

GENERAL HARDWARE

Versatile Components for Everyday Demands

This category brings together an essential mix of hardware—from clevis pins and eyebolts to pulleys and U-bolts—built to support countless applications in mechanical, agricultural, and industrial settings. Whether it's repair work, new installs, or on-the-fly adjustments, these durable, word-ready components are always within reach.





General Hardware

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General Hardware

Gondola • Bulk Rack



General Hardware



GET IT DONE

Dynaline General Hardware Merchandisers

Dynaline offers merchandisers for almost every product. Merchandisers keep your stock organized, visible and easy to shop.



General & Farm Hardware Gondola

PART # CONTENTS

02282K-G General & Farm Hardware Gondola

Full Product Breakdown on Page 65



General Hardware Gondola

PART # CONTENTS

01082K-G General Hardware Gondola

Full Product Breakdown on Page 67



General Hardware Bulk Rack

PART # CONTENTS

00034K Full Bulk Rack

Full Product Breakdown on Page 69



00024
Compatible

Turnbuckles Display Board - General Purpose

PART # CONTENTS

00416K Full General Purpose Turnbuckles Display Board

Full Product Breakdown on Page 78



00024
Compatible

Snaps Display Board

PART # CONTENTS

00447K Full Snaps Display Board

Full Product Breakdown on Page 79



00024
Compatible

Aluminum Pulleys Display Board

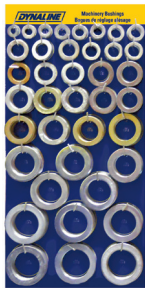
PART # CONTENTS

00335K Full Aluminum Pulleys Display Board

Full Product Breakdown on Page 77

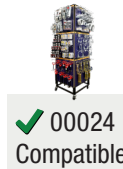


Sizes are approximate. Specifications subject to change without notice.



Machinery Bushings Display Board

PART #	CONTENTS
00235K	Full Machinery Bushings Display Board
Full Product Breakdown on Page 84	



General Hardware Plan-O-Gram

PART #	CONTENTS
01081K	Full General Hardware Plan-O-Gram
Full Product Breakdown on Page 71	



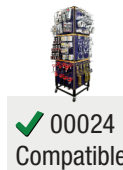
Eyebolts & Rings Display Board

PART #	CONTENTS
00611K	Full Eyebolts & Rings Display Board
Full Product Breakdown on Page 75	



Springs Display Board - Retail Packaged

PART #	CONTENTS
00242K	Full Springs Display Board
Full Product Breakdown on Page 80	



Snaps Display Board

PART #	CONTENTS
00448K	Full Snaps Display Board
Full Product Breakdown on Page 74	



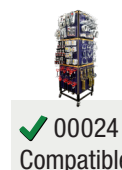
Pulley Blocks Display Board

PART #	CONTENTS
00334K	Full Pulley Blocks Display Board
Full Product Breakdown on Page 77	



U-Bolts Display Board

PART #	CONTENTS
00612K	Full U-Bolts Display Board
Full Product Breakdown on Page 76	



Springs - Expanded Selection 1

PART #	CONTENTS
00244K	Full Springs Display Board Expansion 1 for 00242K
Full Product Breakdown on Page 81	



General Hardware

Display Boards • Tilt Bins Display • Keystock Bins



✓ 00024
Compatible

Springs - Expanded Selection 2

PART # CONTENTS

00248K Full Springs Display Board
Expansion 2 for 00242K

Full Product Breakdown on Page 81



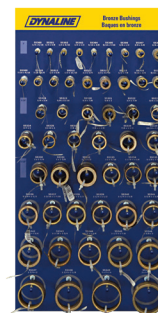
✓ 00024
Compatible

Turnbuckles Display Board - Forged Steel

PART # CONTENTS

00417K Full Forged Steel Turnbuckles
Display Board

Full Product Breakdown on Page 78



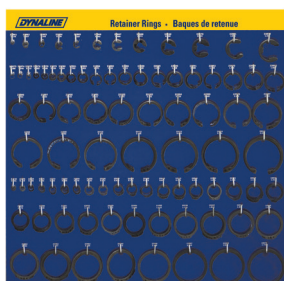
✓ 00024
Compatible

Bronze Bushings Display Board

PART # CONTENTS

00325K Bronze Bushings Display Board

Full Product Breakdown on Page 79



✓ 00024
Compatible

Retainer Rings Display Board

PART # CONTENTS

00245K Full Retainer Rings Display Board

Full Product Breakdown on Page 82



Retainer Rings Tilt Bins

PART # CONTENTS

00746K Full Retainer Rings Tilt Bin Merchandiser. Dimensions: 23-5/8" x 2-1/2" x 26-1/2". Includes Tilt Bins, Assembly Hardware and Products.

Full Product Breakdown on Page 83



00285



00255K

Keystock Bins

PART # CONTENTS

00285 Keystock Bin Only. 8 Compartments. Made of Metal, Black Powder Coated Finish. Dimensions: 10" x 9-1/8" x 1-1/2".

00255K Full Square Keystock Merchandiser. 37 Pieces, 12" Long / 6 Part #s. Includes 00285 Keystock Bin.

00265K Full Rectangular Keystock Merchandiser. 37 Pieces, 12" Long / 8 Part #s. Includes 00285 Keystock Bin.

00275K Full Step Keystock Merchandiser. 16 Pieces, 12" Long / 8 Part #s. Includes 00285 Keystock Bin.

Full Product Breakdown on Pages 84 and 85

Sizes are approximate. Specifications subject to change without notice.

Solid - Die Cast Aluminum Pulleys

Single groove for 3L, 4L or "A" belts. Supplied with 5/16" x 1/2" UNC set screws.

PART #	OUTSIDE DIAMETER	BORE	KEYWAY	PART #	OUTSIDE DIAMETER	BORE	KEYWAY
55400	1-1/2"	1/2"	No	55413	3"	3/4"	Yes
55401	1-1/2"	5/8"	No	55414	3-1/2"	1/2"	No
55402	2"	1/2"	No	55415	3-1/2"	5/8"	Yes
55403	2"	5/8"	Yes	55416	3-1/2"	3/4"	Yes
55404	2"	3/4"	Yes	55417	4"	1/2"	No
55405	2-1/4"	1/2"	No	55418	4"	5/8"	Yes
55406	2-1/4"	5/8"	Yes	55419	4"	3/4"	Yes
55407	2-1/4"	3/4"	Yes	55420	4-1/2"	1/2"	No
55408	2-1/2"	1/2"	No	55421	4-1/2"	5/8"	Yes
55409	2-1/2"	5/8"	Yes	55422	4-1/2"	3/4"	Yes
55410	2-1/2"	3/4"	Yes	55423	5"	1/2"	No
55411	3"	1/2"	No	55424	5"	5/8"	Yes
55412	3"	5/8"	Yes	55425	5"	3/4"	Yes



Spoked - Die Cast Aluminum Pulleys

PART #	OUTSIDE DIAMETER	BORE	KEYWAY
55426	6"	1/2"	No
55427	6"	5/8"	Yes
55428	6"	3/4"	Yes
55429	7"	1/2"	No
55430	7"	5/8"	Yes
55431	7"	3/4"	Yes
55433	8"	5/8"	Yes
55434	8"	3/4"	Yes



Variable Speed - Die Cast Aluminum Pulleys

Solid type. For "A" & "B" belts. Opening the pulley increases the speed at which it rotates. Supplied with set screws.

PART #	OUTSIDE DIAMETER	BORE	KEYWAY
55490	3-1/4"	1/2"	No
55491	3-1/4"	5/8"	Yes
55492	3-1/4"	3/4"	Yes





Single Fixed - Die Cast Awning Pulleys

PART #	PULLEY DIAMETER	ROPE DIAMETER	EYE DIAMETER	W.L.L.
55900	3/4"	Up to 3/16"	3/16"	65 lb
55901	1"	Up to 1/4"	1/4"	110 lb
55902	1-1/4"	Up to 3/8"	3/8"	165 lb
55903	1-1/2"	Up to 3/8"	3/8"	220 lb
55904	2"	Up to 1/2"	1/2"	330 lb



Double Fixed - Die Cast Awning Pulleys

PART #	PULLEY DIAMETER	ROPE DIAMETER	EYE DIAMETER	W.L.L.
55906	3/4"	Up to 3/16"	3/16"	65 lb
55907	1"	Up to 1/4"	3/16"	110 lb
55908	1-1/2"	Up to 3/8"	3/8"	220 lb
55909	2"	Up to 1/2"	1/2"	330 lb



Single Swivel - Die Cast Awning Pulleys

PART #	PULLEY DIAMETER	ROPE DIAMETER	EYE DIAMETER	W.L.L.
55915	3/4"	Up to 3/16"	1/2"	65 lb
55916	1"	Up to 1/4"	7/16"	110 lb
55917	1-1/4"	Up to 3/8"	13/16"	165 lb
55918	1-1/2"	Up to 3/8"	13/16"	220 lb
55919	2"	Up to 1/2"	13/16"	330 lb



Double Swivel - Die Cast Awning Pulleys

PART #	PULLEY DIAMETER	ROPE DIAMETER	EYE DIAMETER	W.L.L.
55925	3/4"	Up to 3/16"	7/16"	65 lb
55926	1"	Up to 1/4"	7/16"	110 lb
55927	1-1/4"	Up to 3/8"	13/16"	165 lb
55928	1-1/2"	Up to 3/8"	13/16"	220 lb



Swivel - Steel Pulley Blocks

PART #	SHEAVE DIAMETER	LENGTH	ROPE DIAMETER	EYE DIAMETER	W.L.L.
55800	1-1/2"	3-1/2"	Up to 3/8"	3/8"	460 lb
55801	2"	4"	Up to 3/8"	3/8"	480 lb
55802	2-1/2"	4-1/2"	Up to 3/8"	3/8"	550 lb
55803	3"	4-3/4"	Up to 1/2"	3/8"	650 lb

Sizes are approximate. Specifications subject to change without notice.



Fixed - Steel Pulley Blocks

PART #	SHEAVE DIAMETER	LENGTH	ROPE DIAMETER	EYE DIAMETER	W.L.L.
55810	1-1/2"	3-1/4"	Up to 3/8"	1/2"	420 lb
55811	2"	3-3/4"	Up to 3/8"	1/2"	480 lb
55812	2-1/2"	4-1/4"	Up to 3/8"	1/2"	550 lb
55813	3"	4-3/4"	Up to 3/8"	3/4"	650 lb



Swivel Eye - Steel Pulley Blocks (Deuer Type)

PART #	DIAMETER	LENGTH	MAX. CABLE DIAMETER	EYE DIAMETER	W.L.L.
55850	1-1/2"	3-1/2"	3/16"	3/8"	460 lb
55851	2"	4-1/2"	3/16"	3/8"	480 lb
55852	2-1/2"	5"	1/4"	3/8"	550 lb
55853	3"	4-3/4"	1/4"	3/8"	650 lb



Fixed Eye - Steel Pulley Blocks (Deuer Type)

PART #	DIAMETER	LENGTH	MAX. CABLE DIAMETER	EYE DIAMETER	W.L.L.
55860	1-1/2"	3-1/4"	3/16"	1/2"	420 lb
55861	2"	3-3/4"	3/16"	1/2"	480 lb
55862	2-1/2"	4-1/4"	1/4"	1/2"	550 lb
55863	3"	4-3/4"	1/4"	3/4"	650 lb



Double Hook with Swivel Eye - Steel Pulley Blocks (Deuer Type)

PART #	DIAMETER	LENGTH	MAX. CABLE DIAMETER	W.L.L.
55870	1-1/2"	5"	3/16"	460 lb
55871	2"	5-1/2"	3/16"	480 lb
55872	2-1/2"	6"	1/4"	550 lb
55873	3"	7-1/2"	1/4"	650 lb



Single Hook - Steel Pulley Blocks (Deuer Type)

PART #	DIAMETER	LENGTH	MAX. CABLE DIAMETER	W.L.L.
55880	1-1/2"	5"	3/16"	460 lb
55881	2"	5-1/2"	3/16"	480 lb
55882	2-1/2"	6"	1/4"	550 lb
55883	3"	7-1/2"	1/4"	650 lb



Sizes are approximate. Specifications subject to change without notice.



Replacement Sheaves

For heavy duty pulley blocks. Bronze bushing bore.

PART #	FITS	SHEAVE DIAMETER	BORE SIZE	W.L.L.
55890	Deuer Type	1-1/2"	5/16"	460 lb
55891	Deuer Type	2"	5/16"	480 lb
55892	Deuer Type	2-1/2"	5/16"	550 lb
55893	Deuer Type	3"	5/16"	650 lb
55840	Heavy Duty	1-1/2"	5/16"	420 lb
55841	Heavy Duty	2"	5/16"	480 lb
55842	Heavy Duty	2-1/2"	5/16"	550 lb
55843	Heavy Duty	3"	7/16"	650 lb



Stake Hooks - Stake Rack Hardware

Ductile iron. Clear zinc plated finish. Rockwell hardness: 5.4 – 18 (HRC).

PART #	DESCRIPTION	PIN LENGTH	PIN DIAMETER
23050	Left-Hand	3"	9/16"
23051	Right-Hand	3"	9/16"
23052	Left-Hand	6"	9/16"
23053	Right-Hand	6"	9/16"



Stake Eye - Stake Rack Hardware

PART #	EYE INSIDE DIAMETER
23054	5/8"

Sizes are approximate. Specifications subject to change without notice.



S-Hooks

Clear zinc plated finish.

BAG PACKAGE		DYNAPAK PACKAGE		WIRE DIAMETER	OVERALL LENGTH
PART #	PKG QTY	PART #	PKG QTY		
66230	10	96230	10	0.093" (3/32")	1"
66232	10	96232	10	0.105" (7/64")	1-3/32"
66234	10	96234	10	0.120" (1/8")	1-3/8"
66235	10	96235	10	0.162" (5/32")	1-1/2"
66236	10	96236	6	0.141" (9/64")	2-1/8"
66238	10	96238	6	0.250" (1/4")	2-5/8"
66239	10	96239	6	0.188" (3/16")	3"



Dynapak

Tarp Hooks

Zinc plated formed steel.

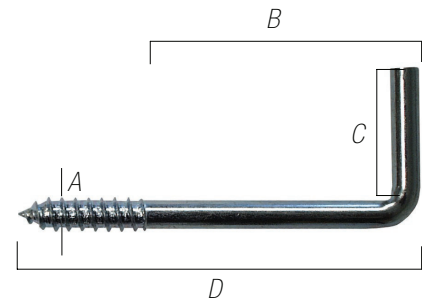
PART #	WIRE DIAMETER	OVERALL LENGTH	PKG QTY
66423	3/8"	3-1/2"	10
66424	1/4"	2-1/2"	10



Cornice Hooks

Clear zinc plated finish.

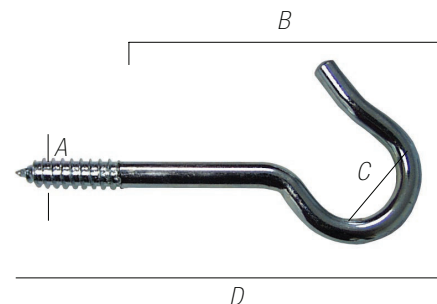
PART #	A	B	C	D	PKG QTY
65040	9/32"	1-3/4"	1"	3-1/16"	10
65041	3/16"	1-5/8"	7/8"	2-5/8"	10
65042	5/32"	1-3/8"	13/16"	2-1/4"	10
65043	1/8"	1-1/8"	11/16"	1-13/16"	10
65044	3/32"	3/4"	1/2"	1-3/8"	10

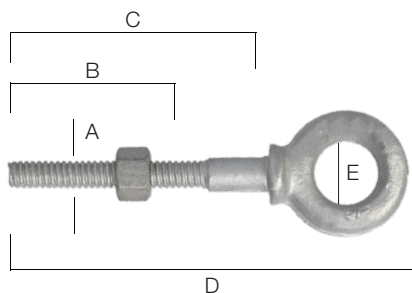


Screw Hooks

Clear zinc plated finish.

PART #	A	A (DECIMAL)	B	C	C (DECIMAL)	D	PKG QTY
65070	1/4"	0.25"	3-1/16"	1-1/32"	1.031"	4-5/16"	10
65071	7/32"	0.21"	3-3/16"	1"	1.000"	4-7/16"	10
65072	3/16"	0.19"	2-5/8"	27/32"	0.844"	3-7/8"	10
65073	5/32"	0.158"	2-1/8"	11/16"	0.688"	3-3/8"	10
65074	1/8"	0.138"	2-9/16"	1/2"	0.500"	2-9/16"	10
65075	7/64"	0.112"	2-1/16"	13/32"	0.406"	2-1/16"	10
65076	3/32"	0.086"	1-1/16"	9/32"	0.281"	1-11/16"	10
65077	5/64"	0.073"	3/4"	15/16"	0.938"	1-5/16"	10





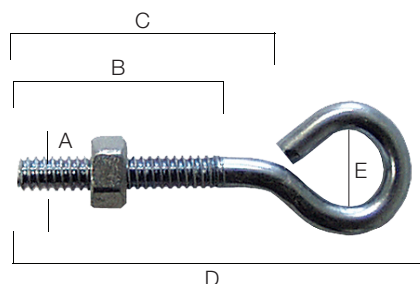
Shoulder Eyebolts

Forged steel. Galvanized finish. Supplied with nut. Sold individually.

PART #	A	B	C	D	E	W.L.L.
66100	1/4"	1-1/2"	2"	3"	1/2"	500 lb
66101	5/16"	1-1/2"	2-1/4"	3-1/2"	5/8"	800 lb
66102	3/8"	1-1/2"	2-1/2"	4"	3/4"	1,200 lb
66103	1/2"	1-1/2"	3-1/4"	5-1/4"	1"	2,200 lb
66104	5/8"	1-3/4"	4"	6-1/2"	1-1/4"	3,500 lb
66105	1/4"	2-1/2"	4"	5"	1/2"	500 lb
66106	5/16"	2-1/2"	4-1/4"	5-1/2"	5/8"	800 lb
66107	3/8"	2-1/2"	6"	7-1/2"	3/4"	1,200 lb
66108	1/2"	3"	6"	7-3/4"	1"	2,200 lb

Eyebolts

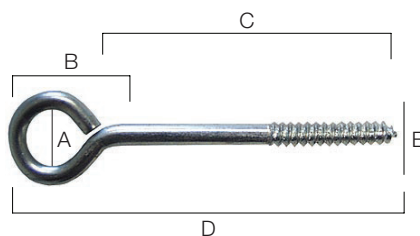
Wire Formed. Supplied with Nut. Zinc plated finish. UNC threading (coarse).



PART #	A	B	C	D	E	PKG QTY
65102	3/16"	1"	1-3/8"	2"	3/8"	10
65104	3/16"	1-5/8"	1-3/4"	2-1/2"	3/8"	10
65106	1/4"	1"	1"	2"	9/16"	10
65107	1/4"	1-3/8"	1-1/2"	2-1/2"	9/16"	10
65108	1/4"	1-3/4"	2"	3"	9/16"	10
65109	1/4"	2-3/4"	3"	4"	9/16"	10
65110	1/4"	3"	4"	5"	9/16"	10
65111	1/4"	3"	5"	6"	9/16"	10
65112	5/16"	1-3/4"	2"	3-1/4"	3/4"	10
65113	5/16"	2-3/16"	2-1/2"	4"	3/4"	10
65114	5/16"	3"	3-1/2"	5"	3/4"	10
65115	5/16"	3"	4-1/2"	6"	3/4"	10
65117	3/8"	2"	2-1/4"	4"	1"	10
65118	3/8"	3"	3-1/4"	5"	1"	10
65119	3/8"	3"	4-1/4"	6"	1"	10
65120	3/8"	3"	6-1/4"	8"	1"	10
65123	1/2"	3"	3-3/4"	6"	1-1/4"	10
65124	1/2"	3"	5-3/4"	8"	1-1/4"	10

Lagscrew Eyebolts

Clear zinc plated finish.



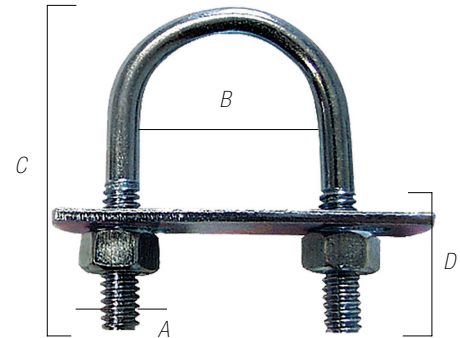
PART #	A	B	C	D	E	PKG QTY
65161	1/4"	1-5/16"	2-3/4"	3-3/4"	1/2"	10
65162	1/4"	1-7/8"	4"	5"	1/2"	10
65163	5/16"	1-7/8"	2-3/4"	4"	5/8"	10
65164	5/16"	1-7/8"	4-3/4"	6"	5/8"	10
65165	3/8"	1-15/16"	3"	4-1/2"	3/4"	10
65166	3/8"	2-7/8"	6-1/2"	8"	3/4"	10

Sizes are approximate. Specifications subject to change without notice.

U-Bolts - Round

Q235 Steel-Grade 2. Supplied with 3/32" mounting plate & nuts.
Clear zinc plated. 10 pieces per package. UNC threading (coarse).

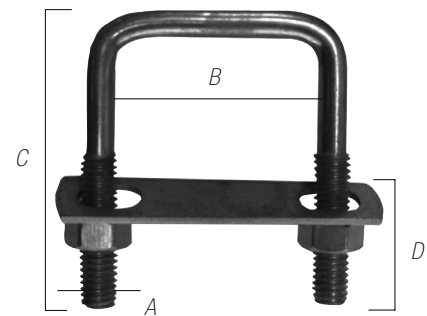
PART #	A	B	C	D	THREADS/IN.	PIPE
65140	1/4"	1-1/8"	2"	1"	20	3/4"
65141	1/4"	1-3/8"	2-3/4"	1-1/4"	20	1"
65142	1/4"	2"	3-1/2"	1-3/4"	20	1-1/2"
65143	5/16"	1-3/8"	2-1/2"	1"	18	1"
65144	5/16"	1-3/8"	3-11/16"	2-3/8"	18	1"
65145	5/16"	1-3/4"	3"	1-1/2"	18	1-1/4"
65146	5/16"	1-3/4"	4-3/16"	2-3/4"	18	1-1/4"
65147	5/16"	2"	3"	1-1/2"	18	1-1/2"
65148	5/16"	2"	3-3/4"	2-1/8"	18	1-1/2"
65149	5/16"	2-1/2"	3-1/2"	1-1/2"	18	2"
65150	5/16"	2-1/2"	4-3/16"	2-3/8"	18	2"
65151	3/8"	2-1/2"	3-5/8"	1-3/4"	16	2"
65152	3/8"	3"	4-1/8"	1-3/4"	16	2-1/2"
65153	3/8"	3-1/2"	4-5/8"	2"	16	3"



U-Bolts - Square

Q235 Steel-Grade 2. Supplied with 3/32" mounting plate & nuts.
Clear zinc plated. 5 pieces per package. UNC Threading (coarse)

PART #	A	B	C	D
65181	3/8"	2"	3"	1-1/2"
65182	3/8"	2"	5"	3"
65184	3/8"	4"	3"	1-1/2"
65185	3/8"	4"	5"	3"
65187	3/8"	6"	5"	3"
65188	3/8"	6"	7"	3-3/4"





General Hardware

Rings



General Hardware



65172



65177



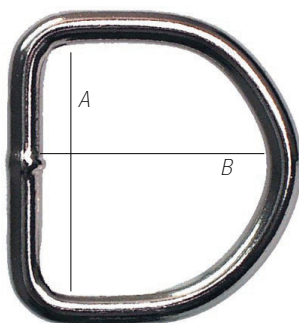
65178

Mounting Rings

Clear zinc plated. 10 pieces per package.

PART #	DESCRIPTION	PIN DIAMETER	THREAD LENGTH	RING I.D.	ADDITIONAL INFORMATION
65172	4-1/4" Eyebolt Length	3/8"	2-1/2"	2"	Supplied with nut
65177	4-1/2" Lagscrew Eyebolt Length	5/16"	2"	2"	N/A
65178	2" x 1-9/16" Mounting Plate			2"	1/4" dia. mounting holes

D-Rings



PART #	WIRE DIAMETER	A	B	PKG QTY
66173	1/8"	1"	7/8"	10
66174	1/8"	1-1/8"	7/8"	10
66175	5/32"	1-5/16"	1"	10
66176	5/32"	1-5/8"	1-1/8"	10

Heavy Duty D-Rings

PART #	WIRE DIAMETER	A	B	PKG QTY
66178	5/16"	2"	1-3/4"	10
66179	3/8"	2"	1-7/8"	10

Split Key Rings



PART #	WIRE DIAMETER	INSIDE DIAMETER	OUTSIDE DIAMETER	PKG QTY
66180	0.066"	5/8"	3/4"	10
66182	0.075"	27/32"	1"	10
66184	0.087"	1-5/64"	1-1/4"	10

Harness Ring



PART #	WIRE DIAMETER	INSIDE DIAMETER	OUTSIDE DIAMETER	PKG QTY
66390	3/16"	1-1/4"	1-5/8"	5

Welded Steel Ring



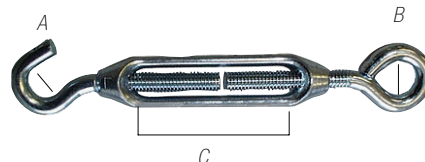
PART #	WIRE DIAMETER	INSIDE DIAMETER	OUTSIDE DIAMETER	W.L.L.	PKG QTY
66410	1/4"	1"	1-1/2"	200 lb	10
66411	5/16"	1-1/8"	1-3/4"	250 lb	10
66412	7/32"	1-9/16"	2"	200 lb	10

Sizes are approximate. Specifications subject to change without notice.



Hook & Eye Turnbuckles (Wire Formed Ends)

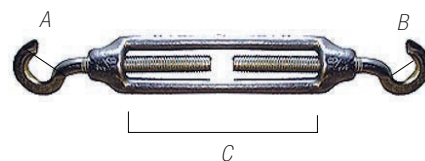
For light duty applications. Zinc die cast bodies. Zinc plated steel wire formed ends. 10 pieces per package.



PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A	B	C	W.L.L.	U.L.L.
66206	7/32"	4-1/2"	6-1/2"	3/8"	5/16"	2"	120 lb	350. lb
66207	1/4"	5-3/8"	7-11/16"	7/16"	3/8"	2-3/8"	190 lb	570 lb
66208	5/16"	6-1/2"	9-5/16"	7/16"	9/16"	2-13/16"	290 lb	875 lb
66209	3/8"	7-1/2"	10-5/8"	5/8"	9/16"	3-1/8"	375 lb	1,125 lb

Hook & Hook Turnbuckles (Wire Formed Ends)

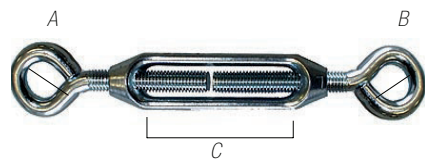
For light duty applications. Zinc die cast bodies. Zinc plated steel wire formed ends. 10 pieces per package.



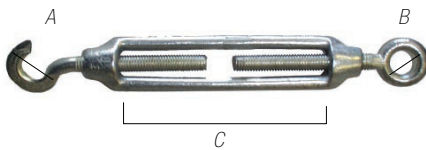
PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A, B	C	W.L.L.	U.L.L.
66216	7/32"	4-1/2"	6-1/2"	5/16"	2"	120 lb	350 lb
66217	1/4"	5-1/2"	7-9/16"	7/16"	2-3/8"	190 lb	570 lb
66218	5/16"	6-1/2"	9-1/4"	7/16"	2-13/16"	340 lb	1,020 lb
66219	3/8"	7"	10-5/8"	1/2"	3-1/8"	400 lb	1,200 lb

Eye & Eye Turnbuckles

For light duty applications. Zinc die cast bodies. Zinc plated steel wire formed ends. 10 pieces per package.



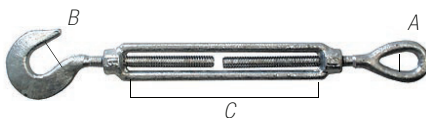
PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A, B	C	W.L.L.	U.L.L.
66226	3/16"	4-1/2"	6-1/2"	3/8"	2"	120 lb	350 lb
66227	1/4"	5-1/2"	7-9/16"	3/8"	2-3/8"	190 lb	570 lb
66228	5/16"	6-1/2"	9-1/4"	7/16"	2-3/4"	340 lb	1,020 lb
66229	3/8"	7"	10-5/8"	1/2"	3-1/8"	400 lb	1,200 lb



Hook & Eye Turnbuckles (Malleable Iron)

Malleable iron bodies and forged steel ends. Hot dipped galvanized finish.

PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A, B	C	W.L.L.	U.L.L.
66210	6mm	5-3/16"	8-1/16"	3/8"	2-3/4"	132 lb	396 lb
66211	8mm	6-1/2"	9-1/16"	7/16"	3-9/16"	264 lb	792 lb
66212	10mm	7-5/16"	10-1/4"	15/32"	3-3/4"	396 lb	1,188 lb
66213	12mm	10-7/16"	16"	19/32"	5-1/2"	726 lb	2,178 lb
66214	16mm	13-3/8"	19-11/16"	3/4"	7-1/8"	1,320 lb	3,960 lb
66215	20mm	15-3/4"	22-1/16"	1"	8-1/4"	1,980 lb	5,940 lb



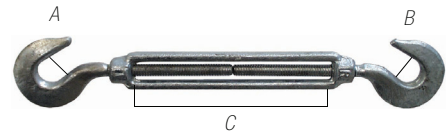
Hook & Eye Turnbuckles (Forged Steel)

Forged steel bodies & ends. Hot dipped galvanized finish. Features a lock nut on each end. Meets Spec. FF-T791b, Type 1, Form 1, Class 6.

PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A	B	C	W.L.L.	U.L.L.
66820	1/4"	8"	12"	11/32"	7/16"	4	400 lb	2,000 lb
66821	5/16"	9-1/2"	13-1/2"	7/16"	1/2"	4-1/2"	700 lb	3,500 lb
66822	3/8"	12"	18"	17/32"	9/16"	6"	1,000 lb	5,000 lb
66823	1/2"	13-5/8"	20-5/8"	23/32"	11/16"	6"	1,500 lb	7,500 lb
66824	1/2"	16-5/8"	26-5/8"	23/32"	11/16"	9"	1,500 lb	7,500 lb
66825	1/2"	19-5/8"	32-5/8"	23/32"	11/16"	12"	1,500 lb	7,500 lb
66826	5/8"	15-1/2"	22-3/4"	7/8"	29/32"	6"	2,250 lb	11,250 lb
66827	5/8"	18-1/2"	28-3/4"	7/8"	29/32"	9"	2,250 lb	11,250 lb
66828	5/8"	21-1/2"	34-3/4"	7/8"	29/32"	12"	2,250 lb	11,250 lb
66829	3/4"	17-1/2"	25"		1"	6"	3,000 lb	15,000 lb
66880	3/4"	20-1/2"	31"		1"	9"	3,000 lb	15,000 lb
66881	3/4"	23-1/2"	31"		1"	12"	3,000 lb	15,000 lb

Hook & Hook Turnbuckles (Forged Steel)

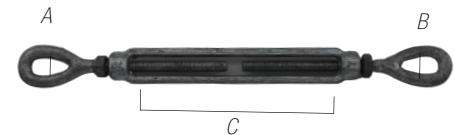
Forged steel bodies & ends. Hot dipped galvanized finish. Features a lock nut on each end. Meets Spec. FF-T791b, Type 1, Form 1, Class 5.



PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A, B	C	W.L.L.	U.L.L.
66800	1/4"	8"	12"	7/16"	4"	400 lb	2,000 lb
66801	5/16"	9-1/4"	13-3/4"	1/2"	4-1/2"	700 lb	3,500 lb
66802	3/8"	11-3/4"	17-3/4"	9/16"	6"	1,000 lb	5,000 lb
66803	1/2"	13-3/8"	20-3/8"	11/16"	6"	1,500 lb	7,500 lb
66804	1/2"	16-3/8"	26-3/8"	11/16"	9"	1,500 lb	7,500 lb
66805	1/2"	19-3/8"	32-3/8"	11/16"	12"	1,500 lb	7,500 lb
66806	5/8"	15-1/4"	22-1/2"	7/8"	6"	2,250 lb	11,250 lb
66807	5/8"	18-1/4"	28-1/2"	7/8"	9"	2,250 lb	11,250 lb
66808	5/8"	21-1/4"	34-1/2"	7/8"	12"	2,250 lb	11,250 lb
66809	3/4"	17-1/4"	24-3/4"	1"	6"	3,000 lb	15,000 lb
66810	3/4"	20-1/4"	30-3/4"	1"	9"	3,000 lb	15,000 lb
66811	3/4"	23-1/4"	36-3/4"	1"	12"	3,000 lb	15,000 lb

Eye & Eye Turnbuckles (Forged Steel)

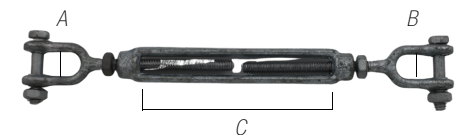
Forged steel bodies & ends. Hot dipped galvanized finish. Features a lock nut on each end. Meets Spec. FF-T791b, Type 1, Form 1, Class 4.



PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A, B	C	W.L.L.	U.L.L.
66830	1/4"	8-1/4"	12-1/4"	11/32"	4"	500 lb	2,500 lb
66831	5/16"	9-5/8"	14-1/8"	7/16"	4-1/2"	800 lb	4,000 lb
66832	3/8"	12-1/8"	18-1/8"	17/32"	6"	1,200 lb	6,000 lb
66833	1/2"	14"	21"	23/32"	6"	2,200 lb	11,000 lb

Jaw & Jaw Turnbuckles (Forged Steel)

Forged steel bodies & ends. Hot dipped galvanized finish. Features a lock nut on each end. Meets Spec. FF-T791b, Type 1, Form 1, Class 7.



PART #	THREAD	OVERALL LENGTH CLOSED	OVERALL LENGTH OPEN	A, B	C	W.L.L.	U.L.L.
66840	1/4"	8"	12"	7/16"	4"	500 lb	2,500 lb
66841	5/16"	9-1/2"	14"	1/2"	4-1/2"	800 lb	4,000 lb
66842	3/8"	11-3/8"	17-3/8"	17/32"	6"	1,200 lb	6,000 lb
66843	1/2"	13"	20"	21/32"	6"	2,200 lb	11,000 lb
66844	1/2"	16"	26"	21/32"	9"	2,200 lb	11,000 lb
66845	1/2"	19"	32"	21/32"	12"	2,200 lb	11,000 lb
66846	5/8"	14-7/8"	22-1/8"	25/32"	6"	3,500 lb	17,500 lb
66847	5/8"	17-7/8"	28-1/8"	25/32"	9"	3,500 lb	17,500 lb
66848	5/8"	20-7/8"	34-1/8"	25/32"	12"	3,500 lb	17,500 lb
66849	3/4"	16-5/8"	24-1/8"	15/16"	6"	5,200 lb	26,000 lb
66850	3/4"	19-5/8"	30-1/8"	15/16"	9"	5,200 lb	26,000 lb
66851	3/4"	22-5/8"	36-1/8"	15/16"	12"	5,200 lb	26,000 lb



Stainless Steel Bolt Snaps Swivel

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
64100	1/2"	9/32"	3-3/16"	5
64101	3/4"	11/32"	3-1/2"	5



Stainless Steel Security Snaps Swivel

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	W.L.L.	PKG QTY
64102	5/8"	3/8"	3-3/8"	100 lb	5
64103	3/4"	1/2"	3-7/8"	200 lb	5
64104	7/8"	1/2"	4-5/8"	300 lb	5



Stainless Steel Bolt Snaps

PART #	EYE INSIDE DIAMETER	OVERALL LENGTH	PKG QTY
64105	1/4"	1-7/8"	5
64106	3/8"	2-5/8"	5
64107	1/2"	3-7/8"	5



Stainless Steel Boat Snaps

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
64108	1/2"	1/4"	2"	5
64109	5/8"	7/16"	2-3/4"	5
64110	3/4"	9/16"	3-1/4"	5
64111	3/4"	5/8"	3-7/8"	5

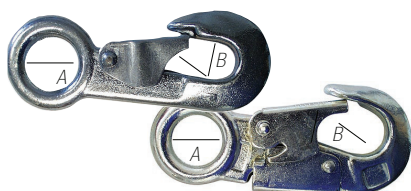


Aluminum Spring Snap

Zinc plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
64112	1/2"	1/4"	2-3/8"	5

66137



66137S

Safety Lanyard Snaps

PART #	TYPE	A	B	W.L.L.	U.L.L.
66137	Single latch	1-1/16"	3/4"	1,000 lb	5,000 lb
66137S	Double latch	1-1/16"	1"	1,000 lb	5,000 lb

Sizes are approximate. Specifications subject to change without notice.



Bull Snap Swivel

Zinc die cast and nickel plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66330	1"	5/8"	4-1/8"	5



Solid Snap Hook

Forged steel.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66331	11/16"	5/8"	3-1/2"	5



Cap Snap Swivel

Zinc plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66332	1"	3/8"	3-5/8"	5



Swivel Eye Snaps

Zinc plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66334	3/4"	7/16"	3-1/4"	5
66335	7/8"	7/16"	3-1/2"	5



Dog Lead Snap Swivel

Zinc plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66336	3/8"	1/4"	2-1/2"	5



Trigger Snaps Swivel

Zinc plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66339	5/8"	1/2"	2-1/2"	5
66344	3/4"	1/2"	2-3/4"	5
66348	3/4"	3/8"	2-1/2"	5
66349	3/4"	1"	3-1/2"	5
66350	3/4"	3/4"	3-7/8"	5



66339



66349





General Hardware

Snap



66340-66354



Bolt Snaps

Zinc plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66340	1/2"	11/16"	3-3/8"	5
66343	1/2"	3/4"	3-1/2"	5
66354	1/4"	7/16"	2-1/8"	5
66342	3/8"	7/16"	3-1/2"	5

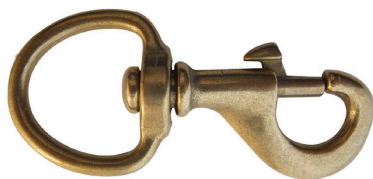
66342



Bolt Snaps Swivel

Solid Brass.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66360	1/2"	9/16"	3"	5



Bolt Snaps Swivel

Brass.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66361	1"	1/2"	3-1/2"	5



Bolt Snaps Swivel

Nickel Plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66366	9/16"	3/4"	3-1/4"	5



Open Eye Snaps

Zinc Plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66341	13/16"	1/2"	3-9/16"	5



Loop Snaps

Zinc Plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66346	3/4"	1/2"	3-1/8"	5
66347	1"	1/2"	2-15/16"	5

Sizes are approximate. Specifications subject to change without notice.



Swivel Loop Snaps

Nickel Plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66352	3/4"	3/8"	3-1/4"	5
66353	1"	3/8"	3-1/4"	5



Open Decoy Snaps

Zinc Die Cast.

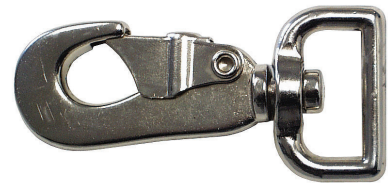
PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66355	1/2"	1/4"	2-1/2"	5



Spring Snap Swivel

Zinc Die Cast.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66351	1"	7/16"	3-1/8"	5



Baby Square Eye Snaps

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66365	5/8"	1/4"	1-7/8"	5



Swivel Snaps

Zinc Plated.

PART #	EYE INSIDE DIAMETER	SNAP EYE	OVERALL LENGTH	PKG QTY
66367	1/2"	--	2"	5
66368	5/8"	--	2-7/16"	5
66369	3/4"	--	2-5/8"	5
66370	1"	--	3"	5



Nickel Plated.

PART #	EYE INSIDE DIAMETER	SNAP EYE	OVERALL LENGTH	PKG QTY
66372	3/8"	11/16"	2-3/8"	5



General Hardware

Snaps



General Hardware



Lever Snaps Swivel

Nickel Plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66374	5/8"	1/2"	3-1/4"	5
66375	3/4"	7/16"	3-1/2"	5
66376	1"	3/8"	3-1/2"	5
66377	1-1/8"	9/16"	4-7/16"	5



Security Snaps Swivel

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66380	7/8"	9/16"	3-7/8"	5
66381	1-1/8"	9/16"	5-1/8"	5



Swivel Security Snaps

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66394	1"	1"	4-1/8"	5



Panic Snap

Zinc Plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66338	1/2"	1"	4-1/16"	5



Eye Bull Snaps

Nickel Plated.

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66385	3/4"	9/16"	3-3/4"	5



Flat Spring Snap - Simplex

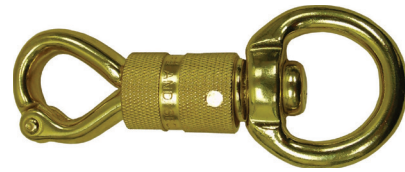
PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66356	11/16"	5/16"	4-3/8"	5
66387	1/2"	1/4"	2-3/4"	5

Sizes are approximate. Specifications subject to change without notice.



Bronze Animal Snap Swivel

PART #	EYE INSIDE DIAMETER	GAP	OVERALL LENGTH	PKG QTY
66392	1"	9/16"	4-1/2"	5



Steel Snap Links

Formed steel with clear zinc plated finish.

PART #	WIRE DIAMETER	GAP	LENGTH	W.L.L.	U.L.L.	PKG QTY
66419	3/16"	1/4"	2"	220 lb	550 lb	10
66420	1/4"	5/16"	2-3/8"	260 lb	650 lb	10
66421	5/16"	3/8"	3-1/8"	500 lb	1,250 lb	10
66422	3/8"	1/2"	4"	770 lb	1,925 lb	10
66425	7/16"	5/8"	4-3/4"	900 lb	2,250 lb	5
66426	1/2"	3/4"	5-3/8"	1,200 lb	3,000 lb	5



Aluminum Snap Links

For decorative and light applications. Multi-coloured.

PART #	WIRE DIAMETER	GAP	LENGTH	PKG QTY
66427	3/16"	1/2"	1-5/16"	10
66428	1/4"	5/8"	2-7/16"	10
66429	5/16"	7/8"	3-1/8"	10



Stainless Steel Snap Links

304 Stainless steel material.

PART #	WIRE DIAMETER	GAP	LENGTH	W.L.L.	PKG QTY
64070	3/16"	1/4"	1-15/16"	100 lb	5
64071	1/4"	5/16"	2-3/8"	140 lb	5
64072	5/16"	3/8"	3-1/8"	250 lb	5
64073	3/8"	1/2"	4"	400 lb	5



Carabiner with Magnet

PART #	BASE DIAMETER	GAP	BREAKAWAY CAPACITY	MATERIAL
66700	1-1/4"	9/16"	75 lbs	Stainless Steel #304



Sizes are approximate. Specifications subject to change without notice.



General Hardware

Keystocks



General Hardware



Galvanized Dock Rope Cleat

PART #	DESCRIPTION	PKG QTY
12262	Galvanized Steel Material, 6"	5



Black Nylon Dock Rope Cleat

PART #	DESCRIPTION	PKG QTY
12264	Rugged Black Nylon Construction, 4"	5



Square Keystock

Supplied in 12" lengths only. Carbon steel. Zinc plated finish. Thickness tolerance ± 0.1 mm; length tolerance ± 0.3 mm.

PART #	WIDTH	HEIGHT	QTY
22750	1/8"	1/8"	Pkg of 5
22751	3/16"	3/16"	Pkg of 5
22752	1/4"	1/4"	Pkg of 5
22753	5/16"	5/16"	Pkg of 5
22754	3/8"	3/8"	Pkg of 5
22755	7/16"	7/16"	Pkg of 5

PART #	WIDTH	HEIGHT	QTY
22756	1/2"	1/2"	Pkg of 5
22758	5/8"	5/8"	Pkg of 2
22760	3/4"	3/4"	Pkg of 2
22761	7/8"	7/8"	Pkg of 1
22763	1"	1"	Pkg of 1

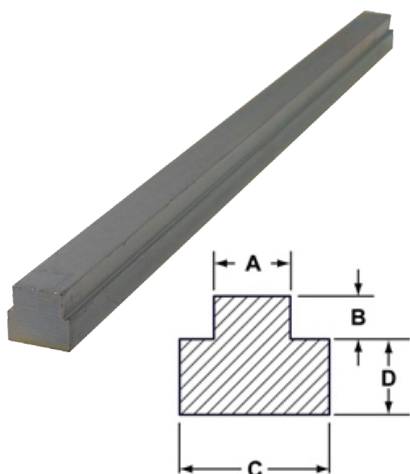


Rectangular Keystock

Supplied in 12" lengths only. Carbon steel. Zinc plated finish. Thickness tolerance ± 0.1 mm; length tolerance ± 0.1 mm.

PART #	WIDTH	HEIGHT	QTY
22782	1/4"	3/16"	Pkg of 5
22785	1/4"	5/16"	Pkg of 5
22786	1/4"	3/8"	Pkg of 5
22789	5/16"	3/8"	Pkg of 5

PART #	WIDTH	HEIGHT	QTY
22791	3/8"	7/16"	Pkg of 5
22792	3/8"	1/2"	Pkg of 5
22795	7/16"	1/2"	Pkg of 5
22796	1/2"	5/8"	Pkg of 2



Step Keystock

Supplied in 12" lengths only. Carbon steel. Zinc plated finish. Thickness tolerance ± 0.1 mm; length tolerance ± 0.1 mm.

PART #	A	B	C	D	QTY
22821	3/16"	3/32"	1/4"	3/32"	Pkg of 2
22822	1/4"	1/8"	5/16"	1/8"	Pkg of 2
22823	1/4"	1/8"	3/8"	3/16"	Pkg of 2
22824	5/16"	5/32"	3/8"	3/16"	Pkg of 2
22825	3/8"	3/16"	7/16"	5/32"	Pkg of 2
22826	3/8"	3/16"	1/2"	3/16"	Pkg of 2
22827	7/16"	5/32"	1/2"	1/4"	Pkg of 2
22828	1/2"	1/4"	5/8"	5/16"	Pkg of 2

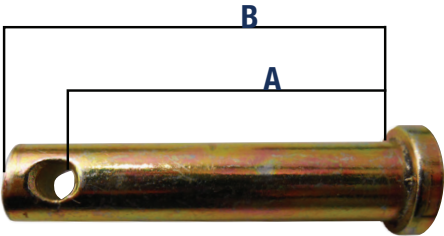
Sizes are approximate. Specifications subject to change without notice.



Clevis Pins

Yellow zinc dichromate finish. Hole is 1/4" from end of pin.
Package quantity 10 pieces. Made of C1020 steel*.

PART #	PIN DIAMETER	HOLE DIAMETER (MM)	A	B
22500	1/4"	2.6	1"	1-1/4"
22501	1/4"	2.6	1-1/4"	1-1/2"
22502	1/4"	2.6	1-1/2"	1-3/4"
22503	1/4"	2.6	1-3/4"	2"
22504	1/4"	2.6	2"	2-1/4"
22505	1/4"	2.6	2-1/4"	2-1/2"
22509	5/16"	3.5	1"	1-1/4"
22510	5/16"	3.5	1-1/4"	1-1/2"
22511	5/16"	3.5	1-1/2"	1-3/4"
22512	5/16"	3.5	1-3/4"	2"
22513	5/16"	3.5	2"	2-1/4"
22514	5/16"	3.5	2-1/4"	2-1/2"
22518	3/8"	3.8	1"	1-1/4"
22519	3/8"	3.8	1-1/4"	1-1/2"
22520	3/8"	3.8	1-1/2"	1-3/4"
22521	3/8"	3.8	1-3/4"	2"
22522	3/8"	3.8	2"	2-1/4"



PART #	PIN DIAMETER	HOLE DIAMETER (MM)	A	B
22523	3/8"	3.8	2-1/4"	2-1/2"
22528	7/16"	3.8	1-1/4"	1-1/2"
22529	7/16"	3.8	1-1/2"	1-3/4"
22530	7/16"	3.8	1-3/4"	2"
22531	7/16"	3.8	2"	2-1/4"
22532	7/16"	3.8	2-1/4"	2-1/2"
22536	1/2"	3.8	1"	1-1/4"
22537	1/2"	3.8	1-1/4"	1-1/2"
22538	1/2"	3.8	1-1/2"	1-3/4"
22539	1/2"	3.8	1-3/4"	2"
22540	1/2"	3.8	2"	2-1/4"
22541	1/2"	3.8	2-1/4"	2-1/2"

Clevis Pin Dynapaks

PART #	CONTENTS	QTY	PIN DIAMETER	USABLE LENGTH
92500	22500	Pkg of 5	1/4"	1"
92502	22502	Pkg of 5	1/4"	1-1/2"
92504	22504	Pkg of 5	1/4"	2"
92509	22509	Pkg of 5	5/16"	1"
92511	22511	Pkg of 5	5/16"	1-1/2"
92513	22513	Pkg of 5	5/16"	2"
92518	22518	Pkg of 3	3/8"	1"
92520	22520	Pkg of 3	3/8"	1-1/2"
92522	22522	Pkg of 3	3/8"	2"
92529	22529	Pkg of 2	7/16"	1-1/2"
92538	22538	Pkg of 2	1/2"	1-1/2"
92540	22540	Pkg of 2	1/2"	2"

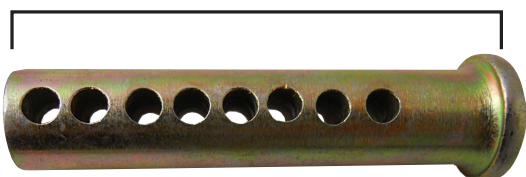


*1020 is a general purpose, low tensile, low hardenability carbon steel, generally supplied in the cold drawn or turned and polished condition, with a typical tensile strength range 410 - 790 MPa, and Brinell hardness range 119-235. Characterized by excellent weldability, very good machinability with reasonable strength and very good ductility.



General Hardware

Clevis Pins • Machinery Bushings



Adjustable Clevis Pins

A quick replacement pin, the universal clevis pin features a series of holes making it adaptable to varying lengths. Use the diameter that fits your application and cut off the excess length. Easily replaces bolts, cotter pins or rivets on all types of equipment. Yellow zinc dichromate finish. First pin hole is 1/4" from the end of the pin.

PART #	PIN DIAMETER	HOLE DIAMETER (MM)	OVERALL LENGTH	QTY
22545	1/4"	2.6	2"	Pkg of 5
22546	5/16"	3.5	2"	Pkg of 5
22547	3/8"	3.8	2"	Pkg of 5
22548	7/16"	3.8	2"	Pkg of 5
22549	1/2"	3.8	2"	Pkg of 5
22550	7/16"	3.8	2-1/2"	Pkg of 5
22551	1/2"	3.8	2-1/2"	Pkg of 5
22552	7/16"	3.8	3"	Pkg of 5
22553	1/2"	3.8	3"	Pkg of 5
22554	5/8"	3.8	3"	Pkg of 5
22555	3/4"	3.8	3"	Pkg of 5

Machinery Bushings

Machinery bushings reduce wear between moving parts, prevent marring of fine finishes and can be used as spacers for sprockets, pulleys and gears on new or old equipment. Made of low carbon, mild steel with plain finish.

- 18 Gauge (l = light) = 0.042/0.054, 3/64"
- 14 Gauge (m = medium) = 0.068/0.082, 5/64"
- 10 Gauge (h = heavy) = 0.126/0.142, 1/8"
- Tolerances - O.D. +0.010/0.010 I.D. +0.010 / -0.000

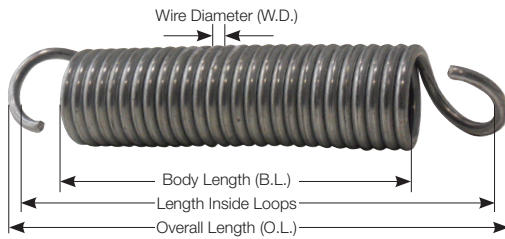


PART #	INDUSTRY #	INSIDE DIAMETER	OUTSIDE DIAMETER	GAUGE	QTY
22700	M-16L	9/16"	1"	18	Pkg of 10
22701	M-18L	5/8"	1-1/8"	18	Pkg of 10
22702	M-18M	5/8"	1-1/8"	14	Pkg of 10
22703	M-20L	3/4"	1-1/4"	18	Pkg of 10
22704	M-20M	3/4"	1-1/4"	14	Pkg of 10
22705	M-20H	3/4"	1-1/4"	10	Pkg of 10
22706	M-22L	7/8"	1-3/8"	18	Pkg of 10
22707	M-22M	7/8"	1-3/8"	14	Pkg of 10
22708	M-24L	1"	1-1/2"	18	Pkg of 10
22709	M-24M	1"	1-1/2"	14	Pkg of 10
22710	M-24H	1"	1-1/2"	10	Pkg of 10
22711	M-28L	1-1/8"	1-3/4"	18	Pkg of 10
22712	M-28M	1-1/8"	1-3/4"	14	Pkg of 10
22713	M-28H	1-1/8"	1-3/4"	10	Pkg of 10
22714	M-30L	1-1/4"	1-7/8"	18	Pkg of 10
22715	M-30M	1-1/4"	1-7/8"	14	Pkg of 10
22716	M-30H	1-1/4"	1-7/8"	10	Pkg of 10
22717	M-34L	1-3/8"	2-1/8"	18	Pkg of 10
22718	M-34M	1-3/8"	2-1/8"	14	Pkg of 10
22719	M-34H	1-3/8"	2-1/8"	10	Pkg of 10

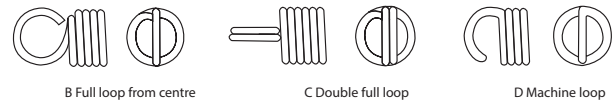
PART #	INDUSTRY #	INSIDE DIAMETER	OUTSIDE DIAMETER	GAUGE	QTY
22720	M-36L	1-1/2"	2-1/4"	18	Pkg of 10
22721	M-36M	1-1/2"	2-1/4"	14	Pkg of 10
22722	M-36H	1-1/2"	2-1/4"	10	Pkg of 10
22723	M-38M	1-5/8"	2-3/8"	14	Pkg of 10
22724	M-38H	1-5/8"	2-3/8"	10	Pkg of 10
22725	M-40M	1-3/4"	2-1/2"	14	Pkg of 10
22726	M-40H	1-3/4"	2-1/2"	10	Pkg of 10
22727	M-46M	1-7/8"	2-7/8"	14	Pkg of 10
22728	M-46H	1-7/8"	2-7/8"	10	Pkg of 10
22729	M-48M	2"	3"	14	Pkg of 10
22730	M-48H	2"	3"	10	Pkg of 10
22731	M-50M	2-1/8"	3-1/8"	14	Pkg of 10
22732	M-50H	2-1/8"	3-1/8"	10	Pkg of 10
22733	M-52M	2-1/4"	3-1/4"	14	Pkg of 10
22734	M-52H	2-1/4"	3-1/4"	10	Pkg of 10
22735	M-54M	2-3/8"	3-3/8"	14	Pkg of 10
22736	M-54H	2-3/8"	3-3/8"	10	Pkg of 10
22737	M-56M	2-1/2"	3-1/2"	14	Pkg of 10
22738	M-56H	2-1/2"	3-1/2"	10	Pkg of 10

Sizes are approximate. Specifications subject to change without notice.





Extension Spring Ends:



Packaged Extension Springs

ASTM A227, A228 or A764. Carbon spring steel zinc plated finish.

PART #	REFERENCE #	WIRE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	BODY LENGTH	MAX. STRETCH	LOAD RATE (LB/IN)	MAX LOAD (LB)	END TYPE	PKG QTY
24001	C-1	0.015"	0.125"	1.5"	1.25"	2"	0.65	1.4	Loop	2
24005	C-5	0.02"	0.156"	1.5"	1.188"	1.7"	1.50	2.7	Loop	2
24013	C-13	0.023"	0.218"	1.5"	1.064"	2.4"	1.10	2.9	Loop	2
24019	C-19	0.035"	0.25"	1.5"	1"	1.1"	6.40	8.4	Loop	2
24023	C-23	0.025"	0.281"	1.5"	0.938"	3.4"	0.74	2.8	Loop	2
24025	C-25	0.02"	0.312"	1.5"	0.876"	7.7"	0.17	1.4	Loop	2
24029	C-29	0.028"	0.343"	1.5"	0.814"	3.2"	0.81	3.6	Loop	2
24031	C-31	0.028"	0.437"	1.5"	0.626"	4.4"	0.54	2.5	Loop	2
24033	C-33	0.047"	0.437"	1.5"	0.626"	1.6"	6.20	11	Loop	2
24051	C-51	0.014"	0.125"	1.875"	1.625"	3.3"	0.35	1.3	Loop	2
24055	C-55	0.02"	0.156"	1.875"	1.563"	2.7"	1.10	2.2	Loop	2
24063	C-63	0.023"	0.218"	1.875"	1.439"	3.4"	0.79	2.9	Loop	2
24067	C-67	0.02"	0.25"	1.875"	1.375"	6.4"	0.25	1.7	Loop	2
24069	C-69	0.035"	0.25"	1.875"	1.375"	1.5"	4.70	8.4	Loop	2
24073	C-73	0.025"	0.281"	1.875"	1.313"	2.8"	0.54	4.7	Loop	2
24077	C-77	0.025"	0.344"	1.875"	1.189"	6.8"	0.31	2.3	Loop	2
24081	C-81	0.028"	0.437"	1.875"	1"	7.8"	0.30	2.5	Loop	2
24083	C-83	0.047"	0.437"	1.875"	1"	2.3"	4.30	11	Loop	2
24103	C-103	0.018"	0.125"	2.5"	2.25"	2.2"	0.96	2.5	Loop	2
24105	C-105	0.02"	0.156"	2.5"	2.188"	3"	0.81	2.7	Loop	2
24111	C-111	0.025"	0.187"	2.5"	2.126"	2.5"	1.50	4.2	Loop	2
24115	C-115	0.016"	0.25"	2.5"	2"	15"	0.50	0.87	Loop	2
24117	C-117	0.02"	0.25"	2.5"	2"	9"	0.17	1.7	Loop	2
24119	C-119	0.035"	0.25"	2.5"	2"	2.1"	3.50	8.4	Loop	2
24131	C-131	0.028"	0.437"	2.5"	1.626"	13"	0.18	2.5	Loop	2
24133	C-133	0.047"	0.437"	2.5"	1.665"	3.4"	3.00	11	Loop	2
24135	C-135	0.062"	0.437"	2"	1.126"	0.87"	17.00	19	Loop	2
24139	C-139	0.054"	0.437"	3.5"	2.626"	2.5"	4.00	12	Loop	2
24141	C-141	0.072"	0.625"	2.5"	1.375"	1.5"	10.00	19	Loop	2
24143	C-143	0.054"	0.562"	3"	1.875"	3.4"	2.30	9.2	Loop	2
24155	C-155	0.028"	0.312"	3"	2.375"	7.8"	0.41	3.5	Loop	2
24157	C-157	0.025"	0.25"	3.25"	2.75"	6.4"	0.44	3.1	Loop	2
24161	C-161	0.034"	0.437"	2.75"	1.875"	5.9"	5.00	3.3	Loop	2
24163	C-163	0.047"	0.437"	3.5"	2.626"	3.6"	2.00	8.4	Loop	2
24165	C-165	0.08"	0.5"	1.625"	0.625"	2"	66.00	35	Loop	2
24171	C-171	0.105"	0.75"	2"	0.5"	2.59"	92	60	Hook	2
24173	C-173	0.105"	0.75"	2.25"	0.75"	3"	68	60	Hook	2
24175	C-175	0.105"	0.75"	2.437"	0.9375"	3.3"	47	50	Hook	2

Sizes are approximate. Specifications subject to change without notice.





Packaged Extension Springs Continued

PART #	REFERENCE #	WIRE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	BODY LENGTH	MAX. STRETCH	LOAD RATE (LB/IN)	MAX LOAD (LB)	END TYPE	PKG QTY
24177	C-177	0.105"	0.75"	2.625"	1.125"	3.625"	38	50	Hook	2
24179	C-179	0.072"	0.562"	2.875"	1.75"	4.475"	11	22	Loop	2
24181	C-181	0.072"	0.625"	3.25"	2"	5.6"	6.4	19	Loop	2
24183	C-183	0.047"	0.562"	4"	2.91"	11.6"	0.76	6.5	Loop	2
24185	C-185	0.062"	0.75"	3.5"	2"	9"	1.7	11	Loop	2
24187	C-187	0.105"	0.75"	2.875"	1.375"	N/A	39	60	Hook	2
24189	C-189	0.105"	0.75"	3.125"	1.625"	4.3"	33	50	Hook	2
24191	C-191	0.105"	0.75"	3.75"	2.25"	6"	26	50	Hook	2
24193	C-193	0.034"	0.375"	4"	3.25"	11.3"	0.47	3.9	Loop	2
24205	C-205	0.034"	0.25"	5"	4.5"	8.5"	1.4	6	Loop	2
24209	C-209	0.028"	0.375"	4.5"	3.75"	18"	0.15	2.9	Loop	2
24215	C-215	0.041"	0.375"	3.75"	3"	7.5"	1.4	6.5	Loop	2
24219	C-219	0.041"	0.468"	4.5"	3.564"	13"	0.54	5.2	Loop	2
24221	C-221	0.062"	0.5"	4.5"	3.5"	7.7"	4.1	16	Loop	2
24223	C-223	0.072"	0.5"	5"	4"	7.3"	8.2	25	Loop	2
24227	C-227	0.091"	0.687"	4.75"	3.875"	7.25"	11	35	Hook	2
24231	C-231	0.072"	0.562"	6"	4.876"	9.8"	4.6	22	Loop	2
24233	C-233	0.034"	0.25"	6"	5.5"	10.3"	1.1	6	Loop	2
24235	C-235	0.028"	0.312"	6"	5.375"	21"	0.23	3.9	Loop	2
24239	C-239	0.047"	0.375"	6.5"	5.75"	11.5"	1.6	10	Loop	2
24243	C-243	0.054"	0.625"	6.5"	5.25"	17.5"	0.65	8.3	Loop	2
24251	C-251	0.105"	1.125"	16"	13.75"	38"	1.2	31	Hook	1
24253	C-253	0.054"	0.562"	16.5"	15.375"	41.5"	0.32	9.2	Double loop closed	1
24257	C-257	0.091"	0.812"	4.5"	3.375"	7.8"	7.1	29	Hook	2
24259	C-259	0.12"	0.812"	4"	2.375"	1.3"	39	66	Hook	2
24261	C-261	0.12"	1.062"	5.5"	3.375"	9.7"	9.5	49	Hook	1
24263	C-263	0.091"	0.875"	6"	4.875"	11.6"	3.9	26	Hook	1
24265	C-265	0.105"	1.062"	7"	4.875"	14.5"	3.7	33	Hook	1
24267	C-267	0.162"	1.25"	6.5"	4"	9.5"	26	100	Hook	1
24269	C-269	0.135"	1"	7"	5"	10"	18	75	Double Loop Closed	1
24271	C-271	0.08"	1.062"	8.5"	6.375"	27.5"	0.69	15	Hook	1
24273	C-273	0.148"	1.125"	8.5"	6.25"	12.9"	15	87	Hook	1
24275	C-275	0.091"	1.125"	7.5"	6.312"	20.5"	1.3	20	Hook	1
24277	C-277	0.091"	0.65"	6.5"	5.5"	10.5"	5.9	31	Hook	1
24281	C-281	0.062"	0.375"	5.5"	5"	7.4"	8.9	23	Loop	2
24285	C-285	0.035"	0.375"	5"	4.25"	16"	0.43	5.4	Loop	2
24287	C-287	0.032"	0.312"	5"	4.375"	14.8"	0.48	5.2	Loop	2
24289	C-289	0.035"	0.312"	5"	4.375"	12.4"	0.79	6.6	Loop	2
24293	C-293	0.062"	0.375"	6.75"	6"	2.5"	6.8	23	Loop	1
24301	C-301	0.135"	1.5"	11.5"	8.5"	26.5"	2.7	47	Double Loop Closed	1
24303	C-303	0.105"	1"	12"	10"	24"	2.4	35	Hook	1
24307	C-307	0.135"	1.062"	12"	9.875"	19"	7.7	69	Hook	1
24311	C-311	0.041"	0.437"	10.25"	9.375"	27"	0.28	5.5	Loop	1
24313	C-313	0.047"	0.5"	8.5"	7.5"	22.5"	0.46	7.2	Loop	1
24315	C-315	0.047"	0.437"	8.5"	7.626"	18"	0.73	8.4	Loop	1
24317	C-317	0.091"	0.625"	8.5"	7.25"	12.3"	7.7	39	Loop	1
24319	C-319	0.054"	0.562"	8.5"	7.376"	20"	0.64	9.2	Loop	1
24321	C-321	0.062"	0.625"	8.5"	7.75"	19.5"	0.95	13	Loop	1

Sizes are approximate. Specifications subject to change without notice.



Packaged Extension Springs Continued

PART #	REFERENCE #	WIRE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	BODY LENGTH	MAX. STRETCH	LOAD RATE (LB/IN)	MAX LOAD (LB)	END TYPE	PKG QTY
24323	C-323	0.08"	0.625"	8.5"	7.25"	14"	3.9	27	Loop	1
24325	C-325	0.062"	0.875"	8.5"	6.75"	32"	0.33	8.8	Hook	1
24329	C-329	0.105"	0.875"	8.5"	6.75"	14"	5.4	41	Hook	1
24333	C-333	0.135"	0.875"	9"	7.25"	12"	20	87	Hook	1
24337	C-337	0.12"	1"	8.5"	6.5"	13"	7.7	52	Hook	1
24339	C-339	0.148"	1.25"	10"	8.5"	16.5"	9.2	77	Hook	1

Drawbar Spring

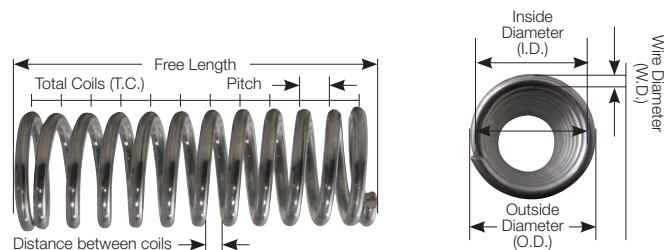
ASTM A227, A228 or A764. Carbon spring steel zinc plated finish



PART #	REFERENCE #	WIRE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	LOAD RATE (LB/IN)	MAX. LOAD (LB)
24900	4001	0.227"	1-9/16"	7-3/4"	152.78	330.31

Packaged Compression Springs

S.A.E. 1060-1090 spring steel. Phosphate and oil finish. Retail package with UPC barcode label.



PART #	REFERENCE #	WIRE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	SOLID HEIGHT	TOTAL COILS	LOAD RATE (LB/IN)	MAX. LOAD (LB)	PKG QTY
24500	C-500	0.023"	0.156"	0.562"	0.28	11	19.00	4.5	6
24510	C-510	0.035"	0.25"	0.5"	0.26	7	42.00	6.2	6
24516	C-516	0.011"	0.156"	1"	0.14	12	0.73	0.57	6
24520	C-520	0.016"	0.187"	0.875"	0.27	16	1.30	0.81	6
24526	C-526	0.028"	0.187"	1"	0.48	17	15.00	6.3	6
24530	C-530	0.02"	0.218"	1"	0.24	11	3.30	2.2	6
24532	C-532	0.013"	0.187"	1"	0.14	10	0.99	0.78	6
24550	C-550	0.016"	0.187"	1"	0.2	12	2.00	1.3	6
24554	C-554	0.02"	0.25"	1"	0.2	9	2.80	1.9	6
24556	C-556	0.026"	0.312"	0.625"	0.18	7	7.00	3.1	6
24562	C-562	0.035"	0.25"	1"	0.46	12	21.00	8.9	6
24566	C-566	0.032"	0.375"	0.75"	0.22	6	7.70	3.2	6
24570	C-570	0.014"	0.125"	1.375"	0.34	27	1.60	1.4	6
24576	C-576	0.016"	0.156"	1.375"	0.35	21	1.80	1.6	6
24578	C-578	0.013"	0.187"	1.375"	0.18	12	0.71	0.78	6
24580	C-580	0.028"	0.187"	1.375"	0.65	23	11.00	6.3	6
24582	C-582	0.016"	0.187"	1.375"	0.26	15	1.40	1.3	6
24600	C-600	0.02"	0.218"	1.375"	0.31	15	2.40	2.2	4
24604	C-604	0.023"	0.218"	1.375"	0.39	16	3.90	3.3	4
24608	C-608	0.02"	0.25"	1.375"	0.25	12	2.00	1.9	4

Sizes are approximate. Specifications subject to change without notice.



Packaged Compression Springs Continued

PART #	REFERENCE #	WIRE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	SOLID HEIGHT	TOTAL COILS	LOAD RATE (LB/IN)	MAX. LOAD (LB)	PKG QTY
24612	C-612	0.028"	0.281"	1.375"	0.43	15	4.40	4.1	4
24614	C-614	0.041"	0.312"	1.25"	0.62	15	17.00	8.3	4
24624	C-624	0.041"	0.375"	1.125"	0.46	10	13.00	7	4
24632	C-632	0.041"	0.437"	1.062"	0.36	8	11.00	6.1	4
24650	C-650	0.013"	0.218"	1.75"	0.247	18	0.29	0.44	4
24652	C-652	0.028"	0.218"	1.375"	0.53	18	8.10	5.5	4
24660	C-660	0.016"	0.312"	1.75"	0.2	12	0.39	0.61	4
24664	C-664	0.047"	0.343"	1.5"	0.71	15	23.00	11	4
24668	C-668	0.026"	0.375"	1.5"	0.26	10	1.70	2.2	4
24672	C-672	0.035"	0.375"	1.75"	0.54	16	3.70	4.2	4
24676	C-676	0.032"	0.437"	2.125"	0.39	12	2.00	2.8	4
24680	C-680	0.047"	0.312"	2"	1.14	24	18.00	12	4
24690	C-690	0.041"	0.437"	2.25"	0.67	16	4.90	6.1	2
24692	C-692	0.041"	0.625"	1.5"	0.37	9	3.40	3.8	2
24700	C-700	0.062"	0.5"	1"	0.54	8	45.00	17	2
24702	C-702	0.054"	0.562"	1"	0.38	7	16	9.5	2
24704	C-704	0.041"	0.5"	1.5"	0.45	10	5.3	5.4	2
24706	C-706	0.072"	0.562"	1.375"	0.74	10	45	22	2
24712	C-712	0.091"	0.687"	1.25"	0.75	8	89	35	2
24714	C-714	0.062"	0.375"	2.25"	1.46	22	34	22	2
24720	C-720	0.062"	0.5"	1.75"	0.85	14	24	17	2
24722	C-722	0.047"	0.5"	2"	0.635	13	7.19	N/A	2
24724	C-724	0.054"	0.437"	2"	0.89	16	16	13	2
24730	C-730	0.047"	0.406"	2.75"	1.12	23	7.3	9.7	2
24736	C-736	0.072"	0.5"	2.75"	1.48	19	28	25	2
24740	C-740	0.08"	0.625"	2.5"	1.14	14	32	27	2
24742	C-742	0.054"	0.625"	2.75"	0.77	14	5.8	9.1	2
24750	C-750	0.08"	0.75"	2"	0.78	10	25	23	2
24752	C-752	0.08"	0.937"	2"	0.67	8	17	19	2
24756	C-756	0.041"	0.718"	3.5"	0.47	11	1.5	3.8	2
24766	C-766	0.054"	0.562"	3"	0.96	17	6.3	10	2
24768	C-768	0.105"	0.812"	2.25"	1.26	11	54.94	N/A	2
24782	C-782	0.08"	0.625"	3"	1.34	16	26	27	2
24792	C-792	0.105"	0.875"	3"	1.39	14	34	43	2
24802	C-802	0.148"	1.375"	4.375"	1.83	13	36	72	1
24806	C-806	0.148"	1.5"	3.25"	1.26	9	43	67	1
24814	C-814	0.135"	1.375"	2.5"	0.98	8	48	55	1
24818	C-818	0.12"	1.125"	4"	1.72	13	26	48	2
24822	C-822	0.148"	0.937"	4"	2.63	12	89	103	2
24826	C-826	0.12"	1"	3.5"	1.71	15	36	54	2
24830	C-830	0.12"	1.125"	3"	1	10	22	34	2
24832	C-832	0.12"	1"	3"	1.41	12	45	54	2
24834	C-834	0.12"	1.187"	2.75"	1.2	9	35	46	2
24836	C-836	0.08"	0.875"	4"	1.28	15	9	20	2
24838	C-838	0.08"	0.75"	3.5"	1.38	16	14	23	2
24850	C-850	0.091"	0.625"	5"	2.64	29	29	38	2
24856	C-856	0.091"	0.75"	6"	2.78	30	13	32	2
24858	C-858	0.072"	0.687"	6"	2.16	29	6.2	18	2

Sizes are approximate. Specifications subject to change without notice.



Packaged Compression Springs Continued

PART #	REFERENCE #	WIRE DIAMETER	OUTSIDE DIAMETER	OVERALL LENGTH	SOLID HEIGHT	TOTAL COILS	LOAD RATE (LB/IN)	MAX. LOAD (LB)	PKG QTY
24864	C-864	0.091"	0.875"	6"	2.18	23	9.3	28	1
24874	C-874	0.12"	1.375"	6"	1.08	14	13	40	1
24878	C-878	0.08"	0.625"	9"	3.72	45	8.4	27	1
24892	C-892	0.162"	1.125"	7"	4	24	49	111	1

What are retainer rings?

Retainer Rings are precision engineered components that are designed to be applied on shafts or in bores and provide a shoulder that accurately positions, locates and retains other parts of an assembly. Many different types of retainer rings have been developed over the years, each a solution to a specific problem. Different types of rings are available to solve issues such as tolerance take-up, clearance diameter, thrust load capacity, flexible installation, rpm capacity, impact loading, non-removable lock-rings, groove-less push-on fastening and radial installation.

As an engineering concept, the retainer ring is still relatively young and has certainly not yet reached it's peak of utilization as a retainer device.

How are retainer rings used?

Retainer Rings work by creating a shoulder that can hold components in place. The retainer shoulder is created when the ring attaches itself to the bore or shaft, typically

by snapping into a groove. Ordinarily (however not always) a groove is dug into the shaft or bore, and this groove becomes the seat for the retainer ring.

Retainer rings are designed such that their contact diameter has some interference fit with the groove in which they fit. This creates a "snug" fit between the ring and groove. The term used to describe the amount of interference fit is "cling".

Cling causes the retainer ring to fit tightly and securely against its groove bottom. Without cling a ring would have a loose fit and would "rattle" in its groove. This lack of cling would decrease the retention capacity of the ring because a "cling-less" ring is free to move radially, creating weak retention points that will ultimately cause the assembly to fail.

Another key factor is the width of the groove. The groove width is slightly larger than the rings thickness, thus creating a snug axial fit. The tight axial fit along with the cling to the groove bottom create a rigid shoulder which can retain thrust loads.

PART #	INDUSTRY #	SHAFT DECIMAL	SHAFT FRACTION	RING OUTSIDE DIAMETER	RING THICKNESS	GROOVE DIAMETER	GROOVE DEPTH	GROOVE WIDTH	WEIGHT (LB)/100 PCS
22860	12	0.125	1/8"	0.23	0.015	0.10	0.02	0.02	0.0087
22861	18	0.188	3/16"	0.335	0.025	0.15	0.02	0.029	0.029
22862	25	0.25	1/4"	0.527	0.025	0.21	0.02	0.029	0.076
22863	31	0.312	5/16"	0.5	0.025	0.25	0.03	0.029	0.057
22864	37	0.375	3/8"	0.66	0.035	0.30	0.04	0.039	0.15
22865	43	0.438	7/16"	0.687	0.035	0.34	0.05	0.039	0.15
22866	50	0.5	1/2"	0.8	0.042	0.40	0.05	0.046	0.25
22867	62	0.625	5/8"	0.94	0.042	0.49	0.07	0.046	0.32
22868	75	0.75	3/4"	1.12	0.05	0.58	0.09	0.056	0.58
22869	87	0.875	7/8"	1.3	0.05	0.68	0.10	0.056	0.76
22870	98	0.984	1"	1.5	0.05	0.84	0.08	0.056	0.92
22871	118	1.188	1-3/16"	1.626	0.062	1.08	0.05	0.068	1.13
22872	137	1.375	1-3/8"	1.875	0.062	1.23	0.07	0.068	1.54



E Retainer Rings

The universally used radially assembled circlip for shafts. The groove is gripped by 3 tabs. Applications in vehicle construction, optical and electronic industry, and light mechanical industry. Cross reference to 1000, 1500, 5133, ms-16633 series. S.A.E. 1060-1090 Spring steel. Phosphate & oil finish. 10 pieces per pkg.



Internal Retainer Rings

The universally applicable rings for shafts and bores. Applications in all branches of industry and machine, instrument and vehicle construction. Cross reference to 1300, 3000, 5000, HO, MS-16625 series. S.A.E. 1060-1090 Spring steel. Phosphate and oil finish.

PART #	INDUSTRY #	BORE (DECIMAL)	BORE (FRACTION)	RING OUTSIDE DIAMETER	RING THICKNESS	GROOVE DIAMETER	GROOVE DEPTH	GROOVE WIDTH	PKG QTY
22873	25	0.25	1/4"	0.28	0.015	0.27	0.01	0.02	10
22874	31	0.312	5/16"	0.346	0.015	0.33	0.01	0.02	10
22875	37	0.375	3/8"	0.415	0.025	0.40	0.01	0.029	10
22876	43	0.438	7/16"	0.482	0.025	0.46	0.01	0.029	10
22878	50	0.5	1/2"	0.548	0.035	0.53	0.02	0.039	10
22879	56	0.562	9/16"	0.62	0.035	0.60	0.02	0.039	10
22880	62	0.625	5/8"	0.694	0.035	0.67	0.02	0.039	10
22881	68	0.688	11/16"	0.763	0.035	0.73	0.02	0.039	10
22882	75	0.75	3/4"	0.831	0.035	0.80	0.02	0.039	10
22884	87	0.875	7/8"	0.971	0.042	0.93	0.03	0.046	10
22885	93	0.938	15/16"	1.041	0.042	1.00	0.03	0.046	10
22886	100	1	1"	1.111	0.042	1.07	0.03	0.046	10
22888	106	1.062	1-1/16"	1.18	0.05	1.13	0.03	0.056	10
22889	112	1.125	1-1/8"	1.249	0.05	1.20	0.04	0.056	10
22890	118	1.188	1-3/16"	1.319	0.05	1.26	0.04	0.056	10
22891	125	1.25	1-1/4"	1.388	0.05	1.33	0.04	0.056	10
22892	131	1.312	1-5/16"	1.456	0.05	1.40	0.04	0.056	10
22893	137	1.375	1-3/8"	1.526	0.05	1.46	0.04	0.056	10
22894	143	1.438	1-7/16"	1.596	0.05	1.53	0.05	0.056	10
22895	150	1.5	1-1/2"	1.66	0.05	1.59	0.05	0.056	10
22896	156	1.562	1-9/16"	1.734	0.062	1.66	0.05	0.068	10
22897	162	1.625	1-5/8"	1.804	0.062	1.73	0.05	0.068	10
22900	175	1.75	1-3/4"	1.942	0.062	1.86	0.05	0.068	10
22901	181	1.812	1-13/16"	2.012	0.062	1.92	0.06	0.068	10
22902	187	1.875	1-7/8"	2.072	0.062	1.99	0.06	0.068	10
22903	193	1.938	1-15/16"	2.141	0.062	2.06	0.06	0.068	10
22904	200	2	2"	2.21	0.062	2.12	0.06	0.068	10
22905	206	2.062	2-1/16"	2.28	0.078	2.19	0.06	0.086	5
22906	212	2.125	2-1/8"	2.35	0.078	2.25	0.06	0.086	5
22907	225	2.25	2-1/4"	2.49	0.078	2.38	0.07	0.086	5
22908	237	2.375	2-3/8"	2.63	0.078	2.52	0.07	0.086	5
22909	244	2.44	2-7/16"	2.702	0.078	2.58	0.07	0.086	5
22910	250	2.5	2-1/2"	2.775	0.078	2.65	0.07	0.086	5
22911	262	2.625	2-5/8"	2.91	0.093	2.78	0.08	0.103	5
22912	268	2.688	2-11/16	2.98	0.093	2.85	0.08	0.103	5
22913	275	2.75	2-3/4"	3.05	0.093	2.91	0.08	0.103	5
22914	281	2.812	2-13/16"	3.121	0.093	2.98	0.08	0.103	5
22915	287	2.875	2-7/8"	3.191	0.093	3.05	0.09	0.103	2
22916	300	3	3"	3.325	0.093	3.18	0.09	0.103	2
22917	325	3.25	3-1/4"	3.623	0.109	3.45	0.1	0.12	2

Sizes are approximate. Specifications subject to change without notice.

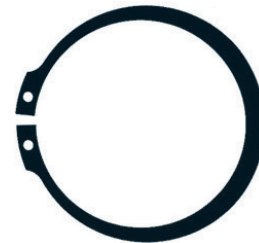


Internal Retainer Rings Continued

PART #	INDUSTRY #	BORE (DECIMAL)	BORE (FRACTION)	RING OUTSIDE DIAMETER	RING THICKNESS	GROOVE DIAMETER	GROOVE DEPTH	GROOVE WIDTH	PKG QTY
22918	350	3.5	3-1/2"	3.89	0.109	3.71	0.11	0.12	2
22919	400	4	4"	4.424	0.109	4.24	0.12	0.12	2
22920	450	4.5	4-1/2"	4.94	0.109	4.74	0.12	0.12	2
22921	500	5	5"	5.485	0.109	5.26	0.13	0.12	2
22922	550	5.5	5-1/2"	6.066	0.125	5.77	0.14	0.139	2
22923	600	6	6"	6.62	0.125	6.27	0.14	0.139	2

External Retainer Rings (Basic)

The universally applicable rings for shafts and bores. Applications in all branches of industry and machine, instrument and vehicle construction. Cross reference to 1300, 3000, 5000, HO, MS-16625 series. S.A.E. 1060-1090 spring steel. Phosphate and oil finish.



PART #	INDUSTRY #	SHAFT DECIMAL	SHAFT FRACTION	RING OUTSIDE DIAMETER	RING THICKNESS	GROOVE DIAMETER	GROOVE DEPTH	GROOVE WIDTH	PKG QTY
22924	18	0.188	3/16"	0.168	0.015	0.18	0.01	0.018	10
22925	25	0.25	1/4"	0.225	0.025	0.23	0.01	0.029	10
22926	31	0.312	5/16"	0.281	0.025	0.29	0.01	0.029	10
22928	37	0.375	3/8"	0.338	0.025	0.35	0.01	0.029	10
22929	43	0.438	7/16"	0.395	0.025	0.41	0.01	0.029	10
22931	50	0.5	1/2"	0.461	0.035	0.47	0.02	0.039	10
22932	56	0.562	9/16"	0.521	0.035	0.53	0.02	0.039	10
22933	59	0.594	19/32"	0.55	0.035	0.56	0.02	0.039	10
22934	62	0.625	5/8"	0.579	0.035	0.59	0.02	0.039	10
22935	66	0.672	43/64"	0.621	0.035	0.63	0.02	0.039	10
22936	68	0.688	11/16"	0.635	0.042	0.65	0.02	0.046	10
22937	75	0.75	3/4"	0.693	0.042	0.70	0.02	0.046	10
22938	81	0.812	13/16"	0.751	0.042	0.76	0.03	0.046	10
22939	87	0.875	7/8"	0.81	0.042	0.82	0.03	0.046	10
22940	93	0.938	15/16"	0.867	0.042	0.88	0.03	0.046	10
22942	100	1	1"	0.925	0.042	0.94	0.03	0.046	10
22944	106	1.062	1-1/16"	0.982	0.05	1.00	0.03	0.056	10
22945	112	1.125	1-1/8"	1.041	0.05	1.06	0.03	0.056	10
22946	118	1.188	1-3/16"	1.098	0.05	1.12	0.04	0.056	10
22947	125	1.25	1-1/4"	1.156	0.05	1.18	0.04	0.056	10
22948	131	1.312	1-5/16"	1.214	0.05	1.23	0.04	0.056	10
22949	137	1.375	1-3/8"	1.272	0.05	1.29	0.04	0.056	10
22950	143	1.438	1-7/16"	1.333	0.05	1.35	0.04	0.056	10

Sizes are approximate. Specifications subject to change without notice.



External Retainer Rings (Basic) Continued

PART #	INDUSTRY #	SHAFT DECIMAL	SHAFT FRACTION	RING OUTSIDE DIAMETER	RING THICKNESS	GROOVE DIAMETER	GROOVE DEPTH	GROOVE WIDTH	PKG QTY
22951	150	1.5	1-1/2"	1.387	0.05	1.41	0.05	0.056	10
22952	156	1.562	1-9/16"	1.446	0.062	1.47	0.05	0.068	10
22953	162	1.625	1-5/8"	1.503	0.062	1.53	0.05	0.068	10
22954	168	1.688	1-11/16"	1.56	0.062	1.59	0.05	0.068	10
22955	175	1.75	1-3/4"	1.618	0.062	1.65	0.05	0.068	10
22956	187	1.875	1-7/8"	1.735	0.062	1.77	0.05	0.06	10
22957	196	1.969	1-31/32"	1.819	0.062	1.86	0.06	0.068	10
22958	200	2	2"	1.85	0.062	1.89	0.06	0.068	10
22960	212	2.125	2-1/8"	1.964	0.078	2	0.06	0.086	5
22962	225	2.25	2-1/4"	2.081	0.078	2.12	0.07	0.086	5
22963	237	2.375	2-3/8"	2.197	0.078	2.24	0.07	0.086	5
22964	243	2.438	2-7/16"	2.255	0.078	2.3	0.07	0.086	5
22965	250	2.5	2-1/2"	2.313	0.078	2.36	0.07	0.086	5
22966	262	2.625	2-5/8"	2.428	0.078	2.48	0.07	0.086	5
22967	275	2.75	2-3/4"	2.543	0.093	2.6	0.07	0.103	2
22968	287	2.875	2-7/8"	2.659	0.093	2.72	0.08	0.1	2
22970	300	3	3"	2.775	0.093	2.84	0.08	0.1	2
22971	350	3.5	3-1/2"	3.237	0.109	3.32	0.09	0.12	2
22972	400	4	4"	3.7	0.109	3.79	0.1	0.12	2
22973	450	4.5	4-1/2"	4.223	0.109	4.31	0.1	0.12	2
22974	500	5	5"	4.692	0.109	4.79	0.11	0.12	2
22975	600	6	6"	5.631	0.125	5.75	0.13	0.139	2

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