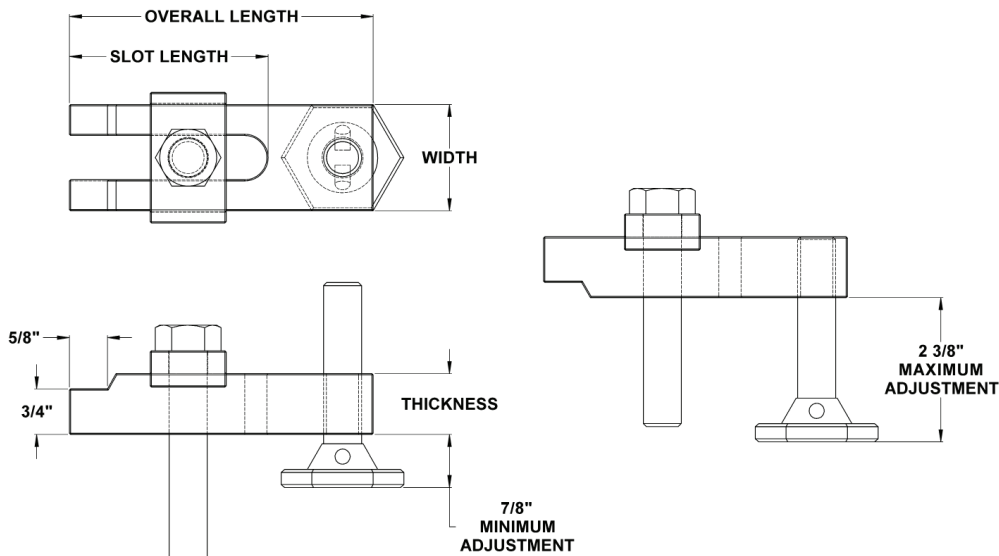


Heavy Duty Open Toe Mold Clamp Assemblies - Swivel Base

Features

- Open Toe Design
- Hardened with black oxide finish
- Non swivel base


U Inch

M C1018 Steel

H 34-36 HRC

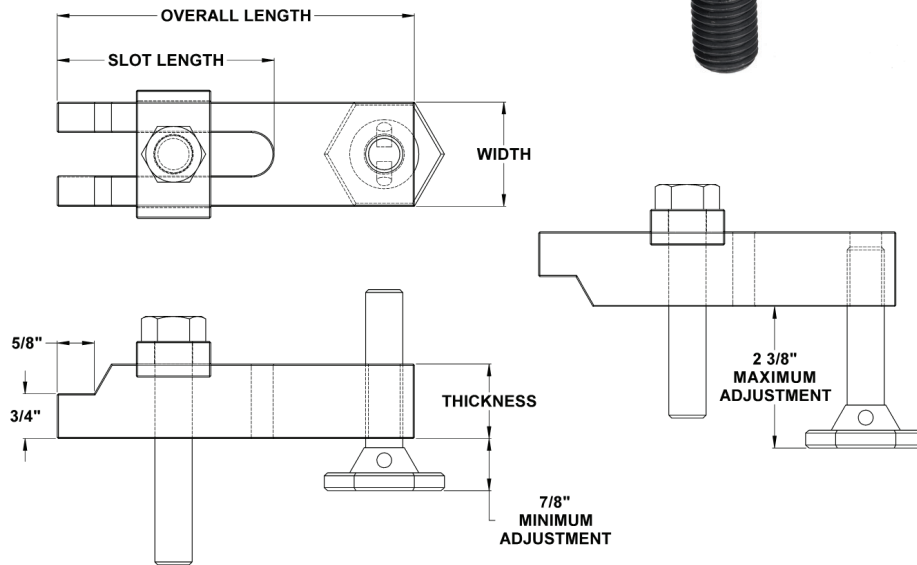
Complete Assembly Item No.	Individual Clamp Body Item Number	For Clamping Screw Diameter	Clamping Screw Size Supplied With Assembly Dia. X Length	Mold Clamp Body Specifications			
				Thickness	Width	Slot Length	Overall Length
TAC584A	HD584	5/8"	5/8-11 x 3-1/2"	1"	1-3/4"	2-3/4"	4
TAC585A	HD585					3-1/4"	5
TAC586A	HD586					3-3/4"	6
TAC587A	HD587					4-1/4"	7
TAC755A	HD755	3/4"	3/4-10 x 4"	1-1/4"	2"	3-3/8"	5
TAC756A	HD756					3-7/8"	6
TAC757A	HD757					4-3/8"	7
TAC758A	HD758					5-3/8"	8
TAC110A	HD110	1"	1" 8 x 5"	1-1/2"	2-1/2"	6	10



Extra Heavy Duty Open Toe Mold Clamp Assemblies - Swivel Base

Features

- Open Toe Design
- Hardened with black oxide finish
- Swivel base


U Inch

M C1018 Steel

H 34-36 HRC

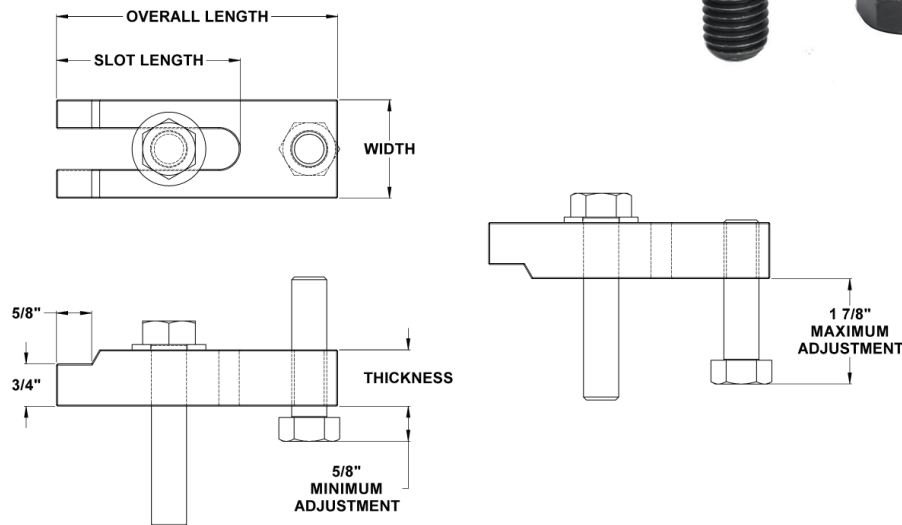
Complete Assembly Item No.	Individual Clamp Body Item Number	For Clamping Screw Diameter	Clamping Screw Size Supplied With Assembly Dia. X Length	Mold Clamp Body Specifications			
				Thickness	Width	Slot Length	Overall Length
TAC584A	HD584	5/8"	5/8-11 x 3-1/2"	1"	1-3/4"	2-3/4"	4
TAC585A	HD585					3-1/4"	5
TAC586A	HD586					3-3/4"	6
TAC587A	HD587					4-1/4"	7
TAC755A	HD755	3/4"	3/4-10 x 4"	1-1/4"	2"	3-3/8"	5
TAC756A	HD756					3-7/8"	6
TAC757A	HD757					4-3/8"	7
TAC758A	HD758					5-3/8"	8
TAC110A	HD110	1"	1" 8 x 5"	1-1/2"	2-1/2"	6	10



Heavy Duty Open Toe Mold Clamp Assemblies - Non Swivel Base

Features

- Open Toe Design
- Hardened with black oxide finish
- Non swivel base

**U** Inch**M** C1018 Steel**H** 34-36 HRC

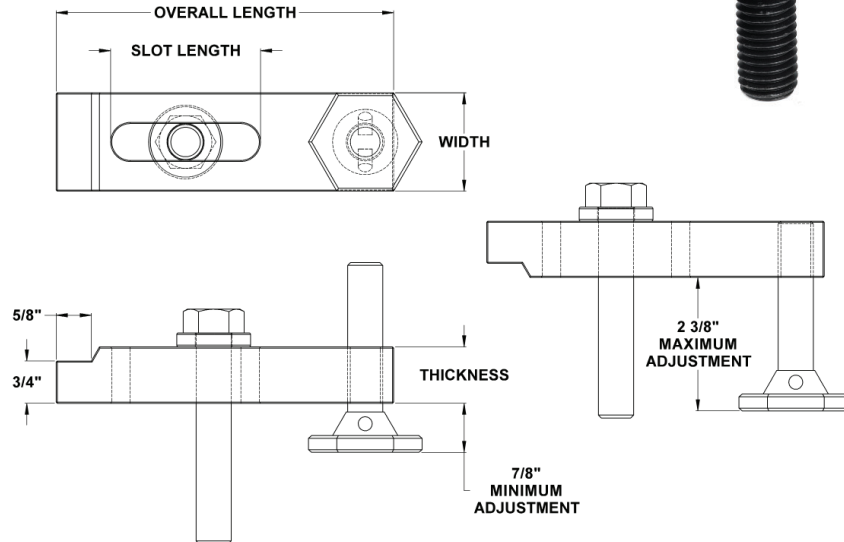
Complete Assembly Item No.	Individual Clamp Body Item Number	For Clamping Screw Diameter	Clamping Screw Size Supplied With Assembly Dia. X Length	Mold Clamp Body Specifications			
				Thickness	Width	Slot Length	Overall Length
CFC584A	HD584	5/8"	5/8-11 x 3-1/4"	1"	1-3/4"	2-3/4"	4"
CFC585A	HD585					3-1/4"	5"
CFC586A	HD586					3-3/4"	6"
CFC587A	HD587					4-1/4"	7"
CFC755A	HD755	3/4"	3/4-10 X 4"	1-1/4"	2"	3-3/8"	5"
CFC756A	HD756					3-7/8"	6"
CFC757A	HD757					4-3/8"	7"
CFC758A	HD758					5-3/8"	8"
CFC110A	HD110	1"	1"-8 x 4-1/2"	1-1/2"	2-1/2"	6"	10"



Extra Heavy Duty Closed Toe Mold Clamp Assemblies - Swivel Base

Features

- Closed Toe Design
- Hardened with black oxide finish
- Non swivel base


U Inch

M C1018 Steel

H 34-36 HRC

Complete Assembly Item No.	Individual Clamp Body Item Number	For Clamping Screw Diameter	Clamping Screw Size Supplied With Assembly Dia. X Length	Mold Clamp Body Specifications			
				Thickness	Width	Slot Length	Overall Length
TAC5861A	XHD5861	5/8"	5/8-11 x 3-3/4"	1-1/4"	1-3/4"	2-5/8"	6"
TAC5876A	XHD5876					3-5/8"	7-1/2"
TAC7566A	XHD7566	3/4"	3/4-10 x 4-1/2"	1-1/2"	2"	2-3/4"	6-1/2"
TAC7581A	XHD7581					3-3/4"	8"
TAC7596A	XHD7596					4-3/4"	9-1/2"
TAC1009A	XHD1009	1"	1"-8 x 5-1/2"	1-3/4"	2-1/2"	3"	8"
TAC1012A	XHD1012					5"	11"
TAC1250A	XHD1250	1-1/4"	1-1/4"-7 x 6"	1-3/4"	3"	5-1/2"	13"
TAC1500A	XHD1500	1-1/2"	1-1/2"-6 x 6"	1-3/4"	3-1/2"	5-3/4"	13-1/2"



Individual Mold Clamp Bodies

Features

- Black oxide coating to avoid rust
- Made of hardened tool steel
- For all open and closed toe mold clamp assemblies.
- Made in USA


U Inch

M C1018 Steel

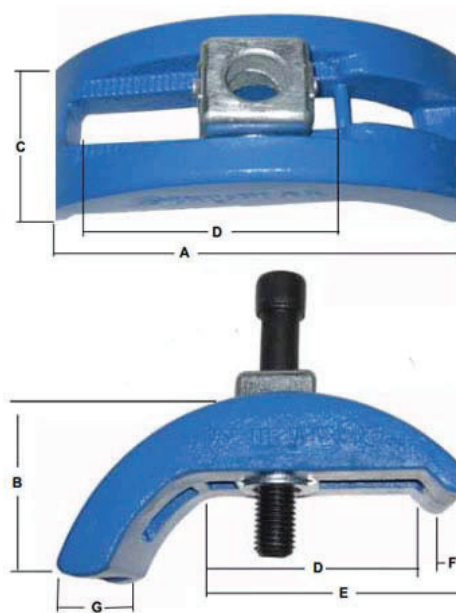
Item number	Associated Assembly	Toe	Mold Clamp Body Thickness	Mold Clamp Body Width	Mold Clamp Body Slot Length	Mold Clamp Body Overall Length
HD110	TAC110A	Open	1-1/2	2-1/2	6	10
HD584	TAC584A	Open	1	1-3/4	2-3/4	4
HD585	TAC585A	Open	1	1-3/4	3-1/4	5
HD586	TAC586A	Open	1	1-3/4	3-3/4	6
HD587	TAC587A	Open	1	1-3/4	4-1/4	7
HD755	TAC755A	Open	1-1/8	2	3-3/8	5
HD756	TAC756A	Open	1-1/8	2	3-7/8	6
HD757	TAV757A	Open	1-1/8	2	4-3/8	7
HD758	TAC758A	Open	1-1/8	2	5-3/8	8
XHD1008	TAC1008A	Open	1-3/4	2-1/2	4-3/8	8
XHD1009	TAC1009A	Closed	1-3/4	2-1/2	3	8
XHD1011	TAC1011A	Open	1-3/4	2-1/2	6-3/8	11
XHD1012	TAC1012A	Closed	1-3/4	2-1/2	5	11
XHD1250	TAC1250A	Closed	1-3/4	3	5-1/2	13
XHD1500	TAC1500A	Closed	1-3/4	3-1/2	5-3/4	13-1/2
XHD5860	TAC5860A	Open	1-1/4	1-3/4	3-5/8	6
XHD5861	TAC5861A	Closed	1-1/4	1-3/4	2-5/8	6
XHD5875	TAC5875A	Open	1-1/4	1-3/4	4-5/8	7-1/2
XHD5876	TAC5876A	Closed	1-1/4	1-3/4	3-5/8	7-1/2
XHD7565	TAC7565A	Open	1-1/2	2	4	6-1/2
XHD7566	TAC7566A	Closed	1-1/2	2	2-3/4	6-1/2
XHD7580	TAC7580A	Open	1-1/2	2	5	8
XHD7581	TAC7581A	Closed	1-1/2	2	3-3/4	8
XHD7595	TAC7595A	Open	1-1/2	2	6	9-1/2
XHD7596	TAC7596A	Closed	1-1/2	2	4-3/4	9-1/2



Forged Quick Adjusting Arching Mold Clamps

Features

- Self Adjusting Height
- Adjustable pivoting washer secured to clamp
- Washer slides in slot to proper clamping position
- Heavy duty forging
- Fast, accurate and safe mold clamping
- No heel bolt, shims or washers required
- Grade 8 screws not included



U Inch

Item Number	A OAL	B Height	C Width	D Slot	E	F Toe	G Heal	Hole Size	Screw Size
M12-100	4"	2"	2"	2"	2.5"	.300"	0.586"	0.51"	1/2"-13
M16-130	5"	2.25"	2.75"	2"	3.5"	.440"	0.798"	0.654"	5/8"-11
M20-180	7"	3.5"	3"	4"	4.625"	.515"	0.932"	0.837"	3/4"-10
M24-240	9.5"	4"	4"	5"	5.5"	.730"	1.323"	1.022"	1"-8
M30-250	9.875"	4.50"	4"	5"	6"	.730"	1.323"	1.256"	1-1/4"-7



High Strength Grade 8, Hex Head Clamping Screws

U Inch

Item Number	Thread Size	Length	Hex Size
B1213-30	1/2"-13	3"	3/4"
B5811-35	5/8"-11	3.50"	15/16"
B5811-40	5/8"-11	4"	15/16"
B5811-45	5/8"-11	4.50"	15/16"
B5811-50	5/8"-11	5"	15/16"
B3410-30	3/4"-10	3"	1-1/8"
B3410-35	3/4"-10	3.50"	1-1/8"
B3410-40	3/4"-10	4"	1-1/8"
B3410-45	3/4"-10	4.50"	1-1/8"
B3410-50	3/4"-10	5"	1-1/8"
B1080-40	1"-8	4"	1-1/2"
B1080-80	1"-8	8"	1-1/2"
B1147-45	1-1/4"-7	4.50"	1-7/8"
B1147-80	1-1/4"-7	8"	1-7/8"



Hex Head Adjusting Screw

U Inch

Item No.	Clamp Screw Dia.	Thread Size	Head Thickness	Height Above Head
H58	5/8	5/8-11	7/16	2-1/2
H75	3/4	3/4-10	1/2	2-1/2
H100	1	1-8	5/8	2-1/2



High Strength Grade 5, Hex Head Clamping Screw

U Inch

Item No.	Length	Thread Size	Hex Size	Thickness
S1235	3-1/2	1/2-13	3/4	5/16
S5832	3-1/4	5/8-11	15/16	25/64
S5835	3-1/2	5/8-11	15/16	25/64
S5837	3-3/4	5/8-11	15/16	25/64
S7540	4	3/4-10	1-1/8	15/32
S7545	4-1/2	3/4-10	1-1/8	15/32
S1045	4-1/2	1-8	1-1/2	39/64
S1050	5	1-8	1-1/2	39/64
S1055	5-1/2	1-8	1-1/2	39/64
S1256	6	1-1/4-7	1-7/8	3/4
S1506	6	1-1/2-6	2-1/4	7/8



Metric Grade 8 Hex Head Bolts


 U Millimeters

Item Number	Thread	Length Under Head	Hardness (HRC)	Wrench Size Required
M1217550	M12-1.75	50 mm	34-37	19 mm
M1217565	M12-1.75	65 mm	34-37	19 mm
M1217575	M12-1.75	75 mm	34-37	19 mm
M1217590	M12-1.75	90 mm	34-37	19 mm
M14290	M14-2.0	90 mm	34-37	22 mm
M142110	M14-2.0	110 mm	34-37	22mm
M16250	M16-2.0	50 mm	34-37	24 mm
M16260	M16-2.0	60 mm	34-37	24 mm
M16275	M16-2.0	75 mm	34-37	24 mm
M16290	M16-2.0	90 mm	34-37	24 mm
M162110	M16-2.0	110 mm	34-37	24 mm
M20255	M20-2.5	50 mm	34-37	30 mm
M202575	M20-2.5	75 mm	34-37	30 mm
M202590	M20-2.5	90 mm	34-37	30 mm
M2025110	M20-2.5	110 mm	34-37	30 mm
M2025130	M20-2.5	130 mm	34-37	30 mm
M2025150	M20-2.5	150 mm	34-37	30 mm
M24390	M24-3.0	90 mm	34-37	36 mm
M243110	M24-3.0	110 mm	34-37	36 mm
M243120	M24-3.0	120 mm	34-37	36 mm
M243150	M24-3.0	150 mm	34-37	36 mm
M243180	M24-3.0	180 mm	34-37	36 mm
M243200	M24-3.0	200 mm	34-37	36 mm
M3035120	M30-3.5	120 mm	34-37	46 mm
M3035150	M30-3.5	150 mm	34-37	46 mm
M3035180	M30-3.5	180 mm	34-37	46 mm
M3035200	M30-3.5	200 mm	34-37	46 mm



Extra Thick Round Mold Washers

U Inch

Item No.	Screw Diameter	O.D.	Thickness
RW126	1/2	1-1/2	1/2
RW586	5/8	1-3/4	1/2
RW756	3/4	2	1/2
RW1006	1	2-1/2	5/8
RW1256	1-1/4	3	5/8
RW1506	1-1/2	3-1/2	5/8



Round Mold Washers

U Inch

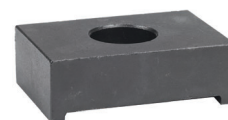
Item No.	Screw Diameter	O.D.	Thickness
RW58	5/8	1-1/4	1/4
RW75	3/4	1-1/2	1/4
RW100	1	2	5/16



Extra Large No-Twist Rectangular Mold Washers

U Inch

Item No.	Screw Diameter	length	Thickness Above Clamp	Clamp Width
SW127	1/2	2-1/4	3/4	1-3/4
SW587	5/8	2-1/4	3/4	1-3/4
SW757	3/4	2-1/2	3/4	2
SW1007	1	3	1	2-1/2



Extra Large Swivel Base Adjusting Screw Assemblies

U Inch

Item No.	Clamp Screw Dia.	Thread Size	Swivel Base Hex Size	Swivel Base Height	Overall Height
H585	5/8	5/8-11	1-3/4	7/8	3
H755	3/4	3/4-10	2	7/8	3-1/2
H1005	1	1-8	2-1/2	1-5/16	3-1/2
H1505	1-1/4 & 1-1/2	1-1/2-6	3	1-5/8	5-5/8



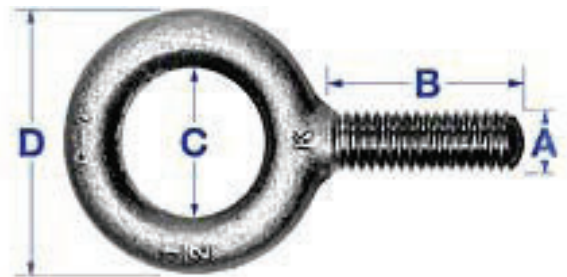
Plain Forged Eyebolts

Features

- Heavy Duty Drop Forged
- 1030 Carbon Steel
- Self-Colored
- Manufactured to ASME B18.15
- Tested to ASTM A489 specifications
- Made in USA

Forged Eyebolts are Drop Forged Carbon Steel and fully threaded. Eyebolts are manufactured to ASME B18.15 and tested to ASTM A489 specifications. These entry level low cost mold handling eyebolts allow you to keep one on very mold. Easy to use with either a nylon sling or steel chain lifting sling.

WARNING: Load ratings are only for vertical lifting. Load ratings drop 25% when used at 45°. Do not use at an angle greater than 45°. Do not use and discard if any eyebolt is bent, twisted or visibly damaged.


U Inch

M 1030 Drop Forged Carbon Steel

Item Number	A Thread Dia.	B Shank Length	C Eye ID	D Eye OD	Overall Length	Straight Lift Rated Capacity
13631	3/8-16	1-1/4"	0.94"	1.69"	2.81"	1300 LBS
13638	7/16-14	1-3/8"	1.0"	1.81"	3.06"	1800 LBS
13641	1/2-13	1-1/2"	1.12"	2.12"	3.50"	2400 LBS
13661	5/8-11	1-3/4"	1.31"	2.56"	4.19"	4000 LBS
13672	3/4-10	2"	1.44"	2.81"	4.69"	5000 LBS
13682	7/8-9	2-1/4"	1.56"	3.19"	5.31"	7000 LBS
13702	1-8	2-1/2"	1.69"	3.56"	5.94"	9000 LBS
13712	1-1/8-7	2-3/4"	1.94"	4.06"	6.69"	12000 LBS
13723	1-1/4 X 7	3"	2.12"	4.44"	7.31"	15000 LBS
13790	2-1/2 X 4	5"	3.81"	8.50"	13.19"	56000 LBS



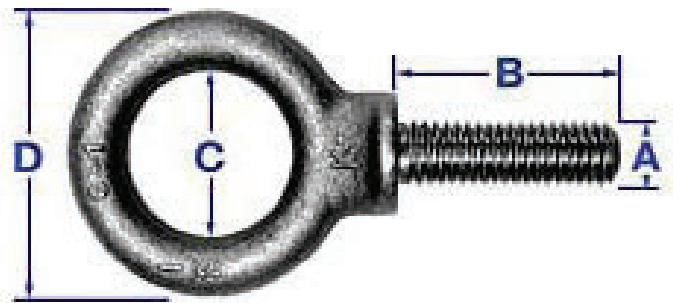
Shoulder Forged Eyebolts

Features

- Heavy Duty Drop Forged
- 1030 Carbon Steel
- Self-Colored
- Manufactured to ASME B18.15
- Tested to ASTM A489 specifications
- Made in USA

Forged Eyebolts are Drop Forged Carbon Steel and fully threaded. Three styles to choose from; Plain Pattern, Shoulder Pattern and Metric Shoulder Pattern. Eyebolts are manufactured to ASME B18.15 and tested to ASTM A489 specifications. These entry level low cost mold handling eyebolts allow you to keep one on very mold. Easy to use with either a nylon sling or steel chain lifting sling.

WARNING: Load ratings are only for vertical lifting. Load ratings drop 25% when used at 45°. Do not use at an angle greater than 45°. Do not use and discard if any eyebolt is bent, twisted or visibly damaged.


U Inch

M 1030 Drop Forged Carbon Steel

Item Number	A Thread Dia.	B Shank Length	C Eye ID	D Eye OD	Overall Length	Straight Lift Rated Capacity
14611	1/4 X 20	1"	.81"	1.19"	2.22"	500 LBS
14621	5/16 X 18	1-1/8"	.94"	1.44"	2.66"	900 LBS
14631	3/8-16	1-3/8"	1.06"	1.69"	3.09"	1300 LBS
14638	7/16-14	1-1/2"	1.12"	1.81"	3.41"	1800 LBS
14641	1/2-13	1-5/8"	1.25"	2.12"	3.81"	2400 LBS
14661	5/8-11	1-3/4"	1.44"	2.56"	4.56"	4000 LBS
14672	3/4-10	2-1/8"	1.56"	2.81"	5.06"	5000 LBS
14682	7/8-9	2-3/8"	1.69"	3.19"	5.75"	7000 LBS
14702	1-8	2-5/8"	1.81"	3.56"	6.44"	9000 LBS
14712	1-1/8-7	2-7/8"	2.06"	4.06"	7.31"	12000 LBS
14723	1-1/4-7	3-1/8"	2.25"	4.44"	8.0"	15000 LBS
14753	1-1/2-6	3-5/8"	2.56"	5.19"	9.22"	21000 LBS



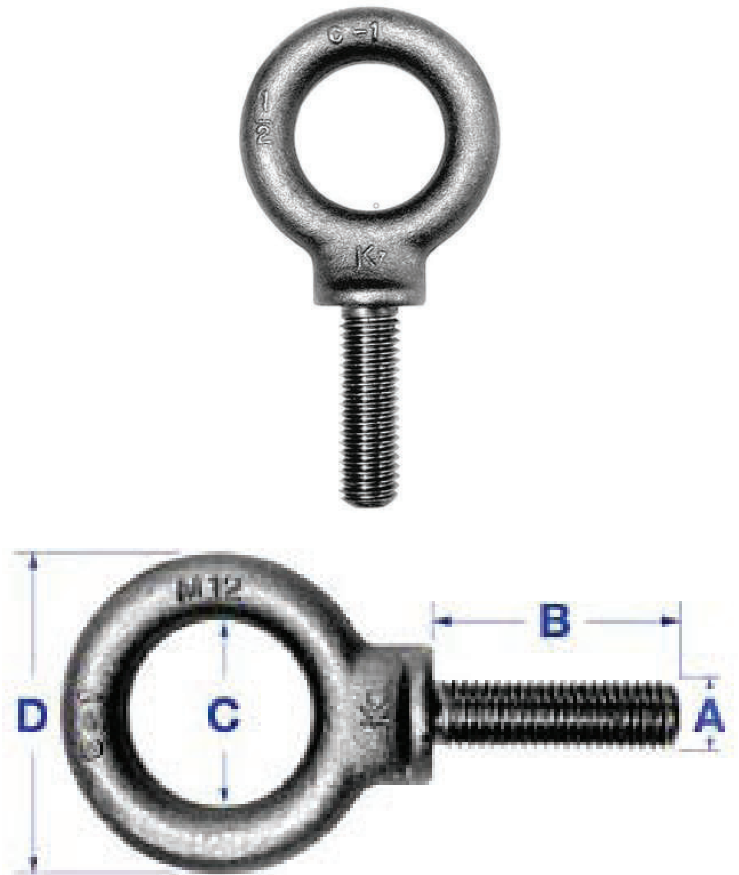
Safety Hoist Rings - Metric

Features

- Heavy Duty Drop Forged
- 1030 Carbon Steel
- Self-Colored
- Manufactured to ASME B18.15
- Tested to ASTM A489 specifications
- Made in USA

Forged Eyebolts are Drop Forged Carbon Steel and fully threaded. Eyebolts are manufactured to ASME B18.15 and tested to ASTM A489 specifications. These entry level low cost mold handling eyebolts allow you to keep one on very mold. Easy to use with either a nylon sling or steel chain lifting sling.

WARNING: Load ratings are only for vertical lifting. Load ratings drop 25% when used at 45°. Do not use at an angle greater than 45°. Do not use and discard if any eyebolt is bent, twisted or visibally damaged.



U Millimeters **M** 1030 Drop Forged Carbon Steel

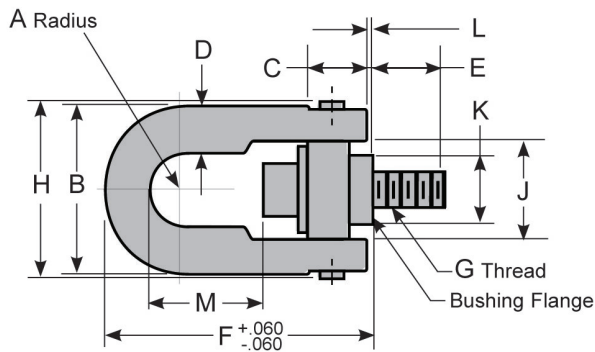
Item Number	A Thread Dia.	B Shank Length	C Eye ID	D Eye OD	Overall Length	Straight Lift Rated Capacity
14631M	M8x1.25	31.7 mm	25 mm	43 mm	3.09"	1110 LBS
14638M	M10x1.5	35 mm	27 mm	46 mm	3.09"	1628 LBS
14641M	M12x1.75	38 mm	30 mm	54 mm	3.81"	2266 LBS
14661M	M14x2	41.1 mm	33 mm	58 mm	3.81"	3520 LBS
14662M	M16x2	44.5 mm	35 mm	65 mm	4.56"	3520 LBS
14672M	M18x2.5	51 mm	38 mm	71.5 mm	4.56"	4708 LBS
14682M	M20x2.5	57 mm	41 mm	81 mm	5.06"	6292 LBS
14700M	M36x4	89 mm	63 mm	131.8 mm	9.22"	19734 LBS
14702M	M24x3	65.5 mm	46 mm	90.4 mm	6.44"	8470 LBS
14715M	M42x4.5	95 mm	73 mm	152.4 mm	9.22"	26312 LBS
14720M	M48x5	82 mm	82 mm	174.6 mm	10.50"	36080 LBS
14722M	M30x3.5	76 mm	55 mm	112.7 mm	7.31"	14080 LBS
14800M	M64x6	127 mm	102 mm	217.5 mm	14.59"	53931 LBS



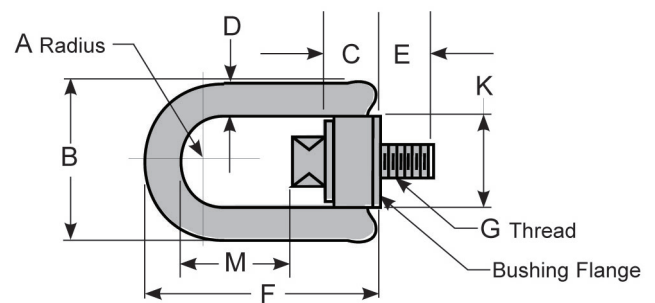
Safety Hoist Rings - Inch

Features

- Range of movement: Pivot 180 Swivel 360
- 5:1 minimum safety factor
- Meets military specification number MIL-STD 1365(11) or MIL-STD 209C
- 100% magnetic particle inspected
- Meets OSHA requirements
- Made in the U.S.A.



Safety engineered hoist rings



Safety hoist rings

U Inch

M 1.4034 (~420) Stainless Steel

H 54-58 HRC

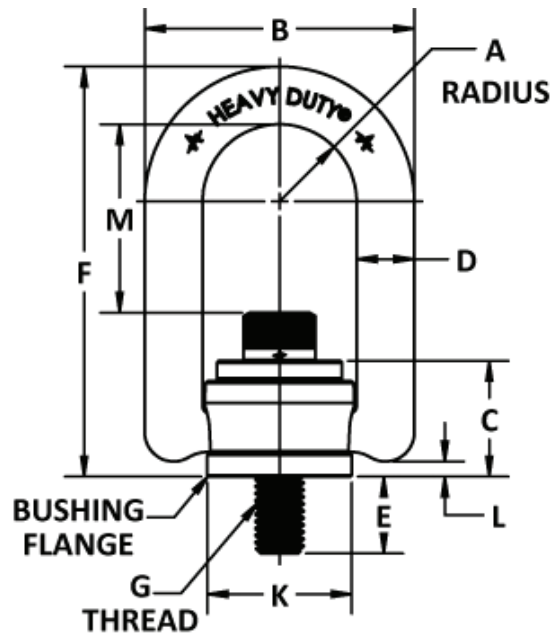
ITEM No.	A	B	C	D	E	F	G	K	M	RATED LOAD	TL FT/ LB	WT LBS
Product Name: Safety Engineered Hoist Rings												
23200	2.25	8	2.81	1-3/4	2.96	12.47	2-4 1/2	4.2	5.41	30,000	800	36 lbs
23503	3	10.5	4.09	2-1/4	4	16.87	2 1/2-4	5.75	8.03	50,000	2100	87 lbs
Product Name: Safety Hoist Rings												
33101	1.4	5.1	2.05	1.00	1.2	7	7/8-9	2.81	3.07	8,000	160	7.33
33105	1.4	5.1	2.05	1.00	1.45	7	1-8	2.81	2.95	10,000	230	7.57
33212	0.65	2.29	0.96	.44	0.56	3.23	5/16-18	1.25	1.51	800	7	.52
33312	0.65	2.29	0.96	.44	0.56	3.23	3/8-16	1.25	1.45	1,000	12	.56
33401	2	6.75	2.87	1.25	2.63	9.22	1 1/4-7	3.88	3.74	15,000	470	16.00
33420	2	6.75	2.87	1.25	2.63	9.22	1 3/8-6	3.88	3.62	20,000	670	17.20
33424	2	6.75	2.87	1.25	2.63	9.22	1 1/2-6	3.88	3.49	24,000	800	18.10
33515	1	3.5	1.5	.75	1	5.31	1/2-13	1.89	2.56	2,500	28	1.72
33614	1	3.5	1.5	.75	1	5.31	5/8-11	1.89	2.44	4,000	60	1.78
33714	1	3.5	1.5	.75	1	5.31	3/4-10	1.89	2.31	5,000	100	1.89



Safety Hoist Rings - Metric

Features

- Range of movement: Pivot 180 Swivel 360
- 5:1 minimum safety factor
- Meets military specification number MIL-STD 1365(11) or MIL-STD 209C
- 100% magnetic particle inspected
- Meets OSHA requirements
- Made in the U.S.A.



U Millimeters



Item No.	A	B	C	D	E +/- 3.0	F	G	K	L	M	Rated Load	TI Ft/ Nm	Wt Kg
34212	16.5	58.2	24.4	11.1	16	82	M8x1.25	31.8	4	38.5	400	9.5	0.24
34312	16.5	58.2	24.4	11.1	16	82	M10x1.5	31.8	4	38.5	450	16	0.25
34515	25.4	88.9	38.1	19.1	25	134.9	M12x1.75	48	4.4	65	1050	37	0.78
34518	25.4	88.9	38.1	19.1	25	135.2	M14x2.0	48	4.4	65.3	1500	45	0.79
34614	25.4	88.9	38.1	19.1	25	134.9	M16x2.0	48	4.4	62	1900	80	0.81
34714	25.4	88.9	38.1	19.1	25	134.6	M20x2.5	48	4.4	58.7	2200	135	0.86
34102	35.6	129.5	52.1	25.4	28	187.2	M24x3.0	71.4	4.6	85.7	4200	311	3.29
34105	35.6	129.5	52.1	25.4	38	187.2	M30x3.5	71.4	4.6	79.7	4500	311	3.44
34402	50.8	171.5	72.9	31.8	67	234.2	M36x4.0	98.5	8.2	88.6	11000	1085.5	8.21
34403	50.8	171.5	72.9	31.8	80	234.2	M42x4.5	98.5	8.2	88.6	12500	1085.5	10.14
34404	50.8	171.5	72.9	31.8	80	234.2	M48x5.0	98.5	8.2	88.6	13500	1085.5	10.59



RUD® Hoist Selection Chart

	 VWBG	 VLBG	 VRS-F
WLL (Working Load Limit)	0.63t-5t	0.3t-20t	0.1t-12t
Ideal for Rotating and Turning		—	—
Ball Bearing Type		—	—
Safety Factor			
Full Working Load in All Directions			
DGUV-Approval	—		
Range of Rotation			
Pivoting Range Suspension Link			—
Variable Length Thread			
Spring	—		—
Maximum operation temperature range WITHOUT reduction of WLL	-40°F to 212°F	-40°F to 212°F	-40°F to 212°F
Maximum operation temperature WITH reduction of WLL	662°F (200°C) MAX.	662°F (200°C) MAX.	662°F (200°C) MAX.

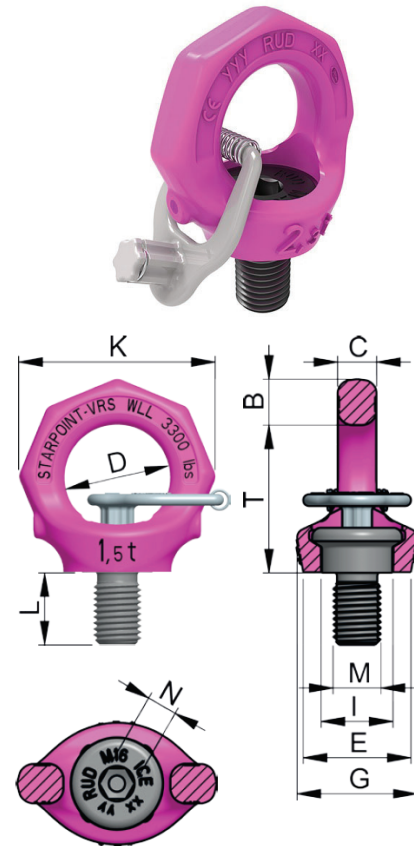


VRS-F StarPoint® Swivel Eyebolt - Metric

Features

- Available in sizes M6 to M48 Metric
- Clear identification of working load limit (WLL) rated at 90° from thread on body of eyebolt
- Pivots 360° to the direction of the load lift so that the WLL is always at the direction of the load
- Complies with the US-Standard (ASME B30.26)
- Forged material (1.6541) alloy steel wrenched and tempered
- Body and bolt 100% electromagnetic crack tested
- Distinct Florescent pink powder-coating changes its color when temperatures exceed 437°F (200°C). If the StarPoint® reaches temperatures of 752°F (400°C), the color changes to a deep black with small bubbles, indicating that it has been over-heated and should be removed from service because the WLL has been compromised.

The VRS-F StarPoint® Swivel Eyebolt offers the highest level of safety available with its swivel capability that adjusts to the direction of the load ensuring that the Working Load Limit (WLL) is never diminished. The StarPoint® is supplied with an annealed easy-fit key for simple assembly and dissassembly. Simply engage the hexagon socket bolt with the annealed key. Use your fingers to respectively tighten or untighten the arrangement. Disengage the key and the StarPoint® is rotatable.



U Millimeters **M** 1.6541 Alloy Steel

Max Mold Temperature: 212°F (100°C)

Item No.	Thread Size (M)	WLL (Kg.)	T	B	C	D	E	G	I	K	L	N	Weight (Kg.)
VRSF-M6	M6	0.1	27	9	7	20	23	28	13	37	9	6	0.06
VRSF-M8	M8	0.3	34	11	8.5	25	25	32	16	47	12	6	0.1
VRSF-M10	M10	0.4	34	11	8.5	25	25	32	16	47	15	6	0.1
VRSF-M12	M12	0.75	42	13	10	30	30	34	20	56	18	8	0.2
VRSF-M14	M14	0.75	42	13	10	30	30	34	20	56	18	8	0.2
VRSF-M16	M16	1.5	49	15	14	35	35	40	23.5	65	24	10	0.3
VRSF-M18	M18	1.5	49	15	14	35	35	40	23.5	65	24	10	0.3
VRSF-M20	M20	2.3	57	17	16	40	42	50	29	75	30	12	0.5
VRSF-M22	M22	2.3	57	17	16	40	42	50	29	75	30	12	0.5
VRSF-M24	M24	3.2	70	21	19	48	50	60	35	90	36	14	0.9
VRSF-M30	M30	4.5	86	26	24	60	60	75	44	112	45	17	1.7
VRSF-M36	M36	7	103	32	29	72	75	90	53	135	54	22	2.9
VRSF-M42	M42	9	120	38	34	82	85	105	61.5	158	63	24	4.6
VRSF-M48	M48	12	137	43	38	94	100	120	70.5	180	72	27	7

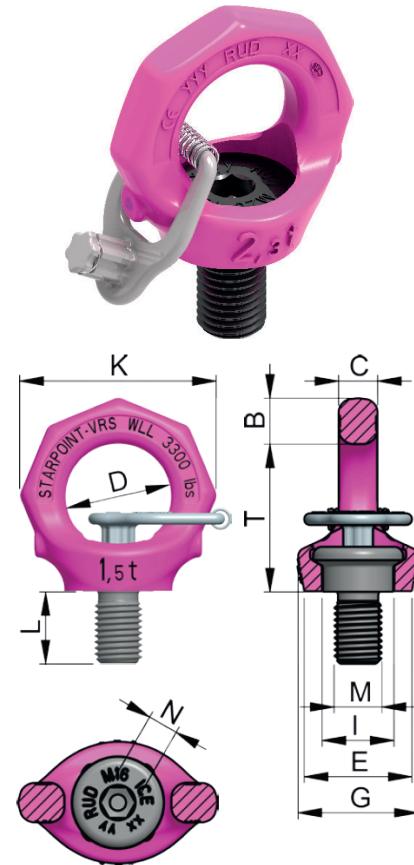


VRS-F StarPoint® Swivel Eyebolt - Inch

Features

- Available in sizes 5/16" to 2"
- Clear identification of working load limit (WLL) rated at 90° from thread on body of eyebolt
- Pivots 360° to the direction of the load lift so that the WLL is always at the direction of the load
- Complies with the US-Standard (ASME B30.26)
- Forged material (1.6541) alloy steel wrenched and tempered
- Body and bolt 100% electromagnetic crack tested
- Distinct Florescent pink powder-coating changes its color when temperatures exceed 437°F (200°C). If the StarPoint® reaches temperatures of 752°F (400°C), the color changes to a deep black with small bubbles, indicating that it has been over-heated and should be removed from service because the WLL has been compromised.

The VRS-F StarPoint® Swivel Eyebolt offers the highest level of safety available with its swivel capability that adjusts to the direction of the load ensuring that the Working Load Limit (WLL) is never diminished. The StarPoint® is supplied with an annealed easy-fit key for simple assembly and dissassembly. Simply engage the hexagon socket bolt with the annealed key. Use your fingers to respectively tighten or untighten the arrangement. Disengage the key and the StarPoint® is rotatable.


U Inch

M 1.6541 Alloy Steel


Max Mold Temperature: 212°F (100°C)

Item No.	Thread Size (M)	WLL (Lbs.)	T	B	C	D	E	G	K	L	N	I	Weight (Lbs.)
VRSF-51618-660	5/16"-18UNC	660	1.34	0.44	0.34	1	1	1.13	1.88	0.47	1/4	0.56	0.25
VRSF-3816-880	3/8"-16UNC	880	1.34	0.44	0.34	1	1	1.13	1.88	0.56	1/4	0.59	0.26
VRSF-71614-880	7/16"-14UNC	880	1.34	0.44	0.34	1	1	1.13	1.88	0.59	1/4	0.59	0.26
VRSF-1213-1650	1/2"-13UNC	1650	1.66	0.5	0.34	1.19	1.19	1.34	2.19	0.75	5/16	0.71	0.45
VRSF-5811-3300	5/8"-11UNC	3300	1.94	0.59	0.56	1.38	1.38	1.56	2.56	0.94	3/8	0.88	0.75
VRSF-3410-5070	3/4"-10UNC	5070	2.25	0.66	0.63	1.56	1.56	2	2.94	1.19	1/2	1.09	1.2
VRSF-789-5070	7/8"-9UNC	5070	2.25	0.66	0.63	1.56	1.56	2	2.94	1.31	1/2	1.09	1.3
VRSF-18-7050	1"-8UNC	7050	2.72	0.81	0.75	1.88	1.88	2.38	3.53	1.5	9/16	1.31	2.2
VRSF-1187-7050	1 1/8"-7UNC	7050	2.72	0.81	0.75	1.88	1.88	2.38	3.53	1.5	9/16	1.31	2.2
VRSF-1147-9920	1 1/4"-7UNC	9920	3.38	1	0.94	2.38	2.38	2.94	4.41	1.88	5/8	1.63	4.2
VRSF-1126-15430	1 1/2"-6UNC	15430	4	1.25	1.13	2.84	2.94	3.34	5.31	2.13	7/8	1.94	7.6

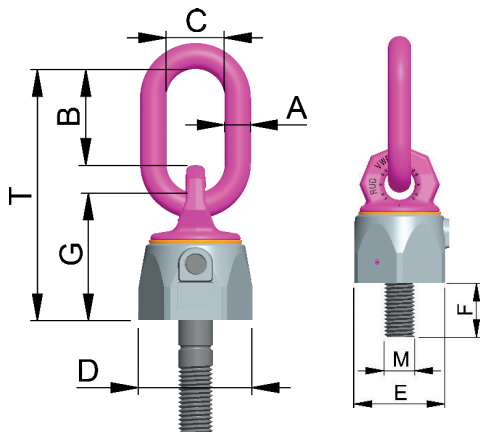


RUD® VWBG Load Ring - Metric

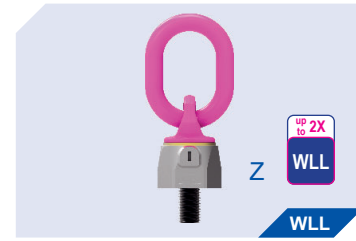
Features

- Available in sizes M8 to M30
- Clear identification of working load limit (WLL)
- Wear marks in the main load directions 45°, 30°, and 0°
- Not suitable for permanent swiveling under full load, especially in 90° direction
- Safety factor of 4:1 in all directions
- Body and bolt 100% electromagnetic crack tested in accordance with specification EN 1677
- Distinct Florescent pink powder-coating changes its color when temperatures exceed 437°F (200°C)

The RUD® VWBG Load Ring is suitable for all loads which swivel and tilt, so it can be loaded in all directions with a 4:1 safety factor.



U Millimeters **M** 1.6541 Alloy Steel



Max Mold Temperature: 212°F (100°C)

ITEM NO.	Thread Size (M)	WLL (X) Kg.	WLL (Y) Kg.	WLL (Z) Kg.	A	B	C	D	T	F	G	E	Wt. (Kg.)
VWBG-M8	M8	0.3	0.4	0.6	8	31	29	30	76	13	36	28	0.25
VWBG-M10	M10	0.45	0.6	0.9	8	31	29	36	78	17	38	30	0.3
VWBG-M12	M12	0.6	0.75	1.2	10	49	35	42	107	21	47	36	0.4
VWBG-M14	M14	1.0	1.25	2	13	46	38	48	112	25	56	41	0.6
VWBG-M16	M16	1.3	1.5	2.6	13	46	38	48	114	25	56	41	0.6
VWBG-M18	M18	1.8	2.0	3.6	13	54	35	64	137	27	67	55	1.1
VWBG-M20	M20	2.0	2.5	4	13	54	35	64	137	33	67	55	1.1
VWBG-M22	M22	2.0	2.5	4	13	54	35	64	137	33	67	55	1.1
VWBG-M24	M24	3.5	4.0	7	18	66	40	81	173	40	88	70	2.7
VWBG-M27	M27	3.5	4.0	7	18	66	40	81	173	40	88	70	2.7
VWBG-M30	M30	5.0	6.0	10	22	90	50	99	221	50	106	85	5.5

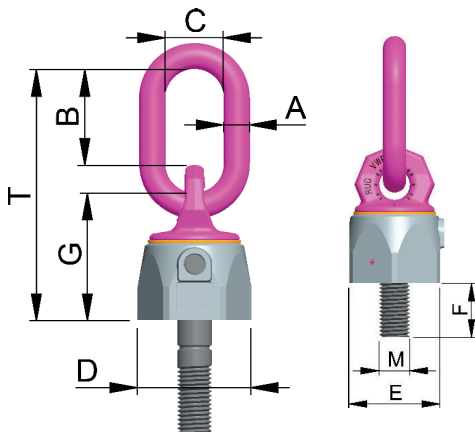


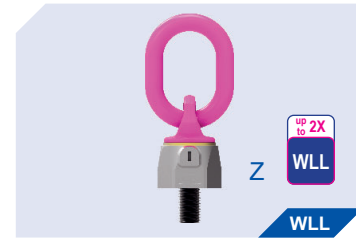
RUD® VWBG Load Ring - Inch

Features

- Available in sizes 5/16" to 1-1/4"
- Clear identification of working load limit (WLL)
- Wear marks in the main load directions 45°, 30°, and 0°
- Not suitable for permanent swiveling under full load, especially in 90° direction
- Safety factor of 4:1 in all directions
- Body and bolt 100% electromagnetic crack tested in accordance with specification EN 1677
- Distinct Florescent pink powder-coating changes its color when temperatures exceed 437°F (200°C)

The RUD® VWBG Load Ring is suitable for all loads which swivel and tilt, so it can be loaded in all directions with a 4:1 safety factor.


U Inch

M 1.6541 Alloy Steel


Max Mold Temperature: 212°F (100°C)

Item No.	Thread Size (M)	WLL (x) lbs.	WLL (y) lbs.	WLL (z) lbs.	A	B	C	D	T	F	G	E	Weight (lbs.)
VWBG-51618-X660	5/16"-18UNC	660	880	1320	0.31	1.22	1.16	1.18	3	0.5	1.42	1.10	0.57
VWBG-3816-X990	3/8"-16UNC	990	1300	1980	0.31	1.31	1.16	1.42	3.06	0.67	1.5	1.18	0.6
VWBG-1213-X1320	1/2"-13UNC	1320	1650	2640	0.38	1.94	1.38	1.65	4.22	0.81	1.88	1.41	0.9
VWBG-5811-X2860	5/8"-11UNC	2860	3300	5720	0.5	1.81	1.5	1.89	4.5	0.94	2.19	1.61	1.3
VWBG-3410-X4400	3/4"-10UNC	4400	5500	8800	0.5	2.13	1.38	2.52	5.38	1.13	2.63	2.16	3.1
VWBG-18-X7700	1"-8UNC	7700	8800	15400	0.69	2.63	1.56	3.19	6.81	1.5	3.47	2.75	5.8
VWBG-1147-X11000	1-1/4"-7UNC	11000	13200	22000	0.88	3.53	1.97	3.9	8.69	1.88	4.19	3.34	11.2

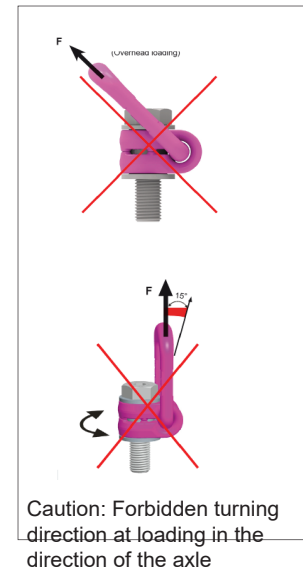
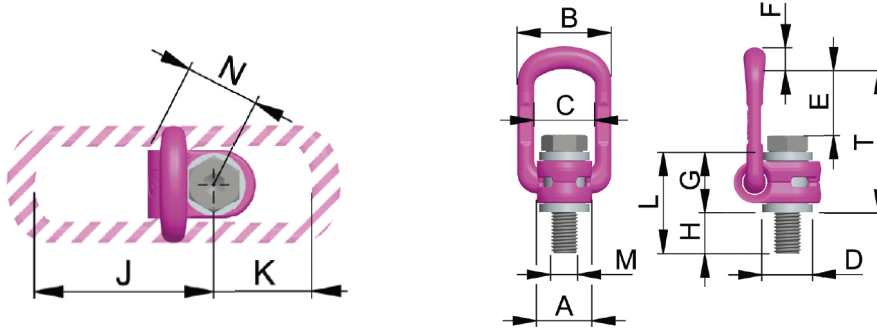


RUD® VLBG Load Ring - Metric

Features

- Available in sizes M8 to M48
- Clear identification of working load limit (WLL) and thread size on bolt head
- Forged material (1.6541) alloy steel wrenched and tempered
- Body and bolt 100% electromagnetic crack tested in accordance with specification EN 1677
- Safety factor of 4:1
- Load should not turn during lifting
- Distinct Florescent pink powder-coating changes its color when temperatures exceed 437°F (200°C)

The RUD® VLBG Load Ring is ideal for side mounting and often used for moving loads in applications that require overhead lifting and moving of heavy equipment. The RUD® VLBG Load Ring can turn 360° and is adjustable to the direction of the pull. The Load ring is foldable guaranteeing full WLL in all directions.



U Millimeters **M** 1.6541 Alloy Steel



Max Mold Temperature: 212°F (100°C)

Item No.	Thread Size (M)	WLL (Kg.)	A	B	C	D	E	F	G	H	J	K	L	N	T	WT (Kg.)	Torque
VLBG-M8	M8	0.3	30	54	34	35	40	10	29	11	75	45	40	5	75	0.3	30 Nm
VLBG-M10	M10	0.63	30	54	34	36	39	10	29	16	75	45	45	6	75	0.32	60 Nm
VLBG-M12	M12	1	32	54	34	37	38	10	29	21	75	45	50	8	75	0.33	100 Nm
VLBG-M14	M14	1.2	33	56	36	46	39	13.5	36	-	86	47	-	10	85	0.55	120 Nm
VLBG-M16	M16	1.5	33	56	36	46	39	13.5	36	24	86	47	60	10	85	0.55	150 Nm
VLBG-M18	M18	2.0	50	82	54	55	55	16.5	43	-	113	64	-	12	110	1.3	200 Nm
VLBG-M20	M20	2.5	50	82	54	55	55	16.5	43	32	113	64	75	12	110	1.3	250 Nm
VLBG-M24	M24	4	50	82	54	58	67	18	43	37	130	78	80	14	125	1.5	400 Nm
VLBG-M27	M27	4	60	103	65	78	69	22.5	61	39	151	80	100	-	147	3.1	400 Nm
VLBG-M30	M30	5	60	103	65	80	67	22.5	61	49	151	80	110	17	147	3.3	500 Nm
VLBG-M36	M36	7	60	103	65	72	74	22.5	55	52	151	80	107	-	146	3.4	700 Nm
VLBG-M42	M42	10	77	122	82	103	94	26.5	77	73	205	110	150	24	197	6.7	1000 Nm
VLBG-M48	M48	20	95	156	100	113	109	36	87	63	230	130	160	48	222	11.6	2000 Nm

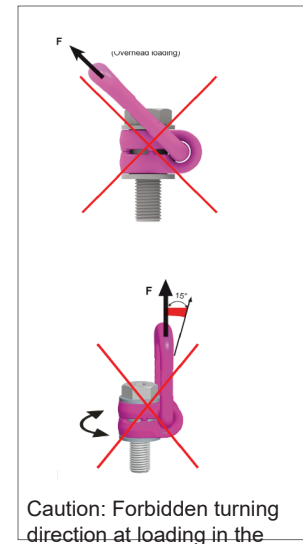
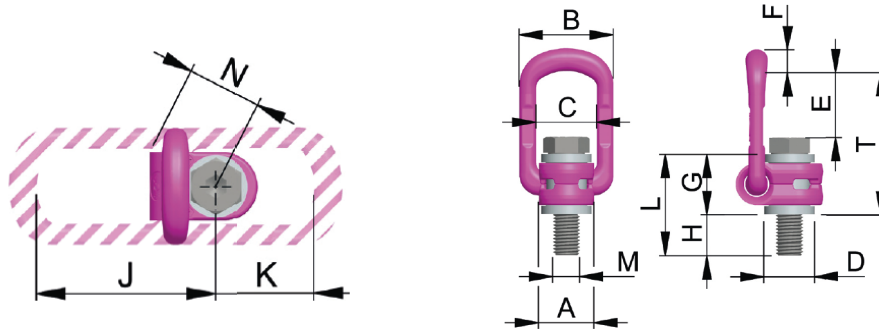


RUD® VLBG Load Ring - Inch

Features

- Available in sizes 3/8" to 1-1/4"
- Clear identification of working load limit (WLL) and thread size on bolt head
- Forged material (1.6541) alloy steel wrenched and tempered
- Body and bolt 100% electromagnetic crack tested in accordance with specification EN 1677
- Safety factor of 4:1
- Load should not turn during lifting
- Distinct Florescent pink powder-coating changes its color when temperatures exceed 437°F (200°C)

The RUD® VLBG Load Ring is ideal for side mounting and often used for moving loads in applications that require overhead lifting and moving of heavy equipment. The RUD® VLBG Load Ring can turn 360° and is adjustable to the direction of the pull. The Load ring is foldable guaranteeing full WLL in all directions.


U Inch

M 1.6541 Alloy Steel


Max Mold Temperature: 212°F (100°C)

Item No.	Thread Size (M)	WLL (Lbs.)	A	B	C	D	E	F	G	H	J	K	L	N	T	Torque (Ft. Lbs.)
VLBG-3816-1388	3/8"-16UNC	1388	1.18	2.13	1.34	0.94	1.54	0.39	1.14	0.63	2.95	1.77	1.77	1.26	2.95	44
VLBG-1213-2200	1/2"-13UNC	2200	1.26	2.13	1.34	1.02	1.46	0.39	1.14	0.87	2.95	1.77	1.97	1.26	2.95	75
VLBG-5811-3300	5/8"-11UNC	3300	1.3	2.2	1.42	1.18	1.5	0.53	1.42	0.94	3.43	1.85	2.36	1.49	3.35	110
VLBG-3410-5500	3/4"-10UNC	5500	1.97	3.23	2.13	1.77	2.13	0.65	1.69	1.1	4.45	2.52	2.8	1.88	4.33	185
VLBG-789-5500	7/8"-9UNC	5500	1.97	3.23	2.13	1.77	2.05	0.65	1.69	1.06	4.45	2.52	2.76	1.88	4.33	225
VLBG-18-8800	1"-8UNC	8800	1.97	3.23	2.13	1.77	2.52	0.71	1.69	1.61	5.12	3.07	3.31	1.88	4.92	300
VLBG-1147-11000	1-1/4"-7UNC	11000	2.36	4.06	2.56	2.36	2.52	0.89	2.4	1.61	5.94	3.15	4.02	2.63	5.79	370

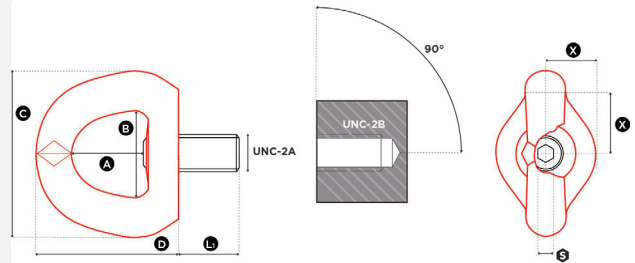


Codipro SEB Swivel Eyebolts - Inch

Features

- UNC threads: UNC 3/8"-16 through UNC 2"
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating) -
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Built in anti-tribocorrosion grease, easy rotation under load
- Anti-corrosion coating (zinc coating) on bolt and base
- Automatic orientation in the direction of pulling
- 7 year warranty if registered thru Codipro

The SEB lifting ring is a single swivel ring, with a rotating range of 360°. Equipped with "the Pyramid of Steel" that always guides it perfectly in the direction of the sling. It is specially designed for lifting, including rotating under load.



U Inch



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL t	SF 4:1 WLL t	Std L1 mm	Torque Nm	X	S	A	B	C	D
SEBU038UP	UNC 3/8"-16	1.200	1.500	17	8	20	6	30	334	60	57
SEBU050UP	UNC 1/2"-13	1.800	1.950	21	12	20	6	30	34	60	57
SEBU058UP	UNC 5/8"-11	3.200	4.000	27	40	35	8	38	45	88	80
SEBU075UP	UNC 3/4"-10	4.750	5.900	30	80	35	8	38	45	88	80
SEBU100UP	UNC 1"-8	7.500	9.300	36	125	50	14	58	70	115	106
SEBU125UP	UNC 1" 1/4-7	12.200	13.800	45	200	70	14	58	70	115	106
SEBU150UP	UNC 1" 1/2-6	20.000	25.000	62	240	70	14	83	94	168	155
SEBU200UP	UNC 2" -4.5	33.000	35.200	70	450	70	19	83	94	168	155

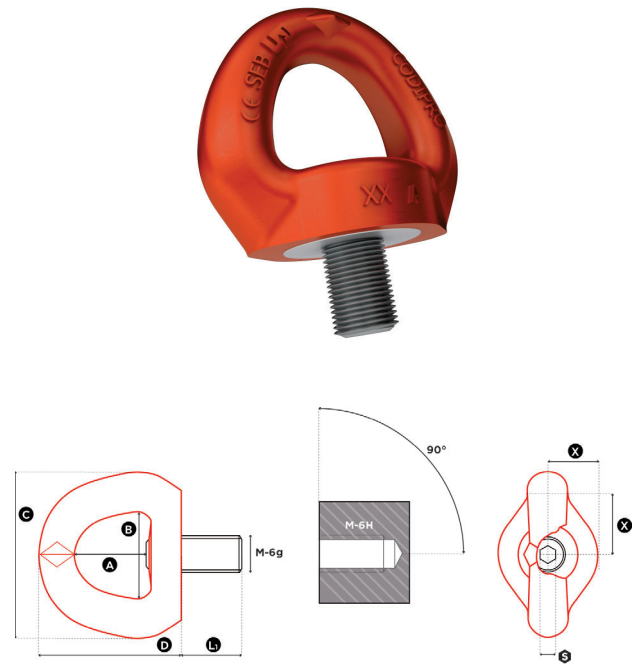


Codipro SEB Swivel Eyebolts - Metric

Features

- Metric threads: M8 through M48
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating) -
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Anti-corrosion coating (zinc coating) on bolt and base
- Built in anti-tribocorrosion grease, easy rotation under load
- Automatic orientation in the direction of pulling
- 7 year warranty if registered thru Codipro

The SEB lifting ring is a single swivel ring, with a rotating range of 360°. Equipped with “the Pyramid of Steel” that always guides it perfectly in the direction of the sling. It is specially designed for lifting, including rotating under load.



U Millimeters **M** 1.6541 Alloy Steel



Max Mold Temperature: 212°F (100°C)

Item Number	Thread Size	SF 5:1 WLL t	SF 4:1 WLL t	Std L1		X	S	A	B	C	D
SEBM8UP	M8 (x1.25)	0.4	0.5	14	6	20	6	30	34	60	57
SEBM10UP	M10 (x1.5)	0.5	0.7	17	10	20	6	30	34	60	57
SEBM12UP	M12 (x1.75)	0.8	0.9	21	15	20	6	30	34	60	57
SEBM16UP	M16 (x2)	1.4	1.8	27	50	35	8	38	45	88	80
SEBM20UP	M20 (x2.5)	2	2.7	30	100	35	8	38	45	88	80
SEBM243t8UP	M24 (x3)	3.2	3.8	36	160	35	14	38	45	88	80
SEBM244t2UP	M24 (x3)	3.4	4.2	36	160	50	14	58	70	115	106
SEBM30UP	M30 (x3.5)	5.5	6.3	45	250	50	14	58	70	115	106
SEBM36UP	M36 (x4)	9	11	54	320	70	14	83	94	168	155
SEBM42UP	M42 (x4.5)	12	15	63	400	70	14	83	94	168	155
SEBM48UP	M48 (x5)	15	16	68	600	70	19	80	94	168	155

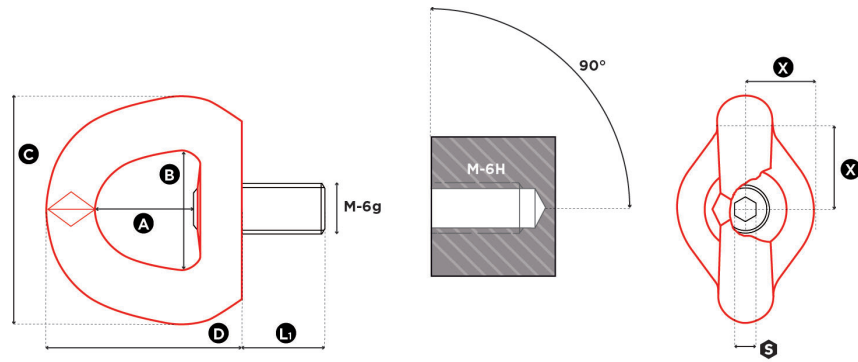


Codipro Stainless Steel SEB Swivel Eye Bolts - Metric

Features

- Metric threads: M12 through M24
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Provides maximum corrosion resistance
- Built in anti-tribocorrosion grease, easy rotation under load
- Automatic orientation in the direction of pulling
- 7 year warranty if registered thru Codipro

The Codipro metric SS.SEB stainless steel single swivel lifting ring. Equipped with "the Pyramid of Steel" that always guide it perfectly in the direction of the sling. It is specially designed for lifting, including rotating under load.



U Millimeters

 Max Mold Temperature: 392°F (200°C)

Item No.	Thread Size	SF 5:1 WLL t	SF 4:1 WLL t	Standard L1 mm	Torque Nm	X	S	A	B	C	D
SS.SEBM12	M12 (x1.75)	0.55	0.55	21	15	35	8	38	45	90	80
SS.SEBM16	M16 (x2)	1.2	1.2	27	50	35	8	38	45	90	80
SS.SEBM20	M20 (x2.5)	1.5	1.5	30	100	35	8	38	45	90	80
SS.SEBM24	M24 (x3)	2.5	2.5	36	100	50	8	38	45	90	80

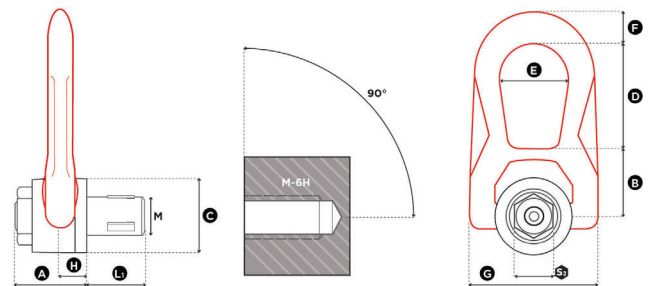


Codipro Quick Lift QL.DSR Double Swivel Ring - Metric

Features

- Metric threads: M8 through M24
- For loads ranging from 1,300 lbs. to 5,000 lbs.
- The ring swivels 180°, but has a rotating range of 360°
- Fast Anchoring
- Safety Factor of 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Anti-corrosion coating (zinc coating) on bolt and base
- Verification of each thread with calibrated gauge

The QL.DSR is a double swivel ring that allows particularly fast anchoring. At the push of a button, it can be fixed in the threaded hole in a matter of seconds. Its double swivel ensures a perfect alignment with the sling. The QL.DSR saves up to 80% of time compared to screwing in a conventional lifting ring. The system works purely mechanically and thus requires no complex maintenance.



U Millimeters



Max Mold Temperature: 392°F (200°C)

Item No.	Thread Size	SF 5:1 WLL t	Std L1 mm		S2 mm	A	B	C	D	E	F	G	H
QL.DSRM8	M8 (x1.25)	0.25	17.5	20	18	31	30	30	38	27	14	53	9.5
QL.DSRM10	M10 (x1.5)	0.4	19.5	30	18	31	30	30	38	27	14	53	9.5
QL.DSRM12	M12 (x1.75)	0.65	23	60	27	40	40	45	53	38	17	76	13
QL.DSRM14	M14 (x2)	0.7	23	80	27	40	40	45	53	38	17	76	13
QL.DSRM16	M16 (x2)	1.05	27	100	27	40	40	45	53	38	17	76	13
QL.DSRM20	M20 (x2.5)	1.7	30	160	40	55	55	60	83	55	25	115	19
QL.DSRM24	M24 (x3)	2.5	36	180	40	55	55	60	83	55	25	115	19

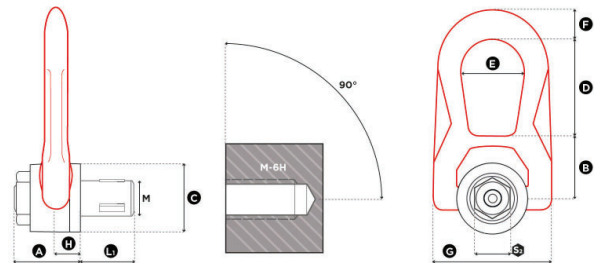


Codipro Quick Lift Stainless Steel QL.DSR Double Swivel Ring - Metric

Features

- Metric threads: M8 through M24
- SS.QL.DSR is perfectly corrosion resistant and can be used in humid, chemical and marine environments.
- For loads ranging from 1,300 lbs. to 5,000 lbs.
- The ring swivels 180°, but has a rotating range of 360°
- Safety Factor of 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Verification of each thread with calibrated gauge

The SS.QL.DSR is a double swivel ring that allows particularly fast anchoring. At the push of a button, it can be fixed in the threaded hole in a matter of seconds. Its double swivel ensures a perfect alignment with the sling. The QL.DSR saves up to 80% of time compared to screwing in a conventional lifting ring. The system works purely mechanically and thus requires no complex maintenance.



U Millimeters



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL t	Std L1 mm	Torque Nm	S2wmm	C	D	E	F	G
SS.QL.DSRM8	M8 (x1.25)	0.25	17.5	20	18	30	38	27	14	53
SS.QL.DSRM10	M10 (x1.5)	0.4	19.5	30	18	30	38	27	14	53
SS.QL.DSRM12	M12 (x1.75)	0.65	23	60	27	45	53	38	17	76
SS.QL.DSRM14	M14 (x2)	0.7	23	80	27	45	53	38	17	76
SS.QL.DSRM16	M16 (x2)	1.05	27	100	27	45	53	38	17	76
SS.QL.DSRM20	M20 (x2.5)	1.7	30	160	40	60	83	55	25	115

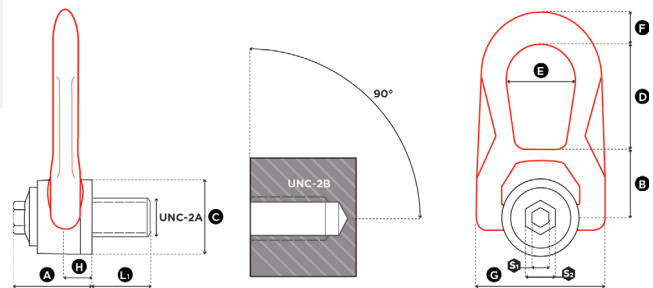


Codipro DSR Double Swivel Hoist Ring - Inch

Features

- UNC threads: UNC 1/4"-20 through UNC 1" 1/4-7
- Two possibilities of tightening and protection of bolt head
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)

The DSR is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. Swiveling under load, the ring swivels 180°, but has a rotating range of 360°.



U Inch



Max Mold Temperature: 392°F (200°C)

Item No.	Thread Size	SF 5:1 WLL lbs	SF 4:1 WLL lbs	Std L1 mm	Torque ft-lb	S1	S2	A	B	C	D	E	F	G	H
DSRU025UP	UNC 1/4"-20	330	450	13	3	8	16	32	30	30	38	27	14	53	9.5
DSRU516UP	UNC 5/16"-18	1000	1200	15	5	8	16	33	30	30	38	27	14	53	9.5
DSRU038UP	UNC 3/8"-16	1300	1600	17	8	8	16	33	30	30	38	27	14	53	9.5
DSRU050UP	UNC 1/2"-13	2400	2800	21	12	8	16	33	30	30	38	27	14	53	9.5
DSRU058UP	UNC 5/8"-11	3900	4900	27	40	8	20	45	40	45	53	38	17	76	13
DSRU075UP	UNC 3/4"-10	5250	5250	30	80	8	20	45	40	45	53	38	17	76	13
DSRU078UP	UNC 7/8"-9	7900	9800	33	90	14	24	62	55	60	83	55	25	115	19
DSRU100UP	UNC 1"-8	11200	12500	36	125	14	24	62	55	60	83	55	25	115	19
DSRU118UP	UNC 1" 1/8-7	11500	13000	42	160	14	24	62	55	60	83	55	25	115	19
DSRU125UP	UNC 1" 1/4-7	13500	13500	45	200	14	24	62	55	60	83	55	25	115	19

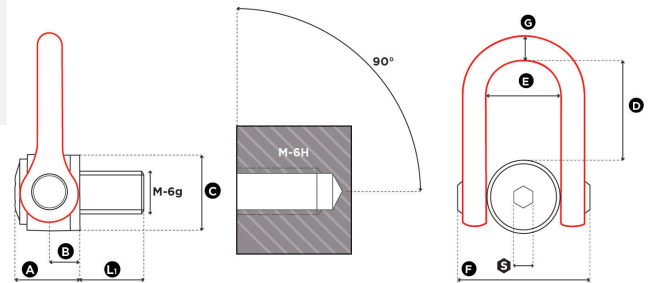


Codipro DSR Double Swivel Lifting Ring - Metric

Features

- Metric threads: M5 through M42
- Two possibilities of tightening and protection of bolt head
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)

The DSR is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. Swiveling under load, the ring swivels 180°, but has a rotating range of 360°.



U Millimeters



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL lbs	SF 4:1 WLL lbs	Std L1 mm	Torque ft-lb	S1	S2	A	B	C	D	E	F	G	H
DSRM5UP	M5x0.8	0.07	0.10	15	3	8	16	33	30	30	38	27	14	53	9,5
DSRM6UP	M6x1	0.15	0.20	15	4	8	16	33	30	30	38	27	14	53	9,5
DSRM8UP	M8x1.25	0.40	0.50	15	6	8	16	33	30	30	38	27	14	53	9,5
DSRM10UP	M10x1.5	0.70	0.90	18	10	8	16	33	30	30	38	27	14	53	9,5
DSRM12UP	M12x1.75	1.05	1.30	21	15	8	16	33	30	30	38	27	14	53	9,5
DSRM14UP	M14x2	1.40	1.80	23	30	8	20	45	40	45	53	38	17	76	13
DSRM16UP	M16x2	2.00	2.30	27	50	8	20	45	40	45	53	38	17	76	13
DSRM18UP	M18x2.5	2.30	2.30	27	70	8	20	45	40	45	53	38	17	76	13
DSRM202t5UP	M20x2.5	2.50	2.50	30	100	8	20	45	40	45	53	38	17	76	13
DSRM203t2UP	M20x2.5	2.90	3.20	25	100	14	24	62	55	60	83	55	25	115	19
DSRM22UP	M22x2.5	3.50	4.50	33	120	14	24	62	55	60	83	55	25	115	19
DSRM24UP	M24x3	4.40	5.50	36	160	14	24	62	55	60	83	55	25	115	19
DSRM27UP	M27x3	5.70	6.00	40	200	14	24	62	55	60	83	55	25	115	19
DSRM306t3UP	M30x3.5	6.00	6.30	45	250	14	24	62	55	60	83	55	25	115	19
DSRM308tUP	M30x3.5	6.70	8.00	45	250	14	30	80	77	78	98	71	26	141	28
DSRM36UP	M36x4	8.00	8.50	54	320	14	30	80	77	78	98	71	26	141	28

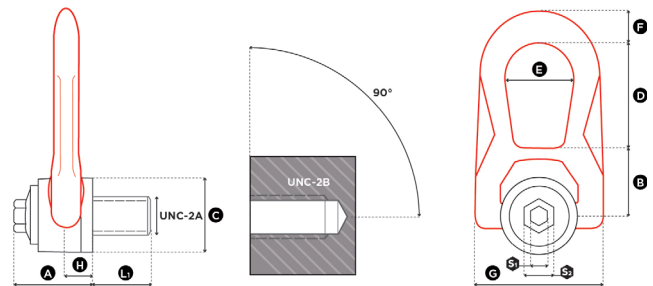


Codipro Stainless Steel SS.DSR Double Swivel Lifting Ring - Inch

Features

- UNC threads: UNC 1/4"-20 through UNC 1" 1/4-7
- Two possibilities of tightening and protection of bolt head
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Provides maximum corrosion resistance
- Built in anti-tribocorrosion grease, easy rotation under load
- Automatic orientation in the direction of pulling
- 7 year warranty if registered thru Codipro

The Codipro SS.DSR, stainless steel double swivel lifting ring. It is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. Consists of a stainless steel ring that provides maximum corrosion resistance. Is can swivel under loads. The ring swivels 180°, but has a rotating range of 360°.



U Inch



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL lbs	SF 4:1 WLL lbs	Std L1 mm	Torque ft-lb	S1	S2	A	B	C	D	E	F	G	H
SS.DSRU516	UNC 1/4"-20	400	500	13	3	8	16	32	30	30	39	28	13	53	9.5
SS.DSRU025	UNC 5/16"-18	600	650	15	5	8	16	32	30	30	39	28	13	53	9.5
SS.DSRU038	UNC 3/8"-16	1000	1000	17	8	8	16	32	30	30	39	28	13	53	9.5
SS.DSRU050	UNC 1/2"-13	1800	1850	21	12	8	16	32	30	30	39	28	13	53	9.5
SS.DSRU058	UNC 5/8"-11	2500	3000	27	40	8	20	44	40	45	53	38	17	76	13
SS.DSRU075	UNC 3/4"-10	3600	3800	30	80	8	20	44	40	45	53	38	17	76	13
SS.DSRU078	UNC 7/8"-9	5000	5100	33	90	14	24	62	55	58	83	56	25	115	19
SS.DSRU100	UNC 1"-8	6000	6000	36	125	14	24	62	55	58	83	56	25	115	19

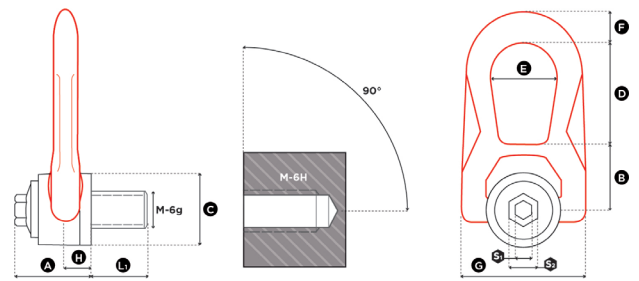


Codipro Stainless Steel SS.DSR Double Swivel Lifting Ring - Metric

Features

- Metric threads: M6 through M30
- Two possibilities of tightening and protection of bolt head
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Provides maximum corrosion resistance
- Built in anti-tribocorrosion grease, easy rotation under load
- Automatic orientation in the direction of pulling
- 7 year warranty if registered thru Codipro

The Codipro SS.DSR, stainless steel double swivel lifting ring. It is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. Consists of a stainless steel ring that provides maximum corrosion resistance. Is can swivel under loads. The ring swivels 180°, but has a rotating range of 360°.



U Millimeters



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL	Std L1mm	Torque Nm	A	B	C	D	E	G
SS.DSRM6	M6 (x1)	0.10	15	4	32	30	30	39	28	53
SS.DSRM8	M8 (x1.25)	0.30	16	6	32	30	30	39	28	53
SS.DSRM10	M10 (x1.5)	0.50	16	10	32	30	30	39	28	53
SS.DSRM12	M12 (x1.75)	0.80	19	15	32	30	30	39	28	53
SS.DSRM14	M14 (x2)	1.00	29	30	44	40	45	53	38	76
SS.DSRM16	M16 (x2)	1.40	26	50	44	40	45	53	38	76
SS.DSRM18	M18 (x2.5)	1.40	30	70	44	40	45	53	38	76
SS.DSRM20	M20 (x2.5)	1.40	30	100	44	40	45	53	38	76
SS.DSRM22	M22 (x2.5)	2.20	42	120	62	55	58	83	56	115
SS.DSRM24	M24 (x3)	2.70	42	160	62	55	58	83	56	115
SS.DSRM27	M27 (x3)	2.80	42	200	62	55	58	83	56	115
SS.DSRM30	M30 (x3.5)	3.00	47	250	62	55	58	83	56	115

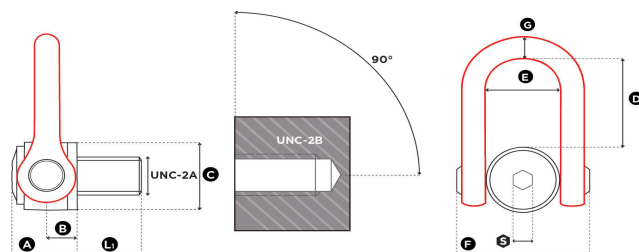


Codipro DSS Double Swivel Shackle Hoist Ring - Inch

Features

- UNC threads: UNC 1"-8 through UNC 2" 1/2-4
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Optimized WLL/dimensions and weight ratio (straight lifts, with angle, turning, rotating)
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Built in anti-tribocorrosion grease, easy rotation under load
- Anti-corrosion coating (zinc coating) on bolt and base
- 7 year warranty if registered thru Codipro

The Codipro DSS, universal double swivel shackle. The DSS is a double swivel ring that is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. The ring swivels 180°, but has a rotating range of 360°.



U Inch



Max Mold Temperature: 392°F (200°C)

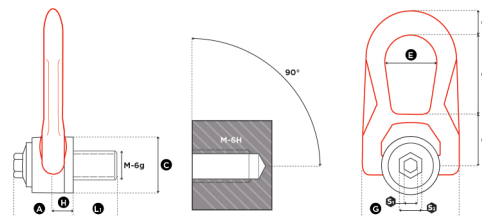
Item Number	Thread Size	SF 5:1 WLL lbs	SF 4:1 WLL lbs	Std L1	Torque ft-lb	S	A	B	C	D	E	F	G
DSSU100UP	UNC 1"-8	10000	13000	36	125	19	61	31	70	98	73	149	33
DSSU125UP	UNC 1" 1/4-7	15000	19000	45	200	19	61	31	70	98	73	149	33
DSSU138UP	UNC 1" 3/8-6	21000	22000	54	240	19	61	31	70	98	73	149	33
DSSU150UP	UNC 1" 1/2-6	22000	27000	54	240	19	61	31	70	98	73	149	33
DSSU175UP	UNC 1" 3/4-5	27000	33000	63	300	19	61	31	70	98	73	149	33
DSSU200UP	UNC 2"-4.5	38000	50000	76	450	19	79	38	90	123	91	182	45
DSSU250UP	UNC 2" 1/2-4	48500	55000	90	450	19	79	38	95	123	91	182	45



Codipro DSS Double Swivel Shackle Hoist Ring - Metric

Features

- Metric threads: M24 through M100
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Optimized WLL/dimensions and weight ratio
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Built in anti-tribocorrosion grease, easy rotation under load



Max Mold Temperature: 392°F (200°C)

U Millimeters

Item Number	Thread Size	SF 5:1 WLL	SF 4:1 WLL t	Standard L1	Torque Nm	S	A	B	C	D	E	F	G
DSSM24UP	M24 (x3)	4.50	5.50	36	160	19	61	31	70	98	73	149	33
DSSM30UP	M30 (x3.5)	7.70	8.50	45	250	19	61	31	70	98	73	149	33
DSSM33UP	M33 (x3.5)	8.50	10.50	50	250	19	61	31	70	98	73	149	33
DSSM36UP	M36 (x4)	11.00	12.00	54	320	19	61	31	70	98	73	149	33
DSSM36x3UP	M36 (x3)	11.00	12.00	54	320	19	61	31	70	98	73	149	33
DSSM39UP	M 39 (x4)	12.00	14.00	58	320	19	61	31	70	98	73	149	33
DSSM42UP	M42 (x4.5)	13.00	15.00	63	400	19	61	31	70	98	73	149	33
DSSM42x3UP	M42 (x3)	13.00	15.00	63	400	19	61	31	70	98	73	149	33
DSSM45UP	M45 (x4.5)	14.50	16.00	63	400	19	61	31	70	98	73	149	33
DSSM48UP	M48 (x5)	17.00	20.00	68	600	19	79	38	90	123	91	182	45
DSSM48x3UP	M48 (x3)	17.00	20.00	68	600	19	79	38	90	123	91	182	45
DSSM48x4UP	M48 (x4)	17.00	20.00	68	600	19	79	38	90	123	91	182	45
DSSM52UP	M52 (x5)	19.00	21.00	68	600	19	79	38	90	123	91	182	45
DSS M 56 UP	M56 (x5.5)	22.00	25.00	78	600	19	79	38	90	123	91	182	45
DSSM56x4UP	M56 (x4)	22.00	25.00	78	600	19	79	38	90	123	91	182	45
DSSM64UP	M64 (x6)	25.00	32.10	90	600	19	79	38	95	123	91	182	45
DSSM72UP	M72 (x6)	22.00	25.00	90	600	19	79	38	95	123	91	182	45
DSSM72x4UP	M72 (x4)	22.00	25.00	90	600	19	79	38	95	123	91	182	45
DSSM80UP	M80 (x6)	25.00	32.10	90	600	19	79	38	100	123	91	182	45
DSSM90UP	M90 (x6)	25.00	32.10	90	600	19	79	38	100	123	91	182	45
DSSM100UP	M100 (x6)	25.00	32.10	90	600	19	79	38	110	123	91	182	45

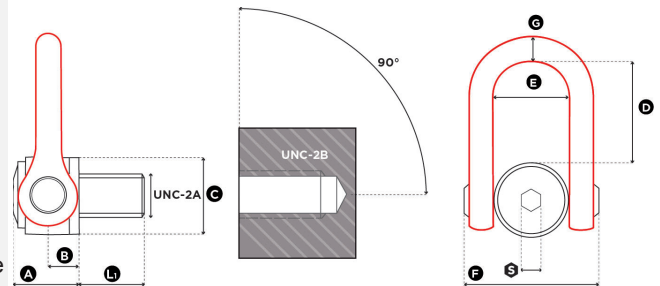


Codipro Mega DSS Double Swivel Shackle - Inch

Features

- UNC threads: UNC 2" 3/4-4 through UNC 4"-4
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Optimized WLL/dimensions and weight ratio
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Built in anti-tribocorrosion grease, easy rotation under load
- Anti-corrosion coating (zinc coating) on bolt and base
- 7 year warranty if registered thru Codipro

The Codipro Mega DSS, universal double swivel shackle. The Mega DSS is a double swivel ring that is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. The ring swivels 180°, but has a rotating range of 360°.



U Inch



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL lbs	SF 4:1 WLL lbs	Std L1	Torque Nm	S	A	B	C	D	E	F	G
MEGA.DSSU275UP	UNC 1"-8	10000	13000	36	125	19	127	64	140	186	143	278	69
MEGA.DSSU300UP	UNC 1" 1/4-7	15000	19000	45	200	19	127	64	140	186	143	278	69
MEGA.DSSU325UP	UNC 1" 3/8-6	21000	22000	54	240	19	127	64	140	186	143	278	69
MEGA.DSSU350UP	UNC 1" 1/2-6	22000	27000	54	240	19	127	64	140	186	143	278	69
MEGA.DSSU375UP	UNC 1" 3/4-5	27000	33000	63	300	19	127	64	140	186	143	278	69
MEGA.DSSU400UP	UNC 2"-4.5	38000	50000	76	450	19	127	64	140	186	143	278	69

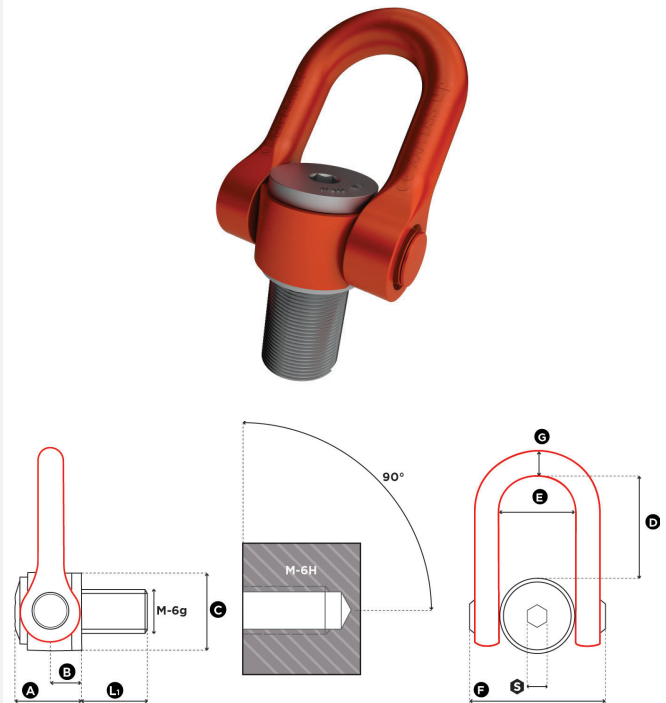


Codipro Mega DSS Double Swivel Shackle - Metric

Features

- Metric threads: M64 through M100
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Optimized WLL/dimensions and weight ratio
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Built in anti-tribocorrosion grease, easy rotation under load
- Anti-corrosion coating (zinc coating) on bolt and base
- 7 year warranty if registered thru Codipro

The Codipro Mega DSS, metric double swivel shackle. The Mega DSS is a double swivel ring that is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. The ring swivels 180°, but has a rotating range of 360°.



U Millimeters



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL	SF 4:1 WLL	Std L1	Torque Nm	S	A	B	C	D	E	F	G
MEGA.DSSM64UP	M64 (x6)	26.0	33.0	100	600	36	127	64	140	186	143	278	69
MEGA.DSSM72UP	M72 (x6)	28.0	35.0	110	700	36	127	64	140	186	143	278	69
MEGA.DSSM72x4UP	M72 (x4)	28.0	35.0	110	700	36	127	64	140	186	143	278	69
MEGA.DSSM80UP	M80 (x6)	32.0	40.0	120	800	36	127	64	140	186	143	278	69
MEGA.DSSM90UP	M90 (x6)	36.0	45.0	135	900	36	127	64	140	186	143	278	69
MEGA.DSSM100UP	M100 (x6)	48.0	60.0	150	1000	36	127	64	140	186	143	278	69

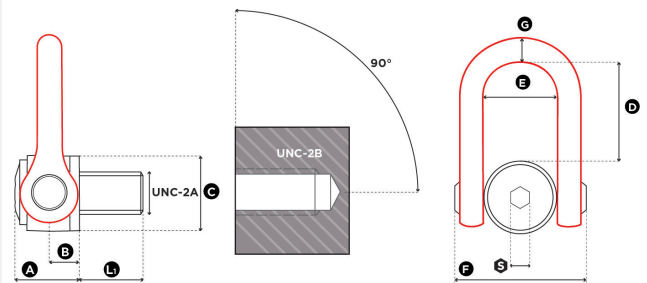


Codipro Stainless Steel DSS Double Swivel Shackle Hoist Ring - Inch

Features

- UNC threads: UNC 1"-8 through UNC 2" 4.5
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Optimized WLL/dimensions and weight ratio
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Built in anti-tribocorrosion grease, easy rotation under load
- Verification of each thread with calibrated gauge
- 7 year warranty if registered thru Codipro

The Codipro SS.DSS, stainless steel double swivel shackle. The SS.DSS stainless steel lifting ring is a double swivel ring. It is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. The stainless steel ring that provides maximum corrosion resistance and has a rotating range of 360°.



U Inch



Max Mold Temperature: 392°F (200°C)

Item Number	Thread Size	SF 5:1 WLL lbs	Standard L1	Torque ft-lb	S	B	C	D	E	F
DSSU100UP	UNC 1"-8	10000	36	125	19	31	70	98	73	149
DSSU125UP	UNC 1" 1/4-7	15000	45	200	19	31	70	98	73	149
DSSU138UP	UNC 1" 3/8-6	21000	54	240	19	31	70	98	73	149
DSSU150UP	UNC 1" 1/2-6	22000	54	240	19	31	70	98	73	149
DSSU175UP	UNC 1" 3/4-5	27000	63	300	19	31	70	98	73	149
DSSU200UP	UNC 2"-4.5	38000	76	450	19	38	90	123	91	182
DSSU250UP	UNC 2" 1/2-4	48500	90	450	19	38	95	123	91	182



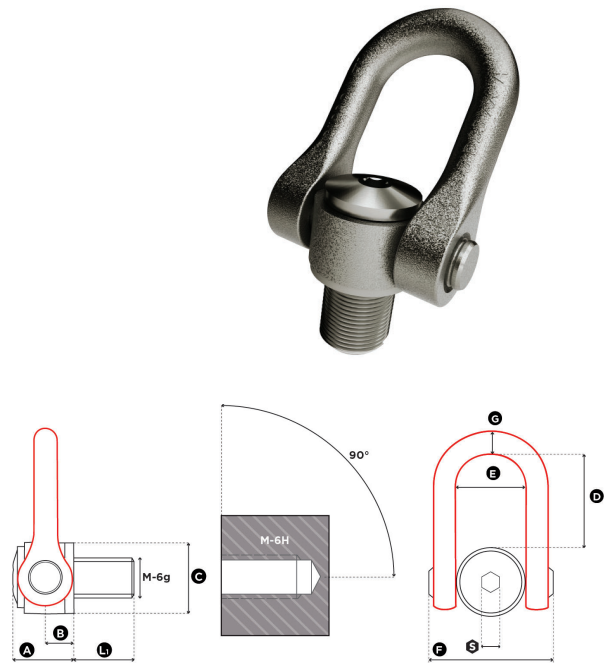
Codipro Stainless Steel DSS Double Swivel Shackle Hoist Ring - Metric

Turn To The Industry Experts

Features

- Metric threads: M64 through M100
- Usable for any kind of lifting operation (straight lifts, with angle, turning, rotating)
- Optimized WLL/dimensions and weight ratio
- Safety factor 4:1 and 5:1
- Individual traceability number
- Operating temperature: -20°C to 200°C / -4°F to 392°F
- Clear markings (CE, WLL, tightening torque)
- Anti-corrosion coating (zinc coating) on bolt and base
- Built in anti-tribocorrosion grease, easy rotation under load
- 7 year warranty if registered thru Codipro

The Codipro Mega DSS, metric double swivel shackle. The Mega DSS is a double swivel ring that is specially designed for simultaneously lifting and rotating loads. Its double swivel action ensures perfect alignment with the sling. The ring swivels 180°, but has a rotating range of 360°.



U Millimeters



Max Mold Temperature: 392°F (200°C)

Item Number	Thread-Size	ST WLL t	SF 5:1 WLL	SF 4:1 WLL	Std L1	Torque Nm	S	A	B	C	D	E	F	G
SS.DSSM24	M24 (x3)	2.7	2.70	2.70	36	160	19	61	31	70	98	73	149	30
SS.DSSM30	M30 (x3.5)	3.5	3.50	3.50	45	250	19	61	31	70	98	73	149	30
SS.DSSM33	M33 (x3.5)	3.5	3.50	3.50	50	250	19	61	31	70	98	73	149	30
SS.DSSM36	M36 (x4)	5.0	5.00	5.00	54	320	19	61	31	70	98	73	149	30
SS.DSSM36x3	M36 (x3)	5.0	5.00	5.00	54	320	19	61	31	70	98	73	149	30
SS.DSSM39	M39 (x4)	5.0	5.00	5.00	54	320	19	61	31	70	98	73	149	30
SS.DSSM42	M42 (x4.5)	6.0	6.00	6.00	63	400	19	61	31	70	98	73	149	30
SS.DSSM42x3	M42 (x3)	6.0	6.00	6.00	63	400	19	61	31	70	98	73	149	30
SS.DSSM45	M45 (x4.5)	6.0	6.00	6.00	63	400	19	61	31	70	98	73	149	30
SS.DSSM48	M48 (x5)	6.4	6.40	6.40	68	600	19	79	38	90		91	182	41
SS.DSSM48x3	M48 (x3)	6.4	6.40	6.40	68	600	19	79	38	90		91	182	41
SS.DSSM48x4	M48 (x4)	6.4	6.40	6.40	68	600	19	79	38	90		91	182	41
SS.DSSM52	M52 (x5)	6.4	6.40	6.40	68	600	19	79	38	90		91	182	41
SS.DSSM56	M56 (x5.5)	8.0	8.00	8.00	78	600	19	79	38	90		91	182	41



Codipro CSS Central Safety Shackle

Features

- Available in three sizes, 20t, 32t, or 55t
- Linear lift design
- Individual traceability number
- Verification of each thread with calibrated gauge
- 600 Torque (Nm)
- Supplied with drilling and fixing screws (DIN 912-12.9)
- Safety factor 4:1

The Codipro CSS Metric Central Lifting Ring The CSS is a screwable, -fixed, center ring designed for linear lifting. The CSS also offers a wide space for the shackle to pass through.



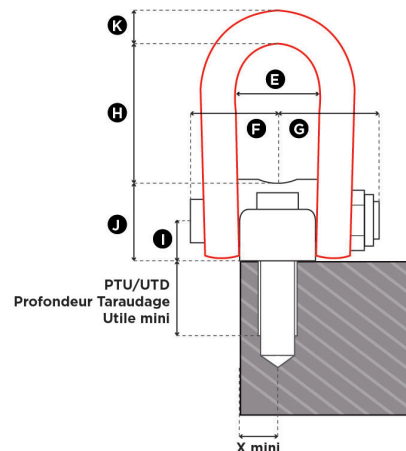
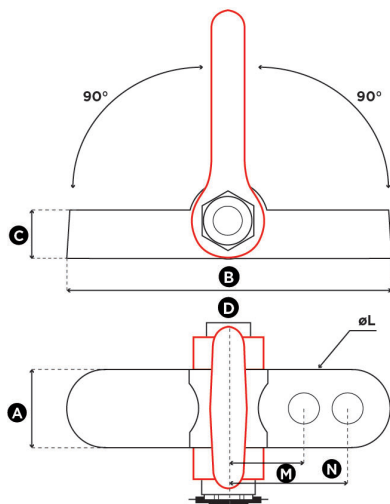
U Milimeters



Max Mold Temperature: 392°F (200°C)

Item Number	SF 4:1 WLL t	X mini	A	B	C	D	E	F	G	H	I	J	K
CSS20	20	40	80	220	50	62	90	88	98	132	38	76	41,0
CSS32	32	40	80	330	50	62	90	88	98	132	38	76	41,0
CSS55	55	53	105	540	85	191	184	160	170	267	85	175	79,5

Drilling			PTU/ UTD	Screw					
ø L	M	N	Min. Thread Depth	Qty.	Thread	Length	Head Dia.	Head Height	Torque Nm
38	70	N/A	54	2	M36	100	54	36	600
38	70	130	54	4	M36	100	54	36	600
50	133	210	85	4	M48	160	72	48	600



Adjustable Ejector Bars

Features

- Ejector bars are drilled & tapped both ends 1/2-13 thread
- 6 Adjustable Sizes to choose from: 8-10.5", 10-12.5", 12-14.50", 14-16.50", 16-18.50", 21-23.50"
- Adaptors in both inch and metric
- Heavy Duty 7/8" Hex Stock
- Easy to install
- Ensure even ejector bars

Adjustable Ejector Bars are made from strong hex stock and available in 6 adjustable lengths. Choose between 4 adaptor sizes to tie the adjustable ejector bar with most common injection presses.



U Inch

Item Number	Description	Minimum Length	Maximum Length	Hex Bar Size	Mold End Thread	Machine End Thread
QS810	Ejector Bar	8"	10.5"	7/8"	1/2-13	1/2-13
QS1012	Ejector Bar	10"	12.5"	7/8"	1/2-13	1/2-13
QS1214	Ejector Bar	12"	14.5"	7/8"	1/2-13	1/2-13
QS1416	Ejector Bar	14"	16.5"	7/8"	1/2-13	1/2-13
QS1618	Ejector Bar	16"	18.5"	7/8"	1/2-13	1/2-13
QS2123	Ejector Bar	21"	23.5"	7/8"	1/2-13	1/2-13
QSA	Adaptor	N/A	2.25"	7/8"	5/8-11	1/2-13
QSA12	Adaptor	N/A	2.0"	7/8"	1/2-13	1/2-13
QSA34	Adaptor	N/A	2.25"	7/8"	3/4-10	1/2-13
QSA-M12	Adaptor	N/A	2.0"	7/8"	M12	1/2-13



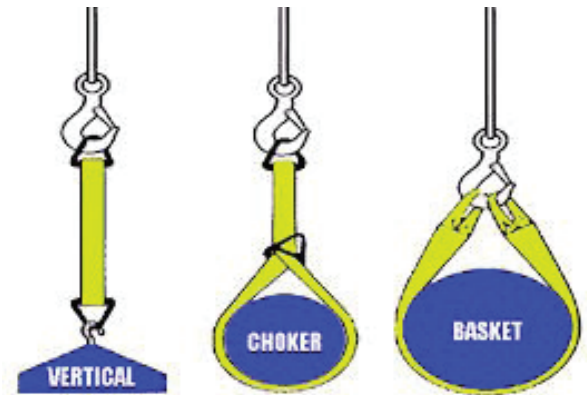
Polyester Mold Lifting Slings

Features

- 2 Ply Polyester Web Construction
- 2 Stock Sizes, 1" & 2" wide
- Lengths from 2' to 10' in stock
- Meets OSHA Requirements
- Made in USA

Polyester Mold Lifting Slings come in 2 widths and 7 lengths. These size options can be safely used for 3 lifting styles such as vertical hitch, choker hitch and basket hitch. The construction for the slings is 2 ply nylon webbing. To be used for handling molds, barrels, screws, end caps, etc.

Warning: Do not exceed rated capacities. Failure to follow care, use and inspection instructions could result in personal injury.



U Inch

Item Number	Width	Length	Vertical Capacity (lbs)	Choker Capacity (lbs)	Basket Capacity (lbs)
EE2-901X10	1"	10 ft	3100	2480	6200
EE2-901X2	1"	2 ft	3100	2480	6200
EE2-901X3	1"	3 ft	3100	2480	6200
EE2-901X4	1"	4 ft	3100	2480	6200
EE2-901X6	1"	6 ft	3100	2480	6200
EE2-901X8	1"	8 ft	3100	2480	6200
EE2-902X2	2"	2 ft	6200	4960	12400
EE2-902X3	2"	3 ft	6200	4960	12400
EE2-902X4	2"	4 ft	6200	4960	12400
EE2-902X5	2"	5 ft	6200	4960	12400
EE2-902X6	2"	6 ft	6200	4960	12400
EE2-902X8	2"	8 ft	6200	4960	12400

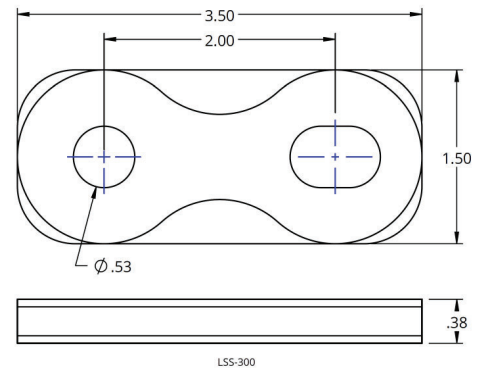
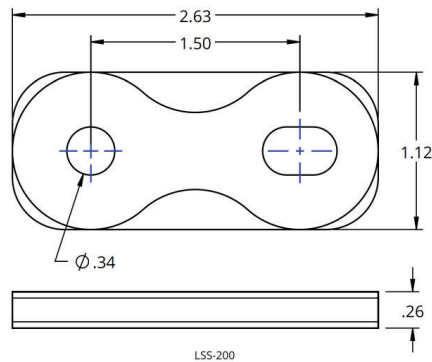
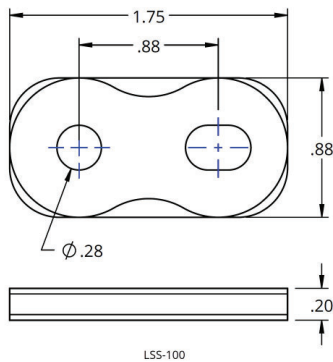


Mold Safety Straps

Features

- Made of durable cast metal
- Load Ratings: 930 lb, 1,220 lb and 1,740 lb per pair
- Yellow powder coating is corrosion resistant and easily visible
- Mold straps hold mold closed during transportation and storage
- 3 sizes
- Sold in pairs
- Made in the U.S.A.

Mold Safety Straps are constructed of durable cast metal and then powder coated yellow for corrosion resistance plus easy visibility. The mold straps can be used for mold transportation and storage. There are 3 sizes to choose from and are sold in pairs.



U Inch

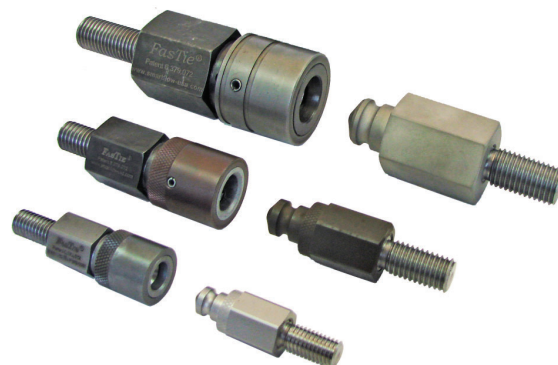
Item Number	Rated Load (pair)	Length	Width	Thickness	Screw Size (SHCS)	Torque
LSS-100	930 lb	1.75	0.88	0.2	1/4"-20, 5/8" Long	30 in/lb
LSS-200	1220 lb	2.63	1.12	0.26	5/16"-18, 3/4" Long	40 in/lb
Lss-300	1740 lb	3.5	1.5	0.38	1/2"-13, 1" Long	50 in/lb



FasTie® Quick Ejector Tie-in System

Features

- FasTie® installs easily into existing tapped holes, no additional machining is required.
- FasTie® reduces mold setting time by quickly uncoupling, plus there are no loose parts to stow.
- FasTie® remains coupled during mold cycling for increased “tie-in” reliability and reduced wear.
- SpeedBar® adjustable ejector bar changes length quickly without tools [$\pm 1/2$ ”(12.7mm) from nominal in .006”(.15mm) increments].*
- SpeedBar® saves molders time and cost of machining individual ejector bars to fit different molds.



In an injection molding press, the FasTie® system quickly “ties- in” the mold ejector plate to the press ejection system, dramatically reducing mold change time. The greatest time savings are realized in presses where space is limited and the ejector system is difficult to tie in using solid knock-out bars.

The FasTie® coupler may be permanently mounted to the press ejector plate. The quick-connect locking mechanism in the coupler snaps mechanically onto the mold-mounted Pull Stud during mold installation.

To release the ejectors, apply shop air to the coupler. The coupler opens to release the Pull Stud, disconnecting the press and tooling ejector plates. The coupler remains in the open position, ready for a new mold to be set.

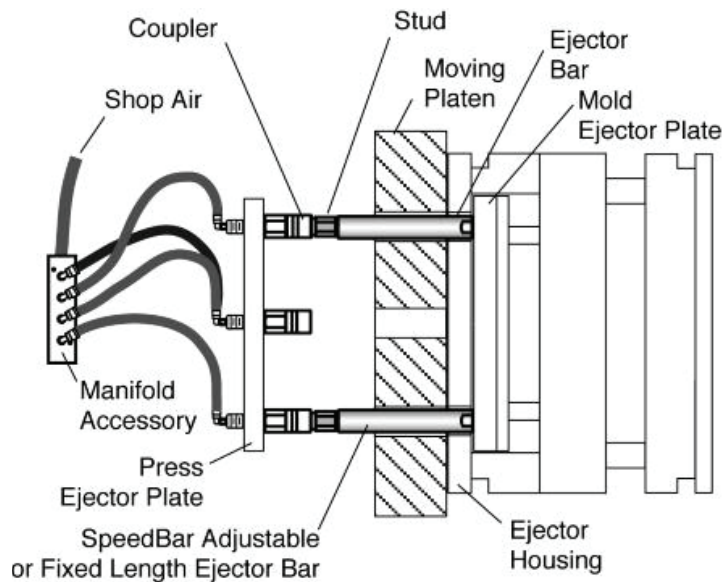
For multiple ejector locations, an air manifold is recommended to release all couplers simultaneously. See inside catalog pages for installation examples. The FasTie® couplers and Pull Studs are available in 3 sizes to suit various applications: 1”, 1-3/8” and 2” depending on the press size & knockout quantity (*refer to page 8*) for details.



FasTie® Installation Examples

Typical Application for 2 or 4 Ejector Positions

This setup is designed for custom molders who use a variety of injection molds with different ejector patterns and ejector strokes.



Couplers are installed next to the Press Ejector Plate. Pull Studs are placed at the end of the mold-mounted ejector bars for easy removal. Molds are changed quickly without accessing the back of the Press Ejector Plate.

For example, a press with 4 ejector positions may be running molds using only the horizontal positions, but the next mold may need the 2 vertical ejector positions. Ejector housing shown is 1.062" thick.

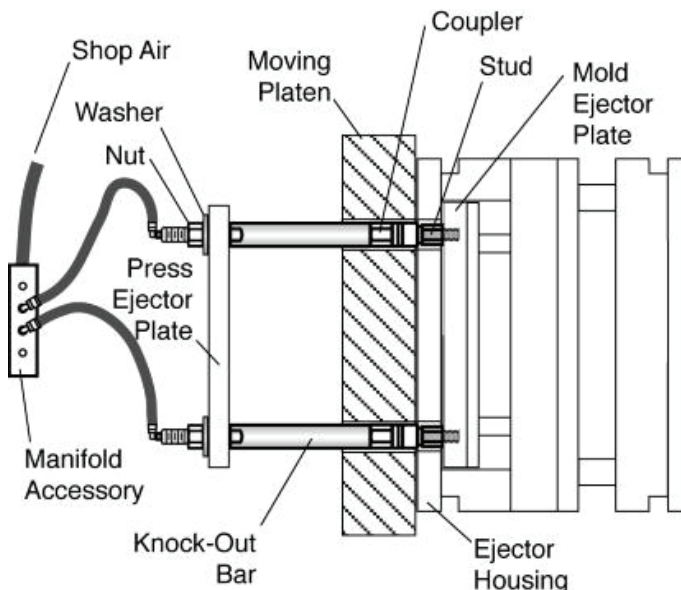
The Air Manifold supplies air to the end of each ejector bar for simultaneous coupler release.

Parts List

Qty	Part
2 or 4	FasTie® Pull Stud
2 or 4	FasTie® Coupler
2 or 4	Fixed Length Ejector Bars or SpeedBar® Adjustable Length Bars
1	Air Manifold with tubing

Alternate Application for 2 or 4 Ejector Positions

This setup is designed for captive molders, or shops with tools using a standard ejector stroke.



Couplers are located at the end of the ejector bars mounted to the press ejector plate. Pull Studs are mounted to each mold in storage. Ejector connection is made without changing ejector bars. Ejector housing shown is 1.062" thick.

The Air Manifold supplies compressed air to the end of each ejector bar for simultaneous coupler release. Fixed length bars are finished on site, cut to length and tapped with 1/2-13 female thread.

Parts List

Qty	Part
2 or 4	FasTie® Pull Stud
2 or 4	FasTie® Coupler
2 or 4	Fixed Length Ejector Bars or SpeedBar® Adjustable Length Bars
1	Air Manifold with tubing

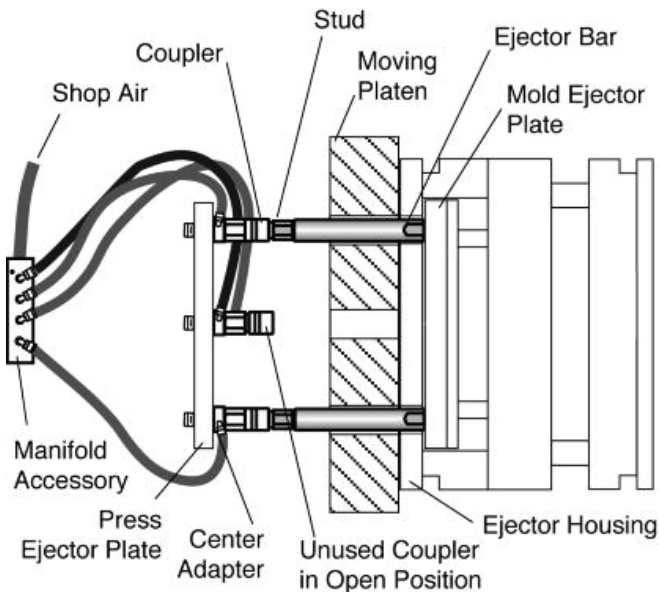


FasTie® Installation Examples

Alternate Application for 2 or 4 Ejector Positions

This setup is used where there is limited access to the back of the Press Ejector Plate. Custom molders using smaller presses will benefit from this application.

Couplers are installed next to the Press Ejector Plate. Pull Studs are placed at the end of the mold-mounted ejector bars for easy removal. Molds are changed quickly without accessing the back of the Press Ejector Plate.



For example, a press with 4 ejector positions may be running molds using only the horizontal positions, but the next mold may need the 2 vertical ejector positions. Ejector housing shown is 1.062" thick.

The Air Manifold supplies air to the mold side of the Press Ejector Plate with the use of adapters.

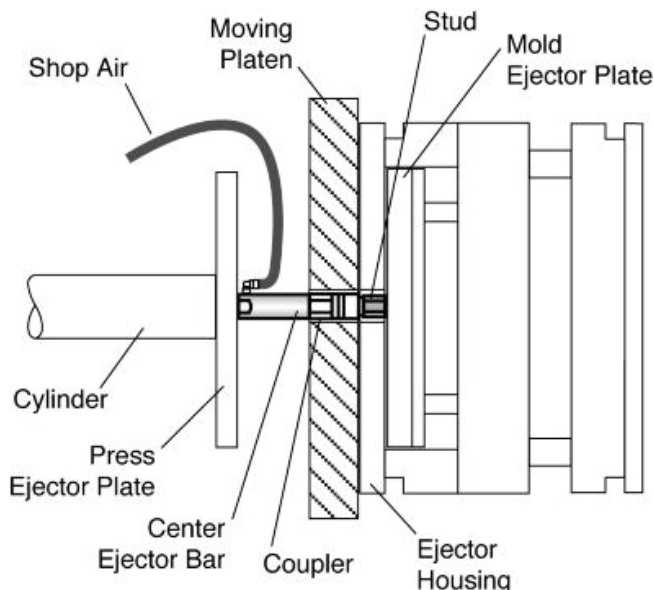
Parts List

Qty	Part
2 or 4	FasTie® Pull Stud
2 or 4	FasTie® Coupler
2 or 4	Fixed Length Ejector Bars or SpeedBar® Adjustable Length Bars
1	Air Manifold with tubing

Center Ejector Position

For small presses with a center ejector, replace the cylinder bolt with a Center Ejector Bar and FasTie® coupler.

Center Ejector Bar and Coupler are installed into the Press Ejector Plate, with the Coupler attached to the end. Pull Stud is installed in the Mold Ejector Plate. Molds are changed quickly without accessing the back of the Press Ejector Plate. Ejector housing shown is 1.062" thick.



Shop air is supplied to the side of the center adapter. No Air Manifold is needed. Fully-threaded Center Ejector Bar may be shortened to proper length on-site. In many small machines, there may not be room for an ejector bar.

Parts List

Qty	Part
1	FasTie® Pull Stud
1	FasTie® Coupler
1	Center Ejector Bar



FasTie[®] Specifications & References

Specifications

Maximum operating temperature.....	300°F (149°C)
Air pressure range	80 - 100 psi
Pull Stud material	Hardened Steel
Ejector bar and coupler material	High Strength Steel
Threaded Pull Studs	B7 Alloy or Comparable
Air manifold material	Anodized Aluminum
Air tubing material	1/8" OD Nylon

Press Requirements

	Coupler Size		
	1"	1-3/8"	2"
Platen thru hole min.	Ø1.063"	Ø1.45"	Ø2.063"
	Ø27mm	Ø36.8mm	Ø52.4mm
Ejector plate thru hole min.	Ø0.512"	Ø0.641"	Ø0.765"
	Ø14mm	Ø16.5mm	Ø19.4mm
Ejector force per coupler max.	2.5 tons	5.5 tons	7.5 tons

Recommended FasTie[®] Size per Press Size & Knockout Qty.

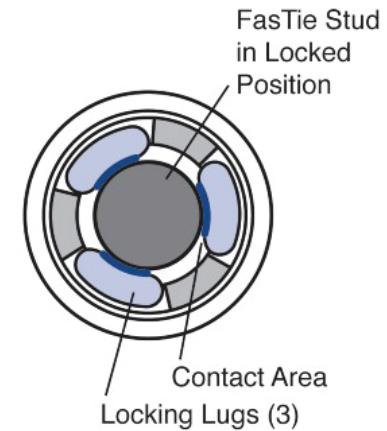
Press Tonnage	Knockout Quantity		
	1 (Center)	2	4
0-250	1" HS	1" HS	1" HS
250-500	1-3/8"	1" HS or 1-3/8"	1" HS or 1-3/8"
500-750	2"	1-3/8" or 2"	1-3/8" or 2"
750-1000	2"	1-3/8" or 2"	1-3/8" or 2"
1000+	Do not use	2"	2"



FasTie® 1" Components

FasTie® Coupler Bearing Surface Cross-Section

High Strength Coupler Design employs three locking lugs, dramatically increasing the load-bearing surface area of the components

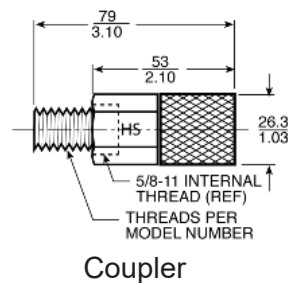


High Strength 1" FasTie®

High Strength FasTie® Couplers & Pull Studs

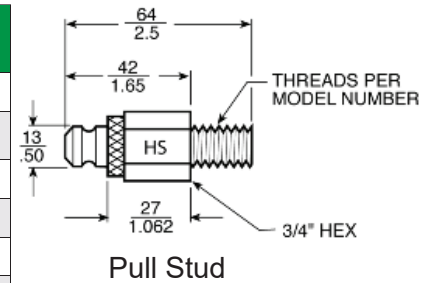
FasTie® 1" Coupler

Item No.	Thread Size
FTFHS-50	1/2-13
FTFHS-63	5/8-11
FTFHS-M12	M12 X 1.75
FTFHS-M16	M16 X 2



FasTie® 1" Pull Stud

Item No.	Thread Size
FTMHS-38	3/8-16
FTMHS-50	1/2-13
FTMHS-63	5/8-11
FTMHS-M12	M12 X 1.75
FTMHS-M16	M16 X 2
FTMHS-M20	M20 X 2.5



Center knock-out, multiple and high speed ejection indicate the need for High-Strength FasTie® Couplers and Pull Studs.

Note: Do not use High-Strength 1" FasTie® Couplers in combination with original 1" version. Damage to couplers will result. High-Strength Couplers and Pull Studs are longer than the original 1" parts, and are not to be used in combination with Original Couplers and Pull Studs.



FasTie[®] Accessories



Speed Bar[®]
 U.S. Patent No. 6,315,514

Additional parts to aid installation and use:

Speed Bar[®]

- The SpeedBar[®] Adjustable Length Ejector Bar changes length without tools $\pm 1/2$ " in increments of .006". Air passes through the bar for air hook-up at the back of the press ejector plate.

Note: Only available for 1" FasTie[®] System



Fixed Length Ejector Bar

Fixed Length Ejector Bar

- The Fixed Length Ejector Bar provides an air passage to the back of the press ejector plate. Several lengths are available with one blank end for on-site finishing.

Note: Only available for 1" FasTie[®] System



Center Ejector Bar

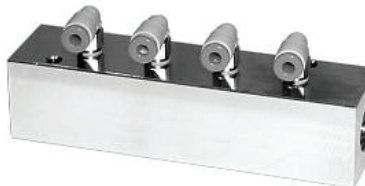


Center Adapter

Center Ejector Bar & Center Adapter

- The Center Ejector Bar and Center Adapter provide an air passage in front of the press ejector plate for center knockout. Also use for multiple knockouts.

Note: Center Ejector Bar only available for 1" FasTie[®] System



Air Manifold

Air Manifold

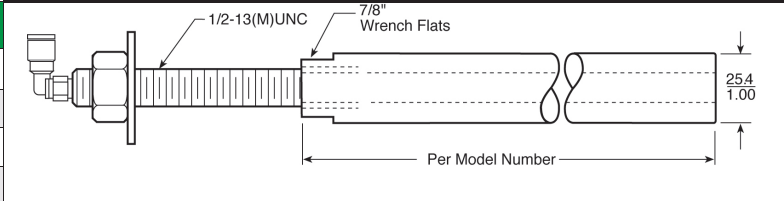
- The Air Manifold splits single air supply into four circuits to aid air connection. Comes with 1/8" diameter tubing and pneumatic connectors.



FasTie® 1" Accessories

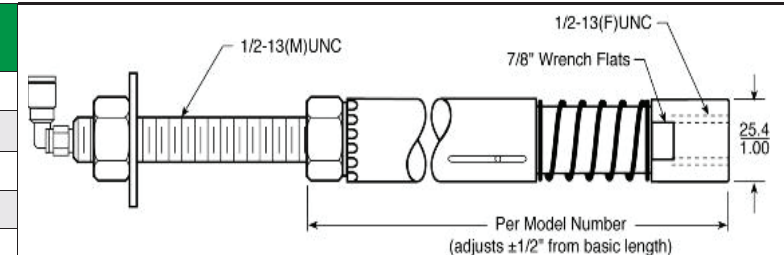
Fixed Length Ejector Bar®

Item No.	Length
FTBB-50-8	8"
FTBB-50-10	10"
FTBB-50-12	12"
FTBB-50-14	14"



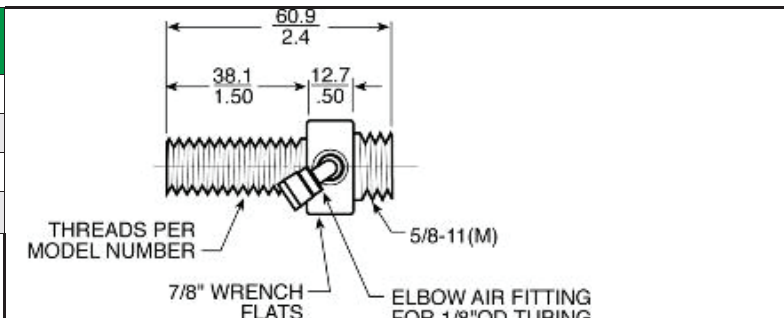
Speed Bar® Adjustable Ejector Bar

Item No.	Length	Catalog No.	Length
SBAB-50-6	6"	SBAB-50-11	11"
SBAB-50-7	7"	SBAB-50-12	12"
SBAB-50-8	8"	SBAB-50-13	13"
SBAB-50-9	9"	SBAB-50-14	14"
SBAB-50-10	10"		



Center Adapter

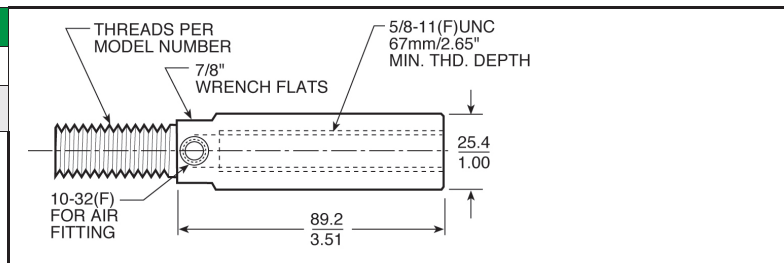
Item No.	Thread Size
FTCA-63	5/8-11
FTCA-M12	M12 x 1.75
FTCA-M16	M16 x 2
FTCA-M20	M20 x 2.5



Center Bar

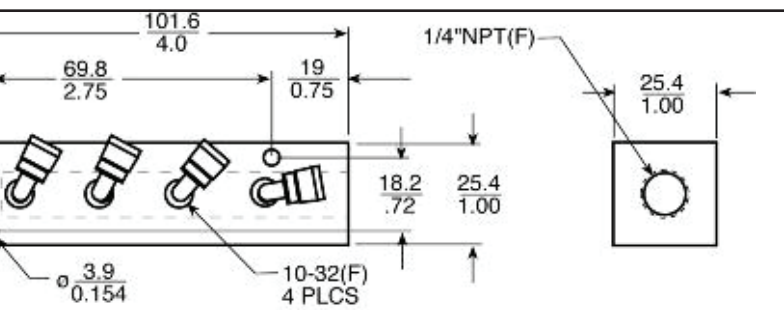
Item No.	Thread Size
FTCA-63-63*	5/8-11
FTCA-M16-63*	M16 x 2

*Use with FTFHS-63 only



Air Manifold

Air Manifold FTAM-100 Parts List	
Qty.	Description
1	FTAM-100 (Air Manifold)
4	FTPF-2 (1/8\" elbow pneumatic fitting)
4	FTT-125 (Ø1/8\" x 4ft nylon tubing)




FasTie® 1-3/8" & 2" Components Accessories

FasTie® 1-3/8" Coupler

Item No.	Thread Size	
FTF1.4-63	5/8-11	
FTF1.4-75	3/4-10	
FTF1.4-M16	M16 x 2	
FTF1.4-M20	M20 x 2.5	

FasTie® 1-3/8" Pull Stud

Item No.	Thread Size	
FTM1.4-50	1/2-13	
FTM1.4-63	5/8-11	
FTM1.4-75	3/4-10	
FTM1.4-M16	M16 x 2	
FTM1.4-M20	M20 x 2.5	

FasTie® 1-3/8" Center Adapter

Item No.	Thread Size	
FTCA1.4-63	5/8-11	
FTCA1.4-75	3/4-10	
FTCA1.4-M16	M16 x 2	
FTCA1.4-M20	M20 x 2.5	

FasTie® 2" Coupler

Item No.	Thread Size	
FTF2-63	5/8-11	
FTF2-75	3/4-10	
FTF2-M16	M16 x 2	
FTF2-M20	M20 x 2.5	

FasTie® 2" Pull Stud

Item No.	Thread Size	
FTM2-63	5/8-11	
FTM2-75	3/4-10	
FTM2-M16	M16 x 2	
FTM2-M20	M20 x 2.5	

FasTie® 2" Center Adapter

Item No.	Thread Size	
FTCA2-75	3/4-10	
FTCA2-M16	M16 x 2	
FTCA2-M20	M20 x 2.5	



Retrofit existing ejection systems with FasTie®

Determine New Ejector Bar Length

To determine new ejector bar length:

- Identify length of current solid ejector bar (Figure 1)
- Select connected FasTie® Length from table below
- Subtract connected FasTie® Length from current solid ejector bar length
- Subtract center adapter length, if needed
- Result is new FasTie® ejector bar length (Figure 2)

Connected FasTie® Lengths		
Description	Item Numbers	"X" Length
High Strength 1" FasTie	FTFHS-xx & FTMHS-xx	3.162" / 80.3mm
1-3/8" FasTie	FTF 1.4-xx & FTM 1.4-xx	4.300" / 109.2 mm
2" FasTie	FTF2-xx & FTM2-xx	5.875" / 149.2mm

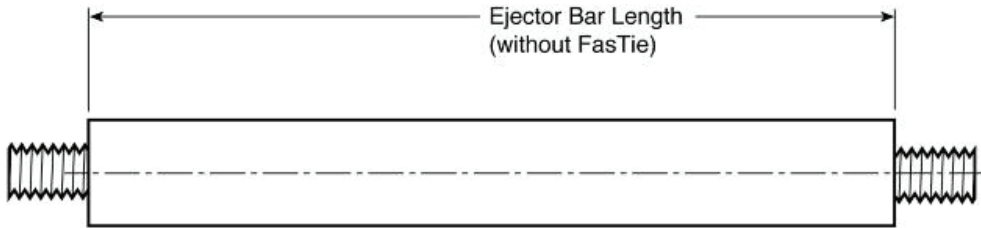


Figure 1

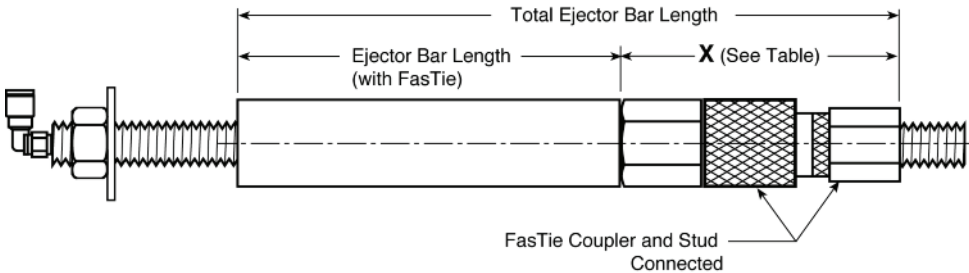


Figure 2



SWAP[®] VALVE Quickly Purge Cooling Water using Shop Air

Features

- Implements SMED by dramatically reducing tool change time.
- Identifies Supply Lines by noting which manifold is connected to the SWAP Valve.
- Full Port Design provides maximum cooling water flow with minimum pressure drop.
- Prevents Slip Hazard by keeping shop floors dry.
- Prepares Injection Mold for preventive maintenance and storage.
- Optional Positive Locking Pin prevents accidental valve handle movement.

The Smartflow SWAP Valve supplies cooling water to the mold during processing. Secondly, it supplies air to purge the water from the mold, cooling lines, Supply and Return manifolds before tool change. It also provides a manual vent to release built-up air pressure within the cooling water loop after purging.

A check valve should be installed in the return line downstream from the Return manifold to prevent backflow to the mold.

Tubing may be connected to the manual vent-drain port so after the purge cycle any residual water can be released into a container or drain.

An optional spring-loaded, locking pin is available for molders who require two-hand operation. This prevents accidental valve handle movement.

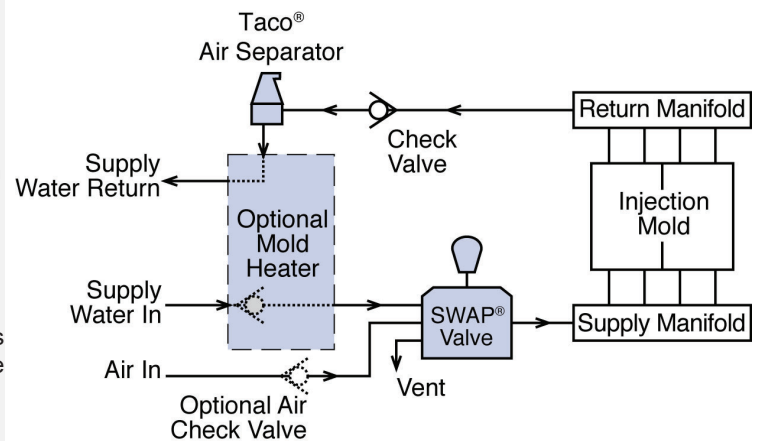
Application

The SWAP valve is well-suited for cooling water Supply lines up to 2-inch NPT. It is permissible to adapt 3/4", 1-1/4" and 1-1/2" line sizes providing adequate cooling water flow can be achieved.

Typical mounting is on press or safety door frame. Mounting on any suitable surface, such as a platen, mold or manifold stand is acceptable.

For Normal Processing	Select WATER. Cooling Water is available to the Supply manifold. Purge Air is blocked.
to Evacuate Cooling Water	Select PURGE. Purge Air is available to the Supply manifold. Cooling Water is blocked
To Bleed Trapped Pressure and Drain Residual Water	Select VENT Press Manual Vent-Drain Valve. Purge Air is blocked. Cooling Water is blocked.

Installation of an air separator in the return line of a closed loop cooling system is recommended. See the Typical Hook-Up Diagram (above) for location.



SWAP®VALVE Molded Body, Stainless Disc (1" only)

Specifications

- Maximum Pressure: 150psi (10.3bar)
- Maximum Operating Temperature: 250°F (121°C)
- Normal Working Air Pressure: 80 to 100psi
- Pressure Drop across Purge Valve: 1psi at 50gpm

Wetted Parts

- Body: Glass-Filled Nylon
- Valve Disc: Stainless Steel
- O-Rings: EPDM
- Check Valve (recommended): Brass


 Inch


Max Mold Temperature: 250°F (121°C)

Item Number	Thread Size	Locking Pin	Check Valve	Weight
SPV8-A-M	1" NPT	No	Yes	5.5 lbs / 2.5 kg
SPV8-L-M	1" NPT	Yes	Yes	5.5 lbs / 2.5 kg
SPV8-A-MN	1" NPT	No	No	5.5 lbs / 2.5 kg
SPV8-L-MN	1" NPT	Yes	No	5.5 lbs / 2.5 kg

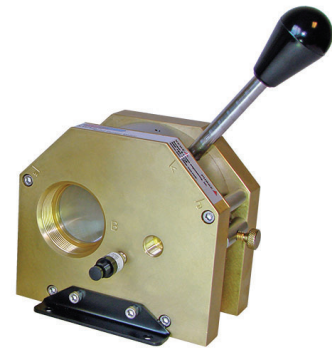
SWAP®VALVE Brass Body, Stainless Disc (1" or 2" models)

Specifications

- Maximum Pressure: 150psi (10.3bar)
- Maximum Operating Temperature: 250°F (121°C)
- Normal Working Air Pressure: 80 to 100psi
- Pressure Drop across Purge Valve: 1psi at 50gpm

Wetted Parts

- Body: Brass
- Valve Disc: Stainless Steel
- O-Rings: EPDM
- Check Valve (recommended): Brass


 Inch


Max Mold Temperature: 250°F (121°C)

Item Number	Thread Size	Locking Pin	Check Valve	Weight
SPV8-A-B	1" NPT	No	Yes	12 lbs / 5.4 kg
SPV8-L-B	1" NPT	Yes	Yes	12 lbs / 5.4 kg
SPV16-A-B	2" NPT	No	Yes	32 lbs / 14.5 kg
SPV16-L-B	2" NPT	Yes	Yes	32 lbs / 14.5 kg
SPV8-A-BN	1" NPT	No	No	11.1 lbs / 5 kg
SPV8-L-BN	1" NPT	Yes	No	11.1 lbs / 5 kg
SPV16-A-BN	2" NPT	No	No	29.6 lbs / 13.4 kg
SPV16-L-BN	2" NPT	Yes	No	29.6 lbs / 13.4 kg

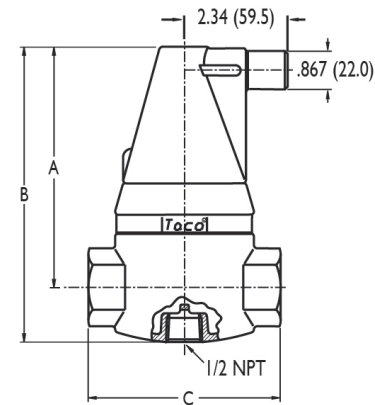


TACO ® 4900 Series Air Separators

Specifications

- Connection Sizes: 1" & 2"NPT(F)
- Housing Material: Brass
- Pall Ring Material: Stainless Steel
- Venting Unit Materials: Stainless Steel, EPDM, Viton, Engineered Plastics
- Operating Pressure Max: 150psi (10bar)
- Operating Temperature Max: 240°F (115°C)
- Operating Temperature Min: 25°F(-4°C)
- Media: Water or Water/Glycol
- Max. Velocity: 5ft/sec 2.34 (59.5)

TACO 4900 Series Air Separators are designed for the complete elimination of air from closed loop water circulating systems. Small air bubbles and micro-bubbles adhere to surfaces on pall rings in the water path and join together to form larger air bubbles. The combined bubbles travel up through the water and into the conical air chamber to be released by the vent at the top. Recommended for use with SMARTFLOW SWAP Valve in a closed loop cooling water system.

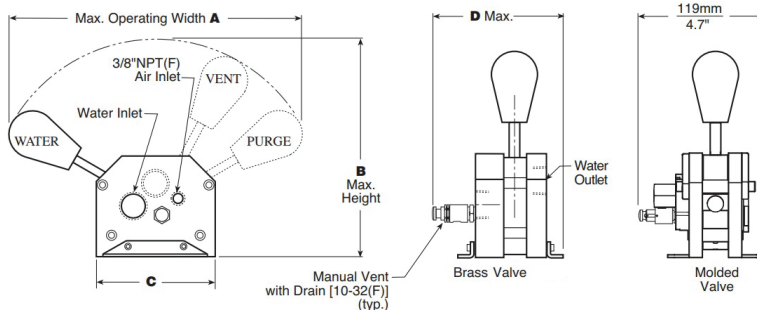


U Inch



Max Mold Temperature: 240°F (115°C)

Item Number	Connection Size	A	B Height	C Width	Weight
49-100	1"	5-1/2" / 139mm	6-3/4" / 171mm	4-3/8" / 111mm	4.5 lbs / 2 kg
49-200	2"	6-5/8" / 169mm	8-7/16" / 214mm	5-3/16" / 132mm	6 lbs / 2.7 kg



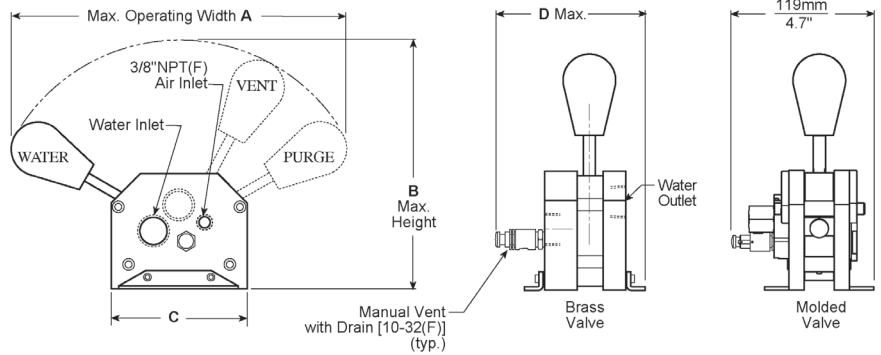
Dimension	SPV8	SPV16
A	299mm/11.75"	395mm/15.5"
B	221mm/8.7"	297mm/11.7"
C	119mm/4.7"	173mm/6.8"
D	130mm/5.1"	160mm/6.3"



SWAP®VALVE All Models, Maximum Dimensions

U Inch

Dimension	SPV8	SPV16
A	11.75"	15.5"
B	8.7"	11.7"
C	4.7"	6.8"
D	5.1"	6.3"



SWAP®VALVE All Models, Accessories

U Inch

Item Number	Description	Thread Size
PVCV-100	Brass Check Valve 1"NPT	1" NPT
PVCV-20	Brass Check Valve 2"NPT	2" NPT



U Inch

Item Number	Description	Thread Size
PVCV-3-A	Air Check Valve	3/8" NPT



U Inch

Item Number	Description
PVMV-100-A	Manual Vent



U Inch

Item Number	Description
PVOSET-100A	O Rings 1"

