.

<u>PART#</u>	<u>SIZE</u>
45 039	5-pc. set 10x12, 11x13, 14x17, 16x18, 19x21mm

**BOX WRENCHES**



**FLEX HEAD SOCKET WRENCH**

12 pt. European type double end flex wrench.  
Chrome-Vanadium steel.

<u>PART #</u>	<u>SIZE</u>
45 014	6 x 7mm
45 001	8 x 9mm
45 002	10 x 11mm
45 003	12 x 13mm
45 005	14 x 15mm
45 007	14 x 17mm
45 008	16 x 17mm
45 009	17 x 19mm
45 010	18 x 19mm
45 011	20 x 23mm
45 015	21 x 22mm
45 016	24 x 27mm
45 017	30 x 32mm



**SWIVEL SOCKET WRENCH SET**

7-pc. European type double end swivel socket wrench set. Chrome-Vanadium steel.

<u>PART #</u>	<u>SIZES</u>
45 018	7-pc. set 6x7, 8x9, 10x11, 12x13, 14x15 16x17, 18x19mm



**ANGLED HEAD SOCKET WRENCH SET 9-PC**

9-pc. European type angled socket wrench set. Chrome-Vanadium steel.

<u>PART #</u>	<u>SIZES</u>
45 020	9-pc. set 8, 10, 11, 12, 13, 14, 16, 17, 19mm

**BOX WRENCHES****SINGLE RATCHET SPUD WRENCH**

12-pt. Black phosphated finish.



<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>ISSA#</u>
47 000	10mm	235mm	61 10 26
47 001	13mm	235mm	61 10 28
47 002	17mm	278mm	61 10 30
47 003	19mm	312mm	61 10 31
47 004	22mm	312mm	61 10 33
47 005	24mm	358mm	61 10 34
47 006	27mm	358mm	61 10 36
47 007	30mm	415mm	61 10 37
47 008	32mm	415mm	61 10 38
47 009	36mm	460mm	61 10 40
47 010	41mm	503mm	61 10 41
47 011	46mm	516mm	61 10 42

**DOUBLE RATCHET SPUD WRENCH**

Chrome-plated body with 12-pt. black phosphated socket insert.



<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>ISSA #</u>
47 023	10x13mm	240mm	61 10 52
47 024	13x17mm	280mm	61 10 55
47 022	17x19mm	315mm	61 10 57
47 025	19x22mm	315mm	61 10 59
47 026	19x24mm	365mm	61 10 60
47 027	22x24mm	365mm	61 10 63
47 028	24x27mm	365mm	61 10 65
47 029	24x30mm	445mm	61 10 66
47 030	27x30mm	445mm	61 10 68
47 031	30x32mm	445mm	61 10 69

**SINGLE SPUD END WRENCH**

12-pt. Black phosphated finish.



<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>ISSA#</u>
47 012	17mm	314mm	61 10 03
47 013	19mm	337mm	61 10 04
47 014	22mm	353mm	61 10 06
47 015	24mm	375mm	61 10 08
47 016	27mm	392mm	61 10 10
47 017	30mm	416mm	61 10 11
47 018	32mm	428mm	61 10 12
47 019	36mm	468mm	61 10 14
47 020	41mm	504mm	61 10 15
47 021	46mm	545mm	61 10 16



**SLUGGING WRENCHES**



**RING SLUGGING WRENCH**

Black phosphated finish. DIN 7444

<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>
40 249	22mm	40 168	55mm	40 180	115mm
40 160	24mm	40 169	60mm	40 181	120mm
40 161	27mm	40 170	65mm	40 182	125mm
40 162	30mm	40 171	70mm	40 183	130mm
40 163	32mm	40 172	75mm	40 184	135mm
40 111	34mm	40 173	80mm	40 185	140mm
40 164	36mm	40 174	85mm	40 186	145mm
40 165	41mm	40 175	90mm	40 187	150mm
40 250	42mm	40 176	95mm	40 188	160mm
40 166	46mm	40 177	100mm	40 189	170mm
40 167	50mm	40 178	105mm		
40 112	54mm	40 179	110mm		



**OPEN END SLUGGING WRENCH**

Black phosphated finish. DIN 133

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 022	24mm	40 199	65mm	40 210	120mm
40 190	27mm	40 200	70mm	40 211	125mm
40 191	30mm	40 201	75mm	40 212	130mm
40 192	32mm	40 202	80mm	40 213	135mm
40 238	34mm	40 203	85mm	40 214	140mm
40 193	36mm	40 204	90mm	40 215	145mm
40 194	41mm	40 205	95mm	40 216	150mm
40 195	46mm	40 206	100mm	40 217	155mm
40 196	50mm	40 207	105mm	40 218	160mm
40 197	55mm	40 208	110mm	40 219	170mm
40 198	60mm	40 209	115mm		

**SOCKETS & ACCESSORIES**



**REVERSIBLE RATCHETS**

High quality European ratchets.  
Chrome-Vanadium steel, satin finish with  
24 teeth ratcheting gear and rubber handle.

<u>PART #</u>	<u>DRIVE</u>	<u>O.L.</u>	<u>ISSA #</u>
40 585	1/4"	6"	61 04 01
40 486	3/8"	8"	61 04 03
40 487	1/2"	10"	61 04 05
40 488	3/4"	20"	61 04 07
40 489	1"		61 04 09
40 485	1/2" (Flex Head)	12"	

**SLIDING T-HANDLES**

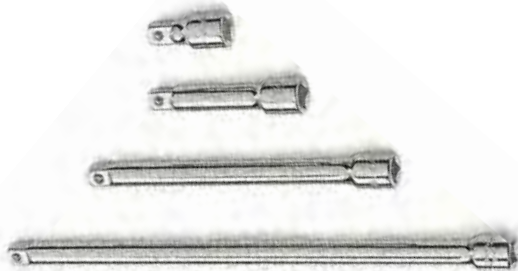
For socket wrenches.



<u>PART#</u>	<u>DRIVE</u>	<u>ISSA #</u>
40 451	1/4"	61 04 21
40 452	3/8"	61 04 22
40 453	1/2"	61 04 23
40 454	3/4"	61 04 24
40 455	1"	61 04 25

**EXTENSION BARS**

For socket wrenches.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 440	1/4" x 50mm	61 04 48
40 441	1/4" x 150mm	61 04 49
40 442	1/4" x 250mm	
40 443	3/8" x 150mm	61 04 51
40 444	3/8" x 250mm	61 04 52
40 445	1/2" x 75mm	61 04 53
40 446	1/2" x 125mm	61 04 54
40 447	1/2" x 250mm	61 04 55
40 458	1/2" X 500mm	
40 448	3/4" x 100mm	
40 449	3/4" x 200mm	61 04 56
40 450	3/4" x 400mm	61 04 57
40 456	1" x 200mm	61 04 60
40 457	1" x 400mm	61 04 59



40 459	1/4" x 150mm FLEX
40 463	3/8" x 200mm FLEX

**SOCKETS & ACCESSORIES**



**UNIVERSAL JOINTS**

For socket wrenches.

<u>PART #</u>	<u>DRIVE</u>	<u>ISSA #</u>
40 460	1/4"	61 04 65
40 461	3/8"	61 04 66
40 462	1/2"	61 04 67
40 464	3/4"	61 04 68
40 465	1"	61 04 69



**SPEED BRACE**

For socket wrenches.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
42 002	1/4"	
42 003	3/8"	61 04 42
42 004	1/2"	61 04 43



**SPINNER HANDLES**

for socket wrenches.

<u>PART #</u>	<u>DRIVE</u>
40 475	1/4" Fixed shank
40 474	1/4" flexible shank



**FLEX HEAD HANDLES**

for socket wrenches.

<u>PART #</u>	<u>DRIVE</u>	<u>ISSA #</u>
40 470	1/4"	61 04 15
40 471	3/8"	61 04 16
40 472	1/2"	61 04 17
40 473	3/4"	61 04 19



**ADAPTERS**

For socket wrenches.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 430	1/4"M x 3/8"F	61 04 72
40 431	3/8"M x 1/4"F	61 04 71
40 432	3/8"M x 1/2"F	61 04 74
40 433	1/2"M x 3/8"F	61 04 73
40 434	1/2"M x 3/4"F	61 04 76
40 435	3/4"M x 1/2"F	61 04 75
40 438	3/4"M x 1"F	61 04 78
40 436	1"M x 3/4"F	61 04 77

**SOCKETS & ACCESSORIES****METRIC****1/4" DR. SOCKET WRENCH, 6-PT**

Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>
40 300	4mm
40 301	4.5mm
40 302	5mm
40 303	5.5mm
40 304	6 mm
40 305	7mm
40 306	8mm
40 307	9mm
40 308	10mm
40 309	11mm
40 310	12mm
40 311	13mm
40 312	14mm

**3/8" DR. SOCKET WRENCH, 6-PT**

Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>
40 292	6mm
40 294	7mm
40 297	8mm
40 298	9mm
40 299	10mm
40 315	11mm
40 316	12mm
40 317	13mm
40 318	14mm
40 319	15mm
40 320	16mm
40 321	17mm
40 322	18mm
40 323	19mm
40 324	20mm
40 325	21mm
40 326	22mm
40 327	24mm

**SOCKETS & ACCESSORIES**

**METRIC**

**1/2" DR. SOCKET WRENCH, 12-PT**

Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 328	8mm	40 343	20mm
40 329	9mm	40 344	21mm
40 330	10mm	40 345	22mm
40 331	11mm	40 346	23mm
40 332	12mm	40 347	24mm
40 336	13mm	40 348	25mm
40 337	14mm	40 349	26mm
40 338	15mm	40 350	27mm
40 339	16mm	40 351	28mm
40 340	17mm	40 352	29mm
40 341	18mm	40 353	30mm
40 342	19mm	40 354	32mm
40 343	20mm	45 334	34mm
		40 333	36mm

**3/4" DR. SOCKET WRENCH, 12-PT**

Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 360	22mm	40 367	38mm
40 361	24mm	40 368	41mm
40 362	27mm	40 370	46mm
40 364	30mm	40 371	50mm
40 365	32mm	40 372	55mm
40 366	36mm	40 373	60mm

**1" DR. SOCKET WRENCH, 6-PT**

Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 425	36mm	40 375	60mm
40 426	41mm	40 376	65mm
40 427	46mm	40 377	70mm
40 428	50mm	40 378	75mm
40 429	55mm	40 379	80mm

**SOCKETS & ACCESSORIES**

**SAE**

**1/4" DR. 6-PT**

**3/8" DR. 6-PT**

Chrome-Vanadium Steel.



<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 586	5/32"	40 126	5/16"
40 587	3/16"	40 128	3/8"
40 588	7/32"	40 129	7/16"
40 589	1/4"	40 130	1/2"
40 590	9/32"	40 131	9/16"
40 591	5/16"	40 133	5/8"
40 592	11/32"	40 134	11/16"
40 593	3/8"	40 135	3/4"
40 594	13/32"	40 136	13/16"
40 595	7/16"	40 137	7/8"
40 596	15/32"		
40 597	1/2"		

**1/2" DR. SOCKET WRENCH, 12-PT**

Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 380	5/16"	40 391	3/4"
40 381	3/8"	40 392	25/32"
40 382	7/16"	40 393	13/16"
40 383	15/32"	40 394	7/8"
40 384	1/2"	40 395	15/16"
40 385	9/16"	40 396	1"
40 386	19/32"	40 466	1-1/16"
40 387	5/8"	40 467	1-1/8"
40 388	21/32"m	40 468	1-3/16"
40 389	11/16"	40 469	1-1/4"
40 390	23/32"		

**3/4" DR. SOCKET WRENCH, 6-PT**

Chrome-Vanadium steel.



<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 600	3/4"	40 610	1-3/8"
40 601	13/16"	40 611	1-7/16"
40 602	7/8"	40 612	1-1/2"
40 603	15/16"	40 613	1-5/8"
40 604	1"	40 614	1-11/16"
40 605	1-1/16"	40 615	1-3/4"
40 606	1-1/8"	40 616	1-13/16"
40 607	1-3/16"	40 617	1-7/8"
40 608	1-1/4"	40 618	2"
40 609	1-5/16"		



**SOCKETS & ACCESSORIES****METRIC****1/4" DR. DEEP SOCKETS, 6-PT**

Chrome-Vanadium steel.

<u>PART #</u>	<u>SIZE</u>
40 650	4mm
40 651	5mm
40 652	6mm
40 653	7mm
40 654	8mm
40 655	9mm
40 656	10mm
40 657	11mm
40 658	12mm
40 659	13mm

**3/8" DR. DEEP SOCKETS, 6-PT**

Chrome-Vanadium steel.

<u>PART #</u>	<u>SIZE</u>
40 397	10mm
40 398	11mm
40 399	12mm
40 400	13mm
40 401	14mm
40 402	15mm
40 403	16mm
40 404	17mm
40 406	19mm

**1/2" DR. DEEP SOCKETS, 12-PT**

Chrome-Vanadium steel.

<u>PART #</u>	<u>SIZE</u>
40 410	10mm
40 411	12mm
40 412	13mm
40 413	14mm
40 414	15mm
40 415	16mm
40 416	17mm
40 407	18 mm
40 417	19mm
40 418	21 mm
40 419	22mm
40 408	23 mm
40 420	24mm
40 421	26 mm
40 422	27mm
40 409	28 mm
40 423	30mm
40 424	32mm

## SOCKETS & ACCESSORIES



### 3/8" DR. SOCKET SET- 12 PT

10-pc socket set, 1/2" drive, 12-pt.  
Chrome Vanadium steel, range: 10-19mm,  
On clip rail.

**PART #**  
**40 718**

#### CONTENTS

3/8" dr. sockets:  
10, 11, 12, 13, 14, 15, 16, 17, 18 &  
19mm  
Clip rail



### 1/2" DR. SOCKET SET- 12 PT

10-pc socket set, 1/2" drive, 12-pt.  
Chrome Vanadium steel, range: 13-24mm,  
On clip rail.

**PART #**  
**40 717**

#### CONTENTS

1/2" dr. sockets:  
13, 14, 15, 16, 17, 19, 21, 22, 23 &  
24mm  
Clip rail



### 1/2" DR. DEEP SOCKET SET-12 PT

11-pc socket set, 1/2" drive, 12-pt.  
Chrome Vanadium steel, range: 10-22mm,  
On clip rail.

**PART #**  
**40 439**

#### CONTENTS

1/2" dr. sockets:  
10, 11, 12, 13, 14, 15, 16, 17, 19,  
21 & 22mm  
Clip rail

**TORQUE WRENCHES**

Micro adjustable torque wrench with chrome vanadium steel ratchet head, quick release button, comfortable ergonomic handle & 3-way ratchet drive mechanism; forward/lock/reverse



<u>PART#</u>	<u>SQ.DR.</u>	<u>FT-LB</u>	<u>Nm</u>	<u>WEIGHT</u>	<u>LENGTH</u>	<u>ISSA#</u>
41 401	1/4"	4-22	6-30	3.3 lbs	260 mm	61-14-27
41 402	3/8"	14-81	20-110	4.0 lbs	435 mm	61-14-29
41 403	1/2"	29-154	40-210	4.8 lbs	495 mm	61-14-37
41 404	1/2"	51-258	70-350	5.8 lbs	560 mm	61-14-38
41 407	3/4"	73-368	100-500	10.5 lbs	865 mm	61-14-40
41 408	3/4"	103-723	140-980	18.1 lbs	1230 mm	61-14-43
41 410	1"	103-723	140-980	19.1 lbs	1230 mm	



<u>PART#</u>	<u>SQ.DR.</u>	<u>FT-LB</u>	<u>Nm</u>	<u>WEIGHT</u>	<u>LENGTH</u>
41 409	1"	221-1105	300-1500	25.1 lbs	1775 mm

**SOCKET WRENCH SETS****METRIC****1/4" DR. SOCKET WRENCH SET**

European quality 31-pc. 1/4" Dr. Socket set, 6-pt.  
Range: 4-14mm, Satin Finish

**PART #**  
**40 495**

**CONTENTS**

Flank sockets (4-5-6-7-8-9-10-11-12-13 & 14mm)  
1/4" dr. Reversible Ratchet,  
1/4" dr. Sliding T-Bar  
1/4" dr. Universal Joint  
1/4" dr. Spinner handle  
1/4" dr. Extensions 2" & 6" long  
Pozi Bit Sockets PZ1, PZ2, PZ3  
Phillips Bit Sockets PH1, PH2, PH3  
Slotted Bit Sockets 4.0, 5.5, 6.5 mm  
Hex Bit Sockets 3, 4, 5, 6, 8 mm  
Weight: 2.85 Lbs.  
**ISSA # 61 01 07**

**3/8" DR. SOCKET WRENCH SET**

European quality 25-pc. 3/8" Dr. Socket set, 6pt.  
Range: 6-24mm, Satin Finish

**PART #**  
**40 496**

**CONTENTS**

Flank sockets (6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22 & 24mm)  
Magnetic spark plug sockets 16 & 21 mm  
3/8" dr. Reversible Ratchet  
3/8" dr. Sliding T-handle  
3/8" dr. Extensions 3" & 6" long  
3/8" dr. Universal Joint  
Weight: 4,5 Lbs.  
**ISSA # 61 01 16**

**SOCKET WRENCH SETS**

**METRIC**



**1/2" DR. SOCKET WRENCH SET**

European quality 24-pc. 1/2" Dr. socket set  
12-pt., range: 8-32mm, Satin Finish

**PART #**  
**40 501**

**CONTENTS**

19 Flank sockets 1/2" dr. 8-32 mm-  
1/2" dr. Ratchet  
1/2" dr. Sliding T-Bar  
1/2" dr. Universal joint  
1/2" dr. Extension 125&250mm  
1/2" dr. flex head handle  
Weight: 9.7 Lbs.  
**ISSA # 61 01 26**



**1/2" DR. SOCKET WRENCH SET**

European quality 41-pc. 1/2" Dr. socket set  
12-pt., range: 8-32mm, Satin Finish

**PART #**  
**40 497**

**CONTENTS**

24 Flank sockets 1/2" dr. 8-32 mm  
9 flank deep sockets 10-22 mm  
1/2" dr. Ratchet  
1/2" dr. Sliding T-Bar  
1/2" dr. Universal joint  
1/2" dr. Extension 125&250mm  
1/2" dr. flex head handle  
2 spark plug sockets 16 & 21 mm  
Weight: 9.7 Lbs.  
**ISSA # 61 01 26**



**3/4" DR. SOCKET WRENCH SET**

European quality 21-pc. 3/4" Dr. socket set, 12-pt.  
Range: 19-50mm, Satin-Chrome Plated Finish.  
Flank Point with Maxi-drive, H.D. blow case.

**PART #**  
**40 498**

**CONTENTS**

16 pc Sockets; 19,21,22,23,24,26,  
27,29,30,32,35,36,38,41,46 & 50 mm  
1 pc 3/4" dr. Reversible Ratchet  
1 pc 3/4" dr. Swivel Handle  
1 pc 3/4" dr. Universal Joint  
2 pc 3/4" dr. Extension 8" & 16"  
**ISSA # 61 01 53**



**SOCKET WRENCH SETS**

**METRIC**



**1" DR. SOCKET WRENCH SET-METRIC**

15-pc. Socket set 1" dr., 6-pt., range: 36-80mm.  
Flank drive Chrome-Vanadium steel in steel case.

**PART #**  
**40 499**

**CONTENTS**

10 pc. 1" dr. sockets  
(36,41,46,50,55,60,65,70,75,80)  
1 pc. 1" dr. Ratchet (2-pc)  
1 pc. 1" dr. Extension 200mm  
1 pc. 1" dr. Extension 400mm  
1 pc. Metal case  
**ISSA # 61 01 62**



**1/4" & 1/2" DR. SOCKET WRENCH SET**

Professional grade Flank socket set with  
15 combination wrenches 6-22 mm, total 106 pc

**PART #**  
**40 490**

**CONTENTS**

16 sockets 1/4" dr. 4-14 mm  
15 sockets 1/2" dr. 15-32 mm  
1/4" & 1/2" dr. ratchet handle  
1/4" & 1/2" dr. sliding tee  
1/4" & 1/2" dr. universal joints  
1/4" dr. x 4" extension bar  
1/2" dr. x 5" & 10" extension bar  
31 pc screwdriver bit set



**1/4", 3/8" & 1/2" DR. SOCKET WRENCH SET**

60-Pc. Professional grade 6-Pt socket set, 4-27 mm

**PART #**  
**41 596**

**CONTENTS**

16 sockets 1/4" dr. 4-11 mm  
17 sockets 3/8" dr. 9-19 mm  
13 sockets 1/2" dr. 10-27 mm  
1/4", 3/8" & 1/2" dr. ratchet handle  
1/4" dr. universal joints  
1/4" dr. spinner handle 150 mm  
1/4" dr. extension bars 2" & 4"  
3/8" dr. extension bars 1-3/4" & 3"  
1/2" dr. flex breaker bar  
1/2" dr. extension bar 5"  
Storage case



**SOCKET WRENCH SETS**

**METRIC & SAE**



**1/4" DR. SOCKET SET, INCH/METRIC 51-PC**

European quality 51-pc. 1/4" Dr. socket set, 6-pt.  
Range: 5-14mm and 5/32-9/16", Chrome Plated Finish.  
Tough compact storage case with parts tray

**PART#**  
**40 562**

**CONTENTS**

44 pc Sockets, regular & deep  
1 pc 1/4" dr. 72-tooth Reversible Ratchet  
1 pc 1/4" dr. Nut driver handle  
1 pc 1/4" dr. Universal Joint  
2 pc 1/4" dr. Extension 3" & 6"  
1 pc Screwdriver bit adapter  
Storage case



**3/8" DR. SOCKET SET, INCH/METRIC 45-PC**

European quality 45-pc. 3/8" Dr. socket set, 6-pt.  
Range: 5-19mm and 5/16-3/4", Chrome Plated Finish.  
Tough compact storage case with parts tray

**PART#**  
**40 564**

**CONTENTS**

40 pc 3/8" dr. Sockets  
1 pc 3/8" dr. 72-tooth Reversible Ratchet  
1 pc 1/4" dr. Universal Joint  
2 pc 13/8" dr. Extension 3" & 6"  
Storage case

**SOCKET WRENCH SETS**

**METRIC & SAE**



**1/4" & 3/8" DR. SOCKET SET,  
INCH/METRIC. 45-PC**

European quality 45-pc. 1/4 and 3/8" Dr. socket set, 6-pt. Range: 8-19mm and 5/16-3/4", Chrome Plated Finish. Tough compact storage case with parts tray

**PART#**  
**40 566**

**CONTENTS**

- 19 pc 1/4" dr. Sockets
- 1 pc 1/4" dr. Nut driver handle
- 1 pc 1/4" dr. screwdriver bit adapter
- 1 pc 1/4" M x 3/8" dr. F reducer
- 1 pc 1/4" Hex x 3/8" dr. power socket adapte
- 17 pc 3/8" dr. Sockets
- 1 pc 3/8" dr. 72-tooth Reversible Ratchet
- 1 pc 3/8" dr. spark plug socket
- 1 pc 3/8" dr. extension 6"
- 1 pc 3/8" dr. Universal Joint



**1/4", 3/8" & 1/2" DR. SOCKET WRENCH SET, 135-pc**

135-Pc. Complete assortment of professional-grade wrenches, ratchets, sockets and screwdriver bits. 6-Pt. **SAE & METRIC.**

**PART #**  
**40 500**

**CONTENTS**

- 17 sockets 1/4" dr.
- 18 sockets 3/8" dr.
- 12 sockets 1/2" dr.
- 3 ratchet handles, 1/4", 3/8" & 1/2" dr.
- 3 extension bars, 1/4", 3/8" & 1/2"
- 2 adapters
- 8 combination wrenches
- 22 hex key wrenches,
- 10 nut drivers
- 1 magnetic bit driver & 36 screwdriver bits
- Carrying case

**SOCKET WRENCH SETS**

**SAE**



**1/4" DR. SOCKET WRENCH SET-SAE**

Chrome vanadium steel 22-pc. socket set  
1/4" drive, 6-pt., range: 3/16" - 1/2"

**PART #**  
**40 491**

**CONTENTS**

16 sockets 1/4" dr.  
1/4" dr. spinner handle 150mm  
1/4" dr. ratchet 125mm  
1/4" dr. universal joint  
1/4" dr. Extensions 50 and 150mm  
Storage case  
Weight: 2 Lbs.



**3/8" DR. SOCKET WRENCH SET-SAE**

Chrome vanadium steel 21-pc. socket set  
3/8" Dr., 6-pt., range: 3/8" - 7/8"

**PART #**  
**40 492**

**CONTENTS**

17 sockets 3/8" dr.  
3/8" dr. Ratchet 200mm  
3/8" dr. Extensions 45 & 75mm  
Storage case  
Weight: 4.1 Lbs.



**1/2" DR. SOCKET WRENCH SET-SAE**

Chrome vanadium steel 17-pc. socket set  
1/2" drive, 6-pt., range: 7/16" - 1-1/4"

**PART #**  
**40 493**

**CONTENTS**

13 sockets 1/2" dr.  
1/2" dr. Ratchet 250mm  
1/2" dr. flex head handle 355mm  
1/2" dr. Extension 125mm  
Storage case  
Weight: 7.6 Lbs.



**3/4" DR. SOCKET WRENCH SET-SAE**

Chrome vanadium steel 21-pc. socket set  
3/4" dr., 6-pt., range: 7/8" - 2"

**PART #**  
**40 494**

**CONTENTS**

16 pc. 3/4" dr. sockets  
1 pc 3/4" dr. Ratchet 495mm  
1 pc 3/4" dr. flex head handle 18"  
2 pc 3/4" dr. Extension 100 & 200mm  
Storage case  
Weight: 28.8 lbs.

**HEXAGON BIT SOCKETS**



**3/8" DR. HEXAGON BIT SOCKETS**

<u>PART #</u>	<u>SIZE</u>
40 279	3mm
40 284	4mm
40 285	5mm
40 286	6mm
40 287	7mm
40 288	8mm
40 295	10mm



**1/2" DR. STD. HEXAGON BIT SOCKETS**

<u>PART #</u>	<u>SIZE</u>
40 264	4mm
40 265	5mm
40 266	6mm
40 267	7mm
40 268	8mm
40 269	9mm
40 270	10mm
40 271	12mm
40 272	14mm
40 273	17mm
40 274	19mm



**1/2" DR. LONG HEXAGON BIT SOCKETS**

<u>PART#</u>	<u>SIZE</u>
40 264L	4mm
40 265L	5mm
40 266L	6mm
40 267L	7mm
40 268L	8mm
40 270L	10mm
40 271L	12mm
40 272L	14mm
40 273L	17mm



**3/4" DR. STD. HEXAGON BIT SOCKETS**

<u>PART #</u>	<u>SIZE</u>
40 280	14mm
40 281	17mm
40 282	19mm
40 283	22mm

**HEXAGON BIT SOCKETS**



**HEXAGON BIT SOCKET SETS**

**PART #**  
40 296

**CONTENTS**  
3/8" Dr. 8-Pc **Ball-end**  
3-10 mm on rail

**PART #**  
43 010

**CONTENTS**  
3/8" Dr. 7-Pc **Metric**  
3-10 mm on rail

**PART #**  
43 011

**CONTENTS**  
3/8" Dr. 7-Pc **SAE** set  
1/8"-3/8" on rail

**PART #**  
43 012

**CONTENTS**  
3/8" Dr. 7-Pc **LONG** set  
3-10 mm in plastic case

**3/8" DR. SOCKET WRENCH SET 60-PC**

60-Pc. Flank drive socket set, 6-PT, hex bit sockets and deep sockets, 6-24 mm

**PART#**  
40 290

**CONTENT**  
28 pc. Flank sockets 6-24 mm  
7 pc. Hex bit sockets 3-10  
9 pc. Torx bit sockets T15-T55  
9 pc. Slotted, Phillips, Pozi bits  
2 pc. Spark plug sockets 16 & 21 mm  
1 pc. 3/8" dr. ratchet  
2 pc. Extension bars 75 & 250 mm  
1 pc. Universal joint  
1 pc. 3-way adapter  
Storage case.



**HEXAGON BIT SOCKETS**



**1/2 DR. HEXAGON SOCKET BIT SETS**

**PART #**  
**40 738**

**CONTENTS**  
1/2" Dr. 8-pc. Set SAE  
1/4" to 3/4" on Clip Rail



**1/2 DR. HEXAGON SOCKET BIT SETS**

**PART #**  
**40 289**

**CONTENTS**  
1/2" Dr. 10-pc. set  
4-19mm in metal case



**HEXAGON SOCKET BIT SETS**

**PART #**  
**40 291**

**CONTENTS**  
1/2" Dr. 14-pc. set  
4-19mm sockets,  
1/2" Dr. Ratchet  
1/2" dr. Universal joint,  
125 mm Extension bar  
1/2" dr. Sliding tee  
Metal case



**STAR SOCKET BIT SET**

1/4", 3/8" & 1/2" dr., 35-pc. set

**PART #**  
**40 293**

**CONTENTS**  
25 star sockets T8 toT60  
10 external sockets



**IMPACT SOCKETS**



**1/2" DR. IMPACT SOCKETS**

6-pt. Chrome Molybdenum steel with black phosphate finish.

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 504	8mm	40 513	16mm	40 521	24mm
40 506	9mm	40 514	17mm	40 522	25mm
40 507	10mm	40 515	18mm	40 523	26mm
40 508	11mm	40 516	19mm	40 524	27mm
40 509	12mm	40 517	20mm	40 525	28mm
40 510	13mm	40 518	21mm	40 526	29mm
40 511	14mm	40 519	22mm	40 527	30mm
40 512	15mm	40 520	23mm	40 529	32mm
				40 533	36mm



**1/2" DR. DEEP IMPACT SOCKETS**

6-pt. Chrome Molybdenum steel with black phosphate finish.

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 504D	8mm	40 513D	16mm	40 521D	24mm
40 506D	9mm	40 514D	17mm	40 522D	25mm
40 507D	10mm	40 515D	18mm	40 523D	26mm
40 508D	11mm	40 516D	19mm	40 524D	27mm
40 509D	12mm	40 517D	20mm	40 525D	28mm
40 510D	13mm	40 518D	21mm	40 526D	29mm
40 511D	14mm	40 519D	22mm	40 527D	30mm
40 512D	15mm	40 520D	23mm	40 529D	32mm
				40 533D	36mm



**3/4" DR. IMPACT SOCKETS**

6-pt. Chrome Molybdenum steel with black phosphate finish.

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 544	17mm	40 554	27mm	40 568	41mm
40 545	18mm	40 555	28mm	40 573	46mm
40 546	19mm	40 557	30mm	40 574	48mm
40 547	20mm	40 559	32mm	40 575	50mm
40 548	21mm	40 561	34mm	40 576	55mm
40 549	22mm	40 563	36mm	40 577	60mm
40 551	24mm	40 565	38mm	40 578	65mm
				40 579	70mm



**3/4" DR. DEEP IMPACT SOCKETS**

6-pt. Chrome Molybdenum steel with black phosphate finish.

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 546D	19mm	40 553D	26mm	40 558D	35mm
40 547D	20mm	40 554D	27mm	40 563D	36mm
40 548D	21mm	40 555D	28mm	40 567D	37mm
40 549D	22mm	40 557D	30mm	40 565D	38mm
40 550D	23mm	40 559D	32mm	40 568D	41mm
40 551D	24mm	40 556D	33mm	40 569D	46mm
40 552D	25mm	40 561D	34mm		



**1" DR. IMPACT SOCKETS**

6-pt. Chrome Molybdenum steel with black phosphate finish.

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 660	24mm	40 666	41mm
40 661	27mm	40 667	46mm
40 662	30mm	40 668	50mm
40 663	32mm	40 669	55mm
40 664	33mm	40 670	60mm
40 665	36mm	40 671	65mm
		40 734	70mm

**IMPACT SOCKETS**



**1/2" DR. IMPACT SOCKET SETS**

6-pt. Chrome Molybdenum steel with black phosphate finish. Molded plastic case.

<u>PART#</u>	<u>RANGE</u>	
40 570	11-24 mm	10-pc
40 571	11-32 mm	14-pc



**1/2" DR. DEEP IMPACT SOCKET SETS**

6-pt. Chrome Molybdenum steel with black phosphate finish. Molded plastic case.

<u>PART#</u>	<u>RANGE</u>	
40 572	10-24 mm	15-pc
40 580	11-32 mm	14-pc



**3/4" DR. IMPACT SOCKET SET**

6-pt. Chrome Molybdenum steel with black phosphate finish. Corrugated box

<u>PART#</u>	<u>RANGE</u>	
40 583	17-32 mm	15-pc



**3/4" DR. DEEP IMPACT SOCKET SETS**

6-pt. Chrome Molybdenum steel with black phosphate finish. Molded plastic case.

<u>PART#</u>	<u>RANGE</u>	
40 582	19-32 mm	11-pc
40 581	27-38 mm	14-pc

**IMPACT ACCESSORIES**



**IMPACT ADAPTERS**

Black phosphate finish.

<u>PART #</u>	<u>SIZE</u>
40 690	1/2"M x 3/4"F
40 691	3/4"M x 1/2"F
40 692	3/4"M x 1"F
40 693	1"M x 3/4"F



**IMPACT EXTENSIONS**

Black phosphate finish.

<u>PART #</u>	<u>SIZE</u>
40 679	1/2" dr. x 75mm
40 680	1/2" dr. x 125mm
40 681	1/2" dr. x 250mm
40 683	3/4" dr. x 125mm
40 735	3/4" dr. x 175mm
40 684	3/4" dr. x 250mm
40 685	1" dr. x 100mm
40 686	1" dr. x 175mm
40 687	1" dr. x 250mm



**IMPACT UNIVERSAL JOINTS**

Black phosphate finish.

<u>PART #</u>	<u>SIZE</u>
40 695	1/2" dr.
40 696	3/4" dr.
40 697	1" dr.

**HEXAGON NUT DRIVERS**



**HEXAGON NUT DRIVERS**

Heat-treated steel with plastic handle.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 130	4mm	61 23 51
41 161	4.5mm	
41 131	5mm	61 23 52
41 132	5.5mm	61 23 53
41 121	6mm	61 23 54
41 122	7mm	61 23 55
41 123	8mm	61 23 56
41 124	9mm	61 23 57
41 125	10mm	61 23 58
41 126	11mm	61 23 59
41 127	12mm	61 23 60
41 128	13mm	61 23 61
41 129	14mm	61 23 62
41 118	15mm	
41 119	17mm	61 23 63



**HEXAGON NUT DRIVER SETS**

<u>PART #</u>	<u>SIZE</u>
41 120	7-Pc set, METRIC 5-12 mm



<u>PART #</u>	<u>SIZE</u>
41 369	9-Pc set, SAE 3/16"-5/8" Cushion-grip handles



<u>PART #</u>	<u>SIZE</u>
41 365	12-Pc set, METRIC 4-14 mm Cushion-grip Handles

**HEX SHANK NUT SETTERS**



**HEX SHANK NUT SETTERS**

Magnetic hex head, Chrome-Vanadium steel, 1/4" Hex shank

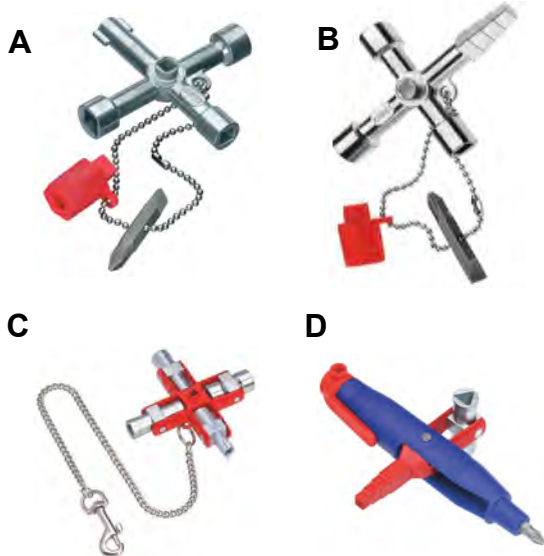
<u>PART #</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>
41 303	5 mm	41 305	1/4"
41 286	6 mm	41 306	5/16"
41 287	7 mm	41 307	3/8"
41 288	8 mm	41 308	7/16"
41 304	10 mm	41 319	1/2"



**NUT SETTER BIT SET**

Universal 1/4" hex shank for quick-change chucks. Hardened chrome vanadium steel. SAE/METRIC

<u>PART#</u>	<u>SIZE</u>
41 310	14-pc set 7 pc. 3/16" to 7/16" 7 pc. 5.0 to 12.0 mm



**UNIVERSAL SWITCH KEY**

Multi-purpose tool for use on locking systems. Supplied with a double end screwdriver bit (slotted 7mm x PZ2) and a socket adapter for 1/4" dr. sockets

<u>PART #</u>	<u>SIZE</u>	
41 293	A: 1/4" dr. adapter & bit	001103
41 323	B: Female and Male squares	001104
41 591	C: 6-19/64" w/chain & snap hook	001106
41 592	D: 8-17/64" fiberglass handle	001108



**HEX KEY WRENCHES**



**HEX KEY WRENCHES**

Allen Hex key wrenches, short arm, black phosphate finish.

**METRIC**

<u>PART #</u>	<u>SIZE</u>	<u>O.L.</u>	<u>PART #</u>	<u>SIZE</u>	<u>O.L.</u>
46 009	1.5mm	46 mm	46 201	11mm	128 mm
40 220	2mm	52 mm	46 202	12mm	137 mm
40 221	2.5mm	58 mm	46 003	14mm	154 mm
40 222	3mm	66 mm	46 004	17mm	177 mm
40 247	3.5mm	68 mm	46 203	19mm	199 mm
40 223	4mm	74 mm	46 005	22mm	220 mm
40 224	5mm	85 mm	46 006	24mm	246 mm
40 225	6mm	96 mm	46 007	27mm	276 mm
40 226	7mm	102 mm	46 002	30 mm	316 mm
40 227	8mm	108 mm	46 008	32mm	345 mm
40 228	9mm	116 mm	40 239	36mm	385 mm
40 229	10mm	122 mm			

**FRACTIONAL**

<u>PART #</u>	<u>SIZE</u>	<u>O.L.</u>	<u>PART #</u>	<u>SIZE</u>	<u>O.L.</u>
41 480	1/16"	46 mm	41 490	5/16"	95 mm
41 481	5/64"	48 mm	41 491	3/8"	108 mm
41 482	3/32"	50 mm	41 492	7/16"	120 mm
41 483	7/64"	54 mm	41 493	1/2"	133 mm
41 484	1/8"	57 mm	41 494	9/16"	146 mm
41 485	9/64"	60 mm	41 495	5/8"	158 mm
41 486	5/32"	63 mm	41 496	3/4"	184 mm
41 487	3/16"	70 mm	41 497	7/8"	210 mm
41 488	7/32"	76 mm	41 498	1"	235 mm
41 489	1/4"	82 mm			

**HEX KEY WRENCHES**



**HEX KEY SETS—SHORT ARM**

<u>PART #</u>	<u>DESCRIPTION</u>
<b>46 205</b>	<b>A:</b> 9-Pc set in holder 1.5, 2, 2.5, 3, 4, 5, 6, 8 & 10mm
<b>46 214</b>	<b>B:</b> 13-Pc set in holder .05", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" & 3/8", 13-pc.

**HEX KEY SETS - LONG ARM**

<u>PART #</u>	<u>DESCRIPTION</u>
<b>46 206</b>	<b>C:</b> 9-Pc set in holder 1.5, 2, 2.5, 3, 4, 5, 6, 8 & 10mm
<b>46 218</b>	<b>D:</b> 14-Pc. Set in pouch 2, 2.5, 3, 4, 5, 6, 7, 8, 9, 10 12, 14, 17 & 19 mm
<b>46 219</b>	<b>E:</b> 26-Pc set in holders 1.27, 1.50, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 8, & 10mm <b>plus</b> 0.05", 1/16", 5/64", 3/32", 7/64", 1/8, 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" & 3/8"
<b>46 223</b>	<b>E:</b> 9-Pc. Set in holder 0.05", 1/16", 5/64", 3/32", 7/64", 1/8, 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" & 3/8"

**HEX KEY WRENCHES**

**A**



**FOLDING HEX KEY SETS**

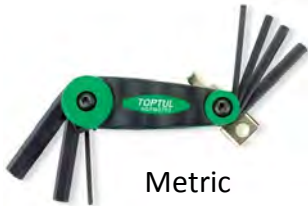
Heat treated chrome vanadium steel with black-oxide finish. Housing conveniently keeps hex keys stored and prevents lost hex keys.

**PART#**  
40 256

**SIZE**

**A:** 7-Pc. Set, 1.5 to-6mm  
1.5, 2, 2.5, 3, 4, 5 & 6 mm

**B**



40 257

**B:** 7-Pc. Set, 2.5 to 10 mm  
2.5, 3, 4, 5, 6, 8 & 10 mm

**C**



40 258

**C:** 9-Pc. Set, 5/64" to 1/4"  
5/64", 3/32", 7/64", 1/8", 9/64"  
5/32", 3/16", 7/32" & 1/4"

**D**



46 211

**D:** 5-Pc. Set, 3/16" to 3/8"  
3/16", 7/32", 1/4", 5/16" & 3/8"

**E**



46 200

**E:** 8-Pc. Set, T6 to T25  
T6, T7, T8, T9, T10, T15,  
T20, T25

**F**



46 209

**E:** 8-Pc. Set, T9 to T40  
T9, T10, T15, T20, T25, T27  
T30, T40

**HEX KEY WRENCHES**

**T-HANDLE HEX KEY WRENCH**

Satin-chrome plating with anti-slip soft grip handle



<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
40 530	2mm	77 mm
40 531	2.5mm	77 mm
40 532	3mm	77 mm
40 534	4mm	77mm
40 535	5mm	97 mm
40 536	6mm	97 mm
40 537	7mm	97 mm
40 538	8mm	116 mm
40 539	10mm	116 mm
40 540	12mm	116 mm



**T-HANDLE HEX KEY WRENCH SETS**

Satin-chrome plating with anti-slip soft grip handle

<u>PART #</u>	<u>DESCRIPTION</u>
40 259	9-pc L-type <b>hex key</b> set 2x100mm to 10.0x200mm In plastic case

**HEXAGON KEY WRENCHES**



**T-HANDLE BALL POINT HEX KEYS**

Satin-chrome plating with anti-slip soft grip handle

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
40 860	2.0 mm	77 mm
40 861	2.5 mm	77 mm
40 862	3.0 mm	77 mm
40 863	4.0 mm	77 mm
40 864	5.0 mm	97 mm
40 865	6.0 mm	97 mm
40 866	7.0 mm	97 mm
40 867	8.0 mm	116 mm
40 868	10.0 mm	116 mm
40 869	12.0 mm	116 mm



**T-HANDLE BALL POINT HEX KEY SET**

<u>PART #</u>	<u>DESCRIPTION</u>
40 253	9-pc set, 2 to 10mm 2, 2.5, 3, 4, 5, 6, 7, & 10mm In plastic case

**BALL POINT HEX KEY SETS**



<u>PART #</u>	<u>DESCRIPTION</u>
46 208	9-pc long arm set, 1.5 to 10mm 1.5, 2, 2.5, 3, 4, 5, 6, 8 & 10mm
46 215	9-pc long arm set, 1/16" to 3/8" 1/16", 5/64", 3/32", 1/8", 5/32", 3/16", 1/4", 5/16" & 3/8"

**BALL POINT HEX KEY SETS**

Ball point set with both Metric and SAE



<u>PART #</u>	<u>DESCRIPTION</u>
46 220	26-Pc. Set 1.27, 1.5, 2, 2.5, 3, 3.5, 4, 5, 5.5, 6, 8 & 10mm 0.05", 1/16", 5/64", 3/32", 7/64", 1/8", 9/64", 5/32", 3/16", 7/32", 1/4", 5/16" & 3/8"

**HEXAGON KEY WRENCHES**



**STAR KEY WRENCH SET, TORX**

Satin-chrome plating

<u>PART#</u>	<u>DESCRIPTION</u>
<b>46 216</b>	9-Pc. Set, T10 to T50 T10, T15, T20, T25, T27, T30, T40, T45 & T50



**STAR KEY WRENCH SET, TORX**

Heat treated chrome vanadium steel with black-oxide finish

<u>PART#</u>	<u>DESCRIPTION</u>
<b>46 209</b>	8-pc. Set, T9 to T40 T9, T10, T15, T20, T25, T27, T30 & T40
<b>46 200</b>	8-pc set; T6 to T27 T6, T7, T8, T9, T10, T15, T20 & T25



**T-HANDLE STAR KEY WRENCH SET, TORX**

Satin-chrome plating in plastic case

<u>PART#</u>	<u>DESCRIPTION</u>
<b>40 260</b>	9-Pc. Set, T10 to T50 T10, T15, T20, T25, T27, T30, T40, T45 & T50



**HAMMERS**



**BALL PEIN HAMMERS**

Tough drop forged head with fiberglass handle.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 739	4 oz / 113 grm	
40 756	8 oz / 200 grm	61 25 02
40 757	12 oz / 350 grm	61 25 03
40 758	16 oz / 500 grm	61 25 04
40 759	24 oz / 700 grm	61 25 06
40 760	32 oz / 1000 grm	61 25 07
40 761	40 oz / 1250 grm	61 25 08
40 762	48 oz / 1500 grm	61 25 09



**CLAW HAMMERS**

Drop forged and tempered steel head with fiberglass handle and rubber grip.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 765	16 oz.	61 26 22
40 764	20 oz.	



**CROSS PEIN HAMMERS**

Drop Forged and tempered steel head with heavy duty fiberglass handle.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 755	3 lbs/1.5 Kilo	61 25 62



**DOUBLE FACE HAMMERS**

Drop Forged and tempered steel head with heavy duty fiberglass handle.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 751	2 lbs/1.0 kilo	
40 752	3 lbs/1.5 Kilo	61 25 23
40 753	4 lbs/2.0 Kilo	61 25 24

**HAMMERS**



**BRASS HAMMERS**

Polished head, fiberglass handle.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
46 097	0.5 kilo	61 26 92
46 098	1.5 kilo	61 26 95
46 099	2.5 kilo	61 26 97

**COPPER HAMMERS**

Polished head with hard wood handle.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
46 024	.75 kilo	61 26 43
46 025	1.0 kilo	61 26 44
40 790	1.5 kilo	61 26 45
40 791	2.0 kilo	61 26 46
40 792	2.5 kilo	61 26 47

**LEAD HAMMERS**

Lead head with steel handle.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 780	1000 grm / 2 lb	61 26 84
40 781	1500 grm/ 3 lb	61 26 85
40 782	2000 grm/ 4 lb	61 26 86
40 783	3000 grm/ 5 lb	61 26 87

**TESTING HAMMERS**

Polished head with steel handle



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 746	150 grm/5 oz	61 26 01

**HAMMERS**



**DEAD BLOWHAMMERS**

Tough, durable polypropylene casting.  
Non-marring, non-sparking.

<u>PART #</u>	<u>SIZE</u>	<u>Head dia.</u>
40 766	1 lb	1-3/4"
40 767	2 lbs	2"
40 768	3 lbs	2-1/2"
40 769	4 lbs	3-1/2"



**RUBBER HAMMERS**

Soft but tough, non-flaking neoprene head with  
Fiberglass handle.

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
40 793	16 oz.	14"
40 794	32 oz.	14"
40 011	16 oz.	Non-marking solid white rubber head.



**SOFT FACE HAMMERS**

Furnished with replaceable round tips of tough  
plastic, and hard wood handle.

<u>PART #</u>	<u>SIZE</u>	<u>NO.</u>	<u>ISSA #</u>
40 784	35mm	1	61 27 22

**SPARE PLASTIC TIPS**

For soft face hammers.



<u>PART #</u>	<u>SIZE</u>	<u>NO.</u>	<u>ISSA #</u>
40 787	35mm	1	61 27 32

**HAMMERS**



**CHIPPING HAMMERS**

Forged steel head with hard wood handle.

<u>PART #</u>	<u>SIZE</u>
40 754	500 grm Wood handle



**CHIPPING HAMMERS**

Forged steel head with steel handle

<u>PART #</u>	<u>SIZE</u>
40 731	8 oz. Spiral steel handle



40 730	24 oz. Solid steel handle, Rubber grip
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**SLEDGE HAMMERS**

Steel octagonal sledge hammer with 36" hickory handle.

<u>PART #</u>	<u>HEAD WEIGHT</u>	<u>HEAD LENGTH</u>
40 747	6 lbs.	6"
40 748	8 lbs.	6.5"
40 749	10 lbs.	6.8"
40 750	12 lbs.	7.7"
40 763	16 lbs.	8.5"



40 734	36" spare handle
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**HAMMER HANDLES**

Tough hard wood handle.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 770	12"	61 27 75
40 771	14"	61 27 76
40 772	16"	61 27 77

**SCRAPERS & PRY BARS**



**DOUBLE END ANGLE SCRAPERS**

Forged steel.

<u>PART #</u>	<u>DESCRIPTION</u>
40 940	15" long
41 940	12" long

**ISSA # 61 32 41**



**HEXAGONAL PRY BARS**

Forged steel body with diamond-shaped tips and chisel

<u>PART #</u>	<u>LENGTH</u>	<u>DIA.</u>
40 870	39"/1000mm	7/8"
40 871	49"/1250mm	7/8"
40 874	59"/1500mm	1"
40 875	69"/1750mm	1"



**GOOSENECK CROW BARS**

Forged steel body with claw and chisel

<u>PART #</u>	<u>LENGTH</u>	<u>DIA.</u>
40 876	18"/450mm	5/8"
40 877	24"/600mm	3/4"
40 878	30"/750mm	3/4"
40 879	36"/900mm	3/4"

**STEEL PUNCH SETS**



**LETTER AND NUMBER STAMP SETS**

Hardened Chrome Vanadium Steel punches. Includes A-Z and 0-9 characters, 36-Pc set Wood index box.

<u>PART#</u>	<u>DESCRIPTION</u>
40 832	5/32" Height, width: 1/4"
40 833	5/16" Height, width: 3/8"

**CHISELS**

**COLD CHISELS**

Selected alloy steel, octagon shape body.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 814	6 x 125mm	61 29 01
40 821	8 x 125mm	
40 824	10 x 125mm	
40 815	13 x 150mm	61 29 03
40 816	16 x 150mm	
40 817	19 x 150mm	
40 813	19 x 200mm	61 29 05
40 819	22 x 200mm	
40 825	25 x 200mm	61 29 06
40 812	25 x 250mm	61 29 07
40 820	19 x 300mm	
40 823	25 x 300mm	



**COLD CHISEL SET 5-PC**

5 Piece Flat Chisel Set in a Heavy Duty Canvas Pouch

<u>PART #</u>	<u>SIZE</u>
40 810	10X140, 12X150, 15X160 19X180 & 22X220 mm



**PUNCHES & PUNCH SETS**

**PIN PUNCHES**



<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
40 840	2mm	120 mm
40 841	3mm	130 mm
40 842	4mm	150 mm
40 843	5mm	160 mm
40 844	6mm	180 mm
40 846	8mm	200 mm
40 848	10mm	220 mm



**PIN PUNCH SET**

Chrome Vanadium steel, polished finish

<u>PART #</u>	<u>DESCRIPTION</u>
40 890	6-pc. set in plastic box: 2-3-4-5-6-7 mm

**ISSA # 61 30 80**

**CENTER PUNCHES**



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 961	1.5 x 75mm	
40 962	2.0 x 100mm	
40 963	2.5 x 100mm	
40 964	3.0 x 100mm	61 30 60
40 966	4.0 x 100mm	
40 967	5.0 x 125mm	61 30 61
40 968	6.0 x 150mm	61 30 62
40 502	8.0 x 150mm	

**CENTER PUNCH SETS**



<u>PART #</u>	<u>SIZE</u>
40 835	5-pc. set in plastic pouch 1.5-2.0-2.5-3.5 & 4.0 mm
40 837	5-pc set in plastic pouch 2.0-3.0-4.0-6.0-10.0 mm
40 836	8-pc set in wooden box 1.5-2.0-2.5-3.0-3.5-4.0 5.0 & 5.5 mm



**PUNCH AND CHISEL SET**

7-pc set in pouch, hardened and tempered steel.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>40 880</b>	1 Center punches 1 Pin punches 2 Taper punches 3 Cold chisel



**PUNCH AND CHISEL SET**

16—pc set in pouch, hardened and tempered steel.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>40 892</b>	2 Center punches 5 Pin punches 5 Taper punches 3 Cold chisel 1 chisel punch gauge



**PUNCH AND CHISEL SET**

29-pc set in pouch, hardened & tempered steel

<u>PART#</u>	<u>DESCRIPTION</u>
<b>40 884</b>	7 pin punches 4 center punches 6 starter punches 7 flat chisels 2 cap chisels 1 half-round nose chisel 2 diamond point chisels

**CAPE CHISELS**

Selected alloy steel, lacquered body.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
<b>40 826</b>	5 x 125mm	61 29 12
<b>40 827</b>	6 x 150mm	61 29 13

**PLIERS**



**COMBINATION PLIERS**

Heavy duty linemans plier with reamer & side cutter, Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 971	150mm	61 16 57
40 972	175mm	61 16 58
40 973	200mm	61 16 59



**COMBINATION SLIP JOINT PLIERS**

Heavy duty plier with reamer, Chrome Molybdenum Steel with black and green ergonomic comfort grip handle.

<u>PART #</u>	<u>SIZE</u>
40 887	200mm



**DIAGONAL CUTTING PLIERS**

Heavy duty side cutting plier, Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 975	150mm	61 17 12



**LONG NEEDLE NOSE PLIERS**

Heavy duty plier with side cutter, Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 984	150mm	61 16 95
40 985	200mm	61 16 96



**BENT NOSE PLIERS**

Heavy duty plier with cutter, Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
45 200	150mm	61 16 91
45 201	200mm	



**FLAT NOSE PLIERS**

Heavy duty plier, Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 978	150mm	61 17 06

**PLIERS**



**ROUND NOSE PLIERS**

Heavy duty plier with tapered round jaws. Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 000	150mm	61 16 82



**END CUTTING PLIERS**

Heavy duty cutting plier, Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 977	220mm	61 17 53



**WATER PUMP PLIERS**

Heavy Duty plier with five adjustments, Chrome Molybdenum Steel with Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 362	125mm	
41 004	180mm	
41 005	250mm	61 16 30
41 006	300mm	61 16 31
41 010	400mm	



**WIRE STRIPPING PLIERS**

Electric cable stripper. Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 007	160mm	61 17 36



41 020	180mm	TEKTON
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**WIRE STRIPPING PLIERS, AUTOMATIC**

Electric cable stripper. Adjustable stripping length guide provides consistency. 10-22 AWG

<u>PART #</u>	<u>SIZE</u>
41 018	175mm

**PLIERS**



**CABLE CUTTER PLIERS**

Heavy duty cutting plier, Chrome Molybdenum Steel with black and green Ergonomic comfort-grip handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 011	250mm	61 19 36



**RATCHETING CABLE CUTTERS**

Heavy duty cable cutting pliers, Chrome Molybdenum Steel with black or red ergonomic comfort-grip handles. For cutting copper and aluminum cable up to 500mm<sup>2</sup>.

<u>PART #</u>	<u>SIZE</u>
41 012	A: 280mm



41 014	B: 400 mm
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**ELECTRONIC TOOL SET**

11-pc combination electronic screwdriver and pliers handy tool kit in nylon case.

<u>PART #</u>	<u>CONTENTS</u>
41 094	3 flat tip, 3 phillips tip 1 round nose electronic pliers 1 flat nose electronic pliers 1 long nose electronic pliers 1 bent nose electronic pliers 1 diagonal cutting electronic pliers



**ELECTRONICS PLIERS**

High precision-machined jaws. Spring-assisted opening design. Ergonomic comfort-grip handle

<u>PART #</u>	<u>SIZE</u>
41 295	Combination 125mm
41 296	Diagonal 100mm
41 297	Long Nose 125mm
41 298	Bent nose 125mm
41 299	End Cutter 100mm
41 299M	Mini Side Cut 115mm



**PLIERS - 1000 VOLT**

**1000 V**



**WATER PUMP PLIERS-1000 VOLT**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>41 509</b>	<b>250mm</b>

**1000 V**



**CABLE CUTTER PLIERS-1000 VOLT**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<b><u>PART#</u></b>	<b><u>SIZE</u></b>
<b>41 511</b>	<b>250mm</b>

**1000 V**



**WIRE STRIPPER PLIERS-1000 VOLT**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>41 512</b>	<b>150mm</b>

**1000 V**



**WIRE CRIMPING PLIERS-1000 VOLT**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Oxidized Steel, Insulated cushion grip, approved for Voltages of up to 1000 Volt

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>41 513</b>	<b>180mm</b>



**PLIERS - 1000**



**COMBINATION PLIERS**

Top quality high voltage super insulated plier. DIN5746, Chrome-Vanadium Steel, black oxidized with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 500	180 mm
41 501	200mm



**SIDE CUTTING PLIERS**

Top quality high voltage super insulated plier. Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 507	150 mm
41 508	180 mm



**LONG NOSE PLIERS**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 502	150 mm
41 503	200 mm



**LONG NOSE PLIERS, BENT**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 510	150 mm
41 504	200 mm

**“BAHCO” PLIERS**



**BAHCO ERGO SLIP JOINT PLIERS**

Parallel hardened jaws with both flat and pipe grip jaws. Speedy setting by pressing a button on the upper handle. Ergonomically designed handles for maximum gripping comfort.

<u>PART#</u>	<u>BAHCO #</u>	<u>SIZE</u>
46 057	8231	200mm
46 055	8224	250mm
46 056	8225	300mm



**BACHO ERGO COMBINATION PLIER**

High quality plier with rounder shape jaws and a return spring with on/off function. Ergonomically designed handles for maximum gripping comfort.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>	<u>ISSA #</u>
46 059	2628G-160	160mm	61 62 10
46 060	2628G-180	180mm	61 62 11



**BAHCO ERGO LONG NOSE PLIERS**

High quality plier with side cutter. Black oxidized finish and ergonomically designed handles for maximum gripping comfort.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>	<u>ISSA #</u>
46 063	2430G-140	140mm	
46 062	2430G-160	160mm	61 62 24



**BAHCO ERGO FLAT NOSE PLIERS**

High quality saw-toothed shaped pliers, serrated jaws and ergonomic handles.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>
46 067	2421G-160	140mm
46 068	2421G-180	160mm



**BAHCO ERGO SIDE CUTTERS**

High quality diagonal plier with return spring. Black oxidized finish and ergonomically designed handles for maximum gripping comfort.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>	<u>ISSA #</u>
46 064	2101G-140	140mm	61 62 31
46 065	2101G-160	160mm	
46 066	2101G-180	180 mm	

**INTERNAL & EXTERNAL RETAINING RING PLIERS**

For inserting or removing internal and external retaining rings.  
 Chrome Vanadium steel with comfort non-slip grip handle.



**INTERNAL - STRAIGHT**

<u>PART #</u>	<u>CIRCLIP</u>	<u>LENGTH</u>	<u>ISSA #</u>
<b>40 989</b>	10-25mm	125mm	61 18 22
<b>40 990</b>	12-65mm	175mm	61 18 23
<b>46 026</b>	32-80mm	230mm	61 18 25
<b>40 986</b>	85-165mm	310mm	61 18 26



**INTERNAL - BENT**

<u>PART #</u>	<u>CIRCLIP</u>	<u>LENGTH</u>	<u>ISSA #</u>
<b>40 992</b>	10-25mm	125mm	61 18 32
<b>40 993</b>	12-65mm	175mm	61 18 33
<b>45 050</b>	32-80mm	230mm	61 18 35
<b>40 981</b>	85-165mm	310mm	61 18 36



**EXTERNAL - STRAIGHT**

<u>PART #</u>	<u>CIRCLIP</u>	<u>LENGTH</u>	<u>ISSA #</u>
<b>40 995</b>	10-25mm	125mm	61 18 02
<b>40 996</b>	10-40mm	175mm	61 18 03
<b>45 051</b>	32-80mm	230mm	61 18 05
<b>40 976</b>	85-165mm	310mm	61 18 06



**EXTERNAL - BENT**

<u>PART #</u>	<u>CIRCLIP</u>	<u>LENGTH</u>	<u>ISSA #</u>
<b>40 998</b>	10-25mm	125mm	61 18 12
<b>40 999</b>	10-40mm	175mm	61 18 13
<b>45 052</b>	32-80mm	220mm	61 18 15
<b>40 980</b>	85-165mm	310mm	61 18 16

**PLIERS**



**RETAINING RING PLIER SET**

For use with both internal and external stop rings.

**PART #**  
40 872

**SIZE**  
4-Pc Set, 175mm long  
1 ext. straight  
1 ext. bent  
1 int. straight  
1 int. bent



**RETAINING RING PLIER SET**

8-in-1 Universal retaining ring set. Comfortable cushioned non-slip grips.

**PART #**  
40 960

**SIZE**  
7" long  
Range internal: 3/4" - 1-3/4"  
Range external: 1" - 2-1/2"



**RETAINING RING PLIER SET**

12-Pc fixed tip combination internal/external retaining ring set. Comfort grip and plastic case.

**PART #**  
41 049

**SIZE**  
12-pc set, 45-degree and 90-degree angles

**PLIERS**



**WISE-GRIP LOCKING PLIERS**

A universal tool which serves as an adjustable wrench, pipe wrench, vise, clamp and plier. Has a double lever action that locks jaws to the work.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 505	125mm	61 16 41
41 002	175mm	61 16 42
41 003	250mm	61 16 44



**LONG NOSE VISE-GRIP PLIERS**

A long nose universal tool which serves as an adjustable wrench, pipe wrench, vise, clamp locking wrench and plier. Has a double lever action that locks jaws to the work.

<u>PART #</u>	<u>SIZE</u>
41 025	150mm
41 026	225mm



**WELDERS' LOCK-GRIP PLIERS**

Extra wide U-shaped jaws lock on any round material. Ideal for welding, drilling and plumbing.

<u>PART #</u>	<u>SIZE</u>
46 511	9"/230mm long. 3" wide jaws.



**SHEET METAL CLAMP PLIERS**

Drop forged carbon steel jaws, One-touch quick-release, flat jaws hold and crimp sheet metal. Corrosion-resistant chrome finish.

<u>PART #</u>	<u>SIZE</u>
41 575	8"/200mm long. 3" wide jaws.



**PLIERS**



**LOCKING "C" CLAMPS**

Forged carbon steel jaws, One-touch quick release, corrosion-resistant chrome finish.

<u>PART #</u>	<u>SIZE</u>	<u>JAW CAP.</u>
41 514	6"/150mm	1-1/2"
41 515	11"/280mm	3"
41 516	18"/450mm	7"



**LOCKING "C" CLAMPS WITH SWIVEL JAW PADS**

Self-leveling swivel jaw pads. Forged carbon steel jaws, One-touch quick release, corrosion-resistant chrome finish.

<u>PART #</u>	<u>SIZE</u>	<u>JAW CAP.</u>
41 517	6"/150mm	1-3/4"
41 518	11"/280mm	2-1/2"
41 519	18"/450mm	7"



**LOCKING CHAIN CLAMP**

Adjustable locking chain clamp, nickel plated finish, Chrome Molybdenum handle

<u>PART #</u>	<u>SIZE</u>
46 512	225mm long. 18" chain.



**SAFETY WIRE TWIST PLIERS**

This tool cuts and twists wire, especially designed for use in engines, hydraulic pumps, generators and other applications where screws must be secured with twisted wire due to high vibration.

<u>PART #</u>	<u>SIZE</u>
41 576	10-1/2"/270mm
41 577	12"/300mm



**PLIERS**



**CRIMPING & CUTTING PLIERS**

Crimping and cutting tool for insulated and non-insulated connectors. Hardened steel and plastic-dipped comfort handles.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA</u>
40 970	240mm	61 17 30



**CRIMPING PLIERS - MULTI-PURPOSE**

Professional crimping tool and wire stripping. For insulated and Non-insulated terminals. 3 crimping wire sizes.

<u>PART#</u>	<u>SIZE</u>
41 055	230 mm



**CRIMPING TOOL KIT 6-PC**

Quick interchangeable ratchet crimping tool kit. Crimping tool with ergonomic comfort-grip handles. Solid blow case with snap lock.

<u>PART #</u>	<u>DESCRIPTION</u>
40 974	5 interchangeable jaws For insulated, Non-insulated, open-barrel and insulated cord-end terminal ends



**CRIMPING TOOLS - RATCHETING**

Professional crimping tools with fiberglass reinforced comfort-grip handles. 22-10 AWG crimping size.

<u>PART #</u>	<u>DESCRIPTION</u>
40 944	<b>Tap connector Crimping tool</b> with adjustable pressure settings



40 950	<b>Terminal crimping tools</b> Insulated terminals 22 ~14 AWG
40 951	Open barrel terminals 14~16, 18~22 AWG
40 952	Cord end terminals 22~12 AWG

**PLIERS**



**HAND RIVET TOOL**

High leverage molybdenum handles, die-cast aluminum alloy frame, extended riveter nose design, Full cushion grips.

**PART #**  
40 987

**SIZE**  
4 inter-changeable nose pieces;  
2.4, 3.2, 4.0 & 4.8 mm



**HAND RIVET TOOL KIT**

High leverage molybdenum handles, die-cast aluminum alloy frame, extended riveter nose design, Full cushion grips.

**PART #**  
40 894

**SIZE**  
Hand riveter  
90 aluminum rivets  
60 stainless steel rivets



**HAND RIVET TOOL, SWIVEL HEAD**

High leverage molybdenum handles, rugged all steel construction aluminum alloy head, extended riveter nose design, 360\* swivel head Full cushion grips.

**PART #**  
40 893

**SIZE**  
4 inter-changeable nose pieces;  
2.4, 3.2, 4.0 & 4.8 mm



**HAND RIVET TOOL, LONG HANDLE**

Aluminum body, extra long handle, 4 interchangeable nose pieces, capacity' 3.2 to 6.4 mm.

**PART #**  
40 982

**SIZE**  
4 inter-changeable nose pieces;  
3.2, 4.0, 4.8 & 6.4 mm



**HAND RIVET TOOL, SCISSOR ACTION**

Rugged all steel construction, single pull action,, extended length; 310 to 835 mm, 4 interchangeable nose pieces.

**PART #**  
40 959

**SIZE**  
4 inter-changeable nose pieces;  
2.4, 3.2, 4.0 & 4.8 mm

**PLIERS**



**HAND RIVET NUT TOOL**

A multifunction plier, aluminum body, drop forged handle.

<u>PART#</u>	<u>SIZE/CAPACITY</u>
40 881	265 mm long 3, 4, 5 & 6 mm



<u>PART#</u>	<u>Spare mandrel &amp; nose piece</u> <u>SIZE</u>
41 406	4 mm
41 417	5 mm
41 418	6 mm
41 419	8 mm



**HAND RIVET NUT TOOL, LONG HANDLE**

A rugged Heavy Duty long-handle rivet tool with high tension spring.

<u>PART#</u>	<u>SIZE</u>
40 891	450 mm O.L.



<u>PART#</u>	<u>Spare mandrel &amp; nose piece</u> <u>SIZE</u>
41 475	5 mm
41 476	6 mm
41 477	8 mm
41 478	10 mm



**HAND RIVET NUT TOOL KIT**

A multifunction plier, aluminum body, drop forged handle.

<u>PART#</u>	<u>SIZE/CAPACITY</u>
40 885	2.4, 3.2, 4.0 & 4.8 mm



**HAND RIVET NUT TOOL KIT**

A multifunction tool to set rivet nuts.  
Comes with 5, 6, 8, 10 & 12 mm mandrels

<u>PART#</u>	<u>SIZE</u>
40 886	13" O.L.

**PROFESSIONAL ESD SAFE TOOLS**  
Electrostatic Discharge (ESD)



**PRECISION CUTTERS ESD SAFE**

Two Component handle with non-slip soft grip surface.  
ESD standard IEC 61340-5-1

<u>PART#</u>	<u>HEAD</u>	<u>CUT</u>	<u>LENGTH</u>
40 476	Tapered	Semi-Flush	115mm
40 477	Tapered	Flush	115mm
40 478	Wide Taper	Bevel	115mm
40 479	Slim Oval	Full Flush	115mm
40 480	Wide Oval	Bevel	110mm



**PRECISION OBLIQUE CUTTERS ESD SAFE**

Two Component handle with non-slip soft grip surface.  
ESD standard IEC 61340-5-1

<u>PART#</u>	<u>HEAD</u>	<u>CUT</u>	<u>LENGTH</u>
40 481	Angled	Flush	115mm
40 482	Front	Flush	130mm



**PRECISION END CUTTERS ESD SAFE**

Two Component handle with non-slip soft grip surface.  
ESD standard IEC 61340-5-1

<u>PART#</u>	<u>HEAD</u>	<u>CUT</u>	<u>LENGTH</u>
40 483	Slim End	Semi-Flush	130mm
40 484	Wide End	Flush	115mm

**PROFESSIONAL ESD SAFE TOOLS**  
Electrostatic Discharge (ESD)



**NEEDLE NOSE PLIERS ESD SAFE**

Two Component handle with non-slip soft grip surface. ESD standard IEC 61340-5-1

<u>PART#</u>	<u>HEAD</u>	<u>LENGTH</u>
40 355	Short Snipe Nose	120mm
40 356	Bent Snipe Nose	120mm
40 357	Long Needle Nose	145mm
40 358	Flat Nose	120mm

**PLIER SET IN CUSTOM CASE 4-PC**

Two Component handle with non-slip soft grip surface.



<u>PART#</u>	<u>CONTENT</u>
40 359	115mm Oval Side Cutter 120mm Flat Nose Plier 145mm Long Nose Plier 110mm Oblique Front Cutter

**PLIER SET IN CUSTOM CASE 11-PC**

Two Component handle with non-slip soft grip surface.



<u>PART#</u>	<u>CONTENT</u>
40 363	115mm Oval Side Cutter 120mm Flat Nose Plier 145mm Long Nose Plier 110mm Oblique Front Cutter 2 Tweezers 5-PC Precision Handle and Blades



**SCREWDRIVERS**



**SLOTTED SCREWDRIVERS**

Heavy duty tungsten alloy steel blades with ergonomic rubber handles.

<u>PART</u>	<u>TIP</u>	<u>BL. LENGTH</u>	<u>ISSA #</u>
41 029	3.0mm	75mm	61 22 61
41 030	3.5mm	100mm	61 22 62
41 031	4.0mm	100mm	
41 035	5.0mm	100mm	
41 034	5.5mm	100mm	
41 048	5.5mm	150mm	61 22 63
41 032	6.5mm	150mm	
41 028	6.5mm	400mm (extra long)	
41 033	8.0mm	175mm	61 22 65
41 036	10.0mm	200mm	61 22 66
41 037	10.0mm	250mm	61 22 67
41 038	12.0mm	250mm	

**PHILLIPS SCREWDRIVERS**

Heavy duty tungsten alloy steel blades with ergonomic rubber handles.



<u>PART #</u>	<u>TIP</u>	<u>BL. LENGTH</u>	<u>ISSA #</u>
41 040	PH 0	60mm	61 22 72
41 041	PH 1	80mm	61 22 73
41 045	PH 1	100mm	
41 039	PH 1	400mm (extra long)	
41 042	PH 2	100mm	61 22 74
41 046	PH 2	150mm	
41 047	PH 2	400mm (extra long)	
41 043	PH 3	150mm	61 22 75
41 044	PH 4	200mm	61 22 76



**STUBBY SLOTTED SCREWDRIVER**

For work in close quarters. Tungsten alloy steel blade and ergonomic rubber handles.

<u>PART #</u>	<u>TIP</u>	<u>BL. LENGTH</u>	<u>ISSA #</u>
41 050	4.0mm	25mm	
41 479	5.5mm	25mm	
41 051	6.5mm	25mm	61 23 24



**STUBBY PHILLIPS SCREWDRIVER**

For work in close quarters. Tungsten alloy steel blade and ergonomic rubber handles.

<u>PART #</u>	<u>TIP</u>	<u>BL. LENGTH</u>	<u>ISSA #</u>
41 053	PH 1	25mm	
41 054	PH 2	25mm	61 23 26



**SCREWDRIVERS**

**SLOTTED SCREWDRIVER-SQUARE SHANK**

Hardened tungsten alloy steel blade through clear plastic handle with hammering cap.



<u>PART #</u>	<u>TIP</u>	<u>BL. LENGTH</u>	<u>ISSA #</u>
41 174	5.5mm	75mm	61 22 90
41 175	6.0mm	100mm	61 22 91
41 176	8.0mm	150mm	61 22 92
41 064	10.0mm	200mm	
41 251	10.0mm	300mm	

**PHILLIPS SCREWDRIVER-SQUARE SHANK**

Hardened tungsten alloy steel blade through clear plastic handle with hammering cap.



<u>PART #</u>	<u>TIP</u>	<u>BL. LENGTH</u>	<u>ISSA #</u>
41 177	PH 1	75mm	61 22 95
41 178	PH 2	100mm	61 22 96
41 179	PH 3	150mm	61 22 97
41 184	PH 4	200mm	

**TAMPER-PROOF TORX SCREWDRIVER**

High alloy steel blades with ergonomic anti-slip handles.



<u>PART</u>	<u>TIP</u>	<u>BL. LENGTH</u>
41 381	T6	50mm
41 382	T7	50mm
41 383	T8	60mm
41 384	T9	60mm
41 385	T10	80mm
41 386	T15	80mm
41 387	T20	100mm
41 388	T25	100mm
41 389	T27	115mm
41 390	T30	115mm
41 391	T40	130mm
41 392	T45	130mm
41 393	T50	130mm



**TAMPER-PROOF TORX SCREWDRIVER SET**

High alloy steel blades with ergonomic anti-slip handles.

<u>PART #</u>	<u>DESCRIPTION</u>
41 394	6-pc set; T10, T15, T20, T25, T30, T40



**OFFSET SCREWDRIVERS**

Chrome-Vanadium steel.

<u>PART #</u>	<u>TIP LENGTH</u>	<u>ISSA #</u>
<b>41 088</b>	4mm	100mm
<b>41 089</b>	5.5mm	125mm
61 24 01		
<b>41 090</b>	8mm	150mm
61 24 02		
<b>41 091</b>	10mm	175mm



**VOLTAGE SCREWDRIVER TESTERS**

These voltage indicators are suitable for testing AC voltages.

<u>PART #</u>	<u>VOLTAGE</u>	<u>SIZE</u>
<b>41 114</b>	100-250 volt	190 mm
<b>46 091</b>	6-30 volt	140mm
	w/pocket clip	

**SCREWDRIVERS**



**SLOTTED SCREWDRIVER SETS**

5-pc. set, tungsten alloy steel blade with ergonomic rubber handle.

<u>PART #</u>	<u>CONTENTS.</u>
<b>46 071</b>	3.0 x 75mm
	3.5 x 100mm
	4.0 x 100mm
	5.5 x 100mm
	6.5 x 150mm



**PHILLIPS SCREWDRIVER SETS**

4-pc. set, tungsten alloy steel blade with ergonomic rubber handle.

<u>PART #</u>	<u>CONTENTS.</u>
<b>46 072</b>	PH 0 x 60mm
	PH 1 x 80mm
	PH 2 x 100mm
	PH 3 x 150mm



**COMBINATION SCREWDRIVER SETS**

6-pc. set, tungsten alloy steel blade with ergonomic rubber handle.

<u>PART #</u>	<u>CONTENTS.</u>
<b>46 073</b>	4.0 x 100mm
	6.5 x 150mm
	10.0 x 200mm
	PH 1 x 80mm
	PH 2 x 100mm
	PH 3 x 150mm



**SCREWDRIVER & BIT SET**

20-pc. set, tungsten alloy steel blade with ergonomic rubber handles.

<u>PART #</u>	<u>CONTENTS.</u>
<b>46 075</b>	6 flat tip
	5 Philips tip
	1 square tip
	1 ratchet handle
	7 bits



**COMBINATION SCREWDRIVER SETS**

11-pc. set, tungsten alloy steel blade with ergonomic rubber handle.

<u>PART #</u>	<u>CONTENTS.</u>
<b>46 074</b>	3.0 x 75mm
	3.5 x 100mm
	4.0 x 100mm
	5.5 x 100mm
	6.5 x 150mm
	8.0 x 175mm
	10.0 x 200mm
	PH0 x 60mm
	PH1 x 80mm
	PH2 x 100mm
	PH3 x 150mm



**SCREWDRIVERS**

**INSULATED SLOTTED SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.



<u>PART #</u>	<u>SIZE</u>
41 066	2.5 x 75 x 140mm
41 100	3.0 x 80 x 155mm
41 101	3.0 x 100 x 190mm
41 109	3.5 x 100 x 190mm
41 103	4.0 x 100 x 200mm
41 104	5.5 x 125 x 235mm
41 105	6.5 x 150 x 285mm
41 013	8.0 x 175 x 300mm

**INSULATED PHILLIPS SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.



<u>PART #</u>	<u>SIZE</u>
41 095	#0 x 60 x 140mm
41 096	#1 x 100 x 160mm
41 097	#2 x 100 x 210mm
41 098	#3 x 150 x 270mm
41 099	#4 x 200 x 320mm

**INSULATED POZI SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.



<u>PART #</u>	<u>SIZE</u>
41 021	#0 x 60 mm
41 022	#1 x 100mm
41 023	#2 x 100 mm
41 024	#3 x 150 mm

**INSULATED SCREWDRIVER SETS**

8-pc. combination set, fully insulated blade and handle. 1000 Volt.



<u>PART #</u>	<u>CONTENTS.</u>
41 015	3.0 x 75mm
	4.0 x 100mm
	5.5 x 125mm
	6.5 x 150mm
	PH0 x 75mm
	PH1 x 100mm
	PH2 x 100mm
	120V ~ 250V circuit tester

**SCREWDRIVERS**

**JEWELER'S SCREWDRIVER SET**



<u>PART #</u>	<u>DESCRIPTION</u>	<u>ISSA #</u>
41 112	6-pc set (4 Slotted and 2 Philips)	61 24 11
41 311	16-pc set (6 flat, 4 Philips, 3 hex, 3 nut driver)	

**PRECISION SCREWDRIVER SETS**

Combination precision screwdriver and bits set in handy PVC case.



<u>PART #</u>	<u>CONTENTS</u>
42 115	<b>6-pc set</b> 3 Slotted screwdrivers 3 Philips screwdrivers Snap-in case

<u>PART#</u>	<u>CONTENTS</u>
41 087	<b>8-pc set;</b> 5 Slotted screwdrivers 3 Phillips screwdrivers . 1 PVC case



<u>PART #</u>	<u>CONTENTS</u>
41 115	<b>27-pc set;</b> 3 flat tip bits, 4 phillips bits 9 star bits, 2 Tri-wing, 1 spudger 2 Pentalope, 2 nut drivers 2 pc bit organizer 1 screwdriver, 1 PVC case



**MULTI-FUNCTION SCREWDRIVERS**

Professional in Chrome Molybdenum steel,



<u>PART #</u>	<u>CONTENTS</u>
41 068	6-in-1 screwdriver with reversible bits



41 069	Ratchet screwdriver, pistol grip w/7 Interchangeable bits
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41 065	Ratchet screwdriver w/21 bits 2-in-1
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4-75



**HAMMERING SCREWDRIVER**

Professional set in Chrome Molybdenum steel, sand blasted and chrome plated.

**PART #**  
41 135

**CONTENTS**  
Impact driver  
2 slotted bits: 9 & 11mm  
2 Phillips bits: Ph 2 & Ph 3

**RATCHET SCREWDRIVER BIT SET**

11-pc. 20-in-1 interchangeable screwdriver set

**PART #**  
41 111

**CONTENTS**  
10 pc double-ended reversible blades  
Quick-release blade retainer with anti-slip handle

**RATCHET SCREWDRIVER BIT SET**

135-pc. Set in plastic case.

**PART #**  
41 110

**CONTENTS**  
Slotted, Phillips, Square, Pozi  
Metric Hex, SAE Hex, Star,  
Tri-Wing, spanner & Clutch bits  
Magnetic Bit Holder  
Ratchet handle

**MINI RATCHET BIT SET, 35-PC**

35-pc. Set in plastic case w/1/4 Dr. Mini Ratchet

**PART #**  
41 322

**CONTENTS**  
Slotted, Phillips, Pozi, Torx  
Metric hex, Mini Ratchet

**SCREWDRIVER BIT SET, 31-PC**

31-pc. Set in plastic case w/magnetic bit holder

**PART #**  
41 086

**CONTENTS**  
Slotted, Phillips, Pozi, Torx  
Metric hex, Magnetic Bit Holder

**SECURITY BIT SET, 33-PC**

33-pc. Set in plastic case w/magnetic bit holder

**PART #**  
41 364

**CONTENTS**  
Tamper Star, Tamper Hex, Tri-wing  
Spanner, Torq, magnetic holder



**SCREWDRIVERS**

**Bahco**



**BAHCO SLOTTED SCREWDRIVERS**

The ERGO series with a scientifically designed handle provides the most comfortable grip.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>
41 070	8010	2.5 x 50 x 152mm
41 077	8210	2.5 x 75 x 175 mm
41 071	8020	3.0 x 50 x 152mm
41 008	8220	3.0 x 125 x 228mm
41 072	8030	3.5 x 75 x 197mm
41 078	8230	4.0 x 125 x 250 mm
41 073	8040	4.0 x 100 x 222mm
41 079	8240	4.0 x 175 x 300 mm
41 074	8150	5.5 x 100 x 222mm
41 075	8155	6.5 x 125 x 247mm
41 085	8250	6.0 x 150 x 270 mm
41 076	8160	8.0 x 125 x 247mm
41 059	8260	6.0 x 175 x 300 mm
41 060	8865	8.0 x 175 x 340mm
41 061	8870	10.0 x 175 x 340mm
41 062	8880	12.0 x 200 x 365mm
41 063	8890	14.0 x 200 x 365mm

**Bahco**



**BAHCO PHILLIPS SCREWDRIVERS**

The superior gripping comfort of an ERGO screwdriver is due to the cylindrical shape of the handle and its surface makes it easier to apply high turning torques.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>
41 080	8600	PH 0 x 60 x 162mm
41 081	8610	PH 1 x 75 x 197mm
41 058	8610L	PH 1 x 200 x 325 mm
41 082	8620	PH 2 x 100 x 222mm
41 057	8620L	PH 2 x 200 x 325 mm
41 083	8623	PH 3 x 150 x 272mm
41 084	8624	PH 4 x 200 x 365mm

**Bahco**



**BAHCO TORX SCREWDRIVERS**

The TORX screw head looks like a star. It has six contact surfaces and a geometry designed to prevent coming out while transmitting the maximum torque with minimum wear on the screw head and driver.

<u>PART #</u>	<u>BAHCO#</u>	<u>SIZE</u>
40 057	8906	TX 6 x 50 x 152mm
40 068	8907	TX 7 x 55 x 157mm
40 069	8908	TX 8 x 60 x 162mm
40 058	8909	TX 9 x 60 x 182mm
40 070	8910	TX10x65x187mm
40 071	8915	TX15 x 70 x 192mm
40 059	8920	TX20 x 75 x 197mm
40 072	8925	TX25 x 80 x 202mm
40 073	8927	TX27 x 90 x 212mm
40 074	8930	TX30 x 100 x 222mm
40 075	8940	TX40 x 130 x 295mm

**SCREWDRIVERS**



**Bahco**

**INSULATED BAHCO SLOTTED SCREWDRIVER**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>
46 077	8010S	2.5 x 75 x 177mm
46 078	8220S	3.0 x 100 x 228mm
46 079	8230S	3.5 x 125 x 247mm
46 080	8040S	4.0 x 100 x 222mm
46 081	8050S	5.5 x 100 x 222mm
46 082	8255S	6.0 x 150 x 273mm
46 083	8065S	8.0 x 175 x 295mm



**Bahco**

**INSULATED BAHCO PHILLIPS SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>
46 084	8600S	PH 0 x 75 x 160mm
46 085	8610S	PH 1 x 75 x 200mm
46 086	8620S	PH 2 x 100 x 222mm
46 087	8630S	PH 3 x 150 x 273mm
46 088	8640S	PH 4 x 200 x 362mm

**DRIVER BITS**



**SLOTTED INSERT BITS**

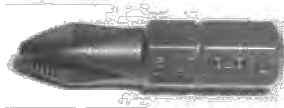
1/4" Hex

<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
125F01A	.109"	1"
125F02A	.138"	1"
125F03A	.140"	1"
125F04A	.156"	1"
125F05A	.182"	1"
125F06A	.232"	1"
125F08A	.25"	1"
125F10A	.281"	1"
125F12A	.312"	1"
125F14A	.360"	1"
138F12A	.312	1-1/2"
138F16A	.360"	1-1/2"

**PHILLIPS INSERT BITS**

1/4" Hex

<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
125P00A	#00	1"
125P0A	#0	1"
125P1A	#1	1"
125P1AX	#1	1"
125P2A	#2	1"
125P2AX	#2	1"
125P3A	#3	1"
125P3AX	#3	1"
125P4A	#4	1"
132P3A	#3	1-1/4"
132P4A	#4	1-1/4"
138P2A	#2	1-1/2"
150P2D	#2	2"



**PHILLIPS INSERT BITS - ACR**

1/4" Hex

<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
125P1CR	#1	1"
125P2CR	#2	1"
125P2RCR	#2R	1"
125P3CR	#3	1"

**DRIVER BITS**



**SLOTTED POWER BITS**

1/4" Hex

<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
150F02A	.138"	2"
150F03A	.140"	2"
150F04A	.156"	2"
150F05A	.182"	2"
150F06A	.232"	2"
150F08A	.25"	2"
150F10A	.281"	2"
150F12A	.312"	2"
150F14A	.360"	2"
170F02A	.138"	2-3/4"
170F03A	.140"	2-3/4"
170F04A	.156"	2-3/4"
170F05A	.182"	2-3/4"
170F06A	.232"	2-3/4"
170F08A	.25"	2-3/4"
170F10A	.281"	2-3/4"
170F12A	.312"	2-3/4"
170F14A	.360"	2-3/4"
170F16A	.360"	2-3/4"
190F02A	.138"	3-1/2"
190F03A	.140"	3-1/2"
190F04A	.156"	3-1/2"
190F05A	.182"	3-1/2"
190F06A	.232"	3-1/2"
190F08A	.25"	3-1/2"
190F10A	.281"	3-1/2"
190F12A	.312"	3-1/2"
190F14A	.360"	3-1/2"
1150F02A	.138"	6"
1150F03A	.140"	6"
1150F04A	.156"	6"
1150F05A	.182"	6"
1150F06A	.232"	6"
1150F08A	.25"	6"
1150F10A	.281"	6"
1150F12A	.312"	6"
1150F14A	.360"	6"

**PHILLIPS POWER BITS**

1/4" Hex

<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
150P00A	#00	2"
150P0A	#0	2"
150P1A	#1	2"
150P1AX	#1	2"
150P2A	#2	2"
150P2AX	#2	2"
150P2R	#2	2"
150P3A	#3	2"
150P3A-2	#3	2"
150P3AX	#3	2"
170P1A	#1	2-3/4"
170P1AX	#1	2-3/4"
170P2A	#2	2-3/4"
170P2AX	#2	2-3/4"
170P3A	#3	2-3/4"
170P3A-2	#3	2-3/4"
170P3AX	#3	2-3/4"
170P4A	#4	2-3/4"
170P4F	#4	2-3/4"
190P0A-SP	#0	3-1/2"
190P1A	#1	3-1/2"
190P1AX	#1	3-1/2"
190P2A	#2	3-1/2"
190P2AX	#2	3-1/2"
190P3A	#3	3-1/2"
190P3A-2	#3	3-1/2"
190P3AX	#3	3-1/2"
1115P2A	#2	4-1/2"
1150P1A	#1	6"
1150P1AX	#1	6"
1150P2A	#2	6"
1150P2AX	#2	6"
1150P3A	#3	6"
1150P3A-2	#3	6"
1150P3AX	#3	6"
1200P2A	#2	8"
1250P2A	#2	10"
1300P2A	#2	12"

**DRIVER BITS**

**PHILLIPS POWER BITS - ACR**

1/4" Hex



<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
150P0ACR	#0	2"
150P1ACR	#1	2"
150P2ACR	#2	2"
150P3ACR	#3	2"
170P1ACR	#1	2-3/4"
170P2ACR	#2	2-3/4"
170P3ACR	#3	2-3/4"
175P1ACR	#1	3"
190P1ACR	#1	3-1/2"
190P2ACR	#2	3-1/2"
190P3ACR	#3	3-1/2"
1150P1ACR	#1	6"
1150P2ACR	#2	6"
1150P3ACR	#3	6"

**POZIDRIV POWER BITS**

1/4" Hex



<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
150Z1A	#1	2"
150Z2A	#2	2"
150Z3A	#3	2"
170Z1A	#1	2-3/4"
170Z2A	#2	2-3/4"
170Z3A	#3	2-3/4"
190Z1A	#1	3-1/2"
190Z2A	#2	3-1/2"
190Z3A	#3	3-1/2"
1150Z1A	#1	6"
1150Z2A	#2	6"
1150Z3A	#3	6"

**DRIVER BITS**



**TORX TAMPER INSERT BITS**

1/4" Hex

<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
125TT05A	5	1"
125TT06A	6	1"
125TT07A	7	1"
125TT08A	8	1"
125TT09A	9	1"
125TT10A	10	1"
125TT15A	15	1"
125TT20A	20	1"
125TT25A	25	1"
125TT27A	27	1"
125TT30A	30	1"
125TT40A	40	1"
125TT45A	45	1"

**TORX TAMPER POWER BITS**

1/4" Hex



<u>PART #</u>	<u>TIP SIZE</u>	<u>LENGTH</u>
150TT10A	10	2"
150TT15A	15	2"
150TT20A	20	2"
150TT25A	25	2"
150TT27A	27	2"
150TT30A	30	2"
150TT40A	40	2"
150TT45A	45	2"
170TT10A	10	2-3/4"
170TT15A	15	2-3/4"
170TT20A	20	2-3/4"
170TT25A	25	2-3/4"
170TT27A	27	2-3/4"
170TT30A	30	2-3/4"
170TT40A	40	2-3/4"
190TT10A	10	3-1/2"
190TT15A	15	3-1/2"
190TT20A	20	3-1/2"
190TT25A	25	3-1/2"
190TT27A	27	3-1/2"
190TT30A	30	3-1/2"
190TT40A	40	3-1/2"
1150TT10A	10	6"
1150TT15A	15	6"
1150TT20A	20	6"
1150TT25A	25	6"
1150TT27A	27	6"
1150TT30A	30	6"
1150TT40A	40	6"



**DRIVER BITS**

**MAGNETIC BIT HOLDERS**

1/4" Hex



<u>PART #</u>	<u>LENGTH</u>
160MH1AD	2-3/8"
175MH1AD	3"
1100MH1AD	4"
1150MH1AD	6"
1200MH1AD	8"
1250MH1AD	10"
1300MH1AD	12"

**S.S. MAGNETIC BIT HOLDERS W/C-RING**

1/4" Hex



<u>PART #</u>	<u>LENGTH</u>
154MH1CD	2-1/8"
159MH1CD	2-3/8"
175MH1CD	3"
1100MH1CD	4"
1150MH1CD	6"
1200MH1CD	8"
1250MH1CD	10"
1300MH1CD	12"

**QUICK RELEASE MAGNETIC BIT HOLDERS**

1/4" Hex



<u>PART #</u>	<u>LENGTH</u>
150MH1QD	2"
160MH1QD	2-3/8"
175MH1QD	3"
1100MH1QD	4"
1150MH1QD	6"
1300MH1QD2	12"

**DRIVER BITS**



**MAGNETIC NUTSETTERS, METRIC**

1/4" Hex

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
145MN055M	5.5mm	1-3/4"
145MN06M	6mm	1-3/4"
145MN07M	7mm	1-3/4"
145MN08M	8mm	1-3/4"
145MN10M	10mm	1-3/4"
145MN12M	12mm	1-3/4"
145MN13M	13mm	1-3/4"
165MN055M	5.5mm	2-9/16"
165MN06M	6mm	2-9/16"
165MN07M	7mm	2-9/16"
165MN08M	8mm	2-9/16"
165MN10M	10mm	2-9/16"
165MN12M	12mm	2-9/16"
165MN13M	13mm	2-9/16"
1100MN08M	8mm	4"
1100MN10M	10mm	4"
1100MN12M	12mm	4"
1150MN08M	8mm	6"
1150MN10M	10mm	6"
1150MN12M	12mm	6"

**MAGNETIC NUTSETTERS, INCH**

1/4" Hex

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
145MN416	1/4"	1-3/4"
145MN416-TH	1/4"	1-3/4"
145MN516	5/16"	1-3/4"
145MN516T	5/16"	1-3/4"
145MN616	3/8"	1-3/4"
145MN716	7/16"	1-3/4"
145MN816	1/2"	1-3/4"
145MN916	9/16"	1-3/4"
151MN416T	1/4"	2"
165MN416	1/4"	2-9/16"
165MN416-TH	1/4"	2-9/16"
165MN516	5/16"	2-9/16"
165MN616	3/8"	2-9/16"
165MN716	7/16"	2-9/16"
165MN816	1/2"	2-9/16"
165MN916	9/16"	2-9/16"
1100MN416S	1/4"	4"
1100MN516S	5/16"	4"
1100MN616S	3/8"	4"
1100MN716S	7/16"	4"
1150MN416S	1/4"	6"
1150MN516S	5/16"	6"
1150MN616S	3/8"	6"
1150MN716S	7/16"	6"
1200MN416	1/4"	8"
1200MN516	5/16"	8"
1200MN616	3/8"	8"
1250MN416	1/4"	10"
1250MN516	5/16"	10"
1250MN616	3/8"	10"
1300MN416	1/4"	12"
1300MN516	5/16"	12"
1300MN616	3/8"	12"

**1000 VOLT INSULATED TOOLS**



**INSULATED CABLE KNIFE 50 MM BLADE**

<u>PART#</u>	<u>DESCRIPTION</u>
43 013	8.5" O.L. w/finger guard & blade cover



**INSULATED CABLE KNIFE W/INSUL. BLADE**

<u>PART#</u>	<u>DESCRIPTION</u>
43 014	9" O.L. w/finger blade & blade cover



**INSULATED SHEARS**

<u>PART#</u>	<u>DESCRIPTION</u>
40 138	6" O.L. stainless steel blades & cable notch



**INSULATED HACK SAW**

<u>PART#</u>	<u>DESCRIPTION</u>
40 369	18" O.L. for 12" blade



**INSULATED ADJUSTABLE WRENCHES**

<u>PART#</u>	<u>DESCRIPTION</u>
40 261	8"
40 262	10"
40 263	12"
40 313	15"



**INSULATED ADJUSTABLE WRENCH SET**

<u>PART#</u>	<u>DESCRIPTION</u>
40 314	3-Pc set: 8", 10" & 12"

**1000 VOLT INSULATED TOOLS****3/8" DR. INSULATED SOCKETS, 12-PT**

Tested to 10,000 Volts, protective insulation molded directly onto the socket. High visibility Coatings.

<u>PART #</u>	<u>SIZE</u>
40 292i	6mm
40 294i	7mm
40 297i	8mm
40 298i	9mm
40 299i	10mm
40 315i	11mm
40 316i	12mm
40 317i	13mm
40 318i	14mm
40 319i	15mm
40 320i	16mm
40 321i	17mm
40 322i	18mm
40 323i	19mm
40 324i	20mm
40 325i	21mm
40 326i	22mm
40 327i	24mm

**3/8" DR. INSULATED SOCKET SET, 10-PC**

Tested to 10,000 Volts, protective insulation molded directly onto the socket. High visibility Coatings. Storage Box.

<u>PART #</u>	<u>SIZE</u>
40 496i	8,10,11,12,13,14,17 & 19mm sockets Ratchet, 125mm extension bar

**3/8" DR. INSULATED RATCHET**

Tested to 10,000 Volts, protective insulation molded directly onto the socket. High visibility Coatings.

<u>PART #</u>	<u>SIZE</u>
40 486i	190mm

**1000 VOLT INSULATED TOOLS**



**1/2" DR. INSULATED SOCKETS, 12-PT**

Tested to 10,000 Volts, protective insulation molded directly onto the socket. High visibility Coatings.

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
40 328i	8mm	40 342i	19mm
40 329i	9mm	40 343i	20mm
40 330i	10mm	40 344i	21mm
40 331i	11mm	40 345i	22mm
40 332i	12mm	40 346i	23mm
40 336i	13mm	40 347i	24mm
40 337i	14mm	40 349i	26mm
40 338i	15mm	40 350i	27mm
40 339i	16mm	40 351i	28mm
40 340i	17mm	40 353i	30mm
40 341i	18mm	40 354i	32mm



**1/2" DR. INSULATED SOCKET SET, 24-PC**

Tested to 10,000 Volts, protective insulation molded directly onto the socket. High visibility Coatings. Storage Box.

<u>PART #</u>	<u>SIZE</u>
40 501i	8,9,10,12,13,14,15,17,19,22 & 24mm sockets, ratchet, 125 & 250mm extension bar, 6 screwdrivers, Cable knife, 3 pliers/cutters



**1/2" DR. INSULATED RATCHET**

Tested to 10,000 Volts, protective insulation molded directly onto the socket. High visibility Coatings.

<u>PART #</u>	<u>SIZE</u>
40 487i	190mm

**1000 VOLT INSULATED TOOLS**

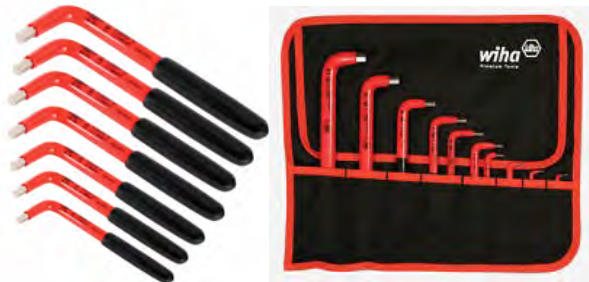


<u>PART #</u>	<u>SIZE</u>
46 009i	1.5mm
40 220i	2mm
40 221i	2.5mm
40 222i	3mm
40 223i	4mm

**INSULATED HEX KEY WRENCHES**

Tested to 10,000 Volts, protective insulation molded directly onto the key

<u>PART #</u>	<u>SIZE</u>
40 224i	5mm
40 225i	6mm
40 227i	8mm
40 229i	10mm
46 202i	12mm



**INSULATED HEX KEY SETS**

Tested to 10,000 Volts, protective insulation molded directly onto the key. High visibility Coatings. Storage Box.

<u>PART #</u>	<u>SIZE</u>
46 206i	7-Pc set; 3, 4, 5, 6, 8, 10 & 12mm
46 218i	10-Pc set: 1.5,2,2.5,3,4,5,6,8,10 & 12mm



**INSULATED T-HANDLE HEX KEY WRENCHES**

Tested to 10,000 Volts, protective handle & insulation molded directly onto the key. Comfort grip T-handle.

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>
40 534i	4mm	150mm
40 535i	5mm	150 mm
40 536i	6mm	150 mm
40 538i	8mm	150 mm
40 539i	10mm	150 mm



**INSULATED T-HANDLE HEX KEY SETS**

Tested to 10,000 Volts, protective handle & insulation molded directly onto the key. High visibility Coatings. Comfort grip T-handle

<u>PART #</u>	<u>SIZE</u>
40 259i	5-Pc set; 4, 5, 6, 8 & 10mm



**1000 VOLT INSULATED TOOLS****PLIERS - 1000 VOLT****WATER PUMP PLIERS-1000 VOLT**

Top quality high voltage super insulated plier.  
DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt



<u>PART #</u>	<u>SIZE</u>
41 509	250mm

**CABLE CUTTER PLIERS-1000 VOLT**

Top quality high voltage super insulated plier.  
DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt



<u>PART #</u>	<u>SIZE</u>
41 511	250mm

**WIRE STRIPPER PLIERS-1000 VOLT**

Top quality high voltage super insulated plier.  
DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt



<u>PART #</u>	<u>SIZE</u>
41 512	150mm

**WIRE CRIMPING PLIERS-1000 VOLT**

Top quality high voltage super insulated plier.  
DIN5745, Chrome-Vanadium Oxidized Steel, Insulated cushion grip, approved for Voltages of up to 1000 Volt



<u>PART #</u>	<u>SIZE</u>
41 513	180mm

**1000 VOLT INSULATED TOOLS****COMBINATION PLIERS**

Top quality high voltage super insulated plier. DIN5746, Chrome-Vanadium Steel, black oxidized with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 500	180 mm
41 501	200mm

**SIDE CUTTING PLIERS**

Top quality high voltage super insulated plier. Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 507	150 mm
41 508	180 mm

**LONG NOSE PLIERS**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 502	150 mm
41 503	200 mm

**LONG NOSE PLIERS, BENT**

Top quality high voltage super insulated plier. DIN5745, Chrome-Vanadium Steel, black oxidized, anti-corrosion treated, with insulated grip, approved for Voltages of up to 1000 Volt

<u>PART#</u>	<u>SIZE</u>
41 510	150 mm
41 504	200 mm

**1000 VOLT INSULATED TOOLS**



**INSULATED SLOTTED SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.

<u>PART #</u>	<u>SIZE</u>
41 066	2.5 x 75 x 140mm
41 100	3.0 x 80 x 155mm
41 101	3.0 x 100 x 190mm
41 109	3.5 x 100 x 190mm
41 103	4.0 x 100 x 200mm
41 104	5.5 x 125 x 235mm
41 105	6.5 x 150 x 285mm
41 013	8.0 x 175 x 300mm



**INSULATED PHILLIPS SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.

<u>PART #</u>	<u>SIZE</u>
41 095	#0 x 60 x 140mm
41 096	#1 x 100 x 160mm
41 097	#2 x 100 x 210mm
41 098	#3 x 150 x 270mm
41 099	#4 x 200 x 320mm



**INSULATED POZI SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.

<u>PART #</u>	<u>SIZE</u>
41 021	#0 x 60 mm
41 022	#1 x 100mm
41 023	#2 x 100 mm
41 024	#3 x 150 mm



**INSULATED SCREWDRIVER SETS**

8-pc. combination set, fully insulated blade and handle. 1000 Volt.

<u>PART #</u>	<u>CONTENTS.</u>
41 015	3.0 x 75mm
	4.0 x 100mm
	5.5 x 125mm
	6.5 x 150mm
	PH0 x 75mm
	PH1 x 100mm
	PH2 x 100mm
	120V ~ 250V circuit tester

**Bahco**

**1000 VOLT INSULATED TOOLS**



**INSULATED BAHCO SLOTTED SCREWDRIVER**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>
46 077	8010S	2.5 x 75 x 177mm
46 078	8220S	3.0 x100 x 228mm
46 079	8230S	3.5 x 125 x 247mm
46 080	8040S	4.0 x 100 x 222mm
46 081	8050S	5.5 x 100 x 222mm
46 082	8255S	6.0 x 150 x 273mm
46 083	8065S	8.0 x 175 x 295mm

**Bahco**



**INSULATED BAHCO PHILLIPS SCREWDRIVERS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt.

<u>PART #</u>	<u>BAHCO #</u>	<u>SIZE</u>
46 084	8600S	PH 0 x 75 x 160mm
46 085	8610S	PH 1 x 75 x 200mm
46 086	8620S	PH 2 x 100 x 222mm
46 087	8630S	PH 3 x 150 x 273mm
46 088	8640S	PH 4 x 200 x 362mm

**INSULATED MULTI-BIT SCREWDRIVER SETS**

Fully insulated blade and handle approved for working on live voltages up to 1000 Volt. Power handle with 1/4" bits.



<u>PART #</u>	<u>SIZE</u>
40 503	6-Pc set includes; 5.5 & 6.5 mm slotted PH 0, PH1, PH2 & PH3
40 505	6-Pc set includes; 6.5 & 8.0mm slotted PH 1 & PH2 Square 1 & 2

**INSULATED BITFLIP SCREWDRIVER SET**

Tested to 10,000 Volt, cushion grip, rapid access flip out eight bit tray. 1/4" magnetic bit holder.



<u>PART#</u>	<u>DESCRIPTION</u>
40 619	8-Pc set: PH0, PH1, PH2 & PH3 4.5, 5.5, 6.0 & 8.0 slotted

**1000 VOLT INSULATED TOOLS**



**INSULATED PLIERS & SCREWDRIVERS SET**

Tested for 10,000 Volt, cushion grip screwdrivers, molded in slip guards on pliers, finger jam protection.

<u>PART#</u>	<u>SIZE</u>
40 374	10-Pc Set: 5 screwdrivers, 5 pliers



**INSULATED MAINTENANCE SET, 80-PC**

Insulated master electrician's tool set in rolling water tight traveling tool box. Tested for 10,000 volt, 1000volt rated.

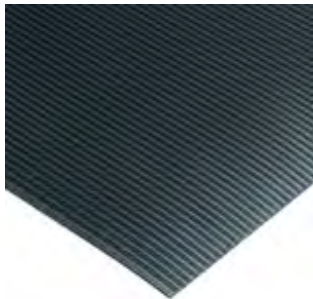
<u>PART#</u>	<u>CONTENTS</u>
40 584	10 pliers, cable knife, ruler, voltage detector, 12 hex keys, 14 sockets, ratchet. Extension, 12 nut drivers, 27 screwdrivers,



**INSULATED VOLTAGE DETECTOR 110V**

Detects AC voltages between 90 and 1000 Volts. LED in plastic tip illuminates Red and emits audible warning as soon as AC voltage is detected. Needs two AAA batteries.

<u>PART#</u>	<u>SIZE</u>
40 405	150mm/6"



**CORRUGATED SWITCHBOARD MATS**

Protects from harmful or deadly electrical shock. Insulates against as much as 50,000 volts..

Sold per foot!

<u>PART#</u>	<u>SIZE</u>
40 528	1/4" thick x 36" wide



**PIPE WRENCHES**

**PIPE WRENCHES - PROFESSIONAL**

A heavy duty rigid type pipe wrench.



**Cast Iron**

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
40 719	6"	61 13 01
40 720	8"	61 13 02
40 721	10"	61 13 03
40 727	12"	61 13 04
40 723	14"	61 13 05
40 724	18"	61 13 06
40 725	24"	61 13 07
40 726	36"	61 13 08
40 729	48"	61 13 09

**Aluminum**

<u>PART #</u>	<u>SIZE</u>
40 721A	10"
40 727A	12"
40 723A	14"
40 724A	18"
40 725A	24"
40 726A	36"
40 729A	48"

**BAHCO UNIVERSAL PIPE WRENCHES**

A high quality Swedish style pipe wrench.

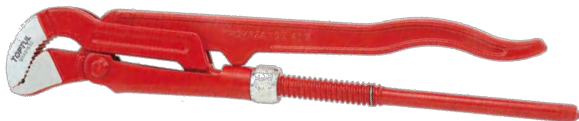


<u>PART #</u>	<u>BAHCO</u>	<u>LENGTH</u>	<u>CAP.</u>	<u>ISSA</u>
40 705	#140	215mm	30mm	61 61 11
40 706	#141	280mm	36mm	61 61 12
40 707	#142	370mm	52mm	61 61 13
40 708	#143	555mm	78mm	61 61 14
40 709	#144	720mm	110mm	61 61 15
40 710	#147	940mm	160mm	61 61 16

**TOPTUL PIPE WRENCHES, SWEDISH**

Swedish pattern pipe wrench. Chrome Vanadium Steel  
Slim S-shaped 45 degree jaws.

Special jaw design grips pipes at three points.



<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>CAP.</u>
40 728	1"	345mm	38mm
40 732	1-1/2"	440mm	57mm
40 733	2"	560mm	63mm



**CHAIN WRENCHES**

**STRAP WRENCH**

Use on any polished pipe, strong woven nylon strap will not scratch the surface of the pipe.



**PART #**  
40 101

**DESCRIPTION**  
12"/300mm long,  
50-135mm capacity

**ISSA # 61 65 78**

40 335

18"/450mm long  
125-300mm capacity

**OIL FILTER STRAP WRENCH**



**PART#**  
40 012

**DESCRIPTION**  
1/2" Dr.

**PIPE CHAIN WRENCH**

Single jaw pipe chain wrench, heat treated.



**PART #**  
45 220

**DESCRIPTION**  
230mm long,  
30-160mm capacity  
**ISSA # 61 13 74**

45 221

4" capacity, 12" handle

45 222

5" capacity, 15" handle

45 223

6" capacity, 20" handle

**PIPE CHAIN WRENCH**

Double jaw pipe chain wrench. Chain swings from the center and can be used on either side of the jaws. Fully adjustable to fit any shape pipe.



**PART #**

**CAPACITY**

**LENGTH**

40 736

4"

38"

40 737

6"

47"

42 005

8"

50"

42 006

12"

64"

**PIPE CUTTERS**



**MINI TUBE CUTTER**

One cutting wheel and 2 guide rollers.

<u>PART #</u>	<u>DESCRIPTION</u>
41 246	Capacity: 3 - 16 mm
46 093	Spare cutter wheel
41 246CT	Cap. 3/8"-1-1/8" w/spare cutter wheel



**TUBE CUTTERS**

One cutting wheel and 2 guide rollers.

<u>PART #</u>	<u>DESCRIPTION</u>
41 247	Capacity: 3 - 32 mm
41 248	Spare cutter wheel <b>ISSA # 61 20 35</b>
41 226	Zip Action tube Cutter Cap.: 6 - 60 mm <b>ISSA # 61 20 45</b>
41 261	Quick-acting cutter Cap. 50-140 mm <b>ISSA # 61 20 37</b>
41 324	Telescopic Tube Cutter 1/4" - 1-1/2"



**2" & 4" PIPE CUTTERS**

Heavy duty with one cutting wheel and two guide rollers.



<u>PART #</u>	<u>DESCRIPTION</u>
41 242	Cap.: 12 - 50 mm (1/2" to 2")
41 243	2" Spare cutter wheel
41 243S	2" Spare cutter wheel for <a href="#">Stainless Steel</a>
41 244	Cap.: 32mm to 100mm(1-1/4" to 4")
41 245	4" Spare cutter wheel
41 244S	4" spare cutter wheel for <a href="#">Stainless Steel</a>



**RATCHET ACTION PVC CUTTER**

Die cast aluminum for cutting PVC, ABS, vinyl and poly tubing.

<u>PART #</u>	<u>DESCRIPTION</u>
41 219	Cap: 3 - 42mm (1/8" to 1-5/8")

**TUBE BENDERS**



**TUBE BENDERS**

Hand-held lever-type bender with rubber grips. For bending annealed copper, aluminum, steel, stainless steel and hard copper tubing. Calibrated to show angle of bend.

<u>PART #</u>	<u>SIZE</u>	<u>LENGTH</u>	<u>ISSA #</u>
44 109	6mm	250mm	61 67 86
44 110	8mm	250mm	61 67 87
44 100	10mm	325mm	61 67 88
44 105	12mm	450mm	61 67 89
44 111	16mm	700mm	
44 107	18mm	800mm	
44 108	22mm	800mm	



**MULTI-SIZE HAND TUBE BENDER**

Hand-held lever-type bender with rubber grips. Die cast aluminum, adjustable hook.

<u>PART#</u>	<u>SIZE</u>
40 789	5,6,10 & 12 mm



**TUBE BENDER SET - METRIC SIZE**

Ratchet type bender for copper tubing with 7 bending shoes from 8mm to 22mm in handy blow case.

<u>PART #</u>	<u>CONTENTS</u>
44 200	Bending shoes: 8,10,12,15,16,18 and 22mm

Weight: 7 Lbs



**TUBE BENDER SET - INCH SIZE**

Ratchet type bender for copper tubing with 5 bending shoes from 3/8" to 7/8", tube cutter and reamer in handy blow case.

<u>PART #</u>	<u>CONTENTS</u>
44 201	Bending shoes: 3/8", 1/2", 5/8", 3/4" and 7/8" Tube cutter & reamer

Weight: 8 Lbs

**PIPE BENDERS & FLARING TOOLS**



**TUBE FLARING TOOL**

2-Piece heavy duty chrome plated flaring tool.  
45 Deg. flare.

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
41 170	Range: 4mm to 16mm

**ISSA # 61 67 78**



**TUBE FLARING & SWAGING SET, SAE**

High quality set in blow case.

<b><u>PART #</u></b>	<b><u>CONTENTS</u></b>
41 379	Flaring tool: 1/8" to 7/16" Swage adapters: 3/16" to 3/4"



**TUBE CUTTING AND FLARING SET**

High quality set in blow case.

<b><u>PART #</u></b>	<b><u>CONTENTS</u></b>
46 095	Tube cutter 3 to 32mm Flaring tool 4 to 16mm

Weight: 4 Lbs  
**ISSA # 61 20 30**



**TUBE EXPANDER KIT**

High quality set in metal case.

<b><u>PART #</u></b>	<b><u>CONTENTS</u></b>
46 090	Lever-type expander handle 7 Expander heads 10, 12, 16, 19, 22, 25 & 28 mm Tube cutter 3 to 32 mm Tube reamer Weight: 9 Lbs



**RATCHET HEAD PIPE THREADER**

Complete with ratchet handle & die heads in plastic blow case. BSP Thread

**PART #**  
**41 249**

**CONTENTS**

Capacity: 1/2" to 2"  
6 die heads: 1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 1 Ratchet handle  
Weight: 19 Lbs  
**ISSA # 61-66-03**

**HYDRAULIC PIPE BENDERS**

Designed for bending thick-walled pipes. 3 casters allow for easier setup, complete with bending shoes



**PART #**  
**41 240**

**DESCRIPTION**

Range: 1/2" to 2", cap. 9 tons  
6 bending dies;  
1/2", 3/4", 1", 1-1/4", 1-1/2" and 2"

Weight: 115 Lbs  
**ISSA # 61 37 11**

**PART #**  
**41 241**

**DESCRIPTION**

Range: 1/2" to 3", Cap. 20 Tons  
8 bending dies;  
1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2" and 3"

Weight: 260 Lbs



**SHEARS & CUTTERS**



**BENCH METAL SHEARS**

Steel plate frame of welded construction.  
Blade made of high grade tool steel.  
For cutting metal plate & flat bar sheet.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>40 109</b>	Blade length: 200mm Cutting capacity: 5mm Weight: 38 Lbs <b>ISSA # 61 19 61</b>
<b>40 113</b>	200 mm spare blade (pair)
<b>40 110</b>	Blade length: 300mm Cutting capacity: 5mm Weight: 64 Lbs <b>ISSA # 61 19 62</b>
<b>40 117</b>	300 mm spare blade (pair)



**BOLT CUTTERS**

High tensile strength bolt cutter with rubber grips

<u>PART #</u>	<u>DESCRIPTION</u>
<b>40 700</b>	14" long, bolt capacity: 5mm
<b>40 701</b>	18" long, bolt capacity: 6mm
<b>40 702</b>	24" long, bolt capacity: 9mm
<b>40 703</b>	30" long, bolt capacity: 11mm
<b>40 704</b>	36" long, bolt capacity: 15 mm



**VICES**



**HEAVY DUTY BENCH VISES**

Swivel lock base. Cast iron body with hardened alloy steel jaws.

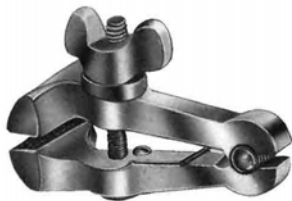
<u>PART #</u>	<u>WIDTH</u>	<u>ISSA #</u>
41 270	75mm (3")	61 37 72
41 271	100mm (4")	61 37 74
41 272	125mm (5")	61 37 76
41 273	150mm (6")	61 37 77



**BENCH YOKE VISES**

Cast iron body with hinged joint for quick clamping. Premium lacquered finish.

<u>PART #</u>	<u>CAPACITY</u>	<u>ISSA #</u>
46 100	1/8 - 2"	61 37 55
46 101	1/2 - 3"	61 37 56
46 110	3/8"-5"	



**HAND VISE**

Spring type. Cast iron body.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA</u>
41 167	100mm	61 37 51
41 168	125mm	61 37 52



**TRI-STAND CHAIN VISES**

Handles 1/2" to 6" diameter pipe. Leg support has tray for tools. Conduit support on top for anchoring stand during threading.

<u>PART #</u>	<u>CAPACITY</u>
41 398	1/2 - 6" dia. pipe 54" L x 44" W x 36" H Ship weight: 45 lbs

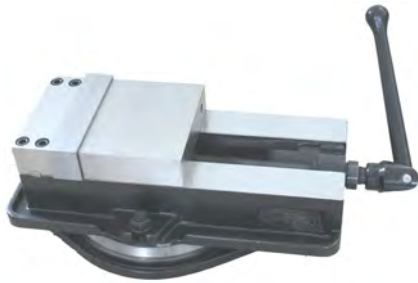
**VICES**



**DRILL PRESS VISES**

Cast iron body and slide. Four slots for easy clamping to tables. Replaceable steel jaws. Handle adjust to any angle.

<u>PART #</u>	<u>WIDTH</u>	<u>OPENING</u>
<b>41 370</b>	3"	3"
<b>41 371</b>	4"	4"
<b>41 372</b>	5"	5"
<b>41 373</b>	6"	6"



**PRO-SERIES MILLING VISES**

Full 360\* swivel base w/graduation included. Used in milling, shaping and drilling machines. Angle-tight Positive-lock style jaws interchangeable with American standard vises.

<u>PART #</u>	<u>WIDTH</u>	<u>OPENING</u>
<b>41 374</b>	3"	3-1/2"
<b>41 375</b>	4"	5"
<b>41 376</b>	6"	8"
<b>41 377</b>	8"	8"



**PRO-SERIES CROSS SLIDE VISES**

Suitable for clamping soft materials such as aluminum and copper. Cast iron body. Accurate positioning in two directions (crossed) Secures firmly on drill press table and moves similar to vertical mill. Heat treated steel jaws.

<u>PART #</u>	<u>WIDTH</u>	<u>OPENING</u>
<b>41 395</b>	3"	3"
<b>41 396</b>	4"	4"
<b>41 397</b>	6"	6"

**SCISSORS & SHEARS**



**ELECTRICIAN SCISSORS**

<u>PART #</u>	<u>SIZE</u>
41 256	175mm



**CLOTH SCISSORS**

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 399	175mm	
41 257	250mm	61 18 44



**UPHOLSTERY SHEARS**

<u>PART #</u>	<u>SIZE</u>
48 500	250mm
48 501	300mm



**PACKING SCISSORS**

<u>PART #</u>	<u>SIZE</u>
48 600	250mm



**AVIATION SNIPS**

Drop forged Chrome-Molybdenum Alloy steel blades



<u>PART #</u>	<u>SIZE</u>
41 258	250mm left cut
41 259	250mm straight cut
41 260	250mm right cut



**LONG CUT AVIATION SNIPS**

Blade edges are serrated. Bi-mold handles. Heavy duty double-overwind spring.

<u>PART #</u>	<u>SIZE</u>
41 259L	290mm straight cut



**TIN SNIPS**

Double-dipped plastic handle.

<u>PART #</u>	<u>SIZE</u>
48 504	175mm
48 505	250mm
48 506	300mm
48 507	350mm
48 510	355mm

**PNEUMATIC**

**TRU-28 NEEDLE SCALER H.D.**



**PART #**  
**43 003**

**SPECIFICATIONS**  
Overall length: 360mm  
Piston size: 26 x 56 mm  
Blows per min: 4,500 BPM  
Hose size: 1/2"  
Air inlet: 3/8" NPT  
Needles: 28 pc 3x180mm  
Air consumption: 8.8 Cfm  
Weight: 7.7 lbs.  
**ISSA # 59 04 64**

**JEX-28 NEEDLE SCALER**



**PART #**  
**43 000**

**SPECIFICATIONS**  
Overall length: 360mm  
Piston size: 26 x 56 mm  
Blows per min: 4,500 BPM  
Hose size: 3/8"  
Air inlet: 3/8" NPT  
Air consumption: 8.8 Cfm  
Weight: 7.7 lbs.  
**ISSA # 59 04 64**

**TRU-24 NEEDLE SCALER**



**PART #**  
**43 002**

**SPECIFICATIONS**  
Overall length: 350mm  
Piston diameter: 24mm  
Blows per min: 4,200 BPM  
Hose size: 3/8"  
Air inlet: 3/8" NPT  
Needles: 23 pc 3x180mm  
Air consumption: 8.5 Cfm  
Weight: 6 lbs.  
**ISSA # 59 04 63**

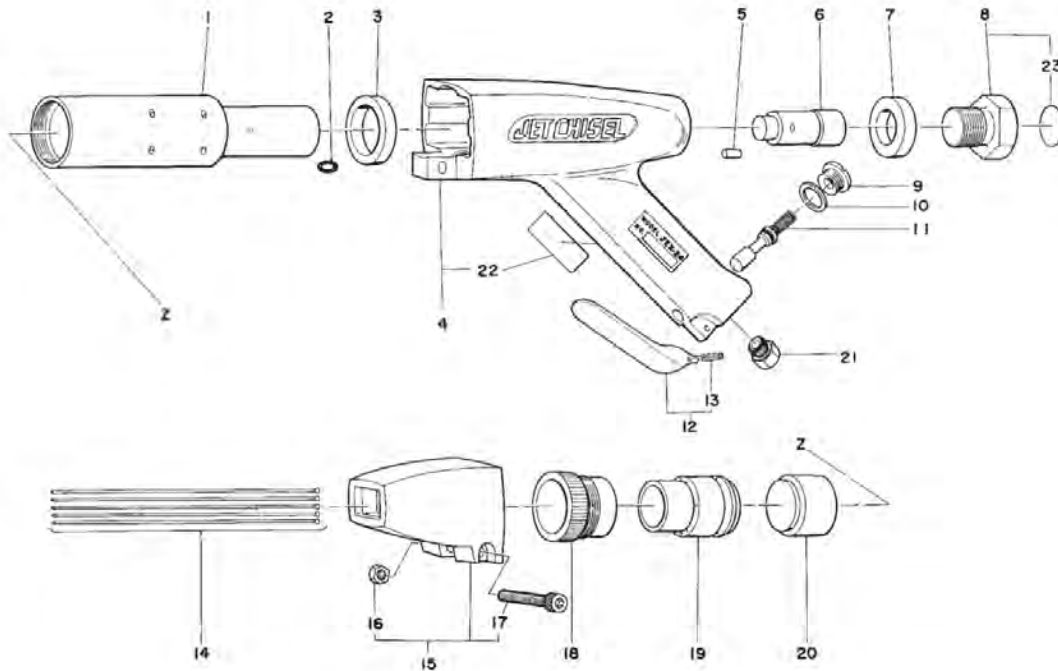
**JEX-24 NEEDLE SCALER**



**PART #**  
**43 001**

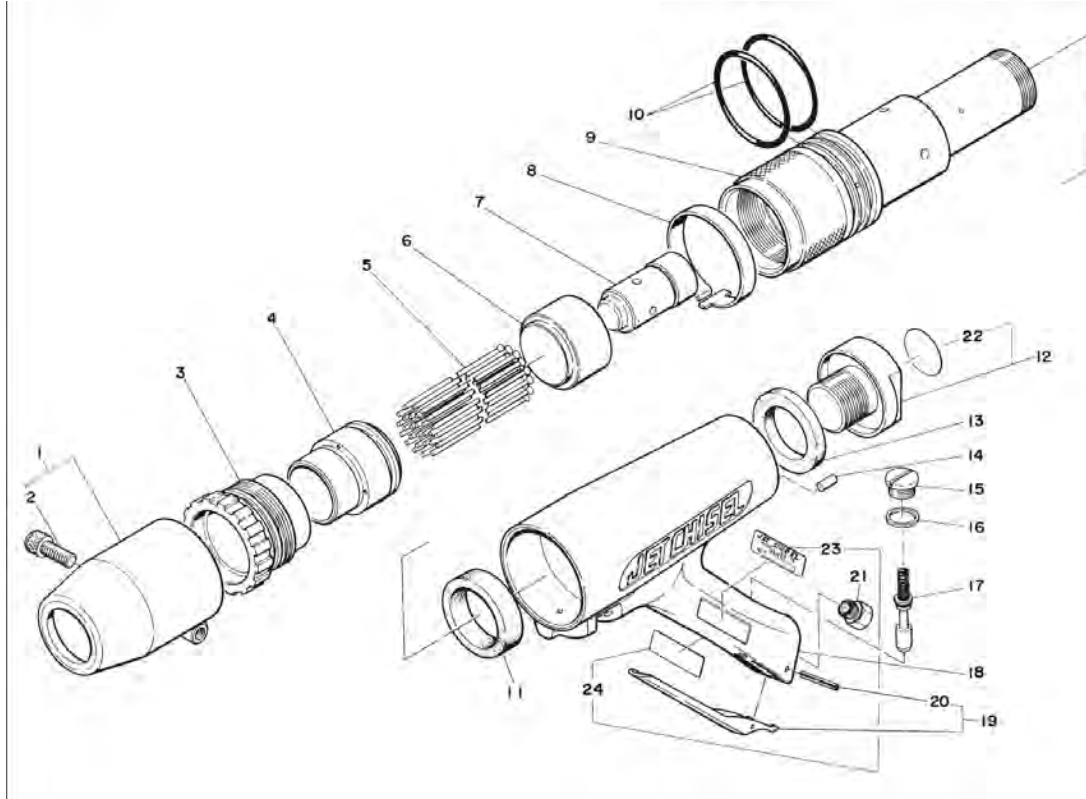
**SPECIFICATIONS**  
Overall length: 350mm  
Piston diameter: 24mm  
Blows per min: 4,000 BPM  
Hose size: 3/8"  
Air inlet: 3/8" NPT  
Air consumption: 7.8 Cfm  
Weight: 6 lbs.  
**ISSA # 59 04 63**

**TRU-24/JEX-24 ASSEMBLY AND PARTS**



<u>NO.</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>NO.</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	TP02241	Cylinder	13	TQ00563	Spring pin 3 x 20mm
2	TP11992	O-Ring KS-9	14	40 807	Needle 2 x 180mm
3	TP02250	Front washer	14	40 808	Needle 3 x 180mm
4	TA90904	Housing sub. assy.	15	TA93189	Needle guide assy.
5	TP01478	Cylinder lock pin	16	TP02260	Socket head bolt 35mm
6	TP02242	Piston	17	TP02246	Lock ring
7	TP02249	Rear washer	18	TP 02244	Needle supporter 2mm
8	TA93278	Rear plug assy.	18	TP02245	Needle supporter 3mm
9	TP00389	Valve cap	19	TP02243	Throttle anvil
10	TP00388	Valve packing		40 225	Hex key wrench 6mm
11	TA90037	Throttle valve assy.		TP00864	Reducer M16 x 3/8" NPT
12	TP01557	Throttle lever		TP01355	Hose nipple 3/8 X 3/8" NPT

**TRU-28/JEX-28 ASSEMBLY AND PARTS**



<u>NO.</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>NO.</u>	<u>PART #</u>	<u>DESCRIPTION</u>
1	TA 93365	Round needle guide assy.	7	TP 00395	Piston
2	TP 00045	Socket head bolt 8x25mm	8	TP 01466	Safety band
3	TP 01464	Stop ring	9	TP 01463	Cylinder
4	TP-01499	Needle supporter 2mm	10	TP 11993	O-Ring W-4
4	TP 01461	Needle supporter 3mm	11	TP 01474	Front washer
4	TP 01462	Needle supporter 4mm	12	TA 90452	Rear bolt assy.
5	40 807	Needle 2 X 180mm	13	TP 01475	Rear washer
5	40 808	Needle 3 X 180mm	14	TP 01478	Cylinder lock pin
5	40 809	Needle 4 X 180mm	15	TP 00389	Valve cap
6	TP 00399	Throttle anvil	16	TP 00388	Valve packing
			17	TA 90037	Throttle valve assy.
			18	TA 90410	Housing sub. assy.
			19	TA 96325	Throttle lever
			20	TQ 00563	Spring pin 3 x 20mm
				40 225	Hex key wrench 6mm
				TP 00864	Reducer M16 x 3/8" NPT
				TP 01355	Hose nipple 3/8x3/8 NPT



**PNEUMATIC TOOLS**

**TRU-20 PNEU. NEEDLE SCALER**

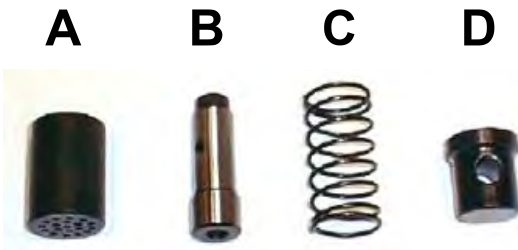


**PART #**  
42 107

**DESCRIPTION**  
Overall length: 13-1/2"  
Needle stroke: 21/32"  
Piston dia. 25/32"  
Hose size: 3/8"  
Air consumption: 7.1 CFM  
Blows per min.: 4.000 B/min  
Weight: 5.3 lbs.

**ISSA # 59 04 62**

**SPARE PARTS FOR TRU-20 SCALER**



**PART #**  
42 119

**DESCRIPTION**  
A: Needle supporter 3mm

42 120

B: Piston

42 121

C: Spring

42 122

D: Throttle Anvil

**PNEUMATIC LONG REACH SCALER**

Long reach air scaler.



**PART #**  
40 828

**DESCRIPTION**  
Overall length: 1220mm (48")  
Blow per min.: 2,200  
Air inlet: 3/8" NPT  
Hose size: 1/2" ID  
Weight: 26 lbs.

**ISSA # 59 04 53**

40 831

Spare flat chisel 100mm wide  
**ISSA # 59 04 56**

**PNEUMATIC FLUX CHIPPER**

3000 BPM, 1/4" NPT air inlet, 3/8" ID hose size.



**PART #**  
40 822

**DESCRIPTION**  
Straight industrial flux chipper

40 805

Pistol grip industrial flux chipper  
**ISSA # 59 03 62**

40 806

Spare chisel, flat w/hex shank

**PNEUMATIC TOOLS**

**PNEUMATIC SCALING HAMMER**

Single head scaling hammer.



**PART #**  
**40 800**

**DESCRIPTION**  
Overall length: 480mm  
Piston size: 30x24x75mm  
Blow per min.: 8,000  
Hose size: 1/2" ID  
Weight: 4.5 lbs.

**ISSA # 59 03 82**

**SPARES FOR SINGLE HAMMERS**



**PART #**  
**40 801**

**DESCRIPTION**  
Spare piston with tip  
Size: 30x24x75mm

**ISSA # 59 03 87**

**40 829**

Valve spring

**PNEUMATIC SCALING HAMMER**

Triple head scaling hammer.



**PART #**  
**40 802**

**DESCRIPTION**  
Overall length: 496mm  
Piston size: 27x21x69mm  
Blow per min.: 3,000  
Air inlet: 3/8" NPT  
Weight: 9 lbs.

**ISSA # 59 03 83**

**SPARES FOR TRIPLE HAMMERS**



**PART #**  
**40 803**

**DESCRIPTION**  
Spare piston  
Size: 27x21x69mm

**ISSA # 59 03 88**

**40 804**  
**40 830**

Spare tungsten steel head  
Valve spring

**PNEUMATIC TOOLS**



**1/2" DR. IMPACT WRENCH**

Durable compact pin clutch mechanism.  
High torque, lightweight and powerful.

**PART #**  
**42 100**

**DESCRIPTION**  
Bolt capacity: 7/8"  
Overall length: 198mm  
Speed: 7,000 RPM  
Max. torque: 600 Ft/Lbs  
Rec.air pressure: 90 PSI  
Air inlet: 1/4" NPT  
Hose size: 3/8" ID  
Weight: 5.9 lbs  
**ISSA # 59 01 01**



**3/4" DR. IMPACT WRENCH**

Durable pin clutch impact mechanism.  
Contoured elastomer handle grip.

**PART #**  
**42 101**

**DESCRIPTION**  
Bolt capacity: 1"  
Overall length: 237mm  
Speed: 4,500 RPM  
Max. torque: 1000 ft/lbs.  
Rec.air pressure: 90 PSI  
Air inlet: 1/4" NPT  
Hose size: 1/2" ID  
Weight: 8.8 lbs.  
**ISSA # 59 01 04**



**1/2" DR. COMPOSITE IMPACT WRENCH**

Super duty wrench in box.

**PART #**  
**42 111**

**DESCRIPTION**  
Overall length: 190mm  
Speed: 8500 RPM  
Max. torque: 820 Ft/Lbs  
Rec.air pressure: 90 PSI  
Air inlet: 1/4" NPT  
Hose size: 3/8" ID  
Weight: 4.6 lbs  
**ISSA # 59 01 01**



**3/4" DR. COMPOSITE IMPACT WRENCH**

Super duty wrench in box.

**PART #**  
**42 112**

**DESCRIPTION**  
Overall length: 220mm  
Speed: 5,500 RPM  
Max. torque: 1500 ft/lbs.  
Rec.air pressure: 90 PSI  
Air inlet: 3/8" NPT  
Hose size: 1/2" ID  
Weight: 8.2 lbs.  
**ISSA # 59 01 04**

**PNEUMATIC TOOLS**



**1"DR. IMPACT WRENCH, H.D.**

Heavy duty pneumatic wrench with 6" long shank and closed grip handle.

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>42 102</b>	Overall length: 580mm Speed: 3,500 RPM Max. torque: 1800 Ft/Lbs Rec.air pressure: 90-115 PSI Air inlet: 1/2" NPT Hose size: 1/2" ID Weight: 24.5 lbs <b>ISSA # 59 01 06</b>



**PNEUMATIC RATCHET WRENCH**

1/2" dr. air ratchet.

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>42 114</b>	Overall length: 265mm Speed: 160 RPM Air Inlet: 1/4" NPT Hose size: 3/8" ID Air pressure: 90 PSI Weight: 3 lbs.



**PNEUMATIC DIE GRINDER**

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>42 220</b>	1/4" Collet Overall length: 180mm Speed: 22,000 RPM Air Inlet: 1/4" NPT Hose size: 3/8" ID Weight: 1.6 lbs. <b>ISSA # 59 03 26</b>



<b>42 222</b>	Extended model, 1/4" Collet OL: 255 mm Speed: 22,000 RPM Air inlet: 1/4" NPT Hose size: 3/8" ID Weight: 2.0 lbs.
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**PNEUMATIC DIE GRINDER KIT**

16-pc. die grinder tool kit in blow case.

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>42 221</b>	1/4" Die grinder 1 Pc Collet 3mm 10 Pc Mounted stone 2 Pc Spanner 1 Pc Nipple Weight: 2.6 lbs.

**PNEUMATIC TOOLS**



**4" PNEUMATIC ANGLE GRINDER "TRU"**

<u>PART #</u>	<u>DESCRIPTION</u>
<b>42 109</b>	O.L.: 230mm Speed: 11,000 RPM Spindle: M10 x 1.5 Air inlet: 1/4" NPT Hose size: 3/8" ID Weight: 5 lbs. <b>ISSA # 59 03 01</b>
<b>42 116</b>	Backing pad 115mm x 10x1.5



**7" PNEUMATIC ANGLE GRINDER**

<u>PART #</u>	<u>DESCRIPTION</u>
<b>42 108</b>	Overall length: 340mm Speed: 7,000 RPM Spindle: 5/8"-11 Air inlet: 3/8" NPT Hose size: 3/8" ID Weight: 9 lbs. <b>ISSA # 59 03 02</b>
<b>42 117</b>	Backing pad 180mm x 5/8"-11



**PNEUMATIC BARREL PUMP**

Pump can be directly inserted into a barrel and screwed onto the bung with the provided brass Bung Adapter. Supplied without hose.

<u>PART</u>	<u>DESCRIPTION</u>
<b>42 123</b>	Tube dia. 55 mm, length 44" Hose outlet: 3/4" R Weight: 12 lbs.  ISSA 59 16 51



**PNEUMATIC TOOLS****3/8" DR. PNEUMATIC HAND DRILL****PART #**  
**42 105****DESCRIPTION**

Overall length: 175mm  
 Speed: 2,200 RPM  
 Spindle thread: 3/8"-24  
 Air inlet: 1/4" NPT  
 Hose size: 3/8" ID  
 Air pressure: 90 PSI  
 Weight: 2.5 lbs.

**ISSA # 59 03 42****1/2" DR. PNEUMATIC HAND DRILL**

Reversible drill with side handle.

**PART #**  
**42 106****DESCRIPTION**

Overall length: 200mm  
 Speed: 750 RPM  
 Spindle thread: 3/8"-24  
 Air inlet: 1/4" NPT  
 Hose size: 3/8" ID  
 Air pressure: 90 PSI  
 Weight: 4 lbs.

**ISSA # 59 03 47****3/8" DR. PNEUMATIC ANGLE DRILL****PART #**  
**42 110****DESCRIPTION**

Overall length: 190mm  
 Speed: 1,900 RPM  
 Spindle thread: 3/8"-24  
 Air inlet: 1/4" NPT  
 Hose size: 3/8" ID  
 Air pressure: 90 PSI  
 Weight: 2.5 lbs.



**PNEUMATIC TOOLS****AIR BLOW GUN & SET**

<u>PART #</u>	<u>DESCRIPTION</u>
42 124	Blow gun w/rubber tip
42 125	5-pc set include 1 blow gun 3 safety extension tubes 1 male tip

**PISTOL TYPE AIR BLOW GUN & KIT**

Body made of aluminum casting, comfort trigger design. Max. working pressure: 180 PSI

<u>PART #</u>	<u>DESCRIPTION</u>
42 126	Blow gun kit w/2 tubes 5/8" & 4"

**PISTOL TYPE AIR BLOW GUN & KIT**

Body made of aluminum casting, comfort trigger design. Max. working pressure: 180 PSI

<u>PART #</u>	<u>DESCRIPTION</u>
42 127	Blow gun with 12" tube

**RECOIL AIR HOSE 1/4" X 25 FT.**

Self-storing design springs back into coiled shape after each use. Lightweight, low-friction nylon construction

<u>PART#</u>	<u>SIZE</u>
42 129	1/4" x 25 ft.

**PUNCHES & PUNCH SETS**



**ARCH PUNCHES**

Cast iron steel body with hardened cutting edge. Premium lacquered finish.

<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>
40 887	3mm	40 905	16mm	40 918	29mm
40 888	4mm	40 906	17mm	40 919	30mm
40 889	5mm	40 907	18mm	40 920	31mm
40 895	6mm	40 908	19mm	40 921	32mm
40 896	7mm	40 909	20mm	40 922	33mm
40 897	8mm	40 910	21mm	40 923	34mm
40 898	9mm	40 911	22mm	40 924	36mm
40 899	10mm	40 912	23mm	40 925	38mm
40 900	11mm	40 913	24mm	40 926	40mm
40 901	12mm	40 914	25mm	40 927	45mm
40 902	13mm	40 915	26mm	40 928	50mm
40 903	14mm	40 916	27mm	40 929	55mm
40 904	15mm	40 917	28mm	40 930	60mm



**HOLLOW PUNCH SETS**

Chuck with interchangeable heads in plastic case.

<u>PART #</u>	<u>RANGE</u>	<u>SIZE</u>
40 931	3 - 30mm	15-pc.
40 932	5 - 35mm	13-pc.
40 933	2 - 50mm	29-pc.



**PUNCHING TOOL SET W/TABLE**

Used for punching holes in soft brass, copper and other soft metals as well as leather, canvas and gasket materials. The set is composed of 16 punching dies ranging in size from 6 to 38mm and a punching table.

<u>PART #</u>	<u>RANGE</u>	<u>ISSA #</u>
40 934	6-38mm	61 30 56



**GASKET & WASHER CUTTER**

Designed for cutting gaskets or washers from leather, paper or rubber sheets. Tempered steel.



<u>CODE #</u>	<u>DESCRIPTION</u>	<u>ISSA#</u>
41 172	A: Capacity: 600mm	61 20 01
41 173	Spare blades	
41 159	B: Model GC-42 Capacity: 1050mm Mounts easily on any workbench	
42 258	Spare upper cutter	
42 259	Spare lower cutter	

**KNIVES**



**SAILOR'S MORA KNIVES- S.S.**

**PART #**  
**41 215**

**DESCRIPTION**  
100mm stainless steel blade with high-friction black/blue rubber handle and plastic sheath.



**ELECTRICIAN'S KNIFE**

**PART #**  
**41 210**

**DESCRIPTION**  
Stainless steel blade with natural wood handle.

**ISSA # 61 18 51**



**2-IN-1 FOLDING SPORT UTILITY KNIFE**

3" stainless steel blade with serrated rear section  
One-touch push button release, soft rubber grip.

**PART#**  
**40 065**

**DESCRIPTION**  
Utility knife w/sport blade

**KNIVES**



**FOLDING MULTI TOOLS**

Multi-functions folding tool with pliers, scissor, Screwdrivers, can opener, knife, wire cutter

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>41 212</b>	<b>18-in-1 multi-tool</b>

Includes: Long Nose Pliers, Regular Pliers, 1/16", 1/8" & 1/4" Slotted Screwdriver, #2 Phillips Screwdriver, 2-1/2" Partially Serrated Clip Blade, 2-1/2" Wood Saw, Bottle Opener, Can Opener, Wire Cutters, Wire Stripper, Hard & Soft File, Fish Scaler, Hook Remover, 3" Ruler and Awl. Folds to 4-1/2"



<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>41 222</b>	<b>12-in-1 multi-tool</b>

Includes: Knife, Can Opener, Serrated Blade, Files, Standard Pliers, Long Nose Pliers, Phillips Screwdriver, Small, Medium and Large Slotted Screwdriver, Awl and Wire Cutter



<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>41 214</b>	<b>12-in-1 mini tool</b>

Includes: Knife, Scissors, Bottle Opener, Drop Point Blade, 2 Files, Standard Pliers, Long Nose Pliers, Phillips Screwdriver, Small and Medium Slotted Screwdriver, Wire Cutter and Key Chain. Folds to 3 in

**UTILITY KNIVES**

Metal utility knife with finger grip, retractable blade.



<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>40 061</b>	<b>Mini quick-change w/keychain</b>



<b>40 023</b>	<b>150mm knife w/blade storage</b>
<b>40 024</b>	<b>Spare blades, package of 10</b>



<b>40 026</b>	<b>Spare blades, dispenser box of 100 pc.</b>
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**KNIVES**



**CARPET KNIVES**

Retractable carpet knife with thumb screw and angled handle, built-in blade storage

<u>PART #</u>	<u>DESCRIPTION</u>
41 320	knife
41 321	Spare blades, package of 100



**PRECISION KNIFE SET**

13-pc. set precision knives for use on light to heavy material. All knives have positive grip handles.

<u>PART #</u>	<u>DESCRIPTION</u>
41 209	3 different knives 10 assorted blades



**NT-CUTTERS**

Razor blade sharp trimming knife for multi purpose jobs. Each cutter have a snap-off tool on handle.

<u>PART #</u>	<u>DESCRIPTION</u>	<u>ISSA #</u>
41 216	150mm knife	47 10 13
41 217	Spare blades, package of 5	47 10 15

**SCRAPERS**



<u>PART #</u>	<u>DESCRIPTION</u>
	<b>Stiff</b>
40 937	1"
40 882	1-1/4"
40 936	1-1/2"
40 938	2"
40 939	3"
40 858	4"
40 859	5"
40 873	6"

**PUTTY KNIVES**

High Carbon Tempered Steel with black nylon, solvent-resistant handle and brass plated cap.

<u>PART #</u>	<u>DESCRIPTION</u>
	<b>Flex</b>
40 248	1-1/4"
40 251	1-1/2"
40 252	2"
40 275	3"
40 276	4"
40 277	5"
40 278	6"



**POLE SCRAPER**

<u>PART#</u>	<u>DESCRIPTION</u>
40 935	3" Pole scraper with thread for extension pole handle 250 mm long



**PAINTER'S 5-IN-1 TOOL**

<u>PART#</u>	<u>DESCRIPTION</u>
41 001	Painter's 5-in-1 tool



**WINDOW RAZOR BLADE SCRAPERS**

Razor blade scrapers for trimming and cutting.

<u>PART #</u>	<u>DESCRIPTION</u>
40 941	1-1/2" single blade scraper in HD metal case, 4" long
41 052	1-1/2" single blade Box of 100
40 942	3-1/2" single blade scraper Solid plastic handle, 6" long
40 943	Spare blade 3-1/2"



**SCRAPERS**



**DOUBLE-EDGE SCRAPERS**

Contoured non-slip handle with high carbon steel blade.

<u>PART #</u>	<u>DES CRPTION</u>
40 850	1-1/2" single blade scraper
40 851	2-1/2" single blade scraper
40 852	1-1/2" Spare blade
40 853	2-1/2" spare blade
40 854	2-1/2" Four-edge scraper
40 855	2-1/2" spare blade

**WALLPAPER SCRAPER**

Single-edge blade set in tubular handle with non-slip vinyl grip. Angled head

<u>PART #</u>	<u>DES CRPTION</u>
40 856	4" single blade scraper
40 857	4" single blade, pack of 5

**TRIANGULAR SCRAPER**

Yacht type scraper with wooden handle.

<u>PART #</u>	<u>DESCRIPTION</u>	<u>ISSA #</u>
40 945	60mm	
40 946	80mm	61 32 50

**BEARING SCRAPERS**

Forged steel with wooden handle.

<u>PART #</u>	<u>DESCRIPTION</u>
40 947	Curved spoon 100mm
40 948	Curved spoon 150mm
40 949	Curved spoon 200mm
40 953	Flat 100mm
40 954	Flat 150mm
40 955	Flat 200mm
40 956	3-Cornered flat 100mm
40 957	3-Cornered flat 150mm
40 958	3-Cornered flat 200mm

**STENCILS**



**BRASS STENCIL SETS**

Durable brass for long-lasting service. Use brush, Spray ink, paint or markers. Stencils slide together and come apart easily. Clean with paint solvent.

**15-PC SINGLE NUMBER SETS**

Each set contains 11 numbers 12345678900, 1 Beginner, 1 Plain ender, 1 Dash, 1 Period

<u>PART#</u>	<u>SIZE</u>
41 600	1/2"
41 601	3/4"
41 602	1"
41 603	1-1/2"
41 604	2"
41 605	2-1/2"
41 606	3"
41 607	4"
41 608	5"
41 609	6"

**33-PC SINGLE LETTER SETS**

Each set contains 27 letters A-Z, 1 beginner, 1 period ender, 1 spacer, 1 comma, 1 dash, 1 period

<u>PART#</u>	<u>SIZE</u>
41 610	1/2"
41 611	3/4"
41 612	1"
41 613	1-1/2"
41 614	2"
41 615	2-1/2"
41 616	3"
41 617	4"
41 618	5"
41 619	6"

**45-PC LETTER & NUMBER SETS**

Each set contains 27 letters A-Z, 10 numbers 1234567890, 1 Beginner, 1 Plain ender, 1 Dash, 1 Period, 1 period ender, 2 spacers, 1 comma

<u>PART#</u>	<u>SIZE</u>
41 620	1/2"
41 621	3/4"
41 622	1"
41 623	1-1/2"
41 624	2"
41 625	2-1/2"
41 626	3"
41 627	4"
41 628	5"
41 629	6"

**92-PC LETTER & NUMBER SETS**

Each set contains 60 letters A-Z, 22 numbers 1234567890, 1 Beginner, 1 Plain ender, 1 Dash, 2 Period, 1 period ender, 3 spacers, 1 comma

<u>PART#</u>	<u>SIZE</u>
41 630	1/2"
41 631	3/4"
41 632	1"
41 633	1-1/2"
41 634	2"
41 635	2-1/2"
41 636	3"
41 637	4"
41 638	5"
41 639	6"

**GREASE GUNS & FITTINGS**



**GREASE GUN**

Lever-type hand grease gun complete with rigid dispensing spout and straight hydraulic Coupler.

**PART #**  
**41 180**

**DESCRIPTION**  
Capacity: 14.5 oz

**ISSA # 61 77 04**



**PISTOL GRIP GREASE GUN**

Single hand operated pistol type grease gun. Supplied with rigid connector and hydraulic Coupler.

**PART #**  
**41 380**

**DESCRIPTION**  
Capacity: 14.5 oz.



**SUCTION GUNS**

To transfer small amounts of fluids from containers or machinery. Steel body with metal caps and a T-handle.

**PART #**  
**41 400**

**DESCRIPTION**  
Capacity: 16 oz.  
12" flexible plastic hose



**GREASE GUN COUPLERS**

All couplers have 1/8" P.T. thread.

<u>PART #</u>	<u>DESCRIPTION</u>
41 185	A: Straight hydraulic coupler
41 183	B: Pin type coupler
41 187	C: Button head hook-on 5/8"
41 188	D: Button head swivel type
41 225	E: Button head pull, 6000PSI, 5/8"
41 227	E: Button head pull, 7500PSI, 7/8"
41 056	F: Button head, push-on, 5/8"
41 186	G: Swivel adapter 360 degrees



**GREASE GUN HOSE**

Flexible extension hose for grease guns.  
1/8" P.T. male thread.

<u>PART #</u>	<u>SIZE</u>
41 181	12" long
41 181L	18" long
	<b>ISSA # 61 76 82</b>
41 181S	12" long w/spring support

**GREASE GUN EXTENSION**

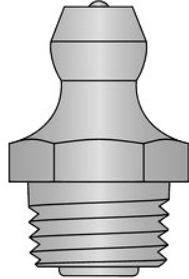
Standard curved hydraulic adapter with  
1/8" P.T. male thread.

<u>PART #</u>	<u>DESCRIPTION</u>
41 182	6" long <b>ISSA # 61 75 80</b>

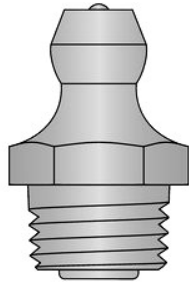
**GREASE FITTINGS**

**GREASE NIPPLES - STRAIGHT**

Nickel plated.



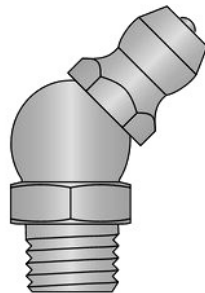
<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 190	M6 x 1.0	61 76 06
41 189	M8 x 1.0	
41 191	M8 x 1.25	
41 192	M10 x 1.0	
41 193	M12 x 1.75	
41 194	1/8" B.S.P.	61 76 07
41 195	1/4" B.S.P.	61 76 08
42 196	3/8" B.S.P.	61 76 09



**GREASE NIPPLES - STRAIGHT, S.S.**

Straight grease nipples in stainless steel

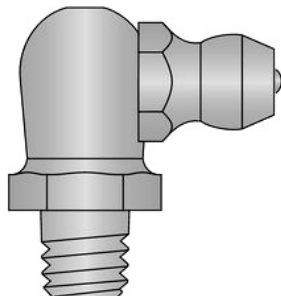
<u>PART #</u>	<u>SIZE</u>
46 410	M6 x 1.0
41 411	M8 x 1.0
41 412	M10 x 1.0
41 413	M12 x 1.75



**GREASE NIPPLES - 45 DEGR.**

Nickel plated.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
42 000	M6 x 1.0	
41 300	M8 x 1.0	
41 301	M10 x 1.0	
41 302	M12 x 1.75	
41 196	1/8" B.S.P.	61 76 13
41 197	1/4" B.S.P.	61 76 14



**GREASE NIPPLES - 90 DEGR.**

Nickel plated.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
43 005	M6 x 1.0	
43 006	M8 x 1.0	
43 007	M10 x 1.0	
43 008	M12 x 1.75	
41 203	1/8" B.S.P.	61 76 16
41 204	1/4" B.S.P.	61 76 17

## GREASE GUNS & FITTINGS



### GREASE NIPPLES - BUTTON TYPE

Nickel plated.

<u>PART #</u>	<u>SIZE</u>
41 198	M10 x 1.5
41 199	M12 x 1.75
41 200	1/8" B.S.P.
41 201	1/4" B.S.P.
41 202	3/8" B.S.P.



### GREASE NIPPLES - BUTTON TYPE, S.S.

Stainless Steel

<u>PART #</u>	<u>SIZE</u>
41 414	M8 x 1.0
41 415	M10 x 1.0
41 416	M12 x 1.75



### GREASE NIPPLES - PIN TYPE

Nickel plated.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 205	1/8" B.S.P.	61 76 24
41 206	1/4" B.S.P.	61 76 25



### GREASE NIPPLE ASSORTMENT

Assortments comes in solid transparent boxes with lockable lid.

<u>PART #</u>	<u>SIZE</u>
41 207	<b>Metric:</b> 6,8 & 10mm 6 sizes, 110 pc. total
41 208	<b>B.S.P.:</b> 1/8", 1/4" & 3/8" 12 sizes, 140 pc. Total



41 252	<b>Standard &amp; Metric:</b> 15 sizes, 365 pc. Total 1/4" Straight, 45, 90 degree, long 3/8", 3/16" Drive-in GG701 Grease Gun Couplers, 1/8" NPT Straight, 45, 65, 90 Degree 1/4" NPT Straight, 45 Degree 10mm, 8mm, 6mm straight
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**OIL FILLERS & PUMP OILERS****OIL FILLER WITH SPOUT**

Heavy duty plastic oilers, calibrated in quarts, liters and imperial quarts.

<u>ART#</u>	<u>SIZE</u>	<u>ISSA #</u>
41 236	1 liter w/rigid spout	61 77 45
41 237	2 liter w/rigid spout	61 77 46
41 238	5 liter w/rigid spout	61 77 49
41 239	6" Flexible spout for oil fillers.	

**PLASTIC FUNNELS**

Heavy duty plastic, resistant to oils and chemicals.

<u>PART #</u>	<u>SIZE</u>
41 290	3" dia. 3 oz.
41 268	4" dia. 8 oz.
41 269	5" dia. 12 oz.
41 263	6" dia. 20 oz.
41 291	8" dia. 2 qts.
41 264	10" dia. 3 qts.
41 265	14" dia. 10 qts.
41 266	7-1/2" dia., 40 oz. with 8" flex extension

**PLASTIC SIPHON PUMP 55 GAL DRUMS**

Polyethylene with 3 ft discharge hose and 2" bung adapter, siphons 6 gal/min

<u>PART #</u>	<u>SIZE</u>
41 289	32" long

**PUMP OILER WITH FLEX SPOUT**

A heavy duty pump oiler with brass internals.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 229	1/2 Pint (240 CC)	
41 230	3/4 Pint (355 CC)	61 77 37
41 228	6" Rigid spout for pump oilers	

**INSPECTION MIRRORS**



**INSPECTION MIRROR**

Designed for inspection of inaccessible areas of precision machinery.

**PART #**                      **SIZE**  
**40 066**                      3-1/2" x 2" rectangular  
with 19" telescoping handle

**41 220**                      30mm diameter with  
16" telescoping Shaft.  
**ISSA # 65 27 03**



**INSPECTING MIRROR W/ LAMP**

3-in-1 Lighted flexible inspection mirror with Magnetic pickup.

Uses 2 AA batteries (not included)

**PART #**                      **SIZE**  
**41 221**                      2" x 1" oval mirror with  
18" flexible shaft

**ISSA # 65 27 07**



**MECHANICAL PICK-UP TOOL**

**PART #**                      **SIZE**  
**41 223**                      24" Flexible shaft with  
spring claw



**MAGNETIC PICK-UP TOOL**

**PART #**                      **SIZE**  
**41 224**                      21" Flexible shaft



**MAGNETIC PICK-UP TOOL**

**41 292**                      34" telescopic shaft  
with red rubber handle  
(6-1/2" closed)

**LIGHTS**



**TACTICAL LIGHTS**

3 Watt LED Pocket Flash Light

Six operation modes, Glow-in-the-dark tail cap.

**PART #**  
43 353

**SIZE**  
4-1/4" long, 1" diameter  
Powered by one AA battery  
(included)



**41 354**

6-1/4" long, 1-1/2" diameter  
Powered by two C batteries  
(included)



**HEAD LAMP**

14 Super Bright LED Lights.

Three operation modes, Pivoting head light,  
Comfortable adjustable elastic headband fits any  
head and over hats or helmets.

**PART #**  
43 355

**SIZE**  
1" diameter  
Powered by three AAA battery  
(included)



**TROUBLE LIGHT—220 VOLT**

**PART #**  
43 359

**SIZE**  
25 foot cord

**SAWS & SAW BLADES**



**HACKSAW FRAMES**

ABS & TPR plastic ergonomic designed with anti-slip handle.

**PART #**  
**41 262**

**SIZE**  
**12" Heavy Duty**

45, 90, 135 & 180 degr. multi-angle blade adjustment. Fully adjustable high blade tension. Two-hand grip, blade storage in tubular frame.



**PART #**  
**41 250**

**SIZE**  
**12" High Tension**

45 & 90 degr. blade cutting angle. Robust Die cast aluminum frame



**JUNIOR HACKSAWS**

**PART #**  
**41 254**

**SIZE**  
6" Frame

**ISSA #**  
61 34 24

**41 285**

6" H.D. Pistol handle

**41 255**

6" Spare blade

61 34 25



**CLOSE QUARTER SAW**

Close quarter saw for hard-to-get-to places  
10" HS blade 24 TPI, solid plastic handle

**PART #**  
**41 294**

**SIZE**  
10" - 24 TPI

**SAWS & SAW BLADES**



**HACKSAW BLADES, GREY-FLEX 10"**

Grey-Flex High Speed flexible steel.  
10" x 1/2" x .025"

<u>PART #</u>	<u>SIZE</u>
<b>40 675</b>	18 TPI
<b>40 676</b>	24 TPI
<b>40 677</b>	32 TPI



**HACKSAW BLADES, GREY-FLEX 12"**

Grey-Flex High Speed flexible steel.  
12" x 1/2" x .025"

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
<b>41 156</b>	18 TPI	61 34 56
<b>41 157</b>	24 TPI	61 34 57
<b>41 158</b>	32 TPI	61 34 58



**HACKSAW BLADES, BI-METAL 12"**

High Speed Safe-Flex steel. Bi-Metal Unique  
12" x 1/2" x .025"

<u>PART #</u>	<u>SIZE</u>
<b>40 672</b>	18 TPI
<b>40 673</b>	24 TPI
<b>40 674</b>	32 TPI

**SAWS & SAW BLADES**



**STARRETT POWER HACKSAW BLADES**

Solid High Speed Redstripe power hacksaw blades

<u>PART #</u>	<u>SIZE</u>	<u>TPI</u>
41 274	12"x1"x.050"	10
41 275	12"x1"x.050"	14
41 276	14"x1"x.050"	10
41 277	14"x1"x.050"	14
41 280	16"x1 1/4"x.062"	6
41 317	16"x1-1/4"x.062"	10
41 278	17x1-1/4"x0.062"	6
41 279	17x1-1/4"x0.062"	10
41 282	18"x1-1/4"x.062"	6
41 318	18"x1-1/4"x.062"	10
41 312	20x1-3/4"x.075"	6
41 313	20x1-3/4"x.075"	10
41 314	21"x1-3/4"x.088"	4
41 315	21"x1-3/4"x.088"	6
41 283	24"x2"x.100"	4
41 284	24"x2"x.100"	6



**RECIPROCATING SAW BLADES**

Bi-metal saw blades for straight and quick cutting of metal, plastic, laminates and wood.

<u>PART #</u>	<u>LENGTH</u>	<u>TPI</u>
48 005	4"x3/4"x.035"	14
48 006	4"x3/4"x.035"	18
48 007	4"x3/4"x.035"	24
48 001	6"x3/4"x.035"	6
48 008	6"x3/4"x.035"	10
48 009	6"x3/4"x.035"	14
48 014	6"x3/4"x.035"	18
48 015	6"x3/4"x.035"	24
48 004	8"x3/4"x.035"	18
48 017	9"x3/4"x.035"	14
48 018	9"x3/4"x.035"	18
48 003	12"x3/4"x.050"	10-14
48 019	12"x3/4"x.050"	18



**FILES**



**NEEDLE FILE SET**

<u>PART #</u>	<u>DESCRIPTION</u>
41 162	12-pc. set with plastic Handles in vinyl wallet. 130 mm, second-cut
	<b>ISSA # 61 45 37</b>
40 883	6-pc set, 3 x 100 mm Cushion handles



**FILE SET 8" WITH HANDLES**

5-pc set, hardened and tempered carbon steel

<u>PART #</u>	<u>DESCRIPTION</u>
41 163	5-pc set, 8" files w/handles Flat, square, triangular Round and half round

41 363	12-pc set, 10 files, 2 handles 4x6", 5x8", 1x10" Mill, half-round, round, flat, Slim taper and wood rasp
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**9-PC MAINTENANCE FILE SET**

<u>PART#</u>	<u>DESCRIPTION</u>
41 378	6" to 10", 9-Pc set



**WOOD FILE HANDLES**

This wood handle is designed to fit most files for a better grip and more control. Made from hardwood with nickel-plated ferrules.

<u>PART#</u>	<u>SIZE</u>
41 805	4-6" files
41 806	6-8" files
41 807	8-10" files
41 808	12-14" files

**FILES**



**FLAT FILES**

Versatile file used by machinist and repairmen. Tapered at the point for detail work. Double-cut

**SIZE**

4"  
6"  
8"  
10"  
12"  
14"  
16"

**BASTARD**

41 640  
41 641  
41 642  
41 643  
41 644  
41 645  
41 646

**SECOND**

41 647  
41 648  
41 649  
41 650  
41 651  
41 652  
41 653

**SMOOTH**

41 654  
41 655  
41 656  
41 657  
41 658  
41 659



**MILL FILES**

Primarily used for sharpening saws, lathes and tools. Tapered at the point for detail work. Two square edges. Single cut.

**SIZE**

4"  
6"  
8"  
10"  
12"  
14"

**BASTARD**

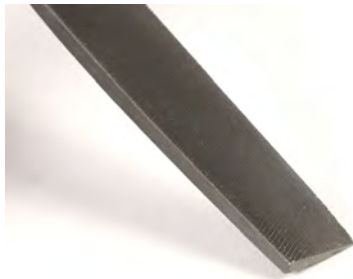
41 661  
41 662  
41 663  
41 664  
41 665  
41 666

**SECOND**

41 668  
41 669  
41 670  
41 671  
41 672  
41 673

**SMOOTH**

41 675  
41 676  
41 677  
41 678  
41 679  
41 680



**KNIFE FILES**

Primarily used by tool and die makers on slots, keyways and accurate angles. Double -cut on sides, single-cut on sharp edge.

**SIZE**

4"  
6"  
8"  
10"

**BASTARD**

41 791  
41 792  
41 793  
41 794

**SECOND**

41 795  
41 796  
41 797  
41 798

**SMOOTH**

41 799  
41 800  
41 801  
41 802

**FILES**



**TRIANGULAR TAPER SAW FILES**

For sharpening teeth and filing gullets on a variety of saws. Tapers slightly towards the point. Single cut.

<b><u>SIZE</u></b>	<b><u>REGULAR</u></b>	<b><u>SLIM</u></b>	<b><u>EXTRA SLIM</u></b>
4"	41 683	41 689	41 695
5"	41 684	41 690	41 696
6"	41 685	41 691	41 697
7"	41 686	41 692	41 698
8"	41 687	41 693	41 699
10"	41 688	41 694	



**THREE SQUARE FILES**

Primarily used by machinist for angles less than 90° on corners, and filing cutters and taps. Double-cut.

<b><u>SIZE</u></b>	<b><u>BASTARD</u></b>	<b><u>SECOND</u></b>	<b><u>SMOOTH</u></b>
4"	41 701	41 707	41 713
6"	41 702	41 708	41 714
8"	41 703	41 709	41 715
10"	41 704	41 710	41 716
12"	41 705	41 711	41 717
14"	41 706	41 712	41 718



**SQUARE FILES**

Used for filing slots, keyways, square holes and general surface filing. All four sides are equal filing surfaces. Double-cut.

<b><u>SIZE</u></b>	<b><u>BASTARD</u></b>	<b><u>SECOND</u></b>	<b><u>SMOOTH</u></b>
4"	41 720	41 726	41 732
6"	41 721	41 727	41 733
8"	41 722	41 728	41 734
10"	41 723	41 729	41 735
12"	41 724	41 730	41 736
14"	41 725	41 731	41 737

**FILES**



**HALF ROUND FILES**

Rounded on one side, flat on the other. Ideal for rounding out holes. Double-cut.

**SIZE**

**BASTARD**

**SECOND**

**SMOOTH**

4"

41 740

41 747

41 754

6"

41 741

41 748

41 755

8"

41 742

41 749

41 756

10"

41 743

41 750

41 757

12"

41 744

41 751

41 758

14"

41 745

41 752

41 759

16"

41 746

41 753

41 760



**ROUND FILES**

Primarily used to round out circular openings. Tapered points adapts to numerous hole sizes. Double-cut

**SIZE**

**BASTARD**

**SECOND**

**SMOOTH**

4"

41 770

41 777

41 784

6"

41 771

41 778

41 785

8"

41 772

41 779

41 786

10"

41 773

41 780

41 787

12"

41 774

41 781

41 788

14"

41 775

41 782

41 789

16"

41 776



**WOOD RASPS,**

Used by woodworkers and cabinetmakers..  
Used on fiberglass and wood.

<u>SIZE</u>	<u>FLAT BASTARD</u>	<u>FLAT SMOOTH</u>	<u>1/2 -RND BASTARD</u>	<u>1/2 ROUND SMOOTH</u>
8"	41 840	41 844	41 848	41 852
10"	41 841	41 845	41 849	41 853
12"	41 842	41 846	41 850	41 854
14"	41 843	41 847	41 851	41 855



**WOOD CABINET RASPS, HALF ROUND**

Used by woodworkers and cabinetmakers..  
Similar to the half round wood rasp but with finer teeth  
for a smoother finish.

<u>SIZE</u>	<u>SECOND CUT</u>	<u>SMOOTH</u>
8"	41 856	41 859
10"	41 857	41 860
12"	41 858	41 861

**WOOD FILE HANDLES**

This wood handle is designed to fit most files  
for a better grip and more control. Made from  
hardwood with nickel-plated ferrules.



<u>PART#</u>	<u>SIZE</u>
41 805	4-6" files
41 806	6-8" files
41 807	8-10" files
41 808	12-14" files

**FILES**



**THREAD RESTORER**

Thread file. A square bar type restorer with 8 different lands.

<u>PART #</u>	<u>DESCRIPTION</u>	<u>ISSA #</u>
41 164	Metric Thread	63 33 01
41 165	B.S.P. Thread	63 33 02
41 166	B.S.W. Thread	63 33 04
41 117	NC/NF thread	
41 218	UNF/UNC thread	63 33 03



**THREAD RESTORING FILE SET 4-PC**

Cut type single, profile shape square, includes roll-up pouch

<u>PART#</u>	<u>SIZE</u>
40 722	210 mm long

**THREAD RESTORING FILE, TAP & DIE KIT**

Will restore both left and right handed thread.  
Blow case



<u>PART#</u>	<u>SIZE</u>
40 799	42-Pc set

#1 thread file metric pitches: 0.75, 1, 1.25, 1.50, 1.75, 2, 2.5, and 3 mm  
 #2 thread file pitches: 11, 12, 13, 14, 16, 18, 20, and 24 threads per inch  
 #3 thread file pitches: 9, 10, 12, 16, 20, 27, 28, and 32 threads per inch  
 Taps: 1/4 Inch to 9/16 Inch (course and fine); 6 to 12 mm  
 Dies: 1/4 Inch to 9/16 Inch (course and fine); 6 to 12 mm



**TWEEZER SET**

All stainless steel, 4 different shapes

<u>PART#</u>	<u>SIZE</u>
41 160	4-Pc set



**PULLERS**



**2-ARM GEAR & WHEEL PULLERS**

Designed for moving hard to pull gears, bearings, or pulleys which are stuck from rust or over friction.

<u>PART #</u>	<u>SPREAD</u>	<u>CAPACITY</u>	<u>ISSA #</u>
41 140	75mm	3-tons	61 50 50
41 141	100mm	5-tons	61 50 51
41 142	150mm	6-tons	61 50 52
41 143	200mm	8-tons	61 50 53
41 144	250mm	10-tons	61 50 54
41 137	300mm	12-tons	61 50 55
41 138	400mm	15-tons	61 50 56
41 139	510mm	20-tons	61 50 58



**3-ARM GEAR & WHEEL PULLERS**

This rigid 3-arm puller has been designed for situations where the use of a 2-arm puller is not possible.

<u>PART #</u>	<u>SPREAD</u>	<u>CAPACITY</u>	<u>ISSA #</u>
41 145	80mm	3-tons	
41 146	100mm	5-tons	
41 147	150mm	6-tons	61 50 70
41 148	200mm	10-tons	61 50 71
41 356	250mm	15-tons	
41 357	300mm	20-tons	61 50 72
41 358	375mm	25-tons	61 50 73



**HYDRAULIC GEAR PULLER SET**

With Bearing separator and hydraulic ram. Includes twin and triple head, ram extension rods, packed in blow case.

<u>PART #</u>	<u>CONTENT</u>
41 360	4,5 & 6" Legs
	17 kgs/38 lbs

**PULLERS**



**STRAIGHT JAW PULLERS, 10-TON**

Forged head made of high-resistance steel. Interchangeable and adjustable jaws, Features a hex head that can be turned with socket and ratchet.

<u>PART #</u>	<u>SPREAD</u>	<u>REACH</u>	<u>#PIECES</u>
41 366	10"	3", 7"	12
41 367	10"	3", 5", 7"	14



**STRONG BOX PULLER SET**

You get eight pullers, five attachments, and extra puller jaws. They enable you to pull gears, bearings, pulleys and wheels. All these tools are contained in a rugged, lockable metal storage cabinet you can either mount on a wall or stand on a work bench.

<u>PART #</u>	<u>DESCRIPTION</u>
41 368	Kit include; 2/3 jaw pullers, gear and pulley puller, flange-type puller, steering wheel puller, pilot bearing puller, slide hammer puller, pitman arm puller, bearing splitters, rear axle pulling adapter, long jaws and metal storage box. 33" x 31" x 16" Weight: 95 pounds



**PACKING HOOKS, FLEXIBLE**

The flexible shaft has a solid handle and the hook is carefully tempered and pointed.

<u>PART #</u>	<u>DESCRIPTION</u>
41 231	#1 3/16" x 8"
41 232	#2 1/4" x 11"
41 233	#3 5/16" x 15"
41 234	#4 1/2" x 18"

41 235 3-pc. set  
(#1,#2 & #3,)  
**ISSA # 61 20 04**



**PRECISION PICK & HOOK SET**

Heat treated, chrome vanadium steel shafts, cushioned, non-slip grips, knurled shaft grip

<u>PART #</u>	<u>DESCRIPTION</u>
40 334	4-Pc set 1 full hook 1 45 degree hook 1 90 degree hook 1 straight pick



**HEAVY DUTY C-CLAMPS**

Drop forged from strong special steel and heat-treated.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
41 149	50mm	61 37 18
41 150	75mm	61 37 19
41 151	100mm	61 37 20
41 152	150mm	61 37 22
41 153	200mm	61 37 23
41 154	250mm	61 37 24
41 155	300mm	61 37 25

**TOOL SETS & BAGS**



**HANDY TOOL SETS**

Convenient tool sets in plastic cases.

<u>PART #</u>	<u>CONTENTS</u>
<b>46 096</b>	Side cutting pliers, long nose pliers, adjustable wrench, soldering iron, rosin core solder, screwdriver bit set, bit handle & tweezer
<b>46 094</b>	Side cutting pliers, long nose pliers Wire stripping plier, tweezer adjustable wrench, soldering iron rosin core solder, de-soldering pump, screwdrivers



**CONTRACTOR'S TOOL BAGS**

Heavy duty marine canvas, double wall construction, large zippered storage compartment, removable shoulder strap.  
10 inside and 10 outside pockets.

<u>PART #</u>	<u>SIZE</u>
<b>40 139</b>	12"
<b>40 140</b>	16"
<b>40 013</b>	20" Rollaway bag w/two wheels and 30" extendable handle. 6 outside and 15 inside pockets.



**PORTABLE TOOL CHEST, 3-SECTIONS**

Cantilever 3-sections tool chest. Grey steel

<u>PART#</u>	<u>SIZE</u>
<b>40-014</b>	470x220x350mm



**BI-METAL HOLESAWS**

Bi-metal blade that combines a flexible, shatter-resistant spring steel back with a high speed steel cutting edge.

With 4 to 6 tips per inch and vertical slots for easy core removal

<u>PART#</u>	<u>DIAMETER</u>
41 520	14 mm
41 521	16 mm
41 522	17 mm
41 523	19 mm
41 524	20 mm
41 525	21 mm
41 526	22 mm
41 527	24 mm
41 528	25 mm
41 529	27 mm
41 530	29 mm
41 531	30 mm
41 532	32 mm
41 533	33 mm
41 534	35 mm
41 535	37 mm
41 536	38 mm
41 537	40 mm
41 538	41 mm
41 539	43 mm
41 540	44 mm
41 541	46 mm
41 542	48 mm
41 543	51 mm
41 544	52 mm
41 545	54 mm
41 546	56 mm

<u>PART#</u>	<u>DIAMETER</u>
41 547	57 mm
41 548	59 mm
41 549	60 mm
41 550	64 mm
41 551	65 mm
41 552	67 mm
41 553	68 mm
41 554	70 mm
41 555	73 mm
41 556	76 mm
41 557	79 mm
41 558	83 mm
41 559	86 mm
41 560	89 mm
41 561	92 mm
41 562	95 mm
41 563	98 mm
41 564	102 mm
41 565	105 mm
41 566	108 mm
41 567	111 mm
41 568	114 mm
41 569	121 mm
41 570	127 mm
41 571	133 mm
41 572	140 mm
41 573	146 mm
41 574	152 mm



**CARBIDE-TIPPED HOLESAWS**

Designed to quickly and cleanly cut precise holes in ceramics, bricks, slate, laminate, fiberglass and hardwood.

With 4 precision carbide tips per inch and vertical slots for easy core removal

<u>PART#</u>	<u>DIAMETER</u>	<u>PART#</u>	<u>DIAMETER</u>
41 420	14 mm	41 447	57 mm
41 421	16 mm	41 448	59 mm
41 422	17 mm	41 449	60 mm
41 423	19 mm	41 450	64 mm
41 424	20 mm	41 451	65 mm
41 425	21 mm	41 452	67 mm
41 426	22 mm	41 453	68 mm
41 427	24 mm	41 454	70 mm
41 428	25 mm	41 455	73 mm
41 429	27 mm	41 456	76 mm
41 430	29 mm	41 457	79 mm
41 431	30 mm	41 458	83 mm
41 432	32 mm	41 459	86 mm
41 433	33 mm	41 460	89 mm
41 434	35 mm	41 461	92 mm
41 435	37 mm	41 462	95 mm
41 436	38 mm	41 463	98 mm
41 437	40 mm	41 464	102 mm
41 438	41 mm	41 465	105 mm
41 439	43 mm	41 466	108 mm
41 440	44 mm	41 467	111 mm
41 441	46 mm	41 468	114 mm
41 442	48 mm	41 469	121 mm
41 443	51 mm	41 470	127 mm
41 444	52 mm	41 471	133 mm
41 445	54 mm	41 472	140 mm
41 446	56 mm	41 473	146 mm
		41 474	152 mm





## HOLESAW SETS

### BI-METAL HOLESAW SETS



**PART#**

**DESCRIPTION**

**48 022** 7-pc Set #862007  
7/8", 1", 1-1/8", 1-1/4", 1-1/2"  
2 arbors, 1 adapter



**48 023** 9-pc Set #862109  
7/8", 1-1/8", 1-3/8", 1-3/4", 2", 2-1/2"  
2 arbors, 1 extension



**48 020** 13-pc. Kit #862013  
3/4", 7/8", 1", 1-1/8", 1-3/8",  
1-1/2", 1-3/4", 2", 2-1/4", 2-1/2",  
2 arbors, 1 adapter and 1 pilot drill



**48 021** 17-pc kit #862017  
5/8", 3/4", 7/8", 1", 1-1/8",  
1-1/4", 1-3/8", 1-1/2", 1-3/4",  
2", 2-1/2", 3",  
2 arbors, 1 adapter and 3 pilot drills



**48 024** 21-pc Set #862021  
3/4", 7/8", 1", 1-1/8", 1-3/8", 1-1/2", 1-3/4",  
2", 2-1/4", 2-1/2", 3", 3-1/4", 3-5/8", 3-3/4",  
4-1/8", 4-3/4"  
2 arbors and 3 pilot drills



### CARBIDE TIPPED HOLESAW SETS

**PART#**

**DESCRIPTION**

**48 025** 7-pc Set #863307  
7/8", 1", 1-1/8", 1-1/4", 1-1/2"  
2 arbors, 1 adapter



**48 026** 13-pc. Kit #863313  
3/4", 7/8", 1", 1-1/8", 1-3/8",  
1-1/2", 1-3/4", 2", 2-1/4", 2-1/2",  
2 arbors, 1 adapter and 1 pilot drill

**HOLESAW ACCESSORIES**



**HOLESAW ARBORS**

All arbors are hardened for maximum strength. Large arbors, for holesaws 1-1/2" to 6", have drive pins to transfer large cutting force from the holesaw to the power unit.

Pilot drill is included. #3834-ARBR

**Fits holesaws 14-30 mm:**

<u>PART#</u>	<u>DESCRIPTION</u>	
48 030	1/4" Hex (6.4mm)	#630
48 031	9/32 Tri (7mm)	#730
48 032	11/32" Hex (8.5mm)	#930
48 033	7/16" Hex (11.1mm)	#1130

**Fits holesaws 32-152 mm:**

<u>PART#</u>	<u>DESCRIPTION</u>	
48 034	7/16" Hex (11.1mm)	#1152
48 035	5/8" Hex (11.1 mm)	#16152

**Fits holesaws 32-100 mm:**

<u>PART#</u>	<u>DESCRIPTION</u>	
48 036	11/32 Hex (8.5mm)	##9100



**PILOT DRILLS**

HSS or Carbide-tipped pilot drills. #3834-DRL

<u>PART#</u>	<u>DESCRIPTION</u>
48 038	1/4" (6.4mm) HSS
48 039	1/4" (6.4mm) Carbide-tipped



**ARBOR EXTENSION**

Arbor extensions are made of hardened steel for maximum strength. #3834-EXT

**Fits arbors 7/16" Hex**

<u>PART#</u>	<u>DESCRIPTION</u>
48 037	7/16" (6.4mm) diameter 12" long



## JET HAND CHAIN HOISTS

JET Hand Chain Hoists complies with OSHA, ANSI / ASME B30.16 Regulations and HST-2 Standards

<u>PART #</u>	<u>MODEL #</u>	<u>LOAD CAPACITY</u>	<u>STD. LIFT</u>	<u>WEIGHT (LBS)</u>
41 325	101900	1/2 TON	10 FT	18
41 326	101901	1/2 TON	15 FT	24
41 327	101902	1/2 TON	20 FT	30
41 328	101903	1/2 TON	30 FT	36
41 329	101910	1 TON	10 FT	26
41 330	101911	1 TON	15 FT	33
41 331	101912	1 TON	20 FT	38
41 332	101913	1 TON	30 FT	48
41 333	101920	1-1/2 TON	10 FT	37
41 334	101921	1-1/2 TON	15 FT	49
41 335	101922	1-1/2 TON	20 FT	55
41 336	101923	1-1/2 TON	30 FT	68
41 337	101930	2 TON	10 FT	40
41 338	101931	2 TON	15 FT	53
41 339	101932	2 TON	20 FT	58
41 340	101933	2 TON	30 FT	83
41 341	101940	3 TON	10 FT	56
41 342	101941	3 TON	15 FT	68
41 343	101942	3 TON	20 FT	78
41 344	101943	3 TON	30 FT	99
41 345	101950	5 TON	10 FT	90
41 346	101951	5 TON	15 FT	101
41 347	101952	5 TON	20 FT	115
41 348	101953	5 TON	30 FT	146
41 349	101960	10 TON	10 FT	198
41 350	101961	10 TON	15 FT	230
41 351	101962	10 TON	20 FT	261
41 352	101963	10 TON	30 FT	325

**CARPENTER TOOLS****HAND SAWS**

High Carbon steel, heat-treated teeth, ergonomic rubber grip handle or hardwood handle

<u>PART#</u>	<u>SIZE</u>	<u>TPI</u>
40 773	15"	9 TPI
40 774	20"	10 TPI
40 775	26"	8 TPI

**COPING SAW**

Heavy duty steel frame, ergonomic rubber grip handle.

<u>PART#</u>	<u>SIZE</u>
40 776	5" with 4 blades

**MITRE SAW**

Precision ground teeth, 3" depth cut, ergonomic rubber grip handle.

<u>PART#</u>	<u>SIZE</u>	<u>TPI</u>
40 777	14"	16

**KEYHOLE SAW**

4-Position keyhole saw, ergonomic rubber grip handle.

<u>PART#</u>	<u>SIZE</u>	<u>TPI</u>
40 778	12"	18 & 24

**COMPASS SAW**

Precision heat-treated teeth, ergonomic rubber grip handle.

<u>PART#</u>	<u>SIZE</u>	<u>TPI</u>
40 779	12"	8

**CARPENTER TOOLS**



**WOOD PLANES**

Cast iron body, hardened and tempered cutter, low angle blade for precision work.

<u>PART#</u>	<u>SIZE</u>	<u>CUTTER</u>
40 795	7" sole	1-5/8"
40 796	spare cutter	1-5/8"



Cast iron body, hardened and tempered cutter, dual wood handles

<u>PART#</u>	<u>SIZE</u>	<u>CUTTER</u>
40 797	9" sole	2"
40 798	Spare cutter	2"

**WOOD CHISELS**

Beveled, high-carbon steel blade, soft non-slip rubber grips



<u>PART#</u>	<u>SIZE</u>
41 761	1/4"
41 762	3/8"
41 763	1/2"
41 764	3/4"
41 765	1"
41 766	1-1/4"
41 767	1-1/2"

**WOOD CHISEL SETS**

Beveled, high-carbon steel blade, polypropylene handles



<u>PART#</u>	<u>SIZE</u>
41 768	6-Pc set: 1/4", 3/8", 1/2", 5/8", 3/4" & 1"
41 769	9-Pc set: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1", 1-1/4" & 1-1/2"

**CARPENTER TOOLS**

**CLAMPS**

Patented profiled rails with serrated edges and ergonomically-designed wooden handles.



<u>PART#</u>	<u>SIZE</u>	<u>THROAT</u>
41 810	6"	2-1/2"
41 811	12"	2-1/2"
41 812	18"	2-1/2"
41 813	24"	2-1/2"
41 814	30"	2-1/2"
41 815	36"	2-1/2"
41 816	8"	4"
41 817	12"	4"
41 818	16"	7"
41 819	24"	7"
41 820	48"	7"

**RATCHET BAR CLAMPS**

Smooth, silent and precise clamping action. Super-strong nylon jaw assemblies. Soft jaw pads.

Bar clamp jaws convert for use as spreaders.



<u>PART#</u>	<u>SIZE</u>	<u>SPREAD</u>	<u>THROAT</u>
41 821	6"	9"	1-1/2"
41 822	6"	12"	2-1/2"
41 823	12"	18"	2-1/2"
41 824	18"	24"	2-1/2"
41 825	24"	30"	2-1/2"
41 826	30"	36"	2-1/2"
41 827	36"	42"	2-1/2"

**STEEL SPRING CLAMPS**

Chrome plated steel construction, soft non-slip handle grips. Non-slip padded jaws, tempered steel spring.



<u>PART#</u>	<u>SIZE</u>	<u>JAW CAP.</u>
41 828	4"	1-1/4"
41 829	6"	2"
41 830	9"	3-1/2"



**CARPENTER TOOLS****UTILITY PRY BARS**

Hardened and tempered steel, three nails slots, beveled and sharpened ends, flat end for prying.

<u>PART#</u>	<u>SIZE</u>
41 838	7-1/2"
41 858	15"
41 859	18"

**NAIL CLAW**

Hardened steel construction, solid hex bar stock, non-slip cushioned handle, 90\* angle paw with nail slot.

<u>PART#</u>	<u>SIZE</u>
41 738	11"

**WOOD GLUE**

Yellow wood glue, fast set up, heat and solvent resistant, can be sanded, cleans up with water. Curing time 24 hours, application time 5 min.

<u>PART#</u>	<u>SIZE</u>
40 834	1-quart
41 739	1-gallon

**CARPENTER TOOLS****BOSCH JIG SAW BLADES**

T-Shank jig saw blades, HSS, primary saw application; metal, wood, plastics, all purpose and specialty

<u>PART#</u>	<u>SIZE</u>	<u>TPI</u>	<u>PK SIZE</u>
T101A	4"	14	5
T101A3	4"	14	3
T101AO	3-1/4"	20	3
T101AO3	3"	20	3
T101AO100	3"	20	100
T101AOF	3"	20	5
T101BIF	3"	14	5
T102BF	3"	13	3
T101B	4"	10	5
T101B3	4"	10	3
T101B100	4"	10	100
T101BF	4"	10	5
T101BR	4"	10	5
T101BR100	4"	10	100
T101D	4"	6	5
T101D100	4"	6	100
T101DP	4"	6	5
T102D3	3"	6	3
T102H	3"	10	3
T108BHM3	3"	12	3
T111C	4"	8	5
T111C3	4"	8	3
T111CF	4"	8	5
T113A3	4"	Knife-edge	3
T118A3	3"	24	3
T118A100	3"	24	100
T118AF	3"	24	5
T118AF100	3"	24	100
T118AHM1	3"	24	1

**CARPENTER TOOLS****BOSCH JIG SAW BLADES**

T-Shank jig saw blades, HSS, primary saw application; metal, wood, plastics, all purpose and specialty

<b><u>PART#</u></b>	<b><u>SIZE</u></b>	<b><u>TPI</u></b>	<b><u>PK SIZE</u></b>
T118AHM3	3"	24	3
T118B	3"	14	5
T118B3	3"	14	3
T118B100	3"	14	100
T118BF	3"	14	5
T118BF100	3"	14	100
T118E	3-5/8"	14	5
T118EF	3"	18	5
T118EF100	3"	18	100
T118EFS	3-1/4"	18	5
T118EHM1	3"	14	1
T118EHM3	3"	14	3
T118G	3"	36	5
T118GFS	3-1/4"	36	5
T119BO	3"	12	5
T119BO3	3	12	3
T121GF3	3-5/8"	30	3
T121AF3	3-5/8"	21	3
T121BF3	3-5/8"	12	3
T123X	4"	10-24	5
T123X3	4"	10-24	3
T127D	4"	8	5
T127D100	4"	8	100
T127DF	4"	8	5
T130DG	3-1/4"	Grit 30	1

**CARPENTER TOOLS****BOSCH JIG SAW BLADES**

T-Shank jig saw blades, HSS, primary saw application; metal, wood, plastics, all purpose and specialty

<b><u>PART#</u></b>	<b><u>SIZE</u></b>	<b><u>TPI</u></b>	<b><u>PK SIZE</u></b>
T130RF1	3"	Grit 30	1
T130rf3	3"	Grit 30	3
T141HM1	4"	6	1
T144D	4"	6	5
T144D3	4"	6	3
T144D100	4"	6	100
T144DF	4"	6	5
T144DP	4"	6	5
T150RF1	3"	Grit 50	1
T150RF3	3"	Grit 50	3
T211HF	3"	10	5
T218A	3"	24	5
T227D	4"	8	5
T234X	4-1/2"	8-12	5
T234X3	4-1/2"	8-12	3
T244D	4"	6	5
T244D3	4"	6	3
T244D100	4"	6	100
T301CD	4-5/8"	8	5
T301CHM1	4-5/8"	8	1
T301CHM3	4-5/8"	8	3
T301DL	5"	6	5
T302H3	4-3/16"	10	3
T308B	4-1/2"	12	5
T308B25	4-1/2"	12	25

**CARPENTER TOOLS**



**BOSCH JIG SAW BLADES**

T-Shank jig saw blades, HSS, primary saw application; metal, wood, plastics, all purpose and specialty

<b><u>PART#</u></b>	<b><u>SIZE</u></b>	<b><u>TPI</u></b>	<b><u>PK SIZE</u></b>
T308BO	4-1/2"	12	5
T308BFP	3-1/2"	12	5
T308BP	3-1/2"	12	5
T313AW3	6"	Knife edge	3
T318A	5-1/4"	24	5
T318BA100	5-1/4"	24	100
T318B	5-1/4"	14	5
T318B100	5-1/4"	14	100
T321AF3	5-1/4"	21	3
T321BF3	5-1/4"	12	3
T341HM1	5-1/4"	6	1
T344D	6"	6	3
T344DF	6"	6	5
T344DP	6"	6	5
T345XF	5-1/4"	5-10	5
T345XF3	5-1/4"	5-10	3
T345XF100	5-1/4"	5-10	100
T718BF3	7"	14	3
T744D3	7"	6	3
T1044DP	9"	6	3
T1018AFP	9"	24	3

**CARPENTER TOOLS**



**T-SHANK JIG SAW BLADE SETS**

<u>PART#</u>	<u>SIZE</u>
<b>T500</b>	<b>A:</b> 5 pc. Set for Wood and Metal Cutting (1) T101B, (1) T144D, (1) T119BO, (1) T118A, (1) T118B
<b>T501</b>	<b>B:</b> 5 pc. Set for Wood and Metal Cutting (1) T101B, (1) T144D, (1) 119BO, (1) T101BR, (1) T118A
<b>T503</b>	<b>C:</b> 3 pc. Set for Hardwood/Laminate Flooring (2) T101BIF, 910 T101AOF
<b>T567A3</b>	<b>D:</b> 3 pc. Progressor for Wood, Metal, and All-Purpose (1) T123X, (1) T234X, (1) T345XF
<b>T5002</b>	10 pc. Set for Wood and Metal Cutting (2) T101B, (2) T144D, (2) T119BO, (2) T118A, (2) 118B
<b>TC21HC</b>	21 pc Set for Multiple Materials (5) T101B, (5) T144DP, (2) T345XF, (5) T118A, (2) T123X, (2) T141HM1



**CARPENTER TOOLS**

**T-SHANK JIG SAW BLADE SETS**



**PART#**      **SIZE**  
**T10CSC**      **A:** 10 pc. Set for Multipurpose cutting  
 (2) T101B, (2) T144D, (1) T345XF, (1) T234X  
 (1) T119BO, (1) T118A, (2) T118B



**T10RC**      **B:** 10 pc. Set for Wood and plastic cutting  
 (2) T144D, (2) T101BR, (2) T101B,  
 (1) T308B, (1) T119BO, (2) T101AO



**T14CPSC**      **C:** 14-pc. Set for wood and metal cutting  
 (2) T119BO, (1) T144DP, (2) T101B,  
 (3) T234X, (1) T123X, (2) T118B, (2) T118A,  
 (1) T118G



**T15RC**      **D:** 15 pc. Set for Wood and Metal cutting  
 (1) T101D, (2) T44D, (2) T101BR, (2) T101B  
 (2) T119BO, (2) T118B, (2) T118A, (1) T118G,  
 (1) T345XF



**T18CHCL**      **E:** 18 pc. Set for Wood and Metal Cutting  
 (2) T101B, (3) T144DP, (2) T119BO,  
 (1) T101BR, (3) 118B, (3) T118A, (2) T234X,  
 (1) T345XF, (1) T123X



**T30C**      **F:** 30 pc Set for wood and metal cutting  
 (10) T101B, (5) T101D, (5) T144D  
 (5) T118A, (5) T118B



**T30W**      **G:** 30-Pc. Set for wood cutting  
 (10) T101B, (10) T101D, (10) T144D

**CARPENTER TOOLS****CARBIDE CIRCULAR SAW BLADES**

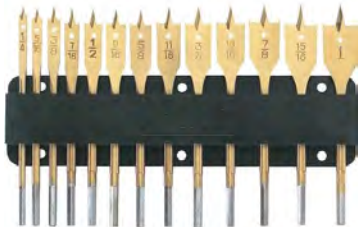
“Silver Lightning” wood cutting carbide saw blade with laser cut vents that reduce noise and vibration. Smooth clean top finish, clean edge cut, diamond cut for worm blades.

<b><u>PART #</u></b>	<b><u>Dia. X Arbor</u></b>	<b><u>TEETH</u></b>	<b><u>MAX RPM</u></b>	<b><u>APPLICATION</u></b>
714381	4-3/8" x 20mm	36	12,000	Fine Finish
715381	5-3/8" x 10mm	16	12,000	Fast Framing
715382	5-3/8" x 10mm	24	12,000	Framing
715383	5-3/8" x 10mm	36	12,000	Fine Finish
716121	6-1/2" x 5/8" <>	24	10,000	Framing
717145	7-1/4" x 5/8" <>	24	10,000	Framing
717146	7-1/4" x 5/8" <>	40	10,000	Fine Finish
717147	7-1/4" x 5/8" <>	60	10,000	Ultra-Fine Finish
718141	8-1/4" x 5/8" <>	24	9,000	Framing
718142	8-1/4" x 5/8" <>	40	9,000	Fine Finish
718121	8-1/2" x 5/8"	40	9,000	Fine Finish
718122	8-1/2" x 5/8"	60	9,000	Ultra-Fine Finish
711001	10" x 5/8"	24	7,000	Ripping
711002	10" x 5/8"	40	7,000	General Purpose
711003	10" x 5/8"	50	7,000	Combination Finish
711004	10" x 5/8"	50	7,000	Heavy-Duty Combination Finish
711005	10" x 5/8"	60	7,000	Fine Finish
711006	10" x 5/8"	60	7,000	Heavy-Duty Fine Finish
711007	10" x 5/8"	60	7,000	Ultra-Fine Finish
711008	10" x 5/8"	80	7,000	Plastics/Plexiglass/Laminate floors
711201	12" x 1", 5/8"	44	6,000	Framing/General Purpose
711202	12" x 1", 5/8"	80	6,000	Ultra-Fine Finish
711203	12" x 1", 5/8"	96	6,000	Plastics/Plexiglass/Laminate Floors

**CARPENTER TOOLS****SPADE BITS**

For general wood boring applications, this quality spade bit features extended cutting spurs for crisp edges and TiN coating for long dependable life.

<b><u>PART#</u></b>	<b><u>SIZE</u></b>
<b>41-870</b>	1/4"
<b>41 871</b>	5/16
<b>41 872</b>	7/16"
<b>41 873</b>	1/2"
<b>41 874</b>	9/16"
<b>41 875</b>	5/8"
<b>41 876</b>	11/16"
<b>41 877</b>	13/16"
<b>41 878</b>	7/8"
<b>41 879</b>	1-1/8"
<b>41 880</b>	1-1/4"
<b>41 881</b>	1-3/8"
<b>41 882</b>	1-1/2"

**SPADE BIT SET**

For general wood boring applications, this quality spade bit features extended cutting spurs for crisp edges and TiN coating for long dependable life. Wall rack included.

<b><u>PART#</u></b>	<b><u>SIZE</u></b>
<b>41-883</b>	13-Pc set: 1/4" - 1"

**CARPENTER TOOLS**

**FORSTNER BITS**

Forstner Bits are the most accurate and versatile of all wood bits. They cut extremely smooth and clean flat-bottomed holes in any species of wood, even in thin stock or veneers.



<u>PART#</u>	<u>SIZE</u>
41 890	1/4"
41 891	5/16
41 892	3/8"
41 893	7/16"
41 894	1/2"
41 895	9/16"
41 896	5/8"
41 897	11/16"
41 898	3/4"
41 899	13/16"
41 900	7/8"
41 901	15/16"
41 902	1"
41 903	1-1/16"
41 904	1-1/8"
41 905	1-3/16"
41 906	1-1/4"
41 907	1-5/16"
41 908	1-3/8"
41 909	1-7/16"
41 910	1-1/2"
41 911	1-9/16"
41 912	1-5/8"
41 913	1-11/16"
41 914	1-3/4"
41 915	1-13/16
41 916	1-7/8"
41 917	1-15/16"
41 918	2"



**FORSTNER BIT SET**

Forstner Bits are the most accurate and versatile of all wood bits. They cut extremely smooth and clean flat-bottomed holes in any species of wood, even in thin stock or veneers. Wood storage box.

<u>PART#</u>	<u>SIZE</u>
41-919	16-Pc set: 1/4" - 1"

**CARPET TOOLS****KNEE KICKER, ADJUSTABLE, ECONOMY**

Fully adjustable and economic knee kicker stretches carpet on to tackstrip. Aluminum casting, powder coated finish.

<u>PART#</u>	<u>DESCRIPTION</u>
40 598	Double locking pins adjust from 19" to 23"

**KNEE KICKER, ADJUSTABLE, DELUXE**

Fully adjustable and deluxe knee kicker stretches carpet on to tackstrip. Aluminum casting, foam filled bumper pad.

<u>PART#</u>	<u>DESCRIPTION</u>
40 599	Adjust from 17" to 21"

**LOOP PILE CARPET CUTTER, STAINLESS STEEL**

Cuts most loop carpet, unique two-blade design accommodates both left and right position. Ergonomic grip for comfort.

<u>PART#</u>	<u>DESCRIPTION</u>
40 541	4-1/4" wide with 15 blades

**SEAMING IRON, DELUXE**

Non-stick sole, heat shield, adjustable thermostat

<u>PART#</u>	<u>DESCRIPTION</u>
40 542	135-425°F

**CARPET SEAM ROLLERS**

For loop pile carpet, commercial quality, die cast handle

<u>PART#</u>	<u>DESCRIPTION</u>
40 649	4" wide head, curved handle
40 543	5" wide head, straight handle

**CARPET PULLER**

Die cast Aluminum construction, serrated clamps, large handle

<u>PART#</u>	<u>DESCRIPTION</u>
40 646	7" x 5"



**CARPET TOOLS**



**CARPET ADHESIVE SPREADER & APPLICATOR**

Fits most standard applicator guns, distributes 11 rows of adhesive evenly.

<u>PART#</u>	<u>DESCRIPTION</u>
40 647	3" wide



**CARPET SPREADER**

Stiff gauge rustproof stainless steel blade with a wood handle

<u>PART#</u>	<u>DESCRIPTION</u>
40 712	10" wide notched blade



**CARPET INSTALLATION TOOL KIT**

Complete installation kit contains all the hand tools required for installing carpet in a heavy duty steel box.

<u>PART#</u>	<u>DESCRIPTION</u>
40 698	Loop pile seam roller, 2" strip cutter, knee kicker,, molding lifter, trimmer, adapter, knife, knife pouch, hammer, shear, stair tool, chalk reel, white chalk, tape measure and steel box



**FLOOR/WALL SCRAPER**

For stripping floor, walls and wallpaper. Angled head with flex grip vinyl handle

<u>PART#</u>	<u>DESCRIPTION</u>
40 699	4" wide x 18" long
40 838	6" wide x 60" long



**CARPET TRIMMER**

Hardened, stainless steel guide, 5-position rubber handle, anti-slip grip

<u>PART#</u>	<u>DESCRIPTION</u>
40 648	Includes 20 heavy duty slotted blades



**CARPET TOOLS**



**CARPET CHISEL**

Hardened steel with rubber grip

<u>PART#</u>	<u>DESCRIPTION</u>
40 713	3-1/2" wide, 8" long



**DUCKBILL NAPPING SHEARS**

Feature offset handles, forged cutlery steel with special duckbill blade for precise cuts. 1" knuckle room finger loops.

<u>PART#</u>	<u>DESCRIPTION</u>
40 714	6" long



**CARPET AWL**

Perfect tool for scribing, picking seams and other carpet work. Plastic handle and tapered steel blade.

<u>PART#</u>	<u>DESCRIPTION</u>
40 715	4-1/2" blade



**CARPET KNIFE**

Retractable carpet knife with angled handle, built-in blade storage, aluminum body, magnetic nose.

<u>PART#</u>	<u>DESCRIPTION</u>
41 320	Knife
41 321	Spare blades, 100 blades in dispenser box



**CARPET SEAM TAPE**

Premium heat bond seam tape with extra thick layer of adhesive for a stronger, quicker grab.

<u>PART#</u>	<u>DESCRIPTION</u>
40 716	5" x 22 yd roll

**TILE TOOLS****TILE CUTTER 20"**

Cuts wall and floor tile up to 20", 14" diagonally. Adjustable cutting guide, includes two 7/8" tungsten carbide cutting wheels.

<u>PART#</u>	<u>SIZE</u>
41 831	20"

**TILE SAW 7" WITH TABLE**

Equipped with a 1-1/4 HP motor, water pump and hinged blade guard. Includes a 7" diamond blade, rip guide & rear extension table. Depth of cut 2"

<u>PART#</u>	<u>SIZE</u>
41 832	7" x 5/8" arbor
	Weight: 33 lbs

**TILE SAW 10" WITH FOLDING STAND**

Powerful 1.5 HP motor that easily cuts through ceramic tile, porcelain and stone. High volume water pump. This saw has a large cutting capacity to perform rip cuts, plunge cuts and miter cuts on 24 inch tiles, diagonal cuts on 18 inch tiles and it has the ability to cut thick tiles or pavers up to 3-3/4 inches thick.

<u>PART#</u>	<u>SIZE</u>
41 833	10" x 5/8" arbor
	Weight: 106 lbs.

**POWER MIXER 120V"**

Great for mixing mortar, grout and other viscous materials. The two-handed grip provides maximum control with minimal effort. Variable dual speeds of 0 - 620 RPM and 0 - 810 RPM. Includes a mixing paddle and chuck for un-threaded paddles. Air cooled motor is double insulated. Supplied with two wrenches, motor brush and manual.

<u>PART#</u>	<u>SIZE</u>
41 834	24" long
41 835	Mixing paddle 22" long, 5" blade width

**TILE TOOLS****GROUT SAW**

For stripping, cleaning and removing old grout. For gout joint 1/16" or wider. Use 2 blades for floor grout removal, 1 blade for walls. 1 carbide grit-edge and 1 steel tooth blade.

<u>PART#</u>	<u>SIZE</u>
41 836	4" blade

**GROUT REMOVAL TOOL**

For removing unwanted grout, mortar or thinset. Durable carbide tips are reversible, providing six scraping edges for longer tool life. Comfortable, contoured and cushioned grip handle.

<u>PART#</u>	<u>SIZE</u>
41 868	9-1/2"

**TILE SPACERS**

Precision cut for accuracy. Evenly space tiles for uniform grout lines. Provide quick, professional looking results, works with all sizes of ceramic tile, porcelain, stone and marble.

<u>PART#</u>	<u>SIZE</u>
41 864	1/8", bag of 250
41 865	1/4", bag of 200

**GUM RUBBER FLOAT**

Non-stick gum rubber ensures smooth application. Premium gum rubber laminated to lightweight, closed cell core is built to last. Extra thick aluminum backing plate for maximum leverage and applying grout into joints. 2- rounded corners and 2- square corners.

<u>PART#</u>	<u>SIZE</u>
41 866	9-1/2" x 4"

**TILE TOOLS**



**MARGIN TROWEL**

For patch jobs, hard-to-reach areas and spreading thinset on v-cap or bullnose tile, No-notch.

<u>PART#</u>	<u>SIZE</u>
41 867	5" x 2"



**POINTING TROWEL**

Finishing and Plastering Masonry, No-notch with wood handle

<u>PART#</u>	<u>SIZE</u>
41 884	5-1/2"



**FINISHING TROWEL**

No-Notch Finishing Trowel with wood handle

<u>PART#</u>	<u>SIZE</u>
41 885	4-1/2" x 11



**NOTHED TROWEL**

Notched Trowel with rubber handle

<u>PART#</u>	<u>SIZE</u>
41 886	4-1/2" x 11

**TILE TOOLS**



**GROUT SPONGE**

Professional premium sponge for grouting and clean-up. Open cell construction prevents sand and grout from loading up. Extra large fine pore. Provides excellent absorption and rinses out easily.

<u>PART#</u>	<u>SIZE</u>
41 837	7-1/2" X 4-3/8"



**KNEE PADS, DELUXE**

Tough nylon construction  
Hard caps protect knees from rough surfaces  
Comfortable extra thick padded construction  
Wide adjustable elastic straps - one size fits all

<u>PART#</u>	<u>SIZE</u>
41 869	Black cap knee pads
41 803	Hard cap, Gel



**SUCTION CUP GLASS LIFTERS**

Fast attachment on smooth, non-porous flat surfaces.  
Horizontal handle, release lever, ABS handle material.

<u>PART#</u>	<u>SIZE</u>	<u>CAP.</u>
41 593	8" single cup	125 lbs
41 594	5" double cup	200 lbs
41 595	4-1/2" triple cup	110 lbs



**TILE TOOLS**

**BLUE LIGHTNING**

**DIAMOND CIRCULAR TURBO BLADES**

Turbo blades for cutting concrete, masonry, marble, granite, brick, block and natural stone.



<b>PART #</b>	<b>SIZE</b>	<b>MAX RPM</b>
<b>660400</b>	4"x.080"x7/8"	13,700
<b>660412</b>	4-1/2"x.080"x7/8"	13,300
<b>660500</b>	5"x.080"x7/8"	12,200
<b>660700</b>	7"x.090"x7/8"	8,500
<b>660800</b>	8"x.090"x5/8"	6,800
<b>660900</b>	9"x.102"x7/8", 5/8"	6,600

**DIAMOND CIRCULAR SEGMENTED BLADES**

Segmented blades for cutting concrete, masonry, brick and block



<b>PART #</b>	<b>SIZE</b>	<b>MAX RPM</b>
<b>661400</b>	4"x.080"x7/8", 5/8"	13,700
<b>661412</b>	4-1/2"x.080"x7/8"	13,300
<b>661500</b>	5"x.080"x7/8", 5/8"	12,200
<b>661700</b>	7"x.090"x7/8", 5/8"	8,500
<b>661800</b>	8"x.090"x5/8"	6,800

**DIAMOND CIRCULAR SEGMENTED BLADES**

Segmented laser welded blades for cutting concrete, masonry, brick and block



<b>PART #</b>	<b>SIZE</b>	<b>MAX RPM</b>
<b>662120</b>	12"x.125"x1"	6,300
<b>662140</b>	14"x.125"x1"	5,400

**DIAMOND CIRCULAR SEGMENTED BLADES**

Segmented laser welded blades for cutting asphalt and green concrete.



<b>PART #</b>	<b>SIZE</b>	<b>MAX RPM</b>
<b>663120</b>	12"x.125"x1"	6,300
<b>663140</b>	14"x.125"x1"	5,400



**TILE TOOLS**



**BLUE LIGHTNING**

**DIAMOND CIRCULAR SEGMENTED BLADES**

Turbo Segmented laser welded blades for cutting concrete, masonry, hard brick and pavers.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
664120	12"x..125"x1"	6,300
664140	14"x.125"x1"	5,400



**DIAMOND CIRCULAR SEGMENTED BLADES**

Segmented crack repair blades for cutting concrete and masonry.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
668400	4"x.400x7/8", 5/8"	13,700



**DIAMOND CIRCULAR TUCK POINT BLADES**

Tuck point blades for cutting mortar.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
669400	4"x.250"x7/8", 5/8"	13,700
669412	4-1/2"x.250"x7/8"	13,300
669700	7"x.250"x7/8", 5/8"	8,500



**DIAMOND CIRCULAR CERAMIC BLADES**

Ceramic tile blades for cutting tile, ceramic tile and marble.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
670400	4"x.060"x7/8", 5/8"	13,700
670412	4-1/2"x.060"x7/8"	13,300
670700	7"x.060"x5/8"	8,500
670800	8"x.060"x5/8"	6,800
670100	10"x.060"x5/8"	6,100

**TILE TOOLS**

**BLUE LIGHTNING**

**DIAMOND CIRCULAR PORCELAIN BLADES**

Porcelain tile blades for cutting porcelain tile and granite.



<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
671400	4"x.060"x7/8", 5/8"	13,700
671412	4-1/2"x.060"x7/8"	13,300
671700	7"x.060"x5/8"	8,500
671800	8"x.060"x5/8"	6,800
671100	10"x.060"x5/8"	6,100



**DIAMOND CIRCULAR GLASS TILE BLADES**

Glass tile blades for cutting glass.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
672100	10"x.055x5/8"	6,100



**DIAMOND CIRCULAR MULTI-PURPOSE BLADES**

Multi-purpose blades for cutting metal, ductile iron, concrete, wood, plastic, PVC and roofing.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
680412	4-1/2"x.080"x7/8"	13,300
680700	7"x.090"x7/8", 5/8"	8,500
680140	14"x.110"x1"	5,400

**TILE TOOLS**

**BLUE LIGHTNING**



**DIAMOND SEGMENTED CUP WHEELS**

Segmented cup wheels for cutting concrete, masonry, brick and stone.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
665400	4"x.5/8"-11	13,700
665500	5"x.5/8"-11	12,200
665700	7"x.5/8"-11	8,500



**DIAMOND SWIRL CUP WHEELS**

Swirl cup wheels for cutting concrete, masonry, brick and stone.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
667400	4"x.5/8"-11 (12 seg)	13,700
667500	5"x.5/8"-11 (14 seg)	12,200
667700	7"x.5/8"-11 (18 seg)	8,500

**SkillPro Diamond blades**



**DIAMOND CIRCULAR SEGMENTED BLADES**

Segmented blades for cutting concrete, masonry, brick and block.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
666400	4"x.070"x7/8", 5/8"	13,700
666412	4-1/2"x.070"x7/8"	13,300
666700	7"x.085"x7/8", 5/8"	8,500
666140	14"x.120"x1"	5,400

**UPHOLSTERY TOOLS**



**UPHOLSTERY SHEARS**

Hot forged steel, double plated chrome over nickel, dub points

<u>PART #</u>	<u>SIZE</u>
48 500	250mm
48 501	300mm



**MAGNETIC TACK HAMMER**

<u>PART #</u>	<u>HEAD O.L.</u>	<u>WEIGHT</u>
48 027	3-1/2"	4 oz
48 028	4-1/8"	5 oz
48 029	4-3/8"	8 oz



**REVOLVING PUNCH PLIERS, H.D.**

Plated steel with tapered and hollow steel punches. Revolving head has six different sizes. Asymmetric handle and ergonomic grip.

<u>PART #</u>	<u>SIZE</u>
48 040	200mm

Punch sizes: 5/64, 3/32", 7/64", 1/8", 5/32", 3/16"



**AUTOMATIC AWL**

Tool for sewing leather, canvas and similar products. The awl carries a spool of waxed polyester black thread on the handle. Hollow handle holds an extra curved needle and wrench.

<u>PART #</u>	<u>SIZE</u>
48 041	6-1/2" O.L.
48 042	5" Straight needle
48 043	6" Curved needle



**STAPLE REMOVER**

Smooth surface at the nose reduces the risk for fabric snag. Ergonomic handle.

<u>PART #</u>	<u>SIZE</u>
48 044	150mm

**UPHOLSTERY TOOLS****STAPLE LIFTER**

Alloy tempered steel, multisided amber plastic handle.

<u>PART #</u>	<u>SIZE#</u>
<b>48 045</b>	6-1/2"

**STAPLE TACK & STAPLE REMOVER**

Forged steel, wooden handle, nickel plated ferrule.

<u>PART #</u>	<u>SIZE#</u>
<b>48 046</b>	6-1/2"

**CLAW TOOLS**

Hardened and tempered steel.

<u>PART #</u>	<u>SIZE#</u>
<b>48 047</b>	7-1/2", narrow claw
<b>48 048</b>	7", wide claw

**STAPLE & TACK CLAWS**

Hardened and tempered ends.

<u>PART #</u>	<u>SIZE#</u>
<b>48 049</b>	7" wood handle
<b>48 050</b>	7" plastic handle





**UPHOLSTERY TOOLS**



**GROMMET INSERTING DIE**

Machined from high grade tool steel and malleable iron casting.

**GROMMETS AND WASHERS**

Made of Brass. Packed in box of 144 pcs.

<u>PART #</u>	<u>SIZE#</u>	<u>WEIGHT</u>
48 051	00	1 lb 6 oz
48 052	0	1 lb 6 oz
48 053	1	1 lb 7 oz
48 054	2	1 lb 7 oz
48 055	3	1 lb 9 oz
48 056	4	2 lb 8 oz
48 057	5	2 lb 10 oz
48 058	6	3 lb 15 oz
48 059	8	3 lb 16 oz
48 060	10	3 lb 10 oz
48 061	11	4 lb 15 oz
48 062	15	5 lb 15 oz

<u>PART #</u>	<u>SIZE#</u>	<u>HOLE DIA.</u>
48 063	00	3/16"
48 064	0	1/4"
48 065	1	9/32"
48 066	2	3/8"
48 067	3	7/16"
48 068	4	1/2"
48 069	5	5/8"
48 070	6	13/16"
48 071	12	1-9/16" <b>Box of 20</b>
48 072	15	2" <b>Box of 20</b>



**SAIL PALM (SEWING PALM)**

Rawhide palm with iron thimble hide bound. Available in both right and left hand.

<u>PART#</u>	<u>DESCRIPTION</u>
48 097	Right hand
48 098	Left hand



**UPHOLSTERY TOOLS**



**STRAIGHT SINGLE ROUND POINT NEEDLES**

Light duty. Package of 1 dozen

<u>PART #</u>	<u>SIZE</u>	<u>GAUGE</u>
48 080	4"	15
48 081	5"	14
48 082	6"	14
48 083	8"	14
48 084	10"	13

**STRAIGHT SINGLE ROUND POINT NEEDLES**

Heavy duty. Package of 1 dozen

<u>PART #</u>	<u>SIZE</u>	<u>GAUGE</u>
48 090	6"	13
48 091	8"	13
48 092	10"	12



**CURVED ROUND POINT NEEDLES**

Light duty. Package of 1 dozen

<u>PART #</u>	<u>SIZE</u>	<u>GAUGE</u>
48 130	2"	19
48 131	2-1/2"	18
48 132	3"	18
48 133	3-1/2"	17
48 134	4"	16
48 135	5"	16
48 136	6"	15
48 137	7"	15
48 138	8"	15

**CURVED ROUND POINT NEEDLES**

Heavy duty. Package of 1 dozen

<u>PART #</u>	<u>SIZE</u>	<u>GAUGE</u>
48 140	2"	17
48 141	2-1/2"	17
48 142	3"	16
48 143	3-1/2"	16
48 144	4"	15
48 145	5"	14
48 146	6"	14
48 147	7"	14
48 148	8"	13
48 149	10"	13

**UPHOLSTERY TOOLS****ARCH PUNCHES**

Cast iron steel body with hardened cutting

<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>	<u>PART#</u>	<u>SIZE</u>
40 887	3mm	40 905	16mm	40 918	29mm
40 888	4mm	40 906	17mm	40 919	30mm
40 889	5mm	40 907	18mm	40 920	31mm
40 895	6mm	40 908	19mm	40 921	32mm
40 896	7mm	40 909	20mm	40 922	33mm
40 897	8mm	40 910	21mm	40 923	34mm
40 898	9mm	40 911	22mm	40 924	36mm
40 899	10mm	40 912	23mm	40 925	38mm
40 900	11mm	40 913	24mm	40 926	40mm
40 901	12mm	40 914	25mm	40 927	45mm
40 902	13mm	40 915	26mm	40 928	50mm
40 903	14mm	40 916	27mm	40 929	55mm
40 904	15mm	40 917	28mm	40 930	60mm

**HOLLOW PUNCH SETS**

Chuck with interchangeable heads in plastic case.

<u>PART #</u>	<u>RANGE</u>	<u>SIZE</u>
40 931	3 - 30mm	15-pc.
40 932	5 - 35mm	13-pc.
40 933	2 - 50mm	29-pc.

**UPHOLSTERY TOOLS**



**PNEUMATIC UPHOLSTERY STAPLER**

Uses standard 22 gauge 3/8" crownstaples from 1/4" to 5/8" long, 1" nose extension, steel top hat, rear exhaust port

<u>PART #</u>	<u>LENGTH</u>
48 150	3/8" staples



**ELECTRIC UPHOLSTERY STAPLER**

Uses standard 22 gauge 3/8" staples from 1/8" to 9/16", steel top hat, front exhaust port, rugged plastic case

<u>PART #</u>	<u>LENGTH</u>
48 151	1/8" to 9/16"
	Weight: 2.2 lbs.



**ELECTRIC UPHOLSTERY STAPLER**

Uses standard 22 gauge 3/8" staples from 1/4" to 5/8" long 1" nose extension, steel top hat, rear exhaust port

<u>PART #</u>	<u>LENGTH</u>
48 152	1/4" to 5/8"
	Weight: 2.2 lbs.



**ELECTRIC UPHOLSTERY STAPLER**

Uses standard 22 gauge 3/8" staples from 1/4" to 5/8" , steel cap, rear exhaust port, light weight.

<u>PART #</u>	<u>LENGTH</u>
48 153	5/32" to 5/8"
	Weight: 2.1 lbs.

**UPHOLSTERY TOOLS****STAPLES**

22 gauge 3/8" crown staples, box of 10,000

<u>PART #</u>	<u>LENGTH</u>
48 160	1/8" - galvanized
48 161	1/4" - galvanized
48 162	5/16" - galvanized
48 163	3/8" - galvanized
48 164	3/8" - <b>stainless steel</b>
48 165	7/16" - galvanized
48 166	1/2" - galvanized
48 167	9/16" - galvanized

# **POWER TOOLS**



**POWER TOOLS - 220 VOLT**



**3/8" (10mm) DRILL V.S.R. - 220 VOLT**

Variable speed reversing. Double insulated.  
Keyless chuck. Non-slip soft grip handle.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 200</b>	Model #D105 0-2,800 RPM 500 Watts Trigger lock-on button Capacity: Steel 10mm Wood 25mm Weight: 1.8 kg. / 4.0 Lbs. <b>ISSA # 59 10 12</b>



**1/2" (13mm) DRILL V.S.R. - 220 VOLT**

Variable speed reversing. Dbl. Insulated.  
Non-slip soft grip handle. Multi-position side handle

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 201</b>	Model #D131 0-600 RPM 800 Watts Trigger lock-on button Capacity: Steel 13mm Wood 20mm Weight: 2.8 kg. / 6.0 Lbs. <b>ISSA # 59 10 13</b>



**IMPACT DRILL - 220 VOLT**

Variable speed. Keyless chuck. Dbl. Insulated.  
Non-slip soft grip handle. Multi-position side handle.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 204</b>	Model #DR138 1050 Watts 0-1,275 RPM - 0-2,650 BPM Trigger lock-on button Capacity: Steel 13mm Concrete 20mm Wood 25mm Weight: 4.3 kg. / 9.0 Lbs.





**POWER TOOLS - 220 VOLT**



**ROTARY HAMMER DRILL - 220 VOLT**

Variable speed. Keyless chuck. Dbl. Insulated.  
Non-slip soft grip handle. Multi-position side handle.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 208</b>	Model #H321-3 1200 Watts 0-750 RPM - 3500 BPM Trigger lock-on button Weight: 5.9 kg. / 8.3 Lbs.



**ELECTRIC SHEAR 220V**

Powerful motor keeps cutting speed consistent.  
Single no-load speed, mild steel capacity: 13 Ga.  
Includes 5.0 mm hex key,

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 202</b>	Model SC25A 0-2200 RPM 420 Watt Max cutting capacity: 2.5mm Weight: 2.8 kg. /6.2 Lbs.



**1/4" (6mm) DIE GRINDER - 220 VOLT**

Extra-long spindle, double insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 209</b>	Model #DG105 1/4" Capacity 600 Watts 27,000 RPM Weight: 2.2 kg. / 4.8 Lbs. <b>ISSA # 59 10 76</b>



**POWER TOOLS - 220 VOLT**



**4-1/2" (115mm) ANGLE GRINDER - 220 V**

Includes steel wheel guard, wrench, side handle and grinding wheel.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 227</b>	Model # G1008A 850 Watts 11,000 RPM M14 x 2 spindle Weight: 2.6 kg. / 5.7 Lbs. <b>ISSA # 59 10 31</b>



<b>50 066</b>	Backing Pad M14 x 2.0
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**5" (125mm) ANGLE GRINDER - 220 V**

Includes steel wheel guard, wrench, side handle And grinding wheel. Double insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 229</b>	Model #G1252 1,200 Watts 9,200 RPM M14 X 2 spindle Weight: 4.2 kg. / 9.2 Lbs.



**7" (180mm) ANGLE GRINDER - 220 V**

Includes steel wheel guard, wrench, side handle and grinding wheel. Double insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 228</b>	Model #G1808 2,400 Watts 8,500 RPM M14 x 2 spindle Weight: 6.6 kg. / 14.5 Lbs. <b>ISSA # 59 10 34</b>



<b>50 065</b>	Backing Pad 180mm x M14x2.0
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## **POWER TOOLS - 220 VOLT**



### **JIG SAW - 220 VOLT**

Variable speed, 45 deg. adjustable base plate. Double insulated, dual blade holder accepts both bayonet and universal jig saw blades.

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>50 220</b>	Model #J553 580 Watts 500-3,000 SPM Capacity: Steel 10mm Wood 85mm Weight: 3.1 kg./6.38Lbs. <b>ISSA # 59 11 72</b>



### **7-1/4" CIRCULAR SAW - 220 VOLT**

Double insulated, bevel angle adjusts between 0~45 deg. Quick return safety guard. Includes blade and rip fence.

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>50 215</b>	Model #C1853 1,100 Watts 4,900 RPM Max. cut: 58mm Weight: 6.2 kg. / 13.4 Lbs. <b>ISSA # 59 11 45</b>



### **14" CHOP SAW - 220 VOLT**

Quick release locking vise, adjustable depth stop, spindle lock, wrench storage.

<b><u>PART #</u></b>	<b><u>DESCRIPTION</u></b>
<b>50 235</b>	Model #355 2200 Watts 3,800 RPM Max cutting cap. 100mm Weight 16.7 kg. / 36.8 Lbs. <b>ISSA # 59 11 56</b>

**POWER TOOLS - 220 VOLT****BELT SANDER - 220 VOLT**

Integrated depth adjustment. Automatic belt tracking. Easy belt changing. Includes : dust bag and sanding belt. Double Insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 207</b>	Model #TA8460 540 Watts 200m/min. Belt size: 75 x 530mm Weight: 3.0 kg /6.6 Lbs.

**PLANER - 220 VOLT**

Lightweight, compact design for easy planning. Square edges and shave material for accurate joinery. Double insulated with Chamfering groove for beveling corners.



<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 214</b>	Model #P82A 600 Watts 16,000 RPM Cutting width: 82mm (3-1/4") Max Planer Depth: 1mm Weight: 3.7 kg /8.1 Lbs. <b>ISSA # 59 11 37</b>

**HEAT GUN - 220 VOLT**

Heat/Glue gun with soft D-handle

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 212</b>	200 Watts Air Stream Per Minute : 150/300/500 Temp. Setting: 50-630 Deg C Weight: 2.0 kg. / 4.3 Lbs



**POWER TOOLS - 220 VOLT**

**1/2" (13mm) CORDLESS DRILLS- 18V**

Variable speed reversing. Keyless chuck. LED light and Ergonomically designed T-Style Soft Grip

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 203</b>	Model #DDS181-02 0-500 RPM, 600 in-lbs torque 2 Li-on batteries 1.5 Ah 18V charger 220 Volt 8-pos. adjustable torque clutch Weight: 2.0 kg. / 4.6lbs



<b>50 206</b>	18V Lithium Ion Battery Charger
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**RECIPROCATING SAW, BOSCH- 220 VOLT**

Electronic Variable Speed Switch, die cast aluminum gear housing. Ergonomically designed handle. Double insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 237</b>	Model # GSA1100E 1100 Watts 2,400 SPM Length of Stroke : 28mm Max Cut Depth : 100mm Weight: 3.9 kg / 8.6 Lbs



**4-1/2" (115mm) ANGLE GRINDER – 220 VOLT**

Small compact Professional grinder, Includes steel wheel guard, wrench and side handle.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 226</b>	Model # GWS 7-115 720 Watts 11 000 RPM M14 x 2 Spindle Weight: 1.9 kg / 4.2 Lbs ISSA #59 10 31



**HEAT GUN- 220 VOLT**

Professional Heat/Glue Gun

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 213</b>	Model # GHG 600 CE 2000 Watts Airflow: 350-550 l/min Temp. setting: 100-600 deg. C Weight: .6 kg / 1.3 Lbs





**POWER TOOLS - 220 VOLT**

**BOSCH 1/2" PROFESSIONAL DRILL - 220V**

Control Electronic for exact pilot drilling, Safe grip with sturdy, long auxiliary handle, Easy operation with 2-finger pressure switch, Forward/reverse rotation



<u>PART#</u>	<u>DESCRIPTION</u>
50 217	Model # GBM 13 HRE 550 Watt 0-550 RPM Chuck: 1.5—13 mm Weight: 2.2 kg/4.4 lbs

**BOSCH DEMOLITION HAMMER - 240V**

Professional Demolition hammer with SDS-max. Pointed chisel 400 mm, lockable switch pawl, Vario-lock: 12 chisel position, auxiliary handle and carrying case.



<u>PART#</u>	<u>DESCRIPTION</u>
50 218	Model # GSH 5 CE 1150 Watt Rated speed: 1300-2900 BPM Weight: 6.2 kg/13.6 lbs

**BOSCH BELT SANDER - 240V**

Graphite-coated sanding plate, sturdy quick-clamping lever, Guide roller fine adjustment for exact belt running, removable auxiliary handle, connection for dust extraction with dust bag and vacuum cleaner.



<u>PART#</u>	<u>DESCRIPTION</u>
50 219	Model # GBS 75 AE 750 Watt 75 x 533 mm belt 200-330 m/min Weight: 3.4 kg/7.5 lbs





**POWER TOOLS-220 VOLT**

**RECIPROCATING SAW - 220 VOLT**

Electronic variable speed switch, die-cast aluminum gear housing, ergonomically designed handle. Double insulated. **MAKITA** brand



**PART #**  
**50 135**

**DESCRIPTION**  
Model #JR3050T  
1010 Watts  
2,800 SPM  
Length of stroke: 28mm  
Max. cut depth: 90mm  
Weight: 3.3 kg. / 7.3 Lbs.

**3/8" (10mm) CORDLESS ANGLE DRILL 10.8V**

Variable speed reversing. Durable right-angle transmission with sealed ball bearings and cut-steel gears. 1-hr charger & carrying case.



**PART #**  
**50 210**

**DESCRIPTION**  
Model #DA330DWE  
0-800 RPM  
Capacity: Steel 10mm, Wood 12mm  
Weight: 1.1 kg. / 2.4 Lbs.

**1/2 SHEET FINISHING SANDER - 220 VOLT**

Rubberized non-slip grip, double insulated. Through-the-pad dust collection.



**PART #**  
**50 104**

**DESCRIPTION**  
Model: BO4901  
330 Watts  
Paper size: 115 x 280 mm  
10,000 OPM  
Weight: 2.8 kg/6.2 lbs



**POWER TOOLS-220 VOLT**



**125MM (5'') ANGLE GRINDER**

Double insulated, 2 position auxiliary handle  
Large paddle switch log-on/off switch,  
Spindle lock, guard and spanner wrench.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 103</b>	Model: 9558PB 710W 10,000 RPM 5/8" - 11 UNC spindle Weight: 2.1 kg/6.6 lbs



**4 x 24'' BELT SANDER**

Integrated depth adjustment. Automatic belt tracking.  
Easy belt changing. Includes: dust bag and sanding  
belt. Double insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 125</b>	Model MT9400B 940 Watts 3800m/min. Belt size: 100x610mm Weight: 6.2 kg. / 13.7 Lbs.



**POWER TOOLS - 220 VOLT**

**13mm (1/2") DRILL V.S.R. - 220 VOLT**

Soft grip trigger, reversing switch, H.D. keyed chuck ball bearing motor, 360 degree auxiliary handle,

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 100</b>	Model #MT817 430W 0-2800 RPM Trigger lock-on Capacity: Steel 13mm Weight: 1.9 kg/3.5 lbs



**16mm (5/8") DRILL V.S.R. - 220 VOLT**

Soft grip trigger, reversing switch H.D. keyed chuck ball bearing motor, 360 degree auxiliary handle,

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 101</b>	Model #MT814 710W 0-3200 RPM Trigger lock-on Capacity: Steel 13mm Weight: 2.2 kg/4.8 lbs



**1-1/2 HP ROUTER - 220 VOLT**

Router with easy-to-grip handles, variable speed with soft start. Quick-change knob for variable cutting depth. Double insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 106</b>	Model MT360 1,650 Watts 22,000 RPM Collet chuck: 12mM (1/2") Weight: 5.5 kg. /12.2 Lbs.



**POWER TOOLS-220 VOLT**



**125MM (5'') ANGLE GRINDER**

Double insulated, 2 position auxiliary handle, sealed log-on/off switch, Spindle lock, guard and spanner wrench.

<u>PART #</u>	<u>DESCRIPTION</u>
50 110	Model MT957 710W 11,000 RPM 5/8" - 11 spindle Weight: 1.5 kg/3.3 lbs

50 068	Backing Pads 115mm x 5/8"-11
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**180MM (7'') ANGLE GRINDER**

Double insulated, 2 position auxiliary handle, sealed log-on/off switch, Spindle lock, guard and spanner wrench

<u>PART #</u>	<u>DESCRIPTION</u>
50 111	Model MT902 2000W 8,500 RPM M14 x 2 spindle Weight: 4.7 kg/10.4lbs



**6MM (1/4'') DIE GRINDER - 220 VOLT**

Extra-long spindle, double insulated.

<u>PART #</u>	<u>DESCRIPTION</u>
50 115	Model MT911 1/4" Capacity 480 Watts 33,000 RPM Weight: 1.4 kg. / 3.1 Lbs.



**POWER TOOLS-220V**

**125MM (5") ORBITAL SANDER - 220 VOLT**

sander with integrated dust Collection system and lock-on button for continuous use. Rubberized non-slip grip, double insulated. Includes dust bag.



<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 120</b>	Model MT924 240 Watts 12,000 OPM Weight: 1.2 kg/2.6 lbs

**JIG SAW - 220 VOLT**

Variable speed, 45 deg. adjustable base plate. Double insulated, dual blade holder accepts both bayonet and universal jig saw blades.



<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 130</b>	Model MT431 450 Watts 0-3,100 SPM Capacity: Steel 10mm Weight: 1.9 kg/4.2 lbs. <b>ISSA # 59 11 72</b>

**FINISHING SANDER - 220 VOLT**

1/3 sheet sander with integrated dust Collection system and lock-on button for continuous use. Rubberized non-slip grip, double insulated. Includes dust bag.



<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 205</b>	Model MT923 190 Watts 12,000 OPM Paper size: 93 x 228 mm Weight: 1.4 kg/3.0 lbs





**POWER TOOLS**



**3/8" DEWALT CORDLESS DRILLS - 12V**

Compact Drill Driver 12V, dual speed range 0-400/0-1450 RPM. Charger and spare battery included, carrying case.

<u>PART #</u>	<u>DESCRIPTION</u>
50 114	Model DC742KA 0-1450 RPM 200 Watt Weight: 4.4 kg/9.8 lbs.



**1/2" DEWALT CORDLESS DRILLS - 18V**

Variable speed reversing. Keyless chuck. Ergonomically designed T-style soft grip. Charger and 2 Ni-Cad batteries in carrying case.

<u>PART #</u>	<u>DESCRIPTION</u>
50 116	Model DC970K-2 0-1300 RPM 8-pos.adjustable torque clutch Capacity: Steel 10mm Wood 40mm Weight: 5.0 kg. / 11.0 Lbs



**1.5 Ah DEWALT RIGHT ANGLE DRILL KIT - 20V**

Compact Angle Drill kit 20V, Multi-grip trigger, compact size 4", dual speed range 0-500/0-1500 RPM. Charger and Lithium battery included, carrying case.

<u>PART #</u>	<u>DESCRIPTION</u>
50 117	Model DCD740C1 0-1500 RPM Weight: 4.7 kg/10.4 lbs





## POWER TOOLS



### DEWALT CORDLESS SCREWDRIVER KIT - 7.2V

Variable speed and reversing trigger switch, two-position handle, charger and spare NiCad battery included, carrying case.

<u>PART #</u>	<u>DESCRIPTION</u>
50 118	Model DW920K-2 0-500 RPM 1/4" (6 mm) Torque: 80 in/lbs Weight: 1.6 kg/3.4 lbs



### DEWALT CORDLESS FLOODLIGHT - 18V

Flexible neck, wide-angle beam, lockable head clip, xenon bulb. Battery sold separately.

<u>PART #</u>	<u>DESCRIPTION</u>
50 119	Model DW919 Weight: 0.7 kg/1.4 lbs



### DEWALT NICAD POD-STYLE BATTERY

High-capacity XRP batteries, 2-pack

<u>PART #</u>	<u>DESCRIPTION</u>
50 113	Model DC9096-2 2.4 Amp hour Weight: 0.7 kg/1.4 lbs



**POWER TOOLS**



**1/2" DEWALT CORDLESS IMPACT WRENCH 20V**

Three (3) LED lights with 20 second delay after trigger release, that helps to provide visibility without shadows. Also features a hog ring anvil to easily change sockets. Charger and 2 batteries, carrying case.

<u>PART #</u>	<u>DESCRIPTION</u>
50 140	Model DCF880HM2 1/2" dr. Lithium Ion battery Weight: 4.0 kg. /8.8 Lbs



**1/2" DEWALT CORDLESS IMPACT WRENCH 18V**

Features replaceable brushes, textured anti-slip comfort grip, durable magnesium gear case, all metal transmission, and a heavy duty mechanism directing torque to fastener without kickback. Built-in LED light, onboard bit storage, charger and 2 batteries, carrying case

<u>PART #</u>	<u>DESCRIPTION</u>
50 141	Model DC820KA 1/2" dr. 0-2400 RPM Torque: 1740 in/lbs NiCad battery



**4-1/2" DEWALT ANGLE GRINDER, 110 V**

One-touch guard, low profile jam-pot gear case, hex wrench

<u>PART #</u>	<u>DESCRIPTION</u>
50 142	Model DWE4011 12,000 RPM Spindle: 5/8"-11 120V, 850 Watt 7,0 Amp AC/DC Weight: 1.8 kg. /3.9 Lbs



**POWER TOOLS**



**DEWALT CORDLESS RECIPROCATING SAW KIT - 18V**

Keyless lever-action 4-position blade clamp, anti-slip comfort grip, variable speed with trigger lock, XRP Ni-Cad battery. Charger and carrying case.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 121</b>	Model DC385K 3000 SPM Weight: 3.8 kg/8.2 lbs



**DEWALT RECIPROCATING SAW - 12 AMP**

Keyless lever-action 4-position blade clamp, anti-slip comfort grip, variable speed with trigger lock, XRP Ni-Cad battery. Charger and carrying case.

<u>PART #</u>	<u>DESCRIPTION</u>
<b>50 122</b>	Model DWE305 120 Volt 0-2900 SPM Stroke length: 1-1/8" Weight: 3.7 kg/8.1 lbs

**POWER TOOLS**



**SHOP-VAC PRO 20L , 220 VOLT**

Wet/Dry Vac perfect for workplace, indoor and out, wet or dry, stainless steel tank

<u>PART#</u>	<u>DESCRIPTION</u>
50 010	1600 W 2.4 m lock-on hose 2 locking metal wands 254 mm wet/dry nozzle Crevice tool Round brush Gulper nozzle Dual surface nozzle Filters



**PORTABLE BLOWERS, 120 & 230 VOLT**

12" Axial blower/extractor fan, connect up to 125' of straight duct, plastic housing, stackable. CFM rating: 72m3/min. Dimensions: 21" H x 19" L x 15" W

<u>PART#</u>	<u>DESCRIPTION</u>
50 126	<b>230 Volt</b> , 50/60 Hz 1 HP, 8.0/5.7 Amp 2850 RPM Weight: 15 kg/32 lbs



50 127	<b>120 Volt</b> , 50 Hz 1 HP, 4.2 Amp 2800/3300 RPM Weight: 15 kg/32 lbs
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50 128	Ducting for above fans Flexible, light duty vinyl woven polyester. 25' length
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**PORTABLE BLOWER, 120 VOLT**

12" Axial blower/extractor fan, steel housing, Dimensions: 18" H x 16" L x 14" W

<u>PART#</u>	<u>DESCRIPTION</u>
50 129	120 Volt, 50 Hz, 430 Watt 3/8 HP, 3.8 Amp 2905 RPM Weight: 14 kg/31 lbs



50 131	Ducting for above fan Flexible, light duty double-ply PVC Coated polyester. 20' length
--------	--

# **MEASUREMENT TOOLS**

**SOUNDING TAPES**

PH: 954-641-7840 FAX: 954-641-7850



**STAINLESS STEEL SOUNDING TAPE**

High quality oil gauging tapes.  
All tapes have dual graduation and comes complete with flat bottom brass bob.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 032	15 mtr/50 ft.	65 08 76
60 033	20 mtr/66 ft.	65 08 77
60 034	30 mtr/100 ft.	65 08 78



**BLACK STEEL SOUNDING TAPE**

High quality oil gauging tapes.  
All tapes have dual graduation and comes complete with flat bottom brass bob.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 035	15 mtr/50 ft.	65 08 66
60 036	20 mtr/66 ft.	65 08 67
60 037	30 mtr/100 ft.	65 08 68



**WHITE STEEL SOUNDING TAPE**

High quality oil gauging tapes.  
All tapes have dual graduation and comes complete with flat bottom brass bob.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 038	20 mtr/66 ft.	65 08 57
60 039	30 mtr/100 ft.	65 08 58



**RULES**

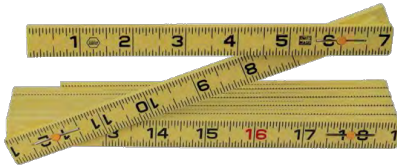
PH: 954-641-7840 FAX: 954-641-7850



**BRASS SOUNDING ROD**

A graduated square jointed folding brass rod with attached ring.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 025	1 mtr/39"	37 03 09



**FOLDING RULES**

Brass springs, dual graduation.

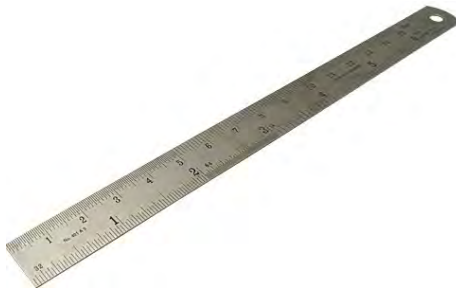
<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 263	1 mtr Aluminum	65 08 11
60 264	2 mtr Aluminum	
60 265	1 mtr Fiberglass	65 08 12
60 266	2 mtr Fiberglass	



**BRASS SLIDE CALIPER**

Engraved graduation. Dual scale mm/inch.

<u>PART #</u>	<u>SIZE</u>
60 212	0-100mm/0-4"



**STAINLESS STEEL RULES**

Flexible steel, dual graduation.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 267	150mm/6"	65 08 01
60 268	300mm/12"	65 08 02
60 269	600mm/24"	65 08 03
60 270	1000mm/39"	65 08 04

**TAPE MEASURES**



**TAPE MEASURES**

ABS case with lock, clip and strap.  
Dual graduation.

<u>PART #</u>	<u>LENGTH</u>	<u>WIDTH</u>	<u>ISSA #</u>
60 226	3.5 mtr./12 ft.	13mm	65 08 27
60 227	5 mtr./16 ft.	16mm	65 08 28
60 224	7 mtr./25 ft.	19mm	
60 223	10 mtr./33 ft.	25mm	



**STEEL TAPE MEASURES**

Enamel yellow steel tape  
ABS case with strap, plastic lever for rewind

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 228	10 mtr./33 ft.	65 08 36
60 229	20 mtr./66 ft.	65 08 37
60 230	30 mtr./100 ft.	65 08 38



**FIBERGLASS LINEN TAPE MEASURES**

Linen tape in ABS case, dual graduation.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 237	20 mtr./66 ft.	65 08 32
60 239	30 mtr./100 ft.	65 08 33
60 240	50 mtr./165 ft.	65 08 34

**CALIPERS**

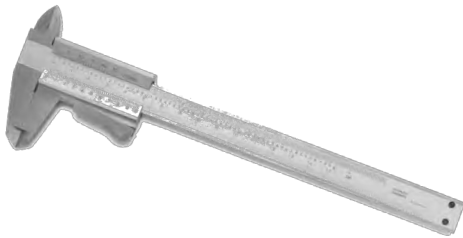
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**VERNIER CALIPERS**

Stainless Steel Vernier calipers with fine adjustment.  
Hardened steel, complete with case.  
Measures inside, outside, and depth.  
Guaranteed accurate. With satin chrome scale.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 210	0-100mm/4"	65 05 01
60 200	0-160mm/6"	65 05 11
60 201	0-200mm/8"	65 05 12



**VERNIER CALIPERS W/THUMB LOCK**

Fully hardened stainless steel construction.  
Satin chrome finish. Micro-fine black graduations.  
Direct reading for inside, outside and depth.  
All measuring surfaces are precision ground and lapped.

<u>PART #</u>	<u>SIZE</u>
60 202	0-150MM/6" with thumb lock



**H.D. VERNIER CALIPERS**

Stainless steel vernier caliper with fine adjustment & locking screw. Satin chrome finish.  
All calipers read .001 inch and 1/50mm.  
Longer jaws permit greater accessibility of larger work pieces.  
Accuracy meets U.S. Federal specifications

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 203	0-300mm/0-12"	65 05 13
60 204	0-600mm/0-24"	65 05 17
60 205	0-1000mm/0-40"	65 05 08



**DIAL CALIPERS**

Stainless steel Precision caliper.  
Covered rack for longer life and chip free operation.  
4-way measurement for outside, inside, depth and step.  
Adjustable dial for easy reading. One revolution.  
Positive lock. Fitted case. Meets DIN 862

<u>PART #</u>	<u>SIZE</u>
60 211	0-100mm/4"
60 208	0-150mm/6"
60 209	0-200mm/8"
60 216	0-300mm/12"

**CALIPERS**

PH: 954-641-7840 FAX: 954-641-7850

**ELECTRONIC DIGITAL CALIPERS**

Four-key type: Hold-key, On/Off key, Inch/mm key & Zero key.  
Body is hardened stainless steel.

4-way measurement for outside, inside, depth and step.

Thumb roller for moving the slider in smooth increments.

Hold-key can be used for data hold at any position.

Standard SR 44, 1.55V battery included. With fitted case.

Meets DIN 862



<u>PART #</u>	<u>SIZE</u>	<u>ACCURACY</u>
<b>60 206</b>	0-150mm/6"	± 0.001"/ 0,02mm
<b>60 207</b>	0-200mm/8"	± 0.001"/ 0,03mm
<b>60 215</b>	0-300mm/12"	± 0.0015"/ 0,04mm

**ULTRA SERIES ELECTRONIC DIGITAL CALIPERS**

Three-key Model: Inch/MM, On/Off & Zero

Last measuring position retained when shut off

4-way measurements: Outside, Inside, Depth & Step

Body is hardened stainless steel. With thumb roller. With fitted

case. Automatic shut-off after 5 minutes of non-use

Standard CR-2032(3V) battery included. Meets DIN 86



<u>PART #</u>	<u>SIZE</u>	<u>ACCURACY</u>
<b>60 217</b>	0-150mm/6"	± 0.001"/ 0,01mm
<b>60 218</b>	0-200mm/8"	± 0.001"/ 0,01mm
<b>60 219</b>	0-300mm/12"	± 0.001"/ 0,01mm

**SPLASH PROOF ELECTRONIC DIGITAL CALIPERS**

Coolant splash-proof, dust-proof and chip-proof

Switch power on/off key. With thumb roller. With fitted case.

Body and measuring is hardened stainless steel. Meets DIN862

Switchable inch/mm. Floating zero. Battery included.



<u>PART #</u>	<u>SIZE</u>	<u>ACCURACY</u>	<u>BATTERY</u>
<b>60 220</b>	0-150mm/6"	± 0.001"/ 0,02mm	SR44/1.55V
<b>60 221</b>	0-200mm/8"	± 0.001"/ 0,02mm	SR44/1.55V
<b>60 222</b>	0-300mm/12"	± 0.001"/ 0,02mm	CR2032/3V

**VERNIER DEPTH CALIPER**

All **stainless steel** vernier caliper with locking screw



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
<b>60 231</b>	150mm	
<b>60 213</b>	200mm	65 05 37
<b>60 214</b>	300mm	65 05 39
<b>60 232</b>	1000mm	

**MEASURING GAUGES**

PH: 954-641-7840 FAX: 954-641-7850



**TELESCOPING GAUGE SET**

Satin chrome finish, double action for quick checking of inside measurements. Vinyl pouch included.

<u>PART #</u>	<u>RANGE:</u>	<u>O.L.</u>
<b>60 233</b>	<b>5/16-1/2"</b>	4"
	1/2"-3/4"	4-1/2"
	3/4"-1-1/4"	4-1/2"
	1-1/4"-2-1/8"	6"
	2-1/8"-3-1/2"	6"
	3-1/2"-6"	6"



**CENTER THREAD GAUGES**

Graduated in 14ths and 20ths on one side and 24ths and 32nds on the other. Micro-fine graduations Whitworth or English Standard 55 Degrees

<u>PART #</u>	<u>RANGE</u>	<u>ISSA #</u>
<b>60 259</b>	Whitworth 55 deg.	65 06 31
<b>60 260</b>	Metric 60 deg.	65 06 33

**SCREW PITCH GAUGES**

Correct pitch is determined by matching blade teeth with threaders. Blades protected in sturdy steel case. Each blade clearly marked with proper thread size. Narrow designed blade permits use for internal and external screw threads.



<u>PART #</u>	<u>RANGE</u>	<u>DEGR.</u>	<u>LEAVES</u>
<b>60 085</b>	0.5-1.00mm	60	18
<b>60 089</b>	0.25-2.5mm	60	28
<b>60 090</b>	0.5-7.0mm	60	17
<b>60 086</b>	4-62 TPI/.25-6.0mm	55/60	52
<b>60 087</b>	4-62 TPI BSW	55	28
<b>60 088</b>	8-28 TPI BSP	55	6
<b>60 084</b>	4-84 TPI UNC/UNF	60	51



**FEELER GAUGES**

Range: 0.05 - 1.00mm

<u>PART #</u>	<u>LENGTH</u>	<u>ISSA #</u>
<b>60 105</b>	4"	65 05 63
<b>60 106</b>	6"	65 05 64
<b>60 107</b>	8"	
<b>60 108</b>	12"	



**MICROMETERS**

PH: 954-641-7840 FAX: 954-641-7850



**OUTSIDE MICROMETERS**

<u>PART #</u>	<u>RANGE</u>	<u>ISSA #</u>
60 245	0-25mm	65 03 01
60 246	25-50mm	65 03 02
60 247	50-75mm	65 03 03
60 244	75-100mm	65 03 04
60 243	100-125mm	65 03 05
60 242	125-150mm	65 03 06
60 241	150-175mm	65 03 07
60 254	175-200mm	65 03 08
60 248	200-225mm	65 03 09
60 261	225-250mm	65 03 10
60 249	250-275mm	65 03 11
60 262	275-300mm	65 03 12
60 275	300-400mm	65 03 84
60 250	400-500mm	65 03 85



**OUTSIDE MICROMETER SETS**

All sets in wooden case.

<u>PART #</u>	<u>RANGE</u>	<u>SET</u>	<u>ISSA #</u>
60 271	0-100mm	4-pc	65 03 81
60 272	0-150mm	6-pc	65 03 82
60 274	0-300mm	10-pc	
60 273	150-300mm	6-pc	65 03 83



**INSIDE MICROMETER SET**

Accuracy DIN 963, reading 0,01mm with extension rods in wooden case.

<u>PART #</u>	<u>RANGE</u>	<u>ISSA #</u>
60 251	50-175mm	65 04 41
60 253	50-250mm	65 04 42
60 252	50-600mm	65 04 43



**INDICATORS/ TESTERS**

PH: 954-641-7840 FAX: 954-641-7850



**PRECISION DIAL INDICATOR**

Rack & contact point made of hardened stainless steel. Jeweled movement.  
Lug back. Stem dia. 8mm  
50mm diameter dial face. 0.01mm graduation.

<u>PART #</u>	<u>RANGE</u>	<u>ISSA #</u>
60 276	0-5mm	
60 255	0-10mm	65 14 03
60 257	0-20mm	
60 256	0-30mm	



**UNIVERSAL DIAL INDICATOR STAND**

Universal magnetic base with 3-D rigid steel arm movement. Unique central locking mechanism.  
Fine adjustable. On/Off switch.  
Super power pull 130 lbs.  
Base Dimension: 2" (Width) x 2-1/2" (Depth)  
Supplied without dial indicator.

<u>PART#</u>	<u>ARM</u>	<u>BASE</u>
60 258	9"/230mm	2 x 2-1/2"
60 083	7.5"/190mm, Mini	1.2 x 1.5"



**FLEXIBLE ARM MAGNETIC STAND**

Permanent magnet with On/ Off switch control.  
Cam lever operates cable. Locks it rigid at any desired position. Cable tension adjustable. 12" Stem flexes full 360°, Power Pull: 130 lbs.

<u>PART#</u>	<u>ARM</u>	<u>BASE</u>
60 082	12"/300mm	2 x 2-1/2"



**CRANKSHAFT DISTORTION DIAL GAUGE**

An inside gauge for checking the distortion of webs on crankshafts. With these gauges it is possible to check bearing alignments or deflections of the shaft without having to dismantle the engine. Indicator; 0.01mm graduation

<u>PART#</u>	<u>SIZE</u>
60 081	100 to 500mm, 85 to 300mm ISSA 652670



**MAGNETIC STICK TESTER**

For testing solenoid valves, relay coils and hydraulic or pneumatic systems without having to shut them down.  
Suitable for AC and DC current.

<u>PART#</u>	<u>DESCRIPTION</u>
60 010	150 mm

**CALIPERS**

PH: 954-641-7840 FAX: 954-641-7850



**INSIDE SPRING CALIPER**

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 059	4"	65 01 71
60 060	6"	65 01 73
60 061	8"	65 01 74
60 055	10"	65 01 75
60 062	12"	65 01 76
60 057	18"	
60 049	24"	
60 050	36"	



**OUTSIDE CALIPER**

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 063	6"	65 01 03
60 064	8"	65 01 04
60 076	10"	65 01 05
60 065	12"	65 01 06
60 066	18"	65 01 08



**OUTSIDE SPRING CALIPER**

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 067	4"	65 01 21
60 068	6"	65 01 23
60 069	8"	65 01 24
60 056	10"	65 01 25
60 070	12"	65 01 26
60 054	18"	
60 047	24"	
60 046	36"	



**SPRING DIVIDER**

Made of hardened steel with points that are extra tempered for scriping on iron surfaces. Has a rigid spring and adjustable, quick setting screw.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
60 071	4"	65 02 32
60 072	6"	65 02 34
60 073	8"	65 02 35
60 075	10"	65 02 36
60 074	12"	65 02 37
60 053	18"	
60 058	24"	
60 045	36"	

**SQUARES**

PH: 954-641-7840 FAX: 954-641-7850



**T-BEVEL 8"**

Rust Proof Stainless Steel blade 8", high impact Handle

**60 001**            8" (20 cm) O.L.



**TRI & MITRE SQUARE 8"**

Rust Proof Stainless Steel blade 8", black precision etched scales

**60 002**            8" (20 cm) O.L. blade  
5 1/2" plastic handle with level



**COMBINATION SQUARE 12"**

Rust Proof Stainless Steel blade 12"  
Black precision etched scales  
Durable cast zinc body

**60 003**            12" (30 cm) O.L. blade  
5" cast zinc handle with level



**60 006**            4-Pc set include square head, center head, protractor and blade  
12" blade



**ALUMINUM FRAMING SQUARE 16X24"**

Multiple scales, permanent deep stampings for durability

**60 004**            16" x 24" aluminum blade  
1/8", 1/10", 1/12" and 1/16" scales

# **TUBING, FITTINGS**

**STEEL TUBING**



**METRIC STEEL TUBING**

EO (Ermeto) type seamless cold drawn annealed hydraulic steel tubing.  
DIN 2445. All sizes in 6 meter lengths.

<b><u>PART #</u></b>	<b><u>TUBE O.D.</u></b>	<b><u>WALL THICK.</u></b>	<b><u>TUBE I.D.</u></b>	<b><u>WORK PRESS.</u></b>	<b><u>WEIGHT KG/MT</u></b>
<b>70 030</b>	6mm	1.0mm	4mm	389 Bar	0.123
<b>70 031</b>	8mm	1.0mm	6mm	333 Bar	0.222
<b>70 032</b>	10mm	1.5mm	7mm	373 Bar	0.314
<b>70 033</b>	12mm	1.5mm	9mm	353 Bar	0.388
<b>70 034</b>	14mm	2.0mm	10mm	403 Bar	0.592
<b>70 035</b>	15mm	1.5mm	12mm	282 Bar	0.499
<b>70 036</b>	16mm	2.0mm	12mm	353 Bar	0.691
<b>70 037</b>	18mm	2.0mm	14mm	313 Bar	0.789
<b>70 038</b>	20mm	2.5mm	15mm	353 Bar	1.079
<b>70 039</b>	22mm	2.0mm	18mm	256 Bar	0.986
<b>70 040</b>	25mm	3.0mm	19mm	338 Bar	1.628
<b>70 041</b>	28mm	2.5mm	23mm	252 Bar	1.572
<b>70 042</b>	30mm	3.0mm	24mm	282 Bar	1.998
<b>70 043</b>	35mm	3.0mm	29mm	242 Bar	2.367
<b>70 044</b>	38mm	4.0mm	30mm	297 Bar	3.354
<b>70 045</b>	42mm	3.0mm	36mm	201 Bar	2.885

**STAINLESS STEEL TUBING**



**METRIC STAINLESS STEEL TUBING**

EO (Ermeto) type seamless cold drawn heat-treated hydraulic stainless steel tubing. DIN 2413. All sizes in 6 meter lengths.

<u>PART #</u>	<u>TUBE O.D.</u>	<u>WALL THICK.</u>	<u>TUBE I.D.</u>	<u>WORK PRESS.</u>	<u>WEIGHT KG/MT</u>
70 500	6mm	1.0mm	4mm	426 Bar	0.125
70 501	8mm	1.0mm	6mm	368 Bar	0.175
70 502	10mm	1.5mm	7mm	389 Bar	0.319
70 503	12mm	1.5mm	9mm	368 Bar	0.394
71 000	14mm	1.5mm	11mm	315 Bar	0.469
70 504	15mm	1.5mm	12mm	294 Bar	0.507
70 505	16mm	1.5mm	13mm	268 Bar	0.536
70 506	18mm	1.5mm	14mm	245 Bar	0.620
70 507	20mm	2.0mm	16mm	294 Bar	0.901
70 508	22mm	2.0mm	18mm	267 Bar	1.002
70 509	24mm	2.0mm	20mm	216 Bar	1.068
70 510	25mm	2.0mm	21mm	234 Bar	1.284
71 017	28mm	2.0mm	24mm	210 Bar	1.302
70 511	30mm	2.5mm	25mm	294 Bar	1.948
70 512	35mm	2.5mm	30mm	246 Bar	1.888
70 513	38mm	2.5mm	33mm	209 Bar	2.354
70 514	42mm	3.0mm	36mm	210 Bar	2.930

**CHROME PLATED COPPER TUBING**



Rigid seamless in 1 meter length

<u>PART #</u>	<u>SIZE</u>
72 506	8 mm
72 507	10 mm
72 508	12 mm
72 509	15 mm

Flexible soft tubing in 5 meter coils

<u>PART #</u>	<u>SIZE</u>
72 599	6 mm
72 600	8 mm
72 601	10 mm
72 602	12 mm
72 603	15 mm



**COPPER TUBING**



**METRIC COPPER TUBING - HARD**

Rigid seamless copper tubing in 5 meter lengths.

<u>PART #</u>	<u>TUBE O.D.</u>	<u>WALL THICK.</u>	<u>TUBE I.D.</u>	<u>WORK PRESS.</u>	<u>WEIGHT KG/MT</u>	<u>ISSA #</u>
70 006	4mm	0.8mm	4mm	148 Bar	0.118	
70 001	6mm	1.0mm	4mm	142 Bar	0.141	71 14 04
70 002	8mm	1.0mm	6mm	109 Bar	0.196	71 14 10
70 004	10mm	1.0mm	8mm	85 Bar	0.255	71 14 16
70 005	12mm	1.0mm	10mm	70 Bar	0.385	71 14 19
70 007	14mm	1.0mm	12mm	64 Bar	0.399	71 14 27
70 008	15mm	1.0mm	13mm	56 Bar	0.448	71 14 30
70 009	16mm	1.0mm	14mm	52 Bar	0.411	71 14 38
70 010	18mm	1.0mm	16mm	47 Bar	0.477	71 14 41
70 011	20mm	1.5mm	17mm	42 Bar	0.803	71 14 49
70 012	22mm	1.5mm	19mm	57 Bar	0.881	71 14 52
70 013	25mm	1.5mm	22mm		0.992	71 14 57
70 014	28mm	1.5mm	25mm		1.141	71 14 64
70 015	30mm	2.0mm	26mm		1.756	
70 003	35mm	2.0mm	31mm		1.961	
70 017	38mm	2.0mm	34mm		2.121	
70 016	42mm	2.0mm	38mm		2.272	

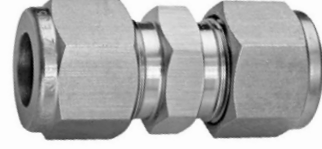


**METRIC COPPER TUBING - SOFT**

Flexible annealed copper tubing in 10 meter pancake coils.

<u>PART #</u>	<u>TUBE O.D.</u>	<u>WALL THICK.</u>	<u>TUBE I.D.</u>	<u>WORK PRESS.</u>	<u>WEIGHT KG/ROLL</u>	<u>ISSA#</u>
70 018	4mm	.8mm	2.4mm	111 Bar	1.05	
70 020	6mm	.8mm	4.4mm	107 Bar	1.25	71 15 02
70 021	8mm	.8mm	6.4mm	82 Bar	1.66	71 15 04
70 022	10mm	.8mm	8.4mm	66 Bar	2.15	71 15 06
70 023	12mm	1.0mm	10.4mm	55 Bar	2.72	71 15 07
70 024	14mm	1.0mm	12.4mm	50 Bar	2.89	
70 019	15mm	1.0mm	13.4mm	44 Bar	3.25	
70 025	16mm	1.0mm	14.0mm	52 Bar	3.55	

**METRIC COMPRESSION UNION**  
**G-TYPE**



**STEEL**

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>71 221</b>	4mm
<b>71 222</b>	6mm
<b>71 223</b>	8mm
<b>71 224</b>	10mm
<b>71 225</b>	12mm
<b>71 226</b>	14mm
<b>71 227</b>	15mm
<b>71 228</b>	16mm
<b>71 229</b>	18mm
<b>71 230</b>	20mm
<b>71 231</b>	22mm
<b>71 232</b>	25mm
<b>71 233</b>	28mm
<b>71 234</b>	30mm
<b>71 235</b>	35mm
<b>71 236</b>	38mm
<b>71 237</b>	42mm

**BRASS**

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>71 238</b>	4mm
<b>71 239</b>	6mm
<b>71 240</b>	8mm
<b>71 241</b>	10mm
<b>71 242</b>	12mm
<b>71 243</b>	14mm
<b>71 244</b>	15mm
<b>71 245</b>	16mm
<b>71 246</b>	18mm
<b>71 247</b>	20mm
<b>71 248</b>	22mm
<b>71 249</b>	25mm
<b>71 250</b>	28mm
<b>71 251</b>	30mm
<b>71 252</b>	35mm
<b>71 253</b>	38mm
<b>71 254</b>	42mm

**STAINLESS STEEL**

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>71 255</b>	4mm
<b>71 256</b>	6mm
<b>71 257</b>	8mm
<b>71 258</b>	10mm
<b>71 259</b>	12mm
<b>71 260</b>	14mm
<b>71 261</b>	15mm
<b>71 262</b>	16mm
<b>71 263</b>	18mm
<b>71 264</b>	20mm
<b>71 265</b>	22mm
<b>71 266</b>	25mm
<b>71 267</b>	28mm
<b>71 268</b>	30mm
<b>71 269</b>	35mm
<b>71 270</b>	38mm
<b>71 271</b>	42mm

**METRIC COMPRESSION ELBOW**  
**W-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
71 272	4mm
71 273	6mm
71 274	8mm
71 275	10mm
71 276	12mm
71 277	14mm
71 278	15mm
71 279	16mm
71 280	18mm
71 281	20mm
71 282	22mm
71 283	25mm
71 284	28mm
71 285	30mm
71 286	35mm
71 287	38mm
71 288	42mm

**BRASS**

<u>PART #</u>	<u>SIZE</u>
71 289	4mm
71 290	6mm
71 291	8mm
71 292	10mm
71 293	12mm
71 294	14mm
71 295	15mm
71 296	16mm
71 297	18mm
71 298	20mm
71 299	22mm
72 300	25mm
72 301	28mm
72 302	30mm
72 303	35mm
72 304	38mm
72 305	42mm

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
72 306	4mm
72 307	6mm
72 308	8mm
72 309	10mm
72 310	12mm
72 311	14mm
72 312	15mm
72 313	16mm
72 314	18mm
72 315	20mm
72 316	22mm
72 317	25mm
72 318	28mm
72 319	30mm
72 320	35mm
72 321	38mm
72 322	42mm

**METRIC COMPRESSION TEE**  
**T-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
71 323	4mm
71 324	6mm
71 325	8mm
71 326	10mm
71 327	12mm
71 328	14mm
71 329	15mm
71 330	16mm
71 331	18mm
71 332	20mm
71 333	22mm
71 334	25mm
71 335	28mm
71 336	30mm
71 337	35mm
71 338	38mm
71 339	42mm

**BRASS**

<u>PART #</u>	<u>SIZE</u>
71 340	4mm
71 341	6mm
71 342	8mm
71 343	10mm
71 344	12mm
71 345	14mm
71 346	15mm
71 347	16mm
71 348	18mm
71 349	20mm
71 350	22mm
71 351	25mm
71 352	28mm
71 353	30mm
71 354	35mm
71 355	38mm
71 356	42mm

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
71 358	4mm
71 359	6mm
71 360	8mm
71 361	10mm
71 362	12mm
71 363	14mm
71 364	15mm
71 365	16mm
71 366	18mm
71 367	20mm
71 368	22mm
71 369	25mm
71 370	28mm
71 371	30mm
71 372	35mm
71 373	38mm
71 374	42mm

**METRIC COMPRESSION CROSS**  
**K-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
71 375	4mm
71 376	6mm
71 377	8mm
71 378	10mm
71 379	12mm
71 380	14mm
71 381	15mm
71 382	16mm
71 383	18mm
71 384	20mm
71 385	22mm
71 386	25mm
71 387	28mm
71 388	30mm
71 389	35mm
71 390	38mm
71 391	42mm

**BRASS**

<u>PART #</u>	<u>SIZE</u>
71 392	4mm
71 393	6mm
71 394	8mm
71 395	10mm
71 396	12mm
71 397	14mm
71 398	15mm
71 399	16mm
71 357	22mm

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
71 400	6mm
71 401	8mm
71 402	10mm
71 403	12mm
71 404	14mm
71 405	15mm
71 406	16mm
71 407	18mm
71 408	20mm
71 409	22mm
71 410	25mm
71 560	28mm
71 561	30mm
71 562	35mm
71 563	38mm
71 564	42mm

**METRIC COMPRESSION BULKHEAD UNION**  
**SV-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
71 824	6mm
71 825	8mm
71 826	10mm
71 827	12mm
71 828	14mm
71 829	15mm
71 830	16mm
71 831	18mm
71 832	20mm
71 833	22mm
71 834	25mm
71 835	28mm
71 836	30mm
71 837	35mm
71 838	38mm
71 839	42mm

**BRASS**

<u>PART #</u>	<u>SIZE</u>
71 840	6mm
71 841	8mm
71 842	10mm
71 843	12mm
71 844	14mm
71 845	15mm
71 846	16mm
71 847	18mm

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
71 856	6mm
71 857	8mm
71 858	10mm
71 859	12mm
71 860	14mm
71 861	15mm
71 862	16mm
71 863	18mm
71 864	20mm
71 865	22mm
71 866	25mm
71 867	28mm
71 868	30mm
71 869	35mm
71 870	38mm
71 871	42mm



**BSP MALE STUD CONNECTOR  
METRIC TUBE x MALE BSPP  
GE-TYPE**



**STEEL**

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
71 411	4mm x 1/8"
71 412	6mm x 1/8"
71 413	6mm x 1/4"
71 784	6mm x 3/8"
71 414	8mm x 1/8"
71 415	8mm x 1/4"
71 416	8mm x 3/8"
71 785	8mm x 1/2"
71 417	10mm x 1/4"
71 418	10mm x 3/8"
71 786	10mm x 1/2"
71 419	12mm x 1/4"
71 420	12mm x 3/8"
71 421	12mm x 1/2"
71 422	14mm x 1/2"
71 787	15mm x 3/8"
71 423	15mm x 1/2"
71 424	16mm x 1/2"
71 425	18mm x 1/2"
71 426	20mm x 3/4"
71 427	22mm x 3/4"
71 552	25mm x 3/4"
71 428	25mm x 1"
71 429	28mm x 1"
71 430	30mm x 1-1/4"
71 431	35mm x 1-1/4"
71 432	38mm x 1-1/2"
71 433	42mm x 1-1/2"



**BRASS**

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
71 434	4mm x 1/8"
71 435	6mm x 1/8"
71 436	6mm x 1/4"
71 437	6mm x 3/8"
71 438	8mm x 1/8"
71 439	8mm x 1/4"
71 440	8mm x 3/8"
71 441	8mm x 1/2"
71 442	10mm x 1/4"
71 443	10mm x 3/8"
71 444	10mm x 1/2"
71 445	12mm x 1/4"
71 446	12mm x 3/8"
71 447	12mm x 1/2"
71 788	14mm x 1/2"
71 448	15mm x 3/8"
71 449	15mm x 1/2"
71 450	16mm x 1/2"
71 451	18mm x 1/2"
71 452	20mm x 3/4"
71 453	22mm x 3/4"
71 454	25mm x 1"
71 455	28mm x 1"



**STAINLESS STEEL**

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
71 456	4mm x 1/8"
71 457	6mm x 1/8"
71 458	6mm x 1/4"
71 789	6mm x 3/8"
71 459	8mm x 1/8"
72 168	8mm x 1/4"
72 169	8mm x 3/8"
72 170	8mm x 1/2"
72 171	10mm x 1/4"
72 172	10mm x 3/8"
71 460	10mm x 1/2"
71 461	12mm x 1/4"
71 462	12mm x 3/8"
71 463	12mm x 1/2"
71 464	14mm x 1/2"
71 465	15mm x 3/8"
71 466	15mm x 1/2"
71 467	16mm x 1/2"
71 468	18mm x 1/2"
71 469	20mm x 3/4"
71 470	22mm x 3/4"
71 471	25mm x 1"
71 472	28mm x 1"
71 473	30mm x 1-1/4"
71 474	35mm x 1-1/4"
71 475	38mm x 1-1/2"
71 476	42mm x 1-1/2"

**NPT MALE STUD CONNECTOR  
METRIC TUBE x MALE NPT  
GE-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
71 477	4mm x 1/8"
71 478	6mm x 1/8"
71 479	6mm x 1/4"
71 554	6mm x 3/8"
71 555	6mm x 1/2"
71 480	8mm x 1/8"
71 481	8mm x 1/4"
71 551	8mm x 3/8"
71 556	8mm x 1/2"
71 482	10mm x 1/4"
71 483	10mm x 3/8"
71 557	10mm x 1/2"
71 484	12mm x 1/4"
71 485	12mm x 3/8"
71 486	12mm x 1/2"
71 487	14mm x 1/2"
71 558	15mm x 3/8"
71 489	15mm x 1/2"
71 490	16mm x 1/2"
71 491	18mm x 1/2"
71 492	20mm x 3/4"
71 493	22mm x 3/4"
71 494	25mm x 1"
71 495	28mm x 1"
71 496	30mm x 1-1/4"
71 553	35mm x 1-1/4"
71 497	38mm x 1-1/2"
71 498	42mm x 1-1/2"

**BRASS**

<u>PART #</u>	<u>SIZE</u>
71 499	4mm x 1/8"
71 500	6mm x 1/8"
71 501	6mm x 1/4"
71 502	6mm x 3/8"
71 522	6mm x 1/2"
71 503	8mm x 1/8"
71 504	8mm x 1/4"
71 505	8mm x 3/8"
71 506	8mm x 1/2"
71 523	10mm x 1/8"
71 507	10mm x 1/4"
71 508	10mm x 3/8"
71 509	10mm x 1/2"
71 510	12mm x 1/4"
71 511	12mm x 3/8"
71 512	12mm x 1/2"
71 513	14mm x 1/2"
71 514	15mm x 3/8"
71 515	15mm x 1/2"
71 516	16mm x 1/2"
71 517	18mm x 1/2"
71 518	20mm x 3/4"
71 519	22mm x 3/4"
71 524	25mm x 3/4"
71 520	25mm x 1"
71 521	28mm x 1"
71 569	30mm x 1-1/4"
71 567	35mm x 1-1/4"
71 571	38mm x 1-1/2"
71 568	42mm x 1-1/2"

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
71 790	4mm x 1/8"
71 525	6mm x 1/8"
71 526	6mm x 1/4"
71 527	6mm x 3/8"
71 565	6mm x 1/2"
71 528	8mm x 1/8"
71 529	8mm x 1/4"
71 791	8mm x 3/8"
71 530	8mm x 1/2"
71 531	10mm x 1/4"
71 532	10mm x 3/8"
71 533	10mm x 1/2"
71 534	12mm x 1/4"
71 535	12mm x 3/8"
71 536	12mm x 1/2"
71 537	14mm x 1/2"
71 538	15mm x 3/8"
71 539	15mm x 1/2"
71 540	16mm x 1/2"
71 541	18mm x 1/2"
71 549	20mm x 1/2"
71 542	20mm x 3/4"
71 543	22mm x 3/4"
71 544	25mm x 1"
71 545	28mm x 1"
71 546	30mm x 1-1/4"
71 566	35mm x 1-1/4"
71 547	38mm x 1-1/2"
71 548	42mm x 1-1/2"

**NPT MALE STUD ELBOW  
METRIC TUBE x MALE NPT  
WE-TYPE**

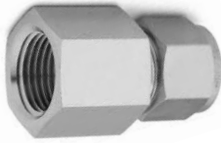


<b><u>STEEL</u></b>	
<b><u>PART #</u></b>	<b><u>SIZE</u></b>
71 669	4mm x 1/8"
71 623	6mm x 1/8"
71 624	6mm x 1/4"
71 634	8mm x 1/8"
71 626	8mm x 1/4"
71 627	8mm x 3/8"
71 628	10mm x 1/4"
71 629	10mm x 3/8"
71 630	12mm x 1/4"
71 631	12mm x 3/8"
71 632	12mm x 1/2"
71 633	14mm x 1/2"
71 622	15mm x 1/2"
71 635	16mm x 1/2"
71 636	18mm x 1/2"
71 637	20mm x 3/4"
71 638	22mm x 3/4"
71 639	25mm x 1"
71 640	28mm x 1"
71 641	30mm x 1-1/4"
71 625	35mm x 1-1/4"
71 695	38mm x 1-1/2"
71 696	42mm x 1-1/2"

<b><u>BRASS</u></b>	
<b><u>PART #</u></b>	<b><u>SIZE</u></b>
71 644	4mm x 1/8"
71 645	6mm x 1/8"
71 646	6mm x 1/4"
71 647	6mm x 3/8"
71 648	8mm x 1/8"
71 649	8mm x 1/4"
71 650	8mm x 3/8"
71 651	8mm x 1/2"
71 666	10mm x 1/8"
71 652	10mm x 1/4"
71 653	10mm x 3/8"
71 654	10mm x 1/2"
71 655	12mm x 1/4"
71 656	12mm x 3/8"
71 657	12mm x 1/2"
71 658	14mm x 1/2"
71 667	15mm x 1/2"
71 660	16mm x 1/2"
71 661	18mm x 1/2"
71 662	20mm x 3/4"
71 663	22mm x 3/4"
71 668	25mm x 3/4"
71 664	25mm x 1"
71 665	28mm x 1"

<b><u>STAINLESS STEEL</u></b>	
<b><u>PART #</u></b>	<b><u>SIZE</u></b>
71 669	4mm x 1/8"
71 670	6mm x 1/8"
71 671	6mm x 1/4"
71 672	6mm x 3/8"
71 673	8mm x 1/8"
71 674	8mm x 1/4"
71 675	8mm x 3/8"
71 676	8mm x 1/2"
71 677	10mm x 1/4"
71 678	10mm x 3/8"
71 679	10mm x 1/2"
71 680	12mm x 1/4"
71 681	12mm x 3/8"
71 682	12mm x 1/2"
71 683	14mm x 1/2"
71 684	15mm x 3/8"
71 694	15mm x 1/2"
71 685	16mm x 1/2"
71 686	18mm x 1/2"
71 687	20mm x 3/4"
71 688	22mm x 3/4"
71 689	25mm x 1"
71 690	28mm x 1"
71 691	30mm x 1-1/4"
71 620	35mm x 1-1/4"
71 692	38mm x 1-1/2"
71 693	42mm x 1-1/2"

**BSP FEMALE CONNECTOR  
METRIC TUBE x FEMALE BSP  
GAI-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
71 740	6mm x 1/8"
71 697	6mm x 1/4"
71 699	8mm x 1/4"
71 700	8mm x 3/8"
71 698	8mm x 1/2"
71 701	10mm x 1/4"
71 702	10mm x 3/8"
71 703	10mm x 1/2"
71 704	12mm x 3/8"
71 705	12mm x 1/2"
71 706	14mm x 1/2"
71 707	15mm x 1/2"
71 708	16mm x 1/2"
71 709	18mm x 1/2"
71 710	20mm x 3/4"
71 711	22mm x 3/4"
71 712	25mm x 1"
71 713	28mm x 1"
71 714	30mm x 1-1/4"
71 715	35mm x 1-1/4"
71 716	38mm x 1-1/2"
71 717	42mm x 1-1/2"

**BRASS**

<u>PART #</u>	<u>SIZE</u>
71 718	4mm x 1/8"
71 719	6mm x 1/8"
71 720	6mm x 1/4"
71 721	6mm x 3/8"
71 722	8mm x 1/8"
71 723	8mm x 1/4"
71 724	8mm x 3/8"
71 725	8mm x 1/2"
71 726	10mm x 1/4"
71 727	10mm x 3/8"
71 728	10mm x 1/2"
71 729	12mm x 1/4"
71 730	12mm x 3/8"
71 731	12mm x 1/2"
71 732	14mm x 1/2"
71 733	15mm x 3/8"
71 734	15mm x 1/2"
71 735	16mm x 1/2"
71 792	18mm x 1/2"
71 737	20mm x 1/2"
71 736	20mm x 3/4"
71 738	22mm x 3/4"

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
72 738	6mm x 1/8"
71 739	6mm x 1/4"
71 742	8mm x 1/4"
71 743	8 mm x 3/8"
71 744	8mm x 1/2"
71 745	10mm x 1/4"
72 746	10mm x 3/8"
71 747	10mm x 1/2"
71 748	12mm x 1/4"
71 749	12mm x 3/8"
71 750	12mm x 1/2"
71 751	14mm x 1/2"
71 752	15mm x 3/8"
71 753	15mm x 1/2"
71 754	16mm x 1/2"
71 755	18mm x 1/2"
71 756	20mm x 3/4"
71 757	22mm x 3/4"
71 758	25mm x 1"
71 759	28mm x 1"
71 760	30mm x 1-1/4"
71 761	35mm x 1-1/4"
71 762	38mm x 1-1/2"
71 763	42mm x 1-1/2"

**METRIC UNION REDUCERS  
GR-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
71 901	8/6mm
71 902	10/6mm
71 903	10/8mm
71 904	12/6mm
71 905	12/8mm
71 906	12/10mm
71 907	14/10mm
71 908	14/12mm
71 909	15/10mm
71 910	15/12mm
71 911	16/12mm
71 912	16/14mm
71 913	18/10mm
71 914	18/12mm
71 915	18/15mm
71 916	20/10mm
71 917	20/12mm
71 918	20/16mm
71 919	22/12mm
71 920	22/15mm
71 921	22/18mm
71 922	25/16mm
71 923	25/20mm
71 924	28/15mm
71 925	28/18mm
71 926	28/22mm
71 927	30/20mm
71 928	30/25mm
71 929	35/22mm
71 930	35/28mm
71 931	38/30mm
71 932	42/28mm
71 933	42/35mm

**BRASS**

<u>PART #</u>	<u>SIZE</u>
71 951	8/6mm
71 952	10/6mm
71 953	10/8mm
71 954	12/6mm
71 955	12/8mm
71 956	12/10mm
71 957	14/10mm
71 958	14/12mm
71 959	15/10mm
71 960	15/12mm

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
71 971	8/6mm
71 972	10/6mm
71 973	10/8mm
71 974	12/6mm
71 975	12/8mm
71 976	12/10mm
71 977	14/10mm
71 978	14/12mm
71 979	15/10mm
71 980	15/12mm
71 981	16/12mm
71 982	16/14mm
71 983	18/10mm
71 984	18/12mm
71 985	18/15mm
71 986	20/10mm
71 987	20/12mm
71 988	20/16mm
71 989	22/12mm
71 990	22/15mm
71 991	22/18mm
71 992	25/16mm
71 993	25/20mm
71 994	28/15mm
71 995	28/18mm
71 996	28/22mm
71 997	30/20mm
71 998	30/25mm
71 999	35/22mm
72 000	35/28mm
72 001	38/30mm
72 002	42/28mm
72 003	42/35mm

**METRIC TUBE NUT  
M-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
72 036	4mm
72 037	6mm
72 040	8mm
72 043	10mm
72 046	12mm
72 039	14mm
72 049	15mm
72 050	16mm
72 051	18mm
72 052	20mm
72 053	22mm
72 054	25mm
72 062	28mm
72 063	30mm
72 065	35mm
72 058	38mm
72 059	42mm



**BRASS**

<u>PART #</u>	<u>SIZE</u>
72 060	4mm
72 061	6mm
72 064	8mm
72 067	10mm
72 069	12mm
72 071	14mm
72 072	15mm
72 073	16mm
72 074	18mm
72 075	20mm
72 076	22mm
72 077	25mm
72 078	28mm
72 079	30mm
72 080	35mm
72 081	38mm
72 082	42mm



**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
72 083	4mm
72 084	6mm
72 087	8mm
72 089	10mm
72 091	12mm
72 093	14mm
72 094	15mm
72 095	16mm
72 096	18mm
72 097	20mm
72 098	22mm
72 099	25mm
72 100	28mm
72 101	30mm
72 102	35mm
72 103	38mm
72 104	42mm

**METRIC CUTTING RING  
DPR-TYPE**



**STEEL**

<u>PART #</u>	<u>SIZE</u>
72 105	4mm
72 107	6mm
72 109	8mm
72 111	10mm
72 113	12mm
72 115	14mm
72 116	15mm
72 117	16mm
72 118	18mm
72 119	20mm
72 120	22mm
72 121	25mm
72 122	28mm
72 123	30mm
72 124	35mm
72 125	38mm
72 126	42mm



**BRASS**

<u>PART #</u>	<u>SIZE</u>
72 127	4mm
72 128	6mm
72 129	8mm
72 130	10mm
72 132	12mm
72 134	14mm
72 135	15mm
72 136	16mm
72 137	18mm
72 138	20mm
72 139	22mm
72 140	25mm
72 141	28mm
72 142	30mm
72 143	35mm
72 144	38mm
72 145	42mm



**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
72 146	4mm
72 147	6mm
72 150	8mm
72 152	10mm
72 154	12mm
72 156	14mm
72 157	15mm
72 158	16mm
72 159	18mm
72 160	20mm
72 161	22mm
72 162	25mm
72 163	28mm
72 164	30mm
72 165	35mm
72 166	38mm
72 167	42mm



**METRIC CHROME PLATED BRASS TUBE FITTINGS**



**UNION**

<u>PART #</u>	<u>SIZE</u>
72 400	6mm
72 401	8mm
72 402	10mm
72 403	12mm
72 404	15mm
72 405	22mm



**ELBOW**

<u>PART #</u>	<u>SIZE</u>
72 410	6mm
72 411	8mm
72 412	10mm
72 413	12mm
72 414	15mm
72 415	22mm



**TEE**

<u>PART #</u>	<u>SIZE</u>
72 420	6mm
72 421	8mm
72 422	10mm
72 423	12mm
72 424	15mm
72 425	22mm



**MALE CONNECTOR**

<u>PART #</u>	<u>SIZE</u>
72 430	6mm x 1/8"
72 431	6mm x 1/4"
72 432	6mm x 3/8"
72 433	6mm x 1/2"
72 434	8mm x 1/8"
72 435	8mm x 1/4"
72 436	8mm x 3/8"
72 437	8mm x 1/2"
72 438	10mm x 1/8"
72 439	10mm x 1/4"
72 440	10mm x 3/8"
72 441	10mm x 1/2"
72 442	12mm x 1/4"
72 443	12mm x 3/8"
72 444	12mm x 1/2"
72 445	15mm x 1/2"
72 446	22mm x 1/2"



**MALE ELBOW**

<u>PART #</u>	<u>SIZE</u>
72 460	6mm x 1/8"
72 461	6mm x 1/4"
72 462	6mm x 3/8"
72 463	8mm x 1/8"
72 464	8mm x 1/4"
72 465	8mm x 3/8"
72 466	10mm x 1/8"
72 467	10mm x 1/4"
72 468	10mm x 3/8"
72 469	10mm x 1/2"
72 470	12mm x 1/4"
72 471	12mm x 3/8"
72 472	12mm x 1/2"
72 473	15mm x 1/2"
72 474	22mm x 1/2"

**COPPER SOLDER FITTINGS**



**SOCKETS - FIG. 5270**

<u>PART #</u>	<u>SIZE</u>
72 055	6mm
72 056	8mm
72 057	10mm
71 058	12mm
71 059	14mm
71 060	15mm
71 061	16mm
71 062	18mm
71 063	22mm
71 064	28mm
71 065	35mm
71 066	42mm
71 056	54mm



**ELBOW 90 DEG. - FIG. 5090**

<u>PART #</u>	<u>SIZE</u>
71 067	6mm
71 068	8mm
71 069	10mm
71 070	12mm
71 071	14mm
71 072	15mm
71 073	16mm
71 074	18mm
71 075	22mm
71 076	28mm
71 077	35mm
71 078	42mm
71 057	54mm



**ELBOW 45 DEG. - FIG. 5041**

<u>PART #</u>	<u>SIZE</u>
71 300	6mm
71 301	8mm
71 302	10mm
71 303	12mm
71 304	14mm
71 305	15mm
71 306	16mm
71 307	18mm
71 308	22mm
71 309	28mm
71 310	35mm
71 311	42mm
71 054	54mm



**TEE - FIG. 5130**

<u>PART #</u>	<u>SIZE</u>
70 167	6mm
70 168	8mm
70 169	10mm
70 170	12mm
70 171	14mm
70 172	15mm
70 173	16mm
70 174	18mm
70 175	22mm
70 176	28mm
70 177	35mm
70 178	42mm
71 053	54mm

**COPPER SOLDER FITTINGS**



**SOCKET REDUCER - FIG. 5240**

Copper solder reducer.

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
71 079	8x6mm	71 090	16x14mm	71 101	22x18mm
71 080	10x6mm	71 091	16x15mm	71 102	28x12mm
71 081	10x8mm	71 092	18x10mm	71 103	28x15mm
70 100	12x6mm	71 093	18x12mm	71 104	28x18mm
71 082	12x8mm	71 094	18x14mm	71 105	28x22mm
71 083	12x10mm	71 095	18x15mm	71 106	35x22mm
71 084	14x10mm	71 096	18x16mm	71 107	35x28mm
71 085	14x12mm	71 097	22x12mm	71 108	42x22mm
71 086	15x10mm	71 098	22x14mm	71 109	42x28mm
71 087	15x12mm	71 099	22x15mm	71 110	42x35mm
71 088	16x10mm	71 100	22x16mm		
71 089	16x12mm				



**CAPS - FIG. 5301**

Copper solder cap.

<u>PART #</u>	<u>SIZE</u>
70 071	10mm
70 072	12mm
70 073	14mm
70 074	15mm
70 075	16mm
70 076	18mm
70 077	22mm
70 078	28mm
70 079	35mm
70 080	42mm
70 068	54mm



**UNION - BRONZE**

Bronze solder union.

<u>PART #</u>	<u>SIZE</u>
70 046	10mm
70 047	12mm
70 048	15mm
70 049	16mm
70 050	18mm
70 051	22mm
70 052	28mm
70 053	35mm
70 054	42mm



**MALE CONNECTOR**

Bronze solder connector with male thread one end.

<u>PART #</u>	<u>SIZE</u>
70 061	10mmx1/4"
70 062	10mmx3/8"
70 063	12mmx1/4"
70 064	12mmx3/8"
70 065	15mmx1/2"
70 066	16mmx1/2"
70 067	18mmx1/2"
70 069	22mmx3/4"
70 070	28mmx1"
70 089	35mmx1 1/4"
70 091	42mmx 1 1/2"
70 092	54mmx 2"

**HEXAGON NIPPLE - B.S.P.T.**

FIG. 280



**GALVANIZED**

<u>PART #</u>	<u>SIZE</u>
70 373	1/8"
70 374	1/4"
70 375	3/8"
70 376	1/2"
70 377	3/4"
70 378	1"
70 379	1-1/4"
70 380	1 1/2"
70 381	2"

**BRASS**

<u>PART #</u>	<u>SIZE</u>
70 382	1/8"
70 383	1/4"
70 384	3/8"
70 385	1/2"
70 386	3/4"
70 387	1"
70 388	1-1/4"
70 389	1-1/2"
70 390	2"

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
70 934	1/8"
70 935	1/4"
70 936	3/8"
70 937	1/2"
70 938	3/4"
70 939	1"
70 946	1-1/4"
70 947	1-1/2"
70 961	2"

**REDUCING HEXAGON NIPPLE - B.S.P.T.**

FIG. 245



**GALVANIZED**

<u>PART #</u>	<u>SIZE</u>
70 340	1/4" x 1/8"
70 341	3/8" x 1/4"
70 342	1/2" x 3/8"
70 391	3/4" X 3/8"
70 343	3/4" x 1/2"
70 344	1" x 3/4"
70 345	1-1/4" x 1"
70 346	1-1/2" x 1-1/4"
70 347	1-1/2" x 1"
70 348	2" x 1-1/2"

**BRASS**

<u>PART #</u>	<u>SIZE</u>
70 349	1/4" x 1/8"
70 350	3/8" x 1/4"
70 413	1/2" x 1/4"
70 351	1/2" x 3/8"
70 352	3/4" x 1/2"
70 353	1" x 3/4"
70 354	1-1/4" x 1"
70 355	1-1/2" x 1-1/4"
70 392	2" x 1-1/2"

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
70 949	1/4" x 1/8"
70 950	3/8" x 1/4"
70 951	1/2" x 3/8"
70 952	3/4" x 1/2"
70 953	1" x 3/4"
70 956	1-1/4" x 1"
70 954	1-1/2" x 1-1/4"
70 955	2" x 1-1/2"

**BUSHINGS - B.S.P.T.**

FIG. 241



**GALVANIZED**

<u>PART #</u>	<u>SIZE</u>
70 251	1/4" x 1/8"
70 252	3/8" x 1/4"
70 253	1/2" x 3/8"
70 254	1/2" x 1/4"
70 255	1/2" x 1/8"
70 256	3/4" x 1/2"
70 257	3/4" x 3/8"
70 258	1" x 3/4"
70 260	1-1/4" x 1"
70 261	1-1/2" x 1-1/4"
70 262	1-1/2" x 1"
70 263	2" x 1-1/2"



**BRASS**

<u>PART #</u>	<u>SIZE</u>
70 264	1/4" x 1/8"
71 799	3/8" x 1/8"
70 265	3/8" x 1/4"
70 271	1/2" x 1/4"
70 266	1/2" x 3/8"
70 267	3/4" x 1/2"
70 268	1" x 3/4"
70 269	1-1/4" x 1"
70 270	1-1/2" x 1-1/4"
70 339	2" X 1-1/2"



**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
70 083	1/4" x 1/8"
70 084	3/8" x 1/4"
70 116	1/2" x 1/4"
70 085	1/2" x 3/8"
70 086	3/4" x 1/2"
70 087	1" x 3/4"
70 088	1-1/4" X 1"
70 393	1-1/2" x 1"
70 409	1-1/2" x 1-1/4"
70 394	2" x 1-1/2"

**UNION - B.S.P.T.**



**GALVANIZED**

<u>PART #</u>	<u>SIZE</u>
70 311	1/8"
70 312	1/4"
70 313	3/8"
70 314	1/2"
70 315	3/4"
70 316	1"
70 317	1-1/4"
70 318	1-1/2"
70 319	2"



**BRASS**

<u>PART #</u>	<u>SIZE</u>
70 321	1/4"
70 322	3/8"
70 323	1/2"
70 324	3/4"
70 325	1"
70 326	1-1/4"
70 327	1-1/2"
70 328	2"



**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
70 126	1/4"
70 127	3/8"
70 128	1/2"
70 129	3/4"
70 136	1"
70 137	1-1/4"
70 138	1-1/2"
70 139	2"

**TEE - B.S.P.T.**

FIG. 130



**GALVANIZED**

<u>PART #</u>	<u>SIZE</u>
70 218	1/8"
70 219	1/4"
70 220	3/8"
70 221	1/2"
70 222	3/4"
70 223	1"
70 224	1-1/4"
70 225	1-1/2"
70 226	2"



**BRASS**

<u>PART #</u>	<u>SIZE</u>
70 227	1/8"
70 228	1/4"
70 229	3/8"
70 230	1/2"
70 231	3/4"
70 232	1"
70 233	1-1/4"
70 234	1-1/2"
70 235	2"



**STAINLESS STEEL**

<u>PART#</u>	<u>SIZE</u>
70 395	1/4"
70 396	3/8"
70 397	1/2"
70 398	3/4"
70 399	1"
70 410	1-1/4"
70 411	1-1/2"
70 412	2"

**ELBOW - B.S.P.T.**

FIG. 90



**GALVANIZED**

<u>PART #</u>	<u>SIZE</u>
70 200	1/8"
70 201	1/4"
70 202	3/8"
70 203	1/2"
70 204	3/4"
70 205	1"
70 206	1-1/4"
70 207	1-1/2"
70 208	2"



**BRASS**

<u>PART #</u>	<u>SIZE</u>
70 209	1/8"
70 210	1/4"
70 211	3/8"
70 212	1/2"
70 213	3/4"
70 214	1"
70 215	1-1/4"
70 216	1-1/2"
70 217	2"



**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>
70 331	1/4"
70 332	3/8"
70 333	1/2"
70 334	3/4"
70 335	1"
70 336	1-1/4"
70 337	1-1/2"
70 338	2"



**SOCKETS - B.S.P.T.**

FIG. 270



**GALVANIZED**

**BRASS**

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
70 356	1/8"	70 365	1/8"		
70 357	1/4"	70 366	1/4"	70 466	1/4"
70 358	3/8"	70 367	3/8"	70 467	3/8"
70 359	1/2"	70 368	1/2"	70 468	1/2"
70 360	3/4"	70 369	3/4"	70 469	3/4"
70 361	1"	70 370	1"	70 470	1"
70 362	1-1/4"	70 330	1-1/4"	70 471	1-1/4"
70 363	1-1/2"	70 371	1-1/2"	70 472	1-1/2"
70 364	2"	70 372	2"	70 473	2"

**REDUCING SOCKETS - B.S.P.T.**

FIG. 240



**GALVANIZED**

**BRASS**

**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
70 236	1/4" x 1/8"			70 474	1/4" x 1/8"
70 237	3/8" x 1/4"	70 245	3/8" x 1/4"	70 475	3/8" x 1/4"
70 238	1/2" x 3/8"	70 246	1/2" x 3/8"	70 476	1/2" x 3/8"
70 239	3/4" x 1/2"	70 247	3/4" x 1/2"	70 477	3/4" x 1/2"
70 240	1" x 3/4"	70 248	1" x 3/4"	70 478	1" x 3/4"
70 241	1-1/4" x 1"	70 249	1-1/4" x 1"	70 407	1-1/4" X 1"
70 242	1-1/2" x 1-1/4"	70 250	1-1/2" x 1-1/4"	70 405	1-1/2" x 1"
70 243	2" x 1-1/2"	70 404	2" x 1 1/2"	70 408	1-1/2" X 1-1/4"
70 244	2-1/2" x 2"			70 406	2" x 1 1/2"

**PLUG, SQUARE HEAD - B.S.P.T.**

FIG. 290



**GALVANIZED**



**BRASS**



**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
70 275	1/8"				
70 276	1/4"	70 285	1/4"	70 485	1/4"
70 277	3/8"	70 286	3/8"	70 486	3/8"
70 278	1/2"	70 287	1/2"	70 487	1/2"
70 279	3/4"	70 288	3/4"	70 488	3/4"
70 280	1"	70 289	1"	70 489	1"
70 281	1-1/4"	70 290	1-1/4"	70 490	1-1/4"
70 282	1-1/2"	70 291	1-1/2"	70 491	1-1/2"
70 283	2"	70 292	2"	70 492	2"

**CAPS - B.S.P.T.**

FIG. 300



**GALVANIZED**



**BRASS**



**STAINLESS STEEL**

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>	<u>SIZE</u>
70 293	1/8"				
70 294	1/4"	70 303	1/4"	70 423	1/4"
70 295	3/8"	70 304	3/8"	70 424	3/8"
70 296	1/2"	70 305	1/2"	70 425	1/2"
70 297	3/4"	70 306	3/4"	70 426	3/4"
70 298	1"	70 307	1"	70 427	1"
70 299	1-1/4"	70 308	1-1/4"	70 428	1-1/4"
70 300	1-1/2"	70 309	1-1/2"	70 429	1-1/2"
70 301	2"	70 310	2"	70 430	2"

**QUICK-CONNECT COUPLERS - STAINLESS STEEL**

**SOCKET WITH HOSE END - SH**

Stainless Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>HOSE</u>	<u>ISSA #</u>
70 110	20-SH	1/4"	35 12 21
70 111	30-SH	3/8"	35 12 22
70 112	40-SH	1/2"	35 12 23
70 113	400-SH	1/2"	35 12 24
70 114	600-SH	3/4"	35 12 25
70 115	800-SH	1"	35 12 26

**PLUG WITH HOSE END - PH**

Stainless Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>HOSE</u>	<u>ISSA #</u>
70 120	20-PH	1/4"	35 12 51
70 121	30-PH	3/8"	35 12 52
70 122	40-PH	1/2"	35 12 53
70 123	400-PH	1/2"	35 12 54
70 124	600-PH	3/4"	35 12 55
70 125	800-PH	1"	35 12 56

**SOCKET WITH MALE END - SM**

Stainless Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>MALE</u>	<u>ISSA #</u>
70 130	20-SM	1/4"	35 13 22
70 131	30-SM	3/8"	35 13 23
70 132	40-SM	1/2"	35 13 24
70 133	400-SM	1/2"	35 13 25
70 134	600-SM	3/4"	35 13 26
70 135	800-SM	1"	35 13 27

**PLUG WITH MALE END - PM**

Stainless Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>MALE</u>	<u>ISSA #</u>
70 140	20-PM	1/4"	35 13 52
70 141	30-PM	3/8"	35 13 53
70 142	40-PM	1/2"	35 13 54
70 143	400-PM	1/2"	35 13 55
70 144	600-PM	3/4"	35 13 56
70 145	800-PM	1"	35 13 57

**QUICK-CONNECT COUPLERS - STAINLESS STEEL**

**SOCKET WITH FEMALE END - SF**

Stainless Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>HOSE</u>	<u>ISSA #</u>
70 150	20-SF	1/4"	35 14 21
70 151	30-SF	3/8"	35 14 22
70 152	40-SF	1/2"	35 14 23
70 153	400-SF	1/2"	35 14 24
70 154	600-SF	3/4"	35 14 25
70 155	800-SF	1"	35 14 26

**PLUG WITH FEMALE END - PF**

Stainless Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>HOSE</u>	<u>ISSA #</u>
70 160	20-PF	1/4"	35 14 51
70 161	30-PF	3/8"	35 14 52
70 162	40-PF	1/2"	35 14 53
70 163	400-PF	1/2"	35 14 54
70 164	600-PF	3/4"	35 14 55
70 165	800-PF	1"	35 14 56

**CAST BRONZE AIR COUPLINGS**

**AIR HOSE COUPLINGS - BRONZE**

Cast bronze with metric fine thread M42x2.  
Female thread connection for use with ship's male thread air outlet.



<u>PART #</u>	<u>HOSE END</u>	<u>ISSA #</u>
70 102	9mm	35 10 53
70 103	12mm	35 10 54
70 105	15mm	35 10 55
70 104	19mm	35 10 56
70 106	25mm	35 10 57

**QUICK-CONNECT COUPLERS - STEEL**

**SOCKET WITH HOSE END - SH**

Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>HOSE</u>	<u>ISSA #</u>
75 110	20-SH	1/4"	35 12 01
75 111	30-SH	3/8"	35 12 02
75 112	40-SH	1/2"	35 12 03
75 113	400-SH	1/2"	35 12 04
75 114	600-SH	3/4"	35 12 05
75 115	800-SH	1"	35 12 06

**SOCKET WITH MALE END - SM**

Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>MALE</u>	<u>ISSA #</u>
75 130	20-SM	1/4"	35 13 02
75 131	30-SM	3/8"	35 13 03
75 132	40-SM	1/2"	35 13 04
75 133	400-SM	1/2"	35 13 05
75 134	600-SM	3/4"	35 13 06
75 135	800-SM	1"	35 13 07

**SOCKET WITH FEMALE END - SF**

Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>FEMALE</u>	<u>ISSA #</u>
75 150	20-SF	1/4"	35 14 01
75 151	30-SF	3/8"	35 14 02
75 152	40-SF	1/2"	35 14 03
75 153	400-SF	1/2"	35 14 04
75 154	600-SF	3/4"	35 14 05
75 155	800-SF	1"	35 14 06

**QUICK-CONNECT COUPLERS - STEEL****PLUG WITH HOSE END - PH**

Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>HOSE</u>	<u>ISSA #</u>
<b>75 120</b>	20-PH	1/4"	35 12 31
<b>75 121</b>	30-PH	3/8"	35 12 32
<b>75 122</b>	40-PH	1/2"	35 12 33
<b>75 123</b>	400-PH	1/2"	35 12 34
<b>75 124</b>	600-PH	3/4"	35 12 35
<b>75 125</b>	800-PH	1"	35 12 36

**PLUG WITH MALE END - PM**

Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>MALE</u>	<u>ISSA #</u>
<b>75 140</b>	20-PM	1/4"	35 13 32
<b>75 141</b>	30-PM	3/8"	35 13 33
<b>75 142</b>	40-PM	1/2"	35 13 34
<b>75 143</b>	400-PM	1/2"	35 13 35
<b>75 144</b>	600-PM	3/4"	35 13 36
<b>75 145</b>	800-PM	1"	35 13 37

**PLUG WITH FEMALE END - PF**

Steel, single end shut-off coupler.



<u>PART #</u>	<u>NO.</u>	<u>FEMALE</u>	<u>ISSA #</u>
<b>75 160</b>	20-PF	1/4"	35 14 31
<b>75 161</b>	30-PF	3/8"	35 14 32
<b>75 162</b>	40-PF	1/2"	35 14 33
<b>75 163</b>	400-PF	1/2"	35 14 34
<b>75 164</b>	600-PF	3/4"	35 14 35
<b>75 165</b>	800-PF	1"	35 14 36



**CAMLOCK FITTINGS**



**CAM AND GROOVE MALE ADAPTER X**

**FEMALE NPT THREAD — TYPE A**

Type A adapters are normally used with Type D couplers, but can be used with Type B and C couplers as well as DC (Dust Cap) of identical size

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 520	1/2"
70 521	1/2" X 3/4"
70 522	3/4"
70 523	1"
70 524	1-1/4"
70 525	1-1/2"
70 526	2"
70 527	2-1/2"
70 528	3"
70 529	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 600	1/2"
70 601	1/2" X 3/4"
70 602	3/4"
70 603	1"
70 604	1-1/4"
70 605	1-1/2"
70 606	2"
70 607	2-1/2"
70 608	3"
70 609	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 730	1/2"
70 731	1/2" X 3/4"
70 732	3/4"
70 733	1"
70 734	1-1/4"
70 735	1-1/2"
70 736	2"
70 737	2-1/2"
70 738	3"
70 739	4"



**CAM AND GROOVE FEMALE COUPLER X**

**MALE NPT THREAD—TYPE B**

Type B couplers are normally used with Type F adapters, but can be used with Type A and E adapters as well as DP (Dust Plug) of identical size.

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 530	1/2"
70 531	1/2" X 3/4"
70 532	3/4"
70 533	1"
70 534	1-1/4"
70 535	1-1/2"
70 536	2"
70 537	2-1/2"
70 538	3"
70 539	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 610	1/2"
70 611	1/2" X 3/4"
70 612	3/4"
70 613	1"
70 614	1-1/4"
70 615	1-1/2"
70 616	2"
70 617	2-1/2"
70 618	3"
70 619	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 740	1/2"
70 741	1/2" X 3/4"
70 742	3/4"
70 743	1"
70 744	1-1/4"
70 745	1-1/2"
70 746	2"
70 747	2-1/2"
70 748	3"
70 749	4"

**CAMLOCK FITTINGS**



**CAM AND GROOVE FEMALE COUPLER X**

**HOSE SHANK — TYPE C**

Type C couplers are normally used with Type E adapters, but can be used with Type A and F adapters as well as DP (Dust Plug) of identical size.

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 540	1/2"
70 541	1/2" X 3/4"
70 542	3/4"
70 543	1"
70 544	1-1/4"
70 545	1-1/2"
70 546	2"
70 547	2-1/2"
70 548	3"
70 549	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 620	1/2"
70 621	1/2" X 3/4"
70 622	3/4"
70 623	1"
70 624	1-1/4"
70 625	1-1/2"
70 626	2"
70 627	2-1/2"
70 628	3"
70 629	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 750	1/2"
70 751	1/2" X 3/4"
70 752	3/4"
70 753	1"
70 754	1-1/4"
70 755	1-1/2"
70 756	2"
70 757	2-1/2"
70 758	3"
70 759	4"



**CAM AND GROOVE FEMALE COUPLER X**

**FEMALE NPT THREAD — TYPE D**

Type D couplers are normally used with Type A adapters, but can be used with Type E and F adapters as well as DP (Dust Plug) of identical size.

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 550	1/2"
70 551	1/2" X 3/4"
70 552	3/4"
70 553	1"
70 554	1-1/4"
70 555	1-1/2"
70 556	2"
70 557	2-1/2"
70 558	3"
70 559	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 630	1/2"
70 631	1/2" X 3/4"
70 632	3/4"
70 633	1"
70 634	1-1/4"
70 635	1-1/2"
70 636	2"
70 637	2-1/2"
70 638	3"
70 639	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 760	1/2"
70 761	1/2" X 3/4"
70 762	3/4"
70 763	1"
70 764	1-1/4"
70 765	1-1/2"
70 766	2"
70 767	2-1/2"
70 768	3"
70 769	4"

**CAMLOCK FITTINGS**



**CAM AND GROOVE MALE ADAPTER X**

**HOSE SHANK — TYPE E**

Type E adapters are normally used with Type C couplers, but can be used with Type B and D couplers as well as DC (Dust Cap) of identical size.

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 560	1/2"
70 561	1/2" X 3/4"
70 562	3/4"
70 563	1"
70 564	1-1/4"
70 565	1-1/2"
70 566	2"
70 567	2-1/2"
70 568	3"
70 569	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 640	1/2"
70 641	1/2" X 3/4"
70 642	3/4"
70 643	1"
70 644	1-1/4"
70 645	1-1/2"
70 646	2"
70 647	2-1/2"
70 648	3"
70 649	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 770	1/2"
70 771	1/2" X 3/4"
70 772	3/4"
70 773	1"
70 774	1-1/4"
70 775	1-1/2"
70 776	2"
70 777	2-1/2"
70 778	3"
70 779	4"



**CAM AND GROOVE MALE ADAPTER X**

**MALE NPT THREAD — TYPE F**

Type F adapters are normally used with Type B couplers, but can be used with Type C and D couplers as well as DC (Dust Cap) of identical size

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 570	1/2"
70 571	1/2" X 3/4"
70 572	3/4"
70 573	1"
70 574	1-1/4"
70 575	1-1/2"
70 576	2"
70 577	2-1/2"
70 578	3"
70 579	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 650	1/2"
70 651	1/2" X 3/4"
70 652	3/4"
70 653	1"
70 654	1-1/4"
70 655	1-1/2"
70 656	2"
70 657	2-1/2"
70 658	3"
70 659	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 780	1/2"
70 781	1/2" X 3/4"
70 782	3/4"
70 783	1"
70 784	1-1/4"
70 785	1-1/2"
70 786	2"
70 787	2-1/2"
70 788	3"
70 789	4"

**CAMLOCK FITTINGS**



**CAM AND GROOVE DUST CAP FEMALE**

**END COUPLER — TYPE DC**

Dust Caps (DC) can be used with type A, E and F adapters to seal the end of the connection.

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 580	1/2"
70 581	3/4"
70 582	1"
70 583	1-1/4"
70 584	1-1/2"
70 585	2"
70 586	2-1/2"
70 587	3"
70 588	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 660	1/2"
70 661	3/4"
70 662	1"
70 663	1-1/4"
70 664	1-1/2"
70 665	2"
70 666	2-1/2"
70 667	3"
70 668	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 790	1/2"
70 791	3/4"
70 792	1"
70 793	1-1/4"
70 794	1-1/2"
70 795	2"
70 796	2-1/2"
70 797	3"
70 798	4"



**CAM AND GROOVE DUST PLUG MALE**

**END ADAPTER — TYPE DP**

Dust Plugs (DP) can be used with type B, C and D couplers to seal the end of the connection.

**ALUMINUM**

<u>PART#</u>	<u>SIZE</u>
70 590	1/2"
70 591	3/4"
70 592	1"
70 593	1-1/4"
70 594	1-1/2"
70 595	2"
70 596	2-1/2"
70 597	3"
70 598	4"

**BRASS**

<u>PART#</u>	<u>SIZE</u>
70 670	1/2"
70 671	3/4"
70 672	1"
70 673	1-1/4"
70 674	1-1/2"
70 675	2"
70 676	2-1/2"
70 677	3"
70 678	4"

**316 S.S.**

<u>PART#</u>	<u>SIZE</u>
70 810	1/2"
70 811	3/4"
70 812	1"
70 813	1-1/4"
70 814	1-1/2"
70 815	2"
70 816	2-1/2"
70 817	3"
70 818	4"

**HOSES**



**AIR & WATER HOSE, PVC, RED**

A lightweight, reinforced, economical general purpose hose for carrying, air, water, and many spray solutions. Mostly used with pneumatic tools and stapler guns. Sold by the foot.

**RED**

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 820	1/4"	300	100'
70 821	3/8"	300	100'
70 822	1/2"	250	100'
70 823	5/8"	200	100'
70 824	3/4"	200	100'
70 825	1"	175	100'



**AIR & WATER HOSE, PVC, BLUE**

A lightweight, reinforced, economical general purpose hose for carrying, air, water, and many spray solutions. Mostly used with pneumatic tools and stapler guns. Sold by the foot.

**BLUE**

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 830	1/4"	300	100'
70 831	3/8"	300	100'
70 832	1/2"	250	100'
70 833	5/8"	200	100'
70 834	3/4"	200	100'
70 835	1"	175	100'



**AIR & WATER HOSE, PVC, BRAIDED, CLEAR**

This is an excellent hose for conveying liquids, air and powdered foods. The hose is transparent, allowing for easy inspection during service. FDA Standard. Clear PVC with yellow stripe yarn. Sold by the foot.

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 840	1/4"	300	100'
70 841	3/8"	300	100'
70 842	1/2"	250	100'
70 843	5/8"	200	100'
70 844	3/4"	200	100'
70 845	1"	175	100'
70 846	1-1/4"	100	100'
70 847	1-1/2"	100	50'
70 848	2"	75	50'

**HOSES****SUCTION & DISCHARGE HOSE, PVC**

The **Green** Hose will handle a variety of liquid and solid materials such as water, slurry transfers, sewage, air, chemicals, grains and pellets.

Sold by the foot.

**GREEN**

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 850	3/4"	100	100'
70 851	1"	100	100'
70 852	1-1/4"	90	100'
70 853	1-1/2"	85	100'
70 854	2"	85	100'
70 855	2-1/2"	85	100'
70 856	3"	75	100'
70 857	4"	65	100'

**SUCTION & DISCHARGE HOSE, PVC**

The **Clear** Hose will handle a variety of liquids and solid materials. The working pressure and vacuum ratings are based on ambient temperature of 70°F and will vary inversely with temperature changes.

Sold by the foot.

**CLEAR**

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 858	3/4"	100	100'
70 859	1"	100	100'
70 860	1-1/4"	90	100'
70 861	1-1/2"	85	100'
70 862	2"	85	100'
70 863	2-1/2"	85	100'
70 864	3"	75	100'
70 865	4"	65	100'

**H.P. WASHER HOSE ASSEMBLY  
(NON MARKING)**

Blue smooth cover pressure washer assembly  
1/4" coupled MPT x MPT, 3/8" coupled MPT x MP  
swivel, bend restrictors each end.

Sold by assembly.

**BLUE**

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 180	1/4"	3000	50'
70 181	1/4"	3000	100'
70 182	3/8"	4000	50'
70 183	3/8"	4000	100'



**HOSES**



**SUCTION HOSE ASSEMBLY, PVC**

PVC Suction Hose with Cam and Groove Aluminum Couplings. Sold by assembly.

**GREEN**

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 870	2"	85	20'
70 871	2"	85	25'
70 872	2"	85	30'
70 873	3"	75	20'
70 874	3"	75	25'
70 875	3"	75	30'
70 876	4"	65	20'
70 877	4"	65	25'
70 878	4"	65	30'



**SUCTION HOSE ASSEMBLY, PVC**

PVC Suction Hose with Cam and Groove Aluminum Couplings. Sold by assembly.

**CLEAR**

<u>PART #</u>	<u>HOSE I.D.</u>	<u>PSI.</u>	<u>LENGTH</u>
70 440	2"	85	20'
70 441	2"	85	25'
70 442	2"	85	30'
70 443	3"	75	20'
70 444	3"	75	25'
70 445	3"	75	30'
70 446	4"	65	20'
70 447	4"	65	30'

**HOSES**



**AIR HOSE REEL**

Dual Arm Auto Rewind Air Hose Reel and the extreme performance of a premium rubber air hose that stays flexible at -40 degrees F and takes the heat up to 190 degrees F.

<u>PART #</u>	<u>HOSE I.D.</u>	<u>LENGTH</u>
70 808	3/8"	50 ft.
70 809	1/2"	50 ft.



**NYLON PNEUMATIC TUBING**

NITRA nylon tubing is 100% virgin raw materials, strong, lightweight and has a very low moisture absorption rate so it will remain flexible with a longer life. Ideal for use with push-to-connect fittings.

**Sold in 100 ft. package**

<u>PART #</u>	<u>HOSE O.D.</u>	<u>COLOR</u>	<u>PSI</u>
70 450	4 mm	Blue	350
70 451	6 mm	Blue	350
70 452	8 mm	Blue	350
70 453	10 mm	Blue	350
70 454	12 mm	Blue	350
70 455	4 mm	Natural	350
70 456	6 mm	Natural	350
70 457	8 mm	Natural	350
70 458	10 mm	Natural	350
70 459	12 mm	Natural	350



**HOSE FITTINGS****PNEUMATIC PUSH-TO-CONNECT FITTINGS**

NITRA pneumatic push-to-connect fitting bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.

**PUSH-TO-CONNECT UNIONS**

<u>PART #</u>	<u>SIZE.</u>
70 415	4 mm
70 416	6 mm
70 417	8 mm
70 418	10 mm
70 419	12 mm

**PUSH-TO-CONNECT UNION Y**

<u>PART #</u>	<u>SIZE.</u>
70 431	4 mm
70 432	6 mm
70 433	8 mm
70 434	10 mm
70 435	12 mm

**PUSH-TO-CONNECT ELBOWS**

<u>PART #</u>	<u>SIZE.</u>
70 460	4 mm
70 461	6 mm
70 462	8 mm
70 463	10 mm
70 464	12 mm

**PUSH-TO-CONNECT TEES**

<u>PART #</u>	<u>SIZE.</u>
70 480	4 mm
70 481	6 mm
70 482	8 mm
70 483	10 mm
70 484	12 mm

**PUSH-TO-CONNECT CROSS**

<u>PART #</u>	<u>SIZE.</u>
70 495	4 mm
70 496	6 mm
70 497	8 mm
70 498	10 mm
70 499	12 mm

**PNEUMATIC PUSH-TO-CONNECT FITTINGS**

NITRA pneumatic push-to-connect fitting bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.

**PUSH-TO-CONNECT MALE STRAIGHT FITTINGS**

<u>PART #</u>	<u>SIZE.</u>
70 107	4 mm x 5 mm
70 108	4 mm x 1/8" BSP
70 109	4 mm x 1/4" BSP
70 146	6 mm x 5 mm
70 147	6 mm x 1/8" BSP
70 148	6 mm x 1/4" BSP
70 149	6 mm x 3/8" BSP
70 156	8 mm x 1/8" BSP
70 157	8 mm x 1/4" BSP
70 158	8 mm x 3/8" BSP
70 159	8 mm x 1/2" BSP
70 026	10 mm x 1/8" BSP
70 027	10 mm x 1/4" BSP
70 028	10 mm x 3/8" BSP
70 029	10 mm x 1/2" BSP
70 117	12 mm x 1/4" BSP
70 118	12 mm x 3/8" BSP
70 119	12 mm x 1/2" BSP

**PNEUMATIC PUSH-TO-CONNECT FITTINGS**

NITRA pneumatic push-to-connect fitting bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.



**PUSH-TO-CONNECT MALE ELBOW SWIVEL FITTINGS**

<u>PART #</u>	<u>SIZE.</u>
70 681	4 mm x 5 mm
70 682	4 mm x 1/8" BSP
70 683	4 mm x 1/4" BSP
70 684	6 mm x 5 mm
70 685	6 mm x 1/8" BSP
70 686	6 mm x 1/4" BSP
70 687	6 mm x 3/8" BSP
70 688	8 mm x 1/8" BSP
70 689	8 mm x 1/4" BSP
70 690	8 mm x 3/8" BSP
70 691	8 mm x 1/2" BSP
70 692	10 mm x 1/8" BSP
70 693	10 mm x 1/4" BSP
70 694	10 mm x 3/8" BSP
70 695	10 mm x 1/2" BSP
70 696	12 mm x 1/4" BSP
70 697	12 mm x 3/8" BSP
70 698	12 mm x 1/2" BSP

**PNEUMATIC PUSH-TO-CONNECT FITTINGS**

NITRA pneumatic push-to-connect fitting bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.

**PUSH-TO-CONNECT FEMALE STRAIGHT FITTINGS**

<u>PART #</u>	<u>SIZE.</u>
70 197	4 mm x 5 mm
70 198	4 mm x 1/8" BSP
70 199	4 mm x 1/4" BSP
70 192	6 mm x 5 mm
70 193	6 mm x 1/8" BSP
70 194	6 mm x 1/4" BSP
70 195	6 mm x 3/8" BSP
70 184	8 mm x 1/8" BSP
70 185	8 mm x 1/4" BSP
70 186	8 mm x 3/8" BSP
70 187	8 mm x 1/2" BSP
70 436	10 mm x 1/8" BSP
70 437	10 mm x 1/4" BSP
70 438	10 mm x 3/8" BSP
70 439	10 mm x 1/2" BSP
70 420	12 mm x 1/4" BSP
70 421	12 mm x 3/8" BSP
70 422	12 mm x 1/2" BSP



**PNEUMATIC PUSH-TO-CONNECT FITTINGS**

NITRA pneumatic push-to-connect fitting bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.

**PUSH-TO-CONNECT FEMALE ELBOW FITTINGS**

<u>PART #</u>	<u>SIZE.</u>
70 711	4 mm x 5 mm
70 712	4 mm x 1/8" BSP
70 713	4 mm x 1/4" BSP
70 714	6 mm x 5 mm
70 715	6 mm x 1/8" BSP
70 716	6 mm x 1/4" BSP
70 717	6 mm x 3/8" BSP
70 718	8 mm x 1/8" BSP
70 719	8 mm x 1/4" BSP
70 723	8 mm x 3/8" BSP
70 724	8 mm x 1/2" BSP
70 725	10 mm x 1/8" BSP
70 726	10 mm x 1/4" BSP
70 727	10 mm x 3/8" BSP
70 728	10 mm x 1/2" BSP
70 729	12 mm x 1/4" BSP
70 679	12 mm x 3/8" BSP
70 680	12 mm x 1/2" BSP

**PNEUMATIC PUSH-TO-CONNECT FITTINGS**

NITRA pneumatic push-to-connect fitting bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.



**PUSH-TO-CONNECT MALE BRANCH TEE FITTINGS**

<u>PART #</u>	<u>SIZE.</u>
70 907	4 mm x 5 mm
70 908	4 mm x 1/8" BSP
70 909	4 mm x 1/4" BSP
70 836	6 mm x 5 mm
70 837	6 mm x 1/8" BSP
70 838	6 mm x 1/4" BSP
70 839	6 mm x 3/8" BSP
70 866	8 mm x 1/8" BSP
70 867	8 mm x 1/4" BSP
70 868	8 mm x 3/8" BSP
70 869	8 mm x 1/2" BSP
70 927	10 mm x 1/8" BSP
70 928	10 mm x 1/4" BSP
70 929	10 mm x 3/8" BSP
70 930	10 mm x 1/2" BSP
70 957	12 mm x 1/4" BSP
70 958	12 mm x 3/8" BSP
70 959	12 mm x 1/2" BSP

**PNEUMATIC PUSH-TO-CONNECT FITTINGS**

NITRA pneumatic push-to-connect fitting bodies are made of strong thermoplastic (PBT) and have stainless steel tube gripping claws. Threaded components are made of nickel-plated brass and have pre-applied Teflon thread sealant.

**PUSH-TO-CONNECT MALE RUN TEE FITTINGS**

<u>PART #</u>	<u>SIZE.</u>
70 962	4 mm x 5 mm
70 963	4 mm x 1/8" BSP
70 964	4 mm x 1/4" BSP
70 965	6 mm x 5 mm
70 966	6 mm x 1/8" BSP
70 967	6 mm x 1/4" BSP
70 968	6 mm x 3/8" BSP
70 969	8 mm x 1/8" BSP
70 970	8 mm x 1/4" BSP
70 971	8 mm x 3/8" BSP
70 972	8 mm x 1/2" BSP
70 973	10 mm x 1/8" BSP
70 974	10 mm x 1/4" BSP
70 975	10 mm x 3/8" BSP
70 976	10 mm x 1/2" BSP
70 977	12 mm x 1/4" BSP
70 978	12 mm x 3/8" BSP
70 979	12 mm x 1/2" BSP



**BRASS CHECK VALVE**

Female BSP Thread with metallic shutter  
ISO 228

<u>PART #</u>	<u>SIZE</u>
70 701	1/2"
70 702	3/4"
70 703	1"
70 704	1-1/4"
70 705	1-1/2"
70 706	2"
70 707	2-1/2"
70 708	3"
70 709	4"



**BRASS NEEDLE VALVES**

Straight valve with cutting ring & tube nut both ends. EV5100-282

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
70 401	8x8mm	75 21 02
70 402	10x10mm	75 21 03
70 403	12x12mm	75 21 04



**BRASS NEEDLE VALVES**

Straight valve with female BSP thread both ends. EV5100-8

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
70 801	1/8 BSP	75 21 51
70 802	1/4 BSP	75 21 52
70 803	3/8 BSP	75 21 53
70 804	1/2 BSP	75 21 54



**STAINLESS STEEL NEEDLE VALVES**

316 Stainless steel straight valve with female BSP thread both ends. 6000 PSI

<u>PART #</u>	<u>SIZE</u>
71 112	1/4 BSP
71 113	3/8 BSP
71 114	1/2 BSP



**BRASS NEEDLE VALVES**

Straight valve with male BSP thread both ends.  
EV5100-18

<u>PART #</u>	<u>SIZE</u>
71 115	1/8 BSP
71 116	1/4 BSP
71 117	3/8 BSP
71 118	1/2 BSP



**BRASS ANGLE NEEDLE VALVES**

Angle valve with cutting & tube nut at outlet  
and male BSP thread. EV5100-285

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
71 119	6mm x 1/4" BSP	75 21 17
71 120	6mm x 3/8" BSP	
71 121	8mm x 1/4" BSP	75 21 18
71 122	8mm x 3/8" BSP	
71 123	10mm x 1/4" BSP	
71 124	10mm x 3/8" BSP	75 21 19
71 125	10mm x 1/2" BSP	
71 151	12mm x 3/8" BSP	
71 152	12mm x 1/2" BSP	75 21 20



**MINI BALL VALVE, CHROME-PLATED BRASS**

Female BSP Thread.

<u>PART #</u>	<u>SIZE</u>
70 720	1/4" BSP
70 721	3/8" BSP
70 722	1/2" BSP



**BRASS BALL VALVES - BSP**

Brass nickel plated, reduced bore with teflon seal, 600 W.O.G. Female BSP thread.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
70 910	1/4" BSPP	
70 911	3/8" BSPP	75 24 01
70 912	1/2" BSPP	75 24 02
70 913	3/4" BSPP	75 24 03
70 914	1" BSPP	75 24 04
70 915	1-1/4" BSPP	75 24 05
70 916	1 1/2" BSPP	75 24 06
70 917	2" BSPP	75 24 07



**ST. STEEL BALL VALVES - BSP**

316 Stainless steel, reduced bore with teflon seal, 1000 W.O.G. Female BSP thread.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
70 920	1/4" BSPP	75 24 11
70 921	3/8" BSPP	75 24 12
70 922	1/2" BSPP	75 24 13
70 923	3/4" BSPP	75 24 14
70 924	1" BSPP	75 24 15
70 925	1 1/4" BSPP	75 24 16
70 926	1 1/2" BSPP	75 24 17
70 931	2" BSPP	75 24 18



**BRASS GATE VALVES - BSPP**

Non rising stem, 150 Lbs, female BSPP thread.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
70 940	1/2" BSPP	75 19 71
70 941	3/4" BSPP	75 19 72
70 942	1" BSPP	75 19 73
70 943	1-1/4" BSPP	75 19 74
70 944	1-1/2" BSPP	75 19 75
70 945	2" BSPP	75 19 76



**BRASS GLOBE VALVES - BSPP**

150 Lbs, female BSPP thread.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
70 901	1/2" BSPP	75 19 18
70 902	3/4" BSPP	75 19 19
70 903	1" BSPP	75 19 20
70 904	1-1/4" BSPP	75 19 21
70 905	1-1/2" BSPP	75 19 22
70 906	2" BSPP	75 19 23





**STRAUB COUPLINGS - GRIP-L**

Pull-out resistant coupling for all metal pipe up to **16 Bar**.

Stainless steel 304 casing with stainless steel lock parts and internal components.

Sealing sleeve: **NBR** for gas, oil, water, fuel and other hydrocarbons.

Temp.range: -20/+80C

water, **EPDM** for water, waste air, solids and chemicals.

Temp.range: -20/+80C

**GRIP-L**

<u>PART #</u>	<u>NORM.BORE</u>	<u>PIPE O.D</u>	<u>NORM.PRESS.</u>	<u>TOLERANCE</u>	<u>WEIGHT</u>
71 160	3/4"	26.9mm	16 Bar	26.6- 27.2mm	.35 Lbs
71 161	1"	33.7mm	16 Bar	33.3- 34.1mm	.35 Lbs
71 162	1 1/4"	38.0mm	16 Bar	37.5- 38.5mm	.70 Lbs
70 805	1 1/4"	42.4mm	16 Bar	41.4- 43.4mm	.75 Lbs
71 136	1 1/2"	44.5mm	16 Bar	43.5- 45.5mm	.80 Lbs
71 138	1 1/2"	48.3mm	16 Bar	47.3- 49.3mm	.90 Lbs
71 139	2"	54.0mm	16 Bar	53.0- 55.0mm	1.05 Lbs
71 141	2"	57.0mm	16 Bar	56.4- 57.6mm	1.12 Lbs
71 127	2"	60.3mm	16 Bar	59.0- 62.0mm	1.20 Lbs
71 128	2 1/2"	76.1mm	16 Bar	75.0- 78.0mm	2.20 Lbs
71 153	3"	84.0mm	16 Bar	83.2- 84.8mm	2.40 Lbs
71 129	3"	88.9mm	16 Bar	88.0- 91.0mm	2.50 Lbs
71 154	4"	104.0mm	16 Bar	103.0-105.0mm	2.70 Lbs
71 130	4"	108.0mm	16 Bar	107.0-110.0mm	2.90 Lbs
71 131	4"	114.3mm	16 Bar	113.0-116.0mm	3.10 Lbs
71 132	5"	133.0mm	16 Bar	132.0-135.0mm	4.70 Lbs
71 133	5"	139.7mm	16 Bar	139.0-142.0mm	4.90 Lbs
71 143	5"	141.3mm	13 Bar	139.9-142.7mm	4.95 Lbs
71 134	6"	159.0mm	13 Bar	158.0-161.0mm	5.30 Lbs
71 135	6"	168.3mm	13 Bar	167.0-170.0mm	5.50 Lbs
71 137	8"	219.1mm	10 bar	218.0-221.0mm	7.70 Lbs
71 144	10"	267.0mm	4.8 Bar	266.0-269.0mm	10.20 Lbs
71 145	10"	273.0mm	4.6 Bar	272.0-275.0mm	10.40 Lbs
71 146	12"	323.9mm	3.6 Bar	323.0-326.0mm	12.10 Lbs
71 147	14"	355.6mm		352.0-359.2mm	13.20 Lbs
71 142	16"	406.4mm		402.3-410.5mm	15.00 Lbs



**STRAUB COUPLINGS - METAL GRIP**

Axial restraint coupling for all metal pipe up to **16 Bar**.

Stainless steel 304 casing with stainless steel lock parts and internal components.

Sealing sleeve: **NBR** for gas, oil, water, fuel and other hydrocarbons.  
Temp.range: -20/+80C  
**EPDM** for water, waste water, air, solids and chemicals.  
Temp.range: -20/+80C

**METAL-GRIP**

<u>PART #</u>	<u>NORM.BORE</u>	<u>PIPE O.D.</u>	<u>TOLERANCE</u>	<u>WEIGHT</u>
71 169	1"	30.0mm	29.5-30.5mm	.66 Lbs
71 170	1"	33.7mm	33.0- 34.0mm	.66 Lbs
71 171	1 1/4"	38.0mm	37.5- 38.5mm	.88 Lbs
71 172	1 1/4"	42.4mm	41.9- 43.9mm	1.10 Lbs
71 173	1 1/2"	44.5mm	44.0- 45.0mm	1.10 Lbs
71 174	1 1/2"	48.3mm	47.8- 48.8mm	1.32 Lbs
71 175	2"	54.0mm	53.4- 54.6mm	1.10 Lbs
71 176	2"	60.3mm	59.7- 60.9mm	1.76 Lbs
71 177	2 1/2"	76.1mm	75.3- 76.9mm	3.10 Lbs
71 178	3"	88.9mm	88.0- 89.8mm	3.52 Lbs
71 179	4"	108.0mm	106.9-109.1mm	3.96 Lbs
71 180	4"	114.3mm	113.2-115.4mm	4.18 Lbs
71 181	5"	133.0mm	131.7-134.3mm	6.82 Lbs
71 182	5"	139.7mm	138.3-141.1mm	7.92 Lbs
71 183	6"	159.0mm	157.4-160.6mm	8.58 Lbs
71 184	6"	168.3mm	166.6-170.0mm	9.05 Lbs
71 185	8"	219.1mm	216.9-221.3mm	20.90 Lbs
71 186	10"	267.0mm	264.3-269.7mm	32.20 Lbs
71 187	10"	273.0mm	270.3-275.7mm	33.40 Lbs
71 188	12"	323.9mm	320.6-327.2mm	36.30 Lbs
71 189	14"	355.6mm	352.0-359.2mm	40.26 Lbs
71 190	16"	406.4mm	402.3-410.5mm	45.55 Lbs



**STRAUB COUPLINGS - REPAIR**

Repair clamp without axial restraint for all pipe materials up to **20 Bar**.

Stainless steel 304 casing with stainless steel lock parts and internal components.

Sealing sleeve: **NBR** for gas, oil, water, fuel and other hydrocarbons.

Temp.range: -20/+80C

water, **EPDM** for water, waste air, solids and chemicals.

Temp.range: -20/+80C

**REPAIR**

<u>PART #</u>	<u>NORM.BORE</u>	<u>PIPE O.D.</u>	<u>TOLERANCE</u>	<u>WEIGHT</u>
70 880	1 1/2"	48.3mm	47.0- 49.0mm	.90 Lbs
70 881	2"	54.0mm	53.0- 55.0mm	1.05 Lbs
70 882	2"	57.0mm	56.0-58.0mm	1.12 Lbs
70 883	2"	60.3mm	59.0- 61.0mm	1.20 Lbs
70 884	2 1/2"	76.1mm	74.0-77.0mm	2.20 Lbs
70 885	3"	84.0mm	82.0-85.0mm	2.40 Lbs
70 886	3"	88.9mm	87.0- 91.0mm	2.50 Lbs
70 887	4"	104.0mm	102.0-106.0mm	2.70 Lbs
70 888	4"	108.mm	107.0-111.0mm	2.90 Lbs
70 889	4"	114.3mm	112.0-117.0mm	3.10 Lbs
70 890	5"	129.0mm	127.0-131.0mm	4.40 Lbs
70 891	5"	133.0mm	131.0-136.0mm	4.70 Lbs
70 892	5"	139.7mm	137.0-142.0mm	4.90 Lbs
70 893	6"	154.0mm	152.0-156.0mm	5.10 Lbs
70 894	6"	159.0mm	157.0-162.0mm	5.30 Lbs
70 895	6"	168.3mm	166.0-171.0mm	5.50 Lbs
71 148	8"	219.1mm	216.0-221.0mm	7.70 Lbs
71 149	10"	267.0mm	246.0-269.0mm	10.20 Lbs
71 140	10"	273.0mm	272.0-275.0mm	10.40 Lbs
71 150	12"	323.9mm	320.0-327.0mm	12.10 Lbs
70 896	14"	355.6mm	351.0-358.0mm	13.20 Lbs
70 897	16"	406.4mm	402.0-410.0mm	15.00 Lbs



**STRAUB COUPLINGS - FLEX**

Flexible Pipe Joint without pull-out resistance for all pipe materials, up to **40 Bar**.

Stainless steel 304 casing with stainless steel internal components and galvanized lock parts.

Sealing sleeve: **NBR** for gas, oil, water, fuel and other hydrocarbons.

Temp.range: -20/+80C

**EPDM** for water, waste water, air, solids and chemicals.

Temp. range: -20/+80C

**FLEX**

<u>PART #</u>	<u>NORM.BORE</u>	<u>PIPE O.D.</u>	<u>NORM.PRESS.</u>	<u>TOLERANCE</u>	<u>WEIGHT</u>
<b>72 201</b>	1 1/2"	48.3mm	16 Bar	47.0- 49.0mm	.90 Lbs
<b>72 202</b>	2"	54.0mm	16 Bar	53.0- 55.0mm	1.05 Lbs
<b>72 203</b>	2"	57.0mm	16 Bar	56.0-58.0mm	1.12 Lbs
<b>72 204</b>	2"	60.3mm	16 Bar	59.0- 61.0mm	1.20 Lbs
<b>72 205</b>	2 1/2"	76.1mm	16 bar	74.0-77.0mm	2.20 Lbs
<b>72 206</b>	3"	84.0mm	16 bar	82.0-85.0mm	2.40 Lbs
<b>72 207</b>	3"	88.9mm	16 Bar	87.0- 91.0mm	2.50 Lbs
<b>72 208</b>	4"	104.0mm	16 Bar	102.0-106.0mm	2.70 Lbs
<b>72 209</b>	4"	108.0mm	16 bar	107.0-111.0mm	2.90 Lbs
<b>72 210</b>	4"	114.3mm	16 Bar	112.0-117.0mm	3.10 Lbs
<b>72 211</b>	5"	129.0mm	16 Bar	127.0-131.0mm	4.40 Lbs
<b>72 212</b>	5"	133.0mm	16 Bar	131.0-136.0mm	4.70 Lbs
<b>72 213</b>	5"	139.7mm	16 Bar	137.0-142.0mm	4.90 Lbs
<b>72 214</b>	6"	154.0mm	16 Bar	152.0-156.0mm	5.10 Lbs
<b>72 215</b>	6"	159.0mm	16 Bar	157.0-162.0mm	5.30 Lbs
<b>72 216</b>	6"	168.3mm	16 Bar	166.0-171.0mm	5.50 Lbs
<b>72 217</b>	8"	219.1mm	12.2 Bar	216.0-221.0mm	7.70 Lbs
<b>72 218</b>	10"	273.0mm	11 Bar	272.0-275.0mm	10.40 Lbs
<b>72 219</b>	12"	323.9mm	8.8 Bar	320.0-327.0mm	12.10 Lbs
<b>72 220</b>	14"	355.6mm	7.1 Bar	351.0-358.0mm	13.20 Lbs
<b>72 221</b>	16"	406.4mm	6.1 Bar	402.0-410.0mm	15.00 Lbs

# **GAUGES, THERMOMETERS**

## PRESSURE GAUGES

### STAINLESS STEEL RIMLESS CASE - GLYCERIN FILLED

WITH BRASS INTERNALS, 100MM DIA. x 1/4" BSP **BOTTOM** CONNECTION



### PRESSURE GAUGES

80 215	0 - 1	Bar
80 216	0 - 2.5	Bar
80 217	0 - 4	Bar
80 218	0 - 6	Bar
80 219	0 - 10	Bar
80 220	0 - 16	Bar
80 221	0 - 25	Bar
80 222	0 - 40	Bar
80 223	0 - 60	Bar
80 224	0 - 100	Bar
80 225	0 - 160	Bar
80 226	0 - 250	Bar
80 229	0 - 400	Bar
80 227	0 - 600	Bar
80 228	0 - 1000	Bar

### COMPOUND GAUGES

80 236	-1/+16	Bar
80 230	-1/+10	Bar
80 231	-1/+6	Bar
80 232	-1/+4	Bar
80 237	-1/2.5	Bar
80 233	-1/+1	Bar

### VACUUM GAUGES

80 234	-1/+0	Bar
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### GAUGE ADAPTERS, BRASS

70 094	1/4" Female BSP x 3/8" Male BSP
70 095	1/4" Female BSP x 1/2" Male BSP
70 096	1/4" Female BSP x 3/4" Male BSP
70 097	1/4" Female BSP x 1/4" Male NPT
70 098	3/8" Female BSP x 3/8" Male NPT
70 099	1/2" Female BSP x 1/2" Male NPT

### FLANGES

80 018	100mm Stainless Steel flange
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## PRESSURE GAUGES

### STAINLESS STEEL ROUND RIM TYPE CASE WITH FLANGE

GLYCERIN FILLED WITH BRASS INTERNALS  
100MM DIA. x 1/4" BSP BOTTOM CONNECTION



#### PRESSURE GAUGES

85 215	0 - 1	Bar
85 216	0 - 2.5	Bar
85 217	0 - 4	Bar
85 218	0 - 6	Bar
85 219	0 - 10	Bar
85 220	0 - 16	Bar
85 221	0 - 25	Bar
85 222	0 - 40	Bar
85 223	0 - 60	Bar
85 224	0 - 100	Bar
85 225	0 - 160	Bar
85 226	0 - 250	Bar
85 229	0 - 400	Bar
85 227	0 - 600	Bar
85 228	0 - 1000	Bar

#### COMPOUND GAUGES

85 236	-1/+16	Bar
85 230	-1/+10	Bar
85 231	-1/+6	Bar
85 232	-1/+4	Bar
85 237	-1/2.5	Bar
85 233	-1/+1	Bar

#### VACUUM GAUGES

85 234	-1/+0	Bar
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#### GAUGE ADAPTERS, BRASS

70 094	1/4" Female BSP x 3/8" Male BSP
70 095	1/4" Female BSP x 1/2" Male BSP
70 096	1/4" Female BSP x 3/4" Male BSP
70 097	1/4" Female BSP x 1/4" Male NPT
70 098	3/8" Female BSP x 3/8" Male NPT
70 099	1/2" Female BSP x 1/2" Male NPT

## PRESSURE GAUGES

**STAINLESS STEEL ROUND RIM TYPE CASE WITH FLANGE**  
**GLYCERIN FILLED WITH BRASS INTERNALS**  
**80MM DIA. x 1/4" BSP BOTTOM CONNECTION**



### PRESSURE GAUGES

<b>88 215</b>	0 - 1	Bar
<b>88 216</b>	0 - 2.5	Bar
<b>88 217</b>	0 - 4	Bar
<b>88 218</b>	0 - 6	Bar
<b>88 219</b>	0 - 10	Bar
<b>88 220</b>	0 - 16	Bar
<b>88 221</b>	0 - 25	Bar
<b>88 222</b>	0 - 40	Bar
<b>88 223</b>	0 - 60	Bar
<b>88 224</b>	0 - 100	Bar
<b>88 225</b>	0 - 160	Bar
<b>88 226</b>	0 - 250	Bar

### COMPOUND GAUGES

<b>88 236</b>	-1/+15	Bar
<b>88 230</b>	-1/+10	Bar
<b>88 231</b>	-1/+6	Bar
<b>88 232</b>	-1/+4	Bar
<b>88 237</b>	-1/2.5	Bar
<b>88 233</b>	-1/+1	Bar

### VACUUM GAUGES

<b>88 234</b>	-1/+0	Bar
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### GAUGE ADAPTERS, BRASS

<b>70 094</b>	1/4" Female BSP x 3/8" Male BSP
<b>70 095</b>	1/4" Female BSP x 1/2" Male BSP
<b>70 096</b>	1/4" Female BSP x 3/4" Male BSP
<b>70 097</b>	1/4" Female BSP x 1/4" Male NPT
<b>70 098</b>	3/8" Female BSP x 3/8" Male NPT
<b>70 099</b>	1/2" Female BSP x 1/2" Male NPT

## PRESSURE GAUGES

**STAINLESS STEEL RIMLESS CASE - GLYCERIN FILLED**  
 WITH BRASS INTERNALS, 63MM DIA. x 1/4" BSP **BACK** CONNECTION



### PRESSURE GAUGES

<b>89 215</b>	0 - 1.6 Bar
<b>89 216</b>	0 - 2.5 Bar
<b>89 217</b>	0 - 4 Bar
<b>89 218</b>	0 - 6 Bar
<b>89 219</b>	0 - 10 Bar
<b>89 220</b>	0 - 16 Bar
<b>89 221</b>	0 - 25 Bar

### COMPOUND GAUGES

<b>89 230</b>	-1/+10 Bar
<b>89 231</b>	-1/+ 6 Bar
<b>89 232</b>	-1/+4 Bar
<b>89 229</b>	-1/+2.5 Bar
<b>89 233</b>	-1/+1.5 Bar

### VACUUM GAUGES

<b>89 234</b>	-1/0 Bar
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### GAUGE ADAPTERS, BRASS



<b>70 094</b>	1/4" Female BSP x 3/8" Male BSP
<b>70 095</b>	1/4" Female BSP x 1/2" Male BSP
<b>70 096</b>	1/4" Female BSP x 3/4" Male BSP

<b>70 097</b>	1/4" Female BSP x 1/4" Male NPT
<b>70 098</b>	3/8" Female BSP x 3/8" Male NPT
<b>70 099</b>	1/2" Female BSP x 1/2" Male NPT

## PRESSURE GAUGES

**STAINLESS STEEL RIMLESS CASE - GLYCERIN FILLED**  
 WITH BRASS INTERNALS, 63MM DIA. x 1/4" BSP **BOTTOM** CONNECTION



### PRESSURE GAUGES

<b>82 215</b>	0 - 1	Bar
<b>82 216</b>	0 - 2.5	Bar
<b>82 217</b>	0 - 4	Bar
<b>82 218</b>	0 - 6	Bar
<b>82 219</b>	0 - 10	Bar
<b>82 220</b>	0 - 16	Bar
<b>82 221</b>	0 - 25	Bar
<b>82 222</b>	0 - 40	Bar
<b>82 223</b>	0 - 60	Bar
<b>82 224</b>	0 - 100	Bar
<b>82 225</b>	0 - 160	Bar
<b>82 226</b>	0 - 250	Bar
<b>82 229</b>	0 - 400	Bar

### COMPOUND GAUGES

<b>82 236</b>	-1/+10	Bar
<b>82 230</b>	-1/+6	Bar
<b>82 231</b>	-1/+4	Bar
<b>82 232</b>	-1/+2.5	Bar
<b>82 233</b>	-1/+1	Bar

### VACUUM GAUGES

<b>82 234</b>	-1/+0	Bar
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### GAUGE ADAPTERS, BRASS

<b>70 094</b>	1/4" Female BSP x 3/8" Male BSP
<b>70 095</b>	1/4" Female BSP x 1/2" Male BSP
<b>70 096</b>	1/4" Female BSP x 3/4" Male BSP
<b>70 097</b>	1/4" Female BSP x 1/4" Male NPT
<b>70 098</b>	3/8" Female BSP x 3/8" Male NPT
<b>70 099</b>	1/2" Female BSP x 1/2" Male NPT

## PRESSURE GAUGES

### BLACK STEEL RIMLESS CASE - DRY

WITH BRASS INTERNALS, 100MM DIA. x 1/4" BSP **BOTTOM** CONNECTION



### PRESSURE GAUGES

81 215	0 - 1	Bar
81 216	0 - 2.5	Bar
81 217	0 - 4	Bar
81 218	0 - 6	Bar
81 219	0 - 10	Bar
81 220	0 - 16	Bar
81 221	0 - 25	Bar
81 222	0 - 40	Bar
81 223	0 - 60	Bar
81 224	0 - 100	Bar
81 225	0 - 160	Bar
81 226	0 - 250	Bar
81 229	0 - 400	Bar
81 227	0 - 600	Bar
81 228	0 - 1000	Bar

### COMPOUND GAUGES

81 238	-1/+16	Bar
81 237	-1/+10	Bar
81 230	-1/+6	Bar
81 231	-1/+4	Bar
81 232	-1/+2.5	Bar
81 233	-1/+1	Bar

### VACUUM GAUGES

81 234	-1/+0	Bar
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### GAUGE ADAPTERS, BRASS

70 094	1/4" Female BSP x 3/8" Male BSP
70 095	1/4" Female BSP x 1/2" Male BSP
70 096	1/4" Female BSP x 3/4" Male BSP
70 097	1/4" Female BSP x 1/4" Male NPT
70 098	3/8" Female BSP x 3/8" Male NPT
70 099	1/2" Female BSP x 1/2" Male NPT

### FLANGES

80 118	100 mm Steel flange
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## PRESSURE GAUGES

**BLACK STEEL RIMLESS CASE - DRY**  
 WITH BRASS INTERNALS  
 80MM DIA. x 1/4" BSP **BOTTOM** CONNECTION



### PRESSURE GAUGES

<b>80 085</b>	0 - 1	Bar
<b>80 086</b>	0 - 2.5	Bar
<b>80 087</b>	0 - 4	Bar
<b>80 068</b>	0 - 6	Bar
<b>80 069</b>	0 - 10	Bar
<b>80 064</b>	0 - 16	Bar
<b>80 063</b>	0 - 25	Bar
<b>80 088</b>	0 - 40	Bar
<b>80 102</b>	0 - 60	Bar
<b>80 103</b>	0 - 100	Bar
<b>80 104</b>	0 - 160	Bar
<b>80 105</b>	0 - 250	Bar

### COMPOUND GAUGES

<b>80 106</b>	-1/+16	Bar
<b>80 084</b>	-1/+10	Bar
<b>80 089</b>	-1/+6	Bar
<b>80 077</b>	-1/+4	Bar
<b>80 083</b>	-1/+2.5	Bar
<b>80 107</b>	-1/+1	Bar

### VACUUM GAUGES

<b>80 079</b>	-1/+0	Bar
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### GAUGE ADAPTERS, BRASS

<b>70 094</b>	1/4" Female BSP x 3/8" Male BSP
<b>70 095</b>	1/4" Female BSP x 1/2" Male BSP
<b>70 096</b>	1/4" Female BSP x 3/4" Male BSP
<b>70 097</b>	1/4" Female BSP x 1/4" Male NPT
<b>70 098</b>	3/8" Female BSP x 3/8" Male NPT
<b>70 099</b>	1/2" Female BSP x 1/2" Male NPT

### FLANGES

<b>80 013</b>	80mm Steel flange
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**PRESSURE GAUGES**

**BLACK STEEL RIMLESS CASE - DRY**  
 WITH BRASS INTERNALS

63MM DIA. x 1/4" BSP **BOTTOM** CONNECTION



**PRESSURE GAUGES**

<b>83 215</b>	0 - 1 Bar
<b>83 216</b>	0 - 2.5 Bar
<b>83 217</b>	0 - 4 Bar
<b>83 218</b>	0 - 6 Bar
<b>83 219</b>	0 - 10 Bar
<b>83 220</b>	0 - 16 Bar
<b>83 221</b>	0 - 25 Bar
<b>83 222</b>	0 - 40 Bar
<b>83 223</b>	0 - 60 Bar
<b>83 224</b>	0 - 100 Bar
<b>83 225</b>	0 - 160 Bar
<b>83 226</b>	0 - 250 Bar
<b>83 229</b>	0 - 400 Bar

**COMPOUND GAUGES**

<b>83 214</b>	-1/+10 Bar
<b>83 230</b>	-1/+6 Bar
<b>83 231</b>	-1/+4 Bar
<b>83 232</b>	-1/+2.5 Bar
<b>83 233</b>	-1/+1 Bar

**VACUUM GAUGES**

<b>83 234</b>	-1/+0 Bar
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**GAUGE ADAPTERS, BRASS**



<b>70 094</b>	1/4" Female BSP x 3/8" Male BSP
<b>70 095</b>	1/4" Female BSP x 1/2" Male BSP
<b>70 096</b>	1/4" Female BSP x 3/4" Male BSP
<b>70 097</b>	1/4" Female BSP x 1/4" Male NPT
<b>70 098</b>	3/8" Female BSP x 3/8" Male NPT
<b>70 099</b>	1/2" Female BSP x 1/2" Male NPT

**ENGINE THERMOMETER**  
**V-SHAPE**

**110MM (4") TYPE 174B - STRAIGHT**



<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 636	-30/50 C	40mm	
80 752	-30/50 C	63mm	
80 753	-30/50 C	100mm	
80 660	0-100 C	40mm	65 19 82
80 754	0-100 C	63mm	65 19 83
80 755	0-100 C	100mm	65 19 84
80 663	0-200 C	40mm	65 19 87
80 641	0-200 C	63mm	65 19 88
80 642	0-200 C	100mm	65 19 89

**150MM (6") TYPE 291B - STRAIGHT**



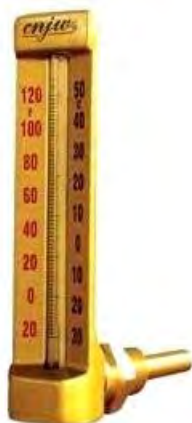
<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 661	0-100 C	40mm	
80 635	0-100 C	63mm	65 19 44
80 363	0-100 C	100mm	65 19 45
80 637	0-100 C	160mm	65 19 46
80 615	0-100 C	250mm	
80 664	0-200 C	40mm	
80 643	0-200 C	63mm	65 19 50
80 644	0-200 C	100mm	65 19 51
80 645	0-200 C	160mm	65 19 52
80 666	0-600 C	40mm	
80 649	0-600 C	63mm	65 19 62
80 650	0-600 C	100mm	65 19 63
80 651	0-600 C	160mm	65 19 64
80 617	0-600 C	250mm	

**200MM (8") TYPE 271B - STRAIGHT**



<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 662	0-100 C	40mm	
80 638	0-100 C	63mm	65 19 04
80 639	0-100 C	100mm	65 19 05
80 640	0-100 C	160mm	65 19 06
80 616	0-100 C	250mm	
80 665	0-200 C	40mm	
80 646	0-200 C	63mm	65 19 10
80 647	0-200 C	100mm	65 19 11
80 648	0-200 C	160mm	65 19 12
80 667	0-600 C	40mm	
80 652	0-600 C	63mm	65 19 22
80 653	0-600 C	100mm	65 19 23
80 654	0-600 C	160mm	65 19 24

**ENGINE THERMOMETER**  
**V-SHAPE**



**110MM (4") TYPE 175B - 90 DEG. ANGLE**

<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 728	-30/50 C	40mm	
80 710	-30/50 C	63mm	
80 711	-30/50 C	100mm	
80 729	0-100 C	40mm	65 20 82
80 712	0-100 C	63mm	65 20 83
80 713	0-100 C	100mm	65 20 84
80 732	0-200 C	40mm	65 20 87
80 720	0-200 C	63mm	65 20 88
80 721	0-200 C	100mm	65 20 89



**150MM (6") TYPE 292B - 90 DEG. ANGLE**

<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 730	0-100 C	40mm	
80 714	0-100 C	63mm	65 20 44
80 715	0-100 C	100mm	65 20 45
80 716	0-100 C	160mm	65 20 46
80 764	0-100 C	250mm	
80 733	0-200 C	40mm	
80 722	0-200 C	63mm	65 20 50
80 723	0-200 C	100mm	65 20 51
80 724	0-200 C	160mm	65 20 52



**200MM (8") TYPE 272B - 90 DEG. ANGLE**

<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 731	0-100 C	40mm	
80 717	0-100 C	63mm	65 20 04
80 718	0-100 C	100mm	65 20 05
80 719	0-100 C	160mm	65 20 06
80 756	0-200 C	40mm	
80 725	0-200 C	63mm	65 20 10
80 726	0-200 C	100mm	65 20 11
80 727	0-200 C	160mm	65 20 12

**ENGINE THERMOMETER INSERTS**



**110MM (4") TYPE 174B - STRAIGHT**

<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 668	-30/50 C	40mm	
80 655	-30/50 C	63mm	
80 656	-30/50 C	100mm	
80 669	0-100 C	40mm	65 22 82
80 657	0-100 C	63mm	65 22 83
80 658	0-100 C	100mm	65 22 84
80 675	0-200 C	40mm	65 22 87
80 696	0-200 C	63mm	65 22 88
80 697	0-200 C	100mm	65 22 89



**150MM (6") TYPE 291B - STRAIGHT**

<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 673	0-100 C	40mm	
80 659	0-100 C	63mm	65 22 44
80 691	0-100 C	100mm	65 22 45
80 692	0-100 C	160mm	65 22 46
80 686	0-100 C	250mm	
80 676	0-200 C	40mm	
80 698	0-200 C	63mm	65 22 50
80 699	0-200 C	100mm	65 22 51
80 700	0-200 C	160mm	65 22 52
80 678	0-600 C	40mm	
80 704	0-600 C	63mm	65 22 62
80 705	0-600 C	100mm	65 22 63
80 706	0-600 C	160mm	65 22 64
80 689	0-600 C	250mm	



**200MM (8") TYPE 271B - STRAIGHT**

<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 674	0-100 C	40mm	
80 693	0-100 C	63mm	65 22 04
80 694	0-100 C	100mm	65 22 05
80 695	0-100 C	160mm	65 22 06
80 687	0-100 C	250mm	
80 677	0-200 C	40mm	
80 701	0-200 C	63mm	65 22 10
80 702	0-200 C	100mm	65 22 11
80 703	0-200 C	160mm	65 22 12
80 679	0-600 C	40mm	
80 707	0-600 C	63mm	65 22 22
80 708	0-600 C	100mm	65 22 23
80 709	0-600 C	160mm	65 22 24

**ENGINE THERMOMETER INSERTS**

**110MM (4") TYPE 175B - 90 DEGR. ANGLE**



<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 757	-30/50 C	40mm	
80 734	-30/50 C	63mm	
80 735	-30/50 C	100mm	
80 758	0-100 C	40mm	65 23 82
80 736	0-100 C	63mm	65 23 83
80 737	0-100 C	100mm	65 23 84
80 761	0-200 C	40mm	65 23 87
80 744	0-200 C	63mm	65 23 88
80 745	0-200 C	100mm	65 23 89

**150MM (6") TYPE 292B - 90 DEG. ANGLE**



<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 759	0-100 C	40mm	
80 738	0-100 C	63mm	65 23 44
80 739	0-100 C	100mm	65 23 45
80 740	0-100 C	160mm	65 23 46
80 765	0-100 C	250mm	
80 762	0-200 C	40mm	
80 746	0-200 C	63mm	65 23 50
80 747	0-200 C	100mm	65 23 51
80 748	0-200 C	160mm	65 23 52

**200MM (8") TYPE 272B - 90 DEG. ANGLE**



<u>PART #</u>	<u>RANGE</u>	<u>STEM</u>	<u>ISSA #</u>
80 760	0-100 C	40mm	
80 741	0-100 C	63mm	65 23 04
80 742	0-100 C	100mm	65 23 05
80 743	0-100 C	160mm	65 23 06
80 763	0-200 C	40mm	
80 749	0-200 C	63mm	65 23 10
80 750	0-200 C	100mm	65 23 11
80 751	0-200 C	160mm	65 23 12



**BRASS GAUGE COCK VALVE**

Brass gauge cock valve with BSP male and female connection and test flange; Ø 40x5mm Suitable for pressure gauges with sealing according to DIN EN 837-1. Valve according to DIN 16261. Fig 345

<u>PART#</u>	<u>SIZE</u>
<b>80 145</b>	<b>3/8"</b>
<b>80 146</b>	<b>1/2"</b>

**MARINE EXHAUST PYROMETER**



Case: 100mm (4") diameter, 304 Stainless steel  
Silicone filled, weather/wash-down proof case

Connection: 1/2" or 3/4" BSPP or NPT  
316 Stainless Steel

Stem: 13mm (1/2") x 200 or 300 mm adjustable  
316 Stainless Steel

<u>PART #</u>	<u>RANGE:</u>
<b>80 201</b>	<b>0-650 C / 0-1200 F</b>
<b>80 204</b>	<b>0-100 C</b>

**REMOTE PYROMETER**



Case: 100mm (4") diameter, 304 Stainless steel,  
Back flanged, Silicone filled

Connection: 1/2" or 3/4" BSPP or NPT  
316 Stainless Steel

Probe/Bulb: 13mm (1/2") x 130mm long  
316 Stainless steel

Capillary: 3 Meter (10'), 316 Stainless Steel

<u>PART #</u>	<u>RANGE:</u>
<b>80 200</b>	<b>0-100 C</b>
<b>80 202</b>	<b>0-650 C / 0-1200 F</b>



# **ABRASIVES**

**ABRASIVES**



**TYPE 1 STAINLESS CUT-OFF WHEELS**

Double external reinforced with high tensile strength fiberglass. Extra thin design. Heat-treated Aluminum Oxide grain for cutting stainless steel and non-ferrous metals.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
80 014	4-1/2" x .045" x 7/8"	13,300
80 029	5" x .045" x 7/8"	12,200
80 003	6" x .045" x 7/8"	10,200
80 090	7" X .045" x 5/8"	8,500
80 091	7" x 5/64" x 7/8"	8,500
80 092	9" x 5/64" x 7/8"	6,600
80 007	14" x 1/8" x 1"	4,400



**TYPE 27 DEPRESSED CENTER STAINLESS CUT-OFF WHEELS**

Double external reinforced with high tensile strength fiberglass. Heat-treated Aluminum Oxide grain for cutting stainless steel and non-ferrous metals.

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
80 093	4" x 0.45 x 5/8"	19,000
80 094	4-1/2" x .045" x 7/8"	13,300
80 096	5" x .045" x 7/8"	12,200
80 095	6" x 0.45" x 7/8"	13,300
80 004	7" X .045" X 7/8"	8,500



**TYPE 27 DEPRESSED CENTER STAINLESS GRINDING WHEELS - Zirconia**

<u>PART #</u>	<u>SIZE</u>	<u>MAX RPM</u>
80 009	4-1/2" x 1/4" x 7/8"	13,300
80 008	4-1/2" x 1/4" x 5/8"-11	13,300
80 010	5" x 1/4" x 7/8"	12,200
80 099	5" x 1/4" x 5/8"-11	12,200
80 011	7" x 1/4" x 7/8"	8,500
80 097	7" x 1/4" x 5/8"-11	8,500
80 012	9" x 1/4" x 7/8"	6,500



**GRINDING BENCH WHEELS**

Gray Aluminum oxide grinding bench wheel or Green Silicone Carbide

<u>PART #</u>	<u>SIZE</u>	<u>PART #</u>
80 120	150 x 25 x 25mm	80 140
80 121	200 x 25 x 25mm	80 141
80 122	250 x 32 x 32mm	80 142
80 123	300 x 38 x 32mm	80 143

**ABRASIVES**

PH: 954-641-7840 FAX: 954-641-7850



**UTILITY ROLLS**

Abrasive handy rolls, aluminum oxide Grain, Metal, Wood, Fiberglass, Resin on resin bond, Flexible cloth backing

**1-1/2" (40mm) wide**

<u>PART #</u>	<u>GRIT</u>
80 006	40
80 025	50
80 020	60
80 021	80
80 022	100
80 023	120
80 037	150
80 024	180
80 026	220
80 027	240
80 028	320
80 005	400
80 135	600

**2" (50mm) wide**

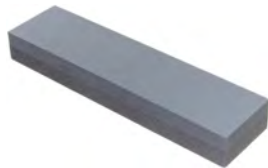
<u>PART#</u>	<u>GRIT</u>
80 340	40
80 341	50
80 342	60
80 343	80
80 344	100
80 345	120
80 346	150
80 347	180
80 348	220
80 349	240
80 350	320
80 351	400

**GRINDING COMPOUNDS**

For precision lapping, fitting, surfacing, polishing and other general use in machine shops. 454 grams/1 lb.



<u>PART #</u>	<u>GRIT</u>		<u>PART#</u>	<u>GRIT</u>	
80 050	36	Ex. Coarse	80 053	240	Fine
80 048	50	Coarse	80 045	280	Fine
80 046	80	Coarse	80 054	400	Very fine
80 051	100	Coarse	80 041	600	Very fine
80 049	120	Medium	80 055	700	Extra fine
80 052	150	Medium	80 042	800	Extra fine
80 043	180	medium	80 039	1000	Micro fine
80 044	220	Fine	80 056	1200	Micro fine,



**OIL STONES**

Carborundum oil stone. May be used dry or with oil or water. Combination fine/medium.



<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 060	100 x 25 x 13mm	61 47 85
80 061	200 x 50 x 25mm	61 47 86
80 129	200 x 50 x 25mm in cedar box	
	Grit 600 medium	

**ABRASIVES**

PH: 954-641-7840 FAX: 954-641-7850



**FLAP DISCS—ZIRCONIA, TYPE 29**

Aluminum Oxide, standard density,  
fiberglass backing, resin on resin bond.

Contaminant **FREE**

**4" X 5/8"** Max RPM 15,300

**PART #** **GRIT**

**80 001** 36  
**80 019** 40  
**80 002** 60  
**80 300** 80  
**80 301** 120

**4-1/2" X 7/8"** Max RPM 13,300

**80 302** 24  
**80 303** 36  
**80 304** 40  
**80 305** 60  
**80 306** 80  
**80 307** 120

**4-1/2" x 5/8"-11** Max RPM 13,300

**80 308** 24  
**80 309** 36  
**80 310** 40  
**80 311** 60  
**80 312** 80  
**80 313** 120

**5" x 7/8"** Max RPM 12,200

**PART#** **GRIT**

**80 314** 36  
**80 315** 40  
**80 316** 60  
**80 317** 80  
**80 318** 120

**5" x 5/8"-11** Max RPM 12,200

**80 319** 36  
**80 320** 40  
**80 321** 60  
**80 322** 80  
**80 323** 120

**7" x 7/8"** Max RPM 8,600

**80 324** 36  
**80 325** 40  
**80 326** 60  
**80 327** 80  
**80 328** 120

**7" 5/8"-11** Max RPM 8,600

**80 329** 36  
**80 330** 40  
**80 331** 60  
**80 332** 80  
**80 333** 120

**ABRASIVES**

PH: 954-641-7840 FAX: 954-641-7850



**HOOK AND LOOP DISCS**

Premium gold stearated non-loading.  
 Aluminum Oxide grain.  
 Durable C-weight backing.  
 Resin on resin bond  
 Sold in pack of 50 only!

**5" DIAMETER X NO DUST HOLES**

<u>PART #</u>	<u>GRIT</u>
5530060	60C
5530080	80C
5530100	100C
5530120	120C
5530150	150C
5530180	180C
5530220	220C
5530320	320C

**6" DIAMETER X NO DUST HOLES**

<u>PART #</u>	<u>GRIT</u>
5520060	60C
5520080	80C
5520100	100C
5520120	120C
5520150	150C
5520180	180C
5520220	220C
5520320	320C

**5" DIAMETER X 5 DUST HOLES**

<u>PART#</u>	<u>GRIT</u>
5535040	40C
5535060	60C
5535080	80C
5535100	100C
5535120	120C
5535150	150C
5535180	180C
5535220	220C
5535320	320C

**6" DIAMETER X 6 DUST HOLES**

<u>PART #</u>	<u>GRIT</u>
5526040	40C
5526060	60C
5526080	80C
5526100	100C
5526120	120C
5526150	150C
5526180	180C
5526220	220C
5526320	320C

**5" DIAMETER X 8 DUST HOLES**

<u>PART #</u>	<u>GRIT</u>
5538040	40C
5538060	60C
5538080	80C
5538100	100C
5538120	120C
5538150	150C
5538180	180C
5538220	220C
5538320	320C

**6" DIAMETER X 8 DUST HOLES**

<u>PART #</u>	<u>GRIT</u>
5528060	60C
5528080	80C
5528100	100C
5528120	120C
5528150	150C
5528180	180C
5528220	220C
5528320	320C

**ABRASIVES**

PH: 954-641-7840 FAX: 954-641-7850



**WATERPROOF SANDING PAPER– 9”x 11”**

Premium Silicon Carbide Paper Sheets  
Applications: Lacquers, paint, glass, metal, plastic, stone, sold in packs only

<u>Part #</u>	<u>Grit</u>	<u>Sheets/Pack</u>
80 240	60	50
80 241	80	50
80 242	100	50
80 243	120	50
80 244	150	50
80 245	180	50
80 246	220	50
80 247	240	50
80 248	280	50
80 249	320	50
80 250	360	50
80 251	400	50
80 252	500	50
80 253	600	50
80 254	800	50
80 255	1000	50
80 256	1200	50
80 257	1500	50
80 258	2000	50



**SANDING PAPER– 9”x 11”**

Premium Aluminum Oxide Paper Sheets  
Applications: Wood, metal, pain, plastic, fiberglass, Sold in packs only

<u>Part #</u>	<u>Grit</u>	<u>Sheets/Pack</u>
80 260	36	50
80 261	40	50
80 262	50	50
80 263	60	50
80 264	80	50
80 265	100	100
80 266	120	100
80 267	150	100
80 268	180	100
80 269	220	100
80 270	240	100
80 271	280	100
80 272	320	100

**SANDING BELTS**

Premium Sanding Belts, Aluminum Oxide Grain. Applications: Wood, metal, pain, plastic, stone. Sold in packs of 10.



<u>3” x 21”</u>	<u>Grit</u>	<u>4” x 24”</u>
80 160	24	80 172
80 161	36	80 173
80 162	40	80 174
80 163	50	80 175
80 164	60	80 176
80 165	80	80 177
80 166	100	80 178
80 167	120	80 179
80 168	150	80 180
80 169	180	80 181
80 170	220	80 182
80 171	240	80 183



# **SAFETY EQUIPMENT**

**SAFETY EQUIPMENT**



**EAR MUFFS**

Over-the-Head earmuffs, stainless steel headband, pivot points tilt for comfort. Cushions filled with liquid and foam. CSA class A

<u>PART #</u>	<u>DESCRIPTION</u>
80 628	NNR 27dB



**GOGGLES**

<u>PART #</u>	<u>DESCRIPTION</u>
80 623	Soft flexible vinyl frames and tough polycarbonate clear lenses. Side ventilation.

**ISSA # 33 11 41**



**SAFETY SPECTACLES**

Hard-coated polycarbonate lenses. Temple length adjusts to 4 different positions.

<u>PART #</u>	<u>DESCRIPTION</u>
80 629	Clear
80 633	Grey

**SAFETY EQUIPMENT**

PH: 954-641-7840 FAX: 954-641-7850



**SAFETY HARNESS**

V-line harness, built in two colors for easier donning of harness. 1 dorsal D-ring, 2 side D-rings. 1-3/4" polyester webbing, capacity: 310 lbs. Meets OSHA 1926-502

<u>PART #</u>	<u>DESCRIPTION</u>
80 614	Universal size



**SAFETY LANYARD**

Lanyard with two snap hooks. Hook with shock pack connects to dorsal harness D-ring. 1" polyester webbing, capacity 310 lbs, Meets OSHA 1926-502

<u>PART #</u>	<u>DESCRIPTION</u>
80 613	6 ft long with two snap hooks
80 612	6 ft long double (2 leg) lanyard



**SAFETY BELTS**

Heavy duty nylon web belt with two D-rings.

<u>PART #</u>	<u>DESCRIPTION</u>
80 620	4" waist pad



**SAFETY EQUIPMENT**

PH: 954-641-7840 FAX: 954-641-7850



**RESPIRATORS-HALF MASK**

Soft blue thermoplastic elastomer (TPE) with twin exhalation filters. NIOSH approved.

<u>PART #</u>	<u>DESCRIPTION</u>
80 670	Twin filter respirator. N95



**DISPOSABLE RESPIRATOR**

Particulate respirator, soft foam face cushion, latex-free adjustable straps, exhalation valve for easy breathing. Box of 2

<u>PART #</u>	<u>DESCRIPTION</u>
80 618	P100, twin-pack



**DISPOSABLE DUST MASKS**

Comfortable, efficient, lightweight disposable mask, OSHA approved. Adjustable nose piece and inner foam for comfort.

<u>PART #</u>	<u>DESCRIPTION</u>
80 626	Single strap, Box of 50 ISSA # 33 11 28



80 631	N95, Double strap with valve Box of 10
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**GLOVES**

PH: 954-641-7840 FAX: 954-641-7850



**VINYL DISPOSABLE GLOVES**

Vinyl disposable, industrial grade, **BOX OF 100**

<u>PART #</u>	<u>DESCRIPTION</u>
<b>80 188</b>	Lightly powdered, Sizes: S - XL
<b>80 184</b>	Powder free, sizes: S - XL



**GREEN NITRILE GLOVES**

Flock lined, 15 mil, sold per pair

<u>PART #</u>	<u>DESCRIPTION</u>
<b>80 187</b>	Sizes: 8-12



**STRING KNIT GLOVES**

Natural white, cotton/polyester string knit, PVC dots on one side. Sold per pair

<u>PART #</u>	<u>DESCRIPTION</u>
<b>80 186</b>	Sizes: S, L



**STRING KNIT GLOVES**

Black latex coated, fluorescent yellow string knit shell. Sold per pair

<u>PART#</u>	<u>DESCRIPTION</u>
<b>80 193</b>	Sizes: S - XL

**GLOVES**

PH: 954-641-7840 FAX: 954-641-7850



**GREEN PVC GLOVES**

Green PVC coated, sandy finish, jersey lining, 12" gauntlet, sold per pair

<u>PART #</u>	<u>DESCRIPTION</u>
80 189	One size



**MECHANICS GLOVES**

Green Hivis, black synthetic leather, foam padding, sold per pair

<u>PART #</u>	<u>DESCRIPTION</u>
80 195	Sizes: S - 3XL



**WELDERS GLOVES**

Russet shoulder leather, sock lined, Kevlar sewn. Sold per pair

<u>PART #</u>	<u>DESCRIPTION</u>
80 196	Sizes: Large



**LEATHER PALM GLOVES**

Regular grade, gunn pattern, 2.5" rubberized safety cuff, stripe fabric back, lined palm. Sold per pair

<u>PART #</u>	<u>DESCRIPTION</u>
80 185	Sizes: XS to XXL





**DISPOSABLE COVERALLS, WHITE**

The coveralls combines a liquid resistant microporous film with a polypropylene lining. They are cool and comfort while offering protection from dust, dirt and light splashes. Breathable and waterproof. Zipper front, **elastic wrists and ankles**. Box of 25 pc

<u>PART #</u>	<u>DESCRIPTION</u>
80 207	Sizes: S to 5XL



**DISPOSABLE COVERALLS, WHITE**

The coveralls combines a liquid resistant microporous film with a polypropylene lining. They are cool and comfort while offering protection from dust, dirt and light splashes. Breathable and waterproof. Zipper front, **elastic wrists and ankles and attached hood**. Box of 25 pc

<u>PART #</u>	<u>DESCRIPTION</u>
80 208	Sizes: M to 5XL



**DISPOSABLE COVERALLS, WHITE**

The coveralls combines a liquid resistant microporous film with a polypropylene lining. They are cool and comfort while offering protection from dust, dirt and light splashes. Breathable and waterproof. Zipper front, **elastic wrists, attached hood and boots**. Box of 25 pc.

<u>PART #</u>	<u>DESCRIPTION</u>
80 206	Sizes: M to 6XL

# **EPOXIES, SEALANTS**

**EPOXIES**



**DEVCON PLASTIC STEEL PUTTY (A)**

Metal-filled epoxy putty bonds to most metals, concrete and some plastics. #10110

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 190	1 lb box	81 22 51



**DEVCON STAINLESS STEEL PUTTY (ST)**

Non-rusting stainless steel epoxy putty bonds ferrous and non-ferrous metals. #10270

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 191	1 lb box	81 22 92



**DEVCON BRONZE PUTTY**

Bronze-filled epoxy putty for repairing bronze and brass bushings, shafts and castings. Bonds securely to bronze alloys, brass, copper and ferrous metals.. #10260

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 192	1 lb box	81 22 90



**DEVCON UNDERWATER REPAIR PUTTY (UW)**

High performance repair putty for patching, repairing and rebuilding equipment in wet environments, even underwater. #11800

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 198	1 lb box	81 22 46



**DEVCON ALUMINUM PUTTY (F)**

Aluminum-filled epoxy putty for non-rusting repairs to aluminum castings. Bonds securely to aluminum and other metals. #10610

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 194	1 lb box	81 22 66



**CRACK DETECTOR DYE-PENETRANT KIT**

Reveals cracks and flaws open to the surface in virtually any nonporous material.

<b>PART #</b>	<u>Content:</u>
<b>80 124</b>	4 cans cleaner 350 ml 2 cans red penetrant 300 ml 2 cans white developer 350ml Marking pen Wet hand towels High resistance plastic box w/tray



**FLAW & CRACK DETECTORS**

Reveals cracks and flaws open to the surface in virtually any nonporous material.

<b>PART #</b>	<u>Content:</u>
<b>80 136</b>	#1 Cleaner 350 ml
<b>80 137</b>	#2 Penetrant 300 ml
<b>80 138</b>	#3 Developer 350ml



**ZIP GRIP SUPER GLUE**

Instant cyanoacrylate adhesives. Fast cure, low viscosity, #70102

<b>PART #</b>	<u>SIZE</u>
<b>80 067</b>	1 oz bottle



**PERMATEX FORM-A-GASKET**

Paste-like gasket sealant/dressing/coating. Resistant to gasoline and other solvents.

<b>PART #</b>	<u>DESCRIPTION</u>
<b>80 065</b>	#1 - 11 oz tube No.1 sets quickly for rigid permanent assemblies.
<b>80 066</b>	#2 - 11 oz tube No. 2 sets more slowly for non-rigid, vibrating assemblies.

**SEALANTS, CLEANERS & LUBRICANTS**



**SILICONE**

RTV silicone sealant is a one-part acetoxy cure sealant for sealing and adhering glass, wood, metal, ceramic, fibers, plastic and painted surfaces. FDA-USDA approved.

<u>PART #</u>	<u>SIZE</u>	<u>Color</u>
80 070	9 oz tube	white
80 071	11 oz tube	black
80 076	9 oz tube	clear
80 078	11 oz tube	<b>Red High Temp up to 600°F</b>
80 126	10.1 oz tube	Aluminum
80 127	10.1 oz tube	Almond



**PIPE SEALING PASTE WITH PTFE**

Premium Teflon enhanced compound for sealing most threaded metal or plastic pipe. Non-hardening formula will not crack, shred or contaminate most systems. #10706

<u>PART #</u>	<u>SIZE</u>
80 062	16 oz brush top can



**ANTI-SEIZE COMPOUNDS**

Solution 2000 Copper/graphite blend antiseize compound for high temperature applications. Protects parts from corrosion, rust, galling a seizing. For use on most metals and is non-corrosive. Temperature resistant to 2000° F. #10106

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 680	1 lb brush top can	45 05 66



**MOLY PASTE LUBRICANT**

Solution 800 Low friction Moly paste is a premium molybdenum disulfide lubricant paste formulated specifically for lubricating and protecting metal surfaces under extreme pressure. #20106

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 684	1 lb. brush top can	45 05 11

**SEALANTS, CLEANERS & LUBRICANTS**



**MOLYKOTE DX PASTE**

Molykote DX Paste is a white grease paste suited for long-term lubrication for metal parts and for assemblies. Its composition consists of: mineral oil, lithium soap, white solid lubricants, and a corrosion inhibitor. In addition, DX Paste can be applied to sliding surfaces and friction contacts exposed to heavy loads requiring "clean" lubrication, especially at low to medium speeds

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>80 681</b>	<b>1 kg Can</b>



**MARINE MOLY SPRAY**

Solution 800 Low friction Moly paste is a premium molybdenum disulfide lubricant paste formulated specifically for lubricating and protecting metal surfaces under extreme pressure. #20175

<b><u>PART #</u></b>	<b><u>SIZE</u></b>	<b><u>ISSA #</u></b>
<b>80 685</b>	<b>12 oz. spray can</b>	<b>45 05 14</b>



**KOPR-KOTE HIGH TEMP 1000**

KOPR-KOTE is a high temperature anti-seize paste, comprised of metallic copper flake, graphite and other extreme pressure, corrosion and anti-wear additives.

Service rating: -65 degr. F to 1800 degr. F  
(-54 degr. C to 982 degr. C)

<b><u>PART #</u></b>	<b><u>SIZE</u></b>	<b><u>ISSA #</u></b>
<b>80 688</b>	<b>2 Lbs. can</b>	<b>45 05 21</b>
<b>80 683</b>	<b>12 oz. spray can</b>	<b>45 05 20</b>



**PETROLEUM JELLY (VASELINE)**

Petroleum jelly can be used to coat corrosion-prone items, prior to storage as it serves as an excellent and inexpensive water repellent. It is used as an environmentally friendly underwater antifouling coating for motor boats and sailing yachts.

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>80 682</b>	<b>13 oz. jar</b>



**SEALANTS, CLEANERS & LUBRICANTS**



**ZINC GALVANIZING SPRAY**

Protects against rust and corrosion, contains 97% pure zinc, use as Hot-Dip galvanizing. #30302

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>80 040</b>	16 oz spray can



**WD-40 CONTACT CLEANER**

High purity, fast acting, versatile cleaner for electronic equipment and components.

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>80 047</b>	11 oz Smart-straw spray can



**BELT DRESSING**

Heavy duty dressing to prevent belt slippage. Can be used on Fabric, Leather, Rubber and rope. #30200

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>80 036</b>	16 oz spray can



**ALL PURPOSE SPRAY ADHESIVE**

High shear strength, multi-surface bonding, Fast, aggressive tack, #30350

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>80 030</b>	13 oz spray can



**PENETRATING OIL**

Fast acting formula that attacks rust and corrosion. Quickly frees frozen parts, loosen dirt, corrosion, scale and other binding elements. #30304

<b><u>PART #</u></b>	<b><u>SIZE</u></b>
<b>80 038</b>	16 oz spray can
<b>80 128</b>	1 Gallon metal can

**SEALANTS, CLEANERS & LUBRICANTS**



**GASOLINE FINDING PASTE**

A chemical paste used with oil gauging tape for measuring the presence of various types of oils. The color of the paste will change from light blue to red upon contact with oil.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 115	75 gram jar	65 08 91



**WATER FINDING PASTE**

A paste for use with oil gauging tape. The color of the paste will change from yellow to red upon contact with water.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 116	75 gram tube	65 05 90



**HAND CLEANER**

Permatex Fast Orange Hand Cleaner, biodegradable, nontoxic, no petroleum solvents.

<u>PART #</u>	<u>SIZE</u>
80 119	1 Gallon



**PAINT MARKER PENS**

Most permanent mark on all surfaces. Highest visibility, weather resistant, Real paint that dries in minutes.

<u>PART #</u>	<u>COLOR</u>
80 150	Red
80 151	White
80 152	Blue
80 153	Black
80 154	Yellow
80 155	Green
80 156	Silver

**TAPES**



**FIBERGLASS CLOTH ROLLS**

The tape are made of woven glass yarn. Provides the main strength of a patch when saturated with activated Cordobond strongback resin.

<u>PART #</u>	<u>SIZE</u>	<u>ISSA #</u>
80 072	1-1/2" roll	81 23 23
80 073	2" roll	
80 074	3" roll	81 23 24
80 075	4" roll	81 23 25



**FIBERGLASS PIPE & HOSE REPAIR TAPES**

An Air Activated Fiberglass tape that works on PVC, Metal, Wood, Rubber, Cement and fiberglass. Works fast! sets like steel! Seals under water!

<u>PART #</u>	<u>SIZE</u>
80 057	2" X 60" roll
80 058	3" X 108" roll
80 059	4" X 180" roll



**ALUMINUM FOIL TAPES, MULTIPURPOSE**

2 Mil aluminum foil tape used to seal and join aluminum backed duct wrap, to create water and vapor barriers, and for temporary metal repair.

<u>PART #</u>	<u>SIZE</u>
80 108	2" X 50 yard roll
80 109	3" X 50 yard roll



**DUCT TAPE, SILVER**

General purpose industrial grade duct tape. Duck Cloth backing with rubber-based adhesive

<u>PART #</u>	<u>SIZE</u>
80 110	2" X 60 yard roll
80 111	3" X 60 yard roll

**TAPES**



**HAZARD WARNING TAPE**

Highly visible, pressure-sensitive vinyl tape is self-wound with a permanent adhesive. Colors conform to OSHA 1910.144

<u>PART #</u>	<u>SIZE</u>
80 157	2" x 18 yards, black & yellow
80 158	3" x 18 yards, black & yellow



**BARRICADE TAPE**

Highly visible, lightweight, non-adhesive, reusable polyethylene tape. Can be tied, stapled or nailed in place.

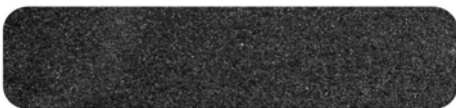
<u>PART #</u>	<u>SIZE</u>
80 159	3" x 1000', black & yellow striped



**NON-SLIP TAPE**

Long-lasting, adhesive backed tape for slippery and dangerous surfaces. A rugged aluminum oxide grit surface is bonded to the tape and is impervious to water, grease, oil, detergents and solvents. Resilient, non-abrasive vinyl safety tape.

<u>PART #</u>	<u>SIZE</u>
80 147	2" x 60' black
80 148	4" x 60' black
80 149	2" x 60' black/yellow



**NON-SLIP CLEATS**

Long-lasting, adhesive backed tape for slippery and dangerous surfaces. A rugged aluminum oxide grit surface is bonded to the tape and is impervious to water, grease, oil, detergents and solvents. Resilient, non-abrasive vinyl safety tape.

<u>PART #</u>	<u>SIZE</u>
80 209	6" x 24" black
80 210	6" X 24" black/yellow



**TAPES**



**TEFLON TAPE**

Made of white virgin Teflon, suitable for use on oxygen and portable water systems, Plastic spool and shell. Thickness: 0.003"

<u>PART #</u>	<u>SIZE</u>
80 080	1/2" x 260"
80 081	3/4" x 520"
80 082	1" x 520"



**TEFLON TAPE, HIGH TEMP**

Medium density, chemically inert tape, 4.0 mil -400 degrees to 550 degrees F, Mill. Spec. T27730A, white color.

<u>PART #</u>	<u>SIZE</u>
80 139	1/2" x 520" high temp



**DENSO TAPE**

A non-woven synthetic fabric tape fully impregnated with a neutral petrolatum compound. Corrosion protection of wet or dry pipes, flanges, valves and related surfaces.

<u>PART #</u>	<u>SIZE</u>
80 275	2" x 33 ft.
80 276	4" x 33 ft.



**TAPES**



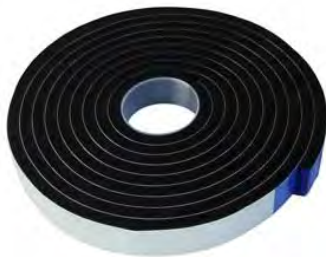
**FOAM INSULATION TAPE**

For hot, cold, and refrigeration pipes, adheres firmly to all metals, won't dry out or crack, white

<u>PART #</u>	<u>SIZE</u>
80 125	1/8 x 2" x 30 feet

**DOUBLE SIDED FOAM TAPE**

Closed cell cross-linked polyethylene foam tape coated on both sided with a high performance solvent based acrylic adhesive.



<u>PART #</u>	<u>SIZE</u>
80 280	1/32 x 1/2" x 72 yards
80 281	1/32 X 3/4" X 72 yards
80 282	1/32" x1" x 72 yards
80 283	1/32" x 2" x 72 yards
80 284	1/16" x 1/2" x 36 yards
80 285	1/16" x 3/4" x 36 yards
80 286	1/16" x 1" x 36 yards
80 287	1/16" x 2" x 36 yards
80 288	1/8" x 1/2" x 18 yards
80 289	1/8" x 3/4" x 18 yards
80 290	1/8" x 1" x 18 yards
80 291	1/8" x 2" x 18 yards



**TAPES**



**MASKING TAPE**

General purpose industrial grade masking tape. Rolls of 60 yds.

<u>PART #</u>	<u>SIZE</u>
80 112	3/4"
80 113	1"
80 114	1-1/2"
80 117	2"



**PAINTERS TAPE, BLUE**

Designed for use on painted walls, trim, woodwork, glass and metals. Provides clean paint lines. Removes easily and cleanly. Rolls of 60 yds.

<u>PART #</u>	<u>SIZE</u>
80 130	1"
80 131	2"



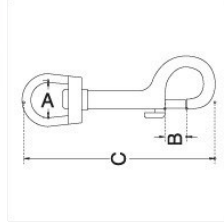
**STRETCH WRAP, PLASTIC**

High clarity for barcode reading or load identification. Smooth, easy release, wraps loads fast with little effort. 70 Gauge, for loads up to 2,000 lbs.

<u>PART #</u>	<u>SIZE</u>
80 101	15" wide x 1500 ft. long
80 132	18" wide x 1500 ft. long

# **RIGGING**

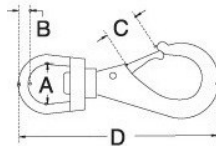
**RIGGING**



**SWIVEL EYE SNAP HOOKS**

Stainless Steel T316 precision cast.

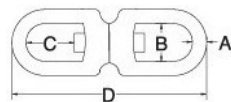
<u>PART#</u>	<u>A</u> <u>EYE</u>	<u>B</u> <u>OPENING</u>	<u>C</u> <u>O.L.</u>
43 200	7/16"	5/16"	2-1/2"
43 201	9/16"	3/8"	3-5/16"
43 202	5/8"	3/8"	3-1/2"
43 203	3/4"	3/8"	3-3/4"
43-204	1-1/4"	1/2"	4-3/4"



**SWIVEL EYE SNAP HOOKS**

Stainless Steel T316 precision cast.

<u>PART#</u>	<u>A</u> <u>EYE</u>	<u>C</u> <u>OPENING</u>	<u>D</u> <u>O.L.</u>
43 205	11/16"	9/32"	2-3/4"
43 206	5/8"	3/8"	3-3/8"
43 207	3/4"	1/2"	4"
43 208	7/8"	1/2"	4-5/8"
43-209	1-3/32"	5/8"	5-7/8"



**EYE & EYE SWIVELS**

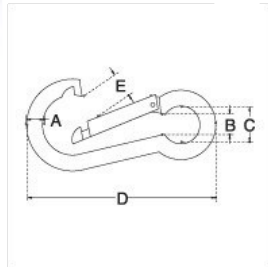
Stainless Steel T316 precision cast.

<u>PART#</u>	<u>B X C</u> <u>EYE</u>	<u>D</u> <u>O.L.</u>
43 210	1/2"X1/2"	2-5/16"
43 211	9/16"X9/16"	2-9/16"
43 212	3/4"X3/4"	3-5/8"
43 213	7/8"X1	4-5/8"
43-214	1-1/4"X1-5/16"	6"
43 215	1-1/2"X15/8"	7-3/8"
43 216	1-5/8"X2"	8-1/2"
43 217	1-7/8"X2"	9-1/4"
43 218	2-1/2"X2-9/16"	11"

**RIGGING**

**SNAP HOOKS**

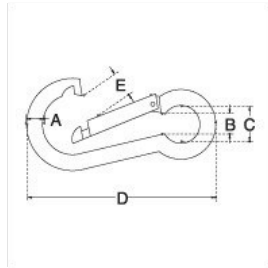
Stainless Steel T316 formed.



<u>PART#</u>	<u>A</u> <u>DIA.</u>	<u>D</u> <u>O.L.</u>	<u>E</u> <u>OPENING.</u>
43 220	3/16"	2"	1/4"
43 221	1/4"	2-3/8"	5/16"
43 222	9/32"	2-3/4"	3/8"
43 223	5/16"	3-1/8"	3/8"
43-224	11/32"	3-1/2"	1/2"
43 225	3/8"	4"	9/16"
43 226	7/16"	4-3/4"	11/16"
43 227	15/32"	5-1/2"	3/4"
43 228	1/2"	6-3/8"	1"

**SNAP HOOK WITH EYELET**

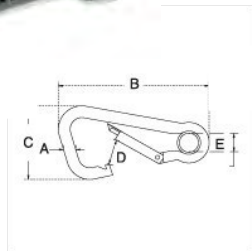
Stainless Steel T316 formed.



<u>PART#</u>	<u>A</u> <u>DIA.</u>	<u>D</u> <u>O.L.</u>	<u>E</u> <u>OPENING</u>
43 230	3/16"	2"	1/4"
43 231	1/4"	2-3/8"	5/16"
43 232	9/32"	2-3/4"	3/8"
43 233	5/16"	3-1/8"	3/8"
43-234	11/32"	3-1/2"	1/2"
43 235	3/8"	4"	9/16"
43 236	7/16"	4-3/4"	11/16"
43 237	15/32"	5-1/2"	3/4"
43 238	1/2"	6-3/8"	1"

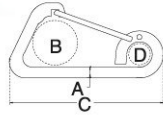
**ASYMMETRICAL SNAP HOOK WITH EYELET**

Stainless Steel T316 formed.



<u>PART#</u>	<u>A</u> <u>DIA.</u>	<u>B</u> <u>O.L.</u>	<u>D</u> <u>OPENING</u>
43 240	1/4"	2-3/8"	3/8"
43 241	5/16"	3-3/8"	9/16"
43 242	3/8"	4"	11/16"
43 243	7/16"	4-3/4"	7/8"

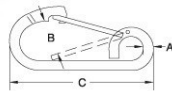
**RIGGING**



**HARNES CLIPS, ASYMMETRICAL**

Stainless Steel T316 formed.

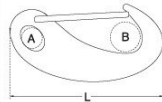
<u>PART#</u>	<u>A: DIA.</u>	<u>B: OPENING.</u>	<u>C: O.L.</u>
43 245	1/4"	3/8"	2-3/8"
43 246	5/16"	1/2"	3-3/16"
43 247	3/8"	5/8"	4"
43 248	15/32"	7/8"	4-7/8"



**HARNES CLIPS, ROUNDED**

Stainless Steel T316 formed.

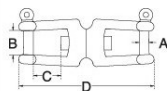
<u>PART#</u>	<u>A: DIA.</u>	<u>B: OPENING</u>	<u>C: O.L.</u>
43 250	1/4"	1/2"	2-3/8"
43 251	5/16"	11/16"	3-1/8"
43 252	3/8"	3/4"	4"
43 253	15/32"	1-1/8"	4-3/4"



**SPRING GATE SNAP**

Stainless Steel T316 precision cast.

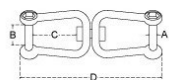
<u>PART#</u>	<u>A: EYE DIA.</u>	<u>B: OPENING</u>	<u>L: O.L.</u>
43 255	1/4"	1/2"	2'
43 256	3/8"	1/2"	2-3/4"
43 257	1/2"	7/8"	4"



**JAW & JAW SWIVELS**

Stainless Steel T316 precision cast.

<u>PART#</u>	<u>A: PIN DIA.</u>	<u>B: OPENING</u>	<u>D: O.L.</u>
43 260	1/4"	7/16"	2-5/8"
43 261	5/16"	5/8"	3-5/8"
43 262	3/8"	13/16"	4-5/8"
43 263	1/2"	1"	6"
43-264	5/8"	1-1/4"	7-3/8"
43 265	3/4"	1-1/2"	8-5/8"

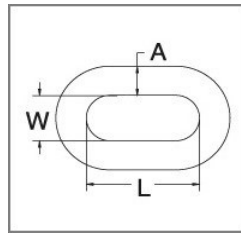


**JAW & JAW SWIVEL WITH FLUSH PIN**

Stainless Steel T316 precision cast.

<u>PART#</u>	<u>A: PIN DIA</u>	<u>B: OPENING</u>	<u>D: O.L.</u>
43 266	1/4"	7/16"	2-1/2"
43 267	5/16"	5/8"	3-1/2"
12-3 43 268	3/8"	13/16"	4-1/2"

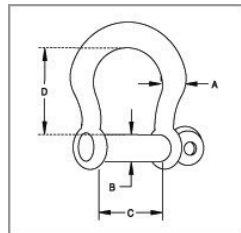
**RIGGING**



**STAINLESS STEEL CHAIN (PROOF COIL)**

Stainless Steel T316 Formed and welded. Sold per foot.

<u>PART#</u>	<u>A: SIZE</u>	<u>L: INSIDE LENGTH</u>
43 420	1/8"	0.95"
43 421	3/16"	0.95"
43 422	1/4"	1.25"
43 423	5/16"	1.30"
43 424	3/8"	1.38"
43 425	1/2"	1.75"
43 426	5/8"	2.16"
43 427	3/4"	2.75"
43 428	1"	3.50"



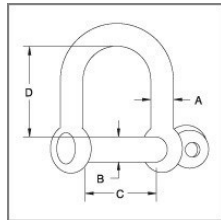
**SCREW PIN ANCHOR SHACKLES**

Stainless Steel T316 Forged load rated.

<u>PART#</u>	<u>A: SIZE</u>	<u>C: OPENING</u>
43 400	3/16"	3/8"
43 401	1/4"	15/32"
43 402	5/16"	1/2"
43 403	3/8"	5/8"
43 404	7/16"	3/4"
43 405	1/2"	7/8"
43 406	5/8"	1-1/16"
43 407	3/4"	1-3/16"
43 408	7/8"	1-1/2"
43 409	1"	1-5/8"
43 410	1-1/4"	2-1/8"



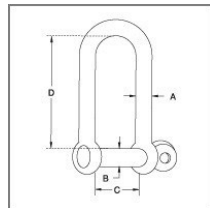
**RIGGING**



**SCREW PIN CHAIN SHACKLES**

Stainless Steel T316 Forged.

<u>PART#</u>	<u>A: SIZE</u>	<u>C: OPENING</u>
43 370	5/32"	11/32"
43 371	3/16"	13/32"
43 372	1/4"	15/32"
43 373	9/32"	1/2"
43 374	5/16"	5/8"
43 375	11/32"	11/16"
43 376	3/8"	3/4"
43 377	7/16"	15/16"
43 378	1/2"	1"
43 379	5/8"	1-1/4"
43 380	3/4"	1-1/2"
43 381	7/8"	1-3/4"
43 382	1"	2"
43 383	1-1/4"	2-1/2"



**SCREW PIN LONG CHAIN SHACKLES**

Stainless Steel T316 Forged.

<u>PART#</u>	<u>A: SIZE</u>	<u>C: OPENING</u>
43 390	5/32"	5/16"
43 391	3/16"	7/16"
43 392	1/4"	15/32"
43 393	5/16"	9/16"
43 394	3/8"	3/4"
43 395	15/32"	7/8"
43 396	1/2"	1"

**RIGGING**



**STAINLESS STEEL CABLE 7X19, PVC COATED**

Stainless Steel T316. Sold per foot

<u>PART#</u>	<u>SIZE.</u>	<u>PVC O.D.</u>	<u>WT/100 foot</u>
43 345	1/8"	3/16"	2.90 lb.
43 346	3/16"	1/4"	6.50 lb
43 347	1/4"	5/16"	11.00 lb
43 348	3/8	7/16"	17.30 lb



**STAINLESS STEEL CABLE 7X7, PVC COATED**

Stainless Steel T316. Sold per foot

<u>PART#</u>	<u>SIZE.</u>	<u>PVC O.D.</u>	<u>WT/100 foot</u>
43 362	1/8"	3/16"	2.80 lb.
43 364	3/16"	1/4"	6.20 lb.
43 365	1/4"	5/16"	10.60 lb.



**SWAGING TOOLS**

Jaws are made of forged alloy steel with heat treatment.

For crimping aluminum and stainless steel oval sleeves..

<u>PART#</u>	<u>O.L.</u>	<u>RANGE:</u>
43 366	18"	1/16" to 3/16"
43 367	30"	5/32" to 5/16"

**RIGGING****STAINLESS STEEL SWAGE SLEEVE**

Stainless Steel T316 Formed.

<b><u>PART#</u></b>	<b><u>O.L.</u></b>	<b><u>CABLE SIZE</u></b>
43 300	1/4"	1/32"
43 301	3/8"	3/64"
43 302	3/8"	1/16"
43 303	3/8"	3/32"
43 304	3/8"	1/8"
43 305	23/32"	5/32"
43 306	1"	3/16"
43 307	7/8"	7/32"
43 308	1-1/8"	1/4"
43 309	1-3/8"	5/16"
43 310	1-3/8"	3/8"
43 311	1-3/4"	1/2"
43 312	2-5/8"	5/8"
43 313	3"	3/4"

**ALUMINUM SWAGE SLEEVE**

Aluminum Formed.

<b><u>PART#</u></b>	<b><u>O.L.</u></b>	<b><u>CABLE SIZE</u></b>
43 314	0.38"	1/16"
43 315	0.40"	3/32"
43 316	0.62"	1/8"
43 317	0.68"	5/32"
43 318	1.00"	3/16"
43 319	1.12"	1/4"
43 320	1.24"	5/16"
43 321	1.45"	3/8"

**RIGGING****HEAVY DUTY WIRE ROPE CLIPS**

Includes saddle, U-bolt & nuts.

Stainless Steel T316 Precision cast

<u>PART#</u>	<u>WIRE DIA.</u>
43 430	3/32"
43 431	1/8"
43 432	5/32"
43 433	3/16"
43 434	1/4"
43 435	5/16"
43 436	3/8"
43 437	1/2"
43 438	9/16"
43 440	5/8"
43 441	3/4"
43 442	7/8"
43 443	1"

**REGULAR DUTY THIMBLES**

Stainless Steel T316 stamped.

<u>PART#</u>	<u>WIRE DIA.</u>
43 444	3/32"
43 445	1/8"
43 446	5/32"
43 447	3/16"
43 448	1/4"
43 449	5/16"
43 450	3/8"
43 451	1/2"
43 452	9/16"
43 453	5/8"
43 454	3/4"
43 455	7/8"
43 456	1"

**RIGGING****SIMPLEX AND DUPLEX CLIPS**

Stainless Steel T304 Stamped

**SIMPLEX**

<b><u>PART#</u></b>	<b><u>WIRE SIZE</u></b>	<b><u>O.L.</u></b>
<b>43 330</b>	1/16"-3/32"	9/16
<b>43 331</b>	1/8"	11/16"
<b>43 332</b>	5/32"	3/4"
<b>43 333</b>	3/16"	1"
<b>43 334</b>	1/4"	1-5/32"
<b>43 335</b>	5/16"	1-1/2"
<b>43 336</b>	3/8"	1-7/8"

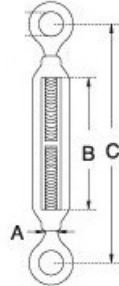
**DUPLEX**

<b><u>PART#</u></b>	<b><u>WIRE SIZE</u></b>	<b><u>O.L.</u></b>
<b>43 337</b>	1/16"-3/32"	1-5/32"
<b>43 338</b>	1/8"	1-5/16"
<b>43 339</b>	5/32"	1-5/8"
<b>43 340</b>	3/16"	2"
<b>43 341</b>	1/4"	2-3/8"
<b>43 342</b>	5/16"	3"
<b>43 343</b>	3/8"	3-3/4"

**RIGGING**

**EYE & EYE TURNBUCKLE**

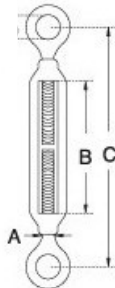
Stainless Steel T316 Precision cast.



	<b>A</b>	<b>B</b>	<b>C</b>
<b><u>PART#</u></b>	<b><u>THR. DIA.</u></b>	<b><u>TAKE UP</u></b>	<b><u>O.L.</u></b>
43 270	3/16"	2.25"	3.75"
43 271	1/4"	2.72"	5.08"
43 272	5/16"	3.70"	6.31"
43 273	3/8"	4.82"	8.00"
43 274	1/2"	6.68"	10.50"
43 275	5/8"	8.50"	13.62"
43 276	3/4"	10.25"	16.50"
43 277	7/8"	10.75"	18.00"
43 278	1"	12.00"	25.50"

**HOOK & HOOK TURNBUCKLES**

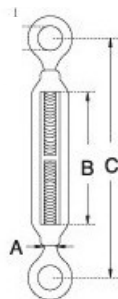
Stainless Steel T316 precision cast.



	<b>A</b>	<b>B</b>	<b>C</b>
<b><u>PART#</u></b>	<b><u>THR. DIA.</u></b>	<b><u>TAKE UP</u></b>	<b><u>O.L.</u></b>
43 280	3/16"	2.25"	3.75"
43 281	1/4"	2.72"	5.00"
43 282	5/16"	3.70"	6.31"
43-283	3/8"	4.82"	8.00"
43 284	1/2"	6.68"	10.50"
43 285	5/8"	8.50"	13.62"
43 286	3/4"	10.25"	16.50"
43 287	1"	12.00"	25.50"

**JAW & JAW TURNBUCKLES**

Stainless Steel T316 precision cast.



	<b>A</b>	<b>B</b>	<b>C</b>
<b><u>PART#</u></b>	<b><u>THR. DIA.</u></b>	<b><u>TAKE UP</u></b>	<b><u>O.L.</u></b>
43 290	3/16"	2.25"	4.50"
43 291	1/4"	2.72"	5.38"
43 292	5/16"	3.70"	7.12"
43-293	3/8"	4.82"	8.75"
43 294	1/2"	6.68"	12.25"
43 295	5/8"	8.50"	15.00"
43 296	3/4"	10.25"	18.25"
43 297	1"	12.00"	24.00"



**RIGGING****WOOD FIDS**

A wooden tapered pin used to separate the strands when splicing rope.

<b><u>PART#</u></b>	<b><u>O.L.</u></b>
<b>43 460</b>	250mm/10"
<b>43 461</b>	300mm/12"
<b>43 462</b>	350mm/14"
<b>43 463</b>	400mm/16"
<b>43 464</b>	500mm/20"
<b>43 465</b>	600mm/24"

**STEEL MARLIN SPIKES**

A steel sharp pointed pin used for opening up a rope when splicing. Spike has a hole in the larger end for a lanyard.

<b><u>PART#</u></b>	<b><u>O.L.</u></b>
<b>43 466</b>	250mm/10"
<b>43 467</b>	300mm/12"
<b>43 468</b>	350mm/14"
<b>43 469</b>	400mm/16"
<b>43 470</b>	450mm/18"

# PUMPS

**PUMPS****DIAPHRAGM PUMPS, POLYPROPYLENE**

Reliable polypropylene air center section combine with non-metallic clamped casing materials ensure maximum chemical compatibility. Muffler included,

Suitable for clean fluids, slurries or up to 1/8" solids

<b><u>PART#</u></b>	<b><u>SIZE</u></b>	<b><u>CONN</u></b>	<b><u>FLUID CHAMBER</u></b>	<b><u>DIAPHRAGM</u></b>	<b><u>USE</u></b>	<b><u>WET END</u></b> <b><u>REPAIR KIT</u></b>	<b><u>AIR</u></b> <b><u>REPAIR KIT</u></b>
<b>72 230</b>	1/2"	NPT	Polypropylene	Geolast	Water/Oil	KIT-PB-05	050075
<b>72 231</b>	3/4"	NPT	Polypropylene	Geolast	Water/Oil	KIT-PB-75	050075
<b>72 232</b>	1/2"	NPT	Polypropylene	Santoprene	Acid/Alkali	KIT-PE-05	050075
<b>72 233</b>	3/4"	NPT	Polypropylene	Santoprene	Acid/Alkali	KIT-PE-75	050075
<b>72 234</b>	1/2"	NPT	Polypropylene	PTFE	Acid/Alkali	KIT-PT-05	050075
<b>72 235</b>	3/4"	NPT	Polypropylene	PTFE	Acid/Alkali	KIT-PT-75	050075
<b>72 236</b>	1/2"	NPT	Conductive Nylon	PTFE	Fuels	KIT-CT-05	050075
<b>72 237</b>	3/4"	NPT	Conductive Nylon	PTFE	Fuels	KIT-PC-75	050075
<b>72 238</b>	1/2"	NPT	PVDF	Santoprene	Acid/Alkali	KIT-KE-05	050075
<b>72 239</b>	3/4"	NPT	PVDF	Santoprene	Acid/Alkali	KIT-KE-75	050075
<b>72 240</b>	1/2"	NPT	PVDF	PTFE	Acid/Alkali	KIT-KT-05	050075
<b>72 241</b>	3/4"	NPT	PVDF	PTFE	Acid/Alkali	KIT-KT-75	050075
<b>72 242</b>	1"	ANSI/DIN	Polypropylene	Santoprene	Acid/Alkali	KIT-PE-10	100
<b>72 243</b>	1-1/2"	ANSI/DIN	Polypropylene	Santoprene	Acid/Alkali	KIT-PE-15	150200
<b>72 244</b>	2"	ANSI/DIN	Polypropylene	Santoprene	Acid/Alkali	KIT-PE-20	150200
<b>72 245</b>	1"	ANSI/DIN	Polypropylene	PTFE	Acid/Alkali	KIT-PT-10	100
<b>72 246</b>	1-1/2"	ANSI/DIN	Polypropylene	PTFE	Acid/Alkali	KIT-PT-15	150200
<b>72 247</b>	2"	ANSI/DIN	Polypropylene	PTFE	Acid/Alkali	KIT-PT-20	150200
<b>72 248</b>	1"	ANSI/DIN	PVDF	PTFE	Acid/Alkali	KIT-KT-10	100
<b>72 249</b>	1-1/2"	ANSI/DIN	PVDF	PTFE	Acid/Alkali	KIT-KT-15	150200
<b>72 250</b>	2"	ANSI/DIN	PVDF	PTFE	Acid/Alkali	KIT-KT-20	150200

**PUMPS**



**DIAPHRAGM PUMPS, ALUMINUM**

Flow rates up to 48 gpm, Air inlet: 1/2"  
 max pressure: 120 PSI, Max solids: 1/4",  
 max suction lift dry: 17 ft.  
 Max suction lift wet: 30 ft.

<u>AIR</u>				<u>FLUID</u>			<u>WET END</u>
<u>PART#</u>	<u>SIZE</u>	<u>CONN</u>	<u>CHAMBER</u>	<u>DIAPHRAGM</u>	<u>USE</u>	<u>REPAIR KIT</u>	<u>REPAIR KIT</u>
72 260	1/2"	NPT	Aluminum	Geolast	Water	AWE-050-GGPN	AAK-050-A
72 261	1"	NPT	Aluminum	Geolast	Water	AWE-100-GGPNM	AAK-100-A
72 262	1-1/2"	NPT	Aluminum	Geolast	Water	AWE-150-GGPNM	AAK-150-A
72 263	2"	NPT	Aluminum	Geolast	Water	AWE-200-GGPNM	AAK-200-A
72 264	3"	NPT	Aluminum	Geolast	Water	AWE-300-GGPNM	AAK-300-A
72 265	1/2"	NPT	Aluminum	Santoprene	Water//Amonium	AWE-050-SSPE	AAK-050-A
72 266	1"	NPT	Aluminum	Santoprene	Water/Amonium	AWE-100-SSPEM	AAK-100-A
72 267	1-1/2"	NPT	Aluminum	Santoprene	Water/Amonium	AWE-150-SSPEM	AAK-150-A
72 268	2"	NPT	Aluminum	Santoprene	Water/Amonium	AWE-200-SSPEM	AAK-200-A
72 269	3"	NPT	Aluminum	Santoprene	Water/Amonium	AWE-300-SSPEM	AAK-300-A
72 270	1/2"	NPT	Aluminum	PTFE	Fuel/Oil	AWE-050-TTYT-M	AAK-050-A
72 271	1"	NPT	Aluminum	PTFE	Fuel/Oil	AWE-100-TTYT-M	AAK-100-A
72 272	1-1/2"	NPT	Aluminum	PTFE	Fuel/Oil	AWE-150-TTYT-M	AAK-150-A
72 273	2"	NPT	Aluminum	PTFE	Fuel/Oil	AWE-200-TTYT-M	AAK-200-A
72 274	3"	NPT	Aluminum	PTFE	Fuel/Oil	AWE-300-TTYT-M	AAK-300-A



**DIAPHRAGM PUMPS, STAINLESS STEEL**

Flow rates up to 48 gpm, Air inlet: 1/2"  
 max pressure: 120 PSI, Max solids: 1/4",  
 max suction lift dry: 17 ft.  
 Max suction lift wet: 30 ft.

				<u>FLUID</u>	<u>WET END</u>		<u>AIR</u>
<u>PART#</u>	<u>SIZE</u>	<u>CONN</u>	<u>CHAMBER</u>	<u>DIAPHRAGM</u>	<u>USE</u>	<u>REPAIR KIT</u>	<u>REPAIR KIT</u>
72 275	1/2"	NPT	Stainless Steel	PTFE	Acid/Alkali	AWE-050-TT3T-M	AAK-050-A
72 276	1"	NPT	Stainless Steel	PTFE	Acid/Alkali	AWE-100-TT3T-M	AAK-100-A
72 277	1-1/2"	NPT	Stainless Steel	PTFE	Acid/Alkali	AWE-150-TT3T-M	AAK-150-A
72 278	2"	NPT	Stainless Steel	PTFE	Acid/Alkali	AWE-200-TT3T-M	AAK-200-A

**PUMPS****1/4" NPT FILTER/REGULATOR/GAUGE AUTOMATIC DRAIN**

Adjust and set air pressure to a set value with a combination filter regulator and pressure gauge unit.

<b><u>PART#</u></b>	<b><u>DESCRIPTION</u></b>
<b>72 280</b>	For 1/4", 3/8" & 1/2" pump
<b>72 281</b>	For 1-1/2" & 2" pump
<b>72 282</b>	For 3" pump

**DRUM KITS**

Bung adaptor and 40 inch suction tube

<b><u>PART#</u></b>	<b><u>DESCRIPTION</u></b>
<b>72 283</b>	For 050 series, Stainless
<b>72 284</b>	For 050 series, Aluminum
<b>72 285</b>	For 050 series, PVDF
<b>72 286</b>	For 050 series, Poly
<b>72 287</b>	For 050 series, Nylon
<b>72 288</b>	For 050 series, PVDF
<b>72 289</b>	For 050 series, Poly
<b>72 290</b>	For 100 series, PVDF
<b>72 291</b>	For 100 series, Poly
<b>72 292</b>	1/2", PDVF
<b>72 293</b>	1/2", Stainless
<b>72 294</b>	1/2", Poly
<b>72 295</b>	1", PDVF
<b>72 296</b>	1", Poly

**PUMPS**



**GREASE LUBRICATOR SET**

Pneumatic grease pump, dust cover, follower plate with Rubber rim, control valve set, Filter/Regulator/Lubricator, Handle mounted on pump to carry unit

<u>PART#</u>	<u>DESCRIPTION</u>
72 010	With 1/4" x 10' H.P. hose



**BARREL PUMP - PNEUMATIC**

A 5:1 pneumatic pump for 55 gal drums with bung adaptor And foot valve.

<u>PART#</u>	<u>DESCRIPTION</u>
72 011	Max air pressure: 120 PSI 1/4" female inlet, Air consumption: 11 CFM



**BARREL PUMPS - BARREL ROTARY**

A steel Barrel rotary pump for 55 gal drums with 6 ft. discharge hose

<u>PART#</u>	<u>DESCRIPTION</u>
72 012	3/4" x 6 foot hose w/curved metal spout Capacity: 8 gallons/min



A Polyethylene Barrel rotary pump for mild chemicals.

<u>PART#</u>	<u>DESCRIPTION</u>
72 013	Three piece suction tube w/curved metal spout and a 2" adjustable bung adapter. Capacity: 8 gallons/min



A Ryton Polyethylene Sulfide rotary pump for aggressive chemicals. All part are made from Stainless Steel. Lip seal Teflon, Viton O-rings

<u>PART#</u>	<u>DESCRIPTION</u>
72 014	Three piece suction tube w/curved metal spout and a 2" adjustable bung adapter. Capacity: 8 gallons/min



# **PACKING, GASKETS, RUBBER**

**PACKING**

**STYLE NA 1001**



Temperature Continuous Service: 464 F (240°C)  
 Maximum Service: 750 F (400°C)  
 Pressure Continuous Service: 725 psi (50 bar)  
 Maximum Service: 1595 psi (110 bar)

**ARAMID FIBER PACKING, NBR**

Style NA1001 is a compressed non-asbestos sheet gasket material produced from a combination of aramid and other synthetic fibers and bonded with nitrile rubber (NBR).

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1001164	1/64"	59x63"
1001132	1/32"	59x63"
100116	1/16"	59x63"
1001332	3/32"	59x63"
100118	1/18"	59x63"
1001316	13/16"	59x63"
100114	1/4"	59x63"
1001164XL	1/64"	59x126"
1001132XL	1/32"	59x126"
100116XL	1/16"	59x126"
1001332XL	3/32"	59x126"
100118XL	1/8"	59x126"
1001316XL	3/16"	59x126"
100114XL	1/4"	59x126"

**STYLE NA 1000M**



Temperature Continuous Service: 390 F (200°C)  
 Maximum Service: 720 F (380°C)  
 Pressure Continuous Service: 580 psi (40 bar)  
 Maximum Service: 1450 psi (100 bar)

**ARAMID FIBER PACKING, W/WIRE MESH**

Style NA1000M is a premium service gasket material that is ideally suited for applications with fluctuating pressures and temperatures.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1000M132	1/32"	59x63"
1000M116	1/16"	59x63"
1000M332	3/32"	59x63"
1000M18	1/18"	59x63"
1000M132XL	1/32"	59x126"
1000M116XL	1/16"	59x126"
1000M332XL	3/32"	59x126"
1000M18XL	1/8"	59x126"

**PACKING**

**STYLE NA1100**



Temperature Continuous Service: 518 F (270°C)  
 Maximum Service: 842 F (450°C)  
 Pressure Continuous Service: 1015 psi (70 bar)  
 Maximum Service: 1885 psi (130 bar)

**CARBON FIBER PACKING, NBR**

Style NA1100 is a premium grade, multi-service gasket sheet, designed to handle the extremes of pressure and temperature, and it cuts very easily and cleanly.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1100164	1/64"	59x63"
1100132	1/32"	59x63"
1100116	1/16"	59x63"
11001332	3/32"	59x63"
110018	1/8"	59x63"
1100164XL	1/64"	59x126"
1100132XL	1/32"	59x126"
1100116XL	1/16"	59x126"
1100332XL	3/32"	59x126"
110018XL	1/8"	59x126"

**STYLE NA 1100M**



Temperature Continuous Service: 390 F (200°C)  
 Maximum Service: 720 F (380°C)  
 Pressure Continuous Service: 580 psi (40 bar)  
 Maximum Service: 1450 psi (100 bar)

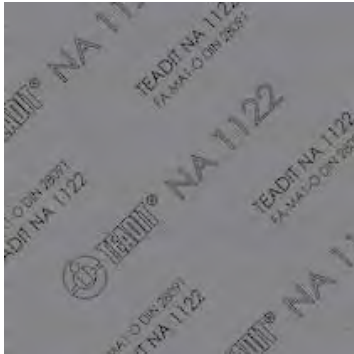
**CARBON FIBER PACKING, W/WIRE NBR**

Style NA1100M is a premium service gasket material that is ideally suited for applications with fluctuating pressures and temperatures wire reinforced.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1100M132	1/32"	59x63"
1100M116	1/16"	c 59x63"
1100M18	1/8"	59x63"
1100M132XL	1/32"	59x126"
1100M116XL	1/16"	59x126"
1100M18XL	1/8"	59x126"

**PACKING**

**STYLE NA 1122**



Temperature Continuous Service: 806 F (430°C)  
 Maximum Service: 1022 F (550°C)  
 Pressure Continuous Service: 1480 psi (102 bar)  
 Maximum Service: 2177 psi (150 bar)

**HIGH PERFORMANCE STEAM PACKING, NBR**

Style NA1122 is a compressed non-asbestos sheet gasket material produced from a combination of inorganic fibers and special fillers, bonded with nitrile rubber(NBR). It is specifically recommended for saturated and superheated steam services but has also proven itself to be very effective in sealing liquid petroleum derivatives, ethanol, chemical products and other fluids.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1122132	1/32"	59x63"
1122116	1/16"	59x63"
112218	1/8"	59x63"
1122132XL	1/32"	59X126"
1122116XL	1/16"	59X126"
112218XL	1/8"	59X126"

**STYLE NA 1122M**



Temperature Continuous Service: 806 F (430°C)  
 Maximum Service: 1022 F (550°C)  
 Pressure Continuous Service: 1480 psi (102 bar)  
 Maximum Service: 2177 psi (150 bar)

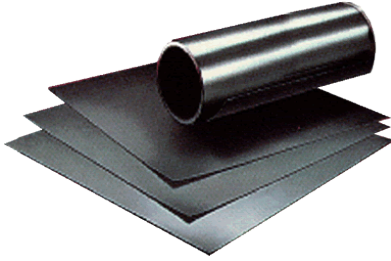
**HIGH PERFORMANCE STEAM PACKING WITH WIRE, NBR**

Style NA1122M is a compressed non-asbestos sheet gasket material produced from a combination of inorganic fibers and special fillers, bonded with nitrile rubber(NBR) and wire reinforced. It is specifically recommended for saturated and superheated steam services but has also proven itself to be very effective in sealing liquid petroleum derivatives, ethanol, chemical products and other fluids.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1122M132	1/32"	59x63"
1122M116	1/16"	59x63"
1122M18	1/8"	59x63"
1122M132XL	1/32"	59X126"
1122M116XL	1/16"	59X126"
1122M18XL	1/8"	59X126"

**PACKING**

**STYLE SHRBNE**



Temperature: -20F to 170F (-29C to 77C)

Tensile strength: 900 to 1000 PSI

**NEOPRENE RUBBER SHEET**

NEOPRENE RUBBER, is a very common grade of chloro-prene material used industry wide for many applications.

**Applications:** electrical insulation, wear resistant pads, vibration pads, isolation mounts, buffers, diaphragms, industrial matting, water retaining structures and in industrial applications such as gaskets, hoses, and corrosion-resistant coatings.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
SHRBNE06X48	1/16"	48x36"
SHRBNE09X36	3/32"	48X36"
SHRBNE12X48	1/8"	48X36"
SHRBNE18X48	3/16"	48X36"
SHRBNE25X48	1/4"	48X36"

**STYLE SHRBCI**



Temperature: -20F to 170F (-29C to 77C)

Tensile strength: 1100 PSI

**NEOPRENE RUBBER SHEET, CLOTH INSERTED**

Cloth Inserted (CI) Neoprene Rubber is a rubber sheet material that has been reinforced with one or more plies of cloth or duck such as polyester, nylon, cotton or fiberglass fabric. This reinforcement gives added stability in flanged gasket applications requiring mechanical fastening and reduces creep when there are high compression loads.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
SHRBCI06X48	1/16"	48x36"
SHRBCI09X36	3/32"	48X36"
SHRBCI12X48	1/8"	48X36"
SHRBCI18X48	3/16"	48X36"
SHRBCI25X48	1/4"	48X36"

**PACKING**

**STYLE 2000**



Min. Temperature : -400 F (-240°C)  
 Max. Temperature: 842 F (450°C)  
 Steam: 1202 F (650 C)  
 Pressure Static: 4351 psi (300 bar)  
 Pressure rotating: 435 psi (30 bar)

**FLEXIBLE GRAPHITE SQUARE BRAID**

Style 2000 packing is manufactured from high purity flexible graphite that is expanded and formed into a braidable yarn and then braided without binders or wire reinforcement.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2000181LB	1/8"	1 LB
20003161LB	3/16"	1 LB
2000141LB	1/4"	1 LB
2000516LB	5/16"	1 LB
2000381LB	3/8"+	1 LB

**STYLE 2001**



Min. Temperature : -400 F (-240°C)  
 Max. Temperature: 842 F (450°C)  
 Steam: 1202 F (650 C)  
 Pressure Static: 4351 psi (300 bar)  
 Pressure rotating: 435 psi (30 bar)

**GRAPHITE YARN, GRAPHITE FILLED**

Style 2001 is a rugged premium grade, low friction, high strength, proprietary graphite fiber, twisted together and interlock braided.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2001181LB	1/8"	1 LB
20013161LB	3/16"	1 LB
2001141LB	1/4"	1 LB
20015161LB	5/16"	1 LB
2001381LB	3/8"+	1 LB

**STYLE 2002**



Min. Temperature : -400 F (-240°C)  
 Max. Temperature: 842 F (450°C)  
 Steam: 1202 F (650 C)  
 Pressure Static: 4351 psi (300 bar)  
 Pressure rotating: 362 psi (25 bar)

**GRAPHITE YARN, GRAPHITE FILLED**

Style 2002 packing is manufactured from pure carbon yarn, which is interlock braided and impregnated with proprietary lubricants and graphite particles which fill voids, block leakage, and act as a break-in lubricant.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2002181LB	1/8"	1 LB
20023161LB	3/16"	1 LB
2002141LB	1/4"	1 LB
20025161LB	5/16"	1 LB
14-5 2002381LB	3/8"+	1 LB



**PACKING**

**STYLE 2005**



Min. Temperature : -450 F (-268°C)  
 Max. Temperature: 536 F (280°C)  
 Pressure Static: 3600 psi (250 bar)  
 Pressure rotating: 290 psi (20 bar)

**EXPANDED PTFE YARN, DRY**

Style 2005 is a firm, high density interlock braided packing manufactured from pure ePTFE filaments pretreated with PTFE dispersion, but contains no other lubricants.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2005181LB	1/8"	1 LB
20053161LB	3/16"	1 LB
2005141LB	1/4"	1 LB
20055161LB	5/16"	1 LB
2005381LB	3/8"+	1 LB

**STYLE 2006FDA**



Min. Temperature : -148 F (-100°C)  
 Max. Temperature: 536 F (280°C)  
 Pressure rotating: 290 psi (20 bar)

**EXPANDED PTFE YARN, FDA APPROVED**

Style 2006FDA is a firm, pliable interlock braided packing manufactured from the purest ePTFE filaments. A proprietary food grade lubricant provides faster break-in and reduced shaft wear

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2006181LB	1/8"	1 LB
20063161LB	3/16"	1 LB
2006141LB	1/4"	1 LB
20065161LB	5/16"	1 LB
2006381LB	3/8"+	1 LB

**STYLE 2019**



Min. Temperature : -148 F (-100°C)  
 Max. Temperature: 446 F (230°C)  
 Pressure Static: 1450 psi (100 bar)  
 Pressure rotating: 290 psi (20 bar)

**SYNTHETIC YARN W/ PTFE, LUBRICATED**

Style 2019 is an interlock braid using carded synthetic yarns thoroughly impregnated with PTFE suspensoid. The finished packing is again coated with PTFE dispersion and a break-in lubricant is added to reduce shaft wear and eliminate glazing at start up.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2019181LB	1/8"	1 LB
20193161LB	3/16"	1 LB
2019141LB	1/4"	1 LB
20195161LB	5/16"	1 LB
2019381LB	3/8"+	1 LB

**PACKING**

**STYLE 2044**



Min. Temperature : -148 F (-100°C)  
 Max. Temperature: 536 F (280°C)  
 Pressure Static: 2200 psi (150 bar)  
 Pressure rotating: 290 psi (20 bar)

**STYLE 2214**



Max. Temperature: 1202 F (650°C)  
 Pressure static: 2500 psi (170 bar)

**STYLE 2236**



Min. Temperature : -400 F (-240°C)  
 Max. Temperature: 840 F (455°C)  
 Steam: 1202 F (650C)  
 Pressure Static: 6526 psi (450 bar)

**SPUN ARAMID YARN W/PTFE**

Style 2044 is an interlock braid, using spun aramid carded yarns, treated individually with PTFE suspenoid. The packing is also lubricated with silicone based compound for quick and easy break-in.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2044181LB	1/8"	1 LB
20443161LB	3/16"	1 LB
2044141LB	1/4"	1 LB
20445161LB	5/16"	1 LB
2044381LB	3/8"+	1 LB

**HIGH TEMP, NON ASBESTOS VALVE STEM**

Style 2214 is a proprietary braid-over-core construction, using a special high temperature, Inconel reinforced fiber and a non-hardening core. The packing is impregnated with a high temperature resistant compound, and coated with fine particles of graphite to act as a surface lubricant. This style is also treated with a sacrificial material to alleviate electrolytic action.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2214181LB	1/8"	1 LB
22143161LB	3/16"	1 LB
2214141LB	1/4"	1 LB
22145161LB	5/16"	1 LB
2214381LB	3/8"+	1 LB

**FLEXIBLE GRAPHITE W/INCONEL WIRE JACKET**

Style 2236 valve packing is self-lubricating, non-hardening, dimensionally stable and resistant to gases and fluids as well as heat, pressure and chemicals. Its high temperature flexible graphite and Inconel® filament jacket affords mechanical stability while the advanced construction provides leakage control and high integrity in steam service.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2036181LB	1/8"	1 LB
20363161LB	3/16"	1 LB
2036141LB	1/4"	1 LB
20365161LB	5/16"	1 LB
2036381LB	3/8"+	1 LB

14-7

**PACKING****STYLE 2255**

Min. Temperature : -148 F (-100°C)  
 Max. Temperature: 446 F (230°C)  
 Pressure Static: 725 psi (50 bar)  
 Pressure rotating: 290 psi (20 bar)

**SYNTHETIC YARN W/ GRAPHITE, LUBRICATED**

Style 2255 is an interlock braid using carded synthetic yarns thoroughly impregnated with a special petroleum based lubricant and graphite.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2255181LB	1/8"	1 LB
22553161LB	3/16"	1 LB
2255141LB	1/4"	1 LB
22555161LB	5/16"	1 LB
2255381LB	3/8"+	1 LB

**STYLE 2000IC**

Min. Temperature : -464 F (-240°C)  
 Max. Temperature: 84 F (450°C)  
 Steam: 1202 F (650 C)  
 Pressure Static: 5800 psi (400 bar)

**FLEXIBLE GRAPHITE, WIRE REINFORCED**

Style 2000IC is manufactured from high purity flexible graphite that is expanded and formed into a weave-able yarn and then braided in a unique construction with wire reinforcement.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
2000IC181LB	1/8"	1 LB
2000IC3161LB	3/16"	1 LB
2000IC141LB	1/4"	1 LB
2000IC516LB	5/16"	1 LB
2000IC381LB	3/8"+	1 LB

**PACKING**

**STYLE 1660**



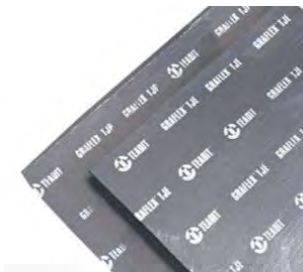
Temperature Continuous Service: -328 F (-200°C)  
 Maximum Service: 842 F (450°C)  
 Steam: 1202 F (650C)  
 Pressure : 2030psi (140 bar)

**GRAPHITE SHEET**

Style 1660 flexible graphite sheet is made from exfoliated graphite flake which is compressed into foil by a carefully controlled calendaring process.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1660132	1/32"	39x39"
1660116	1/16"	39x39"
166018	1/8"	39X39"
1660132XL	1/32"	60X60"
1660116XL	1/16"	60X60"
166018XL	1/8"	60X60"

**STYLE 1661**



Temperature Continuous Service: -328 F (-200°C)  
 Maximum Service: 842 F (450°C)  
 Steam: 1202 F (650C)  
 Pressure : 2030psi (140 bar)

**GRAPHITE SHEET, 316SS FOIL INSERT**

Style 1661 is a flexible graphite sheet reinforced with a 316SS foil, .002" thick. The flexible graphite sheet is made from exfoliated graphite flake which is compressed into foil by a carefully controlled calendaring process.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1661132	1/32"	39x39"
1661116	1/16"	39x39"
166118	1/8"	39X39"
1661132XL	1/32"	60X60"
1661116XL	1/16"	60X60"
166118XL	1/8"	60X60"

**PACKING**

**STYLE 1662**



Temperature Continuous Service: -328 F (-200°C)  
 Maximum Service: 842 F (450°C)  
 Steam: 1202 F (650C)  
 Pressure : 2030psi (140 bar)

**GRAPHITE SHEET, 316SS WIRE INSERT**

Style 1661 is a flexible graphite sheet reinforced with a 316SS wire, .002” thick. The flexible graphite sheet is made from exfoliated graphite flake which is compressed into foil by a carefully controlled calendaring process.

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1662116	1/16”	39x39”
166218	1/8”	39X39”
1662116XL	1/16”	60X60”
166218XL	1/8”	60X60”

**STYLE 1663**



Temperature Continuous Service: -328 F (-200°C)  
 Maximum Service: 842 F (450°C)  
 Steam: 1202 F (650C)  
 Pressure : 2030psi (140 bar)

**GRAPHITE SHEET, 316SS TANGED INSERT**

Style 1663 is a flexible graphite sheet reinforced with a 316SS tanged core, .005” thick. The flexible graphite sheet is made from exfoliated graphite flake which is compressed into foil by a carefully controlled calendaring process. .

<u>PART#</u>	<u>THICKNESS</u>	<u>SIZE</u>
1663132	1/32”	39x39”
1663116	1/16”	39x39”
166318	1/8”	39X39”
1663132XL	1/32”	60X60”
1663116XL	1/16”	60X60”
166318XL	1/8”	60X60”

**PACKING****STYLE 913**

Max Temperature: 842 F (450°C)

Min Temperature : -400 F (-240°C)

Maximum Service: 1885 psi (130 bar)

**SPIRAL WOUND W/OUTER RING, SS SEAL**

**Pure graphite fill**, Style 913 spiral wound gasket is manufactured in a controlled and cleaned environment to insure the finished product is free from organic contaminants. It is typically produced from 316L stainless steel strip, inner and outer rings and high purity flexible graphite filler with oxidation inhibitors.

<b><u>PART#</u></b>	<b><u>DIN</u></b>	<b><u>PN</u></b>
913DN10PN10	10	10
913DN15PN10	15	10
913DN20PN10	20	10
913DN25PN10	25	10
913DN32PN10	32	10
913DN40PN10	40	10
913DN50PN10	50	10
913DN65PN10	65	10
913DN80PN10	80	10
913DN100PN10	100	10
913DN125PN10	125	10
913DN150PN10	150	10
913DN200PN10	200	10
913DN250PN10	250	10
913DN300PN10	300	10
913DN350PN10	350	10
913DN400PN10	400	10
913DN10PN25	10	25
913DN15PN25	15	25
913DN20PN25	20	25
913DN25PN25	25	25
913DN32PN25	32	25
913DN40PN25	40	25
913DN50PN25	50	25
913DN65PN25	65	25
913DN80PN25	80	25
913DN100P25	100	25
913DN125P25	125	25
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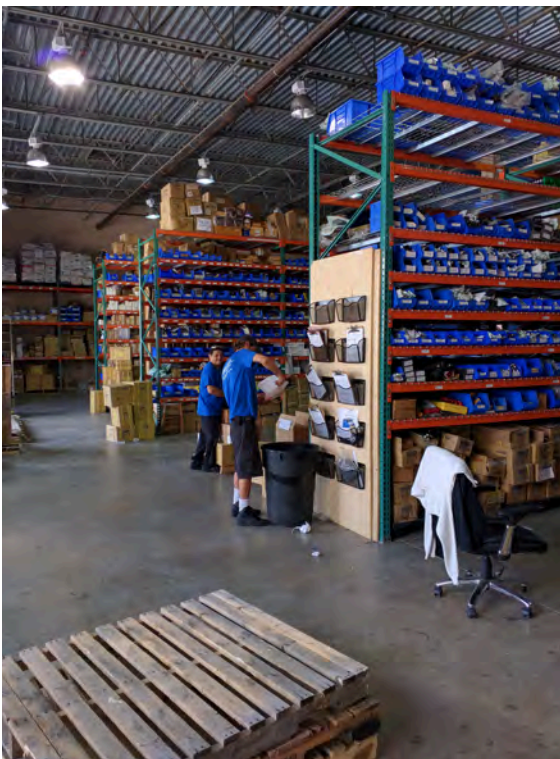
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