

# DOCAP

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AUTOMOTIVE	
CHAIN & RIGGING	
ELECTRICAL	
FASTENERS	
TOOLS	
MISCELLANEOUS	

2016 CATALOGUE



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AUTOMOTIVE

CHAIN & RIGGING

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# AUTOMOTIVE

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### BRAKE LINES



- Standard, armored and metric
- Hydraulic brake line
- Cut to length
- Both ends double flared with UNC fittings
- Armored brake lines have .046 carbon galvanized wire wound around entire length

#### STANDARD

PRODUCT CODE	PART NUMBER	LENGTH	PKG QTY	BUNDLE
<b>3/16" DIAMETER</b>				
500-312	BL312	12"	1	10
500-320	BL320	20"	1	10
500-330	BL330	30"	1	10
500-340	BL340	40"	1	10
500-351	BL351	51"	1	10
500-360	BL360	60"	1	10
500-372	BL372	72"	1	10
<b>1/4" DIAMETER</b>				
500-408	BL408	8"	1	10
500-412	BL412	12"	1	10
500-420	BL420	20"	1	10
500-430	BL430	30"	1	10
500-440	BL440	40"	1	10
500-451	BL451	51"	1	10
500-460	BL460	60"	1	10
500-472	BL472	72"	1	10
<b>5/16" DIAMETER</b>				
500-512	BL512	12"	1	10
500-520	BL520	20"	1	10
500-530	BL350	30"	1	10
500-540	BL540	40"	1	10
500-551	BL551	51"	1	10
500-560	BL560	60"	1	10
500-572	BL572	72"	1	10
<b>3/8" DIAMETER</b>				
500-612	BL612	12"	1	10
500-620	BL620	20"	1	10
500-630	BL630	30"	1	10
500-640	BL640	40"	1	10
500-651	BL651	51"	1	10
500-660	BL660	60"	1	10
500-672	BL672	72"	1	10

#### ARMoured

PRODUCT CODE	PART NUMBER	LENGTH	PKG QTY	BUNDLE
<b>3/16" DIAMETER</b>				
501-312	BL312SA	12"	1	10
501-320	BL320SA	20"	1	10
501-330	BL330SA	30"	1	10
501-340	BL340SA	40"	1	10
501-351	BL351SA	51"	1	10
501-360	BL360SA	60"	1	10
501-372	BL372SA	72"	1	10
<b>1/4" DIAMETER</b>				
501-412	BL412SA	12"	1	10
501-420	BL420SA	20"	1	10
501-430	BL430SA	30"	1	10
501-440	BL440SA	40"	1	10
501-451	BL451SA	51"	1	10
501-460	BL460SA	60"	1	10
501-472	BL472SA	72"	1	10
<b>5/16" DIAMETER</b>				
501-512	BL512SA	12"	1	10
501-520	BL520SA	20"	1	10
501-530	BL530SA	30"	1	10
501-540	BL540SA	40"	1	10
501-551	BL551SA	51"	1	10
501-560	BL560SA	60"	1	10
501-572	BL572SA	72"	1	10
<b>3/8" DIAMETER</b>				
501-612	BL612SA	12"	1	10
501-620	BL620SA	20"	1	10
501-630	BL630SA	30"	1	10
501-640	BL640SA	40"	1	10
501-651	BL651SA	51"	1	10
501-660	BL660SA	60"	1	10
501-672	BL672SA	72"	1	10

### BRAKE LINES - METRIC



• 10mm Fittings

#### STANDARD

PRODUCT CODE	LENGTH	PKG QTY	BUNDLE
<b>3/16" DIAMETER</b>			
500-313	12"	1	10
500-321	20"	1	10
500-331	30"	1	10
500-341	40"	1	10
500-352	51"	1	10
500-361	60"	1	10

# AUTOMOTIVE

Metric Brake Lines • Manifold Studs • Steel Tubing • Cooper Tubing

## BRAKE LINES - METRIC (CONT)

### ARMOURED

PRODUCT CODE	LENGTH	PKG QTY	BUNDLE
<b>3/16" DIAMETER</b>			
501-313	12"	1	10
501-321	20"	1	10
501-331	30"	1	10
501-341	40"	1	10
501-352	51"	1	10
501-361	60"	1	10

## MANIFOLD STUDS (C1018 COLD DRAWN STEEL)



PRODUCT CODE	PART NUMBER	DIAMETER & LENGTH (IN)	• A • THREAD	• B • THREAD	DESCRIPTION	PKG QTY
468-113	MS13	3/8" x 2"	1 1/8" USS	5/8 USS	GM Stud	12
468-114	MS14	3/8" x 2 1/4"	1 1/4 USS	5/8 USS	GM Stud	12
468-115	MS15	3/8" x 2 1/2"	1 1/4 USS	5/8 USS	GM Stud	12
468-116	MS16	3/8" x 3"	2 USS	5/8 USS	GM Stud	12
468-117	MS17	3/8" x 3 1/4"	1 5/8 USS	5/8 USS	GM Stud	12
468-118	MS18	7/16" x 2"	1 1/8 USS	5/8 USS	Ford Stud	12
468-119	MS19	7/16" x 2 1/2"	1 1/4 USS	5/8 USS	Ford Stud	12
468-120	MS20	7/16" x 3"	2 USS	5/8 USS	Ford Stud	12
468-122	MS22	8mm x 1.25	3/4	5/8	Datsun/VW Stud	12
468-124	MS24	10mm x 1.50	1/2	1	Toyota Stud	12
468-125	MS25	10mm x 1.25	1/2	1		12

## STEEL TUBING

- Double walled annealed
- Tin Coated
- Standard wall thickness - 0.028"
- Standard length - 25'



PRODUCT CODE	PART NO	SIZE	O.D. SIZE	APPROX I.D.	ULTIMATE BURSTING STRENGTH (P.S.I.)	FT/LB	PKG QTY
503-007	BLT3	3/16" x 25'	3/16"	0.131	16,500	21.2	1
503-009	BLT4	1/4" x 25'	1/4"	0.194	12,500	15.8	1
503-010	BLT5	5/16" x 25'	5/16"	0.256	9,900	12.5	1
503-011	BLT6	3/8" x 25'	3/8"	0.319	8,200	10.0	1

## COPPER TUBING

- Seamless
- Soft annealed
- Bright finish



PRODUCT CODE	SIZE O.D.	LENGTH (FT)	WALL THICKNESS	P.S.I.	PKG QTY
559-208	1/8 in (3.18mm)	25	0.030 in (0.762mm)	2780	1
559-212	3/16 in (4.76mm)	25	0.030 in (0.762mm)	1860	1
559-216	1/4 in (6.35mm)	25	0.030 in (0.762mm)	1380	1
559-220	5/16 in (7.94mm)	25	0.032 in (0.813mm)	1260	1
559-224	3/8 in (9.52mm)	25	0.032 in (0.813mm)	1060	1
559-232	1/2 in (12.70mm)	25	0.032 in (0.813mm)	800	1
559-240	5/8 in (15.88mm)	25	0.035 in (0.889mm)	700	1
559-248	3/4 in (19.05mm)	25	0.035 in (0.889mm)	580	1
559-508	1/8 in (3.18mm)	50	0.030 in (0.762mm)	2780	1
559-512	3/16 in (4.76mm)	50	0.030 in (0.762mm)	1860	1
559-516	1/4 in (6.35mm)	50	0.030 in (0.762mm)	1380	1
559-520	5/16 in (7.94mm)	50	0.032 in (0.813mm)	1260	1
559-524	3/8 in (9.52mm)	50	0.032 in (0.813mm)	1060	1
559-532	1/2 in (12.70mm)	50	0.032 in (0.813mm)	800	1
559-540	5/8 in (15.88mm)	50	0.035 in (0.889mm)	700	1
559-548	3/4 in (19.05mm)	50	0.035 in (0.889mm)	580	1

## GREASE FITTINGS



### STANDARD GREASE FITTINGS ASSORTMENT

- Contains 100 of the fastest selling fittings in compartmentalized box.

#### 506-100 (GF100)

Product Code	Size	Part Number	Degrees	Qty
506-612	1/8 NPT	GF612	65°	3
506-613	1/8 NPT	GF613	90°	3
506-637	1/4 - 28	GF637	45°	15
506-641	1/4 - 28	GF641	STR	50
506-688	1/8 NPT	GF688	45°	4
506-911	1/4 - 28	GF911	90°	10
506-610	1/8 NPT	GF610	STR	15

- Contains 110 metric grease fittings in compartmentalized box.

#### 506-102 (GF102)

Product Code	Part Number	Diameter	Qty
506-871	GF8701	6mm STR	40
506-891	GF8901	8mm STR	20
506-931	GF9301	10mm STR	20
506-745	GF7045	6mm 45°	5
506-845	GF7445	8mm 45°	5
506-945	GF9345	10mm 45°	5
506-790	GF7090	6mm 90°	5
506-890	GF7490	8mm 90°	5
506-990	GF9390	10mm 90°	5

### GREASE FITTINGS

- Conforms to S.A.E. specifications
- Case hardened



PRODUCT CODE	PART NUMBER	DIAMETER	TYPE	PKG QTY
<b>STANDARD</b>				
506-610	GF610	1/8" NPT	Straight long	25
506-611	GF611	1/8" NPT	30° angle	25
506-612	GF612	1/8" NPT	65° angle	25
506-613	GF613	1/8" NPT	90° angle	25
506-627	GF627	1/4" NPT	Straight short	25
506-629	GF629	1/4" NPT	65° angle (pipe thread)	25
506-636	GF636	1/4"	45° long (taper)	25
506-637	GF637	1/4"	45° short (taper)	25
506-641	GF641	1/4"	Straight very short (taper)	25
506-652	GF652	1/4"	Straight long (taper)	25
506-688	GF688	1/8" NPT	45° angle short	25
506-710	GF710	3/8"	Straight	25
506-711	GF711	5/16"	Straight	25
506-911	GF911	1/4"	90° angle short (taper)	25
<b>METRIC</b>				
506-745	GF7045	6 mm	45° angle	25
506-790	GF7090	6 mm	90° angle	25
506-871	GF8701	6 mm	Straight	25
506-845	GF7445	8 mm	45° angle	25
506-890	GF7490	8 mm	90° angle	25
506-891	GF8901	8 mm	Straight	25
506-931	GF9301	10 mm	Straight	25
506-945	GF9345	10 mm	45° angle	25
506-990	GF9390	10 mm	90° angle	25
<b>DRIVE FIT</b>				
506-991	GF1728	3/16"		25
506-992	GF1743	1/4"		25
506-993	GF1608	5/16"		25

# AUTOMOTIVE

## Hose Clamps

### HOSE CLAMPS

#### HOSE CLAMP SETS (CUT TO SIZE)

- Set contains :
  - 8 Plated housing and screws
  - Stainless steel band



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>508-000</b>	8mm x3m Hose Clamp Set	1
<b>508-001</b>	12.7mm x 3m Hose Clamp Set	1

#### MINIATURE

- 8mm band width
- Stainless steel bands with plated housing and screw



PRODUCT CODE	PART NUMBER	CLAMP DIAMETER MIN	CLAMP DIAMETER MAX	PKG QTY
<b>508-002</b>	M4P	13/32"	5/8"	10
<b>508-003</b>	M6P	1/2"	3/4"	10
<b>508-004</b>	M8P	5/8"	7/8"	10

#### STANDARD

- Precision engineered worm drive
- Rounded edges protect hose
- Stainless steel band with plated housing and screw



PRODUCT CODE	PART NUMBER	CLAMP DIAMETER MIN	CLAMP DIAMETER MAX	PKG QTY
<b>508-006</b>	B6H	3/8"	3/4"	10
<b>508-008</b>	B8H	3/8"	7/8"	10
<b>508-010</b>	B10H	3/4"	1 1/16"	10
<b>508-012</b>	B12H	5/8"	1 1/4"	10
<b>508-016</b>	B16H	13/16"	1 1/2"	10
<b>508-020</b>	B20H	3/4"	1 3/4"	10
<b>508-024</b>	B24H	1 1/4"	2"	10
<b>508-028</b>	B28H	1 1/2"	2 1/4"	10
<b>508-032</b>	B32H	1 9/16"	2 1/2"	10
<b>508-036</b>	B36H	1 13/16"	2 3/4"	10
<b>508-040</b>	B40H	2 1/4"	3"	10
<b>508-044</b>	B44H	2 5/8"	3 1/4"	10
<b>508-048</b>	B48H	2 9/16"	3 1/2"	10
<b>508-052</b>	B52H	2 13/16"	3 3/4"	10

PRODUCT CODE	PART NUMBER	CLAMP DIAMETER MIN	CLAMP DIAMETER MAX	PKG QTY
<b>508-056</b>	B56H	3 1/16"	4"	10
<b>508-064</b>	B64H	3 9/16"	4 1/2"	10
<b>508-072</b>	B72H	4 1/8"	5"	10
<b>508-080</b>	B80H	4 5/8"	5 1/2"	10
<b>508-088</b>	B88H	5 1/8"	6"	10
<b>508-096</b>	B96H	5 1/2"	6 1/2"	10
<b>508-104</b>	B104H	5 3/4"	7"	10
<b>508-116</b>	B116H	6 1/2"	7 3/4"	10

#### FUEL INJECTION

- Specialized for any fuel injection application
- Band width is .35" ( 8.9 mm)
- Manufactured in a nut and bolt design, non-perforated band is aluzinc coated carbon with a zinc plated carbon screw and nut



PRODUCT CODE	PART NUMBER	LENGTH MAX.	LENGTH MIN.	HOSE I.D.	PKG QTY
<b>508-504</b>	F4	7/16"	1/2"	1/4"	10
<b>508-506</b>	F6	1/2"	19/32"	5/16"	10
<b>508-508</b>	F8	9/16"	5/8"	3/8"	10

#### STAINLESS STEEL

- Precision engineered worm drive
- Rounded edges protect hose
- All stainless steel parts (band, screw and housing)
- 5/16" Hex Head screw, 14 mm band width
- Packed 10 clamps per box



PRODUCT CODE	PART NUMBER	CLAMP DIAMETER MIN	CLAMP DIAMETER MAX	PKG QTY
<b>509-506</b>	B6HS	3/8"	3/4"	10
<b>509-508</b>	B8HS	3/8"	7/8"	10
<b>509-510</b>	B10HS	3/4"	1 1/16"	10
<b>509-512</b>	B12HS	5/8"	1 1/4"	10
<b>509-516</b>	B16HS	13/16"	1 1/2"	10
<b>509-520</b>	B20HS	3/4"	1 3/4"	10
<b>509-524</b>	B24HS	1 1/4"	2"	10
<b>509-528</b>	B28HS	1 1/2"	2 1/4"	10
<b>509-532</b>	B32HS	1 9/16"	2 1/2"	10
<b>509-536</b>	B36HS	1 13/16"	2 3/4"	10
<b>509-540</b>	B40HS	2 1/4"	3"	10
<b>509-544</b>	B44HS	2 5/8"	3 1/4"	10
<b>509-548</b>	B48HS	2 9/16"	3 1/2"	10
<b>509-552</b>	B52HS	2 13/16"	3 3/4"	10
<b>509-556</b>	B56HS	3 1/16"	4"	10
<b>509-564</b>	B64HS	3 9/16"	4 1/2"	10
<b>509-572</b>	B72HS	4 1/8"	5"	10
<b>509-580</b>	B80HS	4 5/8"	5 1/2"	10
<b>509-588</b>	B88HS	5 1/8"	6"	10
<b>509-596</b>	B96HS	5 1/2"	6 1/2"	10
<b>509-604</b>	B104HS	5 3/4"	7"	10
<b>509-616</b>	B116HS	6 1/2"	7 3/4"	10

### E-Z SEAL EXPANSION PLUGS

#### E-Z SEAL

- Can be used in all climates
- Specially compounded neoprene rubber resists heat oil, coolants and rust inhibitors
- Expands up to 1/8" to seal against irregularities



PRODUCT CODE	SIZE (INCHES)	PKG QTY
510-200	3/4	1
510-201	7/8	1
510-202	1	1
510-203	1 1/8	1
510-204	1 1/4	1
510-205	1 3/8	1
510-206	1 1/2	1
510-207	1 5/8	1
510-208	1 3/4	1
510-209	1 7/8	1
510-210	2	1
510-211	2 1/8	1
510-212	2 1/4	1

#### CONCAVE TYPE



PRODUCT CODE	PART NUMBER	NOMINAL PLUG SIZE (INCHES)	REF. DECIMAL SIZE OUTSIDE DIA. ±.005	PKG QTY
510-002	P2	5/8	0.625	10
510-003	P3	3/4	0.750	10
510-006	P6	7/8	0.875	10
510-007	P7	15/16	0.963	10
510-008	P8	1	1.000	10
510-009	P9	1 1/16	1.062	10
510-010	P10	1 1/8	1.125	10
510-011	P11	1 1/4	1.250	10
510-012	P12	1 3/8	1.375	10
510-013	P13	1 1/2	1.500	10
510-014	P14	1 5/8	1.625	10
510-015	P15	1 3/4	1.750	10
510-020	P20	1 7/8	1.875	10
510-021	P21	1 3/16	1.87	10
510-022	P22	2 1/4	2.250	10
510-023	P23	1 5/16	1.312	10
510-026	P26	2	2.000	10
510-028	P28	2 1/2	2.500	10
510-037	P37	7/16	0.0437	10
510-043	P43	1 5/16	1.937	10
510-044	P44	2 1/8	2.125	10
510-045	P45	11/16	0.687	10
510-046	P46	1/2	0.500	10
510-047	P47	9/16	0.563	10
510-062	P62	2 3/4	2.750	10
510-068	P68	2 1/16	2.062	10
510-102	P102	1 3/16	1.484	10
510-103	P103	1 47/64	1.734	10
510-129	P129	2 7/64	2.105	10

#### CUP TYPE



PRODUCT CODE	PART NUMBER	NOMINAL PLUG SIZE (INCHES)	REF. DECIMAL SIZE OUTSIDE DIA. ±.005	OVERALL HEIGHT	PKG QTY
511-016	PC16	1	1.014	0.281	10
511-017	PC17	1 7/32	1.2275	0.531	10
511-018	PC18	1 1/4	1.2575	0.437	10
511-025	PC25	1 1/8	1.1325	0.437	10
511-029	PC29	7/8	0.8875	0.312	10
511-030	PC30	1 1/2	1.522	0.375	10
511-038	PC38	3/4	0.7525	0.25	10
511-039	PC39	15/16	0.9945	0.375	10
511-040	PC40	1 15/16	1.9475	0.800	10
511-041	PC41	1 5/8	1.6375	0.593	10
511-042	PC42	1 61/64	1.9555	0.718	10
511-048	PC48	9/16	0.5725	0.250	10
511-050	PC50	1 7/8	1.8925	0.447	10
511-052	PC52	5/8	0.6325	0.250	10
511-054	PC54	19/32	0.5925	0.281	10
511-069	PC69	2 1/64	2.0175	0.590	10
511-070	PC70	1 45/64	1.7075	0.812	10
511-072	PC72	29/32	0.912	0.390	10
511-075	PC75	1 3/4	1.7625	0.363	10
511-077	PC77	59/64	0.912	0.312	10
511-080	PC80	1 3/8	1.3875	0.500	10
511-081	PC81	2 1/4	2.265	0.812	10
511-082	PC82	1 3/4	1.7625	0.593	10
511-084	PC84	2 9/64	2.1485	0.600	10
511-085	PC85	1 1/2	1.5075	0.625	10
511-086	PC86	1 1/16	1.077	0.640	10
511-087	PC87	33/64	0.5195	0.187	10
511-088	PC88	29/64	0.450	0.203	10
511-089	PC89	2 37/64	2.575	0.301	10
511-090	PC90	2 17/64	2.264	0.355	10
511-092	PC92	2 25/64	2.396	0.310	10
511-093	PC93	7/16	0.4445	0.156	10
511-094	PC94	37/64	0.572	0.203	10
511-095	PC95	1/2	0.527	0.312	10
511-097	PC97	17/32	0.5425	0.250	10
511-099	PC99	1 1/4	1.2575	0.343	10
511-101	PC101	11/32	0.3405	0.240	10
511-105	PC105	17/64	0.2725	0.200	10
511-106	PC106	1 49/64	1.7655	0.406	10
511-107	PC107	3/8	0.3905	0.240	10
511-109	PC109	31/64	0.488	0.234	10
511-111	PC111	1	1.016	0.400	10
511-112	PC112	2 1/16	2.0675	0.510	10
511-113	PC113	2	2.009	0.635	10
511-128	PC128	5/16	0.3135	0.296	10
511-131	PC131	2 3/32	2.0975	0.610	10
511-132	PC132	2 1/2	2.510	0.465	10
511-133	PC133	1 1/2	1.506	0.325	10
511-134	PC134	1 13/64	1.200	0.420	10
511-137	PC137	7/8	0.8825	0.359	10
511-140	PC140	21/32	0.658	0.265	10
511-144	PC144	11/16	0.700	0.250	10

# AUTOMOTIVE

## Expansion Plugs • Frost Plugs - Metric

### E-Z SEAL EXPANSION PLUGS (CONT)

#### CUP TYPE (CONT.)

PRODUCT CODE	PART NUMBER	NOMINAL PLUG SIZE (INCHES)	REF. DECIMAL SIZE OUTSIDE DIA. $\pm .005$	OVERALL HEIGHT	PKG QTY
511-145	PC145	3/4	0.7625	0.265	10
511-146	PC146	2	2.008	0.415	10
511-147	PC147	2 3/16	2.199	0.360	10
511-149	PC149	1 41/64	1.642	0.350	10
511-151	PC151	11/16	0.701	0.193	10
511-152	PC152	1 15/16	1.9325	0.468	10
511-153	PC153	2 5/32	2.1575	0.358	10
511-156	PC156	7/8	0.878	0.375	10
511-158	PC158	45/64	0.703	0.205	10
511-163	PC163	7/8	0.870	0.312	10
511-164	PC164	51/64	0.790	0.312	10
511-166	PC166	9/16	0.555	0.201	10
511-167	PC167	1 29/32	1.902	0.600	10
511-168	PC168	7/16	0.440	0.170	10
511-169	PC169	1/2	0.510	0.258	10
511-174	PC174	1 5/64	1.072	0.280	10
511-185	PC185	51/64	0.792	0.406	10
511-249	PC149A	1 45/64	1.698	0.358	10
511-275	PC75A	1 3/4	1.791	0.380	10

#### SHALLOW TYPE



PRODUCT CODE	PART NUMBER	NOMINAL PLUG SIZE (INCHES)	REF. DECIMAL SIZE OUTSIDE DIA. $\pm .005$	OVERALL HEIGHT	PKG QTY
511-057	PS57	1 3/4	1.7625	0.250	10
511-058	PS58	1 31/32	1.9775	0.218	10
511-059	PS59A	2 1/16	2.0725	0.343	10
511-065	PS65	1 29/32	1.911	0.265	10
511-066	PS66	2	2.025	0.406	10
511-071	PS71	2 5/32	2.1535	0.328	10
511-074	PS74	2 3/16	2.192	0.343	10
511-076	PS76	1 45/64	1.703	0.281	10
511-078	PS78	2 7/64	2.101	0.296	10
511-083	PS83	2 1/64	2.0175	0.240	10
511-096	PS96	1 51/64	1.8025	0.250	10
511-098	PS98	35/64	0.5425	0.187	10
511-110	PS110	1 1/4	1.2625	0.312	10
511-126	PS126	1 5/8	1.6375	0.365	10
511-127	PS127	1 21/64	1.3225	0.281	10
511-135	PS135	1 3/8	1.385	0.340	10
511-150	PS150	2 3/32	2.1025	0.270	10
511-154	PS154	2 7/32	2.2205	0.305	10
511-157	PS157	2 15/64	2.230	0.280	10
511-159	PS159	2 7/64	2.109	0.296	10
511-162	PS162	5/8	0.631	0.190	10
511-165	PS165	2	2.010	0.310	10
511-170	PS170	2 9/64	2.135	0.360	10
511-171	PS171	1 9/16	1.570	0.315	10
511-172	PS172	1 59/64	1.922	0.235	10
511-173	PS173	1 53/64	1.825	0.350	10
511-175	PS175	2 1/4	2.262	0.350	10

### FROST PLUGS - METRIC

- Plated
- Metric dimensions taken from points shown



#### CUP TYPE

PRODUCT CODE	PART NUMBER	NOMINAL O.D.	NOMINAL H.T.	PKG QTY
512-002	PCM002	20mm	6.1	10
512-004	PCM004	18mm	5.9	10
512-006	PCM006	30mm	8.1	10
512-008	PCM008	32mm	10.2	10
512-012	PCM012	40mm	11.7	10
512-014	PCM014	45mm	11.9	10
512-016	PCM016	47mm	7.4	10
512-020	PCM020	50mm	12.0	10
512-022	PCM022	45mm	13.5	10
512-024	PCM024	35mm	10.4	10
512-030	PCM030	25mm	4.8	10
512-032	PCM032	12mm	5.3	10
512-034	PCM034	14mm	5.0	10
512-040	PCM040	24mm	6.9	10
512-042	PCM042	25mm	7.0	10
512-044	PCM044	25mm	8.3	10
512-046	PCM046	27mm	8.4	10
512-048	PCM048	28mm	8.7	10
512-050	PCM050	29mm	11.4	10
512-052	PCM052	36mm	8.5	10
512-056	PCM056	38mm	7.9	10
512-058	PCM058	39mm	9.5	10
512-060	PCM060	40mm	7.2	10
512-062	PCM062	40mm	12.8	10
512-064	PCM064	41mm	11.9	10
512-066	PCM066	45mm	9.5	10
512-068	PCM068	50mm	14.8	10
512-070	PCM070	53mm	8.7	10

#### DISC TYPE

PRODUCT CODE	PART NUMBER	NOMINAL O.D.	NOMINAL H.T.	PKG QTY
512-013	PM013	24mm	5.0	10
512-015	PM015	40mm	6.6	10
512-017	PM017	21mm	4.5	10
512-021	PM021	45mm	6.1	10
512-023	PM023	52mm	6.8	10

### MUFFLER CLAMPS & HANGERS

#### STANDARD

- Smooth saddle type
- 5/16" diameter U-bolts
- Full depth saddle for extra strength



PRODUCT CODE	PART NUMBER	SIZE (INCHES)	PKG QTY
<b>5/16" DIAMETER</b>			
<b>513-100</b>	MC118	1 1/8"	50
<b>513-101</b>	MC114	1 1/4"	50
<b>513-102</b>	MC138	1 3/8"	50

#### HEAVY DUTY

- 3/8" diameter U-bolts
- Heavy gauge steel saddle



PRODUCT CODE	PART NUMBER	SIZE (INCHES)	PKG QTY
<b>3/8" DIAMETER</b>			
<b>513-198</b>	HD112	1 1/2"	50
<b>513-199</b>	HD158	1 5/8"	50
<b>513-200</b>	HD134	1 3/4"	50
<b>513-201</b>	HD178	1 7/8"	50
<b>513-202</b>	HD200	2"	50
<b>513-203</b>	HD218	2 1/8"	50
<b>513-204</b>	HD214	2 1/4"	50
<b>513-205</b>	HD212	2 1/2"	50
<b>513-206</b>	HD234	2 3/4"	50
<b>513-207</b>	HD300	3"	50
<b>513-208</b>	HD312	3 1/2"	50
<b>513-209</b>	HD400	4"	20
<b>513-210</b>	HD412	4 1/2"	20
<b>513-211</b>	HD500	5"	20
<b>513-213</b>	HD600	6"	20

#### EXHAUST STACK CLAMP

- Flattened U-bolt
- Reinforced welded saddle
- 5/16" over nominal diameter to accommodate extra thick wall and flexible exhaust pipes
- Zinc chromate plated



PRODUCT CODE	PART NUMBER	SIZE (INCHES)	PKG QTY
<b>5/16" DIAMETER</b>			
<b>513-400</b>	HD400WT	4"	1
<b>513-500</b>	HD500WT	5"	1

#### UNIVERSAL TAIL PIPE HANGERS

- Swivel to any position - grips firmly
- Fits all pipes 1 1/2" to 2" O.D.
- Heavy gauge steel with fabric insert to absorb road shock
- Individually boxed with bolts, nuts and lockwashers



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>514-200</b>	THU200	Universal	1
<b>514-360</b>	THU360	Universal	1
<b>514-403</b>	THU403	Bracket only	1

# AUTOMOTIVE

## O-Rings Assortments

### O - RINGS ASSORTMENTS

- Made from a special nitrile compound - BUNA-N rubber
- Available standard, metric and high pressure



#### STANDARD O-RING ASSORTMENT (300 PCS)

- Contains 300 pieces
- 30 Popular Sizes
- Packed in metal box

##### 519-300

PRODUCT CODE	PART NUMBER	QTY	PRODUCT CODE	PART NUMBER	QTY
519-001	R-1	10	519-016	R-16	10
519-002	R-2	10	519-017	R-17	10
519-003	R-3	10	519-018	R-18	10
519-004	R-4	10	519-019	R-19	10
519-005	R-5	10	519-020	R-20	10
519-006	R-6	10	519-021	R-21	10
519-007	R-7	10	519-022	R-22	10
519-008	R-8	10	519-023	R-23	10
519-009	R-9	10	519-024	R-24	10
519-010	R-10	10	519-025	R-25	10
519-011	R-11	10	519-026	R-26	10
519-012	R-12	10	519-027	R-27	10
519-013	R-13	10	519-028	R-28	10
519-014	R-14	10	519-029	R-29	10
519-015	R-15	10	519-030	R-30	10

#### STANDARD O-RING ASSORTMENTS (407 PCS)

- Contains 407 pieces
- 32 Popular Sizes
- Packed in durable plastic box

##### 519-301

PRODUCT CODE	PART NUMBER	QTY	PRODUCT CODE	PART NUMBER	QTY
519-001	R-1	20	519-016	R-16	10
519-003	R-3	20	519-017	R-17	10
519-005	R-5	20	519-018	R-18	10
519-006	R-6	20	519-019	R-19	10
519-007	R-7	20	519-020	R-20	10
519-070	R-7A	20	519-021	R-21	10
519-008	R-8	13	519-022	R-22	10
519-009	R-9	13	519-023	R-23	10
519-010	R-10	13	519-024	R-24	10
519-011	R-11	13	519-025	R-25	10
519-012	R-12	13	519-026	R-26	10
519-013	R-13	13	519-027	R-27	10
519-014	R-14	13	519-270	R-27A	10
519-140	R-14A	13	519-271	R-27B	10
519-141	R-14B	13	519-272	R-27C	10
519-015	R-15	10	519-273	R-27C	10

#### METRIC O-RING ASSORTMENT

- Contains 408 pieces
- 32 Popular Sizes
- Packed in durable plastic box

##### 519-308

PRODUCT CODE	SIZE (MM)	QTY	PRODUCT CODE	SIZE (MM)	QTY
519-145	3 x 2	20	519-161	22 x 2.5	14
519-146	5 x 2	20	519-162	22 x 3.5	10
519-147	6 x 2	18	519-163	23 x 3.5	10
519-148	8 x 2	18	519-164	25 x 3.5	10
519-149	10 x 2	18	519-165	27 x 3.5	10
519-150	10 x 2.5	14	519-166	28 x 3.5	10
519-151	12 x 2.5	14	519-167	30 x 3.5	10
519-152	13 x 2	18	519-168	31 x 3.5	10
519-153	14 x 2.5	14	519-169	32 x 3.5	10
519-154	15 x 2.5	14	519-170	34 x 3.5	10
519-155	16 x 2.5	14	519-171	36 x 3.5	10
519-156	18 x 2.5	14	519-172	38 x 3.5	10
519-157	18 x 3.5	10	519-173	41 x 3.5	10
519-158	20 x 2.5	14	519-174	44 x 3.5	10
519-159	20 x 3.5	10	519-175	46 x 3.5	10
519-160	21 x 2.5	14	519-176	50 x 3.5	10

#### HIGH PRESSURE O-RING ASSORTMENT

- Contains 212 pieces, 20 different sizes
- 90 Durable hardness O-Rings are designed for high pressure industrial applications: pumps, motors, valves and cylinders
- Unique box is equipped with brass tool for O-ring extraction
- Meets ASTM D2000, SAEJ200, AS568 standards
- Material BUNA-N BG915

##### 519-312

PRODUCT CODE	PART NUMBER	TUBE O.D. (REF.)	QTY	PRODUCT CODE	PART NUMBER	TUBE O.D. (REF.)	QTY
519-180	901	3/32	10	519-190	911	11/16	10
519-181	902	1/8	10	519-191	912	3/4	10
519-182	903	3/16	10	519-192	913	13/16	10
519-183	904	1/4	10	519-193	914	7/8	10
519-184	905	5/16	12	519-194	916	1	10
519-185	906	3/8	12	519-195	918	1 1/8	10
519-186	907	7/16	12	519-196	920	1 1/4	10
519-187	908	1/2	12	519-197	924	1 1/2	10
519-188	909	9/16	12	519-198	928	1 3/4	10
519-189	910	5/8	12	519-199	932	2	10

See O-Rings chart on pg. I-1 & I-2

### O - RINGS

#### STANDARD O-RINGS

• BUNA-N Rubber



PRODUCT CODE	PART NUMBER	I.D. (IN)	NOMINAL SIZE O.D. (IN)	SECTION	PKG QTY
519-001	R-1	1/8	1/4	1/16	25
519-002	R-2	5/32	9/32	1/16	25
519-003	R-3	3/16	5/16	1/16	25
519-004	R-4	7/32	11/32	1/16	25
519-005	R-5	1/4	3/8	1/16	25
519-006	R-6	5/16	7/16	1/16	25
519-007	R-7	3/8	1/2	1/16	25
519-008	R-8	3/8	9/16	3/32	25
519-009	R-9	7/16	5/8	3/32	25
519-010	R-10	1/2	11/16	3/32	25
519-011	R-11	9/16	3/4	3/32	25
519-012	R-12	5/8	13/16	3/32	25
519-013	R-13	11/16	7/8	3/32	25
519-014	R-14	3/4	15/16	3/32	25
519-015	R-15	3/4	1	1/8	25
519-016	R-16	13/16	1 1/16	1/8	25
519-017	R-17	7/8	1 1/8	1/8	25
519-018	R-18	15/16	1 3/16	1/8	25
519-019	R-19	1	1 1/4	1/8	25
519-020	R-20	1 1/16	1 5/16	1/8	25
519-021	R-21	1 1/8	1 3/8	1/8	25
519-022	R-22	1 3/16	1 7/16	1/8	25
519-023	R-23	1 1/4	1 1/2	1/8	25
519-024	R-24	1 5/16	1 9/16	1/8	25
519-025	R-25	1 3/8	1 5/8	1/8	25
519-026	R-26	1 7/16	1 11/16	1/8	25
519-027	R-27	1 1/2	1 3/4	1/8	25
519-028	R-28	1 1/2	1 7/8	3/16	25
519-029	R-29	1 5/8	2	3/16	25
519-030	R-30	1 3/4	2 1/8	3/16	25
519-070	R-7A	1/2	5/8	1/16	25
519-140	R-14A	13/16	1	3/32	25
519-141	R-14B	7/8	1 1/16	3/32	25
519-270	R-27A	1 5/8	1 7/8	1/8	25
519-271	R-27B	1 3/4	2	1/8	25
519-272	R-27C	1 7/8	2 1/8	1/8	25
519-273	R-27D	2	2 1/4	1/8	25

#### METRIC O-RINGS

• BUNA-N-BG715

PRODUCT CODE	ID (MM)	NOMINAL SIZE OD (MM)	THICK	PKG QTY
519-145	3	7	2	25
519-146	5	9	2	25
519-147	6	10	2	25
519-148	8	12	2	25
519-149	10	14	2	25
519-150	10	15	2.5	25
519-151	12	17	2.5	25
519-152	13	17	2	25
519-153	14	19	2.5	25
519-154	15	20	2.5	25
519-155	16	21	2.5	25
519-156	18	23	2.5	25
519-157	18	25	3.5	25
519-158	20	25	2.5	25
519-159	20	27	3.5	25
519-160	21	26	2.5	25
519-161	22	27	2.5	25
519-162	22	29	3.5	25
519-163	23	30	3.5	25
519-164	25	32	3.5	25
519-165	27	34	3.5	25
519-166	28	35	3.5	25
519-167	30	37	3.5	25
519-168	31	38	3.5	25
519-169	32	39	3.5	25
519-170	34	41	3.5	25
519-171	36	43	3.5	25
519-172	38	45	3.5	25
519-173	41	48	3.5	25
519-174	44	51	3.5	25
519-175	46	53	3.5	25
519-176	50	57	3.5	25

#### HIGH PRESSURE O-RINGS

• BUNA-N-BG915

• High Pressure O-Rings meet ASTM D2000, SAE J200, AS568 Standards

PRODUCT CODE	INDUSTRY PART NUMBER	ID	NOMINAL SIZE OD	THICK	PKG QTY
519-180	901	3/32"	3/16"	.047"	25
519-181	902	1/8"	1/4"	.063"	25
519-182	903	3/16"	5/16"	.063"	25
519-183	904	1/4"	3/8"	.063"	25
519-184	905	5/16"	7/16"	.063"	25
519-185	906	3/8"	1/2"	.063"	25
519-186	907	7/16"	9/16"	.063"	25
519-187	908	1/2"	5/8"	.063"	25
519-188	909	9/16"	11/16"	.063"	25
519-189	910	5/8"	3/4"	.063"	25
519-190	911	11/16"	7/8"	.094"	25
519-191	912	3/4"	15/16"	.094"	25
519-192	913	13/16"	1"	.094"	25
519-193	914	7/8"	1 1/16"	.125"	25
519-194	916	1"	1 3/16"	.125"	25
519-195	918	1 1/8"	1 3/8"	.125"	25
519-196	920	1 1/4"	1 1/2"	.125"	25
519-197	924	1 1/2"	1 3/4"	.125"	25
519-198	928	1 3/4"	2 1/8"	.188"	25
519-199	932	2	2 5/16"	.156"	25

# AUTOMOTIVE

Grommets • Fuel Line Hose • Driveway Signal Hose

## GROMMETS

- Made from SBR (Styrene Butadiene Rubber)
- Inserted within the hole of sheet metal
- Provides protection against rough edges
- RBG grommets can be used as plugs

### GROMMET ASSORTMENT

- Contains over 190 pieces
- 18 popular sizes
- Packed in plastic see through box
- Sizes are listed in the Grommets table



#### 519-500

PRODUCT CODE	PART NUMBER	QTY	PRODUCT CODE	PART NUMBER	QTY
519-501	EWG-1	20	519-544	EWG-44	5
519-506	EWG-6	15	519-545	EWG-45	3
519-513	EWG-13	10	519-601	RBG-1	30
519-521	EWG-21	5	519-602	RBG-2	25
519-526	EWG-26	10	519-603	RBG-3	15
519-527	EWG-27	10	519-604	RBG-4	10
519-531	EWG-31	5	519-605	RBG-5	7
519-534	EWG-34	5	519-606	RBG-6	5
519-536	EWG-36	8	519-607	RBG-7	4

## GROMMETS

PRODUCT CODE	PART NUMBER	I.D. (IN)	O.D. (IN)	PKG QTY
519-501	EWG-1	1/8	9/32	25
519-506	EWG-6	3/16	5/16	25
519-513	EWG-13	1/4	1/2	25
519-521	EWG-21	5/16	7/32	25
519-526	EWG-26	3/8	1/2	25
519-527	EWG-27	3/8	9/16	25
519-531	EWG-31	3/8	3/4	25
519-534	EWG-34	7/16	3/4	25
519-536	EWG-36	1/2	21/32	25
519-544	EWG-44	5/8	1	10
519-545	EWG-45	3/4	15/16	10
519-601	RBG-1	-	5/16	25
519-602	RBG-2	-	3/8	25
519-603	RBG-3	-	1/2	25
519-604	RBG-4	-	5/8	25
519-605	RBG-5	-	3/4	25
519-606	RBG-6	-	7/8	10
519-607	RBG-7	-	1	10

See Grommets chart on pg. I-3

## FUEL LINE HOSE

- Neoprene, one braid construction and meets S.A.E. Specifications



PRODUCT CODE	PART NUMBER	HOSE I.D. X LENGTH	WORKING PRESSURE	BURSTING PRESSURE	PKG QTY
25062	G414	1/4" X 25'	50 p.s.i.	250 p.s.i.	1
25080	G516	5/16" X 25'	50 p.s.i.	250 p.s.i.	1
25090	G438	3/8" X 25'	50 p.s.i.	250 p.s.i.	1

## DRIVEWAY SIGNAL HOSE

- Neoprene Rubber



PRODUCT CODE	PART NUMBER	PKG QTY
520-50	H58	50
520-100	H108	100

### DRIVEWAY SIGNAL GONG

- 115 volts - 60 cycle AC
- Crystal clear 6" diameter fire house bell incorporates new design vibrating solenoid with stainless steel plunger in brass tube
- Works with up to 300' of 3/8" hose.



PRODUCT CODE	PART NO	DESCRIPTION	PKG QTY
<b>642-110</b>	10G	Signal Gong	1
<b>642-118</b>		Repair Kit for Signal Gong	1

### HAND CHOKE ADAPTER

- Fits 95% of all carburetor applications
- Perfect fit. No mess. No springs. No fuss
- Easy profitable installation
- Saves gas - prevents hard starting
- Complete including control wire and two "see through" plastic caps for easier installation



PRODUCT CODE	PART NUMBER	PKG QTY
<b>516-226</b>	DLX-22	1

### E-Z LOK REPAIR KIT



PRODUCT CODE	PART NO.	DESCRIPTION
<b>458-080</b>	ELK - 101	48 Asst. Pieces
<b>458-081</b>	ELK - 103	22 Asst. Pieces
<b>458-083</b>	ELK - 107	29 Asst. Pieces

### E-Z • LOK THREAD INSERTS

- Prevent/repair stripped threads
- No special tools required
- Install with oil and wrench



PRODUCT CODE	PART NO.	INTERNAL THREAD	EXTERNAL THREAD	LENGTH	TAP DRILL SIZE	MIN. FULL THREAD DEPT.	PKG QTY
<b>COARSE THREAD 10 TO 7/16"</b>							
<b>458-003</b>	329-3	10-24	3/8-16	.406	5/16	15/32	10
<b>458-004</b>	329-4	1/4-20	7/16-14	.437	23/64	1/2	10
<b>458-005</b>	329-5	5/16-18	1/2-13	.484	27/64	9/16	10
<b>458-006</b>	329-6	3/8-16	9/16-12	.515	31/64	19/32	10
<b>458-007</b>	329-7	7/16-14	5/8-11	.656	17/64	23/32	5
<b>COARSE THREAD 1/2 TO 1"</b>							
<b>458-008</b>	329-8	1/2-13	3/4-10	.656	21/32	3/4	5
<b>458-010</b>	329-10	5/8-11	7/8-9	.687	49-64	13/16	5
<b>458-012</b>	329-12	3/4-10	1/8	.781	7/8	7/8	5
<b>458-016</b>	329-16	1-8	1.3/8-12	1.250	1.9/32	1.3/8	5
<b>FINE THREAD 10 TO 7/16"</b>							
<b>458-020</b>	329-332	10-32	3/8-16	.406	5/16	15/32	10
<b>458-022</b>	329-428	1/4-28	7/16-14	.437	23/64	1/2	10
<b>458-024</b>	329-524	5/16-24	1/2-13	.484	27/64	9/16	10
<b>458-026</b>	329-624	3/8-24	9/16-12	.515	31/64	19/32	10
<b>458-028</b>	329-720	7/16-20	5/8-11	.656	17/32	23/32	5
<b>METRIC THREAD 6MM TO 12MM"</b>							
<b>458-036</b>	650-6	M6-1.0	3/8-16	.406	5/16	15/32	10
<b>458-038</b>	650-8	M8-1.25	1/2-13	.484	27/64	9/16	10
<b>458-040</b>	650-10	M10-1.50	9/16-12	.515	31/64	19/32	10
<b>458-042</b>	650-12	M12.1.75	3/4-10	.656	21/32	3/4	5
<b>SPARK PLUG SIZES</b>							
<b>458-046</b>	329-1406	M14 x 3/8" reach	3/4-16	.328	11/16	3/4-16	5
<b>458-048</b>	329-1408	M14 x 1/2" reach	3/4-16	.453	11/16	3/4-16	5
<b>458-052</b>	329-1412	M14 x 3/4" reach	3/4-16	.703	11/16	3/4-16	5
<b>458-058</b>	329-1808	M18 x 1/2" reach	1-12	.453	59/64	1-12	5

# AUTOMOTIVE

## Throttle Ball Joints

### THROTTLE BALL JOINTS

#### SPRING LOADED TYPE A

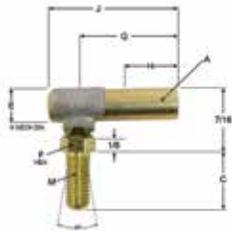


Type A Ball Joints are spring loaded S.A.E. design used widely for throttle control and other applications where zero end-play is required and tension due to spring compression is not objectionable. Fully conform with S.A.E., G.M.C and other published standards including the additional advantages of case hardened seats and ball studs for extra wear resistance, plus plating for maximum corrosion resistance.

**Materials of construction** - Made of C12L14 carbon steel. Seat members are made of C1008 steel. Both ball stud and seat members are Carbonitride case hardened to a depth of .005 to .008. Assemblies are plated and clear dichromate treated for extra corrosion resistance.

PART NUMBER	PRODUCT CODE	PKG QTY	G.M.C. PLAIN	G.M.C. PLATED	A	B	C	D	E	F	G	H	J	K
A1002	<b>472-102</b>	5	109400	192227	1/4-28	15/32	9/16	1/8	7/16	3/8	31/32	1/2	1.3/8	0.151
A1003	<b>472-103</b>	5	109401	426310	5/16-24	17/32	11/16	5/32	1/2	7/16	1 1/8	9/16	1 9/16	0.182

#### DISCONNECTING TYPE P



Type P Ball are a low cost disconnect design for throttle and governor controls where minimum weight is required. Length adjustments are simplified because of the disconnect feature. All sizes have a ball stud ball diameter of .252" and a ball stud neck diameter of .140". The hardened spring steel retaining clip accepts ball stud member at 19 pounds maximum push-in load and permits removal of ball stud with 14 pounds minimum pull-out load.

PART NUMBER	PRODUCT CODE	PKG QTY	A	C	G	H	J	M
P1002	<b>472-107</b>	5	1/4-28	9/16	31/32	1/2	1 3/8	0.151

#### DISCONNECTING TYPE SS



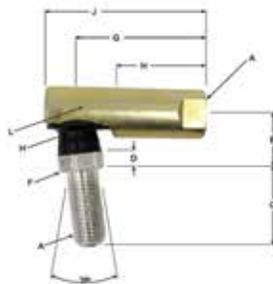
Type SS ball joints are high strength, quick disconnect assemblies with good wear characteristics. Patented design features "key hole" retaining sleeve which insures that the assembly can only be put together with the sleeve positively aligned with the ball cavity. When the spring is released, alignment is automatic, thereby eliminating any possibility of partial closure.

**Material of Construction:** Body and ball stud are of low carbon steel. Ball studs are surface hardened for wear resistance. All components except the stainless steel spring are plated and yellow dichromate treated for corrosion resistance.

**Lubrication:** Ball cavity is packed with high wear lubricant.

PART NUMBER	PRODUCT CODE	DESCRIPTION	PKG QTY	THREAD SIZE	B	C	D	E	F	G	H	J	K	L	TENSILE STRENGTH (POUNDS)
P1003	<b>472-108</b>	Quick Disconnecting Type SS Throttle Ball Joint	5	5/16-24	17/32	11/16	5/32	5/8	7/16	1.1/8	19/32	1.29/64	.221	.403	560

#### FLAT TOP SPG TYPE



Type SPG Ball Joints are designed for heavy duty service. This is a high-strength design with good wear resistance. An oil and ozone resistant Buna-N rubber dirt shield provides protection against abrasive dirt.

"Flat Top" alignment guide shown in drawings above is designed for standard wrench sizes. Provides a mechanical and visual aid which makes it easy to align the ball stud in its vertical position for maximum movement in all directions.

Pull out and tensile strength - A new method of assembly swages more than twice the amount of metal to retain the ball in the cavity. This results in tremendously increased pull out and wear resistance.

PART NUMBER	PRODUCT CODE	PKG QTY	A	B	C	D	E	WRENCH SIZE	F	G	H	J	K	L
SPG1000	<b>472-110</b>	5	10-32	7/16	7/16	1/8	3/8	5/16	5/16	7/8	15/32	1 5/32	0.177	0.301
SPG1002	<b>472-112</b>	5	1/4-28	15/32	9/16	1/8	7/16	3/8	3/8	31/32	17/32	1 9/16	0.208	0.347
SPG1003	<b>472-113</b>	5	5/16-24	17/32	11/16	5/32	1/2	7/16	7/16	1 1/8	19/32	1 9/16	0.250	0.405
SPG1004	<b>472-114</b>	5	3/8-24	11/16	7/8	3/16	9/16	9/16	1/2	1 3/8	13/16	1 13/16	0.289	0.493
SPG1005	<b>472-115</b>	5	7/16-20	7/8	1 1/8	1/4	11/16	11/16	5/8	1 15/16	1 1/8	2 1/2	0.375	0.618
SPG1006	<b>472-116</b>	5	1/2-20	7/8	1 1/8	1/4	11/16	11/16	5/8	1 15/16	1 1/8	2 1/2	0.375	0.618

### BATTERY TERMINALS

#### SIDE APPLICATION

- Twin bolt solderless type terminal
- For use with side terminal batteries
- Complete with mounting stud



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>612-102</b>	STL-2	Heavy Duty Replacement Side Terminal -2pcs per card	1
<b>612-109</b>	STL-10	Heavy Duty Replacement Side Terminal -10 pcs per card	1

#### TOP APPLICATION

- Twin bolt solderless type terminal
- Universal cable range 8 through 2/0



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>612-132</b>	888-2	Heavy Duty Universal Lead Battery Terminal - 2 pcs per card	1
<b>612-140</b>	CD888L	Heavy Duty Universal Lead Battery Terminal - 10 pcs per card	1

#### TOP APPLICATION - HEAVY DUTY

- Antimonial reinforced lead terminal
- Resists acid corrosion and can survive hostile industrial environments
- Hold down plate fits cable for 1 ga. to 4/0



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>612-150</b>	Heavy Duty Commercial Lead Battery Terminal	1

#### SIDE TERMINAL ADAPTERS

- Converts top post batteries to side terminal applications
- Die cast of antimonial lead for corrosion resistance
- Side terminal cables bolt directly to adapter



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>612-170</b>	2 pcs per card	1

#### SIDE TERMINAL CONVERSION POSTS

- Replace OEM bolts and provides a convenient, permanent means of clamping on booster cables
- Screw on lead posts for charging or testing batteries



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>612-190</b>	Side Terminal Charging Post - 2 pcs per card	1

#### MARINE TERMINALS

- Quick disconnect
- Lead terminal, brass wing nut
- Both positive and negative



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>612-192</b>	Clamp Type Wing Nut Lead Terminal - 2 pcs per card	1

# AUTOMOTIVE

Battery Hold Down • Post and Terminal Cleaner • Terminal Protectors

## BATTERY HOLD DOWN

### NON-ADJUSTABLE BATTERY HOLD DOWN

- Foreign car cross bar type
- Fits battery groups 22F, 24, 27, 60, 71, 72, 74, 77



PRODUCT CODE	DESCRIPTION	PKG QTY
613-112	Non-Adjustable Battery Hold Down	1

### RUBBER CLAMPS - BATTERY HOLD DOWN

- Fits battery groups 22F, 24, 27, 60, 71, 72, 74, 77



PRODUCT CODE	DESCRIPTION	PKG QTY
613-117	Universal battery hold down rubber clamps	1

### BATTERY HOLD DOWN BOLTS

- 1/4" - 20 thread hold down bolt
- 4 thread



PRODUCT CODE	DESCRIPTION	PKG QTY
613-113	12" "J" Style battery hold down bolts - 2 pcs per card	1
613-114	10" "L" Style battery hold down bolts - 2pcs per card	1

### PLASTIC BATTERY HOLD DOWN

- 7" Non-adjustable
- Fits battery groups 22F, 24, 27, 60, 71, 72, 74, 77



PRODUCT CODE	DESCRIPTION	PKG QTY
613-116	Plastic Battery Hold Down	1

## POST AND TERMINAL CLEANER

- Shaves off rust and corrosion



PRODUCT CODE	DESCRIPTION	PKG QTY
613-121	Professional 4 way battery post and terminal center	1

## TERMINAL PROTECTORS

- Made from chemically treated polyester cotton



PRODUCT CODE	DESCRIPTION	PKG QTY
613-120	Universal battery terminal protectors - 2 pcs per card	1

## BATTERY BRUSH

- Cleans battery posts and terminals
- Plastic case
- Use bottom brush for cleaning terminals
- Unscrew top and use inside brush for cleaning cables



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-122</b>	Plastic Case Battery Brush	1

## SIDE TERMINAL BATTERY WRENCH

- Reversible 5/16" ratcheting box wrench



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-123</b>	Side Terminal Battery Wrench	1

## BATTERY TRAYS

- Ideal for replacing rusted or acid corroded platforms
- Acid resistant vinyl coated steel
- To prevent battery movement use with Hold down bolts



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-135</b>	Small (7 1/4" x 10 3/4")	1
<b>613-136</b>	Large (7 1/4" x 13 1/8")	1

## REPLACEMENT SIDE TERMINAL BOLTS

- Fits positive and negative posts



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-126</b>	3/8" Replacement side Terminal bolt - 2 pcs per card	1
<b>613-127</b>	3/8" x 1/2" Replacement side Terminal bolt - 2 pcs per card	1

## BATTERY POST SHIMS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-128</b>	2 pcs per card	1

## PROTECTOR CAPS

- Made of plastic
- Fit both positive and negative post



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-129</b>	Terminal protector caps - 2 pcs per card	1

## STEEL BATTERY CLAMPS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-146</b>	400 Amp	1
<b>613-147</b>	600 Amp	1
<b>613-148</b>	300 Amp	1

# AUTOMOTIVE

Battery Carriers • Battery Bolts • Wheel Wrenches • Battery Clips • Anti-Freeze Testers

## BATTERY CARRIERS

- Automatically locks the ends onto the posts for easy carrying



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-131</b>	Top terminal battery carrier strap	1

## BATTERY BOLTS

- Fits positive and negative posts
- Made from steel plate



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-133</b>	2 pcs per card	1

## WHEEL WRENCHES



PRODUCT CODE	PART NO	DESCRIPTION	SOCKET SIZES	OVERALL LENGTH	PKG QTY	CASE
<b>643-307</b>	307	CAR OWNER MODEL - same as model 310 with shorter length arms for general car owner use	3/4", 3/4", 13/16", 7/8"	14.3/4"	1	10
<b>643-310</b>	310	GENERAL PURPOSE - the ideal wrench for general purpose use by the service station operator	3/4", 3/4", 13/16", 7/8"	17.1/2"	1	10
<b>643-320</b>	320	LONG REACH MODEL - 20" overall length, well suited for clearing fender skirts on late model cars	3/4", 11/16", 13/16", 7/8"	20"	1	10
<b>643-321</b>	321	PICK-UP TRUCK MODEL - fits new 1/2 ton trucks	3/4", 13/16", 7/8", 15/16"	20"	1	10

## BATTERY CLIPS

### BATTERY CLIPS WITH VINYL BOOT



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-141</b>	10 Amp	1
<b>613-142</b>	20 Amp	1
<b>613-143</b>	30 Amp	1

### BATTERY CLIPS WITH VINYL HANDLES



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-144</b>	10 Amp	1
<b>613-145</b>	15 Amp	1

## ANTI-FREEZE TESTER

- Accurately tests all permanent solutions with radiator hot or cold



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>613-151</b>	Anti-Freeze Tester	1

## AIR ACCESSORIES

### PRESSURE GUN DIAL INFLATER WITH CLIP-ON CHUCK

- 1/4" female NPT
- Braided polyurethane hose
- Working pressure: 90 psi
- Bursting pressure: 225 psi



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>646-240</b>	Pressure gun dial inflator with clip-on chuck	1

## AUTOMOTIVE LIGHTBULBS

### BAYONET BULBS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>1156-DOC</b>	12V 32CP Bayonet Bulbs	10
<b>1157-DOC</b>	12V 32/3CP Bayonet Bulbs	10
<b>1157NA-DOC</b>	12V 32/3CP Bayonet Amber Bulbs	10
<b>1895-DOC</b>	12V 2CP G 4 1/2 Mini Bayonet Bulbs	10
<b>2057-DOC</b>	12V 32/2CP Bayonet Bulbs	10
<b>67-DOC</b>	12V 4CP (8W) Bayonet Bulbs	10
<b>89-DOC</b>	12V 6CP (7.5W) Bayonet Bulbs	10

### WEDGE BULBS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>194-DOC</b>	12V 2CP T10 Wedge Bulbs	10
<b>3057-DOC</b>	12V 32/2CP Wedge Bulbs	10
<b>3156-DOC</b>	12V 32CP Wedge Bulbs	10
<b>3157-DOC</b>	12V 32/3CP Wedge Bulbs	10
<b>3157NA-DOC</b>	12V 32/3CP Wedge Amber Bulbs	10

### HALOGEN BULBS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>9004-DOC</b>	12V 65/45W Halogen Bulb	1
<b>9005-DOC</b>	12V 65W Halogen Bulb	1
<b>9006-DOC</b>	12V 55W LM Halogen Bulb	1
<b>9007-DOC</b>	12V 65/55W LM Halogen Bulb	1

# AUTOMOTIVE

## Autotex Pink Wiper Blades

### AUTOTEX PINK WIPER BLADES



PART NUMBER	DESCRIPTION	CASE QTY
<b>METAL</b>		
<b>AP-610</b>	10" AutoTeX PINK Metal Wiper Blade	6
<b>AP-611</b>	11" AutoTeX PINK Metal Wiper Blade	6
<b>AP-613</b>	13" AutoTeX PINK Metal Wiper Blade	6
<b>AP-614</b>	14" AutoTeX PINK Metal Wiper Blade	6
<b>AP-615</b>	15" AutoTeX PINK Metal Wiper Blade	6
<b>AP-616</b>	16" AutoTeX PINK Metal Wiper Blade	6
<b>AP-617</b>	17" AutoTeX PINK Metal Wiper Blade	6
<b>AP-618</b>	18" AutoTeX PINK Metal Wiper Blade	6
<b>AP-619</b>	19" AutoTeX PINK Metal Wiper Blade	6
<b>AP-620</b>	20" AutoTeX PINK Metal Wiper Blade	6
<b>AP-621</b>	21" AutoTeX PINK Metal Wiper Blade	6
<b>AP-622</b>	22" AutoTeX PINK Metal Wiper Blade	6
<b>AP-624</b>	24" AutoTeX PINK Metal Wiper Blade	6
<b>AP-626</b>	26" AutoTeX PINK Metal Wiper Blade	6
<b>AP-628</b>	28" AutoTeX PINK Metal Wiper Blade	6
<b>FRAMELESS</b>		
<b>AP-015</b>	15" AutoTeX PINK Metal Wiper Blade	6
<b>AP-016</b>	16" AutoTeX PINK Metal Wiper Blade	6
<b>AP-017</b>	17" AutoTeX PINK Metal Wiper Blade	6
<b>AP-018</b>	18" AutoTeX PINK Metal Wiper Blade	6
<b>AP-019</b>	19" AutoTeX PINK Metal Wiper Blade	6
<b>AP-020</b>	20" AutoTeX PINK Metal Wiper Blade	6
<b>AP-021</b>	21" AutoTeX PINK Metal Wiper Blade	6
<b>AP-022</b>	22" AutoTeX PINK Metal Wiper Blade	6
<b>AP-024</b>	24" AutoTeX PINK Metal Wiper Blade	6
<b>AP-026</b>	26" AutoTeX PINK Metal Wiper Blade	6
<b>AP-028</b>	28" AutoTeX PINK Metal Wiper Blade	6
<b>SPECIAL ORDER</b>		
<b>AP602</b>	14 prong rack, header card, application guide, bay banner, tri-folder holder, includes 84 blades mix, (50) tri-folds, (42) thank you cards, (42) thank you card envelopes	1
<b>AP605</b>	7 prong rack, header card, application guide, tri-folder holder, (50) tri-folds, includes 42 blades mix, (20) thank you cards, (20) thank you card envelopes	1



# CHAIN & RIGGING

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# CHAIN & RIGGING

Anchor Shackles • Quick Pins • Linch Pins • Quick Links

## ANCHOR SHACKLES - SCREW PINS

- Electro galvanized finish
- Complete with steel pin



PRODUCT CODE	TRADE SIZE (IN)	WORKING LOAD LIMIT (LBS)	PIECES PER KGS
<b>442-004</b>	1/4	1000	5
<b>442-005</b>	5/16	1500	5
<b>442-006</b>	3/8	2000	5
<b>442-007</b>	7/16	3000	5
<b>442-008</b>	1/2	4000	3
<b>442-010</b>	5/8	5000	2
<b>442-012</b>	3/4	6000	2

## LINCH PINS

- Pins made of C1010 - C1018 Steel



PRODUCT CODE	TRADE SIZE (IN)	PIN LENGTH (IN)	USABLE LENGTH (IN)	PKG QTY
<b>442-060</b>	3/16	1 9/16	1 1/4	10
<b>442-061</b>	1/4	1 9/16	1 1/4	10
<b>442-062</b>	5/16	1 9/16	1 1/4	10
<b>442-063</b>	3/8	1 3/4	1 7/16	10
<b>442-064</b>	7/16	1 9/16	1 1/32	10
<b>442-065</b>	7/16	1 3/4	1 1/2	10

## QUICK PINS

### ROUND

- Zinc Plated Finish



PRODUCT CODE	SIZE	USABLE LENGTH	PKG QTY
<b>442-050</b>	1/4	1 3/8	5
<b>442-051</b>	1/4	1 3/4	5
<b>442-052</b>	5/16	1 3/8	5
<b>442-053</b>	5/16	1 3/4	5
<b>442-054</b>	3/8	1 3/8	5

### SQUARE

- Zinc Plated Finish



PRODUCT CODE	SIZE	USABLE LENGTH	PKG QTY
<b>442-055</b>	1/4	2 1/2	5
<b>442-056</b>	5/16	2 1/2	5
<b>442-057</b>	3/8	2 1/4	5
<b>442-058</b>	3/8	2 1/2	5

## QUICK LINKS

- Mild Steel Plated



PRODUCT CODE	A TRADE SIZE (IN)	B OVERALL LENGTH (IN)	C OPENING WIDTH (IN)	WORKING LOAD LIMIT (LBS)	PKG QTY
<b>442-102</b>	1/8	1 1/2	3/16	220	10
<b>442-103</b>	3/16	2	1/4	660	10
<b>442-104</b>	1/4	2 1/2	5/16	880	10
<b>442-105</b>	5/16	3	7/16	1760	5
<b>442-106</b>	3/8	3 1/4	7/16	2200	5
<b>442-107</b>	7/16	3 1/4	1/2	2800	5
<b>442-108</b>	1/2	4 1/4	5/8	3300	5

# CHAIN & RIGGING

Lap Repair Links • Hitch Pins • Cold Shuts • Mild Link

## LAP REPAIR LINKS

- Self colour
- Stamped steel



PRODUCT CODE	TRADE SIZE (IN)	WORKING LOAD LIMIT (LBS)	PIECES PER PKG
<b>442-122</b>	1/8 x 5/8	150	20
<b>442-123</b>	3/16 x 1	200	20
<b>442-124</b>	1/4 x 1 1/4	300	20
<b>442-125</b>	5/16 x 1 1/2	500	10
<b>442-126</b>	3/8 x 1 5/8	825	10

## COLD SHUTS

- Mild steel plated



PRODUCT CODE	TRADE SIZE (IN)	WORKING LOAS LIMIT (LBS)	PKG QTY
<b>442-143</b>	3/16	500	10
<b>442-144</b>	1/4	750	10
<b>442-145</b>	5/16	1250	10
<b>442-146</b>	3/8	1900	10

## HITCH PINS - FOLD OVER HANDLE

- Tensile strength 60 to 80 kg/sq. mm
- C1144 Steel
- Zinc plated



PRODUCT CODE	TRADE SIZE (IN)	USEABLE LENGTH (IN)	PKG QTY
<b>442-130</b>	1/2	3 1/2	1
<b>442-131</b>	5/8	4 1/4	1
<b>442-132</b>	5/8	6 1/4	1
<b>442-133</b>	3/4	4 1/4	1
<b>442-134</b>	3/4	6 1/4	1
<b>442-135</b>	7/8	6 1/4	1
<b>442-136</b>	1	6 1/4	1
<b>442-137</b>	1 1/8	6 1/4	1
<b>442-138</b>	1 1/4	7 1/2	1

## MILD LINK

- Forged carbon steel
- Zinc plated
- For use with grades 28, 43 and 70 chain



PRODUCT CODE	TRADE SIZE (IN)	OVERALL LENGTH (IN)	WORKING LOAD LIMIT (LBS)	PKG QTY
<b>442-150</b>	1/4 - 5/16	2 1/4	4700	1
<b>442-151</b>	3/8	2 3/4	6600	1
<b>442-152</b>	7/16 - 1/2	3 1/2	11250	1

# CHAIN & RIGGING

Hitch Pins • Eye Grab Hooks • Safety Winch Hook • Safety Lanyard Hooks • Clevis Grab Hooks • Clevis Slip Hooks

## HITCH PINS - VINYL HANDLE (CLIP INCLUDED)

- Tensile strength 90 to 105 kg./sq.mm
- Heat treated to 29 - 34 Rockwell (HRC)



PRODUCT CODE	SIZE	USABLE LENGTH	PKG QTY
<b>442-160</b>	1/2	3 5/8	1
<b>442-161</b>	5/8	4	1
<b>442-162</b>	5/8	5 1/2	1
<b>442-163</b>	3/4	4	1
<b>442-164</b>	3/4	6 1/2	1
<b>442-165</b>	7/8	4 1/2	1
<b>442-166</b>	7/8	6 1/2	1
<b>442-167</b>	1	4 1/2	1
<b>442-168</b>	1	7 1/2	1
<b>442-169</b>	1 1/8	8 1/2	1
<b>442-170</b>	1 1/4	8 1/2	1
<b>442-171</b>	1 1/2	8 1/2	1

## EYE GRAB HOOKS - GR. 43

- Self colour
- Drop forged, heat treated



PRODUCT CODE	TRADE SIZE	WORKING LOAD LIMIT	PKG QTY
<b>442-204</b>	1/4	2600	5
<b>442-205</b>	5/16	3900	5

## SAFETY WINCH HOOK

- Forged carbon steel - zinc plated
- I.D. Eye - 11/16
- Throat opening 3/4
- Overall length - 4



PRODUCT CODE	WORKING LOAD LIMIT	MINIMUM BREAKING STRENGTH	PKG QTY
<b>442-212</b>	750 lbs	3000 lbs	1

## SAFETY LANYARD HOOKS

- Forged carbon steel - zinc plated
- I.D. Eye - 1.1/16"
- Throat opening 11/16"
- Overall length - 5.3/16"



PRODUCT CODE	WORKING LOAD LIMIT	MINIMUM BREAKING STRENGTH	PKG QTY
<b>442-214</b>		5000 lbs	1

## DOUBLE CATCH

- Forged carbon steel - zinc plated
- I.D. Eye - 1.1/16"
- Throat opening - 3/4"
- Overall length - 5.5/16"



PRODUCT CODE	WORKING LOAD LIMIT	MINIMUM BREAKING STRENGTH	PKG QTY
<b>442-216</b>	2500 lbs	5000 lbs	1

## CLEVIS GRAB HOOKS - GR. 43

- Self colour
- Drop forged, heat treated



PRODUCT CODE	TRADE SIZE (IN)	WORKING LOAD LIMIT (LBS)	PKG QTY
<b>442-224</b>	1/4	2600	5
<b>442-225</b>	5/16	3900	5
<b>442-226</b>	3/8	5400	3
<b>442-227</b>	7/16	7200	3
<b>442-228</b>	1/2	9200	2

## CLEVIS SLIP HOOKS

- For chain grades 28, 30 and 43
- Drop forged, heat treated
- Self colour



PRODUCT CODE	TRADE SIZE (IN)	WORKING LOAD LIMIT (LBS)	PKG QTY
<b>442-244</b>	1/4	2600	5
<b>442-245</b>	5/16	3900	3
<b>442-246</b>	3/8	5400	2
<b>442-248</b>	1/2	9200	2

# CHAIN & RIGGING

Clevis Grab Hooks • Snap Links • Safety Snap Hook • Load Binders • Wire Rope Clips

## CLEVIS GRAB HOOKS - GR. 70

- For grade 70 transport chain
- Drop forged
- Heat treated
- Alloy steel



PRODUCT CODE	TRADE SIZE (IN)	WORKING LOAD LIMIT	PKG QTY
442-304	1/4	4700	5
442-305	5/16	4700	3
442-306	3/8	6600	3
442-308	1/2	11300	2

## SNAP LINKS

- Mild steel plated



PRODUCT CODE	A TRADE SIZE (IN)	B OVERALL LENGTH (IN)	PKG QTY
442-405	3/16	2	10
442-406	1/4	2 3/8	10
442-407	9/32	2 7/8	10
442-408	5/16	3 1/4	10
442-409	11/32	3 1/2	10
442-410	3/8	3 7/8	5
442-411	7/16	4 3/4	5
442-412	13/32	5 1/2	5
442-413	1/2	6 1/4	5

## SAFETY SNAP HOOK

- Mild steel plated
- I.D. Eye - 11/16"
- Throat opening - 5"
- Overall length - 4"



PRODUCT CODE	SIZE (IN)	MINIMUM BREAKING STRENGTH	PKG QTY
442-432	3/4	5000 lbs	10

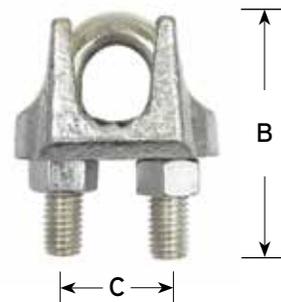
## LOAD BINDER

- Forged steel, quenched and tempered
- Hooks are quenched and tempered alloy steel
- Red in Colour



PRODUCT CODE	CHAIN SIZE	BINDER TYPE	HANDLE LENGTH	TAKE UP INCHES	WT PER UNIT	WORKING LOAD LIMIT LBS	PROOF LOAD LBS	MIN. BREAKING STRENGTH LBS	PKG QTY
442-490	3/8"	Lever	16	4 1/2	7	5400	10200	19000	1
442-491	5/16" - 3/8"	Ratchet	13.42	8	10.5	5400	10800	19000	1
442-492	3/8" - 1/2"	Ratchet	13.92	8	12.9	9200	18400	33000	1
442-493	1/2" - 5/8"	Ratchet	13.92	8	14.38	13000	26000	46000	1

## WIRE ROPE CLIPS - MALLEABLE



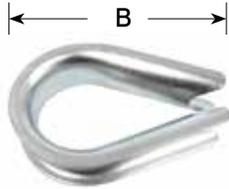
PRODUCT CODE	TRADE SIZE (IN)	FOR CABLE SIZE	B OVERALL LENGTH (IN)	C POST TO POST (IN)	PIECE PER PKG
442-502	1/8	3/32, 1/8	1	7/16	25
442-503	3/16	3/16	1 1/4	9/16	25
442-504	1/4	1/4	1 1/2	5/8	10
442-505	5/16	5/16	1 1/2	11/16	10
442-506	3/8	3/8	2	13/16	10
442-507	7/16	7/16	2	7/8	10
442-508	1/2	1/2	2 1/4	1	5
442-510	5/8	5/8	2 3/4	1 3/16	5
442-512	3/4	3/4	3	1 1/4	5

# CHAIN & RIGGING

Wire Rope Thimbles • TurnBuckles • Shoulder Nut Eye Bolts • S Hook

## WIRE ROPE THIMBLES

- Electro galvanized



PRODUCT CODE	TRADE SIZE (IN)	FOR CABLE SIZE	B OVERALL LENGTH (IN)	PKG QTY
<b>442-522</b>	1/8	3/32, 1/8	1 3/4	25
<b>442-523</b>	3/16	3/16	1 3/4	25
<b>442-524</b>	1/4	1/4	1 3/4	10
<b>442-525</b>	5/16	5/16	2 1/8	10
<b>442-526</b>	3/8	3/8	2 1/4	10
<b>442-528</b>	1/2	1/2	2 3/4	10
<b>442-530</b>	5/8	5/8	3 1/2	5
<b>442-532</b>	3/4	3/4	3 3/4	5

## TURNBUCKLES - LIGHT DUTY

- Hook & Eye - Mild Steel
- Body - Cast



PRODUCT CODE	DIAMETER	TAKE UP INCHES	BODY LENGTH	PKG QTY
<b>442-550</b>	5 mm	1 1/8	50 mm	10
<b>442-555</b>	5 mm	2	70 mm	10
<b>442-560</b>	6 mm	1 1/2	60 mm	10
<b>442-565</b>	6 mm	2 3/4	100 mm	10
<b>442-575</b>	8 mm	3	110 mm	5
<b>442-580</b>	10 mm	2	80 mm	5

## SHOULDER NUT EYE BOLTS

- Drop forged
- Hot dip galvanized with nut



PRODUCT CODE	DIAMETER INCHES	SHANK LENGTH (IN)	I.D. EYE (IN)	O.D. EYE (IN)	LENGTH OF THREAD (IN)	WORKING LOAD LIMIT (LBS)	PCS PER PKG
<b>442-602</b>	1/4	2	9/16	7/8	1.1/2	500	5
<b>442-605</b>	1/4	4	9/16	7/8	2.3/8	500	5
<b>442-608</b>	5/16	2.1/4	5/8	1.1/8	1.1/2	800	5
<b>442-611</b>	5/16	4.1/4	5/8	1.1/8	2.1/2	800	5
<b>442-614</b>	3/8	2.1/2	3/4	1.3/8	1.1/2	1200	5
<b>442-617</b>	3/8	4.1/2	3/4	1.1/4	2.1/2	1200	5
<b>442-620</b>	1/2	3.1/4	1	1.3/4	1.1/2	2200	3
<b>442-623</b>	1/2	6	1	1.3/4	3	2200	3
<b>442-626</b>	5/8	4	1.1/4	2.1/4	2	3500	3
<b>442-629</b>	5/8	6	1.1/4	2.1/4	3	3500	3
<b>442-632</b>	3/4	4.1/2	1.7/16	2.3/4	2	5100	2
<b>442-635</b>	3/4	6	1.7/16	2.3/4	2.3/4	5100	2

## S HOOK

- Mild steel plated



PRODUCT CODE	TRADE SIZE (IN)	MATERIAL SIZE DECIMAL	APPROX. INSIDE LENGTH (IN)	PIECE PER PKG
<b>442-702</b>	1/8	0.125	1 1/4	25
<b>442-703</b>	5/32	0.156	1 1/2	25
<b>442-704</b>	3/16	0.188	1 7/8	25
<b>442-705</b>	7/32	0.203	2	25
<b>442-706</b>	1/4	0.250	2	25
<b>442-707</b>	1/4	0.250	2 3/4	10
<b>442-708</b>	5/16	0.313	3 1/4	10
<b>442-709</b>	3/8	0.375	3 1/4	10
<b>442-710</b>	3/8	0.375	3 3/4	10



# ELECTRICAL

285 pc Automotive Electrical Repair Kit.....	31	Super Duty - Heavy Trucks.....	29
7 Way Connectors.....	25	Fuse Box.....	28
Auto & Marine Electrical Tool Kit.....	31	Fuses.....	26
Automotive Fuses.....	28	Blade Fuses.....	27
10 Piece Automotive Fuses.....	28	Glass/Ceramic Fuses.....	26
17 Piece Automotive Fuses.....	28	JCASE® Series.....	28
Block Heater Parts.....	34	Mega® Fuse Series.....	28
Breakers.....	25	PAL™ Fuses.....	27
Breakers - Fuse Clip Mounting.....	25	Nail Cable Clips.....	30
Breakers - Plug-In.....	25	Primary Wire Cable Single Conductor.....	32
Breaker With Flat Bracket - Stud Terminal With Plated Steel Case.....	25	Rough Service Bulbs.....	34
Cable Clamps.....	30	Solderless Terminals.....	29
Cable Lugs.....	30	Solderless Terminal Assortments.....	29
Circuit Testers.....	31	Switches.....	24
Circuit Tester.....	31	Ignition Switch.....	24
Voltage Tester.....	31	Master Disconnect Switch.....	24
Digital Multi-Meter.....	35	Push Button Switch.....	24
Digital Multi-Meter.....	35	Push/Pull Button Switch.....	24
Digital Multi-Meter Clamp.....	35	Starter Solenoid.....	25
Premium Digital Multi-Meter.....	35	Toggle Switch.....	24
Electrical Fans.....	35	Trailer Connectors.....	25
Universal Fan Assemblies.....	35	Trouble Lights.....	33
Extension Cords.....	34	Heavy Duty.....	33
Block Heater Extension Cords.....	34	Light Duty.....	33
Extension Cords.....	34	Wire Crimping Tool.....	34
Flashers.....	29	Wire Nut Connectors.....	30
Automotive - North American.....	29	Wire Stripper (Heavy Duty).....	34
Automotive - Japanese.....	30	Work Lights.....	33
Electronic Flashers - Cars, Trucks, Buses And Rvs.....	30	500 Watt Halogen Work Light.....	33
Heavy Duty - Cars & Light Duty Trucks.....	30	1000 Watt Halogen Work Light.....	33
Super Duty Alternating Series - School Buses And Emergency Vehicles.....	30	Replacement Halogen Bulb.....	33

# ELECTRICAL

## Switches

### SWITCHES

#### TOGGLE SWITCH



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
660-000	Off-On • SPST • 25A at 12V DC • 2 Screws	5582	1
660-001	On-Off • SPST • 25A at 12V DC • 2 Wire Leads	5582-10	1
660-002	On-On • SPDT • 25A at 12V DC • 3 Screws	5584	1
660-003	On-Off • SPDT • 25A at 12V DC • 2 Screws	5582	1
660-006	On-Off-On • SPDT • 25A at 12V DC • 3 Screws	5586	1
660-008	Off-On • DPDT • 25A at 12V DC • 4 Screws	5588	1
660-010	On-Off-On • DPDT • 25A at 12V DC • 6 Screws	5592	1
660-020	On-Off • SPDT • 225A at 12V DC • 2 Blades	55014	1
660-024	Mom. On-Off-Mom. On • SPDT • 25A at 12V DC • 3 Screws	55021	1
660-030	Mom. On-Off-Mom. On • DPDT • 25A at 12V DC • 6 Screws	55054	1
660-040	On-Off • SPDT • 50A at 12V DC or 6A at 24V DC • 2 Screws		1
660-050	Off-On • SPST • 30A at 6-12V DC or 15A at 24-36V DC • 2 Screws	551840	1
660-060	On-Off • SPST • Red Lens • 3 Blades	58328-04	1

#### IGNITION SWITCH



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
660-170	4 Position Ignition & Lock Switch • Acc.-Off-Ign/Acc-Ign. Start • Rated at 12V DC • Acc. 10A, Ign. 10A, Start 5A	9579	1

#### PUSH/PULL BUTTON SWITCH



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
660-125	Norm. Off • SPST • 10A at 12V DC • 2 Screws • Plastic Knob	5007	1
660-127	Norm. Off • SPST • 10A at 12V DC • 2 Screws • Chrm Pltd Knob	5011	1
660-135	On-Off • SPST • 75A at 6-28V • 2 Screws		1

#### MASTER DISCONNECT SWITCH



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
660-190	Single Pole • 2 Position: Off-On • Disconnects Battery Circuit Only	2484	1
660-191	Double Pole • 2 Position: Off-On • Disconnects Battery Circuit Only	75903	1

#### PUSH BUTTON SWITCH



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
660-100	Norm. Off-Mom. On • 25A at 12V DC • 2 Screws	9095	1
660-105	Norm. Off-Mom. On • 25A at 12V DC • Snap on Rubber Cap • 2 Screws	9245	1
660-110	Norm. Off-Mom. On • 25A at 12V DC • Screw on Rubber Cap • 2 Screws	90030	1

## SWITCHES (CONT)

### STARTER SOLENOID



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
<b>660-200</b>	SPST • Continuous Duty • 1 Circuit: Off-On • 12V • 85A • Insulated	24059	1
<b>660-201</b>	SPST • Intermittent Duty • 1 Circuit: Off-On • 12V • 750A make 100A break • 10 Secs On-20 min Off • Grounded	24037	1
<b>660-202</b>	SPST • Continuous Duty • Circuit: Off-On • 24V • 85A • Insulated	24063	1
<b>660-204</b>	SPST • Continuous Duty • Circuit: Off-On • 12V • 85A • Grounded	24106	1

## 7 WAY CONNECTORS

- Unique interior design eliminates shorting out
- Non-corroding shock-resistant interiors with unique terminal reinforce dams that eliminate short circuiting by preventing contact from spreading
- Center pin will take up to 8 gauge wire for batter charge systems



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>660-360</b>	Trailer Plug Male (Plug)	1
<b>660-370</b>	Trailer Plug Female (Socket)	1

## TRAILER CONNECTORS



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE #	PKG QTY
<b>660-530</b>	Universal Trailer Connectors 4 Pole	11134	1
<b>660-535</b>	Universal Trailer Connectors 2 Pole	11172	1
<b>660-540</b>	Universal Trailer Connectors 3 Pole	11173	1

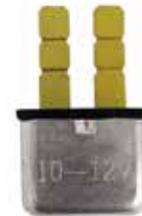
## BREAKERS

### BREAKER WITH FLAT BRACKET - STUD TERMINAL WITH PLATED STEEL CASE



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
<b>660-303</b>	10A	30055-10	1
<b>660-304</b>	15A	30055-15	1
<b>660-305</b>	20A	30055-20	1
<b>660-306</b>	25A	30055-25	1
<b>660-307</b>	30A	30055-30	1
<b>660-308</b>	40A	30055-40	1
<b>660-309</b>	50A	30055-50	1

### BREAKERS - PLUG-IN



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
<b>660-320</b>	10A	30409-10	1
<b>660-321</b>	15A	30409-15	1
<b>660-322</b>	20A	30409-20	1
<b>660-323</b>	25A	30409-25	1
<b>660-324</b>	30A	30409-30	1

### BREAKERS - FUSE CLIP MOUNTING



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE#	PKG QTY
<b>660-327</b>	20A	30410-20	1
<b>660-328</b>	25A	30410-25	1
<b>660-329</b>	30A	30410-30	1

# ELECTRICAL

## Fuses

### FUSES

#### GLASS/CERAMIC FUSES



PRODUCT CODE	PART NUMBER	PKG QTY
<b>AGA FUSES</b>		
521-085	AGA-1 1/2	5
521-092	AGA-2	5
521-095	AGA-2 1/5	5
521-103	AGA-3	5
521-105	AGA-5	5
521-106	AGA-6	5
521-108	AGA-7 1/2	5
521-110	AGA-10	5
521-115	AGA-15	5
521-120	AGA-20	5
521-125	AGA-25	5
521-130	AGA-30	5
<b>AGC FUSES</b>		
521-181	AGC-1	5
521-185	AGC-1 1/2	5
521-192	AGC-2	5
521-195	AGC-2 1/2	5
521-203	AGC-3	5
521-204	AGC-4	5
521-205	AGC-5	5
521-206	AGC-6	5
521-207	AGC-7 1/2	5
521-208	AGC-8	5
521-210	AGC-10	5
521-215	AGC-15	5
521-220	AGC-20	5
521-225	AGC-25	5
521-230	AGC-30	5
521-235	AGC-35	5
<b>AGU FUSES</b>		
521-301	AGU-1	10
521-302	AGU-2	10
521-303	AGU-3	10
521-304	AGU-4	10
521-305	AGU-5	10
521-310	AGU-10	10
521-315	AGU-15	10
521-320	AGU-20	10
521-325	AGU-25	10
521-326	AGU-30	10
521-327	AGU-35	10
521-328	AGU-40	10
521-329	AGU-50	10
521-331	AGU-60	10

PRODUCT CODE	PART NUMBER	PKG QTY
<b>AGW FUSES</b>		
521-381	AGW-1	5
521-385	AGW-1 1/2	5
521-395	AGW-2 1/2	5
521-403	AGW-3	5
521-404	AGW-4	5
521-405	AGW-5	5
521-406	AGW-6	5
521-415	AGW-15	5
521-420	AGW-20	5
521-430	AGW-30	5
<b>AGX FUSES</b>		
521-502	AGX-2	5
521-503	AGX-3	5
521-520	AGX-20	5
521-525	AGX-25	5
521-530	AGX-30	5
<b>SFE FUSES</b>		
521-004	SFE-04	5
521-006	SFE-06	5
521-008	SFE-08	5
521-009	SFE-09	5
521-014	SFE-14	5
521-020	SFE-20	5
521-030	SFE-30	5
<b>GBC FUSES</b>		
521-705	GBC-5	5
521-708	GBC-8	5
521-716	GBC-16	5
521-725	GBC-25	5



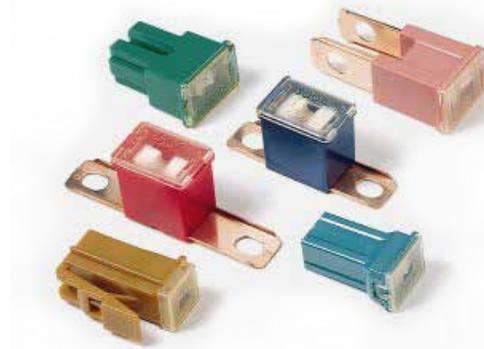
### FUSES (CONT)

#### BLADE FUSES



PRODUCT CODE	PART NUMBER	PKG QTY
<b>ATO FUSES (PREMIUM)</b>		
521-602	ATO-2	5
521-603	ATO-3	5
521-604	ATO-4	5
521-605	ATO-5	5
521-608	ATO-7 1/2	5
521-610	ATO-10	5
521-615	ATO-15	5
521-620	ATO-20	5
521-625	ATO-25	5
521-630	ATO-30	5
521-640	ATO-40	5
<b>MINI® FUSES</b>		
521-802	MIN-2	5
521-803	MIN-3	5
521-804	MIN-4	5
521-805	MIN-5	5
521-806	MIN-7 1/2	5
521-807	MIN-10	5
521-808	MIN-20	5
521-809	MIN-25	5
521-810	MIN-30	5
521-815	MIN-15	5
<b>LOW PROFILE MINI® BLADE BOX FUSES</b>		
LMIN-2	521-822	5
LMIN-3	521-823	5
LMIN-4	521-824	5
LMIN-5	521-825	5
LMIN-7 1/2	521-826	5
LMIN-10	521-827	5
LMIN-15	521-828	5
LMIN-20	521-830	5
LMIN-25	521-835	5
LMIN-30	521-840	5
<b>MAXI™ FUSES</b>		
521-850	MAX-20	1
521-851	MAX-30	1
521-852	MAX-40	1
521-853	MAX-50	1
521-854	MAX-60	1

#### PAL™ FUSES



PART NUMBER	PRODUCT CODE	PKG QTY
<b>FEMALE TERM</b>		
PAL 020	521-771	1
PAL 030	521-772	1
PAL 040	521-773	1
PAL 050	521-774	1
PAL 060	521-775	1
<b>STRAIGHT MALE TERM</b>		
PAL 130	521-776	1
PAL 160	521-777	1
PAL 180	521-778	1
PAL 1100	521-779	1
PAL 1120	521-780	1
<b>13/16" MALE TERM</b>		
PAL 230	521-781	1
PAL 240	521-782	1
PAL 250	521-783	1
PAL 260	521-784	1
PAL 270	521-785	1
PAL 280	521-786	1
PAL 2100	521-787	1
PAL 2120	521-788	1
<b>MINI FEMALE TERM</b>		
PAL 330	521-789	1
PAL 340	521-790	1
<b>9/16" BENT MALE TERM</b>		
PAL 430	521-791	1
PAL 440	521-792	1
PAL 450	521-793	1
PAL 480	521-794	1
PAL 4100	521-795	1
<b>LOCKING FEMALE TERM</b>		
PAL 525	521-796	1
PAL 530	521-797	1

# ELECTRICAL

Fuses • Fuse Boxes • Automotive Fuses

## FUSES (CONT)

### MEGA® FUSE SERIES



PART NUMBER	DESCRIPTION	PKG QTY
<b>MEG100-LIT</b>	MEGA Bolt-On Fuses – YELLOW 100A	10
<b>MEG125-LIT</b>	MEGA Bolt-On Fuses – GREEN 125A	10
<b>MEG125BP-LIT</b>	MEGA Bolt-On Fuses – 32V, 125A, 1pc card	10
<b>MEG150-LIT</b>	MEGA Bolt-On Fuses – ORANGE 150A	10
<b>MEG175-LIT</b>	MEGA Bolt-On Fuses – WHITE 175A	10
<b>MEG200-LIT</b>	MEGA Bolt-On Fuses – BLUE 200A	10
<b>MEG225-LIT</b>	MEGA Bolt-On Fuses – BROWN 225A	10
<b>MEG250-LIT</b>	MEGA Bolt-On Fuses – PINK 250A	10

### JCASE® SERIES



PART NUMBER	DESCRIPTION	PKG QTY
<b>JCAS20-LIT</b>	Fuse JCASE 32V S/B Box 20A	1
<b>JCAS30-LIT</b>	Fuse JCASE 32V S/B Box 30A	1
<b>JCAS40-LIT</b>	Fuse JCASE 32V S/B Box 40A	1

## FUSE BOX

- For ATC or ATO fuse or plug in circuit breakers
- Recessed fuse contacts, no cover required
- 25A max per circuit at 12V DC
- 150A total for block at 12V DC
- For 6-28V systems



PRODUCT CODE	DESCRIPTION	EQUIVALENT TO COLE HERSEE #	PKG QTY
<b>660-350</b>	6 Position	46377-6	1
<b>660-351</b>	8 Position	46377-8	1
<b>660-352</b>	10 Position	46377-10	1

## AUTOMOTIVE FUSES

### 10 PIECE AUTOMOTIVE FUSES

- When fuses blowout they light up



PRODUCT CODE	PART NUMBER	PKG QTY
<b>521-330</b>	ATG-5	10
<b>521-335</b>	ATG-10	10
<b>521-340</b>	ATG-15	10
<b>521-345</b>	ATG-20	10
<b>521-350</b>	ATG-25	10
<b>521-360</b>	ATG-30	10

### 17 PIECE AUTOMOTIVE FUSES



- When fuses blowout they light up
- Set contains:
  - 2 pcs. 5 amp fuses - amber
  - 2 pcs. 10 amp fuses - red
  - 3 pcs. 15 amp fuses - blue
  - 4 pcs. 20 amp fuses - yellow
  - 3 pcs. 25 amp fuses - clear
  - 2 pcs. 30 amp fuses - green
  - 1 fuse puller

PRODUCT CODE	PKG QTY
<b>521-758</b>	1

# ELECTRICAL

## Solderless Terminals • Flashers

### SOLDERLESS TERMINALS



PRODUCT CODE	DESCRIPTION	WIRE SIZE	PKG QTY
571-000	Red Insulated Ring Terminal, Stud Size 6	AWG22-16	100
571-002	Red Insulated Ring Terminal, Stud Size 8	AWG22-16	100
571-004	Red Insulated Ring Terminal, Stud Size 10	AWG22-16	100
571-006	Red Insulated Ring Terminal, Stud Size 1/4"	AWG22-16	100
571-008	Red Insulated Spade Terminal, Stud Size 8	AWG22-16	100
571-010	Red Insulated Spade Terminal, Stud Size 10	AWG22-16	100
571-012	Red Insulated Spade Terminal, Stud Size 6	AWG22-16	100
571-014	Red Spade Terminal, Stud Size 8	AWG22-16	100
571-015	Two Way Bullet Receptacle, 0.156"/4mm		50
571-016	Red Insulated Butt Connector	AWG22-16	100
571-017	Red Heat Shrinkable Butt Splice Connector	AWG22-16	50
571-018	Red Insulated Female Slide Connector	AWG22-16	100
571-020	Red Insulated Male Slide Connector	AWG22-16	100
571-022	Red 3 Way Connector	AWG22-16	25
571-023	Red 4 Way Connector	AWG22-16	25
571-025	Red Quick Tap Wire Splicer	AWG22-16	25
571-030	Blue Insulated Ring Terminal, Stud Size 8	AWG16-14	100
571-032	Blue Insulated Ring Terminal, Stud Size 10	AWG16-14	100
571-034	Blue Insulated Ring Terminal, Stud Size 1/4"	AWG16-14	100
571-036	Blue Insulated Ring Terminal, Stud Size 5/16"	AWG16-14	100
571-038	Blue Insulated Spade Terminal, Stud Size 10	AWG16-14	100
571-040	Blue Insulated Spade Terminal, Stud Size 6	AWG16-14	100
571-042	Blue Insulated Spade Terminal, Stud Size 8	AWG16-14	100
571-044	Blue Insulated Butt Connector	AWG16-14	100
571-045	Blue Heat Shrinkable Butt Splice Connector	AWG16-14	50
571-046	Blue Female Insulated Slide Connector	AWG16-14	100
571-048	Blue Male Insulated Slide Connector	AWG16-14	100
571-050	Blue Insulated Bullet Connector	AWG16-14	100
571-052	Blue Insulated Receptacle Connector	AWG16-14	100
571-054	Blue 3 Way Connector	AWG16-14	25
571-055	Blue 4 Way Connector	AWG16-14	25
571-059	Blue Quick Tap Wire Splicer	AWG16-14	25
571-060	White Quick Tap Wire Splicer	AWG18-14	25
571-062	Blue Closed End Connector	AWG16-14	100
571-064	Yellow Insulated Ring Terminal, Stud Size 8	AWG12-10	100
571-066	Yellow Insulated Ring Terminal, Stud Size 10	AWG12-10	100
571-068	Yellow Insulated Ring Terminal, Stud Size 1/4"	AWG12-10	50
571-070	Yellow Insulated Ring Terminal, Stud Size 5/16"	AWG12-10	50
571-072	Yellow Insulated Ring Terminal, Stud Size 3/8"	AWG12-10	50
571-074	Yellow Insulated Spade Terminal, Stud Size 10	AWG12-10	100
571-080	Yellow Insulated Butt Connector	AWG12-10	100
571-081	Yellow Heat Shrinkable Butt Splice Connector	AWG12-10	25
571-082	Yellow Insulated Female Slide Connector	AWG12-10	100
571-084	Yellow Insulated Male Slide Connector	AWG12-10	100
571-086	Yellow Closed End Connector	AWG12-10	10
571-088	Yellow 3 Way Connector	AWG12-10	10
571-089	Yellow 4 Way Connector	AWG12-10	10
571-091	Yellow Quick Tap Wire Splicer	AWG12-10	10

See Solderless Terminals chart on pg. I-4

### SOLDERLESS TERMINAL ASSORTMENTS



PRODUCT CODE	DESCRIPTION	PKG QTY
571-095	60 pcs.	1
571-096	176 pcs.	1
571-097	500 pcs.	1
571-098	1000 pcs.	1

### FLASHERS

#### AUTOMOTIVE - NORTH AMERICAN

- Vane type construction
- Flashes 2 to 6 lamps on turn signals or hazard warning applications



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
520-552	536/552	12 volt - 2 pin	1

#### SUPER DUTY - HEAVY TRUCKS

- Conforms to all DOT and SAE requirements
- Turn signal or hazard warning applications



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
520-604	EG23	24 volt - 3 pin	1
520-608	EL12	12 volt - 2 pin	1
520-609	EL13	12 volt - 3 pin	1

# ELECTRICAL

Flashers • Cable Clamps • Wire Nut Connectors • Nail Cable Clips • Cable Lugs

## FLASHERS (CONT)

### SUPER DUTY ALTERNATING SERIES – SCHOOL BUSES AND EMERGENCY VEHICLES

- No ground required
- Special temperature circuitry for a consistent flash rate
- Beryllium copper contact blad for greater stability under extreme heat



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>520-610</b>	EL13A	12 volt - 3 pin	1

### AUTOMOTIVE – JAPANESE

- Indicates when signal light is burnt out
- Flashes 2 to 6 lamps on turn signal or hazard warning applications
- All 12 volt - 3 pin

PRODUCT CODE	PART NUMBER	APPLICATION	PKG QTY
<b>520-612</b>	EP32	Toyota 1985-87	1
<b>520-613</b>	EP33	Mazda	1
<b>520-614</b>	EP34	Nissan, Honda, Subaru	1
<b>520-615</b>	EP35	Volvo, BMW, Toyota '88 and newer, GM ST pickup	1
<b>520-616</b>	EP36	GM C.K. full size pickup	1

### ELECTRONIC FLASHERS – CARS, TRUCKS, BUSES AND RVs

PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>520-617</b>	EP37	Heavy Duty Electronic Flasher 12V 2 pin 1 to 16 x 25W - Trucks, Bus & RVs	1
<b>520-620</b>	EP50	Heavy Duty Electronic Flasher 12V 2 pin 1 to 20 x 25W - Trucks, Bus & RVs	1
<b>520-626</b>	EP26	Domestic Cars, Trucks - 4 pin	1
<b>520-627</b>	EP27	Domestic Cars, Trucks -5 pin	1
<b>520-628</b>	EP28	GM - 3 pin	1

### HEAVY DUTY – CARS & LIGHT DUTY TRUCKS

- Compact design
- Turn signal or hazard warning applications

PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>520-601</b>	HD12	12 volt - 2 pin	1
<b>520-602</b>	HD13	12 volt - 3 pin	1
<b>520-603</b>	EG22	24 volt - 3 pin	1

## CABLE CLAMPS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>571-130</b>	Cable Size 1/8"	100
<b>571-131</b>	Cable Size 3/16"	100
<b>571-132</b>	Cable Size 1/4"	50
<b>571-133</b>	Cable Size 5/16"	50

## WIRE NUT CONNECTORS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>571-100</b>	Wire Size AWG 22-16	100
<b>571-101</b>	Wire Size AWG 22-14	100
<b>571-102</b>	Wire Size AWG 18 -12	50
<b>571-104</b>	Wire Size AWG 18 -10	25

## NAIL CABLE CLIPS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>571-150</b>	Inside Dimensions 5/32" x 7/64"	100
<b>571-151</b>	Inside Dimensions 3/16" x 13/64"	100
<b>571-152</b>	Inside Dimensions 15/64" x 1/4"	100
<b>571-153</b>	Inside Dimensions 17/64" x 9/32"	100
<b>571-154</b>	Inside Dimensions 5/16" x 21/64"	100
<b>571-155</b>	Inside Dimensions 23/64" x 23/64"	100
<b>571-156</b>	Inside Dimensions 25/64" x 13/32"	100

## CABLE LUGS



PRODUCT CODE	DESCRIPTION	WIRE SIZE	PKG QTY
<b>571-110</b>	Stud Size 5/16"	AWG6	25
<b>571-112</b>	Stud Size 5/16"	AWG4	25
<b>571-114</b>	Stud Size 5/16"	AWG2	10
<b>571-116</b>	Stud Size 5/16"	AWG1	10
<b>571-118</b>	Stud Size 3/8"	AWG2	10
<b>571-120</b>	Stud Size 3/8"	AWG3	5

### CIRCUIT TESTERS

#### CIRCUIT TESTER

- Trouble shoot 12 volt & 24 volts circuits
- Heavy duty probe & ground clip
- Extra long 48" lead



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE
<b>637-100</b>	Circuit tester	1	12

#### VOLTAGE TESTER

- Test 6, 12 and 24 volt system
- 60° heavy duty rubber lead wire
- Replacement bulb No. 1893



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE
<b>637-200</b>	Voltage tester	1	12

### 285 PC AUTOMOTIVE ELECTRICAL REPAIR KIT



- Great for use on automotive, marine, industrial and agricultural applications
- 2-part plastic case folds open 180° for easy access to both sides
- Folds shut for carrying case
- Set contains:

- |                               |                                    |
|-------------------------------|------------------------------------|
| 1 - Wire crimping tool        | 3 - 1/4" Wire clamps               |
| 1 - 6-12V tester              | 10 - Heat shrink tubes             |
| 1 - Slotted screwdriver       | 30 - Small cable ties              |
| 1 - Phillips screwdriver      | 10 - Medium cable ties             |
| 1 - Roll of electrical tape   | 10 - Large cable ties              |
| 2 - Test leads, 32"           | 6 - Rubber grommets                |
| 5 - Glass style fuses         | 26 - Assorted wire nuts            |
| 1 - Fuse puller               | 160 - Assorted insulated terminals |
| 1 - Roll of primary wire, 60" | 1 - Plastic organizer case         |
| 10 - 1/8" Wire clamps         |                                    |

PRODUCT CODE	PKG QTY
<b>571-520</b>	1

### AUTO & MARINE ELECTRICAL TOOL KIT



- INCLUDES:
- |  |   |
|--|---|
| 26 - 3X100MM White Cable Ties                    | 5 - Yellow Long Full Insulation Intermediate Splice |
| 10 - 3X150MM White Cable Ties                    | 1 - Red Screw Pressure Line Hat                     |
| 10 - 4X200MM White Cable Ties                    | 2 - Orange Screw Pressure Line Hat                  |
| 20 - Black Rubber Grommets                       | 2 - Yellow Screw Pressure Line Hat                  |
| 15 - 3MM Heat Shrink Tubes                       | 8 - Blue Screw Pressure Line Hat                    |
| 5 - 5MM Heat Shrink Tubes                        | 8 - Blade Style Fuses                               |
| 15 - 6.4 White Wire Clamps                       | 8 - Glass Style Fuses                               |
| 20 - Red Round Shape Insulated Terminals         | 1 - Fuse Puller                                     |
| 20 - Blue Fork Shape Insulated Terminals         | 1 - Electrical Tape                                 |
| 18 - Blue Round Shape Insulated Terminals        | 1 - Phillips Screwdriver                            |
| 18 - Red Fork Shape Insulated Terminals          | 1 - Slotted Screwdriver                             |
| 15 - Red Round Shape Insulated Terminals         | 1 - 6 to 12 Volt Tester                             |
| 15 - Blue Fork Shape Insulated Terminals         | 1 - Test Leads                                      |
| 9 - Red Female Pre-Insulation Splice             | 1 - Wire Crimping Tool                              |
| 17 - Blue Male Pre-Insulation Splice             | 1 - Primary Wire, 39" Long                          |
| 8 - Red Long Full Insulation Intermediate Splice | 1 - Packaging Colour Sleeve                         |
|  | 1 - PP Box  |

PRODUCT CODE	PKG QTY
<b>571-525</b>	1

# ELECTRICAL

## Primary Wire Cable Single Conductor

### PRIMARY WIRE CABLE SINGLE CONDUCTOR



PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>BLACK</b>					
600-148	P148	18	16 x 30	0.092"	30 m
600-150	P150	16	19 x 29	0.104"	30 m
600-152	P152	14	19 x 27	0.117"	30 m
600-154	P154	12	19 x 25	0.142"	30 m
600-156	P156	10	19 x 23	0.175"	30 m
600-178	P148	18	16 x 30	0.092"	300 m
600-180	P150	16	19 x 29	0.104"	300 m
600-182	P152	14	19 x 27	0.117"	300 m
600-184	P154	12	19 x 25	0.142"	300 m
600-186	P156	10	19 x 23	0.175"	300 m

PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>BLUE</b>					
600-248	P148	18	16 x 30	0.092"	30 m
600-250	P150	16	19 x 29	0.104"	30 m
600-252	P152	14	19 x 27	0.117"	30 m
600-254	P154	12	19 x 25	0.142"	30 m
600-278	P148	18	16 x 30	0.092"	300 m
600-280	P150	16	19 x 29	0.104"	300 m
600-282	P152	14	19 x 27	0.117"	300 m
600-284	P154	12	19 x 25	0.142"	300 m

PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>BROWN</b>					
600-348	P148	18	16 x 30	0.092"	30 m
600-350	P150	16	19 x 29	0.104"	30 m
600-352	P152	14	19 x 27	0.117"	30 m
600-354	P154	12	19 x 25	0.142"	30 m
600-356	P156	10	19 x 23	0.175"	30 m
600-378	P148	18	16 x 30	0.092"	300 m
600-380	P150	16	19 x 29	0.104"	300 m
600-382	P152	14	19 x 27	0.117"	300 m
600-384	P154	12	19 x 25	0.142"	300 m
600-386	P156	10	19 x 23	0.175"	300 m

PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>GREEN</b>					
600-448	P148	18	16 x 30	0.092"	30 m
600-450	P150	16	19 x 29	0.104"	30 m
600-452	P152	14	19 x 27	0.117"	30 m
600-454	P154	12	19 x 25	0.142"	30 m
600-456	P156	10	19 x 23	0.175"	30 m
600-478	P148	18	16 x 30	0.092"	300 m
600-480	P150	16	19 x 29	0.104"	300 m
600-482	P152	14	19 x 27	0.117"	300 m
600-484	P154	12	19 x 25	0.142"	300 m
600-486	P156	10	19 x 23	0.175"	300 m

PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>ORANGE</b>					
600-548	P148	18	16 x 30	0.092"	30 m
600-550	P150	16	19 x 29	0.104"	30 m
600-552	P152	14	19 x 27	0.117"	30 m
600-554	P154	12	19 x 25	0.142"	30 m
600-578	P148	18	16 x 30	0.092"	300 m
600-580	P150	16	19 x 29	0.104"	300 m
600-582	P152	14	19 x 27	0.117"	300 m
600-584	P154	12	19 x 25	0.142"	300 m

PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>RED</b>					
600-648	P148	18	16 x 30	0.092"	30 m
600-650	P150	16	19 x 29	0.104"	30 m
600-652	P152	14	19 x 27	0.117"	30 m
600-654	P154	12	19 x 25	0.142"	30 m
600-656	P156	10	19 x 23	0.175"	30 m
600-678	P148	18	16 x 30	0.092"	300 m
600-680	P150	16	19 x 29	0.104"	300 m
600-682	P152	14	19 x 27	0.117"	300 m
600-684	P154	12	19 x 25	0.142"	300 m
600-686	P156	10	19 x 23	0.175"	300 m

PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>WHITE</b>					
600-748	P148	18	16 x 30	0.092"	30 m
600-750	P150	16	19 x 29	0.104"	30 m
600-752	P152	14	19 x 27	0.117"	30 m
600-754	P154	12	19 x 25	0.142"	30 m
600-756	P156	10	19 x 23	0.175"	30 m
600-778	P148	18	16 x 30	0.092"	300 m
600-780	P150	16	19 x 29	0.104"	300 m
600-782	P152	14	19 x 27	0.117"	300 m
600-784	P154	12	19 x 25	0.142"	300 m
600-786	P156	10	19 x 23	0.175"	300 m

PRODUCT CODE	PART NUMBER	GAUGE	STRANDING	O.D.	LENGTH
<b>YELLOW</b>					
600-848	P148	18	16 x 30	0.092"	30 m
600-850	P150	16	19 x 29	0.104"	30 m
600-852	P152	14	19 x 27	0.117"	30 m
600-854	P154	12	19 x 25	0.142"	30 m
600-856	P156	10	19 x 23	0.175"	30 m
600-878	P148	18	16 x 30	0.092"	300 m
600-880	P150	16	19 x 29	0.104"	300 m
600-882	P152	14	19 x 27	0.117"	300 m
600-884	P154	12	19 x 25	0.142"	300 m
600-886	P156	10	19 x 23	0.175"	300 m

### TROUBLE LIGHTS

#### LIGHT DUTY

- 100% Hypalon rubber cable.
- Suitable for hard usage.
- Will remain flexible after contact with grease, oil and temperatures to -34°C
- Grounded with metal guard
- C.S.A. approved
- 25 ft. long



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>606-325</b>	TLMR3-25	16 Gauge Wire	1

#### HEAVY DUTY

- Switch in handle
- Manufactured to C.S.A. standards & specifications
- SJTW insulations affords positive protection from oil, grease, gasoline and acids
- 5 amp - 125 volts - 2 conductor - 18 gauge



PRODUCT CODE	PART NUMBER	LENGTH	PKG QTY
<b>606-406</b>	HA6M	6 meters	1
<b>606-410</b>	HA10M	10 meters	1
<b>606-415</b>	HA15M	15 meters	1

- 13 amp - 125 volts - 3 conductor - 18 gauge
- Outlet in handle

PRODUCT CODE	PART NUMBER	LENGTH	PKG QTY
<b>606-510</b>	TRM10M	10 meters	1
<b>606-515</b>	TRM15M	15 meters	1

### WORK LIGHTS

#### 500 WATT HALOGEN WORK LIGHT

- Provides over 9,000 square feet of bright light for after dark activities. Excellent for construction, do-it-yourself projects, auto repairs and recreation
- Switch allows lights to be turned off without unplugging
- 90° adjustable aim gives more precise coverage
- Solid steel protective grille
- Easy-to-grip handle for convenient carrying



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE
<b>606-550</b>	500 Watt Halogen Work Light	1	8

#### 1000 WATT HALOGEN WORK LIGHT

- Heavy duty outdoor construction
- Easily adjustable telescopic tripod
- Twist-lock grip for height adjustment
- Individually rotating lamps
- Rust-resistant, painted finish with a highly reflective interior structure
- Sturdy adjustable light fixtures
- Two adjustable light fixtures
- Glass lens covers
- Metal lens shield
- 10 ft. grounded power cord (18 awg)
- Two 500 watt halogen bulbs (included)
- Limited 1 year warranty



#### SAFETY FIRST!

- This product is UL listed for OUTDOOR USE ONLY and NOT intended for interior use
- This light fixture is NOT a vapour-proof lighting device and should NOT be used around ANY FLAMMABLE LIQUIDS or in FLAMMABLE ATMOSPHERE, such as gasoline, paint, paint thinner, etc
- DO NOT use this product if the glass lens is cracked or broken
- DO NOT HANDLE the lamp with your hand while the power is on
- ALWAYS UNPLUG and ALLOW THE FIXTURE TO COOL before storing

PRODUCT CODE	DESCRIPTION	PKG QTY	CASE
<b>606-552</b>	1000 Watt Halogen Work Light	1	2

#### REPLACEMENT HALOGEN BULB



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>606-553</b>	150 Watt Halogen Bulb	1
<b>606-554</b>	250 Watt Halogen Bulb	1
<b>606-555</b>	500 Watt Halogen Bulb	1

# ELECTRICAL

Rough Service Bulbs • Wire Crimping Tool • Wire Stripper • Extension Cords • Block Heater Parts

## ROUGH SERVICE BULBS

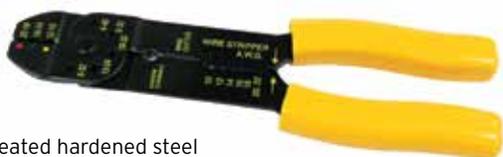
- Reinforced construction lamps are especially designed for use in trouble lamps, industrial plants, on ships, in engine rooms, near rotating machinery, in elevators, service stations and garages. Anywhere lamps are subject to shocks, vibrations and bumps
- 125/130 volts
- 120/case

Canadian  
Government  
Approved!



PRODUCT CODE	PART NUMBER	PKG QTY	CASE
<b>608-060</b>	50 WRS/120 V	4	120
<b>608-075</b>	75 WRS/120 V	4	120
<b>608-100</b>	100 WRS/120 V	4	120

## WIRE CRIMPING TOOL



- Heat-treated hardened steel
- Cuts bolts and steel wire
- Crimps insulated and ignition terminals
- Can also be used as a wire stripper

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>571-505</b>	Crimping Tool	1

## WIRE STRIPPER (HEAVY DUTY)



- Self-adjustable strippers with adjustable stopper for wire stripping length
- Adjustable stopper swivels if this function is not required
- Micro adjusting swivel knob is available when stripping wire smaller than AWG24ga without damaging metal fibres
- Sharp wire cutters make any cutting fast and easy
- Cutter blades are precision machined for durability
- For insulated terminals AWG 22-10
- For non-insulated terminals AWG22-10
- For auto ignition terminals 7-8mm
- Alloy steel jaws, hardness HV550°-650° (RC52°-57°)

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>571-500</b>	Heavy Duty Wire Stripper	1

## EXTENSION CORDS

### BLOCK HEATER EXTENSION CORDS

- Triple outlet extension cord
- Available in 10 ft (3 meter) and 15 ft. (5 meter) lengths
- Plugs molded to cord
- C.S.A. approved for outdoor use



PRODUCT CODE	PART NUMBER	LENGTH	PKG QTY
<b>606-303</b>	W303M	3 meters	1
<b>606-305</b>	W305M	5 meters	1

### EXTENSION CORDS

- Light Duty
- Highly flexible C.S.A. approved extension cords
- Offer extreme resistance to abrasion, oil, grease and solvents
- Rubber insulation, Type SJTW



PRODUCT CODE	PART NUMBER	DESCRIPTION	LENGTH	PKG QTY
<b>606-310</b>	U310M	3 cond. 16 ga	10 meters	1
<b>606-315</b>	U315M	3 cond. 16 ga	15 meters	1
<b>606-330</b>	U330M	3 cond. 16 ga	30 meters	1

## BLOCK HEATER PARTS



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>607-045</b>	G45DF	3 prong "U" ground plug. Dead front	10
<b>607-047</b>	G47	3 wire cord connector with adjustable clamp. "U" ground	10
<b>607-048</b>	F48U	3 way cube cap "U" ground	10

## DIGITAL MULTI-METER

### DIGITAL MULTI-METER CLAMP

- This unique kit contains the necessary tools for fixing, repairing, installing and troubleshooting.
- Equipment is packaged in a light weight case that is easy to carry and store
- Maximum voltage including transient over voltage between any terminal and grounding: 500V ms.
- Display 3-1/2" digits LCD display, max. display 1999



### DIGITAL MULTI-METER

- Pocket size multi-meter
- 3-1/2 LCD" Maximum display
- 5% basic accuracy
- Auto polarization
- Overrange: maximum display "1"
- Battery: 9V Zinc NEDA 1604 or 6F22 or 006P
- High voltage symbol: DC 500V or AC 500V or AC 500V range will show high voltage symbol "HV"
- Low voltage indication will show battery symbol
- Size 150mm x 70mm x 24mm
- Weight: 150g (includes battery)



### PREMIUM DIGITAL MULTI-METER

- Maximum Voltage between any terminals and grounding
- Displays battery deficiency, data holding, negative reading, overloading
- Equipped with full icons display
- Weight: Approximately 300g (battery included)
- Dimensions: 177 x 85 x 40 mm
- Auto & manual range selection



## ELECTRICAL FANS



- 2 Speeds

PRODUCT CODE	PART NUMBER	DESCRIPTION
<b>840-103</b>	FP-103	Premium 12 V
<b>840-106</b>	FP-106	Premium 24 V
<b>841-203</b>	SIG103	Economy 12 V
<b>841-206</b>	SIG106	Economy 24 V

### UNIVERSAL FAN ASSEMBLIES

- Reversible blades for pusher or puller applications
- Coverage for a wide variety of applications
- Complete kits with mounting hardware
- O.E. Replacement, supplemental or add-on cooling needs





# FASTENERS

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### HEX HEAD CAP SCREWS DIMENSIONS

Screw Diameter	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"
Threads per inch U.N.C./U.S.S	20	18	16	14	13	12	11	10	9	8	7	7	6
U.N.F/S.A.E.	28	24	24	20	20	18	18	16	14	14	12	12	12
Head Width	7/16"	1/2"	9/16"	5/8"	3/4"	13/16"	15/16"	1 1/8"	1 5/16"	1 1/2"	1 1/8"	1 7/8"	2 1/4"
Across Flats Head Height	5/32"	13/64"	15/64"	9/32"	5/16"	23/64"	25/64"	15/32"	35/64"	39/64"	11/16"	25/32"	15/16"
Length	Under Head to Extreme Point												

### HEX HEAD CAP SCREWS

#### GRADE 5



- Zinc Plated
- Diameter's larger than 1" available on request

UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>1/4" DIAMETER</b>			
103-016P	104-016P	1/2	100
103-018P	104-018P	3/4	100
103-020P	104-020P	1	100
103-021P	104-021P	1 1/4	100
103-022P	104-022P	1 1/2	100
103-023P	104-023P	1 3/4	100
103-024P	104-024P	2	100
103-025P	104-025P	2 1/4	100
103-026P	104-026P	2 1/2	100
103-027P	104-027P	2 3/4	100
103-028P	104-028P	3	100
103-030P	104-030P	3 1/2	100
103-032P	104-032P	4	100
103-033P	104-033P	4 1/2	50
103-034P	104-034P	5	50
103-035P	104-035P	5 1/2	50
103-036P	104-036P	6	50
<b>5/16" DIAMETER</b>			
103-043P	104-043P	1/2	100
103-045P	104-045P	3/4	100
103-047P	104-047P	1	100
103-048P	104-048P	1 1/4	100
103-049P	104-049P	1 1/2	100
103-050P	104-050P	1 3/4	100
103-051P	104-051P	2	100
103-052P	104-052P	2 1/4	100
103-053P	104-053P	2 1/2	100
103-054P	104-054P	2 3/4	100
103-055P	104-055P	3	100
103-057P	104-057P	3 1/2	100
103-059P	104-059P	4	100
103-060P	104-060P	4 1/2	50
103-061P	104-061P	5	50
103-062P	104-062P	5 1/2	50
103-063P	104-063P	6	50

UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>3/8" DIAMETER</b>			
103-076P	104-076P	1/2	100
103-078P	104-078P	3/4	100
103-080P	104-080P	1	100
103-081P	104-081P	1 1/4	100
103-082P	104-082P	1 1/2	100
103-083P	104-083P	1 3/4	100
103-084P	104-084P	2	100
103-085P	104-085P	2 1/4	100
103-086P	104-086P	2 1/2	100
103-087P	104-087P	2 3/4	100
103-088P	104-088P	3	100
103-090P	104-090P	3 1/2	100
103-092P	104-092P	4	50
103-093P	104-093P	4 1/2	50
103-094P	104-094P	5	50
103-095P	104-095P	5 1/2	50
103-096P	104-096P	6	50
<b>7/16" DIAMETER</b>			
103-111P	104-111P	3/4	100
103-113P	104-113P	1	50
103-114P	104-114P	1 1/4	50
103-115P	104-115P	1 1/2	50
103-116P	104-116P	1 3/4	50
103-117P	104-117P	2	50
103-118P	104-118P	2 1/4	50
103-119P	104-119P	2 1/2	50
103-120P	104-120P	2 3/4	50
103-121P	104-121P	3	50
103-123P	104-123P	3 1/2	25
103-125P	104-125P	4	25
103-126P	104-126P	4 1/2	25
103-127P	104-127P	5	25
103-128P	104-128P	5 1/2	25
103-129P	104-129P	6	25

# FASTENERS

## Hex Head Cap Screws

### HEX HEAD CAP SCREWS (CONT)

#### GRADE 5 (CONT)

UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>1/2" DIAMETER</b>			
103-148P	104-148P	3/4	50
103-150P	104-150P	1	50
103-151P	104-151P	1 1/4	50
103-152P	104-152P	1 1/2	50
103-153P	104-153P	1 3/4	50
103-154P	104-154P	2	50
103-155P	104-155P	2 1/4	50
103-156P	104-156P	2 1/2	50
103-157P	104-157P	2 3/4	50
103-158P	104-158P	3	50
103-160P	104-160P	3 1/2	25
103-162P	104-162P	4	25
103-163P	104-163P	4 1/2	25
103-164P	104-164P	5	25
103-165P	104-165P	5 1/2	25
103-166P	104-166P	6	25
<b>9/16" DIAMETER</b>			
103-186P	104-186P	1	25
103-187P	104-187P	1 1/4	25
103-188P	104-188P	1 1/2	25
103-189P	104-189P	1 3/4	25
103-190P	104-190P	2	25
103-191P	104-191P	2 1/4	25
103-192P	104-192P	2 1/2	25
103-193P	104-193P	2 3/4	25
103-194P	104-194P	3	25
103-196P	104-196P	3 1/2	25
103-198P	104-198P	4	25
103-199P	104-199P	4 1/2	25
103-200P	104-200P	5	25
103-201P	104-201P	5 1/2	25
103-202P	104-202P	6	25
<b>5/8" DIAMETER</b>			
103-210P	104-210P	1	25
103-211P	104-211P	1 1/4	25
103-212P	104-212P	1 1/2	25
103-213P	104-213P	1 3/4	25
103-214P	104-214P	2	25
103-215P	104-215P	2 1/4	25
103-216P	104-216P	2 1/2	25
103-217P	104-217P	2 3/4	25
103-218P	104-218P	3	25
103-220P	104-220P	3 1/2	25
103-222P	104-222P	4	25
103-223P	104-223P	4 1/2	25
103-224P	104-224P	5	25
103-225P	104-225P	5 1/2	25
103-226P	104-226P	6	25

UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>3/4" DIAMETER</b>			
103-243P	104-243P	1	20
103-244P	104-244P	1 1/4	20
103-245P	104-245P	1 1/2	20
103-246P	104-246P	1 3/4	20
103-247P	104-247P	2	20
103-248P	104-248P	2 1/4	20
103-249P	104-249P	2 1/2	20
103-250P	104-250P	2 3/4	20
103-251P	104-251P	3	20
103-253P	104-253P	3 1/2	20
103-255P	104-255P	4	20
103-256P	104-256P	4 1/2	20
103-257P	104-257P	5	20
103-258P	104-258P	5 1/2	20
103-259P	104-259P	6	20
<b>7/8" DIAMETER</b>			
103-279P	104-279P	1 1/2	15
103-280P	104-280P	1 3/4	15
103-281P	104-281P	2	15
103-282P	104-282P	2 1/4	15
103-283P	104-283P	2 1/2	15
103-284P	104-284P	2 3/4	15
103-285P	104-285P	3	15
103-287P	104-287P	3 1/2	15
103-289P	104-289P	4	15
103-290P	104-290P	4 1/2	15
103-291P	104-291P	5	15
103-292P	104-292P	5 1/2	15
103-293P	104-293P	6	15
<b>1" DIAMETER</b>			
103-313P	104-313P	2	10
103-314P	104-314P	2 1/4	10
103-315P	104-315P	2 1/2	10
103-316P	104-316P	2 3/4	10
103-317P	104-317P	3	10
103-319P	104-319P	3 1/2	10
103-321P	104-321P	4	10
103-322P	104-322P	4 1/2	10
103-323P	104-323P	5	10
103-324P	104-324P	5 1/2	10
103-325P	104-325P	6	10

### HEX HEAD CAP SCREWS (CONT)

#### GRADE 8

- Yellow Zinc Plated
- Diameter's larger than 1" available on request



UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>1/4" DIAMETER</b>			
105-016P	106-016P	1/2	100
105-018P	106-018P	3/4	100
105-020P	106-020P	1	100
105-021P	106-021P	1 1/4	100
105-022P	106-022P	1 1/2	100
105-023P	106-023P	1 3/4	100
105-024P	106-024P	2	100
105-025P	106-025P	2 1/4	100
105-026P	106-026P	2 1/2	100
105-027P	106-027P	2 3/4	100
105-028P	106-028P	3	100
105-030P	106-030P	3 1/2	50
105-032P	106-032P	4	50
105-033P	106-033P	4 1/2	50
105-034P	106-034P	5	50
105-035P	106-035P	5 1/2	50
105-036P	106-036P	6	50
<b>5/16" DIAMETER</b>			
105-043P	106-043P	1/2	100
105-045P	106-045P	3/4	100
105-047P	106-047P	1	100
105-048P	106-048P	1 1/4	100
105-049P	106-049P	1 1/2	100
105-050P	106-050P	1 3/4	100
105-051P	106-051P	2	100
105-052P	106-052P	2 1/4	100
105-053P	106-053P	2 1/2	100
105-054P	106-054P	2 3/4	100
105-055P	106-055P	3	100
105-057P	106-057P	3 1/2	50
105-059P	106-059P	4	50
105-060P	106-060P	4 1/2	50
105-061P	106-061P	5	50
105-062P	106-062P	5 1/2	50
105-063P	106-063P	6	50
<b>3/8" DIAMETER</b>			
105-076P	106-076P	1/2	100
105-078P	106-078P	3/4	100
105-080P	106-080P	1	100
105-081P	106-081P	1 1/4	100
105-082P	106-082P	1 1/2	100
105-083P	106-083P	1 3/4	100
105-084P	106-084P	2	100
105-085P	106-085P	2 1/4	100
105-086P	106-086P	2 1/2	100
105-087P	106-087P	2 3/4	100
105-088P	106-088P	3	100

UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>3/8" DIAMETER (CONT)</b>			
105-090P	106-090P	3 1/2	50
105-092P	106-092P	4	50
105-093P	106-093P	4 1/2	50
105-094P	106-094P	5	50
105-095P	106-095P	5 1/2	50
105-096P	106-096P	6	50
<b>7/16" DIAMETER</b>			
105-113P	106-113P	1	50
105-114P	106-114P	1 1/4	50
105-115P	106-115P	1 1/2	50
105-116P	106-116P	1 3/4	50
105-117P	106-117P	2	50
105-118P	106-118P	2 1/4	50
105-119P	106-119P	2 1/2	50
105-120P	106-120P	2 3/4	50
105-121P	106-121P	3	50
105-123P	106-123P	3 1/2	25
105-125P	106-125P	4	25
105-126P	106-126P	4 1/2	25
105-127P	106-127P	5	25
105-128P	106-128P	5 1/2	25
105-129P	106-129P	6	25
<b>1/2" DIAMETER</b>			
105-148P	106-148P	3/4	50
105-150P	106-150P	1	50
105-151P	106-151P	1 1/4	50
105-152P	106-152P	1 1/2	50
105-153P	106-153P	1 3/4	50
105-154P	106-154P	2	50
105-155P	106-155P	2 1/4	50
105-156P	106-156P	2 1/2	50
105-157P	106-157P	2 3/4	50
105-158P	106-158P	3	50
105-160P	106-160P	3 1/2	25
105-162P	106-162P	4	25
105-163P	106-163P	4 1/2	25
105-164P	106-164P	5	25
105-165P	106-165P	5 1/2	25
105-166P	106-166P	6	25
105-168P	106-168P	7	20
105-170P	106-170P	8	20
<b>9/16" DIAMETER</b>			
105-186P	106-186P	1	25
105-187P	106-187P	1 1/4	25
105-188P	106-188P	1 1/2	25
105-189P	106-189P	1 3/4	25
105-190P	106-190P	2	25
105-191P	106-191P	2 1/4	25
105-192P	106-192P	2 1/2	25
105-193P	106-193P	2 3/4	25
105-194P	106-194P	3	25
105-196P	106-196P	3 1/2	25
105-198P	106-198P	4	25

# FASTENERS

## Hex Head Cap Screws

### HEX HEAD CAP SCREWS (CONT)

#### GRADE 8 (CONT)

UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>9/16" DIAMETER (CONT)</b>			
105-199P	106-199P	4 1/2	25
105-200P	106-200P	5	25
105-201P	106-201P	5 1/2	25
105-202P	106-202P	6	25
<b>5/8" DIAMETER</b>			
105-210P	106-210P	1	25
105-211P	106-211P	1 1/4	25
105-212P	106-212P	1 1/2	25
105-213P	106-213P	1 3/4	25
105-214P	106-214P	2	25
105-215P	106-215P	2 1/4	25
105-216P	106-216P	2 1/2	25
105-217P	106-217P	2 3/4	25
105-218P	106-218P	3	25
105-220P	106-220P	3 1/2	25
105-222P	106-222P	4	25
105-223P	106-223P	4 1/2	25
105-224P	106-224P	5	25
105-225P	106-225P	5 1/2	25
105-226P	106-226P	6	25
105-228P	106-228P	7	10
105-230P	106-230P	8	10
<b>3/4" DIAMETER</b>			
105-243P	106-243P	1	20
105-244P	106-244P	1 1/4	20
105-245P	106-245P	1 1/2	20
105-246P	106-246P	1 3/4	20
105-247P	106-247P	2	20
105-248P	106-248P	2 1/4	20
105-249P	106-249P	2 1/2	20
105-250P	106-250P	2 3/4	20
105-251P	106-251P	3	20
105-253P	106-253P	3 1/2	20
105-255P	106-255P	4	20
105-256P	106-256P	4 1/2	20
105-257P	106-257P	5	20
105-258P	106-258P	5 1/2	20
105-259P	106-259P	6	20
<b>7/8" DIAMETER</b>			
105-279P	106-279P	1 1/2	15
105-280P	106-280P	1 +	15
105-281P	106-281P	2	15
105-282P	106-282P	2 1/4	15
105-283P	106-283P	2 1/2	15
105-284P	106-284P	2 3/4	15
105-285P	106-285P	3	15

UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>7/8" DIAMETER (CONT)</b>			
105-287P	106-287P	3 1/2	15
105-289P	106-289P	4	15
105-290P	106-290P	4 1/2	15
105-291P	106-291P	5	15
105-292P	106-292P	5 1/2	15
105-293P	106-293P	6	15
105-295P	106-295P	7	10
105-297P	106-297P	8	10
<b>1" DIAMETER</b>			
105-313P	106-313P	2	10
105-314P	106-314P	2 1/4	10
105-315P	106-315P	2 1/2	10
105-316P	106-316P	2 3/4	10
105-317P	106-317P	3	10
105-319P	106-319P	3 1/2	10
105-321P	106-321P	4	10
105-322P	106-322P	4 1/2	10
105-323P	106-323P	5	10
105-324P	106-324P	5 1/2	10
105-325P	106-325P	6	10
105-327P	106-327P	7	10
105-329P	106-329P	8	10

### HEX HEAD CAP SCREWS (CONT)

#### 18-8 STAINLESS STEEL

STAINLESS STEEL FASTENERS MECHANICAL PROPERTIES 18-8 (304 TYPE 1)						
Conditions Size	Full Size Tests			Machined Specimen Tests		
	Tensile Strength MIN ksi	Yield Strength MIN ksi	Rockwell Hardness	Tensile Strength MIN ksi	Yield Strength MIN ksi	Elongation MIN %
1/4" to 5/8"	100	65	B95 to C32	95	60	20

CHEMICAL PROPERTIES Composition, % maximum								
Type	C	Mn	Package	S	Si	Cr	Ni	Mo
*18-8	0.08	2.00	0.045	0.030	1.00	18.0 to 12.0	8.0 to 12.0	

\* 18-8 is Type 1304 Type 1 of cold worked (CW) condition. Headed and rolled from annealed stock thus requiring a degree of cold work. Size .75 in. and larger may be hot worked.

C = Carbon      P = Phosphorus      Si = Silicone      Ni = Nickel  
Mn = Manganese      S = Sulphur      Cr = Chromium      Mo = Molybdenum



PRODUCT CODE	SIZE	WEIGHT PER 100 PCS	PKG QTY
530-016S	1/4 x 1/2	1.19	100
530-018S	1/4 x 3/4	1.46	100
530-020S	1/4 x 1	1.76	100
530-021S	1/4 x 1 1/4	2.10	50
530-022S	1/4 x 1 1/2	2.46	50
530-023S	1/4 x 1 3/4	2.80	50
530-024S	1/4 x 2	3.15	50
530-025S	1/4 x 2 1/4	3.50	50
530-026S	1/4 x 2 1/2	3.85	25
530-027S	1/4 x 2 3/4	4.20	25
530-028S	1/4 x 3	4.55	25
530-043S	5/16 x 1/2	2.01	50
530-045S	5/16 x 3/4	2.44	50
530-047S	5/16 x 1	2.86	50
530-048S	5/16 x 1 1/4	3.41	50
530-049S	5/16 x 1 1/2	3.95	50
530-050S	5/16 x 1 3/4	4.50	50
530-051S	5/16 x 2	5.05	50
530-052S	5/16 x 2 1/4	5.58	25
530-053S	5/16 x 2 1/2	6.13	25
530-054S	5/16 x 2 3/4	6.67	25
530-055S	5/16 x 3	7.22	25
530-057S	5/16 x 3 1/2	.30	10
530-059S	5/16 x 4	9.39	10

PRODUCT CODE	SIZE	WEIGHT PER 100 PCS	PKG QTY
530-078S	3/8 x 3/4	3.59	50
530-080S	3/8 x 1	4.22	50
530-081S	3/8 x 1 1/4	4.91	50
530-082S	3/8 x 1 1/2	5.70	25
530-083S	3/8 x 1 3/4	6.49	25
530-084S	3/8 x 2	7.27	25
530-085S	3/8 x 2 1/4	8.06	25
530-086S	3/8 x 2 1/2	8.84	25
530-087S	3/8 x 2 3/4	9.62	25
530-088S	3/8 x 3	10.41	10
530-090S	3/8 x 3 1/2	11.98	10
530-092S	3/8 x 4	13.55	10
530-113S	7/16 x 1	5.99	25
530-115S	7/16 x 1 1/2	7.91	25
530-117S	7/16 x 2	10.05	25
530-119S	7/16 x 2 1/2	12.19	25
530-121S	7/16 x 3	14.34	10
530-123S	7/16 x 3 1/2	16.48	10
530-125S	7/16 x 4	18.61	10
530-150S	1/2 x 1	9.32	25
530-151S	1/2 x 1 1/4	10.45	25
530-152S	1/2 x 1 1/2	11.72	25
530-153S	1/2 x 1 3/4	13.11	25
530-154S	1/2 x 2	14.51	20
530-155S	1/2 x 2 1/4	15.90	20
530-156S	1/2 x 2 1/2	17.30	20
530-157S	1/2 x 2 3/4	18.69	20
530-158S	1/2 x 3	20.09	10
530-160S	1/2 x 3 1/2	22.88	10
530-162S	1/2 x 4	25.67	10
530-164S	1/2 x 4 1/2	28.46	10
530-166S	1/2 x 5	31.25	10
530-210S	5/8 x 1	15.33	25
530-211S	5/8 x 1 1/4	17.12	25
530-212S	5/8 x 1 1/2	18.91	20
530-214S	5/8 x 2	23.07	20
530-215S	5/8 x 2 1/4	25.24	20
530-216S	5/8 x 2 1/2	27.43	20
530-217S	5/8 x 2 3/4	29.60	20
530-218S	5/8 x 3	31.79	10
530-220S	5/8 x 3 1/2	36.14	10
530-222S	5/8 x 4	40.50	10
530-224S	5/8 x 5	49.22	10
530-245S	3/4 x 1 1/2	29.99	20
530-247S	3/4 x 2	35.51	20
530-249S	3/4 x 2 1/2	41.79	20
530-251S	3/4 x 3	48.08	10
530-253S	3/4 x 3 1/2	54.37	10
530-255S	3/4 x 4	60.66	10
530-257S	3/4 x 4 1/2	66.95	10
530-259S	3/4 x 5	73.24	10

# FASTENERS

## Washers

### WASHERS

#### FLAT WASHERS - U.S.S.

- Zinc Plated
- U.S.S. Wrought Washers



PRODUCT CODE	BOLT SIZE	APPROX. PIECE PER LB
133-013R	1/4	132
133-015R	5/16	96
133-017R	3/8	75
133-019R	7/16	38
133-020R	1/2	27
133-021R	9/16	23
133-022R	5/8	13
133-024R	3/4	9
133-026R	7/8	7
133-028R	1	6

#### FLAT WASHERS - S.A.E.

- Zinc Plated
- Smooth surface



PRODUCT CODE	BOLT SIZE	APPROX. PIECE PER LB
134-013R	1/4	225
134-015R	5/16	200
134-017R	3/8	140
134-019R	7/16	105
134-020R	1/2	55
134-021R	9/16	45
134-022R	5/8	36
134-024R	3/4	22
134-026R	7/8	16
134-028R	1	12

#### FLAT WASHERS - 18-8 STAINLESS STEEL



PRODUCT CODE	SIZE	WEIGHT PER 100 PIECES	O.D.	I.D.	THICKNESS	PKG QTY
540-007S	#8 (5/32)	0.08	3/8	11/64	1/32	250
540-009S	#10 (3/16)	0.12	3/8	13/64	3/64	250
540-011S	#12 (7/32)	0.18	1/2	15/64	3/64	250
540-013S	1/4	0.44	5/8	9/32	3/64	100
540-015S	5/16	0.88	3/4	11/32	3/64	100
540-017S	3/8	1.15	7/8	25/64	3/64	100
540-019S	7/16	1.75	1 1/8	1/2	1/16	50
540-020S	1/2	2.12	1 1/4	17/32	5/64	50
540-022S	5/8	3.00	1 1/2	11/16	5/64	25
540-024S	3/4	6.76	1 3/4	13/16	7/64	25

#### FLAT WASHERS - F436 GRADE 8

- Yellow Zinc Plated



PRODUCT CODE (PACKAGE)	PRODUCT CODE (BULK)	SIZE	PKG QTY	BULK QTY
137-004P	137-004K	1/4	100	9000
137-005P	137-005K	5/16	100	6000
137-006P	137-006K	3/8	100	5000
137-007P	137-007K	7/16	50	3000
137-008P	137-008K	1/2	50	1900
137-009P	137-009K	9/16	25	1700
137-010P	137-010K	5/8	25	1000
137-011P	137-011K	3/4	20	700
137-012P	137-012K	7/8	20	500
137-013P	137-013K	1	20	400
137-014P	137-014K	1 1/8	20	330
137-015P	137-015K	1 1/4	20	275
137-016P	137-016K	1 1/2	20	140

#### FLAT FENDER WASHERS

- Used primarily for body and fender work
- Zinc plated



PRODUCT CODE	BOLT SIZE	O.D. (IN)	I.D. (IN)	THICKNESS	QTY
<b>BOXED</b>					
452-009	3/16	3/4	13/64	3/64	Pkg 100
452-011	3/16	1	13/64	3/64	Pkg 100
452-013	1/4	1 1/4	9/32	1/16	Pkg 100
452-014	5/16A	1	11/32	1/16	Pkg 100
452-015	5/16B	1 1/4	11/32	1/16	Pkg 100
452-016	5/16C	1 1/2	11/32	1/16	Pkg 100
452-017	3/8	1 1/2	13/32	1/16	Pkg 100
452-019	1/2	2	17/32	1/16	Pkg 100
<b>BULK</b>					
452-009K	3/16	3/4	13/64	3/64	Approx 7462
452-011K	3/16	1	13/64	3/64	Approx 4080
452-013K	1/4	1 1/4	9/32	1/16	Approx 1943
452-014K	5/16A	1	11/32	1/16	Approx 3282
452-015K	5/16B	1 1/4	11/32	1/16	Approx 2128
452-016K	5/16C	1 1/2	11/32	1/16	Approx 1482
452-017K	3/8	1 1/2	13/32	1/16	Approx 1652
452-019K	1/2	2	17/32	1/16	Approx 682

## WASHERS (CONT)

### LOCK WASHERS - REGULAR

- Zinc Plated
- High Carbon Steel



PRODUCT CODE	SIZE	PKG QTY
<b>136-013Q</b>	1/4	100
<b>136-015Q</b>	5/16	100
<b>136-017Q</b>	3/8	100
<b>136-019Q</b>	7/16	100
<b>136-020Q</b>	1/2	50
<b>136-021Q</b>	9/16	50
<b>136-022Q</b>	5/8	50
<b>136-024Q</b>	3/4	25
<b>136-026Q</b>	7/8	25
<b>136-028Q</b>	1	25

### LOCK WASHERS - GRADE 8

- Yellow Zinc Plated



PRODUCT CODE (PACKAGE)	PRODUCT CODE (BULK)	SIZE	PKG QTY	CASE QTY
<b>138-004P</b>	<b>138-004K</b>	1/4	100	15000
<b>138-005P</b>	<b>138-005K</b>	5/16	100	10000
<b>138-006P</b>	<b>138-006K</b>	3/8	100	6000
<b>138-007P</b>	<b>138-007K</b>	7/16	50	4000
<b>138-008P</b>	<b>138-008K</b>	1/2	50	3000
<b>138-009P</b>	<b>138-009K</b>	9/16	25	2000
<b>138-010P</b>	<b>138-010K</b>	5/8	25	1500
<b>138-011P</b>	<b>138-011K</b>	3/4	20	1000
<b>138-012P</b>	<b>138-012K</b>	7/8	20	600
<b>138-013P</b>	<b>138-013K</b>	1	20	400
<b>138-014P</b>	<b>138-014K</b>	1 1/8	20	300
<b>138-015P</b>	<b>138-015K</b>	1 1/4	20	250
<b>138-016P</b>	<b>138-016K</b>	1 1/2	20	100

### LOCK WASHERS - 18-8 STAINLESS STEEL



PRODUCT CODE	SIZE	WEIGHT PER 100 PCS	PKG QTY
<b>541-005S</b>	#8 (5/32)	0.08	250
<b>541-009S</b>	#10 (3/16)	0.12	250
<b>541-011S</b>	#12 (7/32)	0.18	250
<b>541-013S</b>	1/4	0.44	100
<b>541-015S</b>	5/16	0.88	100
<b>541-017S</b>	3/8	1.15	100
<b>541-019S</b>	7/16	1.75	50
<b>541-020S</b>	1/2	2.12	50
<b>541-022S</b>	5/8	3.00	25
<b>541-024S</b>	3/4	6.76	25

## NUTS

### FINISHED HEX NUTS - GRADE 5

- Zinc Plated



UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>177-016P</b>	<b>177-116P</b>	1/4	100
<b>177-020P</b>	<b>177-120P</b>	5/16	100
<b>177-024P</b>	<b>177-124P</b>	3/8	100
<b>177-028P</b>	<b>177-128P</b>	7/16	50
<b>177-030P</b>	<b>177-130P</b>	1/2	50
<b>177-036P</b>	<b>177-136P</b>	9/16	25
<b>177-040P</b>	<b>177-140P</b>	5/8	25
<b>177-048P</b>	<b>177-148P</b>	3/4	20
<b>177-056P</b>	<b>177-156P</b>	7/8	20
<b>177-064P</b>	<b>177-164P</b>	1	20

### FINISHED HEX NUTS - GRADE 8

- Yellow Zinc Plated



UNC COARSE THREAD U.S.S. PRODUCT CODE	UNF FINE THREAD S.A.E. PRODUCT CODE	SIZE	PKG QTY
<b>178-009P</b>	<b>179-009P</b>	1/4	100
<b>178-010P</b>	<b>179-010P</b>	5/16	100
<b>178-011P</b>	<b>179-011P</b>	3/8	100
<b>178-012P</b>	<b>179-012P</b>	7/16	50
<b>178-013P</b>	<b>179-013P</b>	1/2	50
<b>178-014P</b>	<b>179-014P</b>	9/16	25
<b>178-015P</b>	<b>179-015P</b>	5/8	25
<b>178-016P</b>	<b>179-016P</b>	3/4	20
<b>178-017P</b>	<b>179-017P</b>	7/8	20
<b>178-018P</b>	<b>179-018P</b>	1	20

### FINISHED HEX NUTS - 18-8 STAINLESS STEEL



UNC COARSE THREAD U.S.S. PRODUCT CODE	SIZE	PKG QTY
<b>534-009S</b>	1/4	100
<b>534-010S</b>	5/16	100
<b>534-011S</b>	3/8	50
<b>534-012S</b>	7/16	50
<b>534-013S</b>	1/2	25
<b>534-015S</b>	5/8	10
<b>534-016S</b>	3/4	10

# FASTENERS

## Nuts

### NUTS (CONT)

#### NYLON INSERT LOCK NUTS - GRADE 2

- Zinc Plated
- Coarse and Fine Thread



##### U.N.C. Coarse Thread U.S.S.

PRODUCT CODE (PACKAGE)	PRODUCT CODE (BULK)	SIZE	PKG QTY	BULK QTY
205-005P	205-005K	6-32	100	14000
205-006P	205-006K	8-32	100	8500
205-007P	205-007K	10-24	100	7000
205-009P	205-009K	1/4-20	100	3400
205-010P	205-010K	5/16-18	100	2300
205-011P	205-011K	3/8-16	100	1250
205-012P	205-012K	7/16-14	50	950
205-013P	205-013K	1/2-13	50	600
205-014P	205-014K	9/16-12	25	475
205-015P	205-015K	5/8-11	25	325
205-016P	205-016K	3/4-10	20	200
205-017P	205-017K	7/8-9	20	130
205-018P	205-018K	1-8	20	90

##### U.N.F. Fine Thread S.A.E.

PRODUCT CODE (PACKAGE)	PRODUCT CODE (BULK)	SIZE	PKG QTY	BULK QTY
206-007P	206-007K	10-32	100	7000
206-009P	206-009K	1/4-28	100	3400
206-010P	206-010K	5/16-24	100	2300
206-011P	206-011K	3/8-24	100	1250
206-012P	206-012K	7/16-20	50	950
206-013P	206-013K	1/2-20	50	600
206-014P	206-014K	9/16-18	25	475
206-015P	206-015K	5/8-18	25	325
206-016P	206-016K	3/4-16	20	200
206-017P	206-017K	7/8-14	20	130
206-018P	206-018K	1-14	20	90

#### NYLON INSERT LOCK NUTS - GRADE 8

- Yellow Zinc Plated
- Coarse and Fine Thread



##### U.N.C. Coarse Thread U.S.S.

PRODUCT CODE (PACKAGE)	PRODUCT CODE (BULK)	SIZE	PKG QTY	BULK QTY
207-009P	207-009K	1/4-20	100	3400
207-010P	207-010K	5/16-18	100	2300
207-011P	207-011K	3/8-16	100	1250
207-012P	207-012K	7/16-14	50	950
207-013P	207-013K	1/2-13	50	600
207-014P	207-014K	9/16-12	25	475
207-015P	207-015K	5/8-11	25	325
207-016P	207-016K	3/4-10	20	200
207-017P	207-017K	7/8-9	20	130
207-018P	207-018K	1-8	20	90

##### U.N.F. Fine Thread S.A.E.

PRODUCT CODE (PACKAGE)	PRODUCT CODE (BULK)	SIZE	PKG QTY	BULK QTY
208-009P	208-009K	1/4-28	100	3400
208-010P	208-010K	5/16-24	100	2300
208-011P	208-011K	3/8-24	100	1250
208-012P	208-012K	7/16-20	50	950
208-013P	208-013K	1/2-20	50	600
208-014P	208-014K	9/16-18	25	475
208-015P	208-015K	5/8-18	25	325
208-016P	208-016K	3/4-16	20	200
208-017P	208-017K	7/8-14	20	130
208-018P	208-018K	1-14	20	90

#### NYLON INSERT LOCK NUTS - 18-8 STAINLESS STEEL



##### U.N.C. Coarse Thread U.S.S.

PRODUCT CODE	SIZE	WEIGHT PER PACKAGE	PKG QTY
549-008S	1/4	4 lbs	100
549-013S	5/16	5 lbs	100
549-018S	3/8	5 lbs	50
549-028S	1/2	6 lbs	25
549-033S	5/8	3 lbs	10

### STOVER® AUTOMATION LOCK NUTS



##### GRADE - C

- Cadmium plate and wax, ASTM B766
- Proof stress 150,000 psi
- For use with grades 5 and 8 bolts

UNC *PRODUCT CODE	UNF *PRODUCT CODE	SIZE	WEIGHT PER 100	PKG QTY	BULK QTY
290-109	291-109	1/4	0.67	100	6000
290-110	291-110	5/16	0.98	100	4000
290-111	291-111	3/8	1.34	100	2800
290-112	291-112	7/16	2.50	50	1600
290-113	291-113	1/2	3.25	50	1200
290-114	291-114	9/16	5.37	25	800
290-115	291-115	5/8	6.70	25	600
290-116	291-116	3/4	11.50	20	340
290-117	291-117	7/8	17.30	20	225
290-118	291-118	1	25.00	20	160

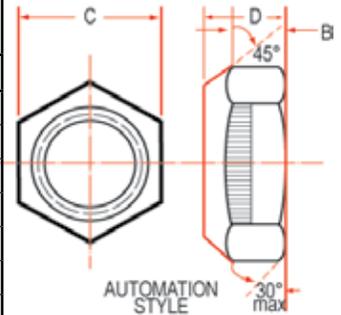
\* When ordering, please state (B) for Bulk and (K) for Package at the end of the Product Code

See STOVER® Locknut Specifications next page

### STOVER® AUTOMATION LOCK NUT SPECIFICATIONS

#### AUTOMATION GRADE C

NOM. SIZE IN INCHES	C WIDTH ACROSS FLATS			F FLANGE DIAM. (MAX.)	D OVERALL THICKNESS		B HEX HEIGHT (MIN.)	K FLANGE THICK. (MIN.)	BASIC PART NUMBER	
	NOM.	MAX.	MIN.		MAX.	MIN.			COARSE	FINE
1/4	7/16	0.4385	0.428	-	0.226	0.212	0.145	-	NT8303	NT8353
5/16	1/2	0.5020	0.489	-	0.273	0.258	0.166	-	NT8305	NT8355
3/8	9/16	0.5645	0.551	-	0.337	0.320	0.198	-	NT8307	NT8357
7/16	11/16	0.6895	0.675	-	0.385	0.365	0.223	-	NT8309	NT8359
1/2	3/4	0.7520	0.736	-	0.448	0.427	0.262	-	NT8313	NT8363
9/16	7/8	0.8770	0.861	-	0.496	0.473	0.286	-	NT8315	NT8365
5/8	15/16	0.9395	0.922	-	0.559	0.535	0.329	-	NT8317	NT8367
3/4	1 1/8	1.1270	1.088	-	0.665	0.617	0.382	-	NT8319	NT8369



#### GRADE C HEX LOCK NUTS - FOR USE WITH GRADE 8 BOLTS

NOM. SIZE AND THREADS PER INCH	IF 100 & 107							IFI 101		TORQUE-TENSION GUIDE FOR STOVER® LOCKNUT-ASSEMBLY (FOR GR5 ONLY)
	PROOF LOAD	CLAMP LOAD	PREVAILING TORQUE				TORQUE-TENSION TEST REQUIREMENT: TIGHTENING TORQUE			
			FIRST INSTALLATION	FIRST REMOVAL		FIFTH REMOVAL				
	LBS.	LBS.	LB. IN. (FT.)* MAX.	LBS. IN.		LBS. IN.		LB. FT. MAX	LB. FT. MIN	
			HIGHEST	LOWEST	HIGHEST	LOWEST			LB. FT. AVERAGE	
1/4-20	4,700	2,850	40	6.0	3.0	4.5	2.0	10.4	7.1	7.9
1/4-28	5,450	3,250	40	6.0	3.0	4.5	2.0	10.4	7.1	7.9
5/16-18	7,850	4,700	80	10.5	5.0	7.5	3.0	15.8	10.8	13.0
5/16-24	8,700	5,200	80	10.5	5.0	7.5	3.0	16.7	11.7	13.0
3/8-16	11,600	6,950	110	16.0	7.5	11.5	5.0	28.0	20.0	24.0
3/8-24	13,200	7,900	110	16.0	7.5	11.5	5.0	29.0	21.0	25.0
7/16-14	15,900	9,600	135	23.0	10.0	16.0	7.5	43.0	31.0	35.0
7/16-20	17,800	10,700	135	23.0	10.0	16.0	7.5	43.0	31.0	35.0
1/2-13	21,300	12,800	17*	30.0	15.0	20.0	10.0	62.5	45.0	55.0
1/2-20	24,000	14,400	17*	30.0	15.0	20.0	10.0	70.0	50.0	55.0
9/16-12	27,300	16,400	25*	40.0	20.0	28.0	12.5	95.0	70.0	82.0
9/16-18	30,400	18,300	25*	40.0	20.0	28.0	12.5	95.0	70.0	85.0
5/8-11	33,900	20,300	35*	52.0	25.0	36.0	15.0	122.5	90.0	100.0
5/8-18	38,400	23,000	35*	52.0	25.0	36.0	15.0	125.0	90.0	113.0
3/4-10	50,100	30,100	45*	78.0	35.0	54.0	25.0	210.0	155.0	165.0
3/4-16	56,000	33,600	45*	78.0	35.0	54.0	25.0	210.0	155.0	175.0
7/8-9	69,300	41,600	70*	117.0	50.0	82.0	40.0	312.5	225.0	274.0
7/8-14	76,400	45,800	70*	117.0	50.0	82.0	40.0	312.5	225.0	280.0
1-8	90,900	54,600	90*	160.0	80.0	112.0	50.0	462.5	350.0	409.0
1-14	101,900	61,100	90*	160.0	80.0	112.0	50.0	500.0	362.5	428.0

# FASTENERS

Metric Hexagon Head Cap Screws • Metric Socket Head Cap Screws

## METRIC CAP SCREW DIMENSIONS

Size	Across Flats • A •		Head Height • H •		Threads per inch  (approx)
	mm	inch	mm	inch	
6	10	.394	4.5	.177	25
8	13	.512	5.5	.217	20
10	17	.669	7	.276	17
12	19	.748	8	.315	14 1/2
14	22	.866	9	.359	12 1/2
16	24	.945	10.5	.413	12 1/2
18	27	1.063	12	.472	10
20	30	1.181	13	.512	10

## METRIC HEXAGON HEAD CAP SCREWS

- DIN Metric Specification
- High Tensile Steel - Code 8.8
- 114,000 P.S.I. (Similar to S.A.E. Grade 5)
- Colour Dichromate Plated for easy metric identification
- Coarse Thread



	PRODUCT CODE	SIZE	PKG QTY
+	<b>227-074R</b>	6 x 16	100
+	<b>227-076R</b>	6 x 20	100
+	<b>227-078R</b>	6 x 25	100
+	<b>227-079R</b>	6 x 30	100
+	<b>227-081R</b>	6 x 40	100
+	<b>227-083R</b>	6 x 50	100
+	<b>227-115R</b>	8 x 12	100
+	<b>227-120R</b>	8 x 20	100
+	<b>227-122R</b>	8 x 25	100
+	<b>227-123R</b>	8 x 30	100
+	<b>227-124R</b>	8 x 35	100
+	<b>227-125R</b>	8 x 40	100
+	<b>227-126R</b>	8 x 45	100
+	<b>227-127R</b>	8 x 50	100
+	<b>227-129R</b>	8 x 60	100
+	<b>227-147R</b>	10 x 16	100
+	<b>227-149R</b>	10 x 20	100
+	<b>227-151R</b>	10 x 25	100
+	<b>227-152R</b>	10 x 30	100
+	<b>227-153R</b>	10 x 35	100
++	<b>227-155R</b>	10 x 45	100
++	<b>227-159R</b>	10 x 65	100
++	<b>227-160R</b>	10 x 70	100
++	<b>227-161R</b>	10 x 75	50
+	<b>227-186R</b>	12 x 20	50
+	<b>227-188R</b>	12 x 25	50
+	<b>227-189R</b>	12 x 30	50
+	<b>227-190R</b>	12 x 35	50
+	<b>227-191R</b>	12 x 40	50
++	<b>227-192R</b>	12 x 45	50
++	<b>227-193R</b>	12 x 50	50
++	<b>227-195R</b>	12 x 60	50
++	<b>227-196R</b>	12 x 65	50

	PRODUCT CODE	SIZE	PKG QTY
++	<b>227-198R</b>	12 x 75	50
++	<b>227-199R</b>	12 x 80	50
+	<b>227-256R</b>	16 x 30	25
+	<b>227-258R</b>	16 x 40	25
+	<b>227-259R</b>	16 x 45	25
+	<b>227-260R</b>	16 x 50	25
++	<b>227-262R</b>	16 x 60	25
++	<b>227-265R</b>	16 x 75	25
++	<b>227-266R</b>	16 x 80	25
+	<b>227-314R</b>	20 x 40	25
+	<b>227-315R</b>	20 x 45	25
+	<b>227-316R</b>	20 x 50	25
+	<b>227-318R</b>	20 x 60	25
++	<b>227-320R</b>	20 x 70	25
++	<b>227-321R</b>	20 x 75	25
++	<b>227-322R</b>	20 x 80	25
++	<b>227-324R</b>	20 x 90	25

- + DIN 933 Fully Threaded
- ++ DIN 931 Partly Threaded

## METRIC SOCKET HEAD CAP SCREWS

- DIN 912
- ISO Metric Coarse Thread
- Black Oxide



	PRODUCT CODE	SIZE	PKG QTY
	<b>228-071B</b>	6 x 12	100
	<b>228-074B</b>	6 x 16	100
	<b>228-076B</b>	6 x 20	100
	<b>228-078B</b>	6 x 25	100
	<b>228-079B</b>	6 x 30	100
	<b>228-081B</b>	6 x 40	100
	<b>228-083B</b>	6 x 50	100

# FASTENERS

Metric Socket Head Cap Screws • Metric Socket Screw Keys • Metric Hexagon Nuts • Metric Washers

## METRIC SOCKET HEAD CAP SCREWS(CONT)

PRODUCT CODE	SIZE	PKG QTY
228-084B	6 x 55	100
228-119B	8 x 18	100
228-120B	8 x 20	100
228-122B	8 x 25	100
228-123B	8 x 30	100
228-124B	8 x 35	100
228-125B	8 x 40	100
228-126B	8 x 45	100
228-127B	8 x 50	100
228-129B	8 x 60	100
228-147B	10 x 16	100
228-149B	10 x 20	100
228-151B	10 x 25	100
228-152B	10 x 30	100
228-153B	10 x 35	100
228-155B	10 x 45	50
228-159B	10 x 65	50
228-160B	10 x 70	50
228-161B	10 x 75	50
228-186B	12 x 20	50
228-188B	12 x 25	50
228-189B	12 x 30	50
228-191B	12 x 40	50
228-192B	12 x 45	50
228-193B	12 x 50	50
228-195B	12 x 60	25
228-196B	12 x 65	25
228-198B	12 x 75	25
228-199B	12 x 80	25
228-256B	16 x 30	25
228-257B	16 x 35	25
228-258B	16 x 40	25
228-259B	16 x 45	25
228-260B	16 x 50	25
228-262B	16 x 60	25
228-263B	16 x 65	25
228-264B	16 x 70	25
228-265B	16 x 75	25
228-266B	16 x 80	25
228-314B	20 x 40	25
228-315B	20 x 45	25
228-316B	20 x 50	25
228-317B	20 x 55	25
228-318B	20 x 60	25
228-320B	20 x 70	25
228-321B	20 x 75	25
228-322B	20 x 80	25
228-324B	20 x 90	25
228-325B	20 x 100	25
228-425B	30 x 100	1

## METRIC SOCKET SCREW KEYS

- Bare Metal
- Alloy Steel
- Short Arm



PRODUCT CODE	SIZE W	LENGTH C (IN)	PKG QTY
234-015B	M1.5	4.5 cm	100
234-020B	M2	5 cm	100
234-025B	M2.5	5.5 cm	100
234-030B	M3	6.25 cm	100
234-040B	M4	6.75 cm	100
234-050B	M5	7.5 cm	50
234-060B	M6	7.5 cm	50
234-080B	M8	9.5 cm	25
234-100B	M10	11 cm	10
234-120B	M12	12 cm	10
234-140B	M14	13.5 cm	10
234-170B	M17	15.5 cm	10

Note: Size equals radius of bend "R"

## METRIC HEXAGON NUTS

- Coarse Thread
- Dichromate Plated - DIN 934



PRODUCT CODE	SIZE	WIDTH ACROSS FLATS A		HEIGHT H		DIAMETER D		PKG QTY
		MM	INCHES	MM	INCHES	MM	INCHES	
230-060R	M6	10	.394	5	.197	6	.236	100
230-080R	M8	13	.512	6.5	.256	8	.315	100
230-100R	M10	17	.669	8	.315	10	.394	100
230-120R	M12	19	.748	9.5	.374	12	.472	50
230-140R	M14	22	.866	11	.433	14	.551	25
230-160R	M16	24	.945	13	.512	16	.630	25
230-180R	M18	27	1.063	15	.591	18	.709	25
230-200R	M20	30	1.181	16	.630	20	.787	25

## METRIC WASHERS

### METRIC FLAT WASHERS

- DIN 127 Type B
- Colour Dichromate Plated



PRODUCT CODE	SIZE	PKG QTY
231-060R	M6	100
231-080R	M8	100
231-100R	M10	100
231-120R	M12	50
231-140R	M14	25
231-160R	M16	25
231-180R	M18	25
231-200R	M20	25

# FASTENERS

## Metric Washers • Socket Head Cap Screws

### METRIC WASHERS (CONT)

#### METRIC LOCK WASHERS

- DIN 127 Type B
- Colour Dichromate Plated



PRODUCT CODE	SIZE	PKG QTY
<b>232-060R</b>	M6	100
<b>232-080R</b>	M8	100
<b>232-100R</b>	M10	100
<b>232-120R</b>	M12	50
<b>232-140R</b>	M14	25
<b>232-160R</b>	M16	25
<b>232-180R</b>	M18	25
<b>232-200R</b>	M20	25

### SOCKET HEAD CAP SCREWS TENSILE REQUIREMENTS PER ASTM A574-83

SCREW DIAMETER INCHES	THREADS INCHES		TENSILE LOAD MIN		TENSILE STRENGTH P.S.I./ MIN	RECOMMENDED UNC TORQUE IN LBS.	
	UNC	UNF	UNC	UNF		UNRC	UNRF
0.060	-	80	-	324	180,000	-	2
0.073	64	72	473	500	180,000	4	4
0.086	56	64	666	709	180,000	6	7
0.099	48	56	877	941	180,000	10	11
0.112	40	48	1,090	1,190	180,000	15	16
0.125	40	44	1,430	1,490	180,000	20	21
0.138	32	40	1,640	1,830	180,000	28	30
0.184	32	36	2,520	2,650	180,000	49	50
0.190	24	32	3,150	3,600	180,000	64	76
1/4	20	28	5,730	6,500	180,000	150	170
5/16	18	24	9,440	10,400	180,000	305	325
3/8	16	24	13,900	15,800	180,000	545	570
7/16	14	20	19,100	21,400	180,000	840	900
1/2	13	20	25,500	28,800	180,000	1,300	1,370
5/8	11	18	38,400	43,500	170,000	1,850	1,970
3/4	10	16	56,800	63,400	170,000	2,630	2,660
7/8	9	14	78,500	86,500	170,000	4,400	4,800
1"	8	12	103,000	113,000	170,000	7,000	7,600
1 1/8"	7	12	129,000	146,000	170,000	10,400	11,000
1 1/4"	7	12	165,000	182,000	170,000	14,900	15,600
1 3/8"	6	12	196,000	224,000	170,000	21,000	22,600
1 1/2"	6	12	239,000	269,000	170,000	27,800	29,300

### SOCKET HEAD CAP SCREWS

- ASTM A574, AISI 4037
- Specifications ANSI/ASME B18.3
- Alloy Steel - Heat Treated



UNC COARSE THREAD U.S.S PRODUCT CODE	UNF FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
<b>235-017B</b>	-	2 - 56 x 3/8	100
<b>235-019B</b>	-	2 - 56 x 1/2	100
<b>235-030B</b>	-	4 - 40 x 1/4	100
<b>235-045B</b>	-	5 - 40 x 3/4	100
<b>235-050B</b>	<b>236-050B</b>	6 x 1/4	100
<b>235-052B</b>	<b>236-052B</b>	6 x 3/8	100
<b>235-054B</b>	<b>236-054B</b>	6 x 1/2	100
<b>235-055B</b>	<b>236-055B</b>	6 x 5/8	100
<b>235-056B</b>	<b>236-056B</b>	6 x 3/4	100
<b>235-057B</b>	-	6 x 7/8	100
<b>235-058B</b>	-	6 x 1	100
<b>235-062B</b>	-	8 x 1/4	100
<b>235-064B</b>	<b>236-064B</b>	8 x 3/8	100
<b>235-066B</b>	<b>236-066B</b>	8 x 1/2	100
<b>235-067B</b>	-	8 x 5/8	100
<b>235-068B</b>	<b>236-068B</b>	8 x 3/4	100
<b>235-069B</b>	-	8 x 7/8	100
<b>235-070B</b>	-	8 x 1	100
<b>235-071B</b>	-	8 x 1 1/4	100
<b>235-072B</b>	-	8 x 1 1/2	100
<b>235-076B</b>	<b>236-076B</b>	10 x 3/8	100
<b>235-078B</b>	<b>236-078B</b>	10 x 1/2	100
<b>235-079B</b>	<b>236-079B</b>	10 x 5/8	100
<b>235-080B</b>	<b>236-080B</b>	10 x 3/4	100
<b>235-081B</b>	<b>236-081B</b>	10 x 7/8	100
<b>235-082B</b>	<b>236-082B</b>	10 x 1	100
<b>235-083B</b>	<b>236-083B</b>	10 x 1 1/4	100
<b>235-084B</b>	<b>236-084B</b>	10 x 1 1/2	100
<b>235-085B</b>	<b>236-085B</b>	10 x 1 3/4	100
<b>235-086B</b>	<b>236-086B</b>	10 x 2	100
<b>235-090B</b>	<b>236-090B</b>	1/4 x 3/8	100
<b>235-092B</b>	<b>236-092B</b>	1/4 x 1/2	100
<b>235-093B</b>	<b>236-093B</b>	1/4 x 5/8	100
<b>235-094B</b>	<b>236-094B</b>	1/4 x 3/4	100
<b>235-095B</b>	<b>236-095B</b>	1/4 x 7/8	100
<b>235-096B</b>	<b>236-096B</b>	1/4 x 1	100
<b>235-097B</b>	<b>236-097B</b>	1/4 x 1 1/4	100
<b>235-098B</b>	<b>236-098B</b>	1/4 x 1 1/2	100
<b>235-099B</b>	<b>236-099B</b>	1/4 x 1 3/4	100
<b>235-100B</b>	<b>236-100B</b>	1/4 x 2	100
<b>235-101B</b>	-	1/4 x 2 1/4	100
<b>235-102B</b>	-	1/4 x 2 1/2	100
<b>235-103B</b>	-	1/4 x 2 3/4	100
<b>235-104B</b>	-	1/4 x 3	100
<b>235-107B</b>	-	5/16 x 3/8	100
<b>235-109B</b>	<b>236-109B</b>	5/16 x 1/2	100
<b>235-110B</b>	<b>236-110B</b>	5/16 x 5/8	100
<b>235-111B</b>	<b>236-111B</b>	5/16 x 3/4	100
<b>235-112B</b>	-	5/16 x 7/8	100

### SOCKET HEAD CAP SCREWS (CONT)

UNC COARSE THREAD U.S.S PRODUCT CODE	UNF FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY	UNC COARSE THREAD U.S.S PRODUCT CODE	UNF FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
235-113B	236-113B	5/16 x 1	100	235-185B	-	1/2 x 6	25
235-114B	236-114B	5/16 x 1 1/4	100	235-186B	-	1/2 x 6 1/2	10
235-115B	236-115B	5/16 x 1 1/2	100	235-187B	-	1/2 x 7	25
235-116B	236-116B	5/16 x 1 3/4	100	235-188B	-	1/2 x 8	25
235-117B	236-117B	5/16 x 2	100	235-193B	236-193B	5/8 x 1	50
235-118B	236-118B	5/16 x 2 1/4	100	235-194B	236-194B	5/8 x 1 1/4	50
235-119B	236-119B	5/16 x 2 1/2	100	235-195B	236-195B	5/8 x 1 1/2	50
235-120B	-	5/16 x 2 3/4	100	235-196B	236-196B	5/8 x 1 3/4	50
235-121B	-	5/16 x 3	100	235-197B	236-197B	5/8 x 2	50
235-123B	-	5/16 x 3 1/2	100	235-198B	-	5/8 x 2 1/4	25
235-125B	-	5/16 x 4	100	235-199B	236-199B	5/8 x 2 1/2	25
235-128B	-	3/8 x 1/2	100	235-200B	-	5/8 x 2 3/4	25
235-129B	-	3/8 x 5/8	100	235-201B	-	5/8 x 3	25
235-130B	236-130B	3/8 x 3/4	100	235-202B	-	5/8 x 3 1/4	25
235-131B	236-131B	3/8 x 7/8	100	235-203B	-	5/8 x 3 1/2	25
235-132B	236-132B	3/8 x 1	100	235-204B	-	5/8 x 4	25
235-133B	236-133B	3/8 x 1 1/4	100	235-205B	-	5/8 x 4 1/2	25
235-134B	236-134B	3/8 x 1 1/2	100	235-206B	-	5/8 x 5	25
235-135B	236-135B	3/8 x 1 3/4	100	235-207B	-	5/8 x 5 1/2	10
235-136B	236-136B	3/8 x 2	100	235-208B	-	5/8 x 6	10
235-137B	236-137B	3/8 x 2 1/4	100	235-210B	-	5/8 x 7	10
235-138B	236-138B	3/8 x 2 1/2	50	235-211B	-	5/8 x 8	10
235-139B	-	3/8 x 2 3/4	50	235-216B	-	3/4 x 1 1/4	25
235-140B	236-140B	3/8 x 3	50	235-217B	-	3/4 x 1 1/2	25
235-141B	-	3/8 x 3 1/4	50	235-218B	-	3/4 x 1 3/4	25
235-142B	-	3/8 x 3 1/2	50	235-219B	-	3/4 x 2	25
235-143B	-	3/8 x 4	50	235-220B	-	3/4 x 2 1/4	25
235-144B	-	3/8 x 4 1/2	50	235-221B	-	3/4 x 2 1/2	25
235-145B	-	3/8 x 5	50	235-222B	-	3/4 x 2 3/4	25
235-150B	-	7/16 x 3/4	50	235-223B	-	3/4 x 3	25
235-152B	236-152B	7/16 x 1	50	235-224B	-	3/4 x 3 1/4	25
235-153B	236-153B	7/16 x 1 1/4	50	235-225B	-	3/4 x 3 1/2	25
235-154B	-	7/16 x 1 1/2	50	235-226B	-	3/4 x 4	25
235-155B	-	7/16 x 1 3/4	50	235-227B	-	3/4 x 4 1/2	25
235-156B	236-156B	7/16 x 2	50	235-228B	-	3/4 x 5	25
235-157B	-	7/16 x 2 1/4	50	235-229B	-	3/4 x 5 1/2	10
235-158B	-	7/16 x 2 1/2	50	235-230B	-	3/4 x 6	10
235-160B	-	7/16 x 3	50	235-231B	-	3/4 x 6 1/2	10
235-161B	-	7/16 x 3 1/4	50	235-232B	-	3/4 x 7	10
235-162B	-	7/16 x 3 1/2	50	235-233B	-	3/4 x 8	10
235-163B	-	7/16 x 4	50	235-240B	-	7/8 x 2	10
235-167B	-	1/2 x 5/8	50	235-241B	-	7/8 x 2 1/4	10
235-168B	-	1/2 x 3/4	50	235-242B	-	7/8 x 2 1/2	10
235-169B	-	1/2 x 7/8	50	235-243B	-	7/8 x 2 3/4	10
235-170B	236-170B	1/2 x 1	50	235-244B	-	7/8 x 3	10
235-171B	236-171B	1/2 x 1 1/4	50	235-246B	-	7/8 x 3 1/2	10
235-172B	236-172B	1/2 x 1 1/2	50	235-247B	-	7/8 x 4	10
235-173B	236-173B	1/2 x 1 3/4	50	235-248B	-	7/8 x 4 1/2	10
235-174B	236-174B	1/2 x 2	50	235-249B	-	7/8 x 5	10
235-175B	236-175B	1/2 x 2 1/4	50	235-250B	-	7/8 x 5 1/2	10
235-176B	236-176B	1/2 x 2 1/2	50	235-251B	-	7/8 x 6	10
235-177B	-	1/2 x 2 3/4	50	235-253B	-	7/8 x 7	10
235-178B	236-178B	1/2 x 3	50	235-254B	-	7/8 x 8	10
235-179B	-	1/2 x 3 1/4	25	235-262B	-	1 x 2	10
235-180B	-	1/2 x 3 1/2	25	235-264B	-	1 x 2 1/2	10
235-181B	-	1/2 x 4	25	235-265B	-	1 x 2 3/4	10
235-182B	-	1/2 x 4 1/2	25	235-266B	-	1 x 3	10
235-183B	-	1/2 x 5	25				
235-184B	-	1/2 x 5 1/2	25				

# FASTENERS

## Socket Head Cap Screws • Flat Head Socket Cap Screws

### SOCKET HEAD CAP SCREWS (CONT)

UNC COARSE THREAD U.S.S PRODUCT CODE	UNF FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
235-267B	-	1 x 3 1/4	10
235-268B	-	1 x 3 1/2	10
235-269B	-	1 x 4	10
235-270B	-	1 x 4 1/2	10
235-271B	-	1 x 5	10
235-272B	-	1 x 5 1/2	10
235-273B	-	1 x 6	10
235-274B	-	1 x 6 1/2	10
235-275B	-	1 x 7	10
235-276B	-	1 x 8	10
235-280B	-	1 1/4 x 2 1/2	1
235-282B	-	1 1/4 x 3	1
235-284B	-	1 1/4 x 3 1/2	1
235-286B	-	1 1/4 x 4	1
235-288B	-	1 1/4 x 4 1/2	1
235-290B	-	1 1/4 x 5	1
235-292B	-	1 1/4 x 5 1/2	1
235-294B	-	1 1/4 x 6	1
235-296B	-	1 1/4 x 6 1/2	1
235-298B	-	1 1/4 x 7	1
235-302B	-	1 + x 8	1
235-310B	-	1 1/2 x 3	1
235-312B	-	1 1/2 x 3 1/2	1
235-314B	-	1 1/2 x 4	1
235-316B	-	1 1/2 x 4 1/2	1
235-318B	-	1 1/2 x 5	1
235-320B	-	1 1/2 x 5 1/2	1
235-322B	-	1 1/2 x 6	1
235-324B	-	1 1/2 x 6 1/2	1
235-326B	-	1 1/2 x 7	1
235-330B	-	1 1/2 x 8	1

### FLAT HEAD SOCKET CAP SCREWS

- ASTM A574, AISI 4037
- Specifications ANSI/ASME B18.3
- Alloy Steel - Heat Treated



UNC COARSE THREAD U.S.S PRODUCT CODE	UNF FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
237-043B	-	5-40 x 1/2	100
237-052B	-	6 x 3/8	100
237-054B	-	6 x 1/2	100
237-055B	-	6 x 5/8	100
237-056B	-	6 x 3/4	100
237-066B	-	8 x 1/2	100
237-067B	-	8 x 5/8	100
237-068B	-	8 x 3/4	100
237-070B	-	8 x 1	100
237-076B	238-076B	10 x 3/8	100
237-078B	238-078B	10 x 1/2	100

UNC COARSE THREAD U.S.S PRODUCT CODE	UNF FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
237-079B	238-079B	10 x 5/8	100
237-080B	238-080B	10 x 3/4	100
237-082B	238-082B	10 x 1	100
237-083B	238-083B	10 x 1 1/4	100
237-084B	238-084B	10 x 1 1/2	100
237-091B	-	1/4 x 3/8	100
237-092B	238-092B	1/4 x 1/2	100
237-093B	238-093B	1/4 x 5/8	100
237-094B	238-094B	1/4 x 3/4	100
237-096B	238-096B	1/4 x 1	100
237-097B	238-097B	1/4 x 1 1/4	100
237-098B	238-098B	1/4 x 1 1/2	100
237-099B	-	1/4 x 1 3/4	100
237-100B	-	1/4 x 2	100
237-109B	238-109B	5/16 x 1/2	100
237-110B	238-110B	5/16 x 5/8	100
237-111B	238-111B	5/16 x 3/4	100
237-113B	238-113B	5/16 x 1	100
237-114B	238-114B	5/16 x 1 1/4	100
237-115B	238-115B	5/16 x 1 1/2	100
237-116B	-	5/16 x 1 3/4	100
237-117B	-	5/16 x 2	100
237-118B	-	5/16 x 2 1/4	100
237-119B	-	5/16 x 2 1/2	100
237-128B	-	3/8 x 1/2	100
237-129B	238-129B	3/8 x 5/8	100
237-130B	238-130B	3/8 x 3/4	100
237-132B	238-132B	3/8 x 1	100
237-133B	238-133B	3/8 x 1 1/4	100
237-134B	238-134B	3/8 x 1 1/2	100
237-135B	-	3/8 x 1 3/4	100
237-136B	-	3/8 x 2	100
237-137B	-	3/8 x 2 1/4	100
237-138B	-	3/8 x 2 1/2	50
237-140B	-	3/8 x 3	50
237-152B	-	7/16 x 1	100
237-153B	-	7/16 x 1 1/4	100
237-154B	-	7/16 x 1 1/2	100
237-155B	-	7/16 x 1 3/4	100
237-156B	-	7/16 x 2	50
237-168B	238-168B	1/2 x 3/4	100
237-170B	238-170B	1/2 x 1	100
237-171B	238-171B	1/2 x 1 1/4	100
237-172B	238-172B	1/2 x 1 1/2	100
237-173B	238-173B	1/2 x 1 3/4	50
237-174B	238-174B	1/2 x 2	50
237-175B	-	1/2 x 2 1/4	50
237-176B	-	1/2 x 2 1/2	50
237-178B	-	1/2 x 3	50
237-194B	-	5/8 x 1 1/4	50
237-195B	-	5/8 x 1 1/2	50
237-196B	-	5/8 x 1 3/4	50
237-197B	-	5/8 x 2	50
237-198B	-	5/8 x 2 1/4	25
237-199B	-	5/8 x 2 1/2	25
237-201B	-	5/8 x 3	25
237-216B	-	3/4 x 1 1/4	25
237-217B	-	3/4 x 1 1/2	25
237-218B	-	3/4 x 1 3/4	25
237-219B	-	3/4 x 2	25
237-220B	-	3/4 x 2 1/4	25
237-221B	-	3/4 x 2 1/2	25
237-223B	-	3/4 x 3	25

### SOCKET SET SCREWS

Alloy Steel - Heat Treated Standard Cup Poi

- Alloy Steel
- Heat Treated
- Cup Point



U.N.C. COARSE THREAD U.S.S. PRODUCT CODE	U.N.F. FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
242-013B	-	2-56 x 1/8	100
242-028B	243-028B	4 x 1/8	100
242-029B	243-029B	4 x 3/16	100
242-030B	-	4 x 1/4	100
242-031B	-	4 x 5/16	100
242-032B	243-032B	4 x 3/8	100
242-033B	-	4 x 1/2	100
242-034B	-	4 x 5/8	100
242-037B	243-037B	5 x 1/8	100
242-038B	243-038B	5 x 3/16	100
242-039B	243-039B	5 x 1/4	100
242-040B	-	5 x 5/16	100
242-041B	-	5 x 3/8	100
242-043B	-	5 x 1/2	100
242-044B	-	5 x 5/8	100
242-048B	243-048B	6 x 1/8	100
242-049B	243-049B	6 x 3/16	100
242-050B	243-050B	6 x 1/4	100
242-051B	243-051B	6 x 5/16	100
242-052B	243-052B	6 x 3/8	100
242-053B	-	6 x 7/16	100
242-054B	-	6 x 1/2	100
242-055B	-	6 x 5/8	100
242-056B	-	6 x 3/4	100
242-057B	-	6 x 7/8	100
242-058B	-	6 x 1	100
242-060B	243-060B	8 x 1/8	100
242-061B	243-061B	8 x 3/16	100
242-062B	243-062B	8 x 1/4	100
242-063B	243-063B	8 x 5/16	100
242-064B	243-064B	8 x 3/8	100
242-065B	-	8 x 7/16	100
242-066B	243-066B	8 x 1/2	100
242-067B	-	8 x 5/8	100
242-068B	-	8 x 3/4	100
242-069B	-	8 x 7/8	100
242-070B	-	8 x 1	100
242-073B	243-073B	10 x 3/16	100
242-074B	243-074B	10 x 1/4	100
242-075B	243-075B	10 x 5/16	100
242-076B	243-076B	10 x 3/8	100
242-077B	243-077B	10 x 7/16	100
242-078B	243-078B	10 x 1/2	100
242-079B	243-079B	10 x 5/8	100
242-080B	243-080B	10 x 3/4	100
242-081B	-	10 x 7/8	100
242-082B	243-082B	10 x 1	100
242-083B	243-083B	10 x 1 1/4	100
242-087B	243-087B	1/4 x 3/16	100
242-088B	243-088B	1/4 x 1/4	100
242-089B	243-089B	1/4 x 5/16	100

U.N.C. COARSE THREAD U.S.S. PRODUCT CODE	U.N.F. FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
242-090B	243-090B	1/4 x 3/8	100
242-091B	243-091B	1/4 x 7/16	100
242-092B	243-092B	1/4 x 1/2	100
242-093B	243-093B	1/4 x 5/8	100
242-094B	243-094B	1/4 x 3/4	100
242-095B	-	1/4 x 7/8	100
242-096B	243-096B	1/4 x 1	100
242-097B	243-097B	1/4 x 1 1/4	100
242-098B	-	1/4 x 1 1/2	100
242-100B	-	1/4 x 1 3/4	100
242-105B	243-105B	5/16 x 1/4	100
242-106B	243-106B	5/16 x 5/16	100
242-107B	243-107B	5/16 x 3/8	100
242-108B	243-108B	5/16 x 7/16	100
242-109B	243-109B	5/16 x 1/2	100
242-110B	243-110B	5/16 x 5/8	100
242-111B	243-111B	5/16 x 3/4	100
242-112B	-	5/16 x 7/8	100
242-113B	243-113B	5/16 x 1	100
242-114B	243-114B	5/16 x 1 1/4	100
242-115B	-	5/16 x 1 1/2	100
242-117B	-	5/16 x 1 3/4	100
242-118B	-	5/16 x 2	100
242-124B	243-124B	3/8 x 1/4	100
242-125B	243-125B	3/8 x 5/16	100
242-126B	243-126B	3/8 x 3/8	100
242-127B	243-127B	3/8 x 7/16	100
242-128B	243-128B	3/8 x 1/2	100
242-129B	243-129B	3/8 x 5/8	100
242-130B	243-130B	3/8 x 3/4	100
242-132B	243-132B	3/8 x 1	100
242-133B	243-133B	3/8 x 1 1/4	100
242-134B	243-134B	3/8 x 1 1/2	100
242-136B	-	3/8 x 1 3/4	50
242-137B	-	3/8 x 2	50
242-139B	-	3/8 x 2 1/2	50
242-146B	243-146B	7/16 x 3/8	100
242-147B	243-147B	7/16 x 7/16	100
242-148B	243-148B	7/16 x 1/2	100
242-149B	-	7/16 x 5/8	100
242-150B	-	7/16 x 3/4	100
242-151B	-	7/16 x 7/8	100
242-152B	-	7/16 x 1	100
242-153B	-	7/16 x 1 1/4	100
242-154B	-	7/16 x 1 1/2	100
242-156B	-	7/16 x 2	50
242-164B	-	1/2 x 3/8	100
242-166B	243-166B	1/2 x 1/2	100
242-167B	243-167B	1/2 x 5/8	100
242-168B	243-168B	1/2 x 3/4	100
242-169B	-	1/2 x 7/8	100
242-170B	243-170B	1/2 x 1	100
242-171B	-	1/2 x 1 1/4	100
242-172B	-	1/2 x 1 1/2	100
242-173B	-	1/2 x 1 3/4	50
242-174B	-	1/2 x 2	50

# FASTENERS

Socket Head Cap Screws • Socket Screw Keys • Socket Pipe Plug

## SOCKET SET SCREWS (CONT)

U.N.C. COARSE THREAD U.S.S. PRODUCT CODE	U.N.F. FINE THREAD S.A.E PRODUCT CODE	SIZE	PKG QTY
242-176B	-	1/2 x 2 1/2	50
242-178B	-	1/2 x 3	50
242-189B	-	5/8 x 1/2	50
242-190B	243-190B	5/8 x 5/8	50
242-191B	-	5/8 x 3/4	50
242-192B	-	5/8 x 7/8	50
242-193B	243-193B	5/8 x 1	50
242-194B	-	5/8 x 1 1/4	50
242-195B	-	5/8 x 1 1/2	50
242-196B	-	5/8 x 1 3/4	50
242-197B	-	5/8 x 2	50
242-199B	-	5/8 x 2 1/2	50
242-201B	-	5/8 x 3	50
242-212B	-	3/4 x 5/8	50
242-213B	-	3/4 x 3/4	50
242-215B	-	3/4 x 1	50
242-216B	-	3/4 x 1 1/4	50
242-217B	-	3/4 x 1 1/2	50
242-218B	-	3/4 x 1 3/4	25
242-219B	-	3/4 x 2	25
242-221B	-	3/4 x 2 1/2	25
242-223B	-	3/4 x 3	25
242-230B	-	7/8 x 7/8	25
242-232B	-	7/8 x 1	25
242-234B	-	7/8 x 1 1/2	25
242-236B	-	7/8 x 2	25
242-238B	-	7/8 x 2 1/2	25
242-240B	-	7/8 x 3	25
242-250B	-	1 x 1	25
242-251B	-	1 x 1 1/2	25
242-255B	-	1 x 2 1/2	25
242-257B	-	1 x 3	25

## SOCKET SCREW KEYS

- Bare Metal
- Alloy Steel
- Fractional



### SHORT ARM

PRODUCT CODE	SIZE W	LENGTH C (IN)	PKG QTY
244-001B	.028	1 11/32	100
244-002B	.035	1 1/8	100
244-003B	.050	1 5/8	100
244-004B	1/16	1 27/32	100
244-005B	5/64	1 31/32	100
244-006B	3/32	2 3/32	100
244-007B	7/64	2	100
244-008B	1/8	2 11/32	100
244-009B	9/64	2 5/16	100
244-010B	5/32	2 19/32	100
244-011B	3/16	2 29/32	100

## SHORT ARM (CONT)

PRODUCT CODE	SIZE W	LENGTH C (IN)	PKG QTY
244-012B	7/32	3 3/32	50
244-013B	1/4	3 11/32	50
244-014B	5/16	3 27/32	50
244-015B	3/8	4 11/32	25
244-016B	7/16	4 3/4	10
244-017B	1/2	5 11/32	10
244-018B	9/16	5 27/32	10
244-019B	5/8	6 11/32	10
244-020B	3/4	7 11/32	10
244-021B	7/8	8	1
244-022B	1	9 11/32	1

## LONG ARM

PRODUCT CODE	SIZE W	LENGTH C (IN)	PKG QTY
245-004B	1/16	3	100
245-005B	5/64	3 6/32	100
245-006B	3/32	3	100
245-007B	7/64	3 1/32	100
245-008B	1/8	3 27/32	100
245-009B	9/64	3 31/32	100
245-010B	5/32	4 7/32	100
245-011B	3/16	4 19/32	100
245-012B	7/32	4 31/32	50
245-013B	1/4	5 11/32	50
245-014B	5/16	6 3/32	50
245-015B	3/8	6 27/32	25
245-016B	7/16	7 1/4	10
245-017B	1/2	8 11/32	10
245-018B	9/16	9 3/32	10
245-019B	5/8	9 27/32	10
245-020B	3/4	11 11/32	10
245-021B	7/8	12	1
245-022B	1	14 11/32	1

## SOCKET PIPE PLUG



PRODUCT CODE	SIZE	USE SOCKET SCREW KEY	PKG QTY
247-002B	1/8-27	3/16	25
247-003B	1/4-18	1/4	25
247-004B	3/8-18	5/16	10
247-005B	1/2-14	3/8	10

# FASTENERS

## Machine Screw Nut • Machine Screws • Stove Bolt with Nuts

### MACHINE SCREW NUT

- Hex Head
- ANSI/ASME B18.6.3 1972
- Zinc Chromate Plated



PRODUCT CODE	SIZE	WEIGHT PER 100	PKG QTY	CASE QTY
249-003P	4-40	0.11	100	2000
249-004P	5-40	0.22	100	2000
249-005P	6-32	0.21	100	2000
249-006P	8-32	0.28	100	2000
249-007P	10-24	0.33	100	2000
250-007P	10-32	0.33	100	2000
249-008P	12-24	0.58	100	2000
249-009P	1/4-20	0.61	100	2000
249-010P	5/16-18	1.21	100	2000
249-011P	3/8-16	1.58	100	2000

### MACHINE SCREWS

- Zinc Chromate Plated
- ANSI/ASME B18.6.3 1972



ROUND COMBINATION PRODUCT CODE	FLAT SOCKET PRODUCT CODE	SIZE	PKG QTY	CASE QTY
255-030P	-	4-40 x 1/4	100	2000
255-031P	-	4-40 x 3/8	100	2000
255-032P	-	4-40 x 1/2	100	2000
255-033P	-	4-40 x 3/4	100	2000
255-034P	-	4-40 x 1	100	2000
255-047P	-	6-32 x 1/4	100	2000
255-049P	259-049P	6-32 x 3/8	100	2000
255-051P	259-051P	6-32 x 1/2	100	2000
255-052P	259-052P	6-32 x 5/8	100	2000
255-053P	259-053P	6-32 x 3/4	100	2000
255-055P	259-055P	6-32 x 1	100	2000
255-057P	259-057P	6-32 x 1 1/4	100	2000
255-058P	259-058P	6-32 x 1 1/2	100	2000
255-060P	-	6-32 x 2	100	2000
255-066P	-	8-32 x 1/4	100	2000
255-067P	-	8-32 x 5/16	100	2000
255-068P	259-068P	8-32 x 3/8	100	2000
255-070P	259-070P	8-32 x 1/2	100	2000
255-071P	259-071P	8-32 x 5/8	100	2000
255-072P	259-072P	8-32 x 3/4	100	2000
255-074P	259-074P	8-32 x 1	100	2000
255-076P	259-076P	8-32 x 1 1/4	100	2000
255-077P	259-077P	8-32 x 1 1/2	100	2000
255-078P	259-078P	8-32 x 1 3/4	100	2000
255-079P	259-079P	8-32 x 2	100	2000
255-085P	-	10-24 x 1/4	100	2000
255-087P	259-087P	10-24 x 3/8	100	2000
255-089P	259-089P	10-24 x 1/2	100	2000
255-090P	259-090P	10-24 x 5/8	100	2000
255-091P	259-091P	10-24 x 3/4	100	2000
255-093P	259-093P	10-24 x 1	100	2000

ROUND COMBINATION PRODUCT CODE	FLAT SOCKET PRODUCT CODE	SIZE	PKG QTY	CASE QTY
255-095P	259-095P	10-24 x 1 1/4	100	2000
255-096P	259-096P	10-24 x 1 1/2	100	2000
255-097P	259-097P	10-24 x 1 3/4	100	2000
255-098P	259-098P	10-24 x 2	100	2000
255-099P	259-100P	10-24 x 2 1/2	100	1000
255-100P	-	10-24 x 3	100	1000
255-104P	-	3/16 x 4	100	800
255-106P	-	3/16 x 5	100	800
255-108P	-	3/16 x 6	100	800
256-085P	-	10-32 x 1/4	100	2000
256-087P	260-087P	10-32 x 3/8	100	2000
256-089P	260-089P	10-32 x 1/2	100	2000
256-090P	260-090P	10-32 x 5/8	100	2000
256-091P	260-091P	10-32 x 3/4	100	2000
256-093P	260-093P	10-32 x 1	100	2000
256-095P	260-095P	10-32 x 1 1/4	100	2000
256-096P	260-096P	10-32 x 1 1/2	100	2000
256-098P	260-098P	10-32 x 2	100	2000
255-127P	-	1/4-20 x 3/8	100	2000
255-129P	259-129P	1/4-20 x 1/2	100	2000
255-130P	259-130P	1/4-20 x 5/8	100	2000
255-131P	259-131P	1/4-20 x 3/4	100	2000
255-133P	259-133P	1/4-20 x 1	100	2000
255-135P	259-135P	1/4-20 x 1 1/4	100	2000
255-136P	259-136P	1/4-20 x 1 1/2	100	2000
255-137P	259-137P	1/4-20 x 1 3/4	100	2000
255-138P	259-138P	1/4-20 x 2	100	2000
255-139P	259-139P	1/4-20 x 2 1/2	100	1000
255-140P	259-140P	1/4-20 x 3	100	1000
255-144P	-	1/4 x 4	100	800
255-146P	-	1/4 x 5	100	600

### STOVE BOLT WITH NUTS

- Zinc Chromate Plated
- Not assembled



ROUND COMBINATION PRODUCT CODE	FLAT SOCKET PRODUCT CODE	SIZE	PKG QTY	CASE QTY
267-089P	268-089P	3/16 x 1/2	100	2000
267-091P	268-091P	3/16 x 3/4	100	2000
267-093P	268-093P	3/16 x 1	100	2000
267-095P	268-095P	3/16 x 1 1/4	100	2000
267-096P	268-096P	3/16 x 1 1/2	100	2000
267-097P	-	3/16 x 1 3/4	100	2000
267-098P	268-098P	3/16 x 2	100	2000
267-100P	268-100P	3/16 x 2 1/2	100	1000
267-102P	268-102P	3/16 x 3	100	1000
267-104P	-	3/16 x 4	100	1000
267-129P	268-129P	1/4 x 1/2	100	2000

# FASTENERS

## Stove Bolt with Nuts • Sheet Metal Screws

### STOVE BOLT WITH NUTS (CONT)

ROUND COMBINATION PRODUCT CODE	FLAT SOCKET PRODUCT CODE	SIZE	PKG QTY	CASE QTY
267-131P	268-131P	1/4 x 3/4	100	2000
267-133P	268-133P	1/4 x 1	100	2000
267-135P	268-135P	1/4 x 1 1/4	100	2000
267-136P	268-136P	1/4 x 1 1/2	100	2000
267-137P	268-137P	1/4 x 1 3/4	100	2000
267-138P	268-138P	1/4 x 2	100	2000
267-139P	-	1/4 x 2 1/4	100	2000
267-140P	268-140P	1/4 x 2 1/2	100	1000
267-142P	268-142P	1/4 x 3	100	1000
267-143P	-	1/4 x 3 1/2	100	1000
267-144P	-	1/4 x 4	100	1000
267-146P	-	1/4 x 5	100	1000

### SHEET METAL SCREWS [TAPPING]

- Socket Head - Type "A"
- ANSI/ASME B18.6.4 1981
- Zinc Chromate Plated



PAN PRODUCT CODE	FLAT PRODUCT CODE	SIZE	PKG QTY	CASE QTY
274-005P	-	4 x 1/4	100	2000
274-006P	-	4 x 3/8	100	2000
274-007P	-	4 x 1/2	100	2000
274-009P	-	4 x 3/4	100	2000
274-012P	-	6 x 1/4	100	2000
274-013P	-	6 x 3/8	100	2000
274-014P	277-014P	6 x 1/2	100	2000
274-015P	-	6 x 5/8	100	2000
274-016P	277-016P	6 x 3/4	100	2000
274-017P	-	6 x 1 1/4	100	2000
274-018P	277-018P	6 x 1	100	2000
274-019P	-	6 x 1 1/2	100	2000
274-031P	-	8 x 3/8	100	2000
274-032P	277-032P	8 x 1/2	100	2000
274-033P	-	8 x 5/8	100	2000
274-034P	277-034P	8 x 3/4	100	2000
274-036P	277-036P	8 x 1	100	2000
274-037P	277-037P	8 x 1 1/4	100	2000
274-038P	277-038P	8 x 1 1/2	100	2000
274-039P	-	8 x 1 3/4	100	2000
274-040P	277-040P	8 x 2	100	2000
274-041P	-	10 x 3/8	100	2000
274-042P	-	10 x 1/2	100	2000
274-043P	-	10 x 5/8	100	2000
274-044P	277-044P	10 x 3/4	100	2000
274-046P	277-046P	10 x 1	100	2000
274-047P	277-047P	10 x 1 1/4	100	2000
274-048P	277-048P	10 x 1 1/2	100	2000
274-049P	-	10 x 1 3/4	100	2000
274-050P	277-050P	10 x 2	100	2000
274-053P	-	12 x 1/2	100	2000
274-055P	-	12 x 3/4	100	2000
274-057P	-	12 x 1	100	2000
274-058P	-	12 x 1 1/4	100	2000
274-059P	-	12 x 1 1/2	100	2000

PAN PRODUCT CODE	FLAT PRODUCT CODE	SIZE	PKG QTY	CASE QTY
274-062P	-	12 x 2	100	2000
274-065P	-	14 x 5/8	100	2000
274-066P	-	14 x 3/4	100	2000
274-068P	-	14 x 1	100	2000
274-069P	-	14 x 1 1/4	100	2000
274-070P	-	14 x 1 1/2	100	2000
274-072P	-	14 x 2	100	2000

### TRUSS HEAD

- Zinc Chromate Plated



PRODUCT CODE	SIZE	PKG QTY	CASE QTY
283-013P	6 x 3/8	100	2000
283-014P	6 x 1/2	100	2000
283-016P	6 x 3/4	100	2000
283-017P	6 x 1	100	2000
283-033P	8 x 1/2	100	2000
283-034P	8 x 5/8	100	2000
283-035P	8 x 3/4	100	2000
283-036P	8 x 1	100	2000
283-038P	8 x 1 1/2	100	2000
283-043P	10 x 1/2	100	2000
283-045P	10 x 3/4	100	2000
283-046P	10 x 1	100	2000
283-047P	10 x 1 1/4	100	2000
283-048P	10 x 1 1/2	100	2000

### INDENTED HEX HEAD



PRODUCT CODE	SIZE	PKG QTY	CASE QTY
284-032P	8 x 1/2	100	2000
284-034P	8 x 3/4	100	2000
284-036P	8 x 1	100	2000
284-042P	10 x 1/2	100	2000
284-044P	10 x 3/4	100	2000
284-046P	10 x 1	100	2000
284-047P	10 x 1 1/4	100	2000
284-048P	10 x 1 1/2	100	2000
284-055P	12 x 3/4	100	2000
284-057P	12 x 1	100	2000
284-058P	12 x 1 1/4	100	2000
284-059P	12 x 1 1/2	100	2000
284-066P	14 x 3/4	100	2000
284-068P	14 x 1	100	2000
284-069P	14 x 1 1/4	100	2000
284-070P	14 x 1 1/2	100	2000
284-075P	5/16 x 3/4	100	2000
284-076P	5/16 x 1	100	2000
284-077P	5/16 x 1 1/4	100	2000

### WOOD SCREWS

- Socket Head
- ANSI/ASME B18.6.1 1981
- Zinc Chromate Plated



ROUND PRODUCT CODE	FLAT PRODUCT CODE	SIZE	PKG QTY	CASE QTY
-	<b>288-013P</b>	4 x 3/8	100	2000
-	<b>288-014P</b>	4 x 1/2	100	2000
-	<b>288-015P</b>	4 x 5/8	100	2000
-	<b>288-016P</b>	4 x 3/4	100	2000
-	<b>288-018P</b>	4 x 1	100	2000
-	<b>288-019P</b>	4 x 1 1/4	100	2000
<b>286-024P</b>	-	5 x 3/4	100	2000
<b>286-026P</b>	-	5 x 1	100	2000
<b>286-029P</b>	<b>288-029P</b>	6 x 1/2	100	2000
<b>286-030P</b>	<b>288-030P</b>	6 x 5/8	100	2000
<b>286-031P</b>	<b>288-031P</b>	6 x 3/4	100	2000
-	<b>288-032P</b>	6 x 7/8	100	2000
<b>286-033P</b>	<b>288-033P</b>	6 x 1	100	2000
<b>286-034P</b>	<b>288-034P</b>	6 x 1 1/4	100	2000
<b>286-035P</b>	<b>288-035P</b>	6 x 1 1/2	100	2000
-	<b>288-036P</b>	6 x 1 3/4	100	2000
-	<b>288-040P</b>	7 x 5/8	100	2000
-	<b>288-041P</b>	7 x 3/4	100	2000
-	<b>288-043P</b>	7 x 1	100	2000
<b>286-048P</b>	<b>288-048P</b>	8 x 1/2	100	2000
<b>286-049P</b>	<b>288-049P</b>	8 x 5/8	100	2000
<b>286-050P</b>	<b>288-050P</b>	8 x 3/4	100	2000
-	<b>288-051P</b>	8 x 7/8	100	2000
<b>286-052P</b>	<b>288-052P</b>	8 x 1	100	2000
<b>286-053P</b>	<b>288-053P</b>	8 x 1 1/4	100	2000
<b>286-054P</b>	<b>288-054P</b>	8 x 1 1/2	100	2000
<b>286-055P</b>	<b>288-055P</b>	8 x 1 3/4	100	2000
<b>286-056P</b>	<b>288-056P</b>	8 x 2	100	2000
-	<b>288-057P</b>	8 x 2 1/4	100	2000
<b>286-058P</b>	<b>288-058P</b>	8 x 2 1/2	100	1000
<b>286-059P</b>	<b>288-059P</b>	8 x 3	100	1000
-	<b>288-060P</b>	8 x 3 1/2	100	500
-	<b>288-061P</b>	8 x 4	100	500
-	<b>288-062P</b>	9 x 3/4	100	2000
-	<b>288-064P</b>	9 x 1	100	2000
-	<b>288-065P</b>	9 x 1 1/4	100	2000
-	<b>288-066P</b>	9 x 1 1/2	100	2000
-	<b>288-068P</b>	9 x 2	100	2000
<b>286-071P</b>	<b>288-071P</b>	10 x 1/2	100	2000

ROUND PRODUCT CODE	FLAT PRODUCT CODE	SIZE	PKG QTY	CASE QTY
-	<b>288-072P</b>	10 x 5/8	100	2000
<b>286-073P</b>	<b>288-073P</b>	10 x 3/4	100	2000
<b>286-075P</b>	<b>288-075P</b>	10 x 1	100	2000
<b>286-076P</b>	<b>288-076P</b>	10 x 1 1/4	100	2000
<b>286-077P</b>	<b>288-077P</b>	10 x 1 1/2	100	2000
<b>286-078P</b>	<b>288-078P</b>	10 x 1 3/4	100	2000
<b>286-079P</b>	<b>288-079P</b>	10 x 2	100	2000
-	<b>288-080P</b>	10 x 2 1/4	100	2000
<b>286-081P</b>	<b>288-081P</b>	10 x 2 1/2	100	2000
<b>286-082P</b>	<b>288-082P</b>	10 x 3	100	2000
<b>286-083P</b>	<b>288-083P</b>	10 x 3 1/2	100	2000
<b>286-084P</b>	<b>288-084P</b>	12 x 3/4	100	2000
<b>286-086P</b>	<b>288-086P</b>	12 x 1	100	2000
<b>286-087P</b>	<b>288-087P</b>	12 x 1 1/4	100	2000
<b>286-088P</b>	<b>288-088P</b>	12 x 1 1/2	100	2000
<b>286-089P</b>	-	12 x 1 3/4	100	2000
<b>286-090P</b>	<b>288-090P</b>	12 x 2	100	2000
<b>286-092P</b>	<b>288-092P</b>	12 x 2 1/2	100	1000
<b>286-093P</b>	<b>288-093P</b>	12 x 3	100	1000
<b>286-094P</b>	<b>288-094P</b>	12 x 3 1/2	100	500
-	<b>288-095P</b>	12 x 4	100	500
<b>286-098P</b>	<b>288-098P</b>	14 x 1 1/2	100	2000
-	<b>288-099P</b>	14 x 1 3/4	100	2000
<b>286-100P</b>	<b>288-100P</b>	14 x 2	100	2000
-	<b>288-101P</b>	14 x 2 1/4	100	2000
<b>286-102P</b>	<b>288-102P</b>	14 x 2 1/2	100	1000

# FASTENERS

## Spring Centre Bolts without Nuts • Cotter Pins

### SPRING CENTRE BOLTS WITHOUT NUTS

- Fillister head
- UNF - Fine Thread - Bulk
- Not slotted, no nuts
- Heat treated



PRODUCT CODE	SIZE/LENGTH	THREAD LENGTH	APPROX. WT/C	BULK QTY
462-050	5/16 x 1 1/2	1 1/2	3.74	1100
462-052	5/16 x 2	2	4.79	850
462-054	5/16 x 2 1/2	2	5.84	650
462-056	5/16 x 3	2	6.89	600
462-057	5/16 x 3 1/2	2 1/2	7.94	500
462-059	5/16 x 4	3	8.99	425
462-060	5/16 x 4 1/2	3	10.10	375
462-061	5/16 x 5	3	11.10	350
462-063	5/16 x 6	3	13.20	300
462-087	3/8 x 1 1/2	1 1/2	5.62	800
462-088	3/8 x 2	2	7.14	700
462-089	3/8 x 2 1/2	2	8.63	500
462-090	3/8 x 3	2 1/2	10.20	400
462-091	3/8 x 3 1/2	2 1/2	11.70	325
462-092	3/8 x 4	3	13.20	300
462-093	3/8 x 4 1/2	3	14.80	275
462-094	3/8 x 5	3	16.30	250
462-096	3/8 x 6	3	19.30	200
462-098	3/8 x 7	3	22.20	200
462-100	3/8 x 8	5	25.20	200
462-102	3/8 x 9	5	28.30	240
462-104	3/8 x 10	5	31.10	180
462-123	7/16 x 3	2	14.00	300
462-125	7/16 x 4	3	18.20	250
462-126	7/16 x 4 1/2	3	20.20	225
462-127	7/16 x 5	3	22.30	225
462-129	7/16 x 6	3	26.40	175
462-131	7/16 x 7	3	30.30	150
462-133	7/16 x 8	5	34.40	150
462-135	7/16 x 9	5	38.50	150
462-137	7/16 x 10	5	42.70	150
462-140	7/16 x 12	5	50.90	125
462-162	1/2 x 4	3	24.00	175
462-163	1/2 x 4 1/2	4	26.70	150
462-164	1/2 x 5	4	29.40	125
462-166	1/2 x 6	4	34.70	125
462-168	1/2 x 7	4	39.90	100
462-170	1/2 x 8	4	45.30	100
462-172	1/2 x 9	4	50.60	120
462-174	1/2 x 10	4	56.00	120
462-177	1/2 x 12	4	66.80	120

### COTTER PINS

#### COTTER PIN FASTENER PAK

Contains over 900 pcs.

- 1/16" x 3/4"
- 1/16" x 1"
- 1/16" x 1.1/2"
- 3/32" x 3/4"
- 3/32" x 1"
- 3/32" x 1.1/2"
- 1/8" x 1"
- 1/8" x 1.1/2"
- 1/8" x 2"
- 5/32" x 1.1/2"



PRODUCT CODE	PART NO.	DESCRIPTION	PKG QTY
431-039	350-4	Cotter Pins Assortment Pak	1

#### COTTER PINS

- Carbon Steel
- Zinc Plated



PRODUCT CODE	SIZE	PKG QTY
298-006S	1/16 x 1/2	100
298-007S	1/16 x 3/4	100
298-008S	1/16 x 1	100
298-009S	1/16 x 1 1/4	100
298-010S	1/16 x 1 1/2	100
298-011S	1/16 x 1 3/4	100
298-012S	1/16 x 2	100
298-014S	3/32 x 1/2	100
298-016S	3/32 x 3/4	100
298-017S	3/32 x 1	100
298-018S	3/32 x 1 1/4	100
298-019S	3/32 x 1 1/2	100
298-020S	3/32 x 1 3/4	100
298-021S	3/32 x 2	100
298-022S	3/32 x 2 1/2	100
298-025S	1/8 x 1/2	100
298-026S	1/8 x 3/4	100
298-028S	1/8 x 1	100
298-029S	1/8 x 1 1/4	100
298-030S	1/8 x 1 1/2	100
298-032S	1/8 x 1 3/4	100
298-033S	1/8 x 2	100
298-034S	1/8 x 2 1/2	100
298-035S	1/8 x 3	100
298-037S	5/32 x 3/4	100
298-038S	5/32 x 1 1/4	100
298-039S	5/32 x 1 1/2	100
298-040S	5/32 x 1 3/4	100
298-041S	5/32 x 2	100
298-042S	5/32 x 2 1/4	100
298-043S	5/32 x 2 1/2	100
298-045S	5/32 x 3	100
298-046S	3/16 x 3/4	100
298-047S	3/16 x 1	100
298-048S	3/16 x 1 1/4	100
298-049S	3/16 x 1 1/2	100
298-050S	3/16 x 1 3/4	100
298-051S	3/16 x 2	100

# FASTENERS

Cotter Pins • Threaded Rod • Alloy Bar

## COTTER PINS (CONT)

PRODUCT CODE	SIZE	PKG QTY
298-052S	3/16 x 2 1/4	100
298-053S	3/16 x 2 1/2	100
298-054S	3/16 x 3	100
298-055S	3/16 x 3 1/2	100
298-056S	3/16 x 4	100
298-058S	1/4 x 1	100
298-059S	1/4 x 1 1/4	100
298-060S	1/4 x 1 1/2	100
298-061S	1/4 x 1 3/4	100
298-062S	1/4 x 2	100
298-064S	1/4 x 2 1/2	100
298-065S	1/4 x 3	100
298-066S	1/4 x 3 1/2	100
298-067S	1/4 x 4	100
298-070S	5/16 x 1	100
298-071S	5/16 x 1 1/4	100
298-072S	5/16 x 1 1/2	100
298-074S	5/16 x 2	100
298-075S	5/16 x 2 1/4	100
298-076S	5/16 x 2 1/2	100
298-077S	5/16 x 3	50
298-078S	5/16 x 3 1/2	50
298-079S	5/16 x 4	50
298-080S	5/16 x 5	50
298-081S	3/8 x 1 1/2	50
298-083S	3/8 x 2	50
298-084S	3/8 x 2 1/2	50
298-085S	3/8 x 3	50
298-086S	3/8 x 3 1/2	50
298-087S	3/8 x 4	50
298-088S	3/8 x 5	50
298-089S	3/8 x 6	50
298-090S	1/2 x 2	25
298-091S	1/2 x 2 1/2	25
298-092S	1/2 x 3	25
298-093S	1/2 x 3 1/2	25
298-094S	1/2 x 4	25
298-096S	1/2 x 5	25
298-098S	1/2 x 6	25

## THREADED ROD



## BARE MILD STEEL

* PRODUCT CODE	DESCRIPTION	PKG QTY	BUNDLE
306-008	1/4 - 20 x 36" UNC Threaded Rod	1	25
306-013	5/16 - 18 x 36" UNC Threaded Rod	1	20
306-018	3/8 - 16 x 36" UNC Threaded Rod	1	15
306-023	7/16 - 14 x 36" UNC Threaded Rod	1	10
306-028	1/2 - 13 x 36" UNC Threaded Rod	1	10
306-033	5/8 - 11 x 36" UNC Threaded Rod	1	5
306-038	3/4 - 10 x 36" UNC Threaded Rod	1	5
306-043	7/8 - 9 x 36" UNC Threaded Rod	1	3
306-048	1 - 8 x 36" UNC Threaded Rod	1	3
306-053	1 1/8 - 7 x 36" UNC Threaded Rod	1	1
306-058	1 1/4 - 7 x 36" UNC Threaded Rod	1	1
306-068	1 1/2 - 6 x 36" UNC Threaded Rod	1	1

\* When ordering, please state (B) for Bare and (P) for Plated at the end of the Product Code

## THREADED ROD EMPTY DISPLAY RACK

- Heavy Duty all steel construction
- Sizes 21-1/2" W x 13.1/2" D x 24"



PRODUCT CODE	PART NUMBER	CONTENTS
484-110	DRR-E	Empty Display Rack

## THREADED ROD - 18-8 STAINLESS STEEL

- 36" lengths



U.N.C. Coarse Thread U.S.S.

PRODUCT CODE	SIZE	PKG QTY
544-008S	1/4	1
544-013S	5/16	1
544-018S	3/8	1
544-023S	7/16	1
544-028S	1/2	1
544-033S	5/8	1
544-038S	3/4	1

## ALLOY BAR

- Alloy steel continuous threaded rod
- Yellow Zinc plated
- 36" lengths
- Tensile strengths = 125,000
- Manufactured in accordance with ASTM A193-94 B7



U.N.C. COARSE THREAD U.S.S. PRODUCT CODE	U.N.F. FINE THREAD S.A.E. PRODUCT CODE	SIZE (IN.)	WEIGHT PER PIECE	BUNDLE
308-008	309-008	1/4	0.4 lb.	25
308-013	309-013	5/16	0.6 lb.	20
308-018	309-018	3/8	0.9 lb.	15
308-023	309-023	7/16	1.2 lb.	10
308-028	309-028	1/2	1.6 lb.	10
308-099	-	9/16		
308-033	309-033	5/8	2.5 lb.	5
308-038	309-038	3/4	3.7 lb.	5
308-043	309-043	7/8	5.1 lb.	3
308-048	309-048	1	6.7 lb.	3
308-053	309-053	1 1/8	8.0 lb.	1
308-058	309-058	1 1/4	10.0 lb.	1
308-068	309-068	1 1/2	15.0 lb.	1

# FASTENERS

## Taper Pins

### TAPER PINS

- Low carbon steel - C1018
- Standard taper 1/4" per foot or .0208 per inch
- Diameter measured at large end



PRODUCT CODE	SIZE	PKG QTY
344-010B	6/0 x 1	25
344-205B	6/0 x 1 1/4	25
344-013B	5/0 x 1/2	25
344-014B	5/0 x 3/4	25
344-015B	5/0 x 1	25
344-016B	5/0 x 1 1/4	25
344-017B	5/0 x 1 1/2	25
344-019B	5/0 x 3	25
344-020B	4/0 x 1/2	25
344-021B	4/0 x 3/4	25
344-022B	4/0 x 1	25
344-023B	4/0 x 1 1/4	25
344-024B	4/0 x 1 1/2	25
344-027B	3/0 x 1/2	25
344-028B	3/0 x 3/4	25
344-029B	3/0 x 1	25
344-030B	3/0 x 1 1/4	25
344-031B	3/0 x 1 1/2	25
344-034B	2/0 x 1/2	25
344-035B	2/0 x 3/4	25
344-036B	2/0 x 1	25
344-037B	2/0 x 1 1/4	25
344-038B	2/0 x 1 1/2	25
344-039B	2/0 x 1 3/4	25
344-040B	2/0 x 2	25
344-043B	0 x 1/2	25
344-044B	0 x 3/4	25
344-045B	0 x 1	25
344-046B	0 x 1 1/4	25
344-047B	0 x 1 1/2	25
344-048B	0 x 1 3/4	25
344-049B	0 x 2	25
344-050B	0 x 2 1/2	25
344-051B	0 x 3	25
344-052B	1 x 3/4	25
344-053B	1 x 1	25
344-054B	1 x 1 1/4	25
344-055B	1 x 1 1/2	25
344-056B	1 x 1 3/4	25
344-057B	1 x 2	25
344-058B	1 x 2 1/4	25
344-059B	1 x 2 1/2	25
344-060B	1 x 3	25
344-061B	2 x 3/4	25
344-062B	2 x 1	25
344-063B	2 x 1 1/4	25
344-064B	2 x 1 1/2	25
344-065B	2 x 1 3/4	25
344-066B	2 x 2	25
344-067B	2 x 2 1/4	25
344-068B	2 x 2 1/2	25
344-069B	2 x 2 3/4	25
344-070B	2 x 3	25
344-071B	2 x 3 1/2	10
344-073B	3 x 3/4	25
344-074B	3 x 1	25

PRODUCT CODE	SIZE	PKG QTY
344-075B	3 x 1 1/4	25
344-076B	3 x 1 1/2	25
344-077B	3 x 1 3/4	25
344-078B	3 x 2	25
344-079B	3 x 2 1/4	25
344-080B	3 x 2 1/2	25
344-081B	3 x 2 3/4	25
344-082B	3 x 3	25
344-083B	3 x 3 1/2	10
344-084B	3 x 4	10
344-085B	4 x 3/4	25
344-086B	4 x 1	25
344-088B	4 x 1 1/2	25
344-089B	4 x 1 3/4	25
344-090B	4 x 2	25
344-091B	4 x 2 1/4	25
344-092B	4 x 2 1/2	25
344-093B	4 x 2 3/4	25
344-094B	4 x 3	25
344-095B	4 x 3 1/2	10
344-096B	4 x 4	10
344-098B	5 x 3/4	25
344-099B	5 x 1	25
344-100B	5 x 1 1/4	25
344-101B	5 x 1 1/2	25
344-102B	5 x 1 3/4	25
344-103B	5 x 2	25
344-104B	5 x 2 1/4	25
344-105B	5 x 2 1/2	25
344-106B	5 x 2 3/4	25
344-107B	5 x 3	25
344-108B	5 x 3 1/4	10
344-109B	5 x 3 1/2	10
344-110B	5 x 3 3/4	10
344-111B	5 x 4	10
344-113B	5 x 5	10
344-115B	6 x 3/4	25
344-116B	6 x 1	25
344-117B	6 x 1 1/4	25
344-118B	6 x 1 1/2	25
344-119B	6 x 1 3/4	25
344-120B	6 x 2	25
344-121B	6 x 2 1/4	25
344-122B	6 x 2 1/2	25
344-123B	6 x 2 3/4	25
344-124B	6 x 3	25
344-125B	6 x 3 1/4	10
344-126B	6 x 3 1/2	10
344-127B	6 x 3 3/4	10
344-128B	6 x 4	10
344-129B	6 x 4 1/2	10
344-130B	6 x 5	10
344-131B	6 x 5 1/2	10
344-132B	6 x 6	10
344-133B	7 x 1 1/4	25
344-134B	7 x 1 1/2	25
344-135B	7 x 1 3/4	25
344-136B	7 x 2	25
344-137B	7 x 2 1/4	25
344-138B	7 x 2 1/2	25

# FASTENERS

## Taper Pins • Steel Woodruff Keys

### TAPER PINS (CONT)

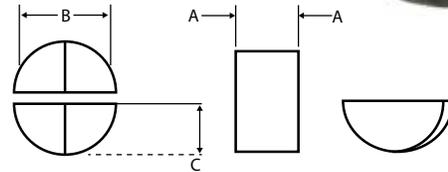
PRODUCT CODE	SIZE	PKG QTY
344-139B	7 x 2 3/4	25
344-140B	7 x 3	25
344-141B	7 x 3 1/4	10
344-142B	7 x 3 1/2	10
344-143B	7 x 3 3/4	10
344-144B	7 x 4	10
344-145B	7 x 4 1/2	10
344-146B	7 x 5	10
344-147B	7 x 5 1/2	10
344-148B	7 x 6	10
344-149B	8 x 1 1/4	10
344-150B	8 x 1 1/2	10
344-151B	8 x 1 3/4	10
344-152B	8 x 2	10
344-153B	8 x 2 1/4	10
344-154B	8 x 2 1/2	10
344-155B	8 x 2 3/4	10
344-156B	8 x 3	10
344-157B	8 x 3 1/4	10
344-158B	8 x 3 1/2	10
344-159B	8 x 3 3/4	10
344-160B	8 x 4	10
344-161B	8 x 4 1/2	10
344-162B	8 x 5	10
344-163B	8 x 5 1/2	10
344-164B	8 x 6	10
344-165B	9 x 1 1/2	10
344-166B	9 x 2	10
344-167B	9 x 2 1/4	10
344-168B	9 x 2 1/2	10
344-169B	9 x 3	10
344-170B	9 x 3 1/2	10
344-171B	9 x 4	10
344-172B	9 x 4 1/2	10
344-173B	9 x 5	10
344-174B	9 x 5 1/2	10
344-175B	9 x 6	10
344-176B	10 x 1 1/2	10
344-177B	10 x 2	10
344-178B	10 x 2 1/2	10
344-179B	10 x 3	10
344-180B	10 x 3 1/4	10
344-181B	10 x 3 1/2	10
344-182B	10 x 4	10
344-183B	10 x 4 1/4	10
344-235B	10 x 4 1/2	10
344-184B	10 x 5	10
344-185B	10 x 5 1/2	10
344-186B	10 x 6	10

#### APPROXIMATE DIAMETER AT LARGE END:

Size	Decimal	Fraction	Size	Decimal	Fraction
5/0	0.094	3/32	4	0.250	1/4
4/0	0.109	4/64	5	0.289	19/64
3/0	0.125	1/8	6	0.341	11/32
2/0	0.141	9/64	7	0.409	13/32
0	0.156	5/32	8	0.492	1/2
1	0.172	11/64	9	0.591	19/32
2	0.193	3/16	10	0.706	23/32
3	0.219	7/32			

### STEEL WOODRUFF KEYS

- S.A.E. 1035 carbon steel
- Tensile strength of 165,000 p.s.i.
- **Package Quantity = 25**



PRODUCT CODE	PART NUMBER	DIMENSIONS		
		A	B	C
346-001	1	1/16 x 1/2	0.491	0.194
346-002	2	3/32 x 1/2	0.491	0.194
346-003	3	1/8 x 1/2	0.491	0.194
346-004	4	3/32 x 5/8	0.612	0.240
346-005	5	1/8 x 5/8	0.612	0.240
346-006	6	5/32 x 5/8	0.612	0.240
346-007	7	1/8 x 3/4	0.740	0.303
346-008	8	5/32 x 3/4	0.740	0.303
346-009	9	3/16 x 3/4	0.740	0.303
346-010	10	5/32 x 7/8	0.866	0.365
346-011	11	3/16 x 7/8	0.866	0.365
346-012	12	7/32 x 7/8	0.866	0.365
346-013	13	3/16 x 1	0.992	0.428
346-014	14	7/32 x 1	0.992	0.428
346-015	15	1/4 x 1	0.992	0.428
346-016	16	3/16 x 1 1/8	1.114	0.475
346-017	17	7/32 x 1 1/8	1.114	0.475
346-018	18	1/4 x 1 1/8	1.114	0.475
346-019	19	3/16 x 1 1/4	1.240	0.537
346-020	20	7/32 x 1 1/4	1.240	0.537
346-021	21	1/4 x 1 1/4	1.240	0.537
346-022	22	1/4 x 1 3/8	1.362	0.584
346-023	23	5/16 x 1 3/8	1.362	0.584
346-024	24	1/4 x 1 1/2	1.484	0.631
346-025	25	5/16 x 1 1/2	1.484	0.631
346-026	26	3/16 x 2 1/8	1.723	0.521
346-027	27	1/4 x 2 1/8	1.723	0.521
346-028	28	5/16 x 2 1/8	1.723	0.521
346-029	29	3/8 x 2 1/8	0.526	0.521
346-030	30	3/8 x 3 1/4	2.880	0.927
346-031	31	7/16 x 3 1/2	2.880	0.927
346-032	32	1/2 x 3 1/2	2.880	0.927
346-033	33	9/16 x 3 1/2	2.880	0.927
346-034	34	5/8 x 3 1/2	2.880	0.927
346-035	35	11/16 x 3 1/2	2.880	0.927
346-036	36	3/4 x 3 1/2	2.880	0.927
346-061	61	3/16 x 5/8	0.612	0.240
346-091	91	1/4 x 3/4	0.740	0.303
346-126	126	3/16 x 2 1/8	1.380	0.396
346-127	127	1/4 x 2 1/8	1.380	0.396
346-128	128	5/16 x 2 1/8	1.380	0.396
346-129	129	3/8 x 2 1/8	1.380	0.396
346-152	152	3/8 x 1	0.992	0.482
346-201	201	1/16 x 1/4	0.248	0.117
346-206	206	1/16 x 5/16	0.311	0.1440
346-207	207	3/32 x 5/16	0.311	0.140
346-211	211	1/16 x 3/8	0.374	0.172
346-212	212	3/32 x 3/8	0.374	0.172
346-213	213	1/8 x 3/8	0.374	0.172

# FASTENERS

Steel Woodruff Keys • Fastener Assortment Drawers • Bolt Bins • Bin Boxes

## STEEL WOODRUFF KEYS (CONT)

PRODUCT CODE	PART NUMBER	DIMENSIONS		
		A	B	C
346-901	A	1/4 x 7/8	0.866	0.365
346-902	B	5/16 x 1	0.992	0.428
346-903	C	5/16 x 1 1/8	1.114	0.475
346-904	D	5/16 x 1 1/4	1.240	0.537
346-905	E	3/8 x 1 1/4	1.240	0.537
346-906	F	3/8 x 3/8	1.362	0.584
346-907	G	3/8 x 1 1/2	1.484	0.631
346-913	RX	1/4 x 2 3/4	2.000	0.584
346-909	S	5/16 x 2 3/4	2.317	0.740
346-914	SX	5/16 x 2 3/4	2.000	0.584
346-910	T	3/8 x 2 3/4	2.317	0.740
346-915	TX	3/8 x 2 3/4	2.000	0.584
346-911	U	7/16 x 2 3/4	2.317	0.740
346-916	UX	7/16 x 2 3/4	2.000	0.584
346-912	V	1/2 x 2 3/4	2.317	0.740
346-917	VX	1/2 x 2 3/4	2.000	0.584

## ASSORTMENT DRAWERS (EMPTY)



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>SMALL DRAWER COMPONENTS</b>		
427-056	Small Empty Metal Shell Drawer (13 3/8" W x 9 1/4" D x 2H)	1
427-057	Small Shell Drawer Insert - 20 Compartment	1
427-058	Small Shell Drawer Insert - Variable Compartment	1
427-059	Variable Component Dividers	1
427-060	Small Plastic Box - 18 Compartment	1
427-061	Small Shell Drawer Insert - 12 Compartment	1
427-062	Small Shell Drawer Insert - 21 Compartment	1
427-063	Small Shell Drawer Insert - 24 Compartment	1
427-079	Small Shell Drawer Insert - 16 Compartment	1
<b>SLIDE RACKS</b>		
427-064	Easy Slide Rack - Holds 4 Small Boxes	1
427-065	Easy Slide Rack - Holds 6 Small Boxes	1
427-066	Easy Slide Rack - Holds 4 Large Boxes	1
427-067	Base for Easy Slide Rack - Large Boxes	1
427-068	Base for Easy Slide Rack - Small Boxes	1
<b>LARGE DRAWER COMPONENTS</b>		
427-069	Large Empty Metal Shell Drawer (18W x 12D x 3H)	1
427-070	Large Shell Drawer Insert - 12 Compartment	1
427-071	Large Shell Drawer Insert - 16 Compartment	1
427-072	Large Shell Drawer Insert - 20 Compartment	1
427-073	Large Shell Drawer Insert - 6 Vertical Compartment	1
427-074	Large Shell Drawer Insert - 6 Horizontal Compartment	1
427-075	Large Shell Drawer Insert - 24 Compartment	1
427-076	Large Shell Drawer Insert - 32 Compartment	1
427-077	Large Shell Drawer Insert - Adjustable Vertical	1
<b>SMALL DRAWER KIT</b>		
427-085	Small Drawer - 12 Compartment	1
427-086	Small Drawer - 20 Compartment	1
427-087	Small Drawer - 21 Compartment	1
427-088	Small Drawer - 24 Compartment	1
427-089	Small Drawer - Adjustable Compartment	1
427-098	Small Drawer - 16 Compartment	1

Product Code	Description	Pkg Qty
<b>LARGE DRAWER KIT</b>		
427-090	Large Drawer - 12 Compartment	1
427-091	Large Drawer - 16 Compartment	1
427-092	Large Drawer - 20 Compartment	1
427-093	Large Drawer - 6 Vertical Compartment	1
427-094	Large Drawer - 6 Horizontal Compartment	1
427-095	Large Drawer - 24 Compartment	1
427-096	Large Drawer - 32 Compartment	1
427-097	Large Drawer - Vertical Adjustment	1

## BOLT BINS (EMPTY)

- Extremely rigid construction as a result of a combination of interlocking and welded construction
- Will not warp, twist or sag out of alignment
- Fully hemmed lips on each bin
- Blue baked enamel finish
- Individually packed in shipping carton
- 35 1/4" W x 42" H x 12" D



PRODUCT CODE	PART NO.	BIN SIZE (IN.)	NO. OF BINS	WEIGHT	PKG QTY
429-040	40B	4 1/4 x 5 x 12	40	62 lbs	1
429-042	42B	5 3/8 x 5 7/16 x 12	42	71 lbs	1
429-056	56B	4 13/16 x 5 1/16 x 12	56	75 lbs	1
429-072	72B	4 x 4 1/2 x 12	72	80 lbs	1 Pallet 6

## LABELS

PRODUCT CODE	DESCRIPTION	PKG QTY
429-172	Printed label set	1
429-173	Metric label set (white)	1

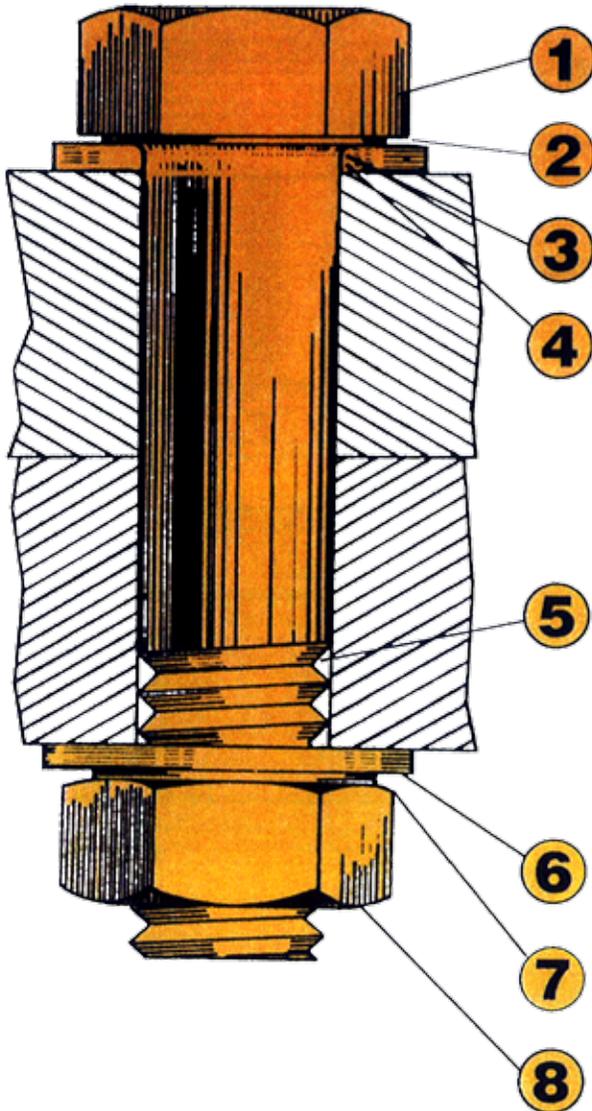
## CORRUGATED BIN BOXES (EMPTY)

- Complete with dividers
- Minimum order quantity 50 pieces



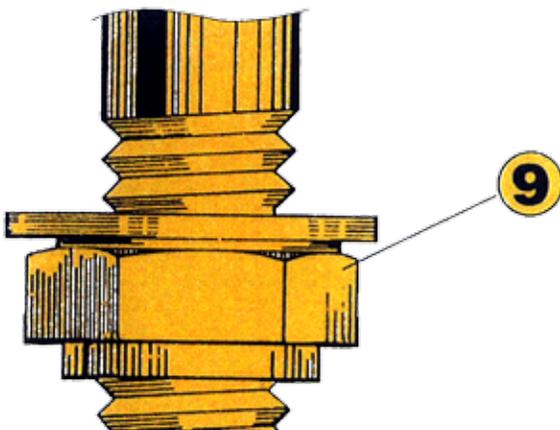
PRODUCT CODE	SIZE	BUNDLE
428-085	6 x 3 3/4 x 11	50

## L9® FASTENING SYSTEM

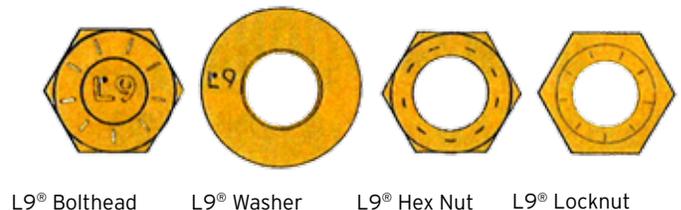


### A HIGH STRENGTH SYSTEM OF HIGHLY ENGINEERED COMPONENTS

1. Thicker than standard bolt head adds wrenching surface.
2. Washer face eliminates corner drag.
3. Radius under bolt head adds strength.
4. Countersunk washer I.D. centers the washer against the bolt head bearing surface during tightening.
5. UNR radiused root bolt thread increases fatigue resistance by reducing the notch effect of conventional UN threads. The UNR thread radius is maintained into thread runout at the junction of thread to shank.
6. Smooth washer bearing surfaces distribute loads uniformly and reduced brinelling. Plated finish assists torquing.
7. Chamfers eliminate corner drag.
8. Thicker than standard nut side walls facilitate wrenching. Heat treating helps prevent splitting and stripping.
9. Collared L9 prevailing torque mental locknut for assemblies subject to vibration.



### L9® HEAD MARKING IDENTIFICATION



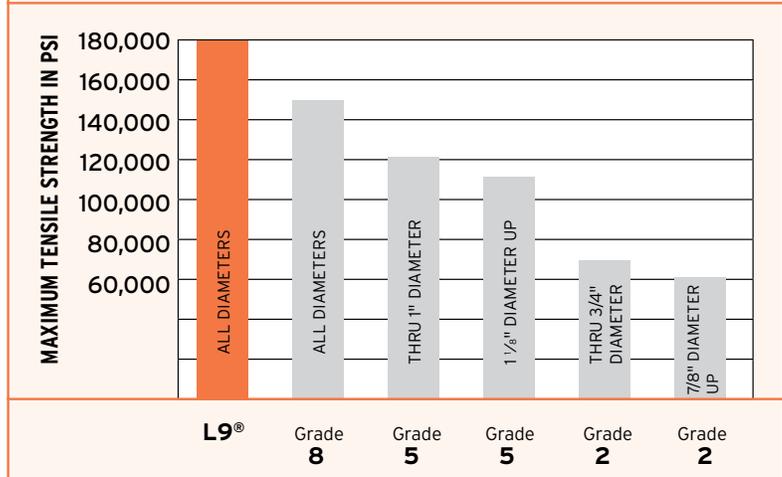
# FASTENERS

## L9® Design Features

### L9® DESIGN FEATURES

L9® Fastening System features 180,000 to 200,000 psi ultimate tensile strength having the minimum ductility of SAE J429 Grade 8 bolts for reduction in area and elongation.

COMPARATIVE STRENGTHS SAE GRADES 2, 5, 8 AND L9® BOLTS



#### L9® SYSTEM HARDNESS SPECIFICATIONS

Product	Diameter Range	Rockwell Hardness
Bolts	All	R/C 38-42
Nuts	1/4 thru 5/8 3/4 thru 1 1/2	R/C 28-34 R/C 32-38
Washers	All	15N 82-85

#### L9® SYSTEM PLATING SPECIFICATIONS

Product	Type	Thickness	Bake	Finish
Bolts	Zinc	.0002 - .0004	6 hrs @ 375 - 425°	Yellow Dichromate
Nuts	Cadmium and Wax	.0002 - .0004	6 hrs @ 375 - 425°	Yellow Dichromate
Locknuts	Cadmium and Wax	.0002 - .0004	6 hrs @ 375 - 425°	Yellow Dichromate
Washers	Zinc	.0002 - .0004	6 hrs @ 375 - 425°	Yellow Dichromate

Note: These specifications exceed the requirements of ASTM B633 FE/ZN 5. Type II (Zinc) and ASTM-80 Type TS (Cadmium). These finishes will meet a 96 hour salt spray test as a specified by ASTM B117.

## USER CAUTIONS

Avoid fastener, and possible joint failure, by observing the following:

Do not substitute components in the L9 Fastening System. Non L9 components may not meet the system's requirements.

Do not alter the coatings as this can result in erratic and unpredictable clamp loads. Do not use supplementary lubricants.

Do not use the L9 system in service environments exceeding 400-degrees Fahrenheit. Any cadmium or zinc plated product is subject to degradation of corrosion resistance and possible liquid metal embrittlement at temperatures exceeding 400-degrees F.

Discuss the use of L9 bolts and washers in tapped holes, with Docap staff to establish correct tightening torques and methods. Excessive or insufficient clamp loads can cause major problems.

When tightening L9 bolts, use the recommended torque values. The self lubricating features of the system reduce required torque so that in some instances they are below those needed to tighten Grade 8 bolts.

# FASTENERS

Use L9® Fastening System To Solve Common Problems

## USE L9® FASTENING SYSTEM TO SOLVE THESE COMMON PROBLEMS

1



**HEAD SEPARATE**

**CAUSED BY:**

- Improper material selection
- Poor heat treat practice
- Poor heading practice
- Inadequate fillet under head
- Poor plating practice
- Poor joint design

2



**THREAD NECK DOWN**

- Improper strength grade selection
- High service loads
- Overtightening
- Poor heat treat practice
- Poor joint design

3



**FATIGUE FRACTURE**

- Loss of clamp load
- Inadequate tightening
- Cyclical service loads
- Exceeding initial clamp loads
- Poor joint design

4



**DISHED WASHERS**

- Soft low strength washer material (results in clamp load loss, loosening and fatigue.)

5



**CRACKED OR SPLIT WASHERS**

- Improper material selection
- Poor material quality
- Poor heat treat practice
- Poor plating practice

6



**STRIPPED NUTS**

- Improper strength grade selection
- Poor heat treat practice
- Inadequate nut design

7



**CRACKED OR SPLIT NUTS**

- Poor raw material quality
- Poor heat treat practice
- Poor forming practice

8



**RUST AND CORROSION**

- Improper selection of materials and plating for a specific corrosive environment
- Poor joint design

# FASTENERS

L9® Hex Bolts Zinc Dichromate

## L9® HEX BOLTS ZINC DICHROMATE

PART NUMBER		LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.	
COARSE	FINE			COURSE	FINE
<b>1/4" DIAMETER</b>					
440002	440044	1/2	100	1.29	1.34
440006	440048	3/4	100	1.55	1.62
440010	440052	1	100	1.81	1.97
440012	440054	1 1/4	100	2.15	2.30
440014	440056	1 1/2	100	2.49	2.63
440016	440058	1 3/4	100	2.83	2.96
440018	440060	2	100	3.17	3.30
440022	440064	2 1/2	100	3.85	3.97
440026	440068	3	100	4.54	4.63
<b>5/16" DIAMETER</b>					
440086	440128	1/2	100	2.18	2.30
440090	440132	3/4	100	2.60	2.72
440094	440136	1	100	3.02	3.16
440096	440138	1 1/4	100	3.56	3.70
440098	440140	1 1/2	100	4.09	4.23
440100	440142	1 3/4	100	4.64	4.77
440102	440144	2	100	5.18	5.30
440106	440148	2 1/2	100	6.26	6.44
440110	440152	3	100	7.34	7.44
440114	-	3 1/2	50	8.16	8.16
440118	-	4	50	9.20	9.20
<b>3/8" DIAMETER</b>					
440170	-	1/2	100	3.14	3.14
440174	440216	3/4	100	4.73	4.02
440178	440220	1	100	4.33	4.68
440180	440222	1 1/4	100	4.92	5.34
440182	440224	1 1/2	100	5.69	6.11
440184	440226	1 3/4	100	6.42	6.88
440186	440228	2	100	7.24	7.65
440188	440230	2 1/4	50	8.02	8.42
440190	440232	2 1/2	50	8.79	9.19
440194	440236	3	50	10.34	10.73
440198	440240	3 1/2	50	11.95	12.27
440202	440244	4	50	13.45	13.81
440204	-	4 1/2	50	15.00	15.00
440206	-	5	50	16.55	16.55
440210	-	6	50	19.46	19.46

PART NUMBER		LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.	
COARSE	FINE			COURSE	FINE
<b>7/16" DIAMETER</b>					
440254	-	3/4	100	5.56	5.56
440258	440296	1	100	6.39	6.75
440260	440298	1 1/4	50	7.22	7.64
440262	440300	1 1/2	50	8.05	8.53
440264	440302	1 3/4	50	9.10	9.58
440266	440304	2	50	10.15	10.71
440270	440308	2 1/2	50	12.25	12.73
440274	440312	3	50	14.35	14.83
440278	440316	3 1/2	25	16.45	17.01
440282	440320	4	25	18.55	19.11
440286	-	5	25	22.75	22.75
440290	-	6	25	16.73	26.73
<b>1/2" DIAMETER</b>					
440330	-	3/4	50	8.27	8.27
440334	440380	1	50	9.37	9.92
440336	440382	1 1/4	50	10.47	11.11
440338	440384	1 1/2	50	11.57	12.30
440340	440386	1 3/4	50	12.67	13.48
440342	440388	2	50	14.04	14.86
440344	440390	2 1/4	50	15.42	16.24
440346	440392	2 1/2	50	16.79	17.62
440350	440396	3	50	19.55	20.38
440354	440400	3 1/2	25	22.30	23.15
440358	440404	4	25	25.05	25.90
440360	440406	4 1/2	25	27.80	28.67
440362	440408	5	25	30.55	31.40
440366	440412	6	25	35.77	36.71
440370	440416	7	25	41.27	42.21
440374	440420	8	25	46.77	47.71
<b>9/16" DIAMETER</b>					
440422	-	1	25	11.99	11.99
440426	440456	1 1/2	25	14.83	15.79
440430	440460	2	25	17.99	19.04
440434	440464	2 1/2	25	21.47	22.52
440438	440468	3	25	24.95	26.00
440440	440470	3 1/2	25	28.43	29.48
440442	440472	4	25	31.91	32.96
440446	-	5	25	38.87	38.87

180,000 MIN. P.S.I. Tensile

### L9® HEX BOLTS ZINC DICHROMATE (CONT)

PART NUMBER		LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.	
COARSE	FINE			COURSE	FINE
440482	440524	1	25	16.14	16.72
440484	440526	1 ¼	25	17.88	17.88
440486	440528	1 ½	25	19.62	20.48
440488	440530	1 ¾	25	21.36	22.25
440490	440532	2	25	23.10	24.24
440492	440534	2 ¼	25	25.24	26.38
440494	440536	2 ½	25	27.38	28.52
440496	440538	2 ¾	25	29.22	30.66
440498	440540	3	25	31.66	32.80
440502	440544	3 ½	25	35.94	37.08
440506	440548	4	25	40.02	41.36
440508	440550	4 ½	25	44.50	45.74
440510	440552	5	25	48.78	49.92
440512	440554	5 ½	25	53.06	54.20
440514	440556	6	25	56.93	58.22
440518	440560	7	25	65.55	66.68
440522	440564	8	25	74.46	75.34
440850	440566	9	25	83.02	83.91
440852	-	10	25	91.58	91.58
440854	-	11	25	99.31	99.31
440856	-	12	25	108.70	108.70
<b>3/4" DIAMETER</b>					
440570	440612	1 ½	20	31.47	32.61
440572	440614	1 ¾	20	34.01	35.30
440574	440616	2	20	36.55	38.07
440576	440618	2 ¼	20	39.07	40.60
440578	440620	2 ½	20	42.19	43.90
440580	440622	2 ¾	20	45.29	47.02
440582	440624	3	20	48.39	50.10
440586	440628	3 ½	20	54.50	56.30
440590	440632	4	20	60.79	62.50
440592	440634	4 ½	20	66.99	68.70
440594	440636	5	20	73.19	74.90
440596	440638	5 ½	20	79.39	81.10
440598	440640	6	20	85.03	86.93
440602	440644	7	20	97.43	99.33
440606	440648	8	20	109.07	110.89
440860	440870	9	20	122.17	124.13
440862	440872	10	15	134.60	136.53
440864	440874	11	15	147.02	147.50
440866	440875	12	15	156.00	156.00

PART NUMBER		LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.	
COARSE	FINE			COURSE	FINE
440650	440682	2	15	54.02	56.07
440654	440686	2 ½	15	61.06	63.55
440658	440690	3	15	69.48	71.50
440662	440694	3 ½	15	77.90	79.92
440666	440698	4	15	86.32	88.34
440668	440700	4 ½	15	94.74	96.76
440670	440702	5	15	103.13	105.18
440672	440704	5 ½	15	111.58	113.60
440674	440706	6	15	119.00	121.55
440678	440710	7	15	136.15	138.39
440680	440712	8	15	152.99	155.23
440880	440890	9	15	169.83	172.07
440882	440892	10	15	185.67	188.91
440884	440894	11	10	203.51	207.18
440886	440896	12	10	220.35	221.34
<b>1" DIAMETER</b>					
440714	-	2	10	72.40	72.40
440718	440748	2 ½	10	81.60	85.16
440722	440752	3	10	90.80	95.10
440726	440756	3 ½	10	101.80	106.10
440728	440758	4	10	112.80	117.10
440730	440760	4 ½	10	123.90	128.10
440732	440762	5	10	134.80	139.10
440734	440764	5 ½	10	145.80	150.10
440736	440766	6	10	115.90	161.10
440740	440770	7	10	177.90	183.10
440742	440772	8	10	199.70	205.10
440901	440970	9	8	221.90	227.10
440902	440906	10	8	243.90	249.10
440903	440907	11	8	265.98	266.70
440904	440908	12	8	287.90	287.70
<b>1 1/8" DIAMETER</b>					
440909	440917	3	16	118.27	122.69
440910	440918	3 ½	12	132.66	136.79
440911	440919	4	12	146.45	150.87
440912	440920	4 ½	12	160.54	164.96
440913	440921	5	8	174.35	179.05
440914	440922	6	8	201.64	207.23
440915	440923	7	8	229.82	235.41
440975	440924	8	8	258.10	263.59
440916	440925	10	8	314.36	319.95

180,000 MIN. P.S.I. Tensile

# FASTENERS

L9® Hex Bolts Zinc Dichromate • L9® Nuts and Washers

## L9® HEX BOLTS ZINC DICHROMATE (CONT)

PART NUMBER		LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.	
COARSE	FINE			COURSE	FINE
<b>1 1/4" DIAMETER</b>					
440926	440939	3	12	148.85	161.53
440927	440940	3 1/2	8	166.23	179.11
440928	440941	4	8	183.61	196.49
440929	440942	4 1/2	8	200.99	213.87
440930	440943	5	6	218.37	231.25
440931	440944	5 1/2	6	235.75	248.63
440932	440945	6	6	251.86	265.20
440933	440946	7	6	286.62	299.96
440934	440947	8	6	321.38	334.72
440935	440948	9	6	356.14	369.48
440936	440949	10	6	390.90	404.24
440937	440950	11	4	424.50	440.60
440938	440951	12	4	458.60	475.10
<b>1 1/2" DIAMETER</b>					
440952	440959	4	5	285.50	300.97
440953	440960	5	5	334.60	350.63
440954	440961	6	5	383.70	400.29
440955	440962	7	4	434.80	449.12
440956	440964	8	4	481.90	496.20
440957	440968	10	4	580.10	597.00
440958	440972	12	3	678.30	694.40

180,000 MIN. P.S.I. Tensile

## L9® NUTS AND WASHERS

### L9® HEX NUTS CAD DICHROMATE & WAX

PART NUMBER		LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.	
COARSE	FINE			COURSE	FINE
444002	444022	1/4 - 20, 28	100		.87
444004	444024	5/16 - 18, 24	100		1.25
444006	444026	3/8 - 16, 24	100		1.77
444008	444028	7/16 - 14, 20	50		3.33
444010	444030	1/2 - 13, 20	50		4.27
444012	444032	9/16 - 12, 18	25		6.77
444014	444034	5/8 - 11, 18	25		8.42
444016	444036	3/4 - 10, 16	20		14.50
444018	444038	7/8 - 9, 14	15		23.00
444020	444040	1 - 8, 14	10		34.10
444104	444128	1 1/8 - 7, 12	8		49.70
444110	444134	1 1/4 - 7, 12	8		67.60
444116	444140	1 1/2 - 7, 12	5		105.80

### L9® STOVER LOCK NUTS CAD DICHROMATE & WAX

PART NUMBER		LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.	
COARSE	FINE			COURSE	FINE
446002	446052	1/4 - 20, 28	100		0.77
446004	446054	5/16 - 18, 24	100		1.07
446006	446056	3/8 - 16, 24	100		1.54
446008	446058	7/16 - 14, 20	50		2.67
446010	446060	1/2 - 13, 20	50		3.48
446012	446062	9/16 - 12, 18	25		5.62
446014	446064	5/8 - 11, 18	25		6.84
446016	446066	3/4 - 10, 16	20		11.70
446018	446068	7/8 - 9, 14	15		18.90
446020	446070	1 - 8, 14	10		29.00
446022	446072	1 1/8 - 7, 12	8		42.30
446024	446074	1 1/4 - 7, 12	6		56.60
446026	446078	1 1/2 - 7, 12	5		91.80

### L9® NUTS AND WASHERS (CONT)

#### L9® TENSION WASHERS ZINC DICHROMATE

PART NUMBER	LENGTH IN INCHES	PKG. QTY	LBS. PER 100 PCS.
448002	1/4	100	0.53
448004	5/16	100	0.61
448006	3/8	100	0.85
448008	7/16	50	1.59
448010	1/2	50	2.22
448012	9/16	50	2.88
448014	5/8	50	3.28
448016	3/4	40	5.00
448018	7/8	30	6.79
448020	1	20	8.35
448022	1 1/8	20	10.75
448024	1 1/4	12	16.04
448026	1 1/2	10	24.27

### MACHINERY BUSHINGS

- Used on agricultural implements such as road machinery, mine and mill equipment, cars, trucks and tractors
- **Package quantity = 25**



PRODUCT CODE	PART NO.	SHAFT DIAMETER (IN)	OUTSIDE DIAMETER (IN)	GAUGE
456-001	M16L	9/16	1	18
456-004	M18L	5/8	1 1/8	18
456-005	M18M	5/8	1 1/8	14
456-007	M20L	3/4	1 1/4	18
456-008	M20M	3/4	1 1/4	14
456-009	M20H	3/4	1 1/4	10
456-010	M22L	7/8	1 3/8	18
456-011	M22M	7/8	1 3/8	14
456-013	M24L	1	1 1/2	18
456-014	M24M	1	1 1/2	14
456-015	M24H	1	1 1/2	10
456-016	M28L	1 1/8	1 3/4	18
456-017	M28M	1 1/8	1 3/4	14
456-018	M28H	1 1/8	1 3/4	10
456-019	M30L	1 1/4	1 7/8	18
456-020	M30M	1 1/4	1 7/8	14
456-021	M30H	1 1/4	1 7/8	10
456-022	M34L	1 3/8	2 1/8	18
456-023	M34M	1 3/8	2 1/8	14
456-024	M34H	1 3/8	2 1/8	10
456-025	M36L	1 1/2	2 1/4	18
456-026	M36M	1 1/2	2 1/4	14
456-027	M36H	1 1/2	2 1/4	10
456-029	M38M	1 5/8	2 3/8	14

PRODUCT CODE	PART NO.	SHAFT DIAMETER (IN)	OUTSIDE DIAMETER (IN)	GAUGE
456-030	M38H	1 5/8	2 3/8	10
456-032	M40M	1 3/4	2 1/2	14
456-033	M40H	1 3/4	2 1/2	10
456-035	M46M	1 7/8	2 3/4	14
456-036	M46H	1 7/8	2 3/4	10
456-038	M48M	2	3	14
456-039	M48H	2	3	10
456-041	M50M	2 1/8	3 1/8	14
456-042	M50H	2 1/8	3 1/8	10
456-044	M52M	2 1/4	3 1/4	14
456-045	M52H	2 1/4	3 1/4	10
456-047	M54M	2 3/8	3 3/8	14
456-048	M54H	2 3/8	3 3/8	10
456-050	M56M	2 1/2	3 1/2	14
456-051	M56H	2 1/2	3 1/2	10

(L) 18 gauge - 0.050" (M) 14 gauge - 0.083 (H) 10 gauge - 0.134"

### KEY STOCK

- 12" length square bar
- Cold drawn steel AISI-C - 1018
- Hardness 140-188 Brinnell
- Yield strength 43,000/55,000 PSI
- Tensile strength of 70,000-85,000 PSI
- Chemical composition:
  - .15/20 Carbon
  - .40 Phosphorus
  - .60/90 Manganese
  - .50 Sulphur
- Material Test Report Available on request
- **Package quantity = 6**

PRODUCT CODE	PART NO.	SIZE (IN)
457-006	KS22	1/8
457-007	KS33	3/16
457-009	KS44	1/4
457-010	KS55	5/16
457-011	KS66	3/8
457-012	KS77	7/16
457-013	KS88	1/2
457-014	KS99	9/16
457-015	KS110	5/8
457-016	KS112	3/4
457-017	KS114	7/8
457-018	KS116	1

# FASTENERS

## Spring Pins

### SPRING PINS

#### SPRING PINS KIT

- Contains 240 pcs, 15 popular sizes
- Packed in metal drawer
- Easy identification label in lid



PRODUCT CODE	PART NUMBER	PKG QTY
476-103	SK34	1

#### SPRING PINS - SLOTTED



- High Carbon Steel (1070 - 1095)
- Chamfered ends simplify insertion
- Spring action locks each pin tightly, easily removable with a punch
- Conform to MIL-P 10971, MS17401 to MS171900, MS9047-48, MS16562, NAS 561 and SAE std J496
- **Package quantity = 50**

PRODUCT CODE	PART NUMBER	NOMINAL DIAMETER X LENGTH (IN)
476-001	SP1	1/16 x 3/16
476-002	SP2	1/16 x 5/16
476-003	SP3	1/16 x 1/2
476-004	SP4	1/16 x 5/8
476-005	SP5	1/16 x 3/4
476-006	SP6	1/16 x 7/8
476-007	SP7	1/16 x 1
476-008	SP8	5/64 x 1/4
476-009	SP9	5/64 x 1/2
476-010	SP10	5/64 x 9/16
476-011	SP11	5/64 x 3/4
476-012	SP12	5/64 x 1
476-013	SP13	5/64 x 1 1/4
476-014	SP14	5/64 x 1 1/2
476-015	SP15	3/32 x 5/16
+ 476-016	SP16	3/32 x 1/2
476-017	SP17	3/32 x 5/8
+ 476-018	SP18	3/32 x 3/4
476-019	SP19	3/32 x 7/8
+ 476-020	SP20	3/32 x 1
476-021	SP21	3/32 x 1 1/4
476-022	SP22	3/32 x 1 1/2
476-023	SP23	1/8 x 3/8
+ 476-024	SP24	1/8 x 1/2
476-025	SP25	1/8 x 5/8
476-026	SP26	1/8 x 3/4
476-027	SP27	1/8 x 7/8
+ 476-028	SP28	1/8 x 1
476-029	SP29	1/8 x 1 1/4
476-030	SP30	1/8 x 1 1/2
476-031	SP31	1/8 x 1 3/4
476-032	SP32	1/8 x 2

PRODUCT CODE	PART NUMBER	NOMINAL DIAMETER X LEGTH (IN)
476-033	SP33	5/32 x 1/2
476-034	SP34	5/32 x 5/8
+ 476-035	SP35	5/32 x 3/4
+ 476-036	SP36	5/32 x 1
476-037	SP37	5/32 x 1 1/4
+ 476-038	SP38	5/32 x 1 1/2
476-039	SP39	3/16 x 1/2
476-040	SP40	3/16 x 5/8
+ 476-041	SP41	3/16 x 3/4
+ 476-042	SP42	3/16 x 1
+ 476-043	SP43	3/16 x 1 1/4
476-044	SP44	3/16 x 1 1/2
476-045	SP45	3/16 x 1 3/4
476-046	SP46	3/16 x 2
476-047	SP47	3/16 x 2 1/4
476-048	SP48	7/32 x 5/8
476-049	SP49	7/32 x 1 1/4
476-050	SP50	7/32 x 1 3/8
476-051	SP51	7/32 x 1 1/2
476-052	SP52	7/32 x 1 3/4
476-053	SP53	1/4 x 5/8
476-054	SP54	1/4 x 3/4
476-055	SP55	1/4 x 7/8
+ 476-056	SP56	1/4 x 1
476-057	SP57	1/4 x 1 1/4
+ 476-058	SP58	1/4 x 1 1/2
476-059	SP59	1/4 x 1 3/4
476-060	SP60	1/4 x 2
476-061	SP61	1/4 x 2 1/4
476-062	SP62	1/4 x 2 1/2
476-063	SP63	5/16 x 3/4
476-064	SP64	5/16 x 7/8
+ 476-065	SP65	5/16 x 1
+ 476-066	SP66	5/16 x 1 1/2
476-067	SP67	5/16 x 1 3/4
476-068	SP68	5/16 x 2
476-069	SP69	5/16 x 2 1/2
476-070	SP70	3/8 x 3/4
476-071	SP71	3/8 x 1
476-072	SP72	3/8 x 1 1/2
476-073	SP73	3/8 x 2
476-074	SP74	3/8 x 2 1/2
476-075	SP75	3/8 x 3
476-076	SP76	7/16 x 1
476-077	SP77	7/16 x 1 1/4
476-078	SP78	7/16 x 1 1/2
476-079	SP79	7/16 x 2
476-080	SP80	7/16 x 2 1/2
476-081	SP81	7/16 x 3
476-082	SP82	1/2 x 1 1/4
476-083	SP83	1/2 x 1 1/2
476-084	SP84	1/2 x 1 3/4
476-085	SP85	1/2 x 2
476-086	SP86	1/2 x 2 1/2
476-087	SP87	1/2 x 3

+ Included in SK34 Spring Pin Kit

# FASTENERS

Spring Pins • Clevis Pins • Clevis Yolks

## SPRING PINS (CONT)

### SHEAR STRENGTH CHART

Diameter	Minimum Double Shear Strength	Diameter	Minimum Double Shear Strength
1/16"	425 lbs	7/32"	5700 lbs
5/64"	650 lbs	1/4"	7700 lbs
3/32"	1000 lbs	5/16"	11500 lbs
1/8"	2100 lbs	3/8"	76000 lbs
5/32"	3000 lbs	7/16"	20000 lbs
3/16"	4400 lbs	1/2"	25800 lbs

## CLEVIS PINS

### UNIVERSAL CLEVIS PINS

- Multiple cotter pin holes to provide wide range of grip lengths
- Reduce number of pins required for emergency coverage
- For cars, truck and farm implements
- Case hardened high carbon steel, plated
- **Package quantity = 6**



Product Code	Part Number	Dimensions Diameter x Length (in)
478-044	U44	1/4 x 2
478-054	U54	5/16 x 2
478-064	U64	3/8 x 2
478-074	U74	7/16 x 2
478-075	U75	7/16 x 2 1/2
478-076	U76	7/16 x 3
478-084	U84	1/2 x 2
478-085	U85	1/2 x 2 1/2
478-086	U86	1/2 x 3
478-106	U106	5/8 x 3
478-126	U126	3/4 x 3

### STANDARD CLEVIS PINS

- Usable lengths shown are from under the head to start of hole.
- Case hardened high carbon steel
- **Package quantity = 25**

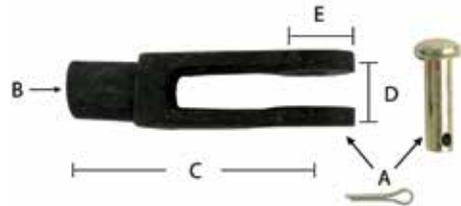


Product Code	Part Number	Diameter	Dimensions Length (in)	
			Overall	Usable
478-450	450	3/16	31/32	5/8
478-451	451	1/4	7/8	9/16
478-464	464	1/4	1 3/8	1 1/8
478-548	548	5/16	7/8	9/16
478-562	562	5/16	1 3/16	7/8

Product Code	Part Number	Diameter	Dimensions Length (in)	
			Overall	Usable
478-564	564	5/16	1 1/16	3/4
478-572	572	5/16	1 3/16	15/16
478-580	580	5/16		1 1/4
478-596	596	5/16	1 9/16	1 1/4
478-600	600	5/16	1 13/16	1 3/16
478-635	635	5/16	1 7/8	1 9/16
478-656	656	3/8	1	5/8
478-664	664	3/8	1 1/8	13/16
478-670	670	3/8	1 3/16	13/16
478-680	680	3/8	1 3/8	1 1/16
478-688	688	3/8	1 1/2	1 3/16
478-696	696	3/8	1 5/8	1 1/4
478-779	779	7/16	1 3/8	1
478-796	796	7/16	1 3/4	1 3/8
478-835	835	7/16	1 7/8	1 1/2
478-880	880	1/2		
478-891	891	1/2	1 1/2	1 1/8
478-905	905	1/2		
478-928	928	1/2	2 1/8	1 13/16

## CLEVIS YOLKS

- Drop forged S.A.E. fine thread, bare
- 5 sizes service all cars and trucks
- Package includes clevis pins and cotter pins
- **Package quantity = 6**



Product Code	Part Number	Clevis Pin Number	Cotter Pin Size
479-004	CY4	451	1/16 x 1/2
479-005	CY5	562	3/32 x 1/2
479-006	CY6	670	3/32 x 1/2
479-007	CY7	779	3/32 x 1
479-008	CY8	891	1/8 x 1

### CLEVIS YOLK DIMENSIONS

Product Code	Dimensions (in)				
	A	B	C	D	E
479-004	1/4	1/4 UNF	2	9/32	5/8
479-005	5/16	5/16 UNF	2 1/4	1 1/32	3/4
479-006	3/8	3/8 UNF	2 1/2	7/16	7/8
479-007	7/16	7/16 UNF	2 7/8	1/2	1
479-008	1/2	1/2 UNF	3	9/16	1 1/8

# FASTENERS

## Hitch Pin Clips

### HITCH PIN CLIPS

- Made of oil tempered spring wire especially for agricultural implements, lawn mowers, construction and industrial machinery
- **Package quantity = 10**



#### HITCH PIN CLIP ASSORTMENT

- 15 popular sizes
- Contains 190 pieces
- Packed in metal display



PRODUCT CODE	PART NO.	SIZE CATEGORY (IN)	RECOMMENDED DRILL HOLE SIZE (IN)	RECOMMENDED SHAFT DIAMETER MIN	MAX	OVERALL LENGTH	INSIDE DIAMETER OF EYE	GROOVE LENGTH I.D.
480-001	1	5/32	5/32 or 11/64	1/2 x 5/8	5/8 x 1 RECT	3	1/2	
480-002	2	1/8	+ 9/64	3/4	+ 1 1/8	3 1/4	1	
+ 480-003	3	3/32	7/64	1/4	+ 1/2	1 5/8	5/16	
480-004	4	11/64	11/64 or 3/16	1/2 x 3/4	5/8 x 1 RECT	3	5/8	
480-005	5	11/64	11/64 or 3/16	7/8	+ 1 1/8	2 5/8	7/8	
+ 480-006	6	3/16	3/16 or 13/64	+ 5/8	1	3 1/4	7/8	
+ 480-007	7	3/32	7/64	+ 1/4	5/8	2 5/16	5/8	
+ 480-008	8	3/16	3/16 or 13/64	+ 7/8	1 1/8	3 3/4	7/8	
+ 480-009	9	5/32	5/32 or 11/64	+ 3/4	1 1/8	3 5/16	3/4	
+ 480-010	10	5/32	5/32 or 11/64	5/8	1	2 5/16	3/4	
+ 480-011	11	1/8	9/64	+ 7/16	3/4	2 9/16	7/16	
480-012	12	11/64	11/64 or 3/16	1/2 x 1	7/8 x 1 RECT	3 1/16	7/8	
+ 480-013	13	3/32	3/32 or 7/64	+ 1/4	3/8	13/16	1/4	
+ 480-014	14	3/32	7/64	+ 3/8	3/4	2 1/2	7/16	
480-015	15	1/8	9/64	+ 1/2	3/4	1 9/16	7/16	
+ 480-016	16	1/8	9/64	+ 1/2	3/4	1 3/4	7/16	
+ 480-017	17	3/32	3/32 or 7/64	+ 3/8	1/2	1 9/16	5/16	
+ 480-018	18	1/16	5/64	+ 3/8	1/2	1 9/16	5/16	
0 480-019	19	1/4	1/4 or 17/64	ON APPL	ON APPL	4 3/8	3/4	
0 480-020	20	5/16	5/16 or 21/64	ON APPL	ON APPL	3 5/16	7/8	
+ 480-021	21	3/64	1/16	+ 1/8	3/16	9/16	1/8	
+ 480-022	22	1/16	5/64	+ 1/4	1/2	1 5/16	5/16	
+ 480-023	23	3/64	3/64	+ 3/16	3/8	1	1/4	
480-024	24	3/64	1/16	+ 1/4	3/8	1 9/16	5/16	
480-025	25	5/64	5/64	+ 5/16	3/8	1 3/32	9/64	
480-101	1x	.032				15/32	3/32	5/32
480-102	2x	.062				1	3/16	3/8
480-103	3x	.062				1 1/16	1/8	1/4
480-104	4x	.047				7/8	1/8	1/4
480-105	5x	.035				1/2	1/8	5/32
480-106	6x	.046 sq				15/16	3/16	5/16
480-107	7x	.105				2 1/16	7/16	25/32
480-110	10x	.177				2 5/8	3/4	3/4

0 High Carbon Wire - All others tempered

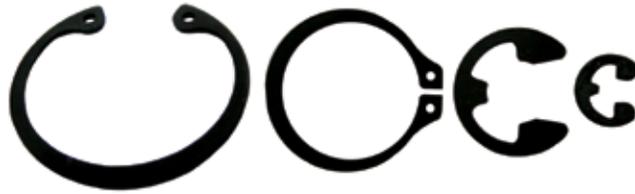
+ Included in Assortment HP190

See Hitch Pins chart on pg. I-6

PRODUCT CODE	PART NUMBER	PKG QTY
480-190	HP190	1

### SNAP RINGS

- Manufactured from high carbon S.A.E. 1060-1090 Steel and heat treated for resiliency and maximum performance
- Used as retainers on automotive, agricultural, industrial, appliance and heavy duty equipment
- **Package Quantity = 20**



PRODUCT CODE	PART NUMBER	RING SIZE (IN)	FREE DIA. A
482-025	1300-25	1/4	.280
482-031	1300-31	5/16	.346
482-037	1300-37	3/8	.415
482-043	1300-43	7/16	.482
482-050	1300-50	1/2	.548
482-056	1300-56	9/16	.620
482-062	1300-62	5/8	.694
482-068	1300-68	1 1/16	.763
482-075	1300-75	3/4	.831
482-081	1300-81	13/16	.901
482-087	1300-87	7/8	.971
482-093	1300-93	15/16	1.041
482-100	1300-100	1	1.111
482-106	1300-106	1 1/16	1.180
482-112	1300-112	1 1/8	1.249
482-125	1300-125	1 1/4	1.388
482-131	1300-131	1 5/16	1.456
482-137	1300-137	1 3/8	1.526
482-150	1300-150	1 1/2	1.660
482-175	1300-175	1 3/4	1.942
482-200	1300-200	2	2.210
482-325	1400-25	1/4	.225
482-331	1400-31	5/16	.281
482-337	1400-37	3/8	.338
482-343	1400-43	7/16	.395
482-350	1400-50	1/2	.461
482-356	1400-56	9/16	.521
482-362	1400-62	5/8	.579
482-368	1400-68	11/16	.635
482-375	1400-75	3/4	.693
482-381	1400-81	13/16	.751
482-387	1400-87	7/8	.810
482-393	1400-93	15/16	.867
482-400	1400-100	1	.925
482-412	1400-112	1 1/8	1.041
482-425	1400-125	1 1/4	1.156
482-431	1400-131	1 5/16	1.214
482-437	1400-137	1 3/8	1.272
482-450	1400-150	1 1/2	1.387
482-475	1400-175	1 3/4	1.618
482-500	1400-200	2	1.850
482-612	1500-12	1/8	.094

PRODUCT CODE	PART NUMBER	RING SIZE (IN)	FREE DIA. A
482-615	1500-15	5/32	.114
482-618	1500-x18	3/16	.122
482-619	1500-18	3/16	.145
482-625	1500-25	1/4	.207
482-631	1500-x31	5/16	.243
482-637	1500-37	3/8	.300
482-643	1500-43	7/16	.337
482-650	1500-50	1/2	.392
482-715	1540-15	5/32	.113
482-718	1540-18	3/16	.143
482-725	1540-25	1/4	.204
482-731	1540-31	5/16	.242
482-737	1540-37	3/8	.292
482-756	1540-56	1/2	.385

See Snap Ring chart on pg. I-5

### SNAP RING ASSORTMENT

- Contains 480 Rings
- 34 popular sizes
- Packed in metal drawer
- Easy identification label in lid
- 561A pliers included



PRODUCT CODE	PART NUMBER	PKG QTY
482-834	SRA-34	1



# TOOLS

48" Lift - All Jack.....	94	ISO Metric Fine .....	76	UNF.....	79	Power Puller .....	94	Y Handle .....	98
Adjustable Button Dies -		ISO Metric Spark Plug .....	75	UNS.....	79	1 Ton Hand Power Puller .....	94	Sledge/Club Hammers with	
Chrome Steel .....	78	NPT (Taper Pipe).....	75	Holesaw - High Speed Steel	84	2 Ton Hand Power Puller .....	95	Wood Handle.....	96
ISO Metric Coarse.....	78	UNF .....	75	Arbors .....	85	4 Ton Hand Power Puller .....	95	Sledge Hammer with	
ISO Metric Fine.....	78	UNS.....	75	Holesaw Assortment		Reduced Shank Drills .....	73	Fiberglass Handle .....	96
NPT.....	78	Hand Taps - Ground Thread ..	81	Kits.....	84	Rivet Nuts .....	84	Slide Hammer .....	93
UNC.....	78	Ground Thread High		Holesaw Blades.....	85	Rivet Nut Tool Kit .....	84	Snap Ring Pliers.....	85
UNF.....	78	Speed Steel.....	81	Jobber Drills .....	71	Rivets .....	84	Snow Brush.....	97
Axes.....	96	ISO Metric Coarse.....	82	Fractional.....	71	Hand Rivet Tool Kit .....	84	Stub Drills.....	72
Ball Pein Machinist's		ISO Metric Fine.....	83	Metal Case.....	71	Screw Extractors .....	81	Tap   Button   Die Set .....	80
Hammers.....	95	ISO Metric Spark Plug .....	83	KDS Digital Angle Sensor.....	91	Screw Extractors   Drill Set ..	81	ISO Metric Coarse and Fine	
American Hickory Handles..	95	NPT (Taper Pipe).....	82	KDS Knives.....	88	Shears .....	86	Combination .....	80
Fiberglass Handles.....	95	UNC.....	81	Banana Sickle.....	89	Electrical Shears.....	87	ISO Metric Coarse and UNF	
Brass Jiggle Siphon.....	93	UNF.....	82	Finger Guard L-Knife.....	88	Heavy Duty Shears.....	87	Combination .....	80
Brushes.....	97	UNS.....	82	Grip Fit G-Knives.....	89	Heavy Duty Short		Metric (ISO Coarse).....	80
Button Die Holders .....	79	Hand Taps Set -		Grip Fit L-Knives.....	88	Nose Shears.....	87	UNC.....	80
Cable And Spring		Chrome Steel.....	77	Job Boss Pro H-Cutters.....	89	KDS Stainless Steel		UNC and UNF Combination.	80
Wire Cutter.....	86	ISO Metric Coarse.....	77	KDS L-Knives.....	88	Scissors.....	87	UNF.....	80
Cable Cutters.....	86	ISO Metric Fine.....	77	Multi-Pro L-Knives.....	88	Multi-Purpose Angle Shears	87	Tape Measures.....	91
Bolt Cutters.....	86	Spark Plug.....	77	Multi-Pro Hook It .....	89	Multi-Purpose Shears .....	86	Good Grip Stainless Steel	
Cable Cutters.....	86	UNC.....	77	Safety Master Knives.....	89	Shovels .....	98	Tape .....	91
Cutters Replacement Blades		UNF.....	77	Slim S-Knives.....	89	Drain Spade Turn		Good Grip Steel Tape.....	91
.....	86	Hand Taps Set -		KDS Scraper .....	90	Step Shovel (Track Shovel)..	98		
"C" Clamps.....	93	Ground Thread.....	83	Good Grip Scraper.....	90	Fiberglass Round Point			
Hand Taps - Chrome Steel....	74	Ground Thread High Speed		KDS Spare Blades.....	90	Shovel .....	98		
UNC.....	74	Steel.....	83	Knife Sharpener .....	86	Fiberglass Square Point			
Centre Drills .....	72	ISO Metric Coarse.....	83	Magnetic Tools .....	92	Shovel .....	98		
Chisel Set .....	84	ISO Metric Fine.....	83	Telescopic Tools.....	92	Grain Scoop Shovel.....	98		
14 Pc Punch &		UNC.....	83	Panel Drills .....	72	Round Point Shovel.....	98		
Chisel Set .....	84	Hex Die Nuts - Chrome Steel		"Twin Point" Double Ended.	72	Round Point Shovel with			
Funnel (Heavy Duty).....	92	ISO Metric Coarse.....	80	Pipe Wrenches.....	85	Y Handle .....	98		
Hand Taps - Chrome Steel....	75	ISO Metric Coarse.....	80	Aluminum		Sidewalk Scraper.....	98		
ISO Metric Coarse.....	76	ISO Metric Fine.....	80	Pipe Wrench.....	85	Square Point Shovel .....	98		
ISO Metric Conduit.....	75	UNC.....	79	Cast Iron Pipe Wrench.....	85	Square Point Shovel with			

### JOBBER DRILLS

#### STANDARD DRILL SURFACE TREATMENT

The standard treatments applied to the various drill types are indicated on the respective pages of the catalogue.

#### SILVER JET

- This finish is recommended for the general purpose drilling of ferrous and non-ferrous materials but is particularly suitable for the drilling of aluminum, brass and non-abrasive diecast materials.

#### BLACK JET

- When tough or abrasive metals are being drilled, the use of a black jet drill is recommended. The P&N/Sutton Black Jet treatment produces an extremely hard, wear resistant surface, thereby improving noticeably the life of the drill. It is particularly suited for the drilling of cast iron high tensile steel, stainless steel and certain abrasive plastics.

#### METAL CASE



PART NUMBER	SET NUMBER	SIZE RANGE	RISES	QTY	PKG QTY
150B00BF3	3	1/16-1/2	64ths	29	1

#### FRACTIONAL

- Most popular drills used by engineers, tradesmen and home handymen
- Designed to give optimum performance in a wide range of materials
- Straight Shank
- High Speed Steel
- 118° point
- Black Jet Finish



PART NUMBER	DIAMETER	DECIMAL EQUIVALENT	LENGTH (IN) FLUTE	LENGTH (IN) OVERALL	PKG QTY
* 120-2160	1/64	0.0156	3/16	3/4	10
* 120-3004	1/32	0.0312	1/2	1 3/8	10
* 120-3755	3/64	0.0469	3/4	1 3/4	10
* 120-4117	1/16	0.0625	7/8	1 7/8	10
* 120-4537	5/64	0.0781	1	2	10
120-5006	3/32	0.0938	1 1/4	2 1/4	10
* 120-5435	7/64	0.1094	1 1/2	2 5/8	10
120-5819	1/8	0.125	1.5/8	2 3/4	10
120-6057	9/64	0.1406	1 3/4	2 7/8	10
120-6351	5/32	0.1562	2	3 1/8	10
120-6655	11/64	0.1719	2 1/8	3 1/4	10
120-6959	3/16	0.1875	2 5/16	3 1/2	10
120-7286	13/64	0.2031	2 7/16	3 5/8	10
120-7553	7/32	0.2188	2 1/2	3 3/4	10
120-7795	15/64	0.2344	2 5/8	3 7/8	10
120-8068	1/4	0.25	2 3/4	4	10

\* Available in Silver Jet Finish Only

# TOOLS

## Jobber Drills • Panel Drills • Centre Drills • Stub Drills

### JOBBER DRILLS (CONT)

#### FRACTIONAL (CONT)

PART NUMBER	DIAMETER	DECIMAL EQUIVALENT	LENGTH (IN) FLUTE	LENGTH (IN) OVERALL	PKG QTY
120-8273	17/64	0.2656	2 7/8	4 1/8	10
120-8540	9/32	0.2812	2 15/16	4 1/4	10
120-8755	19/64	0.2969	3 1/16	4 3/8	10
120-8933	5/16	0.3125	3 3/16	4 1/2	10
120-9144	21/64	0.3281	3 5/16	4 5/8	10
120-9359	11/32	0.3438	3 7/16	4 3/4	5
120-9564	23/64	0.3594	3 1/2	4 7/8	5
120-9742	3/8	0.3750	3 5/8	5	5
120-9957	25/64	0.3906	3 3/4	5 1/8	5
121-0160	13/32	0.4062	3 7/8	5 1/4	5
121-0348	27/64	0.4219	3 15/16	5 3/8	5
121-0491	7/16	0.4375	4 1/16	5 1/2	5
121-0642	29/64	0.4531	4 3/16	5 5/8	5
121-0795	15/32	0.4688	4 5/16	5 3/4	5
121-0946	31/64	0.4844	4 3/8	5 7/8	5
121-1095	1/2	0.5	4 1/2	6	5
007779	17/32	0.5312	4 13/16	6 5/8	1
006048	9/16	0.5625	4 13/16	6 5/8	1
006772	5/8	0.625	5 3/16	7 1/8	1

\* Available in Silver Jet Finish Only

### PANEL DRILLS

- P&N/Sutton Panel drills have been developed to drill holes for rivets in flat and curved panels
- Used by sheet metal workers and other tradesmen
- Recommended only for shallow holes no deeper than 1.1/4 times the drill diameter
- They can also be used for drilling hard materials eg. stainless steel
- When using twin point drills ensure that the chuck jaws are fully tightened
- High Speed Steel
- Silver Jet Finish
- Fractional and wire gauge
- 135° Self-centering point
- Straight shank
- No centre punching
- Drill cutting at break through
- Accurate round holes
- Minimum burr
- Easier assembly of panels
- Faster production

#### "TWIN POINT" DOUBLE ENDED



PART NUMBER	DIAMETER	FLUTE	LENGTH (IN) OVERALL	PKG QTY
141-6011	1/8	9/16	2	10
141-6119	Wire Ga.30	9/16	2	10

### CENTRE DRILLS

- Combined drill and counter sink
- High Speed Steel
- The plain type centre drills are used to drill female 60° centre holes in ends of the shafts and components which will later revolve between centres
- Centre drills are also used to ensure accurate starting and centering
- Silver Jet Finish
- Manufactured to ANSI B94.11.1967 standard



PART NUMBER	NUMBER	PILOT DIAMETER (MM)	BODY DIAMETER (MM)	PKG QTY
170-0015	1	1.00	3.15	5
170-0033	2	2.00	5.00	5
002453	3	2.50	6.30	5
170-0079	4	3.15	8.00	5
001883	5	4.00	10.00	5
004877	6	5.00	12.50	1
170-0131	7	6.30	16.00	1
170-1155	8	8.00	20.00	1

### STUB DRILLS

- Stub drills are shorter in overall length and flute than the jobber drill therefore grater rigidity
- Used by engineers and tradesmen
- Major applications are:
  - Drilling sheet metal
  - Drilling of shallow holes in a wide range of materials
  - Drilling of hard metal eg. Stainless steel
  - Drilling out broken studs
  - For more accurate hole location
- 118° point
- High Speed Steel
- Fractional and wire gauge sizes
- Straight shank
- Silver Jet Finish
- Black Jet Finish



PART NUMBER	DIAMETER	DECIMAL EQUIV. (IN)	FLUTE	LENGTH (IN) OVERALL	PKG QTY
140-2131	1/8	0.1250	7/8	1 7/8	10
002682	3/16	0.1875	1 1/8	2 3/16	10
140-3539	1/4	0.2500	1 3/8	2 1/2	10
140-3931	5/16	0.3125	1 5/8	2 13/16	10
140-4339	3/8	0.3750	1 13/16	3 1/8	10

### REDUCED SHANK DRILLS

- Designed to increase the drilling capacity of 1/4, 3/8 and 1/2 diameter drill chucks
- These drills must be used with extreme care and run at recommended speeds to avoid burning and blunting the drill point when drilling
- Straight Shank
- High Speed Steel
- Ground Land (Silver Jet)
- 118° point
- Black Jet Flute
- Fractional



PART NUMBER	DIAMETER	DECIMAL EQUIV. (IN)	FLUTE	LENGTH (IN) OVERALL	PKG QTY
<b>1/2 DIAMETER X 2 1/4 LONG</b>					
<b>• Black Jet Finish</b>					
<b>• Silver and Deming Type</b>					
352565	33/64	0.5156	3 3/8	6	1
162-0891	17/32	0.5313	3 3/8	6	1
352572	35/64	0.5469	3 3/8	6	1
162-1164	9/16	0.5625	3 3/8	6	1
352589	37/64	0.5781	3 3/8	6	1
162-1315	19/32	0.5938	3 3/8	6	1
162-1440	39/64	0.6094	3 3/8	6	1
162-1468	5/8	0.6250	3 3/8	6	1
352602	41/64	0.6406	3 3/8	6	1
162-1584	21/32	0.6563	3 3/8	6	1
162-1664	43/64	0.6719	3 3/8	6	1
162-1673	11/16	0.6875	3 3/8	6	1
162-1771	45/64	0.7031	3 3/8	6	1
162-1799	23/32	0.7188	3 3/8	6	1
162-1897	47/64	0.7344	3 3/8	6	1
162-1913	3/4	0.7500	3 3/8	6	1
162-1986	49/64	0.7656	3 3/8	6	1
162-2008	25/32	0.7813	3 3/8	6	1
162-2106	51/64	0.7969	3 3/8	6	1
162-2124	13/16	0.8125	3 3/8	6	1
162-2204	53/64	0.8281	3 3/8	6	1
162-2213	27/32	0.8438	3 3/8	6	1
162-2311	55/64	0.8594	3 3/8	6	1
162-2339	7/8	0.8750	3 3/8	6	1
162-2437	57/64	0.8906	3 3/8	6	1
162-2455	29/32	0.9063	3 3/8	6	1
162-2526	59/64	0.9219	3 3/8	6	1
162-2544	15/16	0.9375	3 3/8	6	1
162-2642	61/64	0.9351	3 3/8	6	1
162-2660	31/32	0.9688	3 3/8	6	1
162-2740	63/64	0.9844	3 3/8	6	1
162-2759	1	1.0000	3 3/8	6	1
162-2964	1.1/16	1.0625	3 3/8	6	1
162-3200	1.1/8	1.1250	3 3/8	6	1
162-3415	1.3/16	1.1875	3 3/8	6	1
162-3620	1.1/4	1.2500	3 3/8	6	1

### TAPER SHANK DRILLS

- P&N/Sutton Black Jet taper shank drills are a general purpose drill suitable for a wide variety of material and industrial applications
- High Speed Steel
- Black Jet Finish
- They have Morse Taper Shanks for holding and driving
- The tang at the end of the shank is used for ejecting the drill from the socket or sleeve



PART NUMBER	P&N REFERENCE NUMBER	DIAMETER	FLUTE LENGTH	OVERALL LENGTH	M.T.S. NO	PKG QTY
005447	110-1044	1/2	3 31/32	7 5/32	1	1
008066	110-1080	33/64	3 31/32	7 5/32	1	1
003283	110-1106	17/32	4 1/4	7 7/16	1	1
005454	110-1142	35/64	4 1/4	7 7/16	1	1
002774	110-1188	9/16	4 1/2	8 3/8	2	1
005461	110-1222	31/64	4 1/2	8 3/8	2	1
006024	110-1268	19/32	4 1/2	8 5/8	2	1
007212	110-1286	39/64	4 3/4	8 5/8	2	1
001449	110-1320	5/8	4 7/8	8 5/8	2	1
005836	110-1366	41/64	4 7/8	8 3/4	2	1
003412	110-1400	21/32	4 7/8	8 3/4	2	1
017303	110-1446	43/64	5 1/8	9	2	1
003122	110-1464	11/16	5 1/4	9	2	1
009421	110-1508	45/64	5 1/8	9	2	1
004679	110-1544	23/32	5 1/2	9 1/8	2	1
009438	110-1580	47/64	5 1/2	9 1/8	2	1
001609	110-1624	3/4	5 1/2	9 3/8	2	1
010229	110-1642	49/64	5 1/2	9 1/8	2	1
005843	110-1688	25/32	5 3/4	9 3/8	2	1
013442	110-1722	51/64	5 3/4	9 5/8	2	1
005294	110-1768	13/16	5 7/8	9 5/8	2	1
016061	110-1802	53/64	5 7/8	9 5/8	2	1
009445	110-1820	27/32	5 7/8	9 3/4	2	1
013459	110-1866	55/64	6 1/8	9 3/4	2	1
002422	110-1900	7/8	6 1/8	9 3/4	2	1
017310	110-1946	57/64	6 1/4	10	2	1
011615	110-1982	29/32	6 1/4	10	2	1
006499	110-2040	15/16	6 1/4	11	3	1
012261	110-2086	61/64	6 1/4	11	3	1
008073	110-2120	31/32	6 1/2	11	3	1
002316	110-2184	1	6 1/2	11 1/2	3	1
012278	110-2264	1 1/32	6 1/2	11 1/4	3	1
006284	110-2326	1 1/16	6 5/8	11 3/8	3	1
004310	110-2488	1 1/8	6 7/8	11 5/8	3	1
004150	110-2764	1 1/4	7 1/4	12	3	1
011127	110-2906	1 5/16	7 1/4	13 1/8	4	1
006291	110-3340	1 1/2	7 7/8	13 3/4	4	1

# TOOLS

## Tap Wrenches • Chrome Steel Hand Taps

### TAP WRENCHES

- The P&N/Sutton bar pattern tapwrench is robustly constructed to withstand the torque applied during the tapping operation
- Correct selection of the tap wrench will ensure there is a positive holding grip between the square end of the tap and the V shape hardened and tempered steel jaws
- The knurled handle reduce hand slippage



PART NUMBER	P&N REFERENCE NUMBER	NUMBER	HAND TAP RANGE (IN)
829632	300-7971	00	1/16 to 1/4
829649	300-7873	0	1/8 to 1/2
009599	300-7882	5	3/16 to 1/2
005522	300-7891	6	1/4 to 3/4
009605	300-7908	7	3/8 to 1
032863	300-7926	8	3/4 to 1.1/2

### T-TAP WRENCHES

- The P&N T pattern tap wrench is designed to reach those jobs that are inaccessible with the Bar pattern tap wrench



PART NUMBER	P&N REFERENCE NUMBER	NUMBER	HAND TAP RANGE (IN)
829618	300-7935	1/4	1/16 to 1/4
829625	300-7953	1/2	5/16 to 1/2

### HAND TAPS - CHROME STEEL

- P&N/Sutton chrome steel taps are manufactured from high quality chromium tool steel
- The threads are formed using precision ground circular rolls, which together with modern quality control techniques ensure a quality product
- The flutes are polished to give a smooth cutting surface and sharp cutting edges
- After heat treatment, the chamfer lead is precision machine ground ensuring even cutting and quality threads
- 60° Thread form
- T = Taper, I = Intermediate, B = Bottoming



### UNC

Part Number	P&N Reference Number	Size	Threads Per Inch.	Shank Dia.	Length (In.) Thread	Length (In.) Overall	No. of Flutes	Tapping Drill Size	Type
020112	232-8297	No. 10	24	0.194	7/8	2 3/8	3	5/32	T
017549	232-8304	No. 10	24	0.194	7/8	2 3/8	3	5/32	I
017556	232-8313	No. 10	24	0.194	7/8	2 3/8	3	5/32	B
014555	232-8377	1/4	20	0.255	1	2 1/2	4	13/64	T
023267	232-8386	1/4	20	0.255	1	2 1/2	4	13/64	I
014562	232-8395	1/4	20	0.255	1	2 1/2	4	13/64	B
018799	232-8411	5/16	18	0.318	1 1/8	2 23/32	4	17/64	T
018805	232-8420	5/16	18	0.318	1 1/8	2 23/32	4	17/64	I
014579	232-8439	5/16	18	0.318	1 1/8	2 23/32	4	17/64	B
011752	232-8457	3/8	16	0.381	1 1/4	2 15/16	4	5/16	T
021690	232-8466	3/8	16	0.381	1 1/4	2 15/16	4	5/16	I
017563	232-8475	3/8	16	0.381	1 1/4	2 15/16	4	5/16	B
025117	232-8493	7/16	14	0.323	1 1/16	3 5/32	4	3/8	T
027005	232-8500	7/16	14	0.323	1 1/16	3 5/32	4	3/8	I
020129	232-8519	7/16	14	0.323	1 1/16	3 5/32	4	3/8	B
011769	232-8537	1/2	13	0.367	1 3/32	3 3/8	4	27/64	T
020136	232-8546	1/2	13	0.367	1 3/32	3 3/8	4	27/64	I
013640	232-8555	1/2	13	0.367	1 3/32	3 3/8	4	27/64	B
023274	232-8573	9/16	12	0.429	1 23/32	3 19/32	4	31/64	T
035871	232-8582	9/16	12	0.429	1 23/32	3 19/32	4	31/64	I
025124	232-8591	9/16	12	0.429	1 23/32	3 19/32	4	31/64	B
023281	232-8617	5/8	11	0.480	1 13/16	3 13/16	4	35/64	T
023298	232-8626	5/8	11	0.480	1 13/16	3 13/16	4	35/64	I
017570	232-8635	5/8	11	0.480	1 13/16	3 13/16	4	35/64	B
025131	232-8653	3/4	10	0.590	2	4 1/4	4	21/32	T
032238	232-8662	3/4	10	0.590	2	4 1/4	4	21/32	I
021706	232-8671	3/4	10	0.590	2	4 1/4	4	21/32	B
017587	232-8699	7/8	9	0.697	2 1/32	4 11/16	4	49/64	T
027012	232-8706	7/8	9	0.697	2 1/32	4 11/16	4	49/64	I
021713	232-8715	7/8	9	0.697	2 1/32	4 11/16	4	49/64	B
027029	232-8733	1	8	0.800	2 1/2	5 1/8	4	7/8	T
032245	232-8742	1	8	0.800	2 1/2	5 1/8	4	7/8	I
027036	232-8751	1	8	0.800	2 1/2	5 1/8	4	7/8	B
420004	232-8779	1 1/8	7	0.896	2 9/16	5 1/16	4	63/64	T
420011	232-8788	1 1/8	7	0.896	2 9/16	5 1/16	4	63/64	I
420028	232-8797	1 1/8	7	0.896	2 9/16	5 1/16	4	63/64	B
040264	232-8813	1 1/4	7	1.021	2 9/16	5 3/4	4	1 1/64	T
040271	232-8822	1 1/4	7	1.021	2 9/16	5 3/4	4	1 1/64	I
040288	232-8831	1 1/4	7	1.021	2 9/16	5 3/4	4	1 1/64	B

### HAND TAPS - CHROME STEEL (CONT)

#### UNF

Part Number	P&N Reference Number	Size	Threads Per Inch.	Shank Dia.	Length (In.)		No. of Flutes	Tapping Drill Size	Type
					Thread	Overall			
020143	233-2337	10	32	0.194	7/8	2 3/8	3	5/32	T
020150	233-2346	10	32	0.194	7/8	2 3/8	3	5/32	I
023304	233-2355	10	32	0.194	7/8	2 3/8	3	5/32	B
016399	233-2417	1/4	28	0.255	1	2 1/2	4	7/32	T
017594	233-2426	1/4	28	0.255	1	2 1/2	4	7/32	I
016405	233-2435	1/4	28	0.255	1	2 1/2	4	7/32	B
017600	233-2453	5/16	24	0.318	1 1/8	2 23/32	4	6.9mm	T
025148	233-2462	5/16	24	0.318	1 1/8	2 23/32	4	6.9mm	I
016412	233-2471	5/16	24	0.318	1 1/8	2 23/32	4	6.9mm	B
013657	233-2499	3/8	24	0.381	1 1/4	2 15/16	4	8.5mm	T
018812	233-2506	3/8	24	0.381	1 1/4	2 15/16	4	8.5mm	I
010724	233-2515	3/8	24	0.381	1 1/4	2 15/16	4	8.5mm	B
013060	233-2533	7/16	20	0.323	1 7/16	3 5/32	4	25/64	T
018829	233-2542	7/16	20	0.323	1 7/16	3 5/32	4	25/64	I
015422	233-2551	7/16	20	0.323	1 7/16	3 5/32	4	25/64	B
017617	233-2579	1/2	20	0.367	1 29/32	3 3/8	4	29/64	T
015439	233-2588	1/2	20	0.367	1 29/32	3 3/8	4	29/64	I
023311	233-2597	1/2	20	0.367	1 29/32	3 3/8	4	29/64	B
015446	233-2613	9/16	18	0.429	1 29/32	3 19/32	4	33/64	T
023328	233-2622	9/16	18	0.429	1 29/32	3 19/32	4	33/64	I
025155	233-2631	9/16	18	0.429	1 29/32	3 19/32	4	33/64	B
018836	233-2659	5/8	18	0.480	1 19/16	3 13/16	4	37/64	T
029559	233-2668	5/8	18	0.480	1 19/16	3 13/16	4	37/64	I
018843	233-2677	5/8	18	0.480	1 19/16	3 13/16	4	37/64	B
023335	233-2695	3/4	16	0.590	2	4 1/4	4	11/16	T
029566	233-2702	3/4	16	0.590	2	4 1/4	4	11/16	I
023342	233-2711	3/4	16	0.590	2	4 1/4	4	11/16	B
018850	233-2739	7/8	14	0.697	2 1/32	4 11/16	4	13/16	T
016429	233-2748	7/8	14	0.697	2 1/32	4 11/16	4	13/16	I
029573	233-2757	7/8	14	0.697	2 1/32	4 11/16	4	13/16	B
021720	233-2775	1	12	0.800	2 1/2	5 1/8	4	59/64	T
029580	233-2784	1	12	0.800	2 1/2	5 1/8	4	59/64	I
017624	233-2793	1	12	0.800	2 1/2	5 1/8	4	59/64	B
035925	233-2819	1 1/8	12	0.896	2 9/16	5 7/16	4	1 3/64	T
032313	233-2828	1 1/8	12	0.896	2 9/16	5 7/16	4	1 3/64	I
050683	233-2837	1 1/8	12	0.896	2 9/16	5 7/16	4	1 3/64	B
040318	233-2855	1 1/4	12	1.021	2 9/16	5 3/4	6	1 11/64	T
035932	233-2864	1 1/4	12	1.021	2 9/16	5 3/4	6	1 11/64	I
035949	233-2873	1 1/4	12	1.021	2 9/16	5 3/4	6	1 11/64	B

#### UNS

Part Number	P&N Reference Number	Size	Threads Per Inch.	Shank Dia.	Length (In.)		No. of Flutes	Tapping Drill Size	Type
					Thread	Overall			
032290	233-7417	1	14	0.800	2 1/2	5 1/8	4	15/16	T
040301	233-7426	1	14	0.800	2 1/2	5 1/8	4	15/16	I
032306	233-7435	1	14	0.800	2 1/2	5 1/8	4	15/16	B

#### ISO METRIC SPARK PLUG

Part Number	P&N Reference Number	Size	Pitch mm	Shank Dia.	Length (mm)		No. of Flutes	Tapping Drill Size	Type
					Thread	Overall			
029511	237-3019	10	1.00	7.772	31.80	75	4	9.00	T
032207	237-3028	10	1.00	7.772	31.80	75	4	9.00	I
023236	237-3037	10	1.00	7.772	31.80	75	4	9.00	B
029528	237-3055	12	1.25	9.322	42.10	86	4	10.50	T
025087	237-3064	12	1.25	9.322	42.10	86	4	10.50	I
035833	237-3073	12	1.25	9.322	42.10	86	4	10.50	B
012377	237-3091	14	1.25	10.897	42.10	91	4	12.50	T
021683	237-3108	14	1.25	10.897	42.10	91	4	12.50	I
020105	237-3117	14	1.25	10.897	42.10	91	4	12.50	B

#### ISO METRIC CONDUIT

Part Number	P&N Reference Number	Size	Pitch mm	Shank Dia.	Length (mm)		No. of Flutes	Tapping Drill Size	Type
					Thread	Overall			
029498	235-4646	25	1.50	20.40	38.00	83	4	23.50	T
035819	235-4655	25	1.50	20.40	38.00	83	4	23.50	I
040240	235-4664	25	1.50	20.40	38.00	83	4	23.50	B
035826	235-4673	32	1.50	26.00	38.00	102	4	30.50	T
029504	235-4682	32	1.50	26.00	38.00	102	4	30.50	I
050669	235-4691	32	1.50	26.00	38.00	102	4	30.50	B
420035	235-4708	40	1.50	31.40	38.00	102	4	38.50	T
420042	235-4717	40	1.50	31.40	38.00	102	4	38.50	I
420059	235-4726	40	1.50	31.40	38.00	102	4	38.50	B
420066	235-4735	50	1.50	41.90	51.00	127	6	48.50	T
420073	235-4744	50	1.50	41.90	51.00	127	6	48.50	I
420080	235-4753	50	1.50	41.90	51.00	127	6	48.50	B

#### NPT (TAPER PIPE)

• Bottoming Lead Only

Part Number	P&N Reference Number	Size	Thread Per Inch	Shank Dia.	Length (mm)		No. of Flutes	Tapping Drill Size	Type
					Thread	Overall			
017723	236-9013	1/8	27	0.437	3/4	2 1/8	4	11/32	B
016443	236-9022	1/4	18	0.562	1 1/16	2 1/16	4	7/16	B
017730	236-9031	3/8	18	0.700	1 1/16	2 3/16	4	9/16	B
027098	236-9040	1/2	14	0.687	1 3/8	3 1/8	4	45/64	B
027104	236-9059	3/4	14	0.906	1 3/4	3 1/4	4	29/32	B
027111	236-9068	1	11 1/2	1.125	1 3/4	3 3/4	4	1 1/64	B
040691	236-9077	1 1/4	11 1/2	1.312	1 3/4	4	6	1 15/32	B
050799	236-9086	1 1/2	11 1/2	1.500	1 3/4	4 1/4	6	1 23/32	B
036311	236-9095	2	11 1/2	1.875	1 3/4	4 1/2	6	2 3/16	B

# TOOLS

## Chrome Steel Hand Taps

### HAND TAPS - CHROME STEEL (CONT)

#### ISO METRIC COARSE

Part Number	P&N Reference Number	Size	Thread Per Inch	Shank Dia.	Length (mm)		No. of Flutes	Tapping Drill Size	Type
					Thread	Overall			
018751	234-8095	3	0.5	3.851	15.9	49	3	2.55	T
020099	234-8102	3	0.5	3.851	15.9	49	3	2.55	I
025001	234-8111	3	0.5	3.851	15.9	49	3	2.55	B
015385	234-8175	4	0.7	4.267	19.1	54	4	3.4	T
016351	234-8184	4	0.7	4.267	19.1	54	4	3.4	I
021614	234-8193	4	0.7	4.267	19.1	54	4	3.4	B
011271	234-8255	5	0.8	5.588	23.8	60	4	4.3	T
011288	234-8264	5	0.8	5.588	23.8	60	4	4.3	I
015392	234-8273	5	0.8	5.588	23.8	60	4	4.3	B
012360	234-8291	6	1	6.477	25.4	64	4	5.1	T
015408	234-8308	6	1	6.477	25.4	64	4	5.1	I
008189	234-8317	6	1	6.477	25.4	64	4	5.1	B
M200 0700		7	1	7.264	25.4	64	4	6.1	T
M202 0700		7	1	7.264	25.4	64	4	6.1	B
011295		8	1.25	8.077	28.5	69	4	6.9	T
014531	234-8424	8	1.25	8.077	28.5	69	4	6.9	I
017501	234-8433	8	1.25	8.077	28.5	69	4	6.9	B
035697	234-8451	9	1.25	9.677	31.8	75	4	7.9	T
035710	234-8479	9	1.25	9.677	31.8	75	4	7.9	B
017518	234-8577	10	1.5	7.772	31.8	75	4	8.6	T
008196	234-8586	10	1.5	7.772	31.8	75	4	8.6	I
015415	234-8595	10	1.5	7.772	31.8	75	4	8.6	B
021621	234-8737	12	1.75	9.322	42.1	86	4	10.2	T
016368	234-8746	12	1.75	9.322	42.1	86	4	10.2	I
021638	234-8755	12	1.75	9.322	42.1	86	4	10.2	B
025032	234-8853	14	2	10.897	42.1	91	4	12.20	T
040202	234-8862	14	2	10.897	42.1	91	4	12.20	I
032153	234-8871	14	2	10.897	42.1	91	4	12.20	B
021645	234-8933	16	2	12.192	46	97	4	14.25	T
013626	234-8942	16	2	12.192	46	97	4	14.25	I
014548	234-8951	16	2	12.192	46	97	4	14.25	B
M200 1800		18	2.5	13.767	46	102	4	15.75	T
M202 1800		18	2.5	13.767	46	102	4	15.75	B
017525	234-9091	20	2.5	16.561	50.8	114	4	17.50	T
023212	234-9108	20	2.5	16.561	50.8	114	4	17.50	I
018768	234-9117	20	2.5	16.561	50.8	114	4	17.50	B
035758	234-9297	24	3	19.304	56.4	125	4	21.00	T
029443	234-9304	24	3	19.304	56.4	125	4	21.00	I
035765	234-9313	24	3	19.304	56.4	125	4	21.00	B
050577	234-9368	30	3.5	25.566	65	138	4	26.50	T
050584	234-9377	30	3.5	25.566	65	138	4	26.50	I
040233	234-9386	30	3.5	25.566	65	138	4	26.50	B
050621	234-9420	36	4	31.318	76.2	154	4	32.00	T
050638	234-9439	36	4	31.318	76.2	154	4	32.00	I
050645	234-9448	36	4	31.318	76.2	154	4	32.00	B

#### ISO METRIC FINE

Part Number	P&N Reference Number	Size	Thread Per Inch	Shank Dia.	Length (mm)		No. of Flutes	Tapping Drill Size	Type
					Thread	Overall			
021652	234-8371	8	1.00	8.077	28.50	69	4	7.10	T
029450	234-8380	8	1.00	8.077	28.50	69	4	7.10	I
029467	234-8399	8	1.00	8.077	28.50	69	4	7.10	B
050874	234-8442	8	1.00	8.077	28.50	69	4	7.10	S
021669	234-8531	10	1.25	7.772	31.80	75	4	8.90	T
013633	234-8540	10	1.25	7.772	31.80	75	4	8.90	I
021676	234-8559	10	1.25	7.772	31.80	75	4	8.90	B
035789	234-8693	12	1.50	9.322	42.10	86	4	10.50	T
025056	234-8700	12	1.50	9.322	42.10	86	4	10.50	I
023229	234-8719	12	1.50	9.322	42.10	86	4	10.50	B
017532	234-8817	14	1.50	10.897	42.10	91	4	12.50	T
018775	234-8826	14	1.50	10.897	42.10	91	4	12.50	I
026954	234-8835	14	1.50	10.897	42.10	91	4	12.50	B
025063	234-8899	16	1.50	12.192	46.00	97	4	14.75	T
025070	234-8906	16	1.50	12.192	46.00	97	4	14.75	I
018782	234-8915	16	1.50	12.192	46.00	97	4	14.75	B
026961	234-8779	18	1.50	13.767	46.00	102	4	16.50	T
032177	234-8988	18	1.50	13.767	46.00	102	4	16.50	I
029474	234-8997	18	1.50	13.767	46.00	102	4	16.50	B
026978	234-9055	20	1.50	16.561	50.80	114	4	18.50	T
029481	234-9064	20	1.50	16.561	50.80	114	4	18.50	I
032184	234-9073	20	1.50	16.561	50.80	114	4	18.50	B

### HAND TAPS SET - CHROME STEEL

- Chrome Steel Hand Taps are available in sets of three which include: a taper, intermediate and bottoming tap
- The taps are supplied in a plastic case that protects the threads from damage



#### UNC

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH
027135	232-8402	1/4	20
020242	232-8448	5/16	18
023380	232-8484	3/8	16
021782	232-8528	7/16	14
017754	232-8564	1/2	13
036373	232-8608	9/16	12
027142	232-8644	5/8	11
036380	232-8680	3/4	10
036397	232-8724	7/8	9
036403	232-8760	1	8

#### UNF

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH
018928	233-2444	1/4	28
036410	233-2480	5/16	24
020259	233-2524	3/8	24
021799	233-2560	7/16	20
029702	233-2604	1/2	20
023397	233-2640	9/16	18
027159	233-2686	5/8	18
036427	233-2720	3/4	16
032641	233-2766	7/8	14
036434	232-2800	1	12

#### SPARK PLUG

PART NUMBER	P&N REFERENCE NUMBER	SIZE (MM)	PITCH (MM)
089546	237-3046	10	1
071787	237-3082	12	1.25
071794	237-3126	14	1.25

#### ISO METRIC COARSE

PART NUMBER	P&N REFERENCE NUMBER	SIZE (MM)	PITCH (MM)
021775	234-8120	3	0.50
017747	234-8200	4	0.70
020235	234-8282	5	0.80
013084	234-8326	6	1.00
018911	234-8602	10	1.50
025193	234-8764	12	1.75
029696	234-8880	14	2.00
025209	234-8960	16	2.00
036359	234-9126	20	2.50
040790	234-9322	24	3.00

#### ISO METRIC FINE

PART NUMBER	P&N REFERENCE NUMBER	SIZE (MM)	PITCH (MM)
025216	234-8568	10	1.25
040806	234-8728	12	1.50
040752	234-8844	14	1.50
087788	234-8924	16	1.50
050881	234-9000	18	1.50
036366	234-9082	20	1.50

# TOOLS

## Adjustable Button Dies

### ADJUSTABLE BUTTON DIES - CHROME STEEL

- Manufactured from high quality Chromium Tool Steel
- 60° Thread Form
- Quality threads and size accuracy are assured by the use of precision ground thread master taps to produce the threads.
- All cutting faces are ground after heat treatment to give high performance and quality threads.
- QC techniques ensure an balanced cutting action accurately threaded components.
- Button die are adjustable tools in that the thread size can be altered within narrow limits.
- Guides are available for use with 1.1/2" and 2" outside diameter button dies.
- When ordering specify the size, thread type and outside diameter of the die.



#### ISO METRIC COARSE

PART NUMBER	P&N REFERENCE NUMBER	SIZE (MM)	OUTSIDE DIAMETER	THREAD PER INCH
007540		6	1	1.00
029740		7	1	1.00
007861		8	1	1.25
009971		10	1	1.50
011813	262-5853	12	2	1.75
040905	262-5880	14	2	2.00
006505	262-5906	16	2	2.00
029757		18	2	2.50
012414	262-5942	20	2	2.50
016498	262-5988	24	2	3.00

#### ISO METRIC FINE

PART NUMBER	P&N REFERENCE NUMBER	SIZE	OUTSIDE DIAMETER	THREAD PER INCH
023410	261-0708	8	1	1.00
020280	261-0744	10	1	1.25
025247	261-0771	12	1	1.25
027173	261-0780	12	1	1.50
036472	262-5844	12	2	1.50
081380	262-5862	14	2	1.25
023434	262-5871	14	2	1.50
013701	262-5899	16	2	1.50
020303	262-5915	18	2	1.50
020310	262-5933	20	2	1.50

#### UNC

PART NUMBER	P&N REFERENCE NUMBER	SIZE	OUTSIDE DIAMETER	THREAD PER INCH
025278	260-9148	12	1	24
021836	260-9157	1/4	1	20
016511	260-9166	5/16	1	18
018980	260-9175	3/8	1	16
020327	260-9184	7/16	1	14
023441	260-9193	1/2	1	13
018997	262-3744	1/2	2	13
036489	262-3753	9/16	2	12
019000	262-3762	5/8	2	11
019017	262-3771	3/4	2	10
027210	262-3780	7/8	2	9
025308	262-3799	1	2	8

#### UNF

PART NUMBER	P&N REFERENCE NUMBER	SIZE	OUTSIDE DIAMETER	THREAD PER INCH
021843	260-9648	10	1	32
014623	260-9666	1/4	1	28
010359	260-9675	5/16	1	24
016528	260-9684	3/8	1	24
014630	260-9693	7/16	1	20
019024	261-6580	7/16	1 1/2	20
021850	260-9700	1/2	1	20
017792	262-4259	1/2	2	20
025322	262-4268	9/16	2	18
006512	262-4286	3/4	2	16
013725	262-4295	7/8	2	14
014654	262-4302	1	2	12

#### NPT

PART NUMBER	P&N REFERENCE NUMBER	SIZE	OUTSIDE DIAMETER	THREAD PER INCH
021935	262-8422	1/8	2	27
016566	262-8431	1/4	2	18
023502	262-8440	3/8	2	18
029856	262-8459	1/2	2	14
029863	262-8468	3/4	2	14
419961	262-8477	1	2	11 1/2

### ADJUSTMENT PROCEDURES FOR P&N/SUTTON BUTTONS DIES

To mount the die in the dieholder, the side screws are rotated anti-clockwise until the die can be inserted into the holder, with the Vee in the die locating on the centre screw. The side screws are then tightened on to the die until "finger tight", the screws entering the dimple holes adjacent to the Vee slot. The die is now retained in the holder.

The centre screw is now tightened down into the Vee slot and the side screws nipped tight with a screw driver. The die will now cut to its nominal size.

To **increase** the cutting size:  
Release the tension on the side screws  
Screw the centre screw in, say one turn  
Re-tension the side screws

To **reduce** the cutting size:  
Release the tension on the side screws  
Unscrew the centre screw, say one turn  
Re-tension the side screws

The die will now cut a *large* size

The die will now cut a *smaller* size

### BUTTON DIE HOLDERS

- Both the 1.1/2" and 2" dieholder can be fitted with guides
- The guide ensures accurate alignment when cutting the thread
- Guides are available separately



PART NUMBER	P&N REFERENCE NUMBER	DIE HOLDER SIZE	CUTTING SIZE OF DIES INCHES
<b>829656</b>	300-7122	1	1/8 to 1/2
<b>005027</b>	300-7202	1 1/2	1/4 to 5/8
<b>007892</b>	300-7186	2	1/2 to 1

### HEX DIE NUTS - CHROME STEEL

- Chromium tool steel
- 60° Thread Form
- The hexagonal shape die nut is used with a spanner or wrench for repairing external threads that have been damaged
- They are not recommended for cutting an original thread



#### UNC

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH
<b>025414</b>	265-7173	1/4	20
<b>016597</b>	265-7182	5/16	18
<b>013770</b>	265-7191	3/8	16
<b>014692</b>	265-7208	7/16	14
<b>013138</b>	265-7217	1/2	13
<b>027289</b>	265-7226	9/16	12
<b>023540</b>	265-7235	5/8	11
<b>027296</b>	265-7244	3/4	10
<b>025421</b>	265-7253	7/8	9
<b>027302</b>	265-7262	1	8
<b>419978</b>	265-7271	1 1/8	7
<b>419985</b>	265-7280	1 1/4	7
<b>419992</b>	265-7306	1 1/2	6

#### UNF

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH
<b>016603</b>	265-8197	1/4	28
<b>012445</b>	265-8204	5/16	24
<b>011356</b>	265-8213	3/8	24
<b>011363</b>	265-8222	7/16	20
<b>011875</b>	265-8231	1/2	20
<b>020389</b>	265-8240	9/16	18
<b>010779</b>	265-8259	5/8	18
<b>010786</b>	265-8268	3/4	16
<b>021966</b>	265-8277	7/8	14
<b>015538</b>	265-8286	1	12
<b>032757</b>	265-8295	1 1/8	12
<b>023557</b>	265-8302	1 1/4	12
<b>041117</b>	265-8230	1 1/2	12

#### UNS

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH
<b>025339</b>	265-8400	1	14

# TOOLS

## Hex Die Nuts • Tap | Button | Die Sets

### HEX DIE NUTS - CHROME STEEL (CONT)

#### ISO METRIC COARSE

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH
017815	266-0682	5	0.80
011851	266-0691	6	1.00
009988	266-0726	8	1.25
023526	266-0762	10	1.50
010762	266-0806	12	1.75
013756	266-0851	16	2.00
021942	266-0697	20	2.50
023533	266-0913	24	3.00
020372	266-0931	30	3.50
041100	266-0959	36	4.00

#### ISO METRIC FINE

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH
029894	266-0717	8	1.00
025407	266-0744	10	1.00
015521	266-0753	10	1.25
013763	266-0780	12	1.25
011868	266-0799	12	1.50
021959	266-0824	14	1.50
029887	266-0833	14	2.00
029900	266-0842	16	1.50
029917	266-0860	18	1.50
027272	266-0888	20	1.50

### TAP | BUTTON | DIE SET

- P&N/Sutton tap and button die sets are made to internationally recognized standards maintaining a degree of dimensional accuracy
- A wide range of sets are available to meet the needs of industrial and automotive, tradesmen and the home handyman
- Stored in metal cases

#### UNC

PART NUMBER	P&N REFERENCE NUMBER	SET NUMBER	DIE DIAMETER (INCHES)	TAP WRENCH NUMBER	DESCRIPTION	DIE GUIDES SUPPLIED (AS MARKED)
<i>Set includes Intermediate Tap and Button Die for Each Size:</i>						
419527	300-0013	TD0	1	0	1/4, 5/16, 3/8, 7/16, 1/2	
<i>Set includes Taper and Bottoming Tap and Button Die for Each Size:</i>						
027388	300-0915	TD5	1 & 2	6	1/4, 5/16, 3/8, 7/16, 1/2, 5/8, 3/4	*
036632	300-0979	TD8	1 & 2	0 & 7	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8, 1	*

#### UNF

PART NUMBER	P&N REFERENCE NUMBER	SET NUMBER	DIE DIAMETER (INCHES)	TAP WRENCH NUMBER	DESCRIPTION	DIE GUIDES SUPPLIED (AS MARKED)
<i>Set includes Taper and Bottoming Tap and Button Die for Each Size:</i>						
051260	300-0871	TD8	1 & 2	0 & 7	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8, 1	*

#### METRIC (ISO COARSE)

PART NUMBER	P&N REFERENCE NUMBER	SET NUMBER	DIE DIAMETER (INCHES)	TAP WRENCH NUMBER	DESCRIPTION	DIE GUIDES SUPPLIED (AS MARKED)
<i>Set Includes Taper and Bottoming Tap and Button Die for Each Size:</i>						
419558	300-1019	TD10	1	00	2, 2.5, 3, 3.5, 4, 4.5, 5mm	
027371	300-1055	TD12	1 & 2	0 & 7	6, 8, 10, 12, 14, 16, 18, 20, 22, 24mm	*
419565	300-1073	TD13	1	00 & 0	2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 7, 8, 9, 10, 11, 12mm	
<i>Set Includes Intermediate Tap and Button Die for Each Size:</i>						
419534	300-0540	TD14	1	0	6x1.0, 8x1.25, 10x1.25, 10x1.5, 12x1.75mm ISO FINE	

#### UNC & UNF COMBINATION

PART NUMBER	P&N REFERENCE NUMBER	SET NUMBER	DIE DIAMETER (INCHES)	TAP WRENCH NUMBER	DESCRIPTION	DIE GUIDES SUPPLIED (AS MARKED)
<i>Set Includes Taper and Bottoming Tap and Button Die for Each Size in Both UNC and UNF:</i>						
019123	300-1233	CTD8	1 & 2	6	1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4	

#### ISO METRIC COARSE AND FINE COMBINATION

PART NUMBER	P&N REFERENCE NUMBER	SET NUMBER	DIE DIAMETER (INCHES)	TAP WRENCH NUMBER	DESCRIPTION	DIE GUIDES SUPPLIED (AS MARKED)
<i>Set Includes Taper and Bottoming Tap and Button Die for Each Size in Both ISO Coarse and UNF:</i>						
027395	300-1242	CTD9	1 & 2	6	ISO Coarse 6, 7, 8, 10, 12, 14, 16, 18, ISO Fine 8, 10, 12, 14, 16, 18, 14 x 1.25 Intermediate Tap Only	

#### ISO METRIC COARSE AND UNF COMBINATION

PART NUMBER	P&N REFERENCE NUMBER	SET NUMBER	DIE DIAMETER (INCHES)	TAP WRENCH NUMBER	DESCRIPTION	DIE GUIDES SUPPLIED (AS MARKED)
<i>Set Includes Taper and Bottoming Tap and Button Die for Each Size in Both ISO Metric Coarse and UNF:</i>						
419596	300-1251	CTD10	1	5	Intermediate Tap Only UNF 1/4, 5/16, 3/8, 7/16, 1/2 Metric Coarse 6, 7, 8, 10, 12	

### SCREW EXTRACTORS

- Screw extractors are used for extracting screws, bolts and pipe.
- To remove a broken screw or stud, drill the recommended size hole in the broken end
- Use a tap wrench or spanner, turn the extractor in an anti-clockwise direction.
- The extractor does not have to be hammered in because it takes a quick and positive grip, “feeds” itself into the hole and should “start” the most stubbornly embedded part and turn it out on its own threads, leaving the original thread in the hole undamaged.
- A Screw extractor should not be used to remove a screw having a left hand thread, a broken press-fitted stud (interface fit), a broken tap, or a badly rusted screw.
- Unusual conditions will require the use of other sizes of drills and extractors, depending on the length of broken section, and it's depth in the hole.



PART NUMBER	EXTRACTOR NUMBER	FOR SCREWS & BOLTS (IN.)	FOR PIPE SIZES (IN.)	SIZE DRILL TO USE (IN.)	LENGTH OVERALL (IN.)	DIA. AT SMALL END	DIA. AT LARGE END	SALE TORQUE LEAD (LBS/FT)
250-0015	1	5/32-3/16		5/64	2 1/8	.050	.159	12
250-0024	2	7/32-1/4		5/64	2 7/16	.080	.205	24
250-0033	3	5/32		5/32	2 13/16	.125	.265	54
250-0042	4	3/8-1/2		7/32	3 1/16	.185	.341	60
250-0051	5	9/16-3/4	1/8-1/4	19/64	3 11/16	.262	.495	75
250-0060	6	7/8-1	3/8	27/64	3 15/16	.390	.609	105
250-0079	7	1-1 1/2	1/2	17/32	4 1/4	.500	.742	134
250-0088	8	1.3/8-1.3/4	3/4	13/16	4 3/8	.750	1.000	200

### HAND TAPS - GROUND THREAD

#### GROUND THREAD HIGH SPEED STEEL

- P&N/Sutton Ground Thread Hand Taps have straight flutes and are suitable for both hand and machine operation in materials where the chips break up readily and present no disposal problems.
- 60° Thread Form
- T = Taper      I = Intermediate      B = Bottoming



#### UNC

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH.	SHANK DIA.	LENGTH (IN.) THREAD OVERALL	NO. OF FLUTES	SUGGESTED TAPPING DRILL SZ	TYPE	
011417	530-4668	No.6	32	0.141	11/16	2	3	7/64	T
007328	530-4677	No.6	32	0.141	11/16	2	3	7/64	I
008547	530-4686	No.6	32	0.141	11/16	2	3	7/64	B
012582	530-4819	No.8	32	0.168	3/4	2 1/8	3	1/8	T
014814	530-4828	No.8	32	0.168	3/4	2 1/8	3	1/8	I
013282	530-4837	No.8	32	0.168	3/4	2 1/8	3	1/8	B
015729	530-5020	No.10	24	0.194	7/8	2 3/8	3	5/32	T
009230	530-5039	No.10	24	0.194	7/8	2 3/8	3	5/32	I
008325	530-5048	No.10	24	0.194	7/8	2 3/8	3	5/32	B
028019	530-5173	No.12	24	0.220	15/16	2 3/8	3	11/64	T
025889	530-5182	No.12	24	0.220	15/16	2 3/8	3	11/64	I
033860	530-5191	No.12	24	0.220	15/16	2 3/8	3	11/64	B
005362	530-5388	1/4	20	0.255	1	2 1/2	4	13/64	T
005904	530-5397	1/4	20	0.255	1	2 1/2	4	13/64	I
002897	530-5404	1/4	20	0.255	1	2 1/2	4	13/64	B
006833	530-5566	5/16	18	0.318	1 1/8	2 23/32	4	17/64	T
004266	530-5575	5/16	18	0.318	1 1/8	2 23/32	4	17/64	I
005379	530-5584	5/16	18	0.318	1 1/8	2 23/32	4	17/64	B
004648	530-5771	3/8	16	0.381	1 1/4	2 15/16	4	5/16	T
006116	530-5780	3/8	16	0.381	1 1/4	2 15/16	4	5/16	I
004358	530-5799	3/8	16	0.381	1 1/4	2 15/16	4	5/16	B
015736	530-5986	7/16	14	0.323	1 1/16	3 5/32	4	3/8	T
008851	530-5995	7/16	14	0.323	1 1/16	3 5/32	4	3/8	I
006550	530-6008	7/16	14	0.323	1 1/16	3 5/32	4	3/8	B
008332	530-6197	1/2	13	0.367	1 21/32	3 3/8	4	27/64	T
007335	530-6204	1/2	13	0.367	1 21/32	3 3/8	4	27/64	I
005911	530-6213	1/2	13	0.367	1 21/32	3 3/8	4	27/64	B
024028	530-6400	9/16	12	0.429	1 21/32	3 19/32	4	31/64	T
025896	530-6419	9/16	12	0.429	1 21/32	3 19/32	4	31/64	I
019437	530-6428	9/16	12	0.429	1 21/32	3 19/32	4	31/64	B
013961	530-6615	5/8	11	0.480	1 13/16	3 13/16	4	35/64	T
006123	530-6624	5/8	11	0.480	1 13/16	3 13/16	4	35/64	I
010458	530-6633	5/8	11	0.480	1 13/16	3 13/16	4	35/64	B
010069	530-6857	3/4	10	0.590	2	4 1/4	4	21/32	T
008349	530-6866	3/4	10	0.590	2	4 1/4	4	21/32	I
009667	530-6875	3/4	10	0.590	2	4 1/4	4	21/32	B
018065	530-7068	7/8	9	0.697	2 1/32	4 11/16	4	49/64	T
014821	530-7077	7/8	9	0.697	2 1/32	4 11/16	4	49/64	I
012599	530-7086	7/8	9	0.697	2 1/32	4 11/16	4	49/64	B
013978	530-7246	1	8	0.800	2 1/2	5 1/8	4	7/8	T
018072	530-7255	1	8	0.800	2 1/2	5 1/8	4	7/8	I
013985	530-7264	1	8	0.800	2 1/2	5 1/8	4	7/8	B
022314	530-7310	1 1/8	7	0.896	2 9/16	5 7/16	4	63/64	T
018089	530-7320	1 1/8	7	0.896	2 9/16	5 7/16	4	63/64	I
024035	530-7320	1 1/8	7	0.896	2 9/16	5 7/16	4	63/64	B
033891	530-7666	1 1/4	7	1.021	2 9/16	5 3/4	4	1 1/64	T
024042	530-7675	1 1/4	7	1.021	2 9/16	5 3/4	4	1 1/64	I
028026	530-7684	1 1/4	7	1.021	2 9/16	5 3/4	4	1 1/64	B

### SCREW EXTRACTORS | DRILL SET



PART NUMBER	SET NUMBER	EXTRACTOR NUMBERS	PACKAGE
250-0506	15A	1 thru 6 (not shown)	Plastic Case
250-0551	20	1 thru 5 plus recommended size stub drills	Metal Case

# TOOLS

## Ground Thread Hand Taps

### HAND TAPS - GROUND THREAD (CONT)

#### UNF

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH.	SHANK DIA.	LENGTH (IN.) THREAD OVERALL	NO. OF FLUTES	SUGGESTED TAPPING DRILL SIZE	TYPE
010892	531-0068	10	32	0.194	7/8 2 1/8	3	5/32	T
007922	531-0077	10	32	0.194	7/8 2 3/8	3	5/32	I
008356	531-0086	10	32	0.194	7/8 2 1/2	3	5/32	B
006840	531-0362	1/4	28	0.255	1 2 1/2	4	7/32	T
004907	531-0371	1/4	28	0.255	1 2 1/2	4	7/32	I
004723	531-0380	1/4	28	0.255	1 2 1/2	4	7/32	B
007588	531-0513	5/16	24	0.318	1 1/8 2 23/32	4	6.9mm	T
004273	531-0522	5/16	24	0.318	1 1/8 2 23/32	4	6.9mm	I
004914	531-0531	5/16	24	0.318	1 1/8 2 23/32	4	6.9mm	B
005751	531-0666	3/8	24	0.381	1 1/4 2 15/16	4	8.5mm	T
005386	531-0675	3/8	24	0.381	1 1/4 2 15/16	4	8.5mm	I
003764	531-0684	3/8	24	0.381	1 1/4 2 15/16	4	8.5mm	B
009247	531-0871	7/16	20	0.323	1 1/16 3 3/32	4	25/64	T
006567	531-0880	7/16	20	0.323	1 1/16 3 3/32	4	25/64	I
003313	531-0899	7/16	20	0.323	1 1/16 3 3/32	4	25/64	B
008868	531-1064	1/2	20	0.367	1 21/32 3 3/8	4	29/64	T
005249	531-1073	1/2	20	0.367	1 21/32 3 3/8	4	29/64	I
006857	531-1082	1/2	20	0.367	1 21/32 3 3/8	4	29/64	B
010076	531-1215	9/16	18	0.429	1 21/32 3 19/32	4	33/64	T
012612	531-1224	9/16	18	0.429	1 21/32 3 19/32	4	33/64	I
007595	531-1233	9/16	18	0.429	1 21/32 3 19/32	4	33/64	B
010083	531-1395	5/8	18	0.480	1 13/16 3 13/16	4	37/64	T
007069	531-1402	5/8	18	0.480	1 13/16 3 13/16	4	37/64	I
006130	531-1411	5/8	18	0.480	1 13/16 3 13/16	4	37/64	B
008875	531-1573	3/4	16	0.590	2 4 1/4	4	11/16	T
007076	531-1582	3/4	16	0.590	2 4 1/4	4	11/16	I
007601	531-1591	3/4	16	0.590	2 4 1/4	4	11/16	B
011950	531-1751	7/8	14	0.697	2 1/32 4 11/16	4	13/16	T
010465	531-1760	7/8	14	0.697	2 1/32 4 11/16	4	13/16	I
009674	531-1779	7/8	14	0.697	2 1/32 4 11/16	4	13/16	B
020808	531-1902	1	12	0.800	2 1/2 5 1/8	4	59/64	T
014838	531-1911	1	12	0.800	2 1/2 5 1/8	4	59/64	I
018096	531-1920	1	12	0.800	2 1/2 5 1/8	4	59/64	B

#### UNS

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH.	SHANK DIA.	LENGTH (IN.) THREAD OVERALL	NO. OF FLUTES	SUGGESTED TAPPING DRILL SIZE	TYPE
024066	531-4366	1	14	0.800	2 1/2 5 1/8	4	15/16	T
015743	531-4375	1	14	0.800	2 1/2 5 1/8	4	15/16	I
014845	531-4384	1	14	0.800	2 1/2 5 1/8	4	15/16	B

#### NPT (TAPER PIPE)

• Bottoming Tap Only

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER INCH.	SHANK DIA.	LENGTH (IN.) THREAD OVERALL	NO. OF FLUTES	SUGGESTED TAPPING DRILL SIZE	TYPE
006871	535-1222	1/8	27	0.437	3/4 2 1/8	4	11/32	B
007649	535-1231	1/4	18	0.562	1 1/16 2 1/16	4	7/16	B
009728	535-1240	3/8	18	0.700	1 1/16 2 9/16	4	9/16	B
008905	535-1259	1/2	14	0.687	1 3/8 3 1/8	4	45/64	B
011462	535-1268	3/4	14	0.906	1 3/4 3 1/4	4	29/32	B
012001	535-1277	1	11 1/2	1.125	1 3/4 3 1/4	4	1 3/64	B

#### ISO METRIC COARSE

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER MM.	SHANK DIA.	LENGTH (MM) THREAD OVERALL	NO. OF FLUTES	SUGGESTED TAPPING DRILL SIZE	TYPE
003467	531-5488	3	0.5	3.15	18 48	3	2.5	T
002989	531-5497	3	0.5	3.15	18 48	3	2.5	I
002996	531-5504	3	0.5	3.15	18 48	3	2.5	B
001890	531-5817	4	0.7	4	21 53	4	3.30	T
001586	531-2826	4	0.7	4	21 53	4	3.30	I
001968	531-5835	4	0.7	4	21 53	4	3.30	B
001630	531-6171	5	0.8	5	25 58	4	4.20	T
001173	531-6180	5	0.8	5	25 58	4	4.20	I
001005	531-6199	5	0.8	5	25 58	4	4.20	B
000848	531-6297	6	1	6.3	30 66	4	5.00	T
000794	531-6304	6	1	6.3	30 66	4	5.00	I
000824	531-6313	6	1	6.3	30 66	4	5.00	B
001319	531-6537	8	1.25	8	35 72	4	6.80	T
001098	531-6546	8	1.25	8	35 72	4	6.80	I
000923	531-6555	8	1.25	8	35 72	4	6.80	B
001593	531-6779	10	1.5	10	39 80	4	8.50	T
001722	531-6788	10	1.5	10	39 80	4	8.50	I
001425	531-6797	10	1.5	10	39 80	4	8.50	B
002521	531-7015	12	1.75	9	29 89	4	10.20	T
002323	531-7024	12	1.75	9	29 89	4	10.20	I
002781	531-7033	12	1.75	9	29 89	4	10.20	B
010403	531-7131	14	2	11.2	30 95	4	12.00	T
009643	531-7140	14	2	11.2	30 95	4	12.00	I
010410	531-7159	14	2	11.2	30 95	4	12.00	B
003474	531-7257	16	2	12.5	32 102	4	14.00	T
003757	531-7266	16	2	12.5	32 102	4	14.00	I
003344	531-7275	16	2	12.5	32 102	4	14.00	B
018027	531-7373	18	2.5	14	37 112	4	15.50	T
020754	531-7382	18	2.5	14	37 112	4	15.50	I
030869	531-7391	18	2.5	14	37 112	4	15.50	B
006383	531-7499	20	2.5	14	37 112	4	17.50	T
004518	531-7506	20	2.5	14	37 112	4	17.50	I
006390	531-7515	20	2.5	14	37 112	4	17.50	B
010854	531-7739	24	3	18	45 130	4	21.00	T
009216	531-7748	24	3	18	45 130	4	21.00	I
009223	531-7757	24	3	18	45 130	4	21.00	B
010052	531-7793	30	3.5	20	48 138	4	26.50	T
011936	531-7802	30	3.5	20	48 138	4	26.50	I
011943	531-7811	30	3.5	20	48 138	4	26.50	B
018041	531-7847	36	4	25	57 162	4	32.00	T
014791	531-7856	36	4	25	57 162	4	32.00	I
016818	531-7865	36	4	25	57 162	4	32.00	B

### HAND TAPS - GROUND THREAD (CONT)

#### ISO METRIC FINE

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER MM.	SHANK DIA.	LENGTH (MM) THREAD OVERALL		NO. OF FLUTES	SUGGESTED TAPPING DRILL SIZE	TYPE
016825	532-1262	8	1	8	22	72	4	7.00	T
012568	532-1271	8	1	8	22	72	4	7.00	I
013275	532-1280	8	1	8	22	72	4	7.00	B
007311	532-1673	10	1.25	10	24	80	4	8.80	T
003351	532-1682	10	1.25	10	24	80	4	8.80	I
005058	532-1691	10	1.25	10	24	80	4	8.80	B
013923	532-2124	12	1.5	9	29	89	4	10.5	T
006406	532-2133	12	1.5	9	29	89	4	10.5	I
010427	532-2142	12	1.5	9	29	89	4	10.5	B
010885	532-2339	14	1.5	11.2	30	95	4	12.5	T
012575	532-2348	14	1.5	11.2	30	95	4	12.5	I
008837	532-2357	14	1.5	11.2	30	95	4	12.5	B
013930	532-2473	16	1.5	12.5	32	102	4	14.5	T
010434	532-2482	16	1.5	12.5	32	102	4	14.5	I
008844	532-2491	16	1.5	12.5	32	102	4	14.5	B
027999	532-2839	18	1.5	14	37	112	4	16.5	T
016832	532-2848	18	1.5	14	37	112	4	16.5	I
016849	532-2857	18	1.5	14	37	112	4	16.5	B
011400	532-3102	20	1.5	14	37	112	4	18.5	T
009650	532-3111	20	1.5	14	37	112	4	18.5	I
010441	532-3120	20	1.5	14	37	112	4	18.5	B
025865	532-3228	22	1.5	16	38	118	4	20.5	T
019420	532-3237	22	1.5	16	38	118	4	20.5	I
015705	532-3246	22	1.5	16	38	118	4	20.5	B
030906	532-3255	24	2	18	45	130	4	22.0	T
022284	532-3264	24	2	18	45	130	4	22.0	I
023960	532-3273	24	2	18	45	130	4	22.0	B

#### ISO METRIC SPARK PLUG

PART NUMBER	P&N REFERENCE NUMBER	SIZE	THREADS PER MM.	SHANK DIA.	LENGTH (MM) THREAD OVERALL		NO. OF FLUTES	SUGGESTED TAPPING DRILL SIZE	TYPE
025872	533-4940	10	1	10	24	80	4	9	T
018058	533-4959	10	1	10	24	80	4	9	I
013947	533-4968	10	1	10	24	80	4	9	B
014807	533-4977	12	1.25	9	29	89	4	10.8	T
010861	533-4986	12	1.25	9	29	89	4	10.8	I
010878	533-4995	12	1.25	9	29	89	4	10.8	B
020778	533-5008	14	1.25	11.2	30	95	4	12.8	T
013954	533-5017	14	1.25	11.2	30	95	4	12.8	I
023977	533-5026	14	1.25	11.2	30	95	4	12.8	B

### HAND TAPS SET - GROUND THREAD

#### GROUND THREAD HIGH SPEED STEEL

- Chromium tool steel taps are available in set of three which include: a taper, intermediate and bottoming tap
- The taps are supplied in a plastic case that protects the threads from damage



#### UNC

PART NUMBER	P&N REFERENCE NUMBER	SIZE	PITCH
014067	533-9119	1/4	20
010939	533-9128	5/16	18
010496	533-9137	3/8	16
020983	533-9146	7/16	14
014074	533-9155	1/2	13

#### ISO METRIC COARSE

PART NUMBER	P&N REFERENCE NUMBER	SIZE	PITCH
008912	533-7368	3	0.50
005584	533-7475	4	0.70
005393	533-7493	5	0.80
004440	533-7500	6	1.00
005409	533-7537	8	1.25
006581	533-7573	10	1.50
038445	533-7671	18	2.50
031156	533-7699	24	3.00

#### ISO METRIC FINE

PART NUMBER	P&N REFERENCE NUMBER	SIZE	PITCH
044347	533-7644	24	2.00

# TOOLS

Chisel Set • Rivets • Rivet Nuts • Holesaw

## CHISEL SET

### 14 PC PUNCH & CHISEL SET

- S.A.E.
- Drop forged chrome vanadium steel
- Specially designed anvil heads
- Ends are precision ground and highly polished
- Comes in a heavy duty roll pouch



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>690-214</b>	14 Pc punch & chisel assortment	1

## RIVETS

### HAND RIVET TOOL KIT

- 1 hand rivet tool and 200 rivets
- Interchangeable nozzle busings for 3/32", 1/8", 5/32" and 3/16" rivets



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>655-100</b>	Hand Rivet Tool Kit	1

## RIVET NUTS

### RIVET NUT TOOL KIT

- Ideal for materials that cannot be tapped or welded
- May be used as a blind fastener or anchor screw
- Kit contains 40 rivet nuts and one riveting tool in a handy plastic case



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>656-100</b>	Rivet Nut Tool Kit	1

### REPLACEMENT RIVET NUTS

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>656-210</b>	6-32	50
<b>656-220</b>	8-32	50
<b>656-230</b>	10-24	50
<b>656-240</b>	1/4-20	50

## HOLESAW - HIGH SPEED STEEL

- Bi-metal, M3 high speed steel
- Variable Tooth - 4T/6T
- Cuts through stainless steel, pipe, nail embedded wood, hardwood floors, plywood and plastics



### HOLESAW ASSORTMENT KITS

PRODUCT CODE	SIZE (IN)	DESCRIPTION	PKG QTY
<b>693-100</b>	3/4", 7/8", 1", 1 1/4", 1 3/8", 1 1/2", 1 3/4", 2", 2 1/4", 2 1/2", 3"	13 pcs Combination Kit	1
<b>693-108</b>	7/8", 1 1/8", 1 3/8", 1 3/4", 2", 2 1/2"	8pcs Electrician Kit	1

### HOLESAW - HIGH SPEED STEEL (CONT)

#### HOLESAW BLADES

PRODUCT CODE	SIZE (IN)	SIZE (MM)	SPEED RPM			PKG QTY
			MILD STEEL	STAINLESS STEEL	CAST IRON	
691-036	9/16"	14	580	300	400	1
691-040	5/8"	16	550	275	365	1
691-044	11/16"	17	500	250	330	1
691-048	3/4"	19	460	230	300	1
691-052	13/16"	21	425	210	280	1
691-056	7/8"	22	390	195	260	1
691-060	15/16"	24	370	185	245	1
691-064	1"	25	350	175	235	1
691-068	1 1/16"	27	325	160	215	1
691-072	1 1/8"	29	300	150	200	1
691-076	1 3/16"	30	285	145	190	1
691-080	1 1/4"	32	275	140	180	1
691-084	1 5/16"	33	260	135	175	1
691-090	1 3/8"	35	250	125	165	1
691-092	1 7/16"	37	240	120	160	1
691-096	1 1/2"	38	230	115	150	1
691-100	1 5/16"	40	220	110	145	1
691-104	1 3/8"	41	210	105	140	1
691-110	1 11/16"	43	205	100	135	1
691-112	1 3/4"	44	195	95	130	1
691-116	1 13/16"	46	190	95	125	1
691-120	1 7/8"	48	180	90	120	1
691-128	2"	51	170	85	115	1
691-132	2 1/16"	52	165	80	110	1
691-136	2 1/8"	54	160	80	105	1
691-144	2 1/4"	57	150	80	100	1
691-148	2 3/8"	59	145	75	100	1
691-152	2 3/16"	60	140	75	95	1
691-160	2 1/2"	64	135	70	90	1
691-162	2 9/16"	65	130	65	85	1
691-168	2 5/8"	67	130	65	85	1
691-174	2 3/4"	70	125	65	80	1
691-184	2 7/8"	73	120	60	80	1
691-192	3"	76	115	60	75	1
691-200	3 1/8"	79	110	55	70	1
691-208	3 1/4"	83	105	55	70	1
691-216	3 3/8"	86	100	50	65	1
691-224	3 1/2"	89	95	50	65	1
691-232	3 5/8"	92	95	45	60	1
691-240	3 3/4"	95	90	45	60	1
691-248	3 7/8"	98	90	45	60	1
691-256	4"	102	85	45	55	1
691-264	4 1/8"	105	80	40	55	1
691-272	4 1/4"	108	80	40	55	1
691-280	4 3/8"	111	80	40	50	1
691-288	4 1/2"	114	75	40	50	1
691-304	4 3/4"	121	70	35	45	1
691-320	5"	127	65	35	45	1
691-352	5 1/2"	140	60	25	40	1
691-368	5 3/4"	146	55	25	35	1
691-384	6"	152	55	25	35	1

#### ARBORS

PRODUCT CODE	DESCRIPTION	SIZE	FITS	PKG QTY
694-001	Round	1/4"	9/16" - 1 1/4"	1
694-002	Hex Shank	7/16"	1 5/16" - 6"	1
694-005	Hex Shank	5/16"	9/16" - 1 1/4"	1
694-007	Hex Shank	7/16"	1 5/16" - 6"	1
694-008	Pilot Drill	1/4"	3 slots fit, all arbors	10

### PIPE WRENCHES

#### CAST IRON PIPE WRENCH

- Heavy duty construction
- Malleable cast iron handle
- Exceeds ANSI standard



PRODUCT CODE	DESCRIPTION	PKG QTY
648-142	8" Heavy Duty Pipe Wrench	1
648-143	10" Heavy Duty Pipe Wrench	1
648-144	12" Heavy Duty Pipe Wrench	1
648-145	14" Heavy Duty Pipe Wrench	1
648-146	18" Heavy Duty Pipe Wrench	1
648-147	24" Heavy Duty Pipe Wrench	1
648-148	36" Heavy Duty Pipe Wrench	1
648-149	48" Heavy Duty Pipe Wrench	1

#### ALUMINUM PIPE WRENCH



PRODUCT CODE	DESCRIPTION	PKG QTY
648-172	12" Aluminum Wrench	1
648-173	14" Aluminum Wrench	1
648-174	18" Aluminum Wrench	1
648-175	24" Aluminum Wrench	1
648-176	36" Aluminum Wrench	1
648-177	48" Aluminum Wrench	1

### SNAP RING PLIERS

- High Carbon hardened and tempered
- Specially formed tips grip rings securely and release easily
- Permits use with both internal and external snap rings



PRODUCT CODE	DESCRIPTION	PKG QTY
648-050	Snap Ring Pliers	1

# TOOLS

Cable and Spring Wire Cutter • Cable Cutters • Knife Sharpener • Shears

## CABLE AND SPRING WIRE CUTTER

- Cuts cleanly eliminating frayed ends
- One hand shearing action
- Cable cutting capacity of 3/16" diameter
- Spring wire cutting capacity of 1/16" diameter
- SK-5 blades
- Comfortable vinyl coated handles



PRODUCT CODE	DESCRIPTION	CASE QTY
<b>648-040</b>	Cable and Spring Wire Cutter	6

## CABLE CUTTERS

### CABLE CUTTERS

- Stainless steel blades, precision ground and hardened for long lasting sharp edges
- Cuts up to 10mm soft cable
- Handles designed for either left or right handed users
- Easy to use safety lock
- Spring action
- Light weight



PRODUCT CODE	DESCRIPTION	CASE QTY
<b>690-320</b>	Cable Cutters	6

### BOLT CUTTERS

- Drop forged Cr-Mo steel blades
- Satin finished blades
- Hardness of blades: HRC53-60
- Blade clearance adjusted with eccentric bolt
- Textured grip



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>690-350</b>	12" Bolt Cutters	1
<b>690-352</b>	14" Bolt Cutters	1
<b>690-354</b>	18" Bolt Cutters	1
<b>690-356</b>	24" Bolt Cutters	1
<b>690-358</b>	30" Bolt Cutters	1
<b>690-360</b>	36" Bolt Cutters	1
<b>690-362</b>	42" Bolt Cutters	1

## CUTTERS REPLACEMENT BLADES

- Drop forged Chrome Vanadium steel blades
- Hardness HRC56-62

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>690-351</b>	12" Replacement Blades	1
<b>690-353</b>	14" Replacement Blades	1
<b>690-355</b>	18" Replacement Blades	1
<b>690-357</b>	24" Replacement Blades	1
<b>690-359</b>	30" Replacement Blades	1
<b>690-361</b>	36" Replacement Blades	1
<b>690-363</b>	42" Replacement Blades	1

## KNIFE SHARPENER

- Sharpens dull knives to razor sharp in one or two strokes
- No-slip grip with protective finger guard



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-140</b>	Knife Sharpener	1	12

## SHEARS

### MULTI-PURPOSE SHEARS

- Great for both light and duty applications
- Cuts wire, wood, branches, doweling, rope, cord, cardboard, leather and many other materials
- Stainless steel blades, precision ground and hardened for long lasting sharp edges
- Handles designed for either left or right handed users
- Easy to use safety lock
- Spring action
- Light weight



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-321</b>	Multi-purpose shears	1	6

### SHEARS (CONT)

#### HEAVY DUTY SHEARS

- Ideal for cutting heavy cloth, fabric, rubber, upholstery, rope leather, cardboard & poultry processing
- Stainless steel blades, precision ground and hardened for long lasting sharp edges
- Ergonomic handles made from TPE, can be used for either left or right hand cutting
- Adjustable knife edge with nut and bolt construction
- Light weight



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-322</b>	Multi-purpose shears	1	6

#### ELECTRICAL SHEARS

- Blades are made of high carbon stainless steel with vanadium and molybdenum
- One serrated blade reduces slippage
- Specially designed for cutting Optical Fibre
- Ideal for cutting soft cable, insulating materials, electrical tape and cable ties
- Designed for both left and right handed users



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-324</b>	Electrical Shears	1	6

#### HEAVY DUTY SHORT NOSE SHEARS

- Great for both heavy and light duty applications
- Cuts heavy cloth, fabric, rubber upholstery, rope, leather, cardboard & poultry processing
- Stainless steel blades, precision ground for long lasting edges
- Ergonomic handles made from TPE are designed for left/right handed users
- Adjustable knife edge with nut and bolt construction
- Light weight



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-326</b>	Heavy duty shot nose shears	1	6

#### MULTI-PURPOSE ANGLE SHEARS

- Great for both heavy and light duty applications
- Cuts wire, wood, branches, doweling, rope, cord, cardboard, leather and more
- Stainless steel blades, precision ground for long lasting sharp edges
- Handles designed for either left or right handed users
- Easy to use safety lock
- Spring action
- Light weight



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-327</b>	Multi-purpose Angle Shears	1	6

#### KDS STAINLESS STEEL SCISSORS

- For professionals & DIY users
- Stainless steel blades



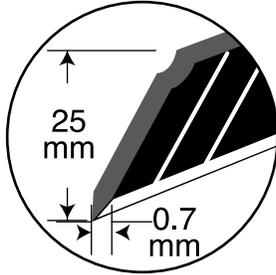
PRODUCT CODE	DESCRIPTION	PKG QTY
<b>KSC-1</b>	KDS Stainless Steel Scissors	1

# TOOLS

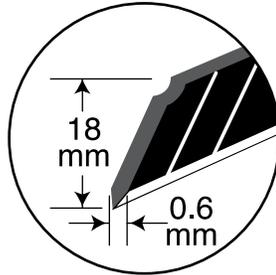
## KDS Retractable Knives

### KDS KNIVES

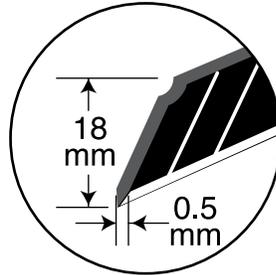
H-Blades



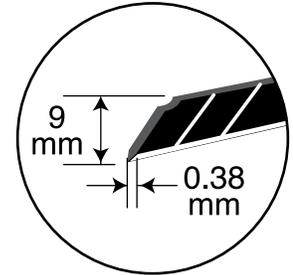
G-Blades



L-Blades



S-Blades



#### KDS L-KNIVES

- Heavy Duty extra thick Stainless Steel sleeve
- Comes with 2 extra blades (L-blades) stored in handle



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>L-18</b>	Auto lock cutter with automated locking slider	1
<b>L-19</b>	Twist lock cutter for safe secure cutting	1

#### GRIP FIT L-KNIVES

- Ergonomic design for all-day use, with rubber grips on top and bottom
- Comes with 2 extra blades (Power Black L-blades) stored in handle



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>L-22</b>		Grip Fit Auto Lock L-Knife	1
<b>L-23</b>	690-202	Grip Fit Twist Lock L-Knife	1

#### MULTI-PRO L-KNIVES

- Can be used for tucking carpet, prying lids off paint and other cans, and scoring & cut cardboard to make boxes



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>L-25</b>	Multi-Pro Twist Lock L-Knife	1

#### FINGER GUARD L-KNIFE

- Protect your fingers while cutting rough materials like shingles and carpet backing or compress materials like insulation
- Screw-lock slider
- Loaded with one Power Black blade
- Comes with 2 extra blades (Power Black L-blades) stored in handle



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY
<b>L-30</b>	690-200	Finger Guard Knife	1

### KDS KNIVES

#### GRIP FIT G-KNIVES

- Cuts heavier materials
- Ergonomic design for all-day use, with rubber grips on top and bottom.
- Comes with 2 extra blades (Power Black G-blades) stored in handle



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>G-15</b>	Auto Lock G-Knife	1
<b>G-16</b>	Twist Lock G-Knife	1

#### JOB BOSS PRO H-CUTTERS

- Super heavy duty knife with soft rubber grip
- Screw type slider securely locks the blade in place



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>H-12</b>	Super heavy duty knife with strong ABS plastic body	1
<b>H-13</b>	Super heavy duty knife with Elastomer body	1

#### SAFETY MASTER KNIVES

- **SA-11T** - Ergonomically designed rubberized, non-slip grip safety knife with TITANIUM-edged blades. With 1 spare blade included.
- **SA-12D** - Auto-retracting blade, ergonomic handle, with adjustable depth settings. With 10 spare blades included.



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>SA-11T</b>	Safety Master Knife with Titanium Edge Blade	1
<b>SA-12D</b>	Safety Master Metal Knife	1

#### SLIM S-KNIVES



S-11



S-13



S-14YE

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>S-11</b>	KDS Stainless Steel w/ sliding lock Comes with 2 Stainless Steel Spare Blades	1
<b>S-13</b>	KDS Dura Slim w/ sliding lock Comes with 2 Stainless Steel Spare Blades	1
<b>S-14YE</b>	KDS Pocket Slim w/ sliding lock Comes with 2 Spare Blades	1

#### MULTI-PRO HOOK IT

- Loaded with snap hook blade for cutting surface materials without damaging what is underneath
- Great for carpet, it can also be used for prying off lids



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>HK-12</b>	Multi-Pro Hook It Blade	1

#### BANANA SICKLE

- Recommended for multi-purpose use i.e. flooring, roofing etc.
- High carbon steel blade
- Yellow painted wooden handle.



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>BK-10</b>	Banana Sickle	1

# TOOLS

## KDS Scraper • KDS Spare Blades

### KDS SCRAPER

#### GOOD GRIP SCRAPER

- Superior to other scrapers, with an ergonomic handle and non-stick head
- Blades can be changed with your thumb
- No drivers or coins needed
- Comes with 5 no-snap Power Black L-blades



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>SCL200</b>	Good Grip 200mm (8") Scraper	1
<b>SCL300</b>	Good Grip 300mm (12") Scraper	1
<b>SCL600</b>	Good Grip 600mm (24") Scraper	1

### KDS SPARE BLADES

- KDS Blades have fewer impurities (sulfur, manganese, etc.) finer and denser carbon grains, and a composition that gives higher pliability results in a longer-lasting and sharpness.
- Power Black Blades are focused on sharpness (25% sharper than Power White blades)
- Power White Blades are focused on durability
- Stainless Steel Blades are perfect for wet environments.



PRODUCT CODE	TYPE	THICKNESS	DESCRIPTION	PKG QTY
<b>GB-10BH</b>	Black	.60mm	Fits all brands of <b>L- &amp; G-knives</b> (10 blades in a plastic case)	1
<b>GB-50BH</b>	Black	.60mm	Fits all brands of <b>L- &amp; G-knives</b> (50 blades in a plastic case)	1
<b>HB-10H</b>	White	.70mm	Fits all brands of <b>H-knives</b> (10 blades in a plastic case)	1
<b>HB-10BH</b>	Black	.70mm	Fits all brands of <b>H-knives</b> (10 blades in a plastic case)	1
<b>HB-10BNL</b>	Black	.70mm	Non-Snap Blades Fits all brands of <b>H-knives</b> (10 blades in a plastic case)	1
<b>HB-5SCL</b>	White	.70mm	Fits all of <b>Good Grip Scraper</b> (5 blades in a plastic case)	1
<b>HK-5H</b>	White	0.50mm	Fits a <b>Snap Hook Blade</b> 4 hooks per blade (5 blades in a plastic case)	1
<b>HSB-Z</b>	White	0.60mm	Fits a <b>Standard Saw Blade</b>	1
<b>LB-5SH</b>	Stainless Steel	0.50mm	Fits all brands of <b>L-knives</b> (5 blades in a plastic case)	1
<b>LB-10BH</b>	Black	0.50mm	Fits all brands of <b>L-knives</b> (10 blades in a plastic case)	1
<b>LB-10BNL</b>	Black	0.50mm	Non-Snap Blades Fits all brands of <b>L-knives</b> (10 blades in a plastic case)	1
<b>LB-10H</b>	White	0.50mm	Fits all brands of <b>L-knives</b> (10 blades in a plastic case)	1
<b>LB-50BH</b>	Black	0.50mm	Fits all brands of <b>L-knives</b> (50 blades in a plastic case)	1
<b>LB-50H</b>	White	0.50mm	Fits all brands of <b>L-knives</b> (50 blades in a plastic case)	1
<b>SB-10H</b>	White	0.38mm	Fits all brands of slim <b>S-knives</b> (10 blades in a plastic case)	1
<b>SB-10BH</b>	Black	0.38mm	Fits all brands of slim <b>S-knives</b> (10 blades in a plastic case)	1
<b>SB-10SH</b>	White	0.38mm	Fits all brands of slim <b>S-knives</b> (10 blades in a plastic case)	1
<b>SB-50H</b>	White	0.38mm	Fits all brands of slim <b>S-knives</b> (50 blades in a plastic case)	1
<b>SB-50BH</b>	Black	0.38mm	Fits all brands of slim <b>S-knives</b> (50 blades in a plastic case)	1
<b>SB-50SH</b>	Stainless Steel	0.38mm	Fits all brands of slim <b>S-knives</b> (50 blades in a plastic case)	1
<b>TB-10T</b>	Titanium	0.65mm	Fits all <b>trapezoid-blade knives</b> (10 blades in a plastic case)	1



### KDS SPARE BLADES SPECIFICATION

#### L-SERIES

LB-10BHNL / LB-50BHNL 110x18x0.5



#### G-SERIES

GB-10BH / GB-50BH 110x18x0.6



LB-10BH / LB-50BH 110x18x0.5



GB-10H / GB-50H 110x18x0.6



LB-10H / LB-50H 110x18x0.5



#### H-SERIES

HB-10BHNL 140.5x25x0.7



#### S-SERIES

SB-10BHNL / SB-50BHNL 85.3x9.2x0.38



HB-10BH 140.5x25x0.7



SB-10BH / SB-50BH 85.3x9.2x0.38



HB-10H 140.5x25x0.7



SB-10H / SB-50H 85.3x9.2x0.38



SB-10SH / SB-50SH 85.3x9.2x0.38



Stainless

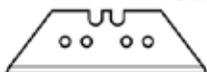
#### SNAP HOOK BLADE

HK-5 110x18x0.5



#### TRAPEZOID

TB-10T 61x18.7x0.65



#### SAW BLADE

HSB-Z 110.5x18x0.6



### KDS DIGITAL ANGLE SENSOR

- For for measuring angles or distances
- It has neodymium magnet and V slot structure which is excellent to measure pipes.
- It features a hold function for easy recording.



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>DAS-V60</b>	Digital Angle Sensor	1

### TAPE MEASURES

#### GOOD GRIP STEEL TAPE

- 25' / 7.5M x 1" with metric and imperial graduations.
- Scales on both sides of the blades
- Pull up on the thumb slider to apply brake, push down to lock the blade
- Dura-coat on the blade
- 100x stronger than acrylic
- Diamond-pattern rivets



PRODUCT CODE	SIZE	DESCRIPTION	PKG QTY	CASE QTY
<b>DVG25-75YEB</b>	1" x 25'	Imperial Measurements	1	4
<b>DVG25-75YMEB</b>	1" x 25'	Imperial and Metric Measurements	1	4

#### GOOD GRIP STAINLESS STEEL TAPE

- 25' / 7.5M x 1" with with metric and imperial graduations.
- Scales on both sides of the blades
- Pull up on the thumb slider to apply brake, push down to lock the blade
- Nylon-coated blade
- 100x stronger than acrylic
- Diamond-pattern rivets
- Can be washed clean



PRODUCT CODE	SIZE	DESCRIPTION	PKG QTY	CASE QTY
<b>GGS25-75YMEB</b>	1" x 25'	Stainless Steel Imperial and Metric Measurements	1	4

# TOOLS

Tape Measures • Magnetic Tools • Heavy Duty Funnel

## TAPE MEASURES (CONT)

### QUADSPEED LONG, STEEL TAPE

- 4-speed crank for fast rewind
- Extruded nylon coating covers the blade over the edges
- Wide rubberized grip for use in wet conditions while wearing gloves
- Rubber shock-absorbing base
- Hook end for one-person use
- Scale in both metric and imperial



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>ST13-30MEDH</b>	30 M / 100'	1
<b>ST13-60MEDH</b>	60M / 200'	1

### TAPE MEASURE

- Bright colours make it easy to find
- Flexible steel blade coated with lacquer
- Toggle locking system
- Positive locking knob and automatic power return
- ABS durable plastic case
- Built durable plastic case
- Removable belt clip
- Red indicator every 10 cm and/or every foot
- Structural stud indicator



PRODUCT CODE	SIZE	DESCRIPTION	PKG QTY	CASE QTY
<b>644-001</b>	1" x 25'	Imperial and Metric Measurements	1	24
<b>644-002</b>	1" x 25'	Imperial Measurements ONLY	1	24
<b>644-003</b>	3/4" x 16'	Imperial and Metric Measurements	1	24
<b>644-004</b>	3/4 x 16'	Imperial Measurements ONLY	1	24

## MAGNETIC TOOLS

### TELESCOPIC TOOLS

- Telescopic reach picks up metal object in hard to reach places
- Can be used as a pointer
- Pocket clip keeps tool close at hand



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>636-010</b>	3 in 1 Telescopic Magnetic/Mirror/Scriber	1	12
<b>636-012</b>	Telescopic Pick-up Tool	1	12

## FUNNEL (HEAVY DUTY)

- Handy handle
- Manufactured from heavy duty white polypropylene plastic
- Non sparking material
- For use with oil, kerosene gasoline, fuel oil, etc.
- Also safe for milk products
- Temperature range -40° to 250°F



PRODUCT CODE	PART NO.	DESCRIPTION	PKG QTY
<b>649-045</b>	45D	4.1/2" Diameter	1
<b>649-060</b>	60D	6" Diameter	1
<b>649-100</b>	100D	10" Diameter	1

### BRASS JIGGLE SIPHON

- An easy and safe way to siphon liquids
- No more bad spills
- Non-static hose
- 2 meter x 1/2" tube
- Can be used around the house, in the car and boat as well as for industrial use



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>648-678</b>	Brass Jiggle Siphon	1	24

### TRANSFER PUMPS

#### FLUID LUBRICANT PAIL PUMP

- Fits 5 gallon open head pails
- Pumps most non-corrosive fluids
- Equipped with 4" oil resistant hose and spout
- Includes drum pail cover



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>638-042</b>	Fluid Lubricant Pail Pump	1

### "C" CLAMPS

- Made from forge-able cast malleable iron
- Tensile strength



PRODUCT CODE	DESCRIPTION	TENSILE STRENGTH	PKG QTY
<b>647-791</b>	"C" Clamp - 2"	800 kgs	1
<b>647-792</b>	"C" Clamp - 3"	1000 kgs	1
<b>647-793</b>	"C" Clamp - 4"	1300 kgs	1
<b>647-794</b>	"C" Clamp - 5"	1500 kgs	1
<b>647-795</b>	"C" Clamp - 6"	1800 kgs	1
<b>647-796</b>	"C" Clamp - 8"	2000 kgs	1
<b>647-797</b>	"C" Clamp - 10"	2500 kgs	1
<b>647-798</b>	"C" Clamp - 12"	2800 kgs	1

### SLIDE HAMMER

- 22" slide handle with a 4.3/4lb sliding hammer
- Comes with the following attachments:
  - *External 3 Jaw puller* - allows you to remove gears and bearings
  - *Internal 3 Jaw puller* - provides gripping for a variety of internal pulling jobs
  - *External 2 Jaw puller* - ideal for close quarter pulling jobs
  - *Internal 2 Jaw puller* - facilitates easy removal of bearing cups and outer races
  - *Grip Wrench Adaptor* - allows you to attach grip type wrench to slide hammer
  - *Puller Hook* - use to remove oil seals and bearings situated where conventional methods don't work
  - *Rear Axle Puller* - removes flange type axles from most passenger cars and light trucks
  - *Dent Puller* - pulls out of hard to get at dents and creases in auto bodies



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-770</b>	Slide Hammer	1

# TOOLS

Vises • 48" Lift - All Jack • Power Puller

## VICES

### FIXED BASE VISES WITH ANVIL

- Heavy duty construction
- Vise head and body made from grey cast iron
- Handle and terminal fittings made of reinforced carbon steel
- Replaceable reinforced carbon steel jaws
- Spindle made from reinforced carbon steel
- Extra deep throat to handle large materials
- Swivel bases available in grey cast iron



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-710</b>	3"	1
<b>647-711</b>	4"	1
<b>647-712</b>	5"	1
<b>647-713</b>	6"	1
<b>647-714</b>	8"	1

### SWIVEL BASE ONLY



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-720</b>	3"	1
<b>647-721</b>	4"	1
<b>647-722</b>	5"	1
<b>647-723</b>	6"	1
<b>647-724</b>	8"	1

### REPLACEMENT JAWS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-730</b>	3"	2
<b>647-731</b>	4"	2
<b>647-732</b>	5"	2
<b>647-733</b>	6"	2
<b>647-734</b>	8"	2

## 48" LIFT - ALL JACK

- 7000lb lifting capacity
- Can be used as a jack, hoist, crane and a clamp
- It can be used for such functions as lifting, pushing and pulling
- Known as a Farmer's Jack



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-740</b>	Farmer's Jack	1

## POWER PULLER

### 1 TON HAND POWER PULLER

- Horizontal pulling capacity: 2000 lbs (1000 kgs)
- Vertical lifting capacity: 1000 lbs (500 kgs)
- Single line cable: 3/16" x 5mm x 12ft
- Double line cable: 3/16" x 5mm x 6ft
- 2 hooks
- Single gear and pawl
- Stores conveniently in plastic blowcase



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-901</b>	1 ton hand power puller	1

### POWER PULLER (CONT)

#### 2 TON HAND POWER PULLER

- Heavy duty stamped aluminum
- Patent drive pawl and stop pawl
- 2 drop forged steel hooks with spring safety catches
- Double safety switches
- 3m (10 ft) cable
- Lifting capacity: 1000kgs/2000lbs
- Maximum lift: 4.5 ft
- Pulling capacity: 2000kgs/4000lbs



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-902</b>	2 ton hand power puller	1

#### 4 TON HAND POWER PULLER

- Heavy duty stamped steel
- Twin drive pawl and twin stop pawl
- 3 drop forged steel hooks with spring safety catches
- Double safety switches
- 10 ft cable
- Lifting capacity: 2000kgs/4000lbs
- Maximum lift: 4.5 ft
- Pulling capacity: 4000kgs/8000lbs



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-904</b>	4 ton hand power puller	1

### BALL PEIN MACHINIST'S HAMMERS

#### AMERICAN HICKORY HANDLES

- Complete with hickory handles
- Polished sides



PRODUCT CODE	HEAD WEIGHT	HANDLE LENGTH	PKG QTY
<b>648-450</b>	1/2 lb. (8 oz)	12"	1
<b>648-451</b>	3/4 lb. (12 oz)	12"	1
<b>648-452</b>	1 lb. (16 oz)	14"	1
<b>648-453</b>	1 1/2 lbs. (24 oz)	16"	1
<b>648-454</b>	2 lbs. (32 oz)	16"	1
<b>648-455</b>	2 1/2 lbs. (40 oz)	18"	1
<b>648-456</b>	3 lbs. (48 oz)	18"	1

#### FIBERGLASS HANDLES

- Polished surfaces
- Rubber grip



PRODUCT CODE	HEAD WEIGHT	HANDLE LENGTH	PKG QTY
<b>648-460</b>	1/2 lb. (8 oz)	11 1/2"	1
<b>648-462</b>	1 lb. (16 oz)	13"	1
<b>648-463</b>	1 1/2 lbs. (24 oz)	14"	1
<b>648-464</b>	2 lbs. (32 oz)	15 1/2"	1
<b>648-465</b>	2 1/2 lbs. (40 oz)	16 1/2"	1
<b>648-466</b>	3 lbs. (48 oz)	17 3/4"	1

# TOOLS

Sledge/Club Hammers with Wood Handle • Sledge Hammer with Fiberglass Handle • Axes

## SLEDGE/CLUB HAMMERS WITH WOOD HANDLE



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>648-370</b>	4 lb Club Hammer	1	8
<b>648-371</b>	4 lb Sledge Hammer Hickory Handle	1	8
<b>648-372</b>	6 lb Sledge Hammer Hickory Handle	1	4
<b>648-373</b>	8 lb Sledge Hammer Hickory Handle	1	4
<b>648-375</b>	10 lb Sledge Hammer Hickory Handle	1	4
<b>648-374</b>	12 lb Sledge Hammer Hickory Handle	1	2
<b>648-376</b>	16 lb Sledge Hammer Hickory Handle	1	2
<b>648-369</b>	20 lb Sledge Hammer	1	1
REPLACEMENT HANDLES		LENGTH	
<b>648-371H</b>	4 lb Replacement Hickory Handle	1	16"
<b>648-372H</b>	6 lb Replacement Hickory Handle	1	28"
<b>648-373H</b>	8 - 12 lb Replacement Hickory Handle	1	36"
<b>648-376H</b>	16 lb Replacement Hickory Handle	1	36"
<b>648-369H</b>	20 lb Replacement Handle	1	36"

## SLEDGE HAMMER WITH FIBERGLASS HANDLE



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>648-424</b>	4 lb Sledge Hammer with Fiberglass Handle	1	8
<b>648-426</b>	6 lb Sledge Hammer with Fiberglass Handle	1	4
<b>648-428</b>	8 lb Sledge Hammer with Fiberglass Handle	1	4
<b>648-430</b>	10 lb Sledge Hammer with Fiberglass Handle	1	4
<b>648-431</b>	12 lb Sledge Hammer with Fiberglass Handle	1	4
<b>648-433</b>	16 lb Sledge Hammer with Fiberglass Handle	1	2
<b>648-435</b>	20 lb Sledge Hammer with Fiberglass Handle	1	2
REPLACEMENT HANDLES		LENGTH	
<b>648-424H</b>	4 lb Replacement Fiberglass Handle	1	16"
<b>648-426H</b>	6 lb Replacement Fiberglass Handle	1	36"
<b>648-430H</b>	10-12 lb Replacement Fiberglass Handle	1	36"
<b>648-433H</b>	16-20 lb Replacement Fiberglass Handle	1	36"

## AXES



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>648-377</b>	1½ lb Axe with Fiberglass Handle	1
<b>648-378</b>	2½ lb Axe with Fiberglass Handle	1
<b>648-379</b>	4 lb Axe with Fiberglass Handle	1
<b>648-380</b>	4 lb Axe	1

### BRUSHES



PRODUCT CODE	PART NO	DESCRIPTION	PKG QTY	CASE QTY
<b>645-001</b>	PC-1	Parts Cleaning	1	24



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>645-002</b>	Brass Utility	1	48



PRODUCT CODE	PART NO	DESCRIPTION	PKG QTY	CASE QTY
<b>645-004</b>	B4	Wire Scratch - 4 x 16 Rows	1	12



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>645-005</b>	Shoe Handle - 4 x 16 Row Wire	1	12



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>645-006</b>	Shoe Handle - 4 x 16 Row Stainless Wire	1	12



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>645-007</b>	Mini Brush Crimped Stainless Wire	1	48



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>645-008</b>	Mini Brush Stainless Wire	1	48



PRODUCT CODE	PART NO	DESCRIPTION	PKG QTY	CASE QTY
<b>645-200</b>	6235	Bench Brush	1	6

### SNOW BRUSH

- 2-in-1 Telescopic snow brush with ice scraper
- Brush: PP (cold-resistant, -30C), width 24.5cm, length 5cm
- Ice scraper: ABS, width 10cm
- Telescopic aluminium tube, length 76-112cm
- EVA foam grip



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>645-250</b>	Snow Brush	1	16

### SHOVELS

All Shovels are sold only in Bundles of 6

#### SIDEWALK SCRAPER



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-265</b>	Sidewalk scraper	6

#### SQUARE POINT SHOVEL



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-270</b>	Square Point Shovel	6
<b>645-271H</b>	Replacement Handle 48"	1

#### ROUND POINT SHOVEL



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-271</b>	Round Point Shovel	6
<b>645-271H</b>	Replacement Handle 48"	1

#### DRAIN SPADE TURN STEP SHOVEL (TRACK SHOVEL)



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-272</b>	Drain Spade Turn Step Shovel	6
<b>645-272H</b>	Replacement Handle 28"	1

#### GRAIN SCOOP SHOVEL



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-273</b>	Grain Scoop Shovel	6
<b>645-273H</b>	Replacement Handle 28"	1

#### ROUND POINT SHOVEL WITH Y HANDLE



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-275</b>	Round Point Shovel with Y handle	6

#### SQUARE POINT SHOVEL WITH Y HANDLE



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-276</b>	Square Point Shovel with Y handle	6

#### FIBERGLASS SQUARE POINT SHOVEL



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-370</b>	F3-3-4FL Square Point Shovel	6

#### FIBERGLASS ROUND POINT SHOVEL



PRODUCT CODE	DESCRIPTION	BUNDLE
<b>645-371</b>	J3-5-1FL Round Point Shovel	6



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<i>Double Sided Tape.....</i>	100
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<i>Hurricane Tape.....</i>	101
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<i>PVC Tape.....</i>	99
<i>Masking Tape (Utility Grade Paper).....</i>	100
<i>Pink Water Sealant Tape.....</i>	100
<i>Thread Sealant Tape.....</i>	100
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# MISCELLANEOUS

Trigger Spray • Safety Products • Tapes

## TRIGGER SPRAYER



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>650-721</b>	Sprayer only	1
<b>650-722</b>	500ml Bottle only	1
<b>650-723</b>	750ml Bottle only	1

## SAFETY PRODUCTS

### PARTICLE MASK

- Disposable, lightweight and easy to use
- Good filtering efficiency
- 50 per box



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>565-740</b>	Particle mask	50

### DUST MASK

- Niosh N95 approved



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>565-745</b>	Dust mask	20

### FIRST AID KIT

- Moisture and dustproof
- Meets Ontario WCB and DOT requirements only
- Can be wall mounted



Product Code	Part Number	Pkg Qty
<b>567-500</b>	WCB-T	1

## TAPES

### PVC TAPE

- Cold resistant
- Temperature rating -7°C to + 80°C
- 7 mil thickness
- 10 rolls/sleeve
- Case quantity = 250
- Available in 6 colours



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY	CASE QTY
<b>554-300</b>	PVC33 (Black)	3/4" x 33'	10	250
<b>554-500</b>	PVC66 (Black)	3/4" x 66'	10	250
<b>554-510</b>	PVC66W (White)	3/4" x 66'	10	250
<b>554-520</b>	PVC66Y (Yellow)	3/4" x 66'	10	250
<b>554-530</b>	PVC66B (Blue)	3/4" x 66'	10	250
<b>554-540</b>	PVC66G (Green)	3/4" x 66'	10	250
<b>554-550</b>	PVC66R (Red)	3/4" x 66'	10	250

### PVC COLOUR TAPE ASSORTMENT

- Contains 6 different colours
- Case quantity = 20



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>554-560</b>	PVC Assortment tapes	1

### COLD WEATHER TAPE

- Flame retardant
- Cold resistant
- Temperature rating -19°C to + 90°C
- 8 mil thickness
- Case quantity = 250



PRODUCT CODE	PART NUMBER	DESCRIPTION	PKG QTY	CASE QTY
<b>554-100</b>	CWT66	3/4" x 66'	10	250

## TAPES (CONT)

### MASKING TAPE (UTILITY GRADE PAPER )

- Thickness: 4.8 mils (121.92 mic)
- Adhesion to Steel: 42 oz/in (4.6 N/cm)
- Tensile 16lb/in (28.02 N/cm)
- Operating Temperature: 30° - 150°F
- Colors: Natural



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>554-250</b>	(18mm / 3/4") x 55m	1	48 (rolls)
<b>554-251</b>	(24mm / 1") x 55m	1	36
<b>554-252</b>	(36mm / 1 1/4") x 55m	1	24
<b>554-253</b>	(48mm / 2") x 55m	1	24

### DOUBLE SIDED TAPE

- 0.8mm polyethylene foam coated
- Water and solvent resistant
- High internal strength
- Superior resistance to high temperature
- Case quantity = 90



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>554-581</b>	1" x 10m	1	90

### DUCT TAPES

- Thickness: 9 mils (228 mic)
- Adhesion to Steel: 50 oz/in (5.47 N/cm)
- Tensile 29lb/in (50.78 N/cm)
- Operating Temperature: 30° - 200°F
- 24 Rolls in a case
- Other colours available upon request



PRODUCT CODE	COLOUR	PKG QTY	CASE QTY
<b>554-200</b>	Silver	1	24
<b>554-201</b>	Black	1	24
<b>554-202</b>	Blue	1	24
<b>554-203</b>	Green	1	24
<b>554-204</b>	White	1	24
<b>554-205</b>	Yellow	1	24
<b>554-206</b>	Red	1	24

### 14-DAY PAINTER'S MASKING TAPE

- UV Resistant - Provides clean removal for up to 14 days.
- Resists most paints and varnishes.
- Excellent conformability.
- Colors: Blue



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>554-261</b>	(24mm / 1") x 50m	1	72 (rolls)
<b>554-262</b>	(36mm / 1 1/4") x 50m	1	48
<b>554-263</b>	(48mm / 2") x 50m	1	36

### THREAD SEALANT TAPE

- 100% TFE fluorocarbon
- Temperature rating -450°F to 600°F



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>554-710</b>	1/2" x 480"	1	1200
<b>554-720</b>	3/4" x 480"	1	500
<b>554-730</b>	1 x 480"	1	500

### PINK WATER SEALANT TAPE



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>554-740</b>	1/2" x 260"	1	100

### YELLOW GAS SEALANT TAPE



Product Code	Description	Pkg Qty	Case Qty
<b>554-750</b>	1/2" x 260"	1	100

# MISCELLANEOUS

Tapes • Tie Wire • Ties

## TAPES (CONT)

### HURRICANE TAPE



• Hurricane™ Tape is a multi purpose tape used in construction, automotive, marine, shipping, trucking, and many other industries.

- Water Resistant
- Mold Resistant
- Tear Resistant
- Stain Resistant
- UV Resistant
- Decay Resistant
- Last Years, Not Weeks!
- Equivalent to 20 or More Rolls of Duct Tape!
- Up to 100x STRONGER than most tapes on the market

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>554-245B</b>	1" x 60 yards	1
<b>554-246B</b>	2" x 20 yards	1
<b>554-247B</b>	2" x 60 yards	1
<b>554-248B</b>	3" x 60 yards	1
<b>554-249B</b>	Point of Purchase (POP) Display	1
Each Display contains the following:		
	554-245B - Qty 6	
NPN " Video Monitor - Qty 1	554-246B - Qty 6	
NPN " Cardboard Display - Qty 1	554-247B - Qty 57	
	554-248B - Qty 10	

## TIE WIRE



- |                        |                        |                      |
|------------------------|------------------------|----------------------|
| <b>GENERAL PURPOSE</b> | <b>STAINLESS STEEL</b> | <b>REBAR WIRE</b>    |
| • 18 gauge             | • 18 gauge             | • 16 gauge           |
| • 2 lb spool           | • 1 lb spool           | • 3.125 lb spool     |
| • Soft annealed        | • Approximately 164'   | • Approximately 291' |
| • Approximately 328'   |                        |                      |

PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>560-100</b>	General Purpose	1	24
<b>560-110</b>	Stainless Steel	1	24
<b>560-120</b>	Rebar Wire	1	12

## TIES

### CABLE TIES



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>NATURAL</b>		
<b>569-504</b>	Length 4", Min. Tensile Strength 18lbs	25
<b>569-506</b>	Length 6", Min. Tensile Strength 40lbs	25
<b>569-508</b>	Length 8", Min. Tensile Strength 50lbs	25
<b>569-515</b>	Length 15 3/16", Min. Tensile Strength 50lbs	25
<b>569-516</b>	Length 15", Min. Tensile Strength 120lbs	25
<b>BLACK</b>		
<b>569-604</b>	Length 4", Min. Tensile Strength 18lbs	25
<b>569-606</b>	Length 6", Min. Tensile Strength 40lbs	25
<b>569-608</b>	Length 8", Min. Tensile Strength 50lbs	25
<b>569-615</b>	Length 15 3/16", Min. Tensile Strength 50lbs	25
<b>569-616</b>	Length 15", Min. Tensile Strength 120lbs	25

### MOUNTING TIES



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>NATURAL</b>		
<b>570-506</b>	Length 6", Min. Tensile Strength 40lbs	25
<b>570-508</b>	Length 8", Min. Tensile Strength 50lbs	25
<b>570-515</b>	Length 14 7/16", Min. Tensile Strength 50lbs	25
<b>570-516</b>	Length 15 1/2", Min. Tensile Strength 120lbs	25
<b>BLACK</b>		
<b>570-606</b>	Length 6", Min. Tensile Strength 40lbs	25
<b>570-608</b>	Length 8", Min. Tensile Strength 50lbs	25
<b>570-615</b>	Length 14 7/16", Min. Tensile Strength 50lbs	25
<b>570-616</b>	Length 15 1/2", Min. Tensile Strength 120lbs	25

# MISCELLANEOUS

Kwik Bandit • Rubber Tie Downs • Docap Tie Down • Snappi-Hooker Tie Downs

## KWIK BANDIT

- Perfect for bundling equipment, tying down furniture and materials, or even sorting cables, Kwik Bandit is a convenient and cost effective strapping solution.



Lock Pin

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>KB10-8</b>	Kwik Bandit Mini	1
* <b>KB10-8-5</b>	Kwik Bandit Mini	5
<b>KB10-8-200</b>	Kwik Bandit Mini	200
<b>KB50-14</b>	Kwik Bandit Standard	1
* <b>KB50-14-5</b>	Kwik Bandit Standard	5
<b>KB50-14-50</b>	Kwik Bandit Standard	50
<b>LP50-14</b>	Kwik Bandit Standard w/ Lock Pin	1
* <b>LP50-14-5</b>	Kwik Bandit Standard w/ Lock Pin	5
<b>LP50-14-50</b>	Kwik Bandit Standard w/ Lock Pin	50
<b>KB75-24</b>	Kwik Bandit Heavy Duty	1
* <b>KB75-24-5</b>	Kwik Bandit Heavy Duty	5
<b>KB75-24-50</b>	Kwik Bandit Heavy Duty	50
<b>KB75-24-75</b>	Kwik Bandit Heavy Dutys	75
<b>LP75-24</b>	Kwik Bandit Heavy Duty w/ Lock Pin	1
* <b>LP75-24-5</b>	Kwik Bandit Heavy Duty w/ Lock Pin	5
<b>LP75-24-50</b>	Kwik Bandit Heavy Duty w/ Lock Pin	50
<b>LP75-24-75</b>	Kwik Bandit Heavy Duty w/ Lock Pin	75
* <b>VP-KB</b>	Kwik Bandit Variety Pack: 2 x KB75-24   2 x KB50-14   10 x KB10-8	

\* Retail Packages

## RUBBER TIE DOWNS

- EPDM rubber tie down
- 'S' hooks
- Rotate stock



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>647-400</b>	10"	10	100
<b>647-405</b>	15"	10	100
<b>647-410</b>	21"	10	100
<b>647-415</b>	24"	10	100
<b>647-420</b>	31"	10	100

## DOCAP TIE DOWN



PRODUCT CODE	DESCRIPTION + ROPE LENGTH	LOAD LIMIT	PKG QTY	CASE QTY
<b>647-003</b>	1/4" x 8' Rope Tie Down	150 lbs	1	12
<b>647-004</b>	3/8" x 8' Rope Tie Down	250lbs	1	12
<b>647-006</b>	1" x 10' Quad Pack Light Duty Ratchet Tie Down (4 Pack)	900lbs	1	10
<b>647-007</b>	1" x 10' Quad Pack Light Duty Ratchet Tie Down (2 Pack)	900lbs	1	20

## SNAPPI-HOOKER TIE DOWNS



- New TTS hooks
- Cold weather EPDM
- Extra thick
- Made in North America

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>647-430</b>	9" Snappi-Hooker Cold Temp Heavy Duty Tie-Down	1
<b>647-431</b>	15" Snappi-Hooker Cold Temp Heavy Duty Tie-Down	1
<b>647-432</b>	20" Snappi-Hooker Cold Temp Heavy Duty Tie-Down	1
<b>647-433</b>	30" Snappi-Hooker Cold Temp Heavy Duty Tie-Down	1
<b>647-434</b>	Snappi-Hooker Cold Temp Heavy Duty Tie-Down Display	1
<b>647-435</b>	Snappi-Hooker Cold Temp Heavy Duty Tie-Down Display (display only, no product)	1

# MISCELLANEOUS

Tire & Wheel Assemblies • Flat Free Tires • Wheel Chocks

## TIRE & WHEEL ASSEMBLIES



Size	Ply	Axle/Bore	Tread	Load Capacity	Product Code
2.80 / 2.50 x 4	2	5/8"	Patterned	80 kgs	642-509
4.10 / 3.50 x 4	2	5/8"	Patterned	80 kgs	642-510
4.10 / 4.00 x 4	4	3/4"	Rib	100 kgs	642-511
4.10 / 3.50 x 4	6	3/4"	Patterned	100 kgs	642-512
4.00 / 3.50 x 8	2	3/4"	Rib	120 kgs	642-514
4.80 / 4.00 x 8	2	3/4"	Rib	150 kgs	642-516

PRODUCT CODE	DESCRIPTION	PKG QTY
<b>642-509</b>	9" Tire & Wheel assemblies - patterned	1
<b>642-510</b>	10" Tire & Wheel assemblies - patterned	1
<b>642-511</b>	11" Tire & Wheel assemblies - rib	1
<b>642-512</b>	12" Tire & Wheel assemblies - patterned	1
<b>642-514</b>	14" Wheel Barrow wheels - rib	1
<b>642-516</b>	16" Wheel Barrow wheels - rib	1

## FLAT FREE TIRES



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>642-520</b>	10" Flat Free Cart Wheel	1
<b>642-521</b>	11" Flat Free Hand Truck Wheel	1
<b>642-522</b>	12" Flat Free Wheel	1
<b>642-523</b>	14" Flat Free Wheelbarrow Wheel - narrow hub	1
<b>642-524</b>	16" Flat Free Wheelbarrow Wheel - wide hub	1

## WHEEL CHOCKS



PRODUCT CODE	DESCRIPTION	PKG QTY
<b>515-000</b>	one-sided - 8"x4x6" - 1.82 kgs	1
<b>515-002</b>	two-sided - 10"x8"x6" - 3.84 kgs	1
<b>515-003</b>	one-sided jumbo - 9.5"x6.5"x7.5" - 6.2 kgs	1

## Outdoor Kits • Shimstock

### OUTDOOR KITS

#### FISHING KIT

- Ready for the road, just pick up and go!
- Stainless steel blades
- Components:
  - 1 - 8" fishing knife
  - 1 - 6" boning knife
  - 1 - 5" two sided knife w/ saw teeth
  - 1 - 8" kitchen scissors
  - 1 - Heavy duty plastic cutting board
  - 1 - Spring loaded scale
  - 1 - 12" file
  - 1 - Pair of dotted gloves
  - 1 - Plastic case



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-144</b>	Fishing Kit	1	6

#### HUNTER'S FIELD KIT

- PERFECT FOR RV's • CAMPING • HUNTING • PICNICS
- 8" butcher's knife
- 5.5" paring knife & 5.5" utility knife
- 8" knife w/ saw teeth
- 8.25" kitchen scissors
- 8" file
- Spring loaded scale
- 6 pairs of disposable gloves
- 1 plastic case



PRODUCT CODE	DESCRIPTION	PKG QTY	CASE QTY
<b>690-143</b>	Hunter's Field Kit	1	6

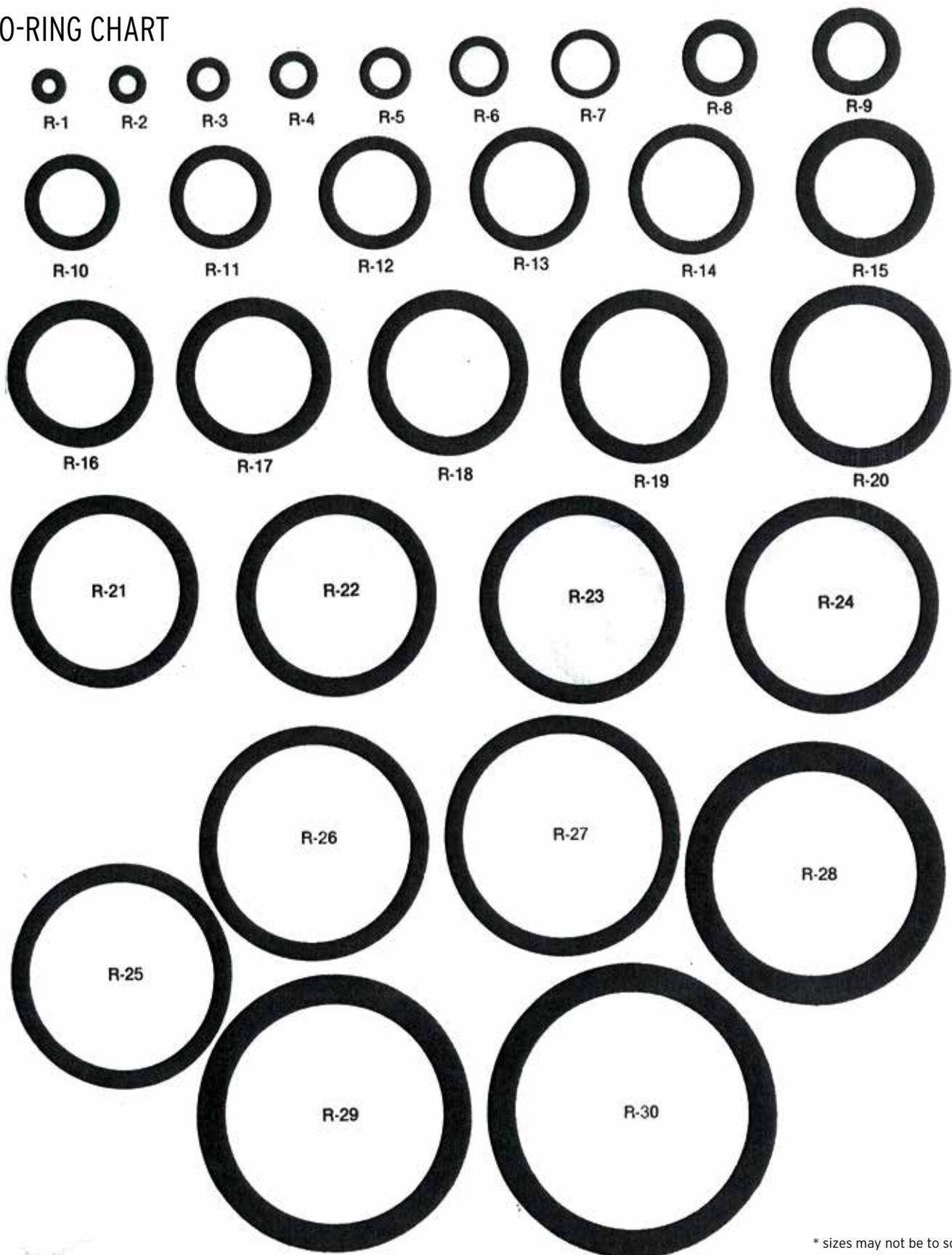
### SHIMSTOCK



PRODUCT CODE	PART NUMBER	EXACT THICKNESS
<b>BRASS 6" X 100"</b>		
<b>556-101</b>	SB - 61	.001
<b>556-102</b>	SB - 62	.002
<b>556-103</b>	SB - 63	.003
<b>556-104</b>	SB - 64	.004
<b>556-105</b>	SB - 65	.005
<b>556-106</b>	SB - 66	.006
<b>556-107</b>	SB - 67	.007
<b>556-108</b>	SB - 68	.008
<b>556-110</b>	SB - 610	.010
<b>556-111</b>	SB - 612	.012
<b>556-112</b>	SB - 615	.015
<b>556-113</b>	SB - 620	.020
<b>556-114</b>	SB - 625	.025
<b>STEEL 6" X 100"</b>		
<b>556-201</b>	SS - 61	.001
<b>556-202</b>	SS - 62	.002
<b>556-203</b>	SS - 63	.003
<b>556-204</b>	SS - 64	.004
<b>556-205</b>	SS - 65	.005
<b>556-206</b>	SS - 66	.006
<b>556-207</b>	SS - 67	.007
<b>556-208</b>	SS - 68	.008
<b>556-209</b>	SS - 610	.010
<b>556-210</b>	SS - 612	.012
<b>556-211</b>	SS - 615	.015
<b>556-212</b>	SS - 620	.020
<b>556-213</b>	SS - 625	.025
<b>+ STAINLESS STEEL 6" X 50"</b>		
<b>556-301</b>	ST - 61	.001
<b>556-302</b>	ST - 62	.002
<b>556-303</b>	ST - 63	.003
<b>556-304</b>	ST - 64	.004
<b>556-305</b>	ST - 65	.005
<b>556-306</b>	ST - 66	.006
<b>556-307</b>	ST - 67	.007
<b>556-308</b>	ST - 68	.008
<b>556-309</b>	ST - 610	.010
<b>556-310</b>	ST - 612	.012
<b>556-311</b>	ST - 615	.015
<b>556-312</b>	ST - 620	.020
<b>556-313</b>	ST - 625	.025

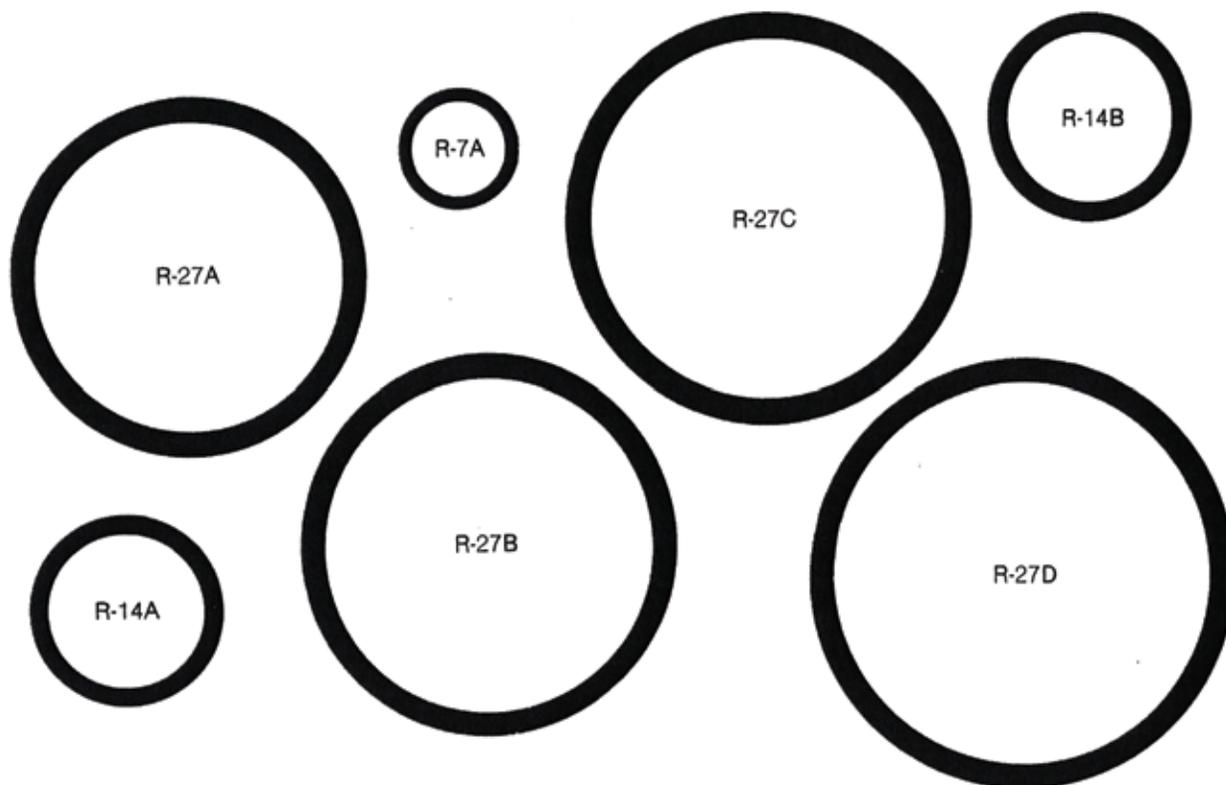
# INDEX

## O-RING CHART



\* sizes may not be to scale

## O-RING CHART



sizes may not be to scale

## GROMMETS CHART



**EWG-1**  
1/8x9/32  
Pkg. Qty. 25



**EWG-31**  
3/8x3/4  
Pkg. Qty. 25



**RBG-2**  
3/8  
Pkg. Qty. 25



**EWG-6**  
3/16x5/16  
Pkg. Qty. 25



**EWG-34**  
7/16x3/4  
Pkg. Qty. 25



**RBG-3**  
1/2  
Pkg. Qty. 25



**EWG-13**  
1/4x1/2  
Pkg. Qty. 25



**EWG-36**  
1/2x21/32  
Pkg. Qty. 25



**RBG-4**  
5/8  
Pkg. Qty. 25



**EWG-21**  
5/16x17/32  
Pkg. Qty. 25



**EWG-44**  
5/8x1  
Pkg. Qty. 10



**RBG-5**  
3/4  
Pkg. Qty. 25



**EWG-26**  
3/8x1/2  
Pkg. Qty. 25



**EWG-45**  
3/4x15/16  
Pkg. Qty. 10



**RBG-6**  
7/8  
Pkg. Qty. 10



**EWG-27**  
3/8x9/16  
Pkg. Qty. 25



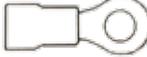
**RBG-1**  
5/16  
Pkg. Qty. 25



**RBG-7**  
1  
Pkg. Qty. 10

sizes may not be to scale

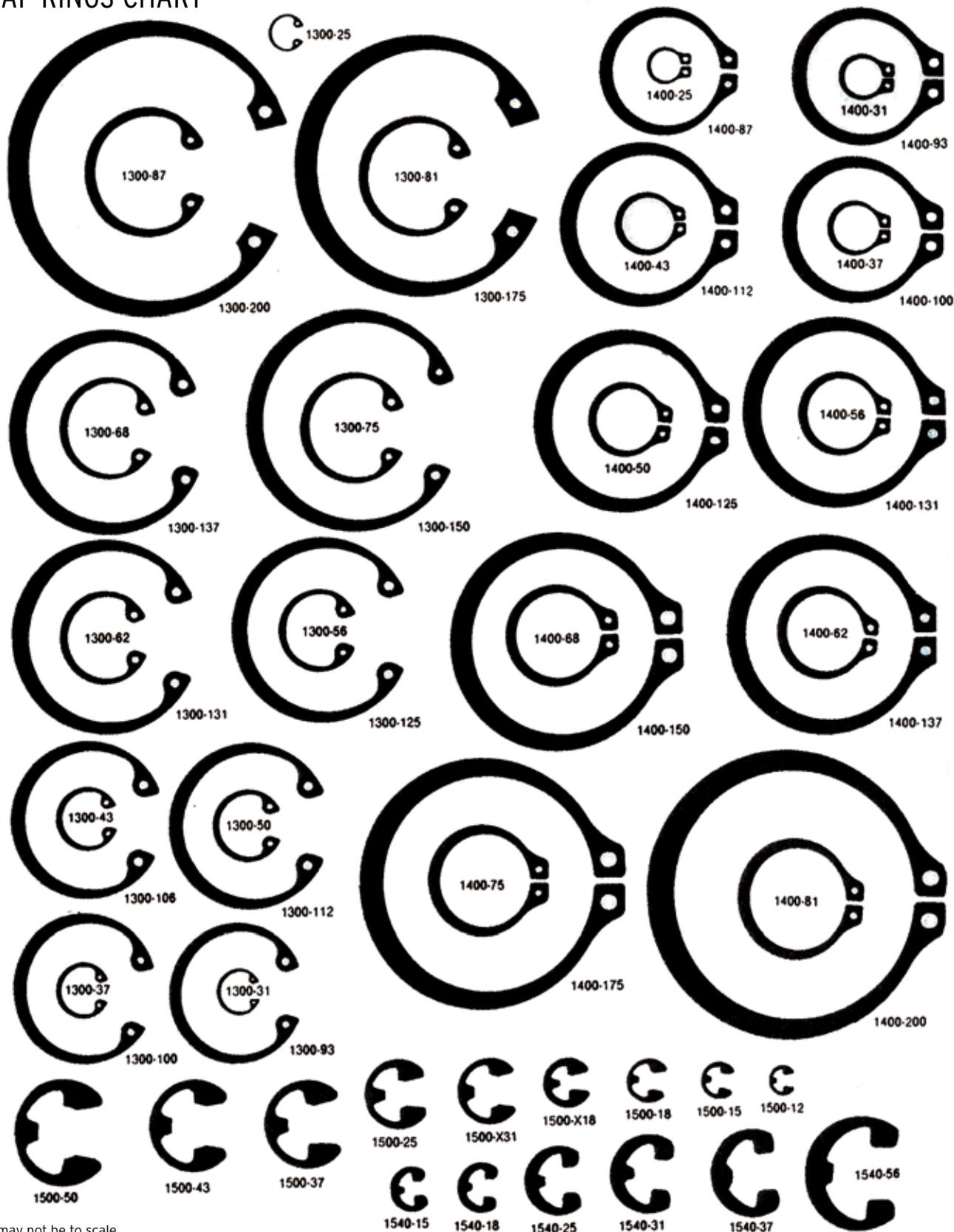
## SOLDERLESS TERMINALS CHART

Wire Size 22-16 RED		Wire Size 16-14 BLUE		Wire Size 12-10 YELLOW	
Product Code	Illustration	Product Code	Illustration	Product Code	Illustration
<b>571-000</b> Stud Size 6		<b>571-030</b> Stud Size 8		<b>571-064</b> Stud Size 8	
<b>571-002</b> Stud Size 8		<b>571-032</b> Stud Size 10		<b>571-066</b> Stud Size 10	
<b>571-004</b> Stud Size 10		<b>571-034</b> Stud Size 1/4		<b>571-068</b> Stud Size 1/4"	
<b>571-006</b> Stud Size 1/4		<b>571-036</b> Stud Size 5/16"		<b>571-070</b> Stud Size 5/16"	
<b>571-008</b> Stud Size 8		<b>571-038</b> Stud Size 10		<b>571-072</b> Stud Size 3/8"	
<b>571-010</b> Stud Size 10		<b>571-040</b> Stud Size 6		<b>571-074</b> Stud Size 10	
<b>571-012</b> Stud Size 6		<b>571-042</b> Stud Size 8		<b>571-080</b> Butt Connector	
<b>571-014</b> Stud Size 8		<b>571-044</b> Butt Connector		<b>571-081</b> Heat Shrinkable Butt Splice Connector	
<b>571-015</b> 2 Way Bullet Receptacle		<b>571-045</b> Shrinkable Butt Splice Connector		<b>571-082</b> Female Quick Disconnect	
<b>571-016</b> Butt Connector		<b>571-046</b> Female Quick Disconnect		<b>571-084</b> Male Quick Disconnect	
<b>571-017</b> Heat Shrinkable Butt Splice Connector		<b>571-048</b> Male Quick Disconnect		<b>571-086</b> Close End Connector	
<b>571-018</b> Female Quick Disconnect		<b>571-050</b> Receptacle Connector		<b>571-088</b> 3 Way Connector	
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sizes may not be to scale

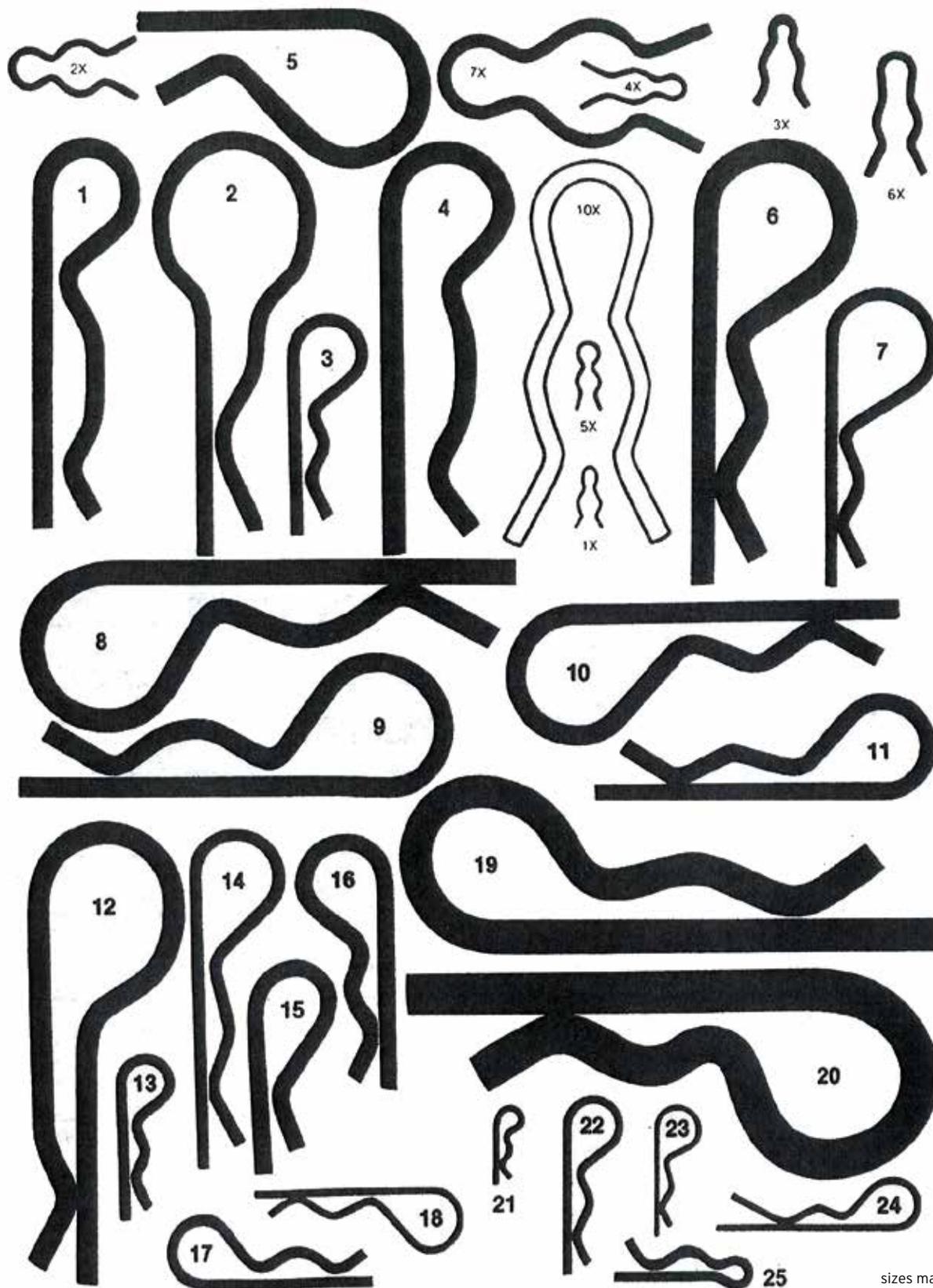
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sizes may not be to scale

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# TERMS & CONDITIONS OF SALE

## • TERMS AND CONDITIONS OF SALE •

The following terms and conditions, including the Return Policy, are applicable to all Docap product lines.

### PAYMENT TERMS

Subject to the provisions of CREDIT APPROVAL, terms are Net 30 days upon issuance of invoice; past due thereafter and payable in Canadian funds

### FREIGHT POLICY

F.O.B Docap locations

Freight will be prepaid on orders of \$750.00 or more on net invoice value, however, the following exceptions will apply:

Prepaid Freight will NOT apply to the following product:

- Warn Products
- Bolt Bins
- Drum quantity of Spray Nine Product

Prepaid requirements for Threaded Rod orders will be a minimum \$2000.00

Prepaid requirements for Spray Nine orders will be a minimum of \$1000.00

### CANCELLATION

Standard orders for stocked items may be cancelled without charge if communicated to Docap in time to stop the shipment.

Special orders may NOT be cancelled.

### BACKORDERS

Backorders will be shipped twice a month, or with next customer order, whichever comes first, however the minimum invoice of the backorder must exceed Docap's minimum invoice amount of \$40.00.

### DISCLAIMER

Not all geographical areas of Canada are covered by the above freight policy; please contact your nearest Docap office listed below for confirmation of these terms and conditions. Docap may add to, change or remove any part of these Terms and Conditions of Sale at any time, without notice.

## • TERMES ET CONDITIONS DE VENTE •

Les termes et conditions de vente suivants, incluant la politique de retour, s'appliquent sur tous les produits Docap.

### TERMES DE PAIEMENT

Sujet aux conditions de l'approbation de crédit, le terme est de « Net 30 jours » à partir de la date de facturation, considéré comme en souffrance passé ce délai et payable en fonds canadiens.

### POLITIQUE DE TRANSPORT

F.A.B. succursale Docap.

Le transport sera prépayé sur toute commande excédant \$750.00 net sur la facture avant taxes. Toutefois, les exceptions suivantes s'appliquent :

- Produits Warn
- Ensembles de boulons
- Produits Spray Nine en vrac

Le transport prépayé pour les tiges filetées sera de \$2,000.00 minimum.

Le transport prépayé pour le produit Spray Nine sera de \$1,000.00 minimum.

### CANCELLATION

Les commandes régulières pour les items en inventaire peuvent être annulées sans frais en communiquant avec Docap avant l'envoi de celle-ci.

Les commandes spéciales ne peuvent être annulées.

### RUPTURE DE MARCHANDISE

Les commandes en rupture de marchandise seront envoyées 2 fois par mois ou avec la prochaine commande du client, selon la circonstance par contre la facture doit excéder le montant minimum de commande de Docap de \$40.00.

### EXCEPTION

Certaines exceptions s'appliquent selon votre région concernant les frais de transport, veuillez contacter le bureau de Docap le plus près, aux endroits mentionnés ci-dessous pour la confirmation de ces termes et conditions. Docap peut ajouter, changer ou enlever une de ces conditions de ventes à n'importe quel moment, sans aucun avertissement.

# RETURN POLICY

## • RETURN POLICY •

All returns must be authorized by a Docap Customer Service Representative. Product may only be sent back after getting a pre-authorized Return Goods Authorization (RGA) number. For an RGA number please contact your nearest Docap branch listed below.

Docap will accept product, returned for Credit, once in a calendar year, to a maximum of 5% of previous year's sales, per product line.

Product must be returned to Docap within 14 calendar days of the issuance of the RGA. All products must be returned with Docap issued RGA number, packing slip/invoice and packed in the original packaging including any accessories, manuals, documentation, and registration that shipped with the product.

Returned product must not be installed or altered and must be in its original packaging, in saleable condition.

Products that are special order, custom built, not listed or identified as discontinued products are non-returnable.

The Purchaser is responsible for shipping product, prepaid, back to our location. Docap recommends that you use a carrier that offers shipment tracking for all returns and either insure your package for safe return to Docap or declare the full value of the shipment so that you are completely protected if the shipment is lost or damaged in transit.

### AUTHORIZED RETURNS

Authorized returns may be subject to a 25% restocking charge. Any costs in excess of 25% restocking charge incurred in placing the goods in saleable condition will be charged to the Purchaser by a corresponding deduction from the allowed credit.

Shipping charges will not be refunded.

### UNAUTHORIZED RETURNS

Any unauthorized returns will NOT be accepted and will be sent to the Purchaser with shipping costs collect.

### CLEARANCE SALES

Sales of items marked as "Clearance" or "Specials" are FINAL. There will be no returns or exchanges of those items.

### DEFECTIVE PRODUCT

Product considered defective for credit return must be authorized by Docap. Docap in its discretion, along with its Vendors, will determine whether the returned defective products are in fact defective. All products that are deemed not defective, the Purchaser will be responsible for shipping costs of the product back to them.

## • POLITIQUE DE RETOUR •

Tous les retours doivent être autorisés par un représentant du service à la clientèle de Docap. Tout produit ne peut être retourné qu'après avoir obtenu un numéro de pré-autorisation de retour de marchandise (RGA). Afin d'obtenir un numéro de pré-autorisation (RGA), veuillez contacter un représentant du service à la clientèle à la succursale Docap la plus près de chez-vous. Le produit retourné doit avoir été acheté dans les douze (12) derniers mois et représenter moins de cinq pourcent (5%) des achats de l'année par ligne de produit.

Le produit doit être retourné à Docap dans les quatorze (14) jours suivant l'émission du numéro de pré-autorisation. Tout produit retourné à Docap doit être accompagné du numéro de pré-autorisation, d'une copie de bon de livraison et/ou d'une copie de la facture originale, dans son emballage original incluant tout accessoire, manuels, documentation et enregistrement inclus à l'origine. Le produit retourné ne doit pas avoir été installé ou modifié et doit être dans son emballage original, en condition de revente.

Les items commandés spécialement, assemblés sur mesure, non listés ou identifiés comme discontinués sont non-retournables.

L'acheteur doit assumer l'expédition, port payé, vers la succursale Docap. Afin de sécuriser le retour, Docap recommande d'utiliser un transporteur qui offre le service de repérage et d'assurer le colis ou de mentionner une valeur déclarée pour tout retour. Ceci permettra de compenser en cas de perte ou dommages en cours de transit. Si vous choisissez d'utiliser un transporteur n'offrant pas ces services, vous devrez assumer les pertes ou dommages encourus durant l'expédition.

### RETOURS AUTORISÉS

Les retours autorisés peuvent être sujets des frais de manutention de vingt-cinq pourcent (25%). Les coûts dépassant vingt-cinq pourcent (25%) occasionnés par la remise en état des items seront déduits du montant alloué au crédit. Les frais d'expédition ne seront pas remboursés.

### RETOURS NON AUTORISÉS

Tout retour non autorisé sera refusé et retourné à l'expéditeur à ses frais.

### VENTE DE LIQUIDATION

Toutes les ventes indiquées "Liquidation" ou "Spécial" sont FINALES. Il n'y aura ni retour ni échange sur ces items.

### PRODUIT DÉFECTUEUX

Le retour d'un produit considéré comme défectueux doit être pré autorisé par Docap. Il sera à la discrétion de Docap, selon les directives du manufacturier de déterminer la défektivité du produit. Pour les produits considérés comme non défectueux, le coût du transport de retour à l'expéditeur sera aux frais de celui-ci.



GENUINE  
QUALITY  
GERMAN



## Save Time and Money with ALLIGATOR's Patented V2B Inflate-Thru "Gator Cap"

Tire pressure is critical to the efficient operation of your fleet. Even a 15 psi drop increases fuel consumption by more than 1%. And a 30% reduction cuts tire life in half.

But checking air pressure is time-consuming; and often the valve caps get lost, introducing dirt and corrosion into the valve. So what's the best way to keep air in, and check it most efficiently?

### Meet the V2B "Gator Cap" — The Innovative Industry Standard

The V2B seals like a high-pressure valve cap, yet offers the convenience of an inflate-through extension.

Proven in millions of miles of service by North America's largest trucking companies, the original "Gator Cap" has become the industry standard for commercial fleet maintenance.

In the U.S. alone, millions of valves are fitted with the V2B Gator Cap each year, saving dollars, labor, and tires. After 20 years and more than 100 million pieces sold, it has often been copied, but never equaled.

That's because ALLIGATOR's genuine Gator Cap is less likely to become contaminated and leak, for a longer in-service life. So why gamble on cheap imitations?

### How Does It Work?

The V2B fits all standard valves. Just remove your old caps, check your valves, and screw these on by hand. That's it!

You don't need to remove the Gator Cap to check pressure or add air. This happens right through the cap—saving up to 65% in maintenance time.

And with no misplaced valve caps, you get lifetime protection against dirt and corrosion.

The result? Reduced maintenance and standstill times. Longer tire life. Lower fuel consumption. And added safety for the driver, vehicle, and cargo.

**So join the many fleets  
that are using ALLIGATOR's V2B.  
And start adding up your savings today.**

*When it comes to tire management, always look for the green ALLIGATOR. It's been your assurance of innovation, cost-effectiveness, and Genuine German Quality for over 90 years. **Keep Rolling. Go Green.***<sup>SM</sup>



Part No. 330708  
Packed in boxes of 10 pcs.

### What's the Gator Cap Worth to You?

*A U.S. study showed that using ALLIGATOR's V2B Gator Cap can cut the average time needed to check a rig's tire pressure from 20 minutes to just 6–7 minutes. That's a saving of up to 13 minutes per rig, every time. That adds up to real money!*

### A Look Inside

- Tough all-metal housing
- Precision-fit brass components
- Incorporates two built-in heat-resistant seals, preventing air-pressure loss even if the valve core is damaged or dirty
- The end face is completely sealed—dirt and water repellent
- Genuine German Quality



# DOCAP



- >> DOES NOT LEAK
- >> EASY TO CONNECT & DISCONNECT
- >> UP TO 10,000 PSI

## LOCK ON GREASE COUPLER



UC-3102 - Sold in box 10 units  
UC-3102-D - Display, Hose & Coupler

Lock on Grease Coupler are now available at Docap. Please contact your nearest Customer Representative for product availability and pricing.

WWW.DOCAP.COM



## WORLD'S GREATEST GREASE COUPLER

# ULTIMATE GREASE KIT

- LOCK-ON GREASE COUPLER
- GREASE GUN PRESSURE RELEASE VALVE
- REACH AND RELEASE HOOK

The ultimate kit will solve all of your greasing problems on any type of machinery or equipment. It will also fit all grease guns.



UP TO 10.000 PSI  
FITS MOST GREASE GUNS & ACCESSORIES  
DOES NOT LEAK & DRIP  
EASY TO CONNECT & DISCONNECT  
PATENT PENDING  
1 YEAR WARRANTY



MADE IN CANADA



**COLD WEATHER ARCTIC BLUE**  
OPERATIONAL TO  $-40^{\circ}\text{C}$  (ASTM D2137)

# SnappiHookers

MADE IN NORTH AMERICA | ISO9001:2000 QUALITY STANDARDS

**RUBBER TIE-DOWN STRAPS**

SINCE 1977 the Original Snappi-hooker Tie Downs have been leading the way for safety and dependability. Our team of rubber & Steel experts are continuously developing and formulating the most dependable rubber strap system on the market today. Call us today to see for yourself!

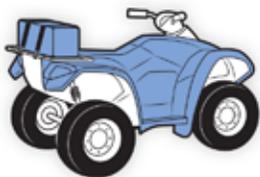
**NEW TTS HOOKS**  
TIGHT TIE + NON-PINCHING

**COLD WEATHER EPDM**  
UV + CRACK RESISTANT

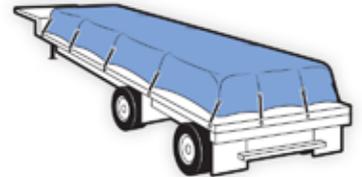
647-430 9" MAX STRETCH 22.5"  
647-431 15" MAX STRETCH 37.5"  
647-432 20" MAX STRETCH 50.5"  
647-433 30" MAX STRETCH 75"

**EXTRA THICK**  
50-LB WORKING LOAD LIMIT

## RECREATIONAL



## COMMERCIAL



**THE ORIGINAL TIE DOWN EXPERTS FOR OVER 35 YEARS!**

# BAND IT, KWIK

**STRETCH, WRAP, LOCK**



A Fast & Easy way to secure your items!  
Purchase Kwik Bandit for your home or workplace!  
Reusable & Environmentally Friendly!  
Available in three sizes for all of your banding needs!



**Locking Pin**  
*(Only Available for  
Standard & Heavy Duty  
Kwik Bandit)*



**Mini Kwik Bandit**  
(10-8)



**Standard Kwik Bandit**  
(50-14)



**Heavy Duty Kwik Bandit**  
(75-24)

## \* ORDER NOW! \*

PART NO.	DESCRIPTION
KB10-8	Kwik Bandit Mini – 1 pc
* KB10-8-5	Kwik Bandit Mini – 5 pcs
KB10-8-200	Kwik Bandit Mini – 200 pcs
KB50-14	Kwik Bandit Standard – 1 pc
* KB50-14-5	Kwik Bandit Standard – 5 pcs
KB50-14-50	Kwik Bandit Standard – 50 pcs
LP50-14	Kwik Bandit Standard w/ Lock Pin – 1 pc
* LP50-14-5	Kwik Bandit Standard w/ Lock Pin – 5 pcs
LP50-14-50	Kwik Bandit Standard w/ Lock Pin – 50 pcs
KB75-24	Kwik Bandit Heavy Duty – 1 pc
* KB75-24-5	Kwik Bandit Heavy Duty – 5 pcs
KB75-24-50	Kwik Bandit Heavy Duty – 50 pcs
KB75-24-75	Kwik Bandit Heavy Duty – 75 pcs
LP75-24	Kwik Bandit Heavy Duty w/ Lock Pin – 1 pc
* LP75-24-5	Kwik Bandit Heavy Duty w/ Lock Pin – 5 pcs
LP75-24-50	Kwik Bandit Heavy Duty w/ Lock Pin – 50 pcs
LP75-24-75	Kwik Bandit Heavy Duty w/ Lock Pin – 75 pcs
* VP-KB	Kwik Bandit Variety Pack: 2 x KB75-24   2 x KB50-14   10 x KB10-8



**STRETCH**



**WRAP**



**LOCK**



**LOCK PIN (OPTIONAL)**



**KWIK RELEASE**





## RAIN-X LATITUDE® WIPER BLADES

The revolutionary Rain-X Latitude® wiper blade contours to the curvature of your windshield to provide even wiping pressure along the full length of the blade.

### PRODUCT FEATURES

- Virtually streak-free visibility – in rain, sleet and snow
- Smooth, chatter-free wipe – as a result of the specially blended graphite coated rubber blade
- Enhanced flexibility and grip – from the durable, rubber-encased substructure
- Significant noise reduction and wind lift – through a built-in aerodynamic spoiler
- All weather tough – with a synthetic rubber squeegee that will withstand extreme weather conditions
- Prevents ice and snow build-up – through the elimination of exposed metal components
- Easy to install – pre-installed with small j-hook adapter and contains multi-adapter for side pin, large j-hook, bayonet, I&L and PTB wiper blade arms



## RAIN-X® WEATHERBEATER® WIPER BLADES

The Rain-X® Weatherbeater® Wiper Blade provides a smooth, clean, streak-free wipe by using embedded friction reducers and multiple pressure points.

### PRODUCT FEATURES

- Long lasting durability – defined by a galvanized steel frame that prevents rust and corrosion
- All natural squeegee rubber – resists cracking, splitting and tearing caused by heat, cold, windshield wiper fluid and salt
- High quality traditional blade – meets or exceeds all original equipment manufacturers' standards
- Quick and easy to install – pre-installed with small j-hook adapter and contains multi-adapter for side pin, large j-hook and bayonet wiper blade arms



*Rain X products are now available at Docap. Call our CSRs to find out product availability.*

# Spray Nine®



The most versatile tool in your cleaning arsenal! Spray Nine's professional strength formula has been trusted by homeowners, auto enthusiasts, factories and the military for over 50 years. Our biodegradable, non-solvent based formula works hard to remove all types of dirt, grease, grime and stains.

## ONE PRODUCT DOES IT ALL!

**CLEANS** - Tackles tough soils and stains

**DEGREASES** - Cuts through heavy grease and grime

**DISINFECTS** - Kills viruses and bacteria. Controls mould and mildew

## KILLS VIRUSES AND BACTERIA:

H1N1 Swine Flu, Influenza A2 Virus, Common Flu A2 Virus, Avian Flu H3N2 Virus, Salmonella Choleraesuis, Escherichia coli (E.coli), Hepatitis C Virus, Rhinovirus Type 37, Norwalk Virus, Herpes Simplex I and II, Poliovirus Type I, Rotavirus, MRSA, Streptococcus pyogenes, Shigella dysenteriae.



**At Home**



**Auto**



**Industrial**



**Marine**



**Eco-Friendly**

Spray Nine is trusted brand by factories, military, auto enthusiasts and homeowners for over 50 years. Spray Nine products are available at Docap. Call our CSRs to find out product availability.

# HURRICANE™ TAPE

**MARINE • AUTOMOTIVE • CONSTRUCTION • HOME**  
**UNBELIEVABLY STRONG ALL-PURPOSE TAPE**



PART #	DESCRIPTION
554-245B	1" x 60 yds.
554-246B	2" x 20 yds
554-247B	2" x 60 yds.
554-248B	3" x 60 yds.
554-249B	POP Display

- ✓ Water Resistant
- ✓ Mold Resistant
- ✓ Tear Resistant
- ✓ Stain Resistant
- ✓ UV Resistant
- ✓ Decay Resistant
- ✓ Last Years, Not Weeks!
- ✓ Equivalent to 20 or More Rolls of Duct Tape!
- ✓ Up to 100x STRONGER than most tapes on the market

Hurricane Tape is an innovative and unique adhesive tape product rapidly growing in popularity with no other manufacturer offering anything like it.

Hurricane Tape is a heavy duty general purpose utility tape that is being used as an alternative to duct tape. It is much more durable, weather resistant, and with its high tensile strength it does not stretch and tear like duct tape making it a better choice for outdoor and heavy duty applications. Its backing is woven polyethylene plastic; the same material tarps are made with which unlike most tapes will not absorb water or let water pass through.

Along with its UV inhibitor, Hurricane Tape has been proven to stay intact for up to 4 years outdoors exposed to the weather all year round. The adhesive will also not leave a residue if removed within 7-14 days but will get stickier over time.

Hurricane Tape is a multi purpose tape used in construction, automotive, marine, shipping, trucking, and many other industries.

**NOW AVAILABLE AT**  
**DOCAP**

**HURRICANE**  
**TAPE**  
**Ultra Strong Series**



885005 Warn Cordless PullzAll

885001 Warn Corded PullzAll

When you're in the shop and have access to a power source, just plug in PullzAll and let it help you tackle those labor intensive chores. Move heavy machinery. Hoist an engine block. Lift a load precisely into place, then nail it, weld it, whatever it. You think up the task, and PullzAll flat out revolutionizes the amount of work one man can do. Available now at Docap!





***Check out our additional products at Docap...***

Electrical Products

L9® Fasteners

Cleaners & Disinfectants

Lubricants & Lubricant Equipment

Winches & Accessories

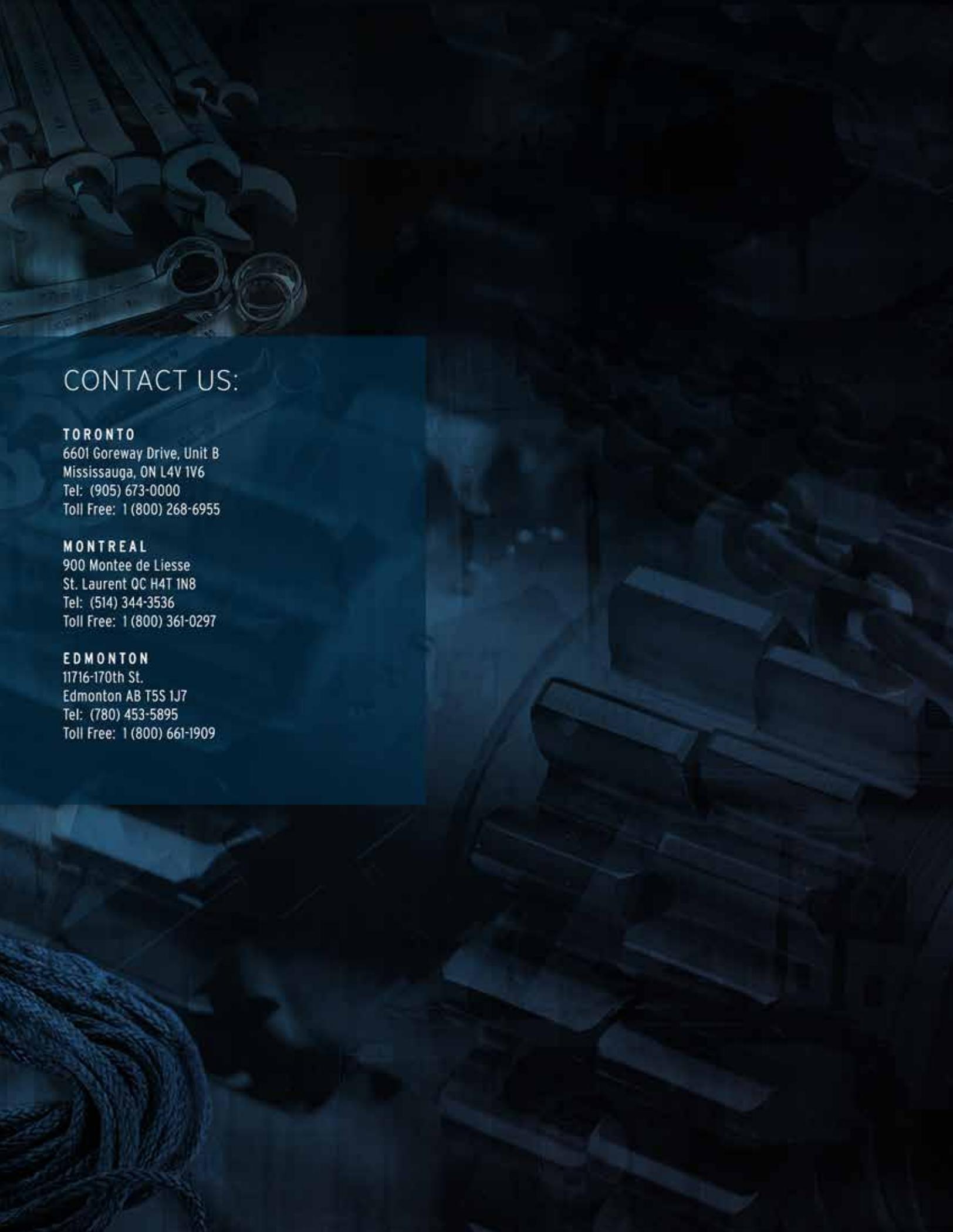
Adhesives/Sealants/Threadlockers

Aerosol Paint Products

***Please contact your nearest Docap branch for more information***

## ***Our suppliers***





## CONTACT US:

### **TORONTO**

6601 Goreway Drive, Unit B  
Mississauga, ON L4V 1V6  
Tel: (905) 673-0000  
Toll Free: 1 (800) 268-6955

### **MONTREAL**

900 Montee de Liesse  
St. Laurent QC H4T 1N8  
Tel: (514) 344-3536  
Toll Free: 1 (800) 361-0297

### **EDMONTON**

11716-170th St.  
Edmonton AB T5S 1J7  
Tel: (780) 453-5895  
Toll Free: 1 (800) 661-1909