



MADE IN
THE USA

2018 CATALOG

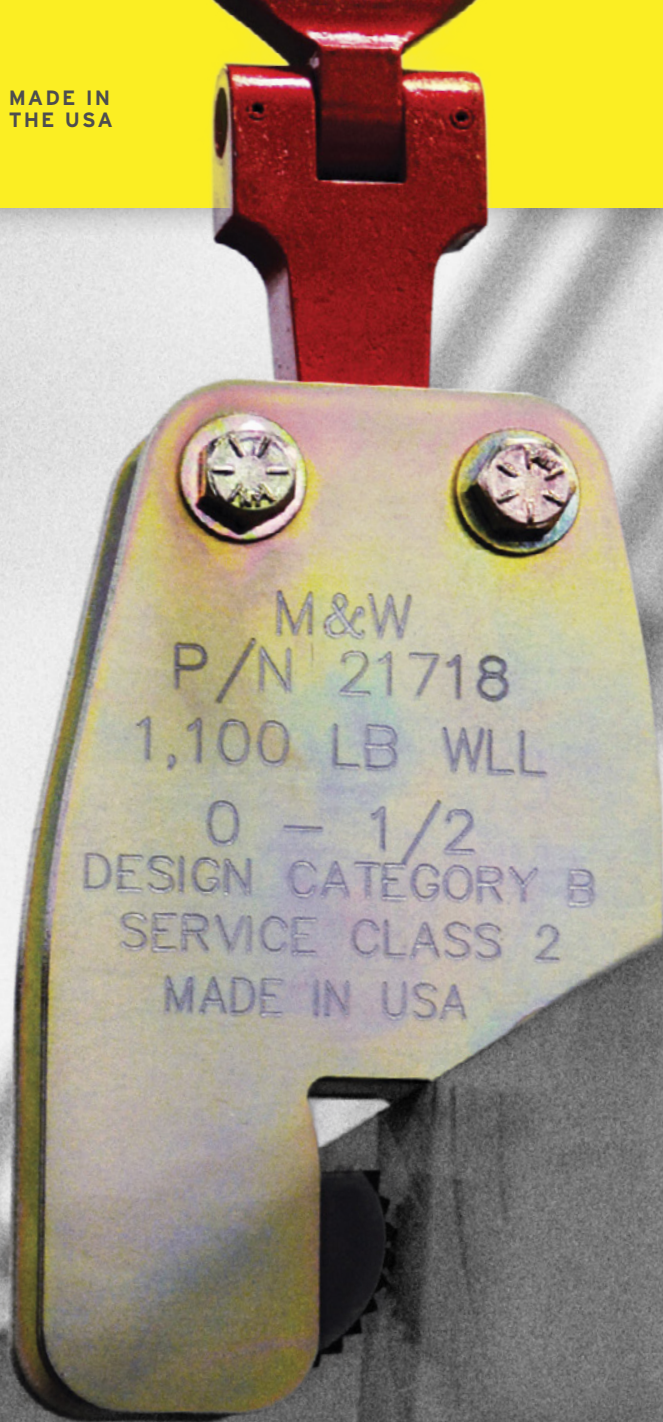


PLATE CLAMPS

LIFTING BEAMS

SPREADER BEAMS

FORKLIFT ATTACHMENTS

MATERIAL HANDLING

PERSONNEL BASKETS

CUSTOM LIFTING DEVICES



2018 CATALOG

MACHINING & WELDING
250 OLSEN BOULEVARD
COKATO, MN 55321

sales@machiningandwelding.com
MACHININGANDWELDING.COM



PLATE CLAMPS

Page: 1 - 2



ADJUSTABLE AND FIXED LENGTH LIFTING BEAMS

Page: 3 - 21



TELESCOPING ADJUSTABLE AND FIXED LENGTH SPREADER BEAMS

Page: 22 - 26



FORK LIFT ATTACHMENTS

Page: 27 - 31



LIFTING HOOKS

Page 32 - 46



MATERIAL BASKETS

Page: 47 - 49



SUSPENDED & FORK LIFT PERSONNEL BASKETS

Page: 50 - 53



WIRE ROPE TERMINATIONS

Page: 54 - 57



PALLET LIFTERS

Page: 58 - 61



LIFTING TONGS

Page: 62 - 63

Table of Contents

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



COIL LIFTERS

Page: 64 - 65



CONCRETE BARRIER LIFTER

Page: 75



MATERIAL WORK STANDS

Page: 66



BEAM CLAMPS

Page: 76 - 78



BOTTLE LIFTERS

Page: 67



SYNTHETIC SLING TRIANGLE & CHOKERS

Page: 79 - 80



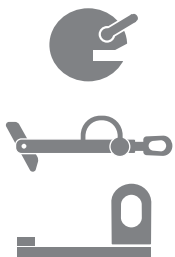
CONCRETE PIPE LIFTING

Page: 68



WIRE & CHAIN MESH TRIANGLES & CHOKERS

Page: 81 - 82



MATERIAL HANDLING/OTHER

Page: 68 - 74

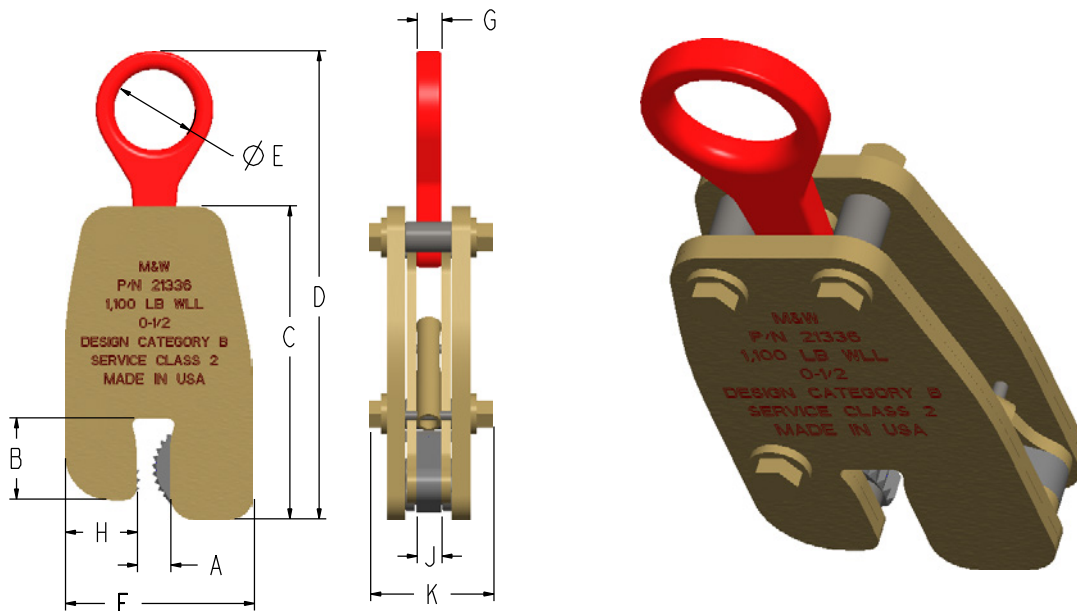


SLING INSPECTION HOOK

Page: 83 - 84

Plate Clamp — Straight

- Non-welded Construction.
- No Minimum Load
- Camming Stationary Jaw
- Camming Stationary Jaw Automatically Returns to Preload Position
- Self Locking Jaw Closed Mechanism
- Self Locking Jaw Open Mechanism
- 0 – 180 Degree Turning Permissible
- Clamp can be mounted to the work piece without the need for the operator to put hands in the fall path of the work piece
- Designed with a 5 – 1 Design Factor Criteria
- ASME B30.20 Operation Compliant
- ASME B30.BTH -1 Design Compliant
- Working Load Limit (WLL) Clearly and Legibly Marked on the Clamp
- Serial Number Clearly and Legibly Marked on the Clamp
- Materials of Manufacture Remain Stable Under Load
- Clamps Can Be Used to Lift Materials with a Surface Hardness of up to 400 Brinell.
- Clamps must be used in accordance with the Instructions in the Operator Manual.
- Operating temperature -40 to 170° Fahrenheit.



Straight

Straight Plate Clamp

| WLL (LBS) | Part # | A-Jaw Opening | B | C | D | E | F | G | H | J | K | Weight in Pounds |
|-----------|--------|---------------|------|------|------|------|------|-----|------|------|------|------------------|
| 0-1,100 | 21336 | 0-0.5 | 1.64 | 6.31 | 9.44 | 1.63 | 3.81 | 0.5 | 1.45 | 0.5 | 2.5 | 6.1 |
| | 21716 | 0.5-1.0 | 1.64 | 6.31 | 9.44 | 1.63 | 4.31 | 0.5 | 1.45 | 0.5 | 2.5 | 6.4 |
| | 21717 | 1.0-1.5 | 1.64 | 6.31 | 9.44 | 1.63 | 4.81 | 0.5 | 1.45 | 0.5 | 2.5 | 6.7 |
| 0-2,200 | 21851 | 0-0.75 | 1.92 | 8.06 | 13.5 | 2.13 | 5.5 | 0.5 | 1.71 | 0.75 | 2.75 | 11.2 |
| | 21852 | 0.75-1.5 | 1.92 | 8.06 | 13.5 | 2.13 | 6.25 | 0.5 | 1.71 | 0.75 | 2.75 | 11.9 |
| | 21853 | 1.5-2.25 | 1.92 | 8.06 | 13.5 | 2.13 | 7 | 0.5 | 1.71 | 0.75 | 2.75 | 12.6 |
| 0-4,400 | 21912 | 0-1.0 | 2.41 | 9.37 | 16.1 | 2.38 | 7 | 0.5 | 2.21 | 0.75 | 3.29 | 19.8 |
| | 21913 | 1.0-2.0 | 2.41 | 9.37 | 16.1 | 2.38 | 8 | 0.5 | 2.21 | 0.75 | 3.29 | 21.5 |
| | 21914 | 2.0-3.0 | 2.41 | 9.37 | 16.1 | 2.38 | 9 | 0.5 | 2.21 | 0.75 | 3.29 | 24 |

Plate Clamp — Hinged

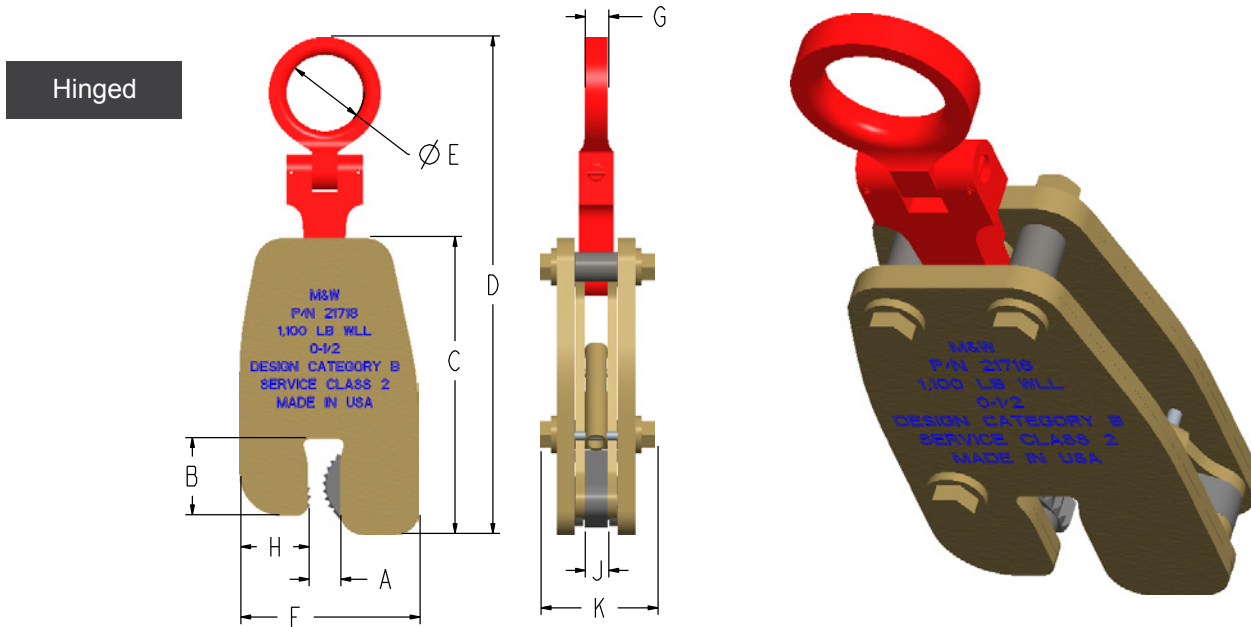
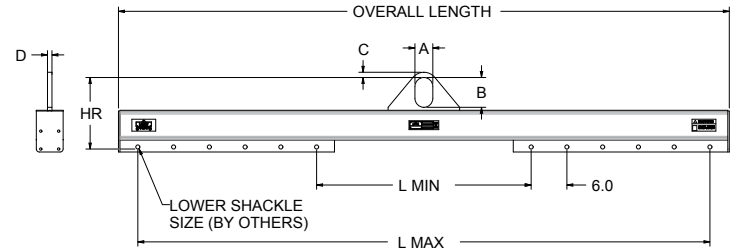


PLATE CLAMPS

Hinged Plate Clamp

| WLL (LBS) | Part # | A-Jaw Opening | B | C | D | E | F | G | H | J | K | Weight in Pounds |
|-----------|--------|---------------|------|------|------|------|------|-----|------|------|------|------------------|
| 0-1,100 | 21718 | 0-0.5 | 1.64 | 6.31 | 10.6 | 1.63 | 3.81 | 0.5 | 1.45 | 0.5 | 2.5 | 6.5 |
| | 21719 | 0.5-1.0 | 1.64 | 6.31 | 10.6 | 1.63 | 4.31 | 0.5 | 1.45 | 0.5 | 2.5 | 6.8 |
| | 21720 | 1.0-1.5 | 1.64 | 6.31 | 10.6 | 1.63 | 4.81 | 0.5 | 1.45 | 0.5 | 2.5 | 7.1 |
| 0-2,200 | 21854 | 0-0.75 | 1.92 | 8.06 | 14.7 | 2.13 | 5.5 | 0.5 | 1.71 | 0.75 | 2.75 | 11.7 |
| | 21855 | 0.75-1.5 | 1.92 | 8.06 | 14.7 | 2.13 | 6.25 | 0.5 | 1.71 | 0.75 | 2.75 | 12.3 |
| | 21856 | 1.5-2.25 | 1.92 | 8.06 | 14.7 | 2.13 | 7 | 0.5 | 1.71 | 0.75 | 2.75 | 13 |
| 0-4,400 | 21915 | 0-1.0 | 2.41 | 9.37 | 18.3 | 2.38 | 7 | 0.5 | 2.21 | 0.75 | 3.29 | 22.8 |
| | 21916 | 1.0-2.0 | 2.41 | 9.37 | 18.3 | 2.38 | 8 | 0.5 | 2.21 | 0.75 | 3.29 | 24 |
| | 21917 | 2.0-3.0 | 2.41 | 9.37 | 18.3 | 2.38 | 9 | 0.5 | 2.21 | 0.75 | 3.29 | 26 |

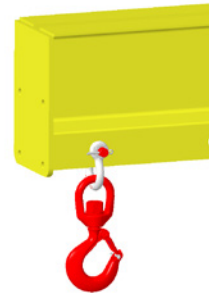
Lifting Beams Low Headroom Adjustable



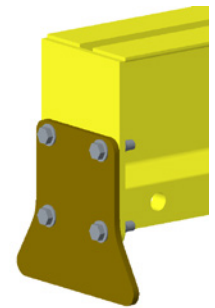
Lifting Beam - Low Headroom Adjustable

| Part Number | L MIN / L MAX (1' Spread ADJ) | Overall Length | Working Load Limit in Pounds* | A | B | C | D | HR | Lower Shackle Size | Weight |
|-------------|----------------------------------|----------------|----------------------------------|---|----|------|------|-------|--------------------|--------|
| 22148 | 3' - 5' | 66.5 | 2,000 | 3 | 5 | 0.88 | 0.75 | 12 | 1/2" | 140 |
| 22149 | 5' - 10' | 126.5 | 2,000 | 3 | 5 | 0.88 | 0.75 | 12 | 1/2" | 255 |
| 22150 | 10' - 15' | 186.5 | 2,000 | 3 | 5 | 0.88 | 0.75 | 13 | 1/2" | 395 |
| 22151 | 15' - 20' | 246.5 | 2,000 | 3 | 5 | 0.88 | 0.75 | 14 | 1/2" | 575 |
| 22152 | 3' - 5' | 66.5 | 4,000 | 3 | 5 | 0.88 | 0.75 | 12 | 1/2" | 145 |
| 22153 | 5' - 10' | 126.5 | 4,000 | 3 | 5 | 0.88 | 0.75 | 13 | 1/2" | 346 |
| 22154 | 10' - 15' | 186.5 | 4,000 | 3 | 5 | 0.88 | 0.75 | 15 | 1/2" | 435 |
| 22155 | 15' - 20' | 246.5 | 4,000 | 3 | 5 | 0.88 | 0.75 | 17 | 1/2" | 1,115 |
| 22156 | 3' - 5' | 66.5 | 6,000 | 3 | 5 | 1.25 | 1 | 13.75 | 5/8" | 217 |
| 22157 | 5' - 10' | 126.5 | 6,000 | 3 | 5 | 1.25 | 1 | 15.75 | 5/8" | 385 |
| 22158 | 10' - 15' | 186.5 | 6,000 | 3 | 5 | 1.25 | 1 | 17.75 | 5/8" | 748 |
| 22159 | 15' - 20' | 246.5 | 6,000 | 3 | 5 | 1.25 | 1 | 17.75 | 5/8" | 1,365 |
| 22160 | 3' - 5' | 66.5 | 10,000 | 4 | 7 | 2 | 1.25 | 19.62 | 7/8" | 348 |
| 22161 | 5' - 10' | 126.5 | 10,000 | 4 | 7 | 2 | 1.25 | 19.62 | 7/8" | 608 |
| 22162 | 10' - 15' | 186.5 | 10,000 | 4 | 7 | 2 | 1.25 | 19.62 | 7/8" | 1,116 |
| 22163 | 15' - 20' | 246.5 | 10,000 | 4 | 7 | 2 | 1.25 | 21.62 | 7/8" | 1,426 |
| 22164 | 3' - 5' | 66.5 | 15,000 | 4 | 7 | 2 | 1.25 | 19.62 | 7/8" | 348 |
| 22165 | 5' - 10' | 126.5 | 15,000 | 4 | 7 | 2 | 1.25 | 19.62 | 7/8" | 810 |
| 22166 | 10' - 15' | 186.5 | 15,000 | 4 | 7 | 2 | 1.25 | 24.62 | 7/8" | 1,237 |
| 22167 | 15' - 20' | 246.5 | 15,000 | 4 | 7 | 2 | 1.25 | 24.62 | 7/8" | 1,577 |
| 22168 | 3' - 5' | 66.5 | 20,000 | 4 | 7 | 2 | 1.25 | 19.62 | 7/8" | 348 |
| 22169 | 5' - 10' | 126.5 | 20,000 | 4 | 7 | 2 | 1.25 | 21.62 | 7/8" | 815 |
| 22170 | 10' - 15' | 186.5 | 20,000 | 4 | 7 | 2 | 1.25 | 24.62 | 7/8" | 1,248 |
| 22171 | 15' - 20' | 247 | 20,000 | 4 | 7 | 2 | 1.25 | 23.2 | 7/8" | 2,055 |
| 22172 | 3' - 5' | 67 | 40,000 | 5 | 9 | 2.5 | 1.5 | 26.2 | 1 1/4" | 706 |
| 22173 | 5' - 10' | 127 | 40,000 | 5 | 9 | 2.5 | 1.5 | 26.2 | 1 1/4" | 1,574 |
| 22174 | 10' - 15' | 187 | 40,000 | 5 | 9 | 2.5 | 1.5 | 27.9 | 1 1/4" | 2,098 |
| 22175 | 15' - 20' | 247 | 40,000 | 5 | 9 | 2.5 | 1.5 | 27.9 | 1 1/4" | 2,643 |
| 22176 | 3' - 5' | 67 | 60,000 | 7 | 16 | 3.5 | 2 | 36 | 1 1/2" | 1,023 |
| 22177 | 5' - 10' | 127 | 60,000 | 7 | 16 | 3.5 | 2 | 36 | 1 1/2" | 1,574 |
| 22178 | 10' - 15' | 187 | 60,000 | 7 | 16 | 3.5 | 2 | 37.8 | 1 1/2" | 2,389 |
| 22179 | 15' - 20' | 247 | 60,000 | 7 | 16 | 3.5 | 2 | 45 | 1 1/2" | 3,058 |
| 22180 | 3' - 5' | 67 | 80,000 | 7 | 16 | 3.5 | 2.5 | 39.5 | 1 3/4" | 1,443 |
| 22181 | 5' - 10' | 127 | 80,000 | 7 | 16 | 3.5 | 2.5 | 39.5 | 1 3/4" | 2,248 |
| 22182 | 10' - 15' | 187 | 80,000 | 7 | 16 | 3.5 | 2.5 | 46.5 | 1 3/4" | 2,763 |
| 22183 | 15' - 20' | 247 | 80,000 | 7 | 16 | 3.5 | 2.5 | 49.5 | 1 3/4" | 3,761 |

* Call for specifications on larger sizes and capacities



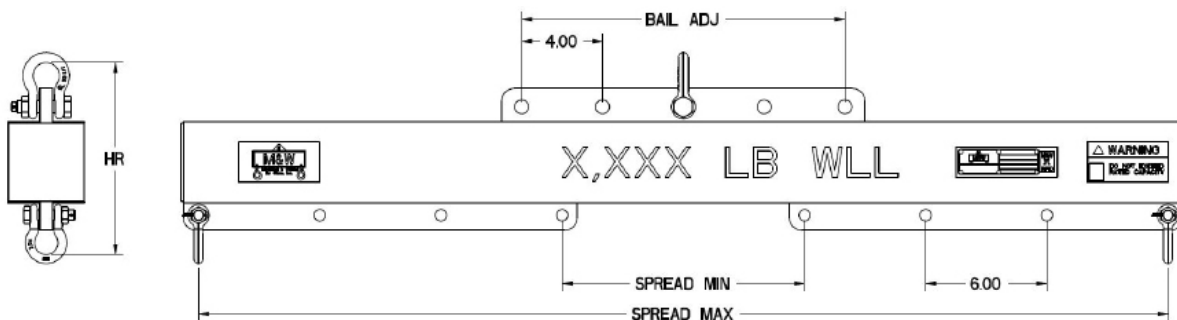
**OPTIONAL
SHACKLE
& HOOK**



**OPTIONAL
BOLT ON
STAND**

Adjustable Economy Lifting Beams

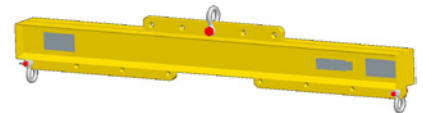
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
 - Quick and easy adjustment of unbalanced loads.
 - Ideally suited to low headroom applications.
 - Shackle bottoms standard for rigging connections.
 - Swivel hooks, eye hooks and custom connections available - call for ordering assistance.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Beams supplied standard with shackle connections.



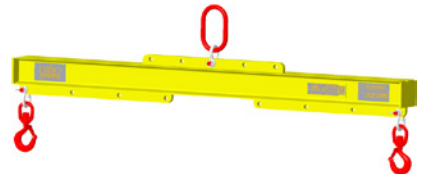
| Working Load Limit in Pounds* | Part Number | Max Spread | Min Spread | Bail Adj | HR | Weight in Pounds | Top Shackle Size | Bottom Size |
|-------------------------------|-------------|------------|------------|----------|-------|------------------|------------------|-------------|
| 500 | 13855 | 48 | 12 | 16 | 7.57 | 45 | 3/8" | 3/8" |
| 500 | 13862 | 72 | 36 | 16 | 7.57 | 60 | 3/8" | 3/8" |
| 500 | 13866 | 96 | 60 | 16 | 7.57 | 75 | 3/8" | 3/8" |
| 1,000 | 13878 | 48 | 12 | 16 | 7.57 | 45 | 3/8" | 3/8" |
| 1,000 | 13879 | 72 | 36 | 16 | 7.57 | 60 | 3/8" | 3/8" |
| 1,000 | 13869 | 96 | 60 | 24 | 8.57 | 95 | 3/8" | 3/8" |
| 2,000 | 13880 | 48 | 12 | 16 | 8.57 | 60 | 3/8" | 3/8" |
| 2,000 | 13886 | 72 | 36 | 24 | 9.57 | 80 | 3/8" | 3/8" |
| 2,000 | 13889 | 96 | 60 | 24 | 9.57 | 150 | 3/8" | 3/8" |
| 2,000 | 13893 | 120 | 84 | 24 | 9.57 | 180 | 3/8" | 3/8" |
| 4,000 | 13924 | 48 | 12 | 16 | 9.48 | 65 | 1/2" | 7/16" |
| 4,000 | 13933 | 72 | 36 | 24 | 10.48 | 125 | 1/2" | 7/16" |
| 4,000 | 13938 | 96 | 60 | 24 | 11.48 | 240 | 1/2" | 7/16" |
| 4,000 | 14130 | 120 | 84 | 24 | 11.48 | 295 | 1/2" | 7/16" |
| 8,000 | 14134 | 72 | 24 | 32 | 15.12 | 175 | 3/4" | 5/8" |
| 8,000 | 14150 | 96 | 48 | 32 | 16.12 | 280 | 3/4" | 5/8" |
| 8,000 | 14154 | 120 | 72 | 32 | 16.12 | 435 | 3/4" | 5/8" |
| 10,000 | 14159 | 96 | 36 | 32 | 16.12 | 365 | 3/4" | 5/8" |
| 10,000 | 14162 | 120 | 60 | 32 | 17.12 | 465 | 3/4" | 5/8" |
| 10,000 | 14167 | 144 | 84 | 32 | 18.12 | 675 | 3/4" | 5/8" |
| 14,000 | 14171 | 120 | 48 | 32 | 19.42 | 610 | 7/8" | 3/4" |
| 14,000 | 14177 | 144 | 72 | 32 | 21.42 | 715 | 7/8" | 3/4" |
| 14,000 | 14182 | 168 | 96 | 32 | 21.42 | 965 | 7/8" | 3/4" |
| 20,000 | 21449 | 120 | 48 | 32 | 26 | 900 | 1 1/8" | 7/8" |
| 20,000 | 21450 | 144 | 72 | 32 | 29 | 1120 | 1 1/8" | 7/8" |
| 20,000 | 21451 | 168 | 96 | 32 | 29 | 1250 | 1 1/8" | 7/8" |

* Call for specifications on larger sizes and capacities

STANDARD WITH SHACKLES



SHOWN WITH OPTIONAL TOP RING & HOOKS



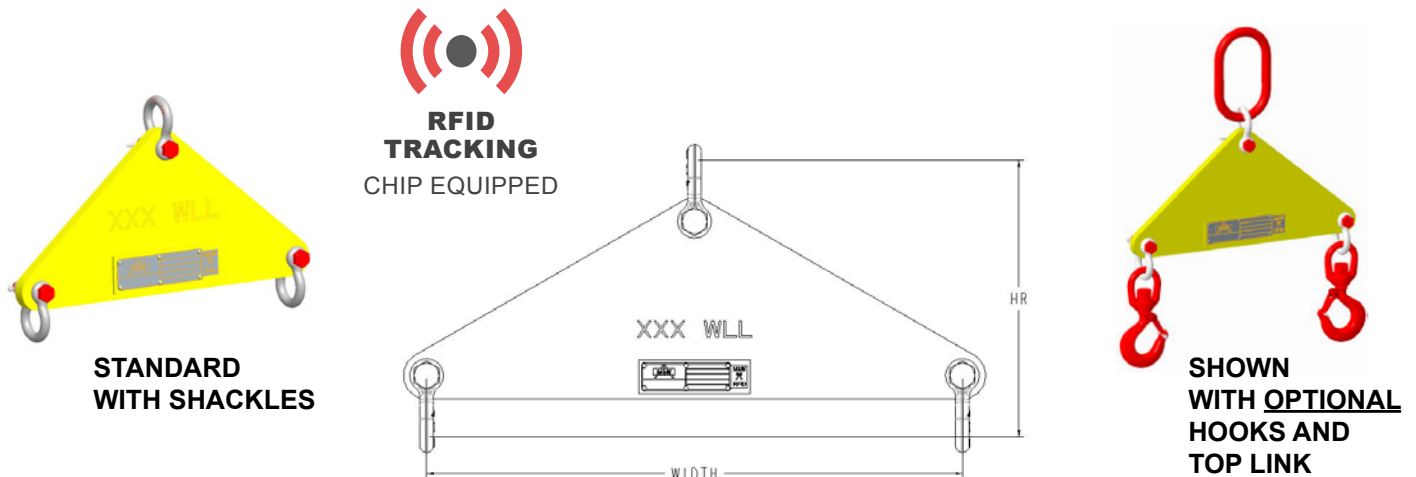
**RFID
TRACKING**
CHIP EQUIPPED

Small Length Lift Beams - Shackle Top

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Supplied with shackles.

| Working Load Limit in Pounds* | Part Number | Top | HR | Width | Weight in Pounds | Bottom Shackle | Top Shackle |
|-------------------------------|--------------|---------|------|-------|------------------|----------------|-------------|
| 500 | 20358 | Shackle | 8.3 | 12" | 9 | 3/8" | 3/8" |
| 500 | 20359 | Shackle | 8.3 | 24" | 16 | 3/8" | 3/8" |
| 500 | 20360 | Shackle | 8.3 | 36" | 22 | 3/8" | 3/8" |
| 2,000 | 20361 | Shackle | 12.4 | 12" | 19 | 5/8" | 5/8" |
| 2,000 | 20362 | Shackle | 12.4 | 24" | 33 | 5/8" | 5/8" |
| 2,000 | 20363 | Shackle | 12.4 | 36" | 46 | 5/8" | 5/8" |
| 6,000 | 20364 | Shackle | 14.1 | 12" | 32 | 3/4" | 3/4" |
| 6,000 | 20365 | Shackle | 14.1 | 24" | 54 | 3/4" | 3/4" |
| 6,000 | 20366 | Shackle | 14.1 | 36" | 73 | 3/4" | 3/4" |
| 20,000 | 20367 | Shackle | 21.2 | 24" | 107 | 7/8" | 1 1/4" |
| 20,000 | 20368 | Shackle | 21.2 | 36" | 145 | 7/8" | 1 1/4" |

* Call for specifications on larger sizes and capacities



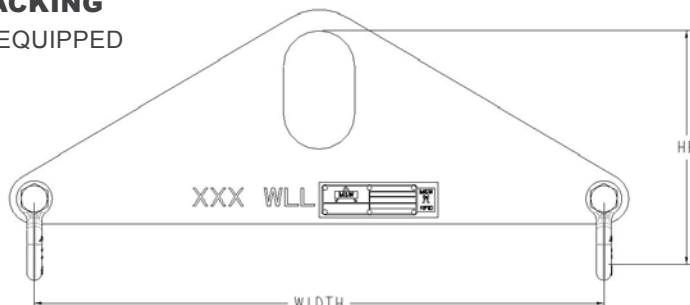
Small Length Lift Beams - Lift Bale Top

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Supplied with shackles.

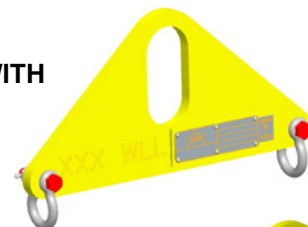
| Working Load Limit in Pounds* | Part Number | Bale Width | Bale Height | HR | Width | Weight in Pounds | Bottom Shackle Size |
|-------------------------------|--------------|------------|-------------|------|-------|------------------|---------------------|
| 500 | 20347 | 2" | 4" | 6.8 | 12" | 8 | 3/8" |
| 500 | 20348 | 2" | 4" | 6.8 | 24" | 15 | 3/8" |
| 500 | 20349 | 2" | 4" | 6.8 | 36" | 21 | 3/8" |
| 2,000 | 20350 | 3" | 5" | 9.8 | 12" | 18 | 5/8" |
| 2,000 | 20351 | 3" | 5" | 9.8 | 24" | 31 | 5/8" |
| 2,000 | 20352 | 3" | 5" | 9.8 | 36" | 45 | 5/8" |
| 6,000 | 20353 | 3" | 5" | 10.8 | 12" | 26 | 3/4" |
| 6,000 | 20354 | 3" | 5" | 10.8 | 24" | 48 | 3/4" |
| 6,000 | 20355 | 3" | 5" | 10.8 | 36" | 69 | 3/4" |
| 20,000 | 20356 | 4" | 7" | 16.1 | 24" | 92 | 7/8" |
| 20,000 | 20357 | 4" | 7" | 16.1 | 36" | 129 | 7/8" |

LIFT BEAMS

* Call for specifications on larger sizes and capacities



STANDARD WITH SHACKLES

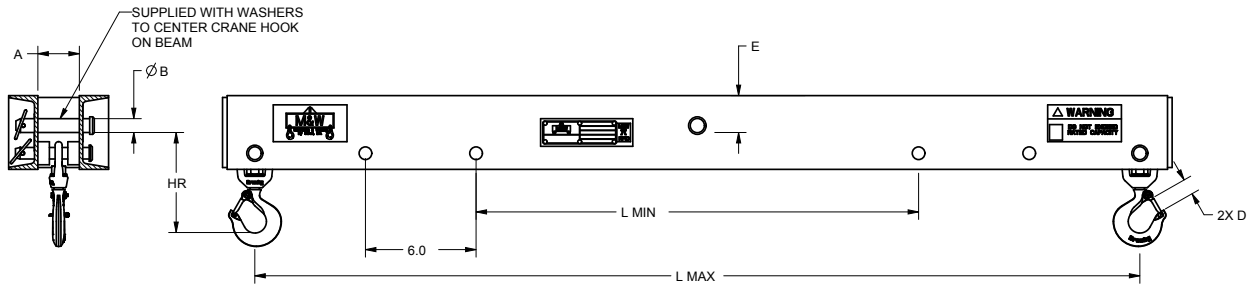


SHOWN WITH OPTIONAL HOOKS



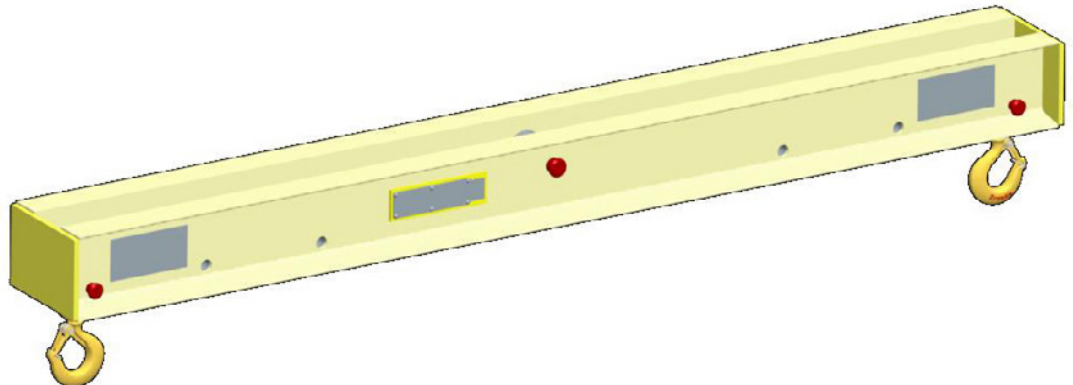
Ultra Low Headroom Lifting Beams

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Use provided spacers to assure hook remains centered.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Beams supplied standard with alloy swivel latch hook connections.



| Working Load Limit in Pounds* | Part number Headroom Weight | Outside Length (L) in Feet | | | | | A | B | D |
|-------------------------------|--------------------------------|----------------------------|-------|-------|--------|---------|------|------|------|
| | | 2' 4' | 4' 6' | 6' 8' | 8' 10' | 10' 12' | | | |
| 1,000 | Part number | 16484 | 16485 | 16486 | 16487 | 16488 | 2.25 | 0.63 | 0.86 |
| | HR= | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | | | |
| | E= | 1.94 | 1.94 | 1.94 | 1.94 | 1.94 | | | |
| 2,000 | Weight | 57 | 82 | 100 | 120 | 145 | | | |
| | Part number | 16489 | 16490 | 16491 | 16492 | 16493 | 2.25 | 0.75 | 0.86 |
| | HR= | 5.5 | 5.5 | 6.5 | 6.5 | 6.5 | | | |
| 4,000 | E= | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | | | |
| | Weight | 60 | 85 | 175 | 215 | 250 | | | |
| 6,000 | Part number | 16494 | 16495 | 16496 | 16497 | 16498 | 2.25 | 1.00 | 0.89 |
| | HR= | 6.7 | 6.7 | 7.1 | 7.1 | 7.9 | | | |
| | E= | 2.13 | 2.13 | 2.75 | 2.75 | 3.00 | | | |
| 10,000 | Weight | 110 | 150 | 210 | 310 | 345 | | | |
| | Part number | 16499 | 16500 | 16501 | 16502 | 16503 | 3.00 | 1.25 | 0.96 |
| | HR= | 6.9 | 7.6 | 8.6 | 9.6 | 9.6 | | | |
| | E= | 2.51 | 2.76 | 2.76 | 2.76 | 2.76 | | | |
| 10,000 | Weight | 125 | 185 | 255 | 300 | 400 | | | |
| | Part number | 16504 | 16505 | 16506 | 16507 | 16508 | 3.00 | 1.50 | 1.08 |
| | HR= | 9.8 | 9.8 | 9.8 | 10.3 | 10.3 | | | |
| | E= | 3.25 | 3.25 | 3.25 | 3.75 | 3.75 | | | |
| | Weight | 240 | 320 | 400 | 490 | 695 | | | |

* Call for specifications on larger sizes and capacities



Lifting Beams Economy H-Beam

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



Economy H-Beam

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.
- Standard with Shackles



**RFID
TRACKING**
CHIP EQUIPPED

LIFT BEAMS

| 1,000 LB WLL | | TOP BEAM: L MIN / L MAX | | |
|-------------------------------|---------|-------------------------|--------------|--------------|
| | | PART NUMBER | | |
| | | 12"-48" | 36"-72" | 60"-96" |
| LOWER BEAMS: W MIN / W MAX | 12"-48" | 17560 | 17563 | 17566 |
| | HR | 15.1 | 15.1 | 16.1 |
| | WEIGHT | 135 | 150 | 185 |
| | 36"-72" | 17561 | 17564 | 17567 |
| | HR | 15.1 | 15.1 | 16.1 |
| | WEIGHT | 165 | 180 | 215 |
| | 60"-96" | 17562 | 17565 | 17568 |
| | HR | 15.1 | 15.1 | 16.1 |
| | WEIGHT | 195 | 210 | 245 |

* Call for specifications on larger sizes and capacities

| 2,000 LB WLL | | TOP BEAM: L MIN / L MAX | | |
|-------------------------------|---------|-------------------------|--------------|--------------|
| | | PART NUMBER | | |
| | | 12"-48" | 36"-72" | 60"-96" |
| LOWER BEAMS: W MIN / W MAX | 12"-48" | 17569 | 17572 | 17575 |
| | HR | 16.1 | 17.1 | 17.1 |
| | WEIGHT | 150 | 180 | 250 |
| | 36"-72" | 17570 | 17573 | 17576 |
| | HR | 17.1 | 17.1 | 18.1 |
| | WEIGHT | 170 | 200 | 340 |
| | 60"-96" | 17571 | 17574 | 17577 |
| | HR | 17.1 | 17.1 | 18.1 |
| | WEIGHT | 240 | 270 | 340 |

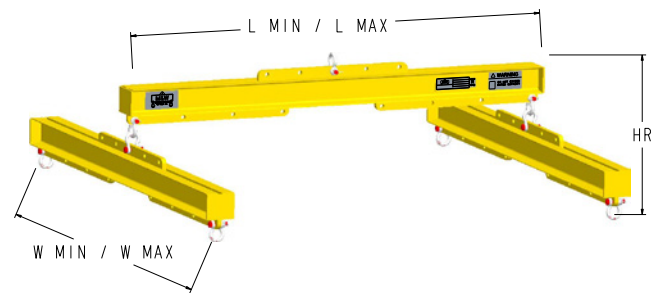
* Call for specifications on larger sizes and capacities

| 4,000 LB WLL | | TOP BEAM: L MIN / L MAX | | | |
|-------------------------------|----------|-------------------------|--------------|--------------|--------------|
| | | PART NUMBER | | | |
| | | 12"-48" | 36"-72" | 60"-96" | 84"-120" |
| LOWER BEAMS: W MIN / W MAX | 12"-48" | 17578 | 17582 | 17586 | 17590 |
| | HR | 18.1 | 19.1 | 20.1 | 20.1 |
| | WEIGHT | 185 | 245 | 360 | 415 |
| | 36"-72" | 17579 | 17583 | 17587 | 17591 |
| | HR | 19.1 | 19.1 | 21.1 | 21.1 |
| | WEIGHT | 255 | 285 | 400 | 455 |
| | 60"-96" | 17580 | 17584 | 17588 | 17592 |
| | HR | 19.1 | 19.1 | 20.1 | 20.1 |
| | WEIGHT | 365 | 425 | 540 | 595 |
| | 84"-120" | 17581 | 17585 | 17589 | 17593 |
| | HR | 19.1 | 19.1 | 21.1 | 21.1 |
| | WEIGHT | 425 | 485 | 600 | 655 |

* Call for specifications on larger sizes and capacities

| 8,000 LB WLL | | TOP BEAM: L MIN / L MAX | | |
|-------------------------------|----------|-------------------------|--------------|--------------|
| | | PART NUMBER | | |
| | | 24"-72" | 48"-96" | 72"-120" |
| LOWER BEAMS: W MIN / W MAX | 12"-48" | 17598 | 17602 | 17606 |
| | HR | 25.6 | 25.6 | 25.6 |
| | WEIGHT | 305 | 410 | 565 |
| | 36"-72" | 17599 | 17603 | 17607 |
| | HR | 26.6 | 26.6 | 26.6 |
| | WEIGHT | 425 | 530 | 685 |
| | 60"-96" | 17600 | 17604 | 17608 |
| | HR | 27.6 | 27.6 | 27.6 |
| | WEIGHT | 655 | 760 | 915 |
| | 84"-120" | 17601 | 17605 | 17609 |
| | HR | 27.6 | 27.6 | 27.6 |
| | WEIGHT | 765 | 870 | 1,025 |

* Call for specifications on larger sizes and capacities



- Quick and easy adjustment of unbalanced loads.
- Ideally suited to low headroom applications.
- Eye hooks and custom connections available - call for ordering assistance.



Lifting Beams Low Headroom, Multiple Length Standard Lifting Beam

Low Headroom, Multiple Length Standard Lifting Beam

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Machined to exacting tolerances.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Standard with hooks.
- Ideally suited for low headroom lifting applications.

| Working Load Limit in Pounds | Model Number Headroom (in) Weight (lbs) | Outside Length (L) in Feet — Min / Max | | | | | | | | | |
|------------------------------|---|--|------------------------------|--------------------------------|--------------------------------|--------------------------------|-----------|-----------|------------|------------|------------|
| | | Min 2' | Max 4' | Min 4' | Max 6' | Min 6' | Max 8' | Min 8' | Max 10' | Min 10' | Max 12' |
| 1,000 | Part Number HR = LBS = | 11937 13.11 56 | 11959 13.11 75 | 11960 13.11 95 | 11961 13.11 115 | 11962 13.11 200 | | | | | |
| 2,000 | Part Number HR = LBS = | 11983 13.11 56 | 11984 13.11 75 | 11985 14.11 167 | 11989 14.11 205 | 11990 14.11 240 | | | | | |
| 4,000 | Part Number HR = LBS = | 12032 15.12 98 | 12033 15.12 135 | 12034 16.12 200 | 12039 16.12 295 | 12042 17.12 395 | | | | | |
| 6,000 | Part Number HR = LBS = | 12069 15.25 120 | 12084 16.25 180 | 12087 17.25 255 | 12090 18.25 380 | 12094 18.25 440 | | | | | |
| 10,000 | Part Number HR = LBS = | 12117 21.25 265 | 12123 21.25 345 | 12126 21.25 430 | 12129 22.25 500 | 12132 21.12 590 | | | | | |
| 15,000 | Part Number HR = LBS = | 12162 24.27 265 | 12165 24.28 365 | 12168 25.28 450 | 12171 25.28 640 | 12174 25.28 870 | | | | | |
| 20,000 | Part Number HR = LBS = | 12199 23.75 290 | 12202 24.75 375 | 12205 24.75 625 | 12208 26.75 755 | 12212 29.75 985 | | | | | |
| 30,000 | Part Number HR = LBS = | 12223 29.00 345 | 12229 29.00 555 | 12232 34.00 675 | 12236 34.00 1,235 | 12263 40.20 1,185 | | | | | |
| 40,000 | Part Number HR = LBS = | 12250 33.81 445 | 12254 33.81 850 | 12257 33.81 1,050 | 12287 41.79 1,195 | 12292 41.97 1,540 | | | | | |

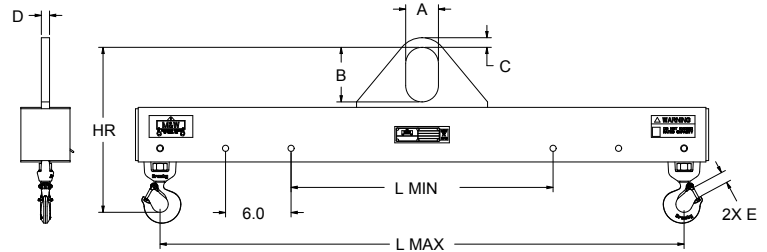
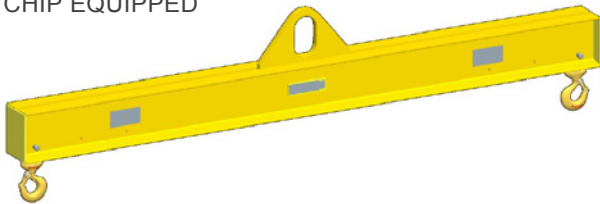
Lifting Beams
Low Headroom, Multiple Length
Standard Lifting Beam

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com




RFID
TRACKING
 CHIP EQUIPPED



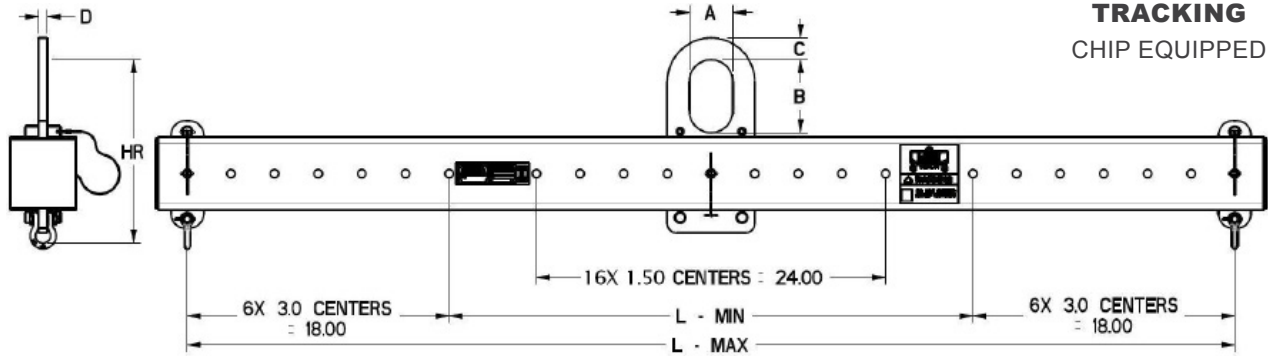
| Outside Length (L) in Feet | | | | | | | | | | Other Dimensions | Working Load Limit in Pounds |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--|-------------|-------------|-------------|-------------|------------------|------------------------------|
| LMin 12' | LMax 14' | LMin 14' | LMax 16' | LMin 16' | LMax 18' | LMin 18' | LMax 20' | LMin 22' | LMax 24' | | |
| 11968 13.11 226 | 11971 14.11 313 | 11974 14.11 350 | 11977 14.11 390 | 11981 15.11 535 | C=.875, A=3.0 B=5.0, D=.75 E=.91 | | 1,000 | | | | |
| 12017 15.11 320 | 12018 15.11 365 | 12019 15.11 500 | 12020 16.11 525 | 12024 17.11 945 | C=.875, A=3.0 B=5.0, D=.75 E=.91 | | 2,000 | | | | |
| 12046 18.12 575 | 12050 18.12 650 | 12055 19.12 771 | 12059 20.12 1,060 | 12063 22.12 1,510 | C=.875, A=3.0 B=5.0, D=.75 E=1.0 | | 4,000 | | | | |
| 12098 19.25 635 | 12102 19.25 715 | 12106 20.25 990 | 12109 20.25 1,295 | 12112 22.25 1,310 | C=1.25, A=3.0 B=5.0, D=1.00 E=1.00 | | 6,000 | | | | |
| 12138 22.25 970 | 12141 22.25 1,095 | 12148 24.25 1,035 | 12152 24.25 1,340 | 12155 26.50 1,800 | C=2.0, A=4.0 B=7.0, D=1.25 E=1.09 | | 10,000 | | | | |
| 12177 27.28 1,000 | 12180 30.28 1,265 | 12183 30.28 1,405 | 12186 29.84 1,800 | | C=2.0, A=4.0 B=7.0, D=1.25 E=1.56 | | 15,000 | | | | |
| 12215 29.75 1,595 | 12218 29.75 1,799 | 12280 35.08 1,655 | 12284 35.08 1,815 | | C=2.0, A=4.0 B=7.0, D=1.25 E=1.61 | | 20,000 | | | | |
| 12267 40.48 1,540 | 12270 40.66 1,865 | 12274 40.84 2,250 | 12277 41.07 2,750 | | C=2.5, A=5.0 B=9.0, D=1.50 E=2.08 | | 30,000 | | | | |
| 12295 42.15 1,850 | 12300 43.58 2,130 | 12304 43.74 2,555 | 12307 43.92 3,045 | | C=2.5, A=5.0 B=9.0, D=1.50 E=2.08 | | 40,000 | | | | |

Lifting Beams

Adjustable Length Lifting Beams with Shackle bottoms

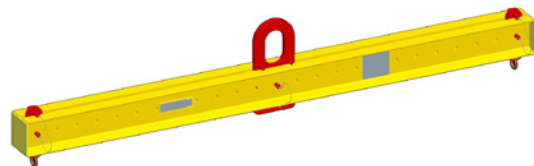
Adjustable Length Lifting Beams with Shackle bottoms

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.
- Quick and easy adjustment of unbalanced loads.
- Ideally suited to low headroom applications.
- Standard with shackles.



| Working Load Limit in Pounds* | Part Number | L min | L max | A | B | C | D | HR | Weight in Pounds |
|-------------------------------|--------------|-------|-------|---|---|------|------|------|------------------|
| 2,000 | 15101 | 36 | 72 | 3 | 5 | 0.75 | 0.63 | 11.8 | 85 |
| 2,000 | 14678 | 72 | 144 | 3 | 5 | 0.75 | 0.63 | 13.8 | 285 |
| 4,000 | 12453 | 36 | 72 | 3 | 5 | 1.5 | 0.63 | 12.6 | 135 |
| 4,000 | 12495 | 72 | 144 | 3 | 5 | 1.5 | 0.63 | 14.6 | 331 |
| 6,000 | 14669 | 36 | 72 | 3 | 5 | 1.5 | 0.63 | 14.8 | 170 |
| 6,000 | 14661 | 72 | 144 | 3 | 5 | 1.5 | 0.63 | 17.8 | 535 |
| 8,000 | 12503 | 36 | 72 | 4 | 7 | 2 | 0.75 | 18.0 | 201 |
| 8,000 | 12512 | 72 | 144 | 4 | 7 | 2 | 0.75 | 20.0 | 543 |
| 10,000 | 14651 | 36 | 72 | 4 | 7 | 2 | 0.75 | 20.0 | 310 |
| 10,000 | 15108 | 72 | 144 | 4 | 7 | 2 | 0.75 | 21.0 | 805 |
| 15,000 | 15117 | 36 | 72 | 4 | 7 | 2 | 1.00 | 20.7 | 325 |
| 15,000 | 15128 | 72 | 144 | 4 | 7 | 2 | 1.00 | 23.7 | 830 |

* Call for specifications on larger sizes and capacities



Lifting Beams
Adjustable Length Lifting Beams
with Swivel Hook bottoms

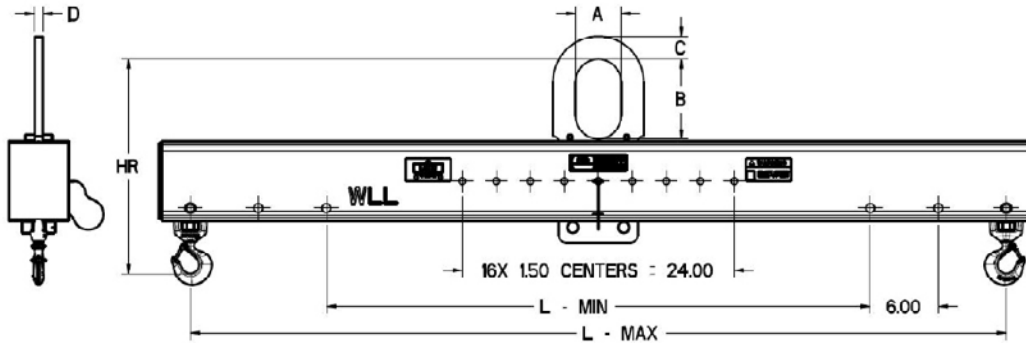
Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



Adjustable Length Lifting Beams with Swivel Hook bottoms

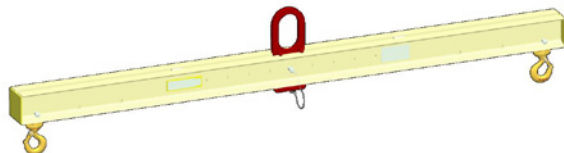
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
 - Quick and easy adjustment of unbalanced loads.
 - Ideally suited to low headroom applications.
 - Standard with hooks.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.



LIFT BEAMS

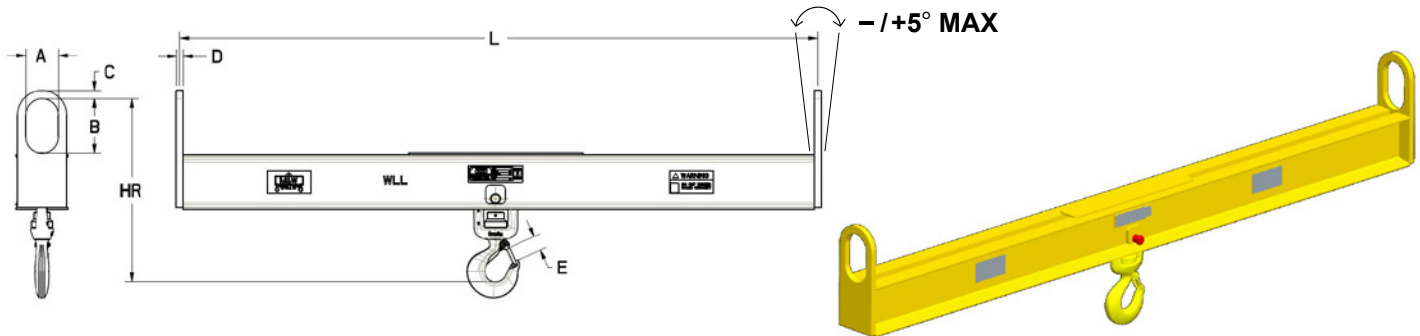
| Working Load Limit in Pounds* | Part Number | L min | L max | A | B | C | D | HR | Weight in Pounds |
|-------------------------------|--------------|-------|-------|---|---|------|------|------|------------------|
| 2,000 | 16410 | 48 | 72 | 3 | 5 | 0.75 | 0.63 | 13.8 | 85 |
| 2,000 | 16411 | 120 | 144 | 3 | 5 | 0.75 | 0.63 | 15.7 | 285 |
| 4,000 | 16412 | 48 | 72 | 3 | 5 | 1.5 | 0.63 | 14.6 | 135 |
| 4,000 | 16413 | 120 | 144 | 3 | 5 | 1.5 | 0.63 | 16.6 | 330 |
| 6,000 | 16414 | 48 | 72 | 3 | 5 | 1.5 | 0.63 | 16.2 | 160 |
| 6,000 | 16415 | 120 | 144 | 3 | 5 | 1.5 | 0.63 | 19.1 | 530 |
| 8,000 | 16416 | 48 | 72 | 4 | 7 | 2 | 0.75 | 18.9 | 200 |
| 8,000 | 16417 | 120 | 144 | 4 | 7 | 2 | 0.75 | 20.9 | 540 |
| 10,000 | 16418 | 48 | 72 | 4 | 7 | 2 | 0.75 | 21.2 | 300 |
| 10,000 | 16419 | 120 | 144 | 4 | 7 | 2 | 0.75 | 22.2 | 795 |
| 15,000 | 16420 | 48 | 72 | 4 | 7 | 2 | 1.00 | 22.1 | 315 |
| 15,000 | 16421 | 120 | 144 | 4 | 7 | 2 | 1.00 | 25.1 | 815 |

* Call for specifications on larger sizes and capacities



Twin Hoist Lifting Beams

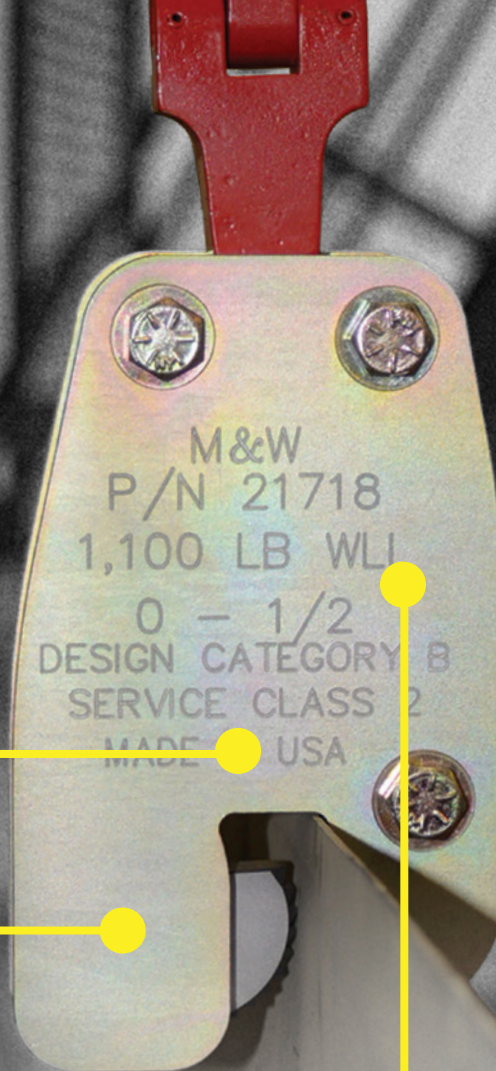
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.
- Quick and easy lifting of loads with two hoists. Lifting must be done within 5° of vertical.
- Ideally suited to low headroom applications.
- Alloy swivel hook bottom standard connection.



| Working Load Limit in Pounds* | Part number Headroom Weight | Spread in Feet - L | | | | | | | | A | B | C | D | E |
|-------------------------------|-----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----|-----|------|------|------|
| | | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | | | | | |
| 4,000 | Part number HR= Weight | 16427 15.10 140 | 16428 16.10 191 | 16429 16.10 260 | 16430 17.10 320 | 16431 18.10 560 | 16432 18.10 640 | 16433 19.10 765 | 16434 20.10 1,055 | 3.0 | 5.0 | 0.88 | 0.63 | 0.96 |
| 6,000 | Part number HR= Weight | 16435 16.50 150 | 16436 17.50 225 | 16437 18.50 265 | 16438 18.50 485 | 16439 19.50 600 | 16440 19.50 690 | 16441 20.50 960 | 16442 20.50 1,260 | 3.0 | 5.0 | 1.00 | 0.63 | 1.08 |
| 10,000 | Part number HR= Weight | 16443 22.31 300 | 16444 22.31 380 | 16445 22.31 470 | 16446 23.31 670 | 16447 23.31 920 | 16448 23.31 1,040 | 16449 25.31 1,005 | 16450 25.31 1,305 | 3.0 | 5.0 | 1.00 | 0.75 | 1.56 |
| 15,000 | Part number HR= Weight | 16451 25.75 310 | 16452 26.75 395 | 16453 26.75 580 | 16454 26.75 810 | 16455 28.75 950 | 16456 31.75 1,215 | 16457 31.75 1,575 | 16458 31.75 1,740 | 4.0 | 7.0 | 1.00 | 0.75 | 2.17 |
| 20,000 | Part number HR= Weight | 16459 27.53 370 | 16460 27.53 585 | 16461 29.53 725 | 16462 32.53 975 | 16463 32.53 1,565 | 16464 32.53 1,770 | | | 4.0 | 7.0 | 1.25 | 1.00 | 2.28 |

* Call for specifications on larger sizes and capacities

STRONG PLATE CLAMPS. BETTER PERFORMANCE.



DESIGN

EASY LOCK & RELEASE FUNCTIONALITY

With innovative lock & release capabilities, M&W plate clamps easily engage without hammers or other methods that compromise the integrity of the clamp.

LIGHT & VERSATILE

Only 9 pounds compared to 13 pounds with other clamps.

Easy to engage & use in more scenarios with less risk.



DURABILITY

NO WELDING

The non-welded construction of the M&W plate clamp allows for the use of stronger & more rigid materials than is possible with welded construction.

The clamp has been designed with a 5:1 design factor & each clamp is load tested before leaving the factory.

MADE FROM PREMIUM ALLOYS

The key to the durability & inherent safety of the M&W clamp is the metallurgical properties of the high quality alloy components.



SAFETY

NO REPLACEMENT PARTS

M&W eliminates the need to stock replacement parts & removes the potential risk and liability involved with rebuilding clamps.

NO MINIMUM LOAD REQUIREMENTS

The double gripping cam clamp design allows the clamp to lift something that is virtually weightless & as thin as a razor blade.

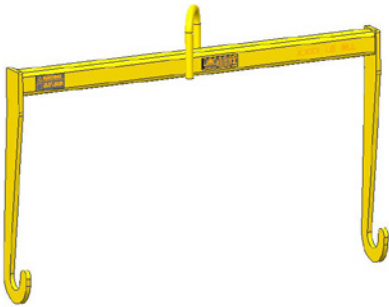
MADE IN THE USA

Plate clamps are built in-house to ensure consistency & safety during the assembly process.

Roll Lifting Beams

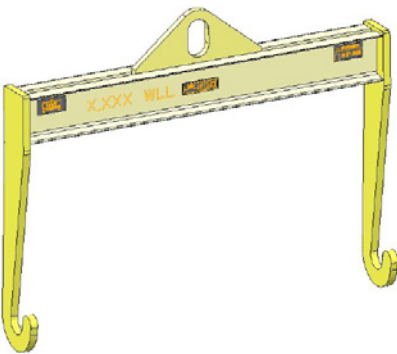
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Beams supplied standard with alloy swivel latch hook connections.

LIFT BEAMS



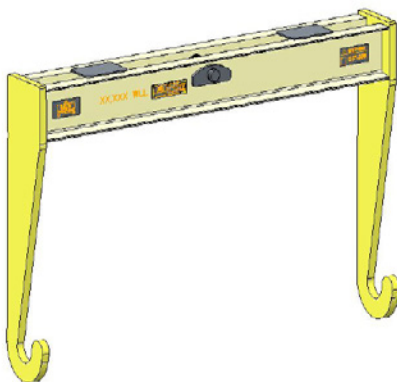
| Working Load Limit | Part Number | Max Roll Diameter | Max Arbor Diameter | Inside Length | Weight |
|--------------------|--------------|-------------------|--------------------|---------------|--------|
| 2,000 | 20715 | 36 | 3 | 50 | 75 |
| 2,000 | 20716 | 36 | 3 | 74 | 105 |
| 4,000 | 20717 | 36 | 3 | 50 | 115 |
| 4,000 | 20718 | 36 | 3 | 74 | 154 |

* Call for specifications on larger sizes and capacities



| Working Load Limit | Part Number | Max Roll Diameter | Max Arbor Diameter | Inside Length | Weight |
|--------------------|--------------|-------------------|--------------------|---------------|--------|
| 6,000 | 20721 | 36 | 3 | 50 | 200 |
| 6,000 | 20722 | 36 | 3 | 74 | 245 |
| 10,000 | 20719 | 36 | 3 | 50 | 370 |
| 10,000 | 20720 | 36 | 3 | 74 | 450 |

* Call for specifications on larger sizes and capacities



| Working Load Limit | Part Number | Max Roll Diameter | Max Arbor Diameter | Inside Length | Weight |
|--------------------|--------------|-------------------|--------------------|---------------|--------|
| 6,000 | 20756 | 36 | 3 | 50 | 205 |
| 6,000 | 20755 | 36 | 3 | 74 | 255 |
| 10,000 | 20754 | 36 | 3 | 50 | 360 |
| 10,000 | 20753 | 36 | 3 | 74 | 440 |

* Call for specifications on larger sizes and capacities

Adjustable Roll Lifting Beams

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
 - Quick and easy lifting and positioning of rolls.
 - Ideally suited to low headroom applications.
 - Custom hook lengths available - call for quote.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.

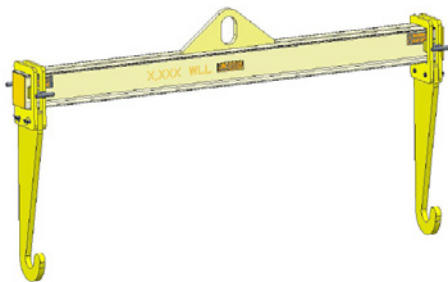


**RFID
TRACKING**
CHIP EQUIPPED



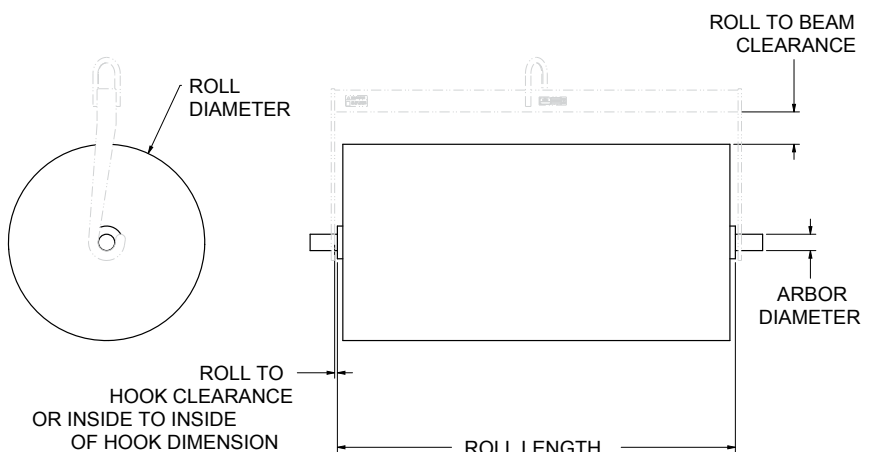
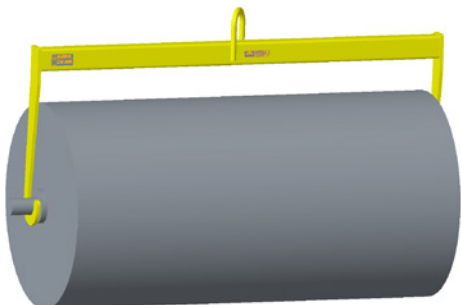
| Working Load Limit | Part Number | Max Roll Diameter | Max Arbor Diameter | Inside Length | Weight |
|--------------------|--------------|-------------------|--------------------|---------------|--------|
| 2,000 | 20784 | 36 | 3 | 22-76 | 130 |

* Call for specifications on larger sizes and capacities



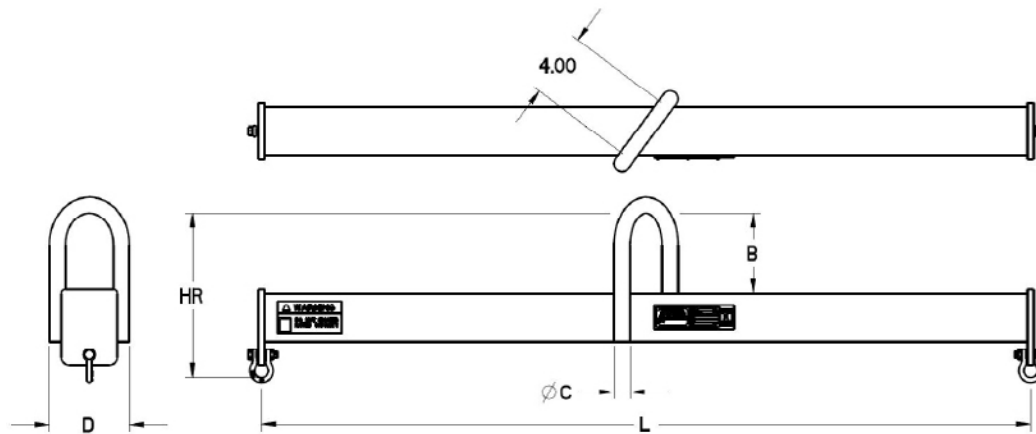
| Working Load Limit | Part Number | Max Roll Diameter | Max Arbor Diameter | Inside Length | Weight |
|--------------------|--------------|-------------------|--------------------|---------------|--------|
| 6,000 | 20785 | 36 | 3 | 22-76 | 200 |
| 10,000 | 20786 | 36 | 3 | 22-76 | 520 |

* Call for specifications on larger sizes and capacities



Economy (Fixed Length) Lifting Beams

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Beams supplied standard with shackle connections.
- Made in U.S.A.
- Custom designs available - call for engineering.
- ALL** lifting equipment individually proof loaded per OSHA requirements.



| Working Load Limit in Pounds* | Part number Headroom Weight | Spread in Inches - L | | | | | | | | | | C | B | D | Bottom Shackle Size |
|-------------------------------|--------------------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------|-----|-----|---------------------|
| | | 24 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 96 | 120 | | | | |
| 500 | Part number HR= Weight | 16561 10.25 17 | 12540 10.25 22 | 15028 10.25 25 | 11525 10.25 28 | 15031 10.25 30 | 15034 10.25 33 | 15037 10.25 36 | 11526 10.25 38 | 11527 10.25 49 | 11528 10.25 60 | 0.75 | 5.0 | 3.5 | 5/16" |
| 1,000 | Part number HR= Weight | 16140 10.25 27 | 12546 10.25 28 | 15040 10.25 30 | 11529 10.25 34 | 15043 10.25 36 | 15046 10.25 40 | 15049 10.25 43 | 11530 10.25 48 | 11531 10.25 63 | 11532 11.25 94 | 0.75 | 5.0 | 3.5 | 5/16" |
| 2,000 | Part number HR= Weight | 16124 10.25 26 | 15054 10.25 35 | 15057 10.25 39 | 11533 10.25 47 | 15060 11.25 57 | 15063 11.25 62 | 15066 11.25 67 | 11534 11.25 72 | 11535 13.25 124 | 11536 12.25 132 | 1.00 | 5.0 | 5.0 | 5/16" |
| 4,000 | Part number HR= Weight | 16381 11.51 32 | 15070 12.50 50 | 15073 12.50 54 | 11537 12.50 61 | 15076 13.50 75 | 15079 13.50 82 | 15082 13.50 89 | 11538 13.50 96 | 11539 13.50 124 | 11540 15.50 187 | 1.00 | 5.0 | 5.0 | 3/8" |
| 6,000 | Part number HR= Weight | 16382 14.77 48 | 14433 15.77 66 | 15085 15.77 73 | 14438 17.77 95 | 15092 17.77 104 | 15095 17.77 113 | 15098 17.77 122 | 14442 17.77 130 | 14445 17.77 227 | 14452 17.77 351 | 1.50 | 7.0 | 6.0 | 7/16" |

* Call for specifications on larger sizes and capacities



**STANDARD WITH
SHACKLES**



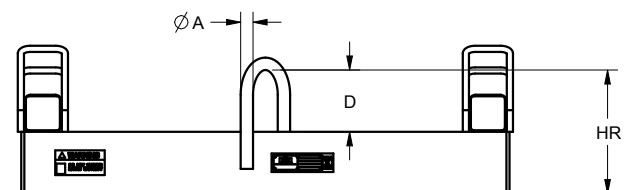
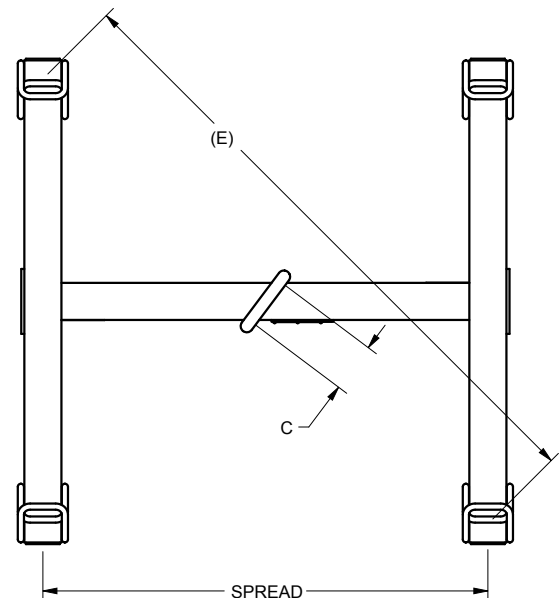
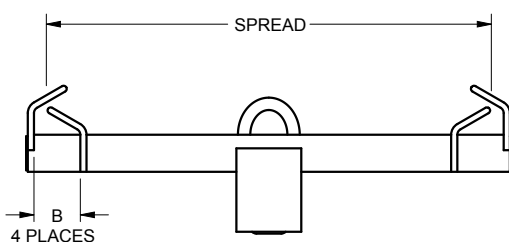
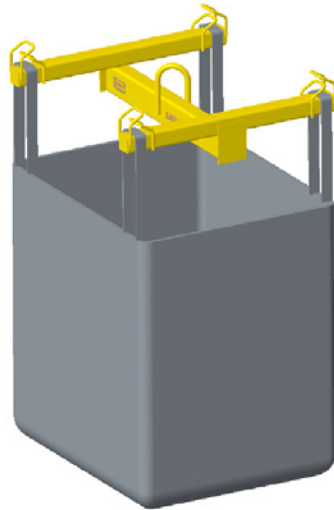
**SHOWN WITH
OPTIONAL HOOKS**

Bulk Container Lifting Beam

- Built to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** material handling equipment proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.

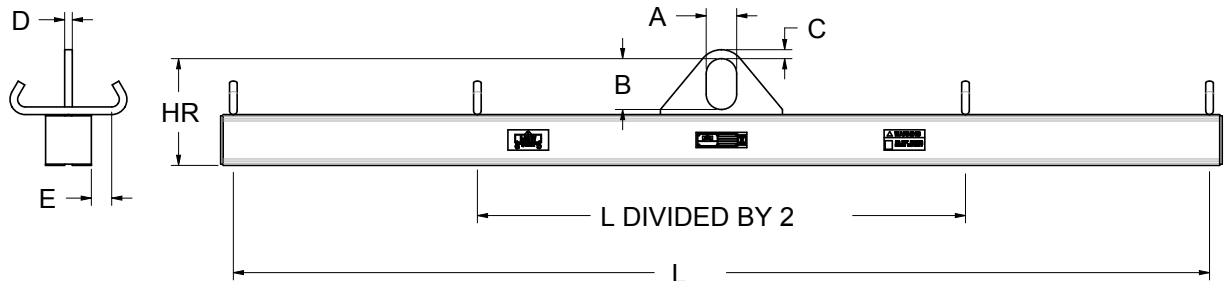
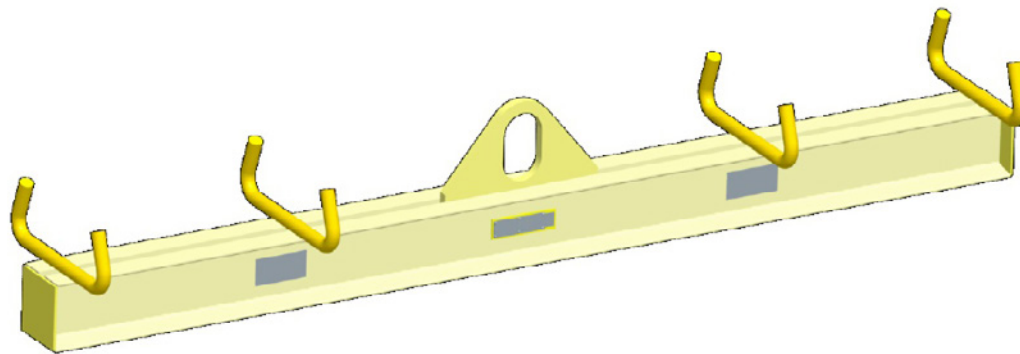
| Part Number* | SPREAD | A | B | C | D | E | HR | Weight | Working Load Limit in Pounds* |
|--------------|--------|-----|-----|-----|-----|------|------|--------|-------------------------------|
| 13325 | 36 | 1.0 | 3.0 | 4.0 | 5.0 | 50.9 | 10.0 | 120 | 4,000 |
| 13321 | 48 | 1.0 | 3.0 | 4.0 | 5.0 | 67.9 | 10.0 | 150 | 4,000 |

*Larger capacities and custom configurations available. Please call for ordering assistance.



Basket Lifting Beam

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.
- Designed to be used with lifting slings in a basket hitch
- Two sets of lifting sling hooks are standard
- Hooks designed for 2" eye width
- Custom configurations available - call for ordering assistance

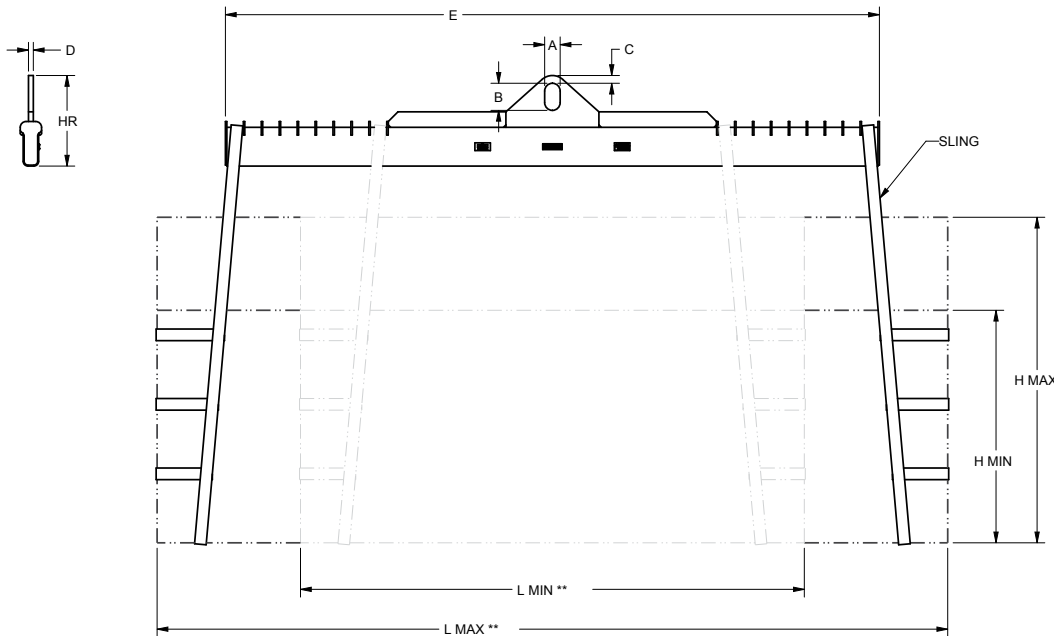


| Working Load Limit in Pounds* | Model Number Headroom (in) Weight (lbs) | Outside Spread (L) in Feet* | | | | | | | A (in) |
|-------------------------------|---|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|------------------|
| | | 4 | 6 | 8 | 10 | 12 | 14 | 16 | B (in) E (in) |
| 1,000 | Part Number | 17492 | 17493 | 17494 | 17495 | 17496 | 17497 | 17498 | 3.0 |
| | HR = | 9.50 | 9.50 | 9.50 | 9.50 | 9.50 | 9.50 | 10.50 | 5.0 |
| | LBS = | 65 | 80 | 100 | 120 | 205 | 235 | 315 | 2.0 |
| 2,000 | Part Number | 17499 | 17500 | 17501 | 17502 | 17503 | 17504 | 17505 | 3.0 |
| | HR = | 9.50 | 9.50 | 10.50 | 10.50 | 10.50 | 11.50 | 11.50 | 5.0 |
| | LBS = | 65 | 80 | 175 | 210 | 245 | 325 | 370 | 2.0 |
| 4,000 | Part Number | 17506 | 17507 | 17154 | 17508 | 17509 | 17510 | 17511 | 3.0 |
| | HR = | 10.50 | 10.50 | 11.50 | 11.50 | 12.50 | 13.50 | 13.50 | 5.0 |
| | LBS = | 110 | 150 | 210 | 310 | 340 | 580 | 660 | 2.0 |
| 10,000 | Part Number | 17512 | 17513 | 17514 | 17515 | 17516 | 17517 | 16574 | 3.0 |
| | HR = | 16.37 | 16.37 | 16.37 | 17.37 | 17.37 | 17.37 | 17.37 | 5.0 |
| | LBS = | 260 | 340 | 425 | 510 | 720 | 965 | 1,090 | 2.0 |

* Call for specifications on larger sizes and capacities

Lifting Beam Glass Panel

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.
- Used to lift wood cased glass or glass panels or similar material when used with proper slings



| Lift Beam - Glass Panels | | | | | | | | | | |
|--------------------------|-------------------------------|------------------------|------------------------|---|---|------|------|-----|----|--------|
| Part Number | Working Load Limit in Pounds* | Panel Length (L) Min** | Panel Length (L) Max** | A | B | C | D | E | HR | Weight |
| 22875 | 5,000 | 88 | 144 | 3 | 5 | 1.25 | 1 | 109 | 15 | 315 |
| 22876 | 10,000 | 130 | 204 | 4 | 7 | 2 | 1.25 | 169 | 24 | 795 |

** If used with slings below

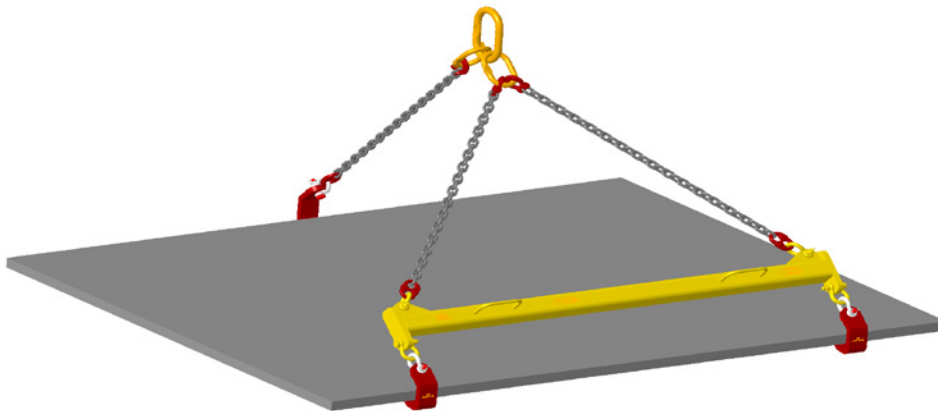
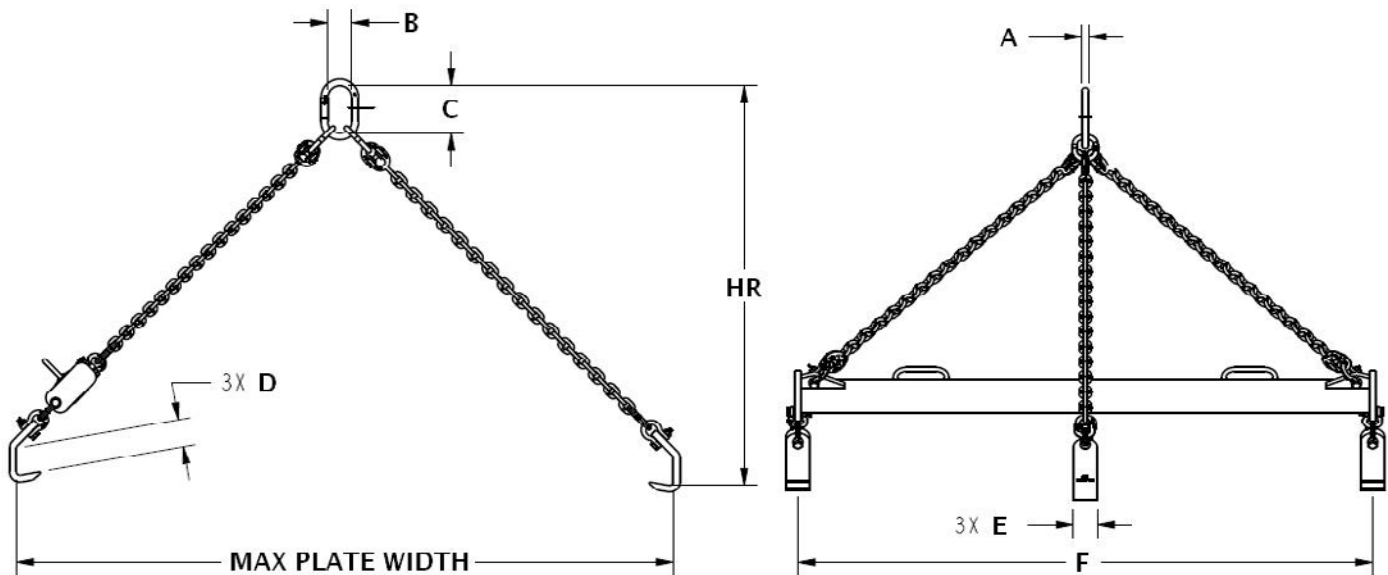
| Lifting Sling for Glass Panels - Sold As Each, 2 Needed To Lift | | | |
|--|-------------------------------|------------------------|------------------------|
| Part Number | Working Load Limit in Pounds* | Panel Height (H) Min** | Panel Height (H) Max** |
| 22877 | 6,000 | 36 | 54 |
| 22878 | 6,000 | 60 | 84 |
| 22879 | 6,000 | 72 | 100 |
| 22880 | 6,000 | 100 | 130 |

** 3" wide, PVC belting on entire inside to help prevent cutting, velcro straps prevent slings from shifting while not under load

Plate Lifting Beams

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.
- Max Plate Width : 96"

LIFT BEAMS



| Working Load Limit in Pounds* | Part Number | A | B | C | D | E | F | HR | Weight in Pounds |
|-------------------------------|--------------|------|------|------|------|------|----|----|------------------|
| 10,000 | 14633 | 0.82 | 3.00 | 6.00 | 3.00 | 2.75 | 84 | 57 | 140 |
| 20,000 | 14632 | 1.28 | 5.00 | 9.00 | 4.00 | 3.50 | 84 | 59 | 245 |

* Call for specifications on larger sizes and capacities

Lifting Beams Non-Conductive Battery Lifting Beam

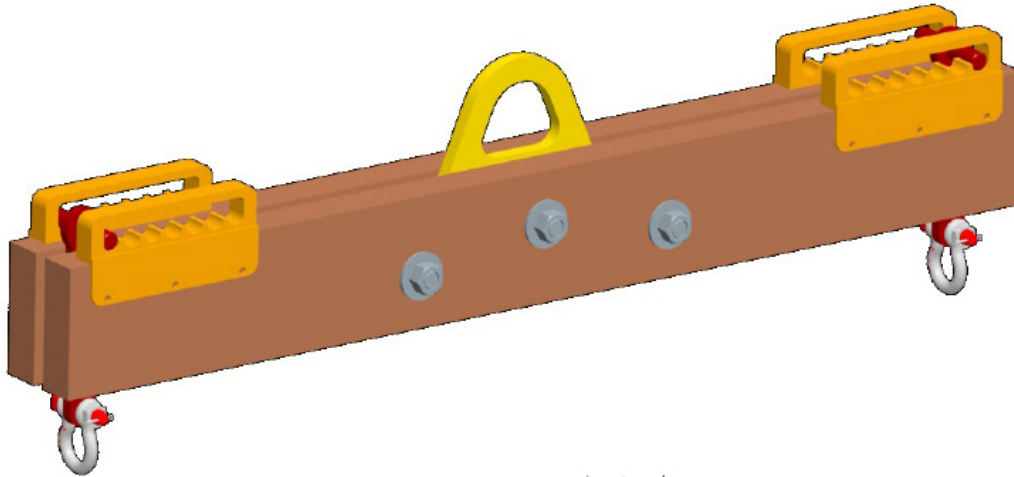
Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com

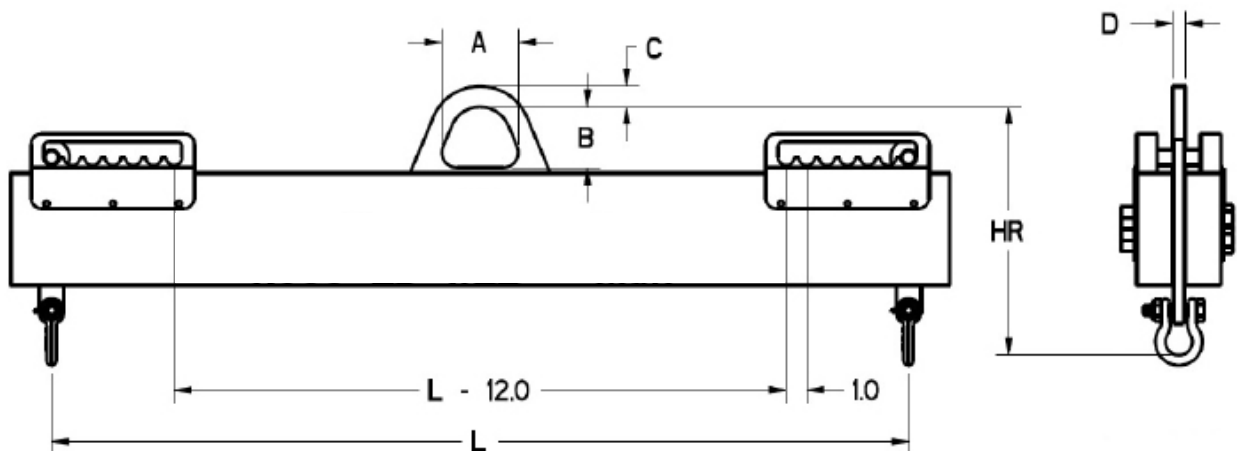


Non-Conductive Battery Lifting Beam

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow lift lug for increased visibility.
- **ALL** Lifting Beams proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
 - Quick and easy adjustment of unbalanced loads.
 - Ideally suited to handle large batteries
 - Natural spark proof insulation
 - Optional Hooks and Lug connections available - call for ordering assistance
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.



LIFT BEAMS

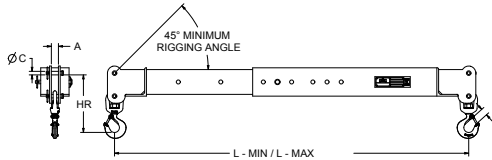


| Working Load Limit in Pounds* | Part Number | A | B | C | D | HR | L min | L max | Weights |
|-------------------------------|--------------|-----|-----|-----|------|-------|-------|-------|---------|
| 2,000 | 17441 | 3.8 | 3.0 | 1.0 | 0.63 | 10.15 | 18.0 | 30.0 | 55 LBS |
| 2,000 | 17442 | 3.8 | 3.0 | 1.0 | 0.63 | 10.15 | 30.0 | 42.0 | 65 |
| 4,000 | 17443 | 3.8 | 3.0 | 1.0 | 0.63 | 12.20 | 18.0 | 30.0 | 65 |
| 4,000 | 17171 | 3.8 | 3.0 | 1.0 | 0.63 | 12.20 | 30.0 | 42.0 | 75 |

* Call for specifications on larger sizes and capacities

Adjustable Spread Telescoping Beams

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL** Spreader Beams shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Standard with swivel latch hooks. Top rigging not included - please call for pricing
- Made in U.S.A.
- Custom designs available - call for engineering.
- Minimum horizontal top rigging angle of 45°.
- Ideally suited for adding stability to critical lifts.



**SHOWN WITH OPTIONAL
TOP RIGGING**

| Telescoping Adjustable Spreader Beams | | | | | | |
|---------------------------------------|---|-----------------------------|-----------------|-----------------|------------------|----------------------------|
| Working Load Limit in Pounds* | Model Number Headroom (in) Weight (lbs) | Outside Spread (L) in Feet* | | | | A (in) C (in) E (in) |
| | | Min 4 Max 6 | Min 6 Max 10 | Min 8 Max 14 | Min 12 Max 20 | |
| 4,000 | Part Number | 12805 | 12822 | 12813 | 12829 | 1.00 |
| | HR = | 5.37 | 5.12 | 5.12 | 5.12 | 0.50 |
| | LBS = | 80 | 120 | 155 | 235 | 0.89 |
| 10,000 | Part Number | 12834 | 12842 | 12848 | 12853 | 1.25 |
| | HR = | 6.53 | 6.28 | 6.28 | 6.28 | 0.75 |
| | LBS = | 130 | 190 | 250 | 365 | 1.08 |
| 20,000 | Part Number | 12864 | 12872 | 12880 | 12885 | 1.66 |
| | HR = | 7.63 | 7.63 | 7.63 | 7.63 | 1.00 |
| | LBS = | 185 | 265 | 345 | 505 | 1.31 |

*Minimum horizontal top rigging angle is 45° on all fixed and adjustable spreaders. M&W recommends a minimum horizontal top rigging angle of 60°. Adjustable on 1" increments.

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL Spreader Beams shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- ALL lifting equipment individually proof loaded per OSHA requirements.
- Minimum horizontal top rigging angle of 45°
- Ideally suited for adding stability to critical lifts.
- Beam only. Shackles supplied by others.



**SHOWN WITH
OPTIONAL
TOP RIGGING
& SHACKLES**

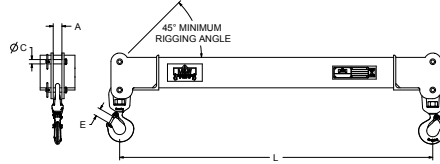
| Telescoping Adjustable Large Capacity Shackle End Spreader Beams | | | | | | |
|--|-----------------------------|---|-----------------------------|--------------|--------------|--------------|
| Working Load Limit in Pounds* | Shackle Size | Model Number Headroom (in) Weight (lbs) | Outside Spread (L) in Feet* | | | |
| | | | Min 5'6" Max 7' | Min 7 - 10 | Min 10 - 14 | Min 14 - 20 |
| 40,000 | 1-1/2" Top 1-1/2" Bottom | Part Number | 20127 | 20126 | 20125 | 20124 |
| | | HR = | 7.6 | 7.6 | 7.6 | 7.6 |
| | | LBS = | 350 | 410 | 560 | 760 |
| 60,000 | 1-3/4" Top 1-3/4" Bottom | Part Number | 20132 | 20131 | 20130 | 20129 |
| | | HR = | 7.1 | 7.1 | 7.1 | 7.1 |
| | | LBS = | 370 | 490 | 660 | 890 |
| 80,000 | 2" Top 2" Bottom | Part Number | 20137 | 20136 | 20135 | 20134 |
| | | HR = | 9.3 | 9.3 | 9.3 | 9.3 |
| | | LBS = | 575 | 700 | 950 | 1,250 |
| 100,000 | 2" Top 2" Bottom | Part Number | 20142 | 20141 | 20140 | 20139 |
| | | HR = | 9.3 | 9.3 | 9.3 | 9.3 |
| | | LBS = | 575 | 700 | 950 | 1,250 |

*Minimum horizontal top rigging angle is 45° on all fixed and adjustable spreaders. M&W recommends a minimum horizontal top rigging angle of 60°. Adjustable on 6" increments.

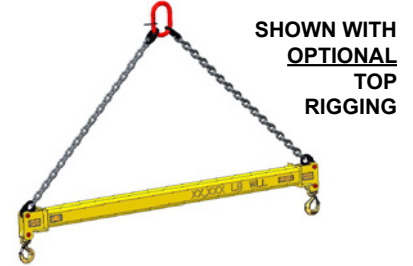


Fixed Spreader & Large Capacity Shackle End Spreader Beams

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL** Spreader Beams shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Standard with swivel latch hooks. Top rigging not included - please call for pricing
- Made in U.S.A.
- Top rigging available - call for details.



- Custom designs available - call for engineering.
- Minimum horizontal top rigging angle of 45°.
- Ideally suited for adding stability to critical lifts.



| Fixed Length Spreader Beam | | | | | | | | | |
|-------------------------------|---|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------------------|
| Working Load Limit in Pounds* | Model Number Headroom (in) Weight (lbs) | Outside Spread (L) in Feet* | | | | | | | A (in) C (in) E (in) |
| | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | |
| 4,000 | Part Number | 13094 | 13097 | 13100 | 13103 | 13106 | 13109 | 13112 | 1.00 |
| | HR = | 7.37 | 7.37 | 8.12 | 8.12 | 8.12 | 8.12 | 8.12 | 0.50 |
| | LBS = | 30 | 50 | 90 | 110 | 130 | 172 | 215 | .089 |
| 10,000 | Part Number | 13116 | 13119 | 13122 | 13125 | 13128 | 13131 | 13134 | 1.31 |
| | HR = | 8.23 | 8.98 | 8.98 | 8.98 | 9.98 | 9.98 | 9.98 | 0.75 |
| | LBS = | 36 | 87 | 112 | 140 | 190 | 250 | 306 | 1.08 |
| 20,000 | Part Number | 13138 | 13141 | 13144 | 13147 | 13150 | 13153 | 13156 | 1.66 |
| | HR = | 9.25 | 11.00 | 11.00 | 11.00 | 11.00 | 12.00 | 12.00 | 1.00 |
| | LBS = | 55 | 115 | 140 | 170 | 195 | 380 | 470 | 1.31 |

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL** Spreader Beams shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.

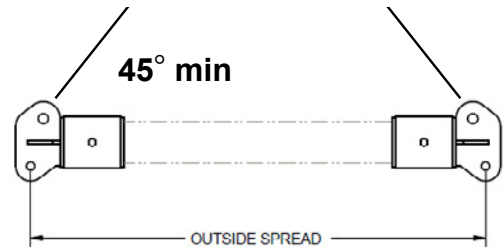
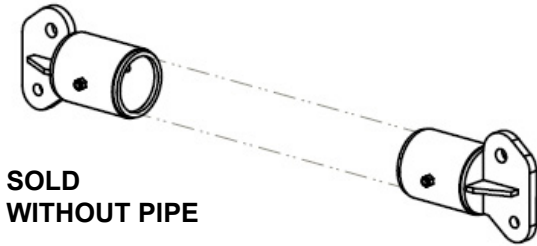
- Made in U.S.A..
- Custom designs available - call for engineering.
- ALL** lifting equipment individually proof loaded per OSHA requirements.
- Shackles and top rigging not included — please call for pricing



| Fixed Length Large Capacity Shackle End Spreader Beams | | | | | | | | |
|--|---|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Working Load Limit in Pounds* | Model Number Headroom (in) Weight (lbs) | Outside Spread (L) in Feet* | | | | | | |
| | | 4 | 6 | 8 | 10 | 12 | 16 | 20 |
| 40,000 | Part Number | 20165 | 20166 | 20167 | 20168 | 20169 | 20170 | 20171 |
| | HR = | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | LBS = | 210 | 275 | 330 | 385 | 440 | 550 | 660 |
| 60,000 | Part Number | 20172 | 20173 | 20174 | 20175 | 20176 | 20177 | 20178 |
| | HR = | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 |
| | LBS = | 255 | 315 | 385 | 450 | 510 | 635 | 770 |
| 80,000 | Part Number | 20179 | 20180 | 20181 | 20182 | 20183 | 20184 | 20185 |
| | HR = | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 |
| | LBS = | 390 | 475 | 550 | 615 | 715 | 875 | 1,050 |
| 100,000 | Part Number | 20186 | 20187 | 20188 | 20189 | 20190 | 20191 | 20192 |
| | HR = | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 | 9.8 |
| | LBS = | 390 | 475 | 550 | 615 | 715 | 875 | 1,050 |

*Minimum horizontal top rigging angle is 45° on all fixed and adjustable spreaders. M&W recommends a minimum horizontal top rigging angle of 60°.

Custom Spreader Beam End Cap Kits



| End Cap Part Number | Pipe Size | Top Shackle Min | Top Shackle Max | Bottom Shackle Min | Bottom Shackle Max | Weight per Pair |
|------------------------|--------------|-----------------------|-----------------------|--------------------------|--------------------------|--------------------|
| 19499 | 2-1/2" | 1/2" | 7/8" | 1/2" | 7/8" | 28 |
| 19500 | 5" | 3/4" | 1-1/4" | 3/4" | 1-1/4" | 50 |
| 19120 | 8" | 1" | 1-3/4" | 1" | 1-1/2" | 288 |

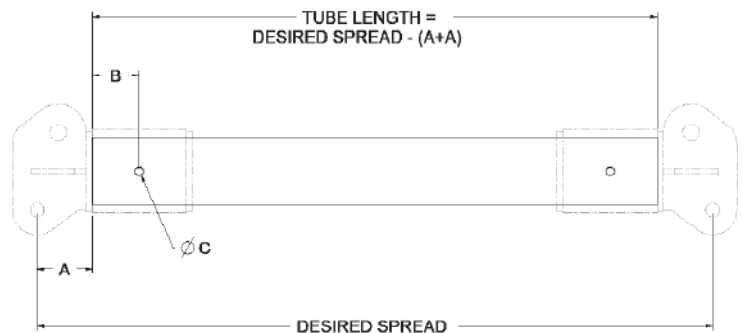


**PIPE CAN
BE SUPPLIED
BY M&W**

**CALL FOR
QUOTE**

* Pipe Sold Separately

| Part Number | A53 Grade B Schedule 40 | A | B | DIA C |
|----------------|----------------------------|------|---|-------|
| 19499 | 2 1/2" | 2.75 | 4 | 0.69 |
| 19500 | 5" | 3.25 | 4 | 0.69 |
| 19120 | 8" | 7 | 6 | 1.06 |



Ordering Information

End cap kits are sold in pairs for models 19499, 19500 and 19120. Each cap kit comes complete with retaining bolts, capacity tags, and individual proof load certifications. End cap kits are proof tested and serial numbered in pairs.

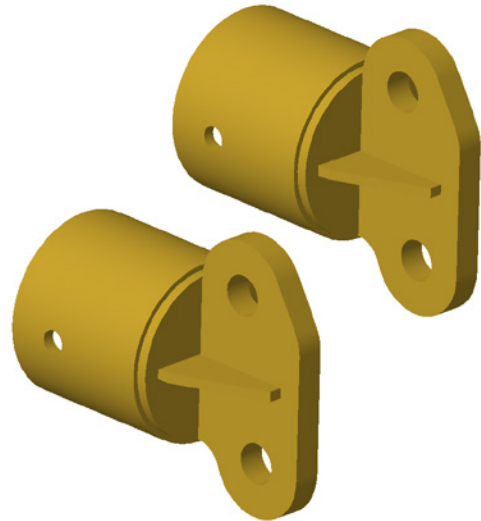
Complete spreader beams can be ordered from the chart above in standard lengths. For example, a 10' spreader beam with 39 tons Working Load Limit capacity would use the 19120 end cap kits and would be supplied assembled with the proper A53 Grade B, Schedule 40 pipe. The pipe would also be tagged and serial numbered. From the chart above, the user would order part number **19120-120**. Complete spreader beams are also shipped with individual proof load certification paperwork.

Custom Spreader Beam End Cap Kits

- Manufactured to exceed all ASME B30.20 and OSHA regulations when assembled to specifications using A53 Grade B Schedule 40 pipe.
- Painted safety yellow for increased visibility.
- **ALL** End Caps shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Top rigging available - call for details.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Minimum horizontal top rigging angle of 45° - M&W recommends a minimum angle of 60°.

| OUTSIDE SPREAD IN FEET / WLL in Pounds | | | | | | | | | | | | | | | | | | | | |
|--|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Part Number | Pipe Size | 4' | 5' | 6' | 8 | 10' | 12' | 14' | 15' | 16' | 18' | 20' | 22' | 24' | 26' | 28' | 30' | 32' | 34' | 36' |
| 19499 | 2 1/2" | 15,000 | 14,000 | 13,000 | 11,000 | 8,000 | 5,800 | 4,000 | 3,000 | | | | | | | | | | | |
| 19500 | 5" | 34,000 | 34,000 | 34,000 | 34,000 | 34,000 | 32,000 | 30,000 | 28,000 | 26,000 | 24,000 | 20,000 | 16,000 | 14,000 | 12,000 | 10,000 | 9,000 | | | |
| 19120 | 8" | 78,000 | 78,000 | 78,000 | 78,000 | 78,000 | 76,000 | 76,000 | 72,000 | 70,000 | 66,000 | 62,000 | 58,000 | 54,000 | 50,000 | 46,000 | 42,000 | 38,000 | 32,000 | 30,000 |

* Minimum horizontal top rigging angle is 45° on all fixed and adjustable spreaders. M&W recommends a minimum horizontal top rigging angle of 60°.



Technical Information

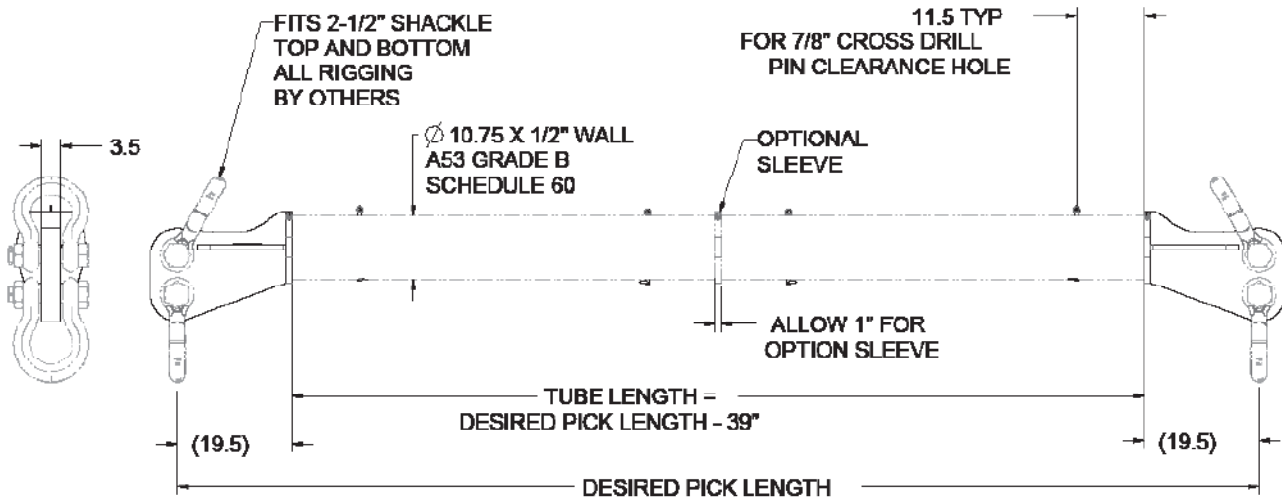
End cap kits are designed for use with A53 Grade B, Schedule 40 pipe between the end fittings and must have no weld joint irregularities. This steel pipe is widely available, and also available from M&W. The model 19499 uses a 2-1/2" nominal size pipe, the 19500 uses a 5" nominal size pipe and the 19120 uses an 8" nominal size pipe.

Lengths of pipe between end cap kits must be straight to within +/- 1/8" from each end, and ends of pipe should be cut squarely and cleanly from the centerline of the pipe. Lengths of pipe should be free from any factory defects, irregularities, or damage.

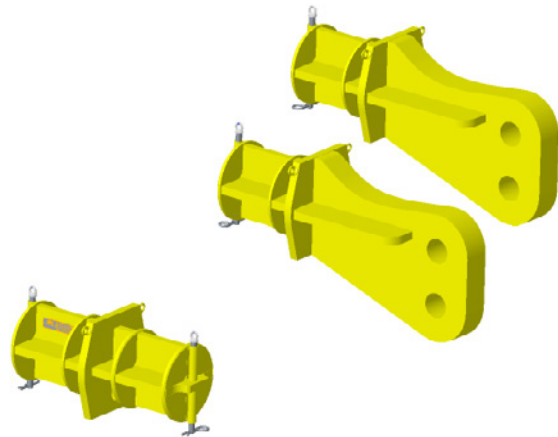
Each end of the length of pipe must have the correct diameter holes drilled through both ends and in proper alignment through both walls of the pipe. The model 19499 uses a Grade 8 hex head cap screw 5/8"-11 with a length of 4-1/2". The model 19500 uses a Grade 8 hex head cap screw 5/8"-11 with a length of 8". The model 19120 uses a Grade 8 hex head cap screw 1"-8 with a length of 11-1/2".

Custom Spreader Beam HD End Cap Kits

- Manufactured to exceed all ASME B30.20 and OSHA regulations when assembled to specifications using A53 Grade B Schedule 60 pipe.
- Painted safety yellow for increased visibility.
- ALL** End Caps shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Top rigging available - call for details.
- ALL** lifting equipment individually proof loaded per OSHA requirements.
- Minimum horizontal top rigging angle of 45° - M&W recommends a minimum angle of 60°.



OPTIONAL SLEEVE

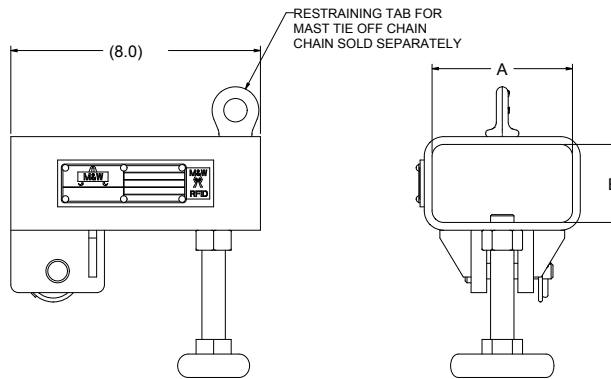


| OUTSIDE SPREAD IN FEET / WLL in Pounds ***45 OR 60 DEGREE TOP RIGGING | | | | | | | | | | |
|---|--------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Part Number | Weight | 6' | 8' | 10' | 15' | 20' | 25' | 30' | 35' | 40' |
| 22525 | 425 LBS each | 215,000 | 215,000 | 215,000 | 215,000 | 215,000 | 215,000 | 215,000 | 150,000 | 100,000 |

| Optional Sleeve | Weight |
|-----------------|---------|
| 22524 | 185 LBS |

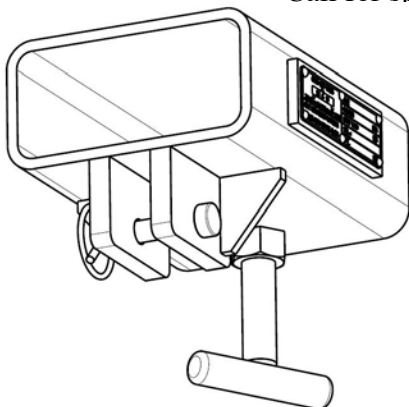
Forklift Pocket Lifters

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** forklift attachments proof loaded and shipped with certification paperwork.
- OSHA required tie-off chain: Part Number 12345
- Includes forklift restraining tabs.
- Made in U.S.A.
- Custom designs available - call for engineering.
- Check with manufacturer of your forklift for load capabilities.



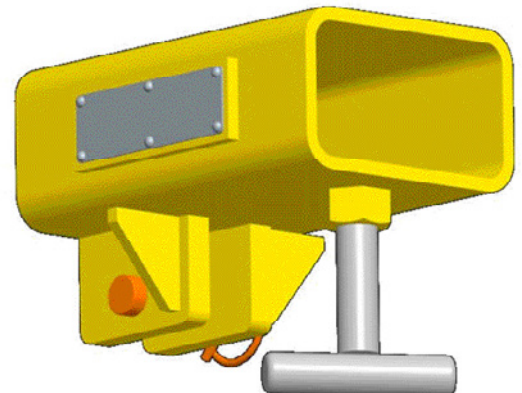
| Working Load Limit in Pounds* | Part Number | A | B | Fork Width | Weight |
|-------------------------------|--------------|-----|-----|------------|--------|
| 3,000 | 11606 | 4.5 | 2.5 | 4 | 12 |
| 3,000 | 11607 | 5.5 | 2.5 | 5 | 13 |
| 3,000 | 11608 | 6.5 | 2.5 | 6 | 14 |
| 3,000 | 15427 | 7.5 | 2.5 | 7 | 15 |
| 5,000 | 14259 | 4.5 | 2.5 | 4 | 16 |
| 5,000 | 14250 | 5.5 | 2.5 | 5 | 18 |
| 5,000 | 14262 | 6.5 | 2.5 | 6 | 20 |
| 7,000 | 15764 | 6.5 | 2.5 | 6 | 35 |
| 7,000 | 16642 | 7.5 | 3.5 | 7 | 40 |
| 7,000 | 16643 | 8.5 | 3.5 | 8 | 44 |

* Call for specifications on larger sizes and capacities



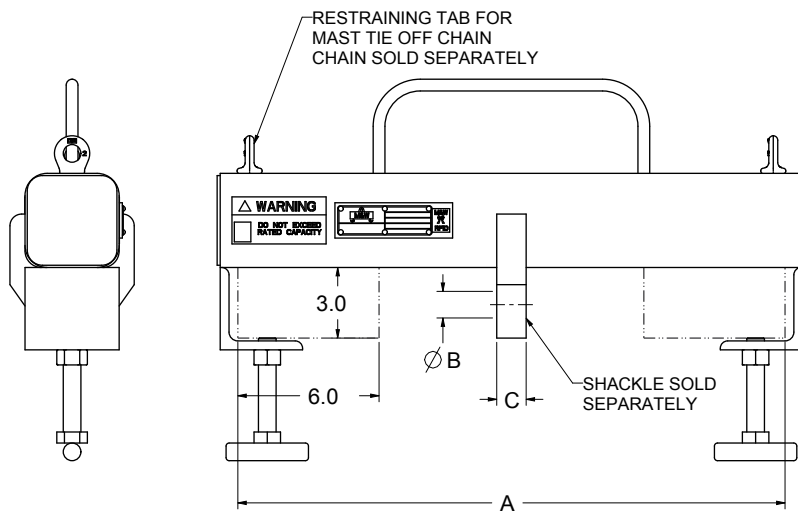
OPTIONAL MAST TIE OFF CHAIN:

| Part Number | |
|-------------|-------------------------------------|
| 20410 | Mast Tie Off Chain - 8' Long |



Forklift Lifting Beams - Inside Shackle Mount

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** forklift attachments proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Carrying handle for easy placement by personnel - **HANDLE NOT INTENDED FOR LIFTING LOADS.**
- Check with manufacturer of your forklift for load capabilities.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per **OSHA requirements.**
- Includes forklift restraining tabs.




**RFID
TRACKING**
CHIP EQUIPPED



| Working Load Limit in Pounds* | Part Number | A | B | C | Weight | Shackle Size |
|-------------------------------|--------------|-------|-------|------|--------|--------------|
| 5,000 | 11619 | 19.25 | 0.810 | 1.00 | 30 | 5/8" |
| 10,000 | 11620 | 23.25 | 1.130 | 1.25 | 50 | 7/8" |

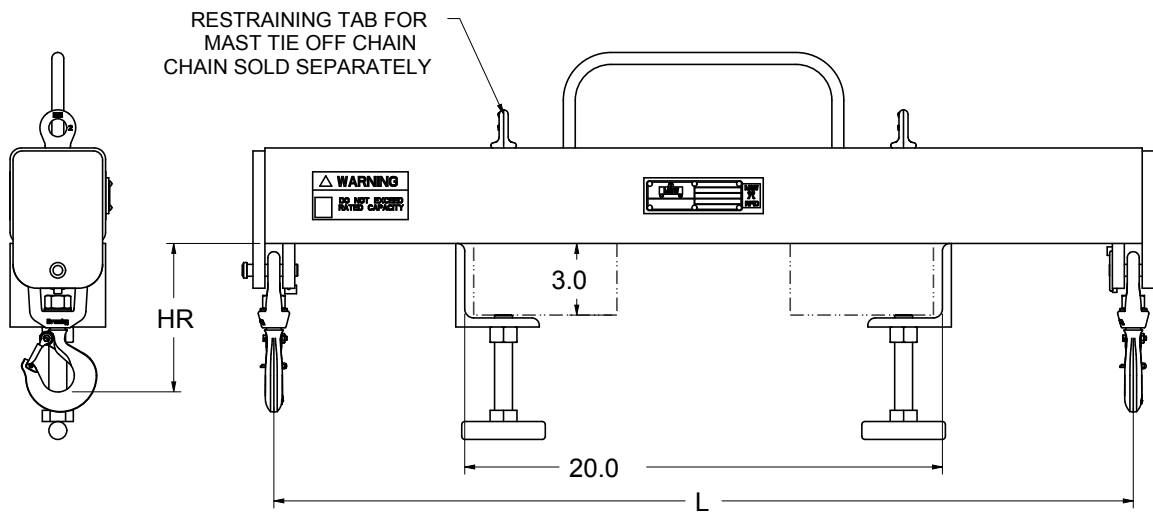
* Call for specifications on larger sizes and capacities

OPTIONAL MAST TIE OFF CHAIN:

| Part Number | |
|-------------|-------------------------------------|
| 20410 | Mast Tie Off Chain - 8' Long |

Forklift Lifting Beams - Outside Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** forklift attachments proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Check with manufacturer of your forklift for load capabilities.
- Made in U.S.A.
- Custom designs available - call for engineering.
- Includes forklift restraining tabs.
- Carrying handle for easy placement by personnel - **HANDLE NOT INTENDED FOR LIFTING LOADS.**



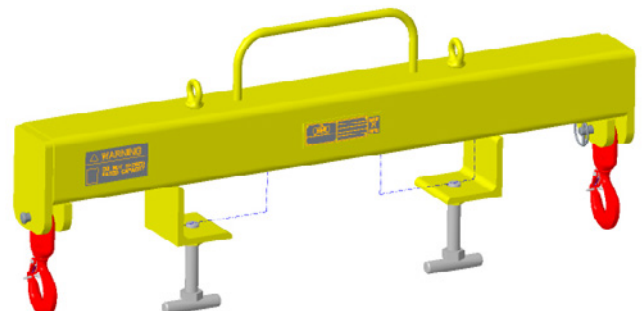
| Working Load Limit in Pounds* | Part Number | HR | L | Weight |
|-------------------------------|-------------|------|----|--------|
| 5,000 | 12343 | 6.2 | 36 | 49 |
| 10,000 | 12363 | 7.3 | 36 | 76 |
| 14,000 | 16523 | 8.8 | 36 | 90 |
| 22,000 | 16524 | 11.0 | 36 | 125 |

* Call for specifications on larger sizes and capacities



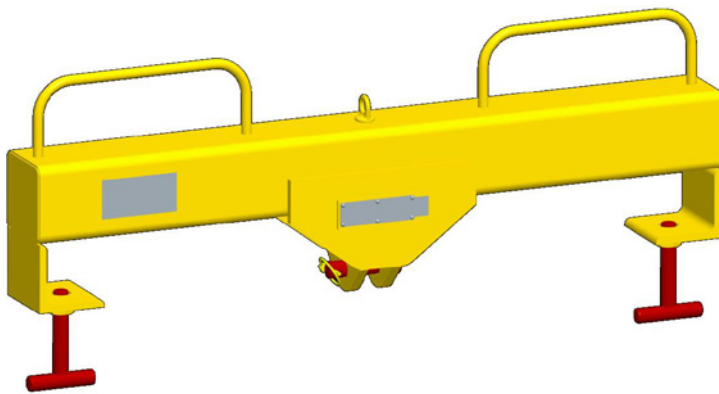
OPTIONAL MAST TIE OFF CHAIN:

| Part Number | |
|-------------|-------------------------------------|
| 20410 | Mast Tie Off Chain - 8' Long |



Forklift Lifting Beam - Inside Pin Mount

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** forklift attachments proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Carrying handles for easy placement by personnel - **HANDLE NOT INTENDED FOR LIFTING LOADS.**
- Check with manufacturer of your forklift for load capabilities.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **HOOK NOT INCLUDED.**
- Swivel Hook with bearing available for applications where the load needs to swivel while suspended.
- Includes forklift restraining tabs.

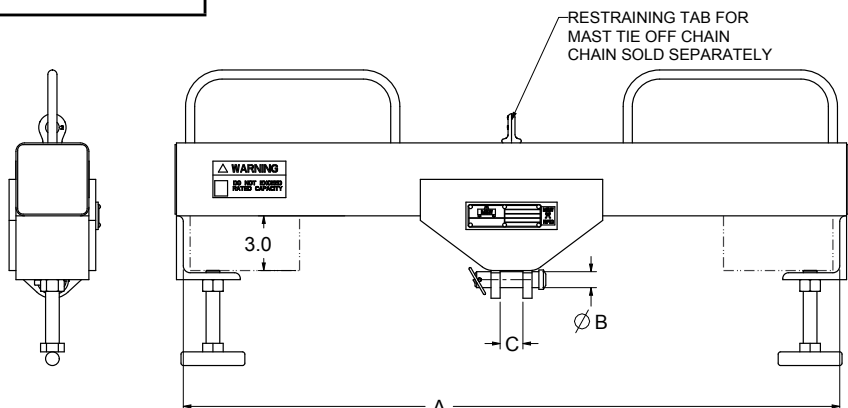


| Working Load Limit in Pounds* | Part Number | Weight in Pounds | A | B | C | | Swivel Hook part number | Swivel Hook with bearing part number |
|-------------------------------|--------------|------------------|----|------|------|--|-------------------------|--------------------------------------|
| 5,000 | 16337 | 56 | 36 | 0.88 | 1.25 | | 1048831 | 1028614 |
| 10,000 | 16336 | 75 | 36 | 1.13 | 1.75 | | 1048837 | 1028623 |
| 15,000 | 17000 | 135 | 48 | 1.38 | 2.25 | | 1048865 | 1028641 |
| 20,000 | 16338 | 156 | 36 | 1.50 | 2.25 | | 1048865 | 1028641 |

* Call for specifications on larger sizes and capacities

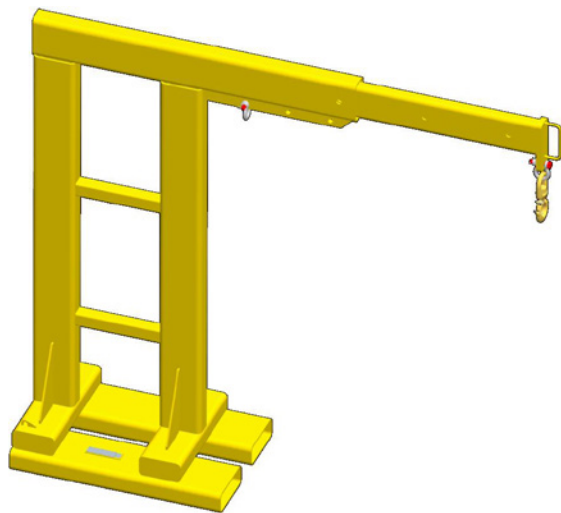
OPTIONAL MAST TIE OFF CHAIN:

| Part Number | |
|-------------|-------------------------------------|
| 20410 | Mast Tie Off Chain - 8' Long |



Forklift Lifting Beams - Adjustable Reach Over Boom

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** forklift attachments proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Check with manufacturer of your forklift for load capabilities. Made in U.S.A.
- Includes forklift restraining tabs.

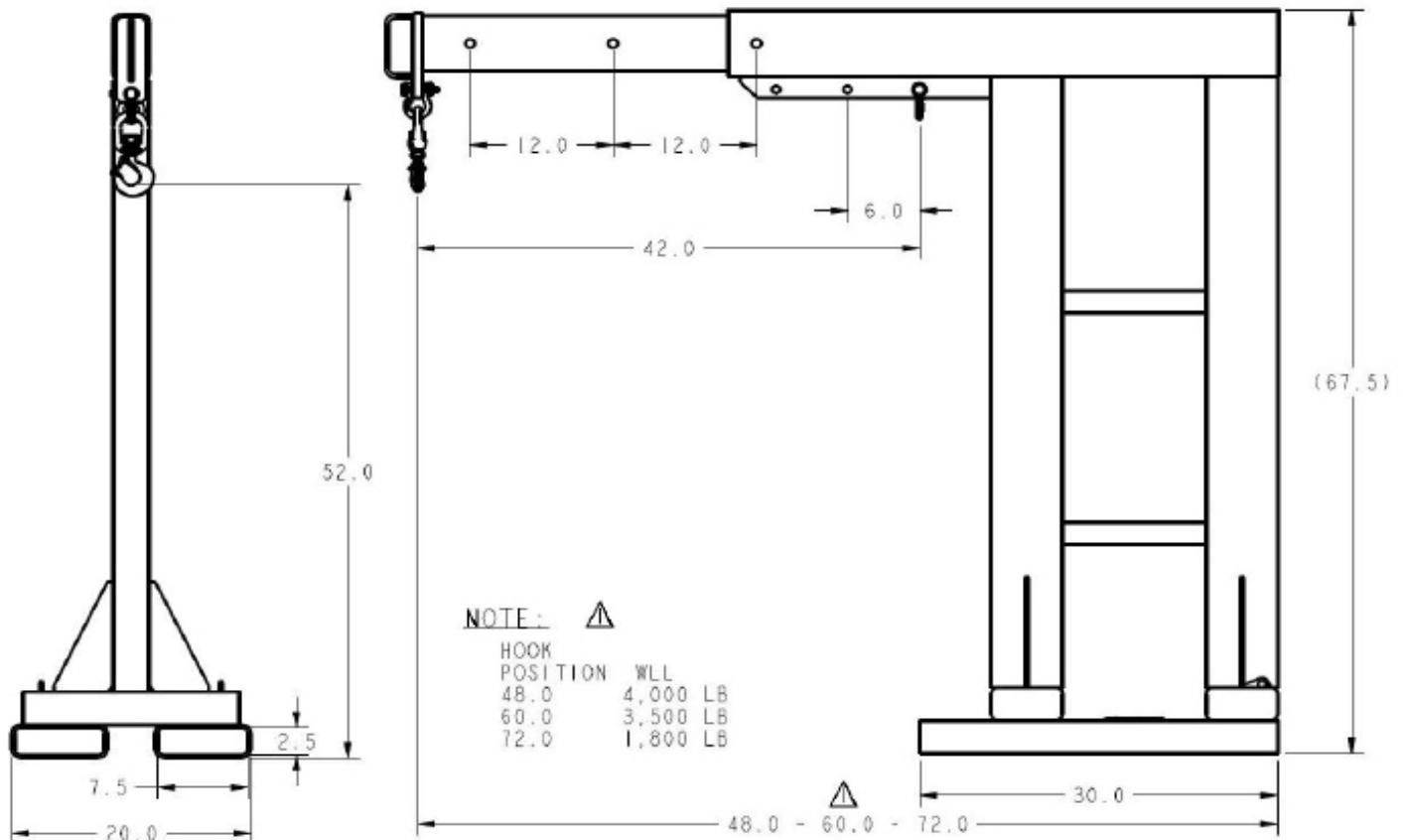


• Part Number 16055

- Converts forklift into aerial crane.
- Fork Width : 6"
- Adjustable boom spacing at 48", 60" and 72"
- Boom comes equipped with alloy swivel latching hook.
- Weighs 375 pounds.

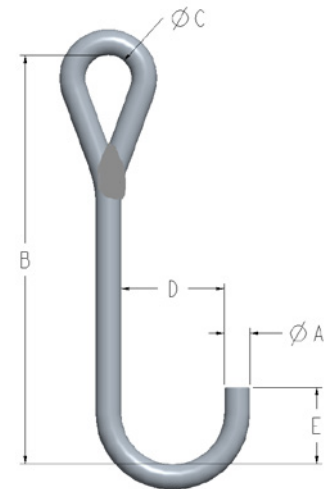
OPTIONAL MAST TIE OFF CHAIN:

| Part Number | |
|-------------|-------------------------------------|
| 20410 | Mast Tie Off Chain - 8' Long |



Lifting Hooks : Alloy Steel J-Hooks Eye Style A

- $\pm 4\%$ on dimensions.
- Custom designs available - call for engineering.
- **All eyes welded unless otherwise specified.**
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **Maximum use temperature is 400° F.**

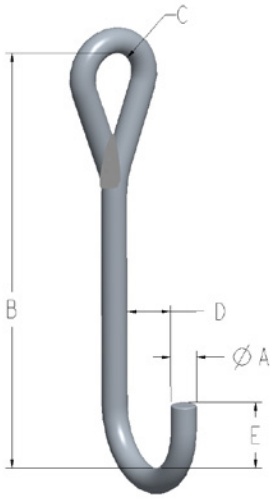


STYLE-A

| Material Diameter in Inches* | Part Number C = D = E = | Standard Alloy Style A Steel J-Hooks - B (length) | | | | | | | |
|------------------------------------|---|---|--|--|--|--|---|---|---|
| | | 5" | 6" | 7" | 8" | 9" | 10" | 12" | 14" |
| 1/4 WLL= 100 Pounds | Part Number C = D = E = | 11621-5 1.00 1.25 0.87 | 11621-6 1.00 1.25 0.87 | 11621-7 1.00 1.25 0.87 | 11621-8 1.00 1.25 0.87 | 11621-9 1.00 1.25 0.87 | 11621-10 1.00 1.25 0.87 | 11621-12 1.00 1.25 0.87 | 11621-14 1.00 1.25 0.87 |
| 5/16 WLL= 250 Pounds | Part Number C = D = E = | 11622-5 1.00 1.25 0.87 | 11622-6 1.00 1.25 0.87 | 11622-7 1.00 1.25 0.87 | 11622-8 1.00 1.25 0.87 | 11622-9 1.00 1.25 0.87 | 11622-10 1.00 1.25 0.87 | 11622-12 1.00 1.25 0.87 | 11622-14 1.00 1.25 0.87 |
| 3/8 WLL= 365 Pounds | Part Number C = D = E = | 11623-5 1.00 1.50 1.12 | 11623-6 1.00 1.50 1.12 | 11623-7 1.00 1.50 1.12 | 11623-8 1.00 1.50 1.12 | 11623-9 1.00 1.50 1.12 | 11623-10 1.00 1.50 1.12 | 11623-12 1.00 1.50 1.12 | 11623-14 1.00 1.50 1.12 |
| 1/2 WLL= 650 Pounds | Part Number C = D = E = | 11624-5 1.00 2.00 1.50 | 11624-6 1.00 2.00 1.50 | 11624-7 1.00 2.00 1.50 | 11624-8 1.00 2.00 1.50 | 11624-9 1.00 2.00 1.50 | 11624-10 1.00 2.00 1.50 | 11624-12 1.00 2.00 1.50 | 11624-14 1.00 2.00 1.50 |
| 5/8 WLL= 1,000 Pounds | Part Number C = D = E = | 11625-5 1.00 2.50 1.87 | 11625-6 1.00 2.50 1.87 | 11625-7 1.00 2.50 1.87 | 11625-8 1.00 2.50 1.87 | 11625-9 1.00 2.50 1.87 | 11625-10 1.00 2.50 1.87 | 11625-12 1.00 2.50 1.87 | 11625-14 1.00 2.50 1.87 |
| 3/4 WLL= 1,450 Pounds | Part Number C = D = E = | | 11626-6 1.00 3.00 2.25 | 11626-7 1.00 3.00 2.25 | 11626-8 1.00 3.00 2.25 | 11626-9 1.00 3.00 2.25 | 11626-10 1.00 3.00 2.25 | 11626-12 1.00 3.00 2.25 | 11626-14 1.00 3.00 2.25 |
| 7/8 WLL= 1,900 Pounds | Part Number C = D = E = | | | | 11627-8 1.00 3.50 2.62 | 11627-9 1.00 3.50 2.62 | 11627-10 1.00 3.50 2.62 | 11627-12 1.00 3.50 2.62 | 11627-14 1.00 3.50 2.62 |
| 1" WLL= 2,600 Pounds | Part Number C = D = E = | | | | | | 11628-10 1.25 4.00 3.00 | 11628-12 1.25 4.00 3.00 | 11628-14 1.25 4.00 3.00 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

Lifting Hooks : Alloy Steel J-Hooks Eye Style B



- $\pm 4\%$ on dimensions.
- Custom designs available - call for engineering.
- All eyes welded unless otherwise specified.
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **Maximum use temperature is 400° F.**

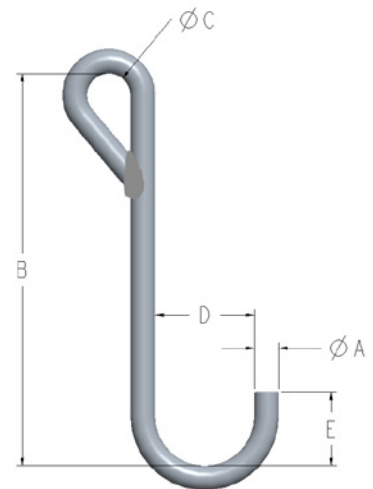
STYLE-B

| Material Diameter in Inches* | Part Number C = D = E = | Standard Alloy Style B Steel J-Hooks - B (length) | | | | | | |
|------------------------------------|---|---|--|--|--|---|---|---|
| | | 6" | 7" | 8" | 9" | 10" | 12" | 14" |
| 1/4 WLL= 100 Pounds | Part Number C = D = E = | 11637-6 1.00 1.25 0.87 | 11637-7 1.00 1.25 0.87 | 11637-8 1.00 1.25 0.87 | 11637-9 1.00 1.25 0.87 | 11637-10 1.00 1.25 0.87 | 11637-12 1.00 1.25 0.87 | 11637-14 1.00 1.25 0.87 |
| 5/16 WLL= 250 Pounds | Part Number C = D = E = | 11638-6 1.00 1.25 0.87 | 11638-7 1.00 1.25 0.87 | 11638-8 1.00 1.25 0.87 | 11638-9 1.00 1.25 0.87 | 11638-10 1.00 1.25 0.87 | 11638-12 1.00 1.25 0.87 | 11638-14 1.00 1.25 0.87 |
| 3/8 WLL= 365 Pounds | Part Number C = D = E = | 11639-6 1.00 1.50 1.12 | 11639-7 1.00 1.50 1.12 | 11639-8 1.00 1.50 1.12 | 11639-9 1.00 1.50 1.12 | 11639-10 1.00 1.50 1.12 | 11639-12 1.00 1.50 1.12 | 11639-14 1.00 1.50 1.12 |
| 1/2 WLL= 650 Pounds | Part Number C = D = E = | 11640-6 1.00 2.00 1.50 | 11640-7 1.00 2.00 1.50 | 11640-8 1.00 2.00 1.50 | 11640-9 1.00 2.00 1.50 | 11640-10 1.00 2.00 1.50 | 11640-12 1.00 2.00 1.50 | 11640-14 1.00 2.00 1.50 |
| 5/8 WLL= 1,000 Pounds | Part Number C = D = E = | 11641-6 1.00 2.50 1.87 | 11641-7 1.00 2.50 1.87 | 11641-8 1.00 2.50 1.87 | 11641-9 1.00 2.50 1.87 | 11641-10 1.00 2.50 1.87 | 11641-12 1.00 2.50 1.87 | 11641-14 1.00 2.50 1.87 |
| 3/4 WLL= 1,450 Pounds | Part Number C = D = E = | 11642-6 1.00 3.00 2.25 | 11642-7 1.00 3.00 2.25 | 11642-8 1.00 3.00 2.25 | 11642-9 1.00 3.00 2.25 | 11642-10 1.00 3.00 2.25 | 11642-12 1.00 3.00 2.25 | 11642-14 1.00 3.00 2.25 |
| 7/8 WLL= 1,900 Pounds | Part Number C = D = E = | | | 11643-8 1.00 3.50 2.62 | 11643-9 1.00 3.50 2.62 | 11643-10 1.00 3.50 2.62 | 11643-12 1.00 3.50 2.62 | 11643-14 1.00 3.50 2.62 |
| 1" WLL= 2,600 Pounds | Part Number C = D = E = | | | | | 11644-10 1.25 4.00 3.00 | 11644-12 1.25 4.00 3.00 | 11644-14 1.25 4.00 3.00 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

Lifting Hooks : Alloy Steel J-Hooks Eye Style C

- $\pm 4\%$ on dimensions.
- Custom designs available - call for engineering.
- All eyes welded unless otherwise specified.
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **Maximum use temperature is 400° F.**



STYLE-C

| Material Diameter in Inches* | Part Number C = D = E = | Standard Alloy Style C Steel J-Hooks - B (length) | | | | | | | |
|--------------------------------|---|---|--|--|--|--|---|---|---|
| | | 5" | 6" | 7" | 8" | 9" | 10" | 12" | 14" |
| 1/4 WLL= 100 Pounds | Part Number C = D = E = | 11653-5 1.00 1.25 0.87 | 11653-6 1.00 1.25 0.87 | 11653-7 1.00 1.25 0.87 | 11653-8 1.00 1.25 0.87 | 11653-9 1.00 1.25 0.87 | 11653-10 1.00 1.25 0.87 | 11653-12 1.00 1.25 0.87 | 11653-14 1.00 1.25 0.87 |
| 5/16 WLL= 250 Pounds | Part Number C = D = E = | 11654-5 1.00 1.25 0.87 | 11654-6 1.00 1.25 0.87 | 11654-7 1.00 1.25 0.87 | 11654-8 1.00 1.25 0.87 | 11654-9 1.00 1.25 0.87 | 11654-10 1.00 1.25 0.87 | 11654-12 1.00 1.25 0.87 | 11654-14 1.00 1.25 0.87 |
| 3/8 WLL= 365 Pounds | Part Number C = D = E = | 11655-5 1.00 1.50 1.12 | 11655-6 1.00 1.50 1.12 | 11655-7 1.00 1.50 1.12 | 11655-8 1.00 1.50 1.12 | 11655-9 1.00 1.50 1.12 | 11655-10 1.00 1.50 1.12 | 11655-12 1.00 1.50 1.12 | 11655-14 1.00 1.50 1.12 |
| 1/2 WLL= 650 Pounds | Part Number C = D = E = | 11656-5 1.00 2.00 1.50 | 11656-6 1.00 2.00 1.50 | 11656-7 1.00 2.00 1.50 | 11656-8 1.00 2.00 1.50 | 11656-9 1.00 2.00 1.50 | 11656-10 1.00 2.00 1.50 | 11656-12 1.00 2.00 1.50 | 11656-14 1.00 2.00 1.50 |
| 5/8 WLL= 1,000 Pounds | Part Number C = D = E = | 11657-5 1.00 2.50 1.87 | 11657-6 1.00 2.50 1.87 | 11657-7 1.00 2.50 1.87 | 11657-8 1.00 2.50 1.87 | 11657-9 1.00 2.50 1.87 | 11657-10 1.00 2.50 1.87 | 11657-12 1.00 2.50 1.87 | 11657-14 1.00 2.50 1.87 |
| 3/4 WLL= 1,450 Pounds | Part Number C = D = E = | | 11658-6 1.00 3.00 2.25 | 11658-7 1.00 3.00 2.25 | 11658-8 1.00 3.00 2.25 | 11658-9 1.00 3.00 2.25 | 11658-10 1.00 3.00 2.25 | 11658-12 1.00 3.00 2.25 | 11658-14 1.00 3.00 2.25 |
| 7/8 WLL= 1,900 Pounds | Part Number C = D = E = | | | | 11659-8 1.00 3.50 2.62 | 11659-9 1.00 3.50 2.62 | 11659-10 1.00 3.50 2.62 | 11659-12 1.00 3.50 2.62 | 11659-14 1.00 3.50 2.62 |
| 1" WLL= 2,600 Pounds | Part Number C = D = E = | | | | | | 11660-10 1.25 4.00 3.00 | 11660-12 1.25 4.00 3.00 | 11660-14 1.25 4.00 3.00 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

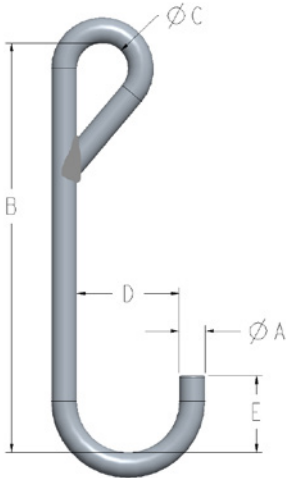
Lifting Hooks
Alloy Steel J-Hooks
Eye Style 9

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



Lifting Hooks : Alloy Steel J-Hooks Eye Style 9



- $\pm 4\%$ on dimensions.
- Custom designs available - call for engineering.
- **All eyes welded unless otherwise specified.**
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **Maximum use temperature is 400° F.**

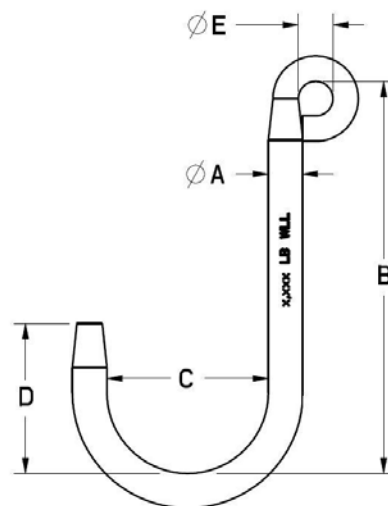
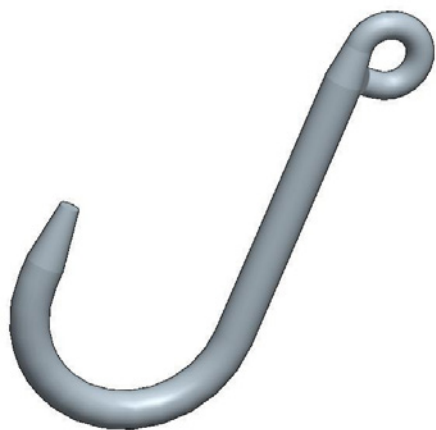
STYLE-9

| Material Diameter in Inches* | Part Number C = D = E = | Standard Alloy Style 9 Steel J-Hooks - B (length) | | | | | | | |
|------------------------------------|---|---|--|--|--|--|---|---|---|
| | | 5" | 6" | 7" | 8" | 9" | 10" | 12" | 14" |
| 1/4 WLL= 100 Pounds | Part Number C = D = E = | 19475-5 1.00 1.25 0.87 | 19475-6 1.00 1.25 0.87 | 19475-7 1.00 1.25 0.87 | 19475-8 1.00 1.25 0.87 | 19475-9 1.00 1.25 0.87 | 19475-10 1.00 1.25 0.87 | 19475-12 1.00 1.25 0.87 | 19475-14 1.00 1.25 0.87 |
| 5/16 WLL= 250 Pounds | Part Number C = D = E = | 19476-5 1.00 1.25 0.87 | 19476-6 1.00 1.25 0.87 | 19476-7 1.00 1.25 0.87 | 19476-8 1.00 1.25 0.87 | 19476-9 1.00 1.25 0.87 | 19476-10 1.00 1.25 0.87 | 19476-12 1.00 1.25 0.87 | 19476-14 1.00 1.25 0.87 |
| 3/8 WLL= 365 Pounds | Part Number C = D = E = | 19477-5 1.00 1.50 1.12 | 19477-6 1.00 1.50 1.12 | 19477-7 1.00 1.50 1.12 | 19477-8 1.00 1.50 1.12 | 19477-9 1.00 1.50 1.12 | 19477-10 1.00 1.50 1.12 | 19477-12 1.00 1.50 1.12 | 19477-14 1.00 1.50 1.12 |
| 1/2 WLL= 650 Pounds | Part Number C = D = E = | 19478-5 1.00 2.00 1.50 | 19478-6 1.00 2.00 1.50 | 19478-7 1.00 2.00 1.50 | 19478-8 1.00 2.00 1.50 | 19478-9 1.00 2.00 1.50 | 19478-10 1.00 2.00 1.50 | 19478-12 1.00 2.00 1.50 | 19478-14 1.00 2.00 1.50 |
| 5/8 WLL= 1,000 Pounds | Part Number C = D = E = | 19479-5 1.00 2.50 1.87 | 19479-6 1.00 2.50 1.87 | 19479-7 1.00 2.50 1.87 | 19479-8 1.00 2.50 1.87 | 19479-9 1.00 2.50 1.87 | 19479-10 1.00 2.50 1.87 | 19479-12 1.00 2.50 1.87 | 19479-14 1.00 2.50 1.87 |
| 3/4 WLL= 1,450 Pounds | Part Number C = D = E = | | 19480-6 1.00 3.00 2.25 | 19480-7 1.00 3.00 2.25 | 19480-8 1.00 3.00 2.25 | 19480-9 1.00 3.00 2.25 | 19480-10 1.00 3.00 2.25 | 19480-12 1.00 3.00 2.25 | 19480-14 1.00 3.00 2.25 |
| 7/8 WLL= 1,900 Pounds | Part Number C = D = E = | | | | 19481-8 1.00 3.50 2.62 | 19481-9 1.00 3.50 2.62 | 19481-10 1.00 3.50 2.62 | 19481-12 1.00 3.50 2.62 | 19481-14 1.00 3.50 2.62 |
| 1" WLL= 2,600 Pounds | Part Number C = D = E = | | | | | | 19482-10 1.25 4.00 3.00 | 19482-12 1.25 4.00 3.00 | 19482-14 1.25 4.00 3.00 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

Lifting Hooks : Alloy Steel Foundry Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Tapered tip.
- Available in long and short reach.
- **Maximum use temperature is 400° F.**
- ±4% on dimensions.
- Custom designs available - call for engineering.
- All eyes welded unless otherwise specified.



| Material Diameter in Inches* | Part Number | Long Reach Foundry Hooks | | | | | Working Load Limit in Pounds* |
|------------------------------|--------------|--------------------------|------|------|------|------|-------------------------------|
| | | A | B | C | D | E | |
| 1/2 | 14601 | 0.50 | 6.00 | 2.50 | 2.31 | 0.75 | 500 |
| 5/8 | 14602 | 0.62 | 8.50 | 3.50 | 3.38 | 0.75 | 800 |
| 3/4 | 14603 | 0.75 | 8.50 | 3.50 | 3.38 | 0.75 | 1,250 |
| 13/16 | 14604 | 0.81 | 8.50 | 3.50 | 3.25 | 0.88 | 1,600 |
| 1 | 14605 | 1.00 | 8.50 | 4.00 | 3.75 | 1.00 | 2,500 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

| Material Diameter in Inches* | Part Number | Short Reach Foundry Hooks | | | | | Working Load Limit in Pounds* |
|------------------------------|--------------|---------------------------|------|------|------|------|-------------------------------|
| | | A | B | C | D | E | |
| 1/2 | 14782 | 0.50 | 6.00 | 3.00 | 3.00 | 0.75 | 450 |
| 5/8 | 14783 | 0.62 | 6.00 | 3.00 | 3.00 | 0.75 | 900 |
| 3/4 | 14784 | 0.75 | 6.00 | 3.00 | 3.00 | 0.75 | 1,400 |
| 13/16 | 14785 | 0.81 | 6.00 | 3.00 | 3.00 | 0.88 | 2,000 |
| 1 | 14786 | 1.00 | 6.00 | 3.00 | 3.00 | 1.00 | 3,000 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

Lifting Hooks
Alloy Steel Latching J-Hooks
Eye Style A

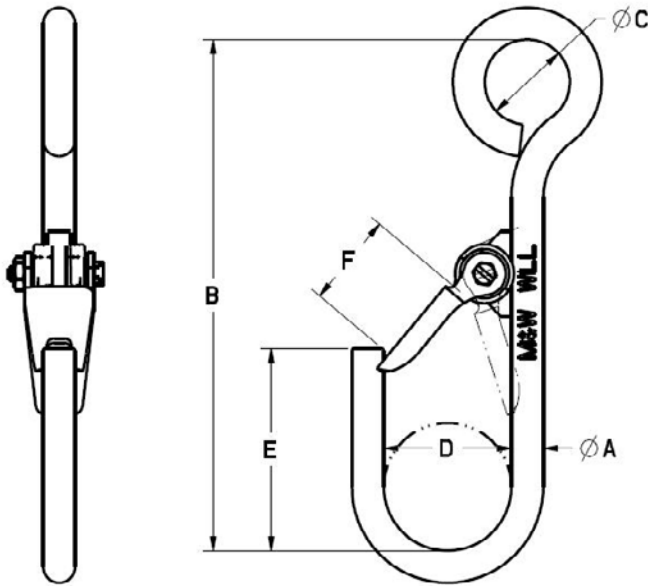
Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



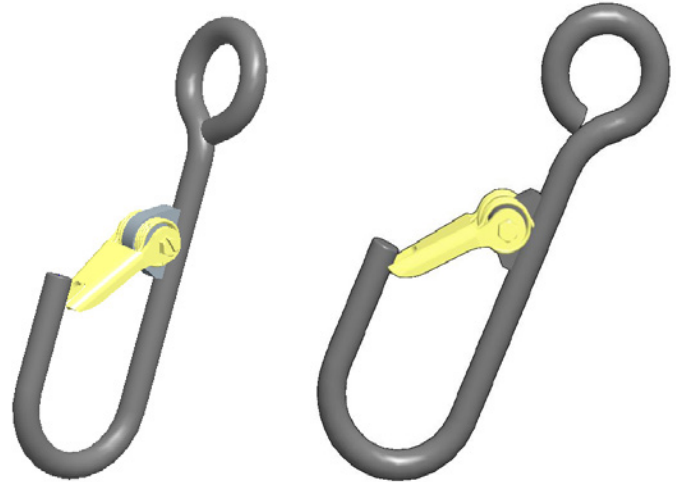
Lifting Hooks : Alloy Steel Latching J-Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- $\pm 4\%$ on dimensions.
- All eyes welded unless otherwise specified.
- **Maximum use temperature is 400° F.**



Style B

Style A

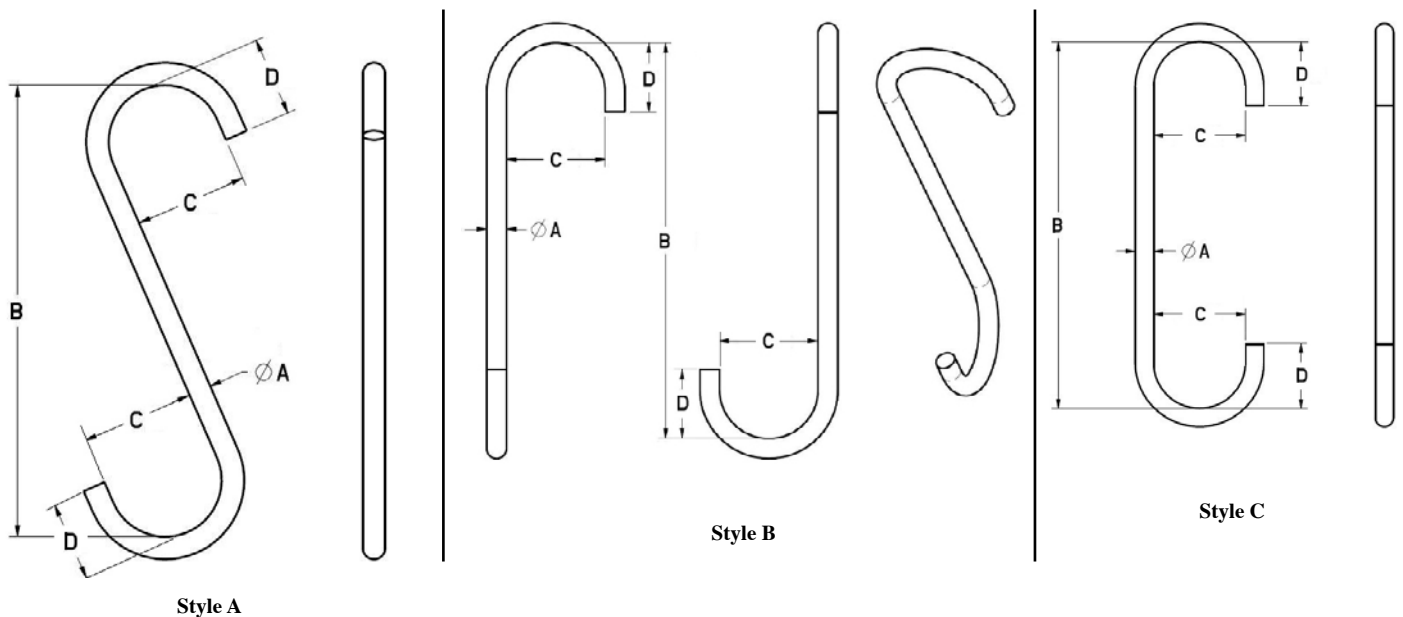


| Material Diameter in Inches* | Style A Part Number | Style B Part Number | Standard Alloy Steel J-Hooks | | | | | | Latch | Working Load Limit in Pounds* |
|------------------------------|---------------------|---------------------|------------------------------|-------|------|------|------|------|---------|-------------------------------|
| | | | A | B | C | D | E | F | | |
| 1/4 | 16284 | 17595 | 0.25 | 4.50 | 1.00 | 1.25 | 2.00 | 0.82 | 1096325 | 125 |
| 5/16 | 16016 | 17596 | 0.32 | 5.00 | 1.00 | 1.25 | 2.00 | 1.01 | 1096421 | 250 |
| 3/8 | 14924 | 17611 | 0.38 | 6.00 | 1.00 | 1.50 | 2.38 | 1.10 | 1096468 | 365 |
| 1/2 | 14767 | 17612 | 0.50 | 8.00 | 1.00 | 2.00 | 3.13 | 1.48 | 1096515 | 650 |
| 5/8 | 14930 | 17613 | 0.62 | 9.00 | 1.00 | 2.50 | 4.32 | 1.72 | 1096562 | 1,000 |
| 3/4 | 16383 | 17614 | 0.75 | 10.00 | 1.25 | 3.00 | 5.25 | 2.03 | 1096609 | 1,435 |
| 7/8 | 16384 | 17615 | 0.88 | 12.00 | 1.25 | 3.50 | 6.25 | 2.38 | 1096657 | 1,900 |
| 1 | 16385 | 17616 | 1.00 | 14.00 | 1.25 | 4.50 | 8.25 | 2.90 | 1096704 | 2,300 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

Lifting Hooks : Alloy Steel S-Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Maximum use temperature is 400° F.**
- ±4% on dimensions.
- Custom designs available - call for engineering.
- Square and hex stock available.

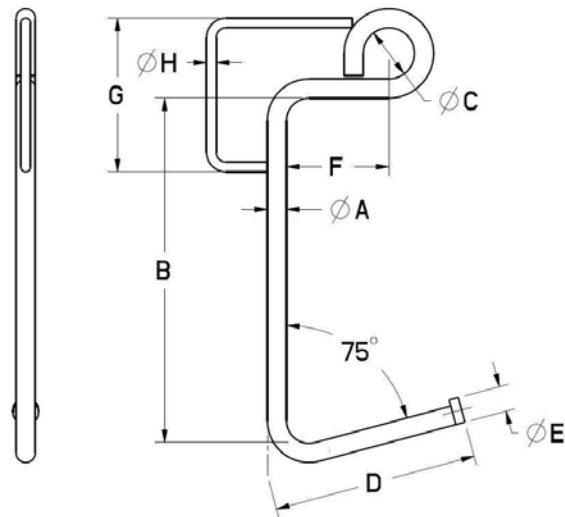
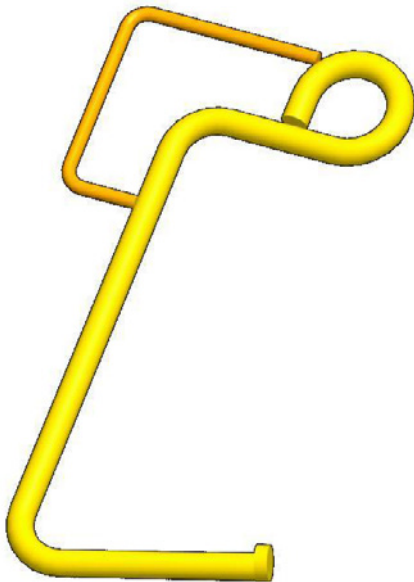


| Material Diameter in Inches* | Part Number | | | Standard Alloy Steel S-Hooks | | | | | Working Load Limit in Pounds* |
|------------------------------------|--------------|--------------|--------------|------------------------------|-------|------|------|--------|-------------------------------------|
| | Style A | Style B | Style C | A | B | C | D | Weight | |
| 1/4 | 14189 | 14198 | 14207 | 0.25 | 5.00 | 1.25 | 1.25 | 0.1 | 100 |
| 5/16 | 14190 | 14199 | 14208 | 0.31 | 5.00 | 1.25 | 1.25 | 0.1 | 250 |
| 3/8 | 14191 | 14200 | 14209 | 0.38 | 6.00 | 1.50 | 1.50 | 0.3 | 365 |
| 1/2 | 14192 | 14201 | 14210 | 0.50 | 7.00 | 2.00 | 2.00 | 0.6 | 650 |
| 9/16 | 14193 | 14202 | 14211 | 0.56 | 9.00 | 2.25 | 2.25 | 0.9 | 800 |
| 5/8 | 14194 | 14203 | 14212 | 0.63 | 9.00 | 2.50 | 2.50 | 1.2 | 1,000 |
| 3/4 | 14195 | 14204 | 14213 | 0.75 | 9.00 | 2.25 | 2.25 | 2.1 | 1,790 |
| 7/8 | 14196 | 14205 | 14214 | 0.88 | 10.00 | 2.63 | 2.63 | 3.3 | 2,440 |
| 1 | 14197 | 14206 | 14215 | 1.00 | 11.00 | 3.00 | 3.00 | 5.0 | 3,190 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

Lifting Hooks : Alloy Steel Sorting Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- $\pm 4\%$ on dimensions.
- Custom designs available - call for engineering.
- All eyes welded unless otherwise specified.
- **Maximum use temperature is 400° F.**
- Handle not designed for lifting.



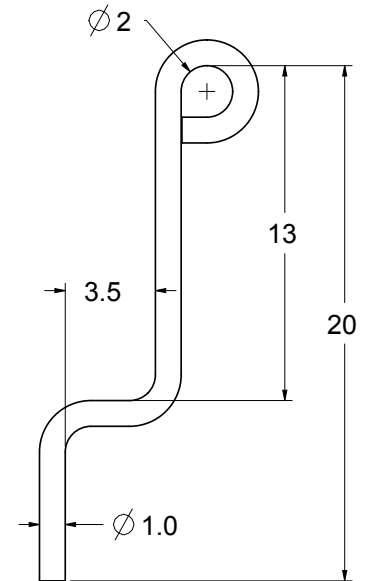
| Material Diameter in Inches* | Part Number | Standard Alloy Steel Sorting Hooks | | | | | | Weight | Working Load Limit in Pounds* |
|------------------------------|--------------|------------------------------------|------|------|------|------|------|--------|-------------------------------|
| | | B | C | D | E | F | G | | |
| 1/2 | 13457 | 3.25 | 1.50 | 4.00 | 0.75 | 1.88 | 4.00 | 1.0 | 100 |
| 3/4 | 13425 | 13.50 | 2.00 | 8.00 | 1.00 | 4.00 | 6.00 | 4.5 | 300 |
| 7/8 | 13424 | 13.50 | 2.00 | 8.00 | 1.00 | 3.88 | 6.00 | 6.0 | 450 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

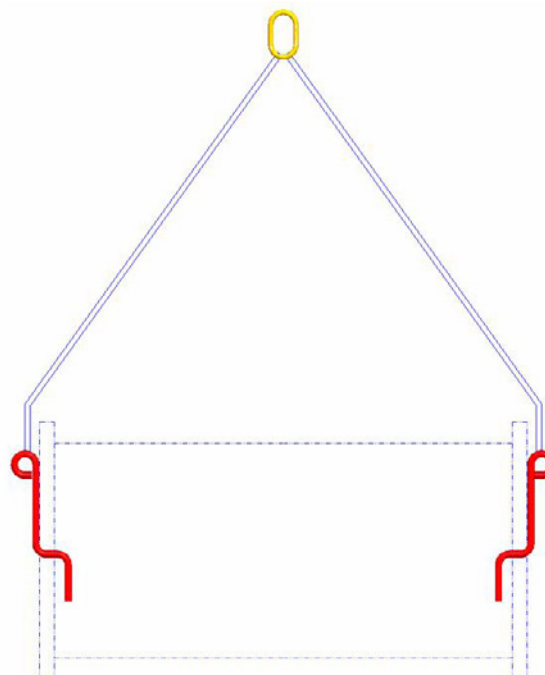
Reel Lifting Hook

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Powder coat painted safety red for increased visibility.
- Proof load certificates included.
- Durable construction ideally suited to jobsite use.
- Made in U.S.A.
- $\pm 4\%$ on dimensions.

| Working Load Limit in Pounds* | Part Number | Weight |
|-------------------------------|--------------|--------|
| 3,000 | 13409 | 5 |



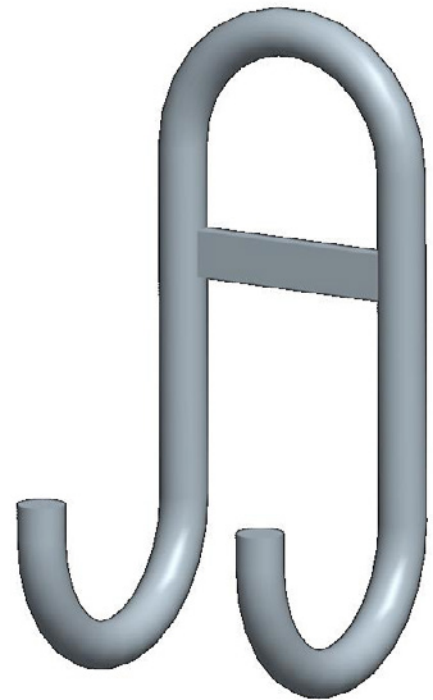
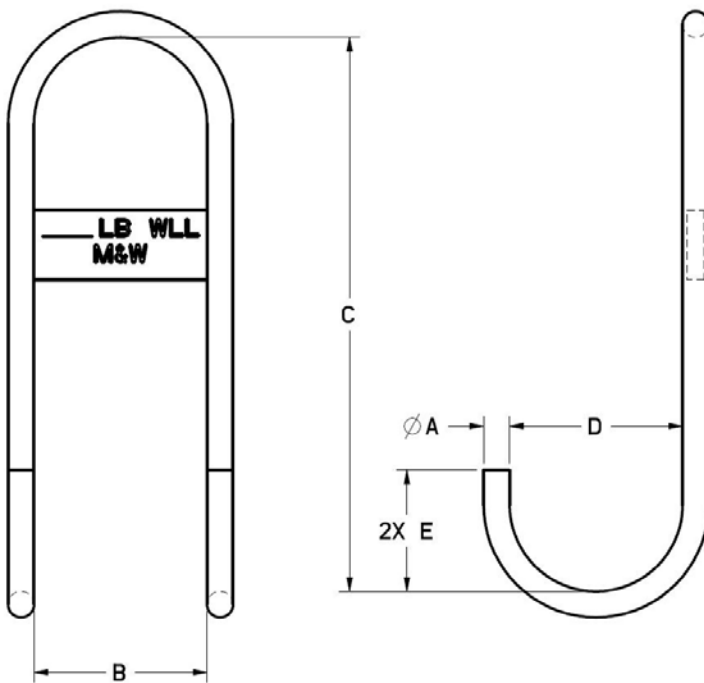
- 3,000 pound Working Load Limit per hook.
- 6,000 pound Working Load Limit at 60 degrees when used in pairs.
- 1" diameter hook fits most any reel opening.
- Hook design permits almost universal use no matter the reel size or configuration.
- Shown on 2-leg bridle sling.
- Optional 2-leg bridle sling available upon request. Call for details.
- Sold as each.



**TYPICAL
USE**

Lifting Hooks : Stirrup / Double Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- $\pm 4\%$ on dimensions.
- Custom designs available - call for engineering.
- **Maximum use temperature is 400° F.**



| Material Diameter in Inches* | Part Number | A | B | C | D | E | Weight | Working Load Limit in Pounds* |
|------------------------------|--------------|------|------|-------|------|------|--------|-------------------------------|
| 3/8 | 16386 | 0.38 | 2.50 | 8.00 | 2.50 | 1.75 | 1.0 | 450 |
| 1/2 | 16387 | 0.50 | 3.00 | 8.00 | 3.00 | 1.75 | 1.8 | 900 |
| 5/8 | 16388 | 0.63 | 3.50 | 9.00 | 3.50 | 2.50 | 3.2 | 1,500 |
| 3/4 | 16389 | 0.75 | 4.00 | 10.00 | 1.00 | 2.50 | 4.9 | 2,250 |
| 1 | 16390 | 1.00 | 4.50 | 12.00 | 4.50 | 3.00 | 10.0 | 4,600 |

*Larger capacities and custom configurations available. Please call for ordering assistance.

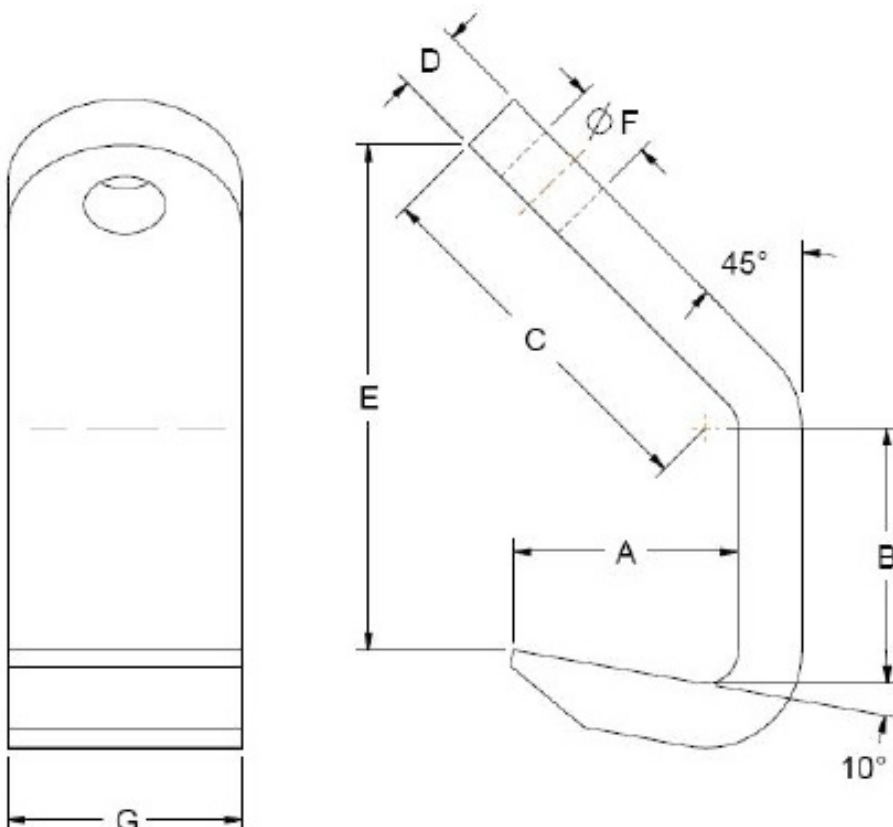
Plate Lifting Hooks

- Manufactured to exceed all ASME B30.9 and OSHA regulations.
- Powder coat painted safety red for increased visibility.
- **ALL** plate hooks shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.

| Working Load Limit in Pounds* | Part Number | Grade 100 Chain Size | A | B | C | D | E | F | G | Weight each | Shackle Part Number |
|-------------------------------|--------------|----------------------|------|------|------|------|------|------|------|-------------|---------------------|
| 4,300 | 11721 | 9/32" | 2.00 | 1.75 | 2.50 | 0.63 | 3.45 | 0.83 | 2.50 | 3 | M850P |
| 8,800 | 11722 | 3/8" | 2.63 | 3.00 | 4.31 | 0.75 | 5.92 | 0.95 | 2.75 | 6 | M851P |
| 15,000 | 11723 | 1/2" | 3.50 | 4.00 | 4.38 | 1.00 | 6.93 | 1.21 | 3.50 | 13 | M853P |
| 22,600 | 18866 | 5/8" | 4.38 | 5.00 | 5.44 | 1.25 | 8.66 | 1.60 | 5.00 | 27 | M855P |

* Call for specifications on larger sizes and capacities - **hooks sold individually**

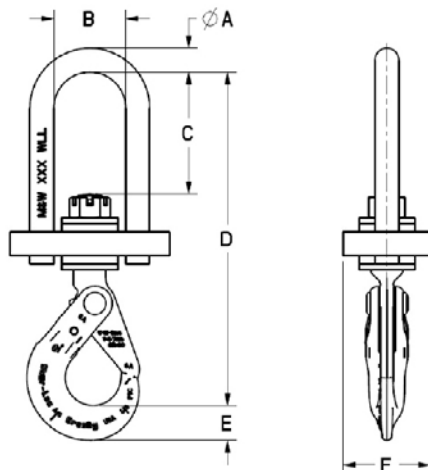
- Supplied **with** Safety Shackle, as per picture.
- Powder coated red - custom colors available on request.
- Made from alloy material - designed to handle plate steel.
- Available as lifting components or attached to certified lifting chain slings.
- Recommended to be used only at 45° horizontal lifting angle.



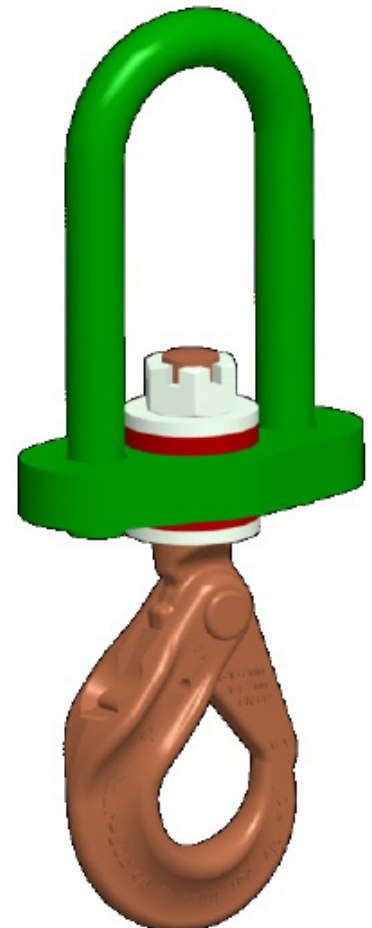
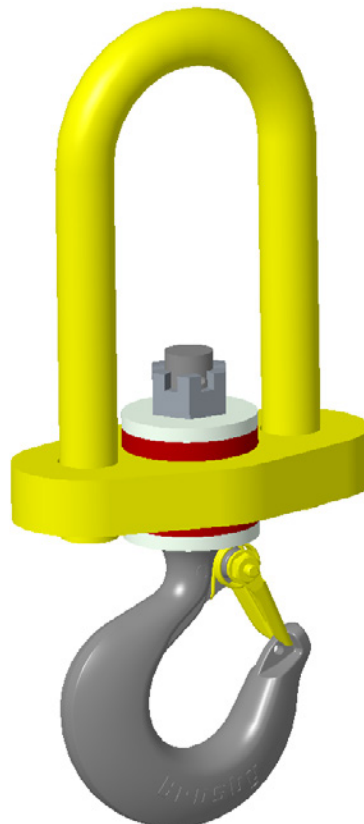
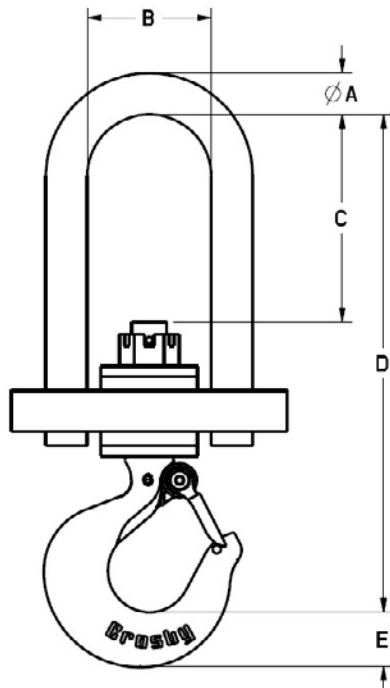
Insulated Swivel Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- **ALL** Lifting Hooks proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- All dimensions in inches unless otherwise noted.
- Electrically insulated - helps eliminate current flow that may damage hoists and lifting equipment

| Working Load Limit in Pounds* | Part Number | A | B | C | D | E | F | Weight in Pounds | Color |
|-------------------------------|--------------|------|------|------|-------|-----|------|------------------|--------|
| 4,000 | 16355 | 0.75 | 2.25 | 3.75 | 9.0 | 1.0 | 2.75 | 6 | Yellow |
| 4,500 | 16358 | 0.75 | 2.25 | 3.81 | 10.43 | 1.1 | 2.75 | 7 | Green |



- **16355** Swivel hook with latch
- **16358** Crosby Shur-Loc® hook
- Insulated to 2,000 VDC

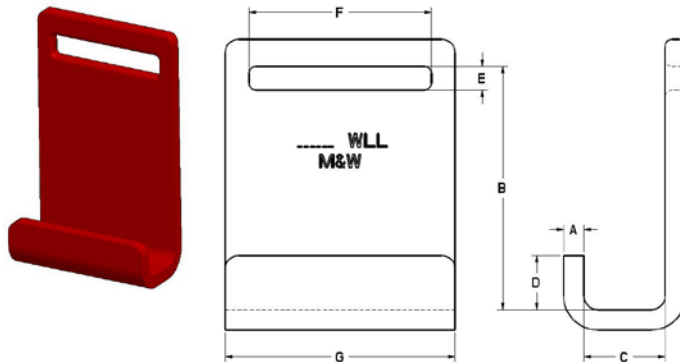


Lifting Hooks : Alloy Steel Flat Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **Maximum use temperature is 400° F.**
- $\pm 4\%$ on dimensions.
- Custom designs available - call for engineering.
- Working Load Limit indicated is for the bottom of the hooks - **DO NOT TIP LOAD.**

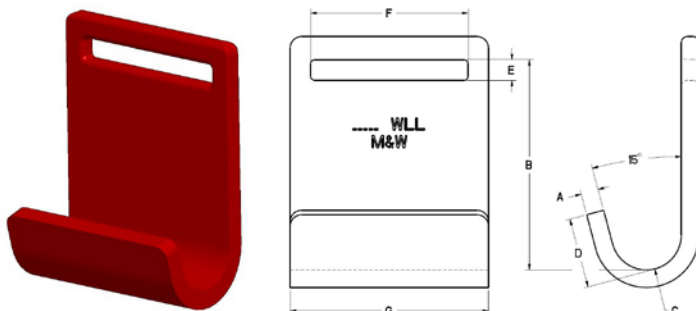
| Style A* | Part Number | A | B | C | D | E | F | G | Weight | Working Load Limit in Pounds* |
|----------|--------------|------|------|------|------|------|------|------|--------|-------------------------------|
| 1/4 | 16397 | 0.25 | 4.25 | 1.00 | 0.75 | 0.44 | 2.38 | 3.00 | 1.4 | 3,200 |
| 3/8 | 16398 | 0.38 | 4.50 | 1.50 | 1.00 | 0.44 | 3.38 | 4.25 | 3.4 | 4,800 |
| 1/2 | 16399 | 0.50 | 4.75 | 1.75 | 1.25 | 0.44 | 4.38 | 5.25 | 6.2 | 6,400 |

*Larger capacities and custom configurations available. Please call for ordering assistance.



| Style B* | Part Number | A | B | C | D | E | F | G | Weight | Working Load Limit in Pounds* |
|----------|--------------|------|------|------|------|------|------|------|--------|-------------------------------|
| 1/4 | 16400 | 0.25 | 4.25 | 1.00 | 0.75 | 0.44 | 2.38 | 3.00 | 1.0 | 3,200 |
| 3/8 | 16401 | 0.38 | 4.50 | 1.50 | 1.50 | 0.44 | 3.38 | 4.25 | 3.3 | 4,800 |
| 1/2 | 16402 | 0.50 | 4.75 | 1.75 | 1.75 | 0.44 | 4.38 | 5.25 | 6.0 | 6,400 |

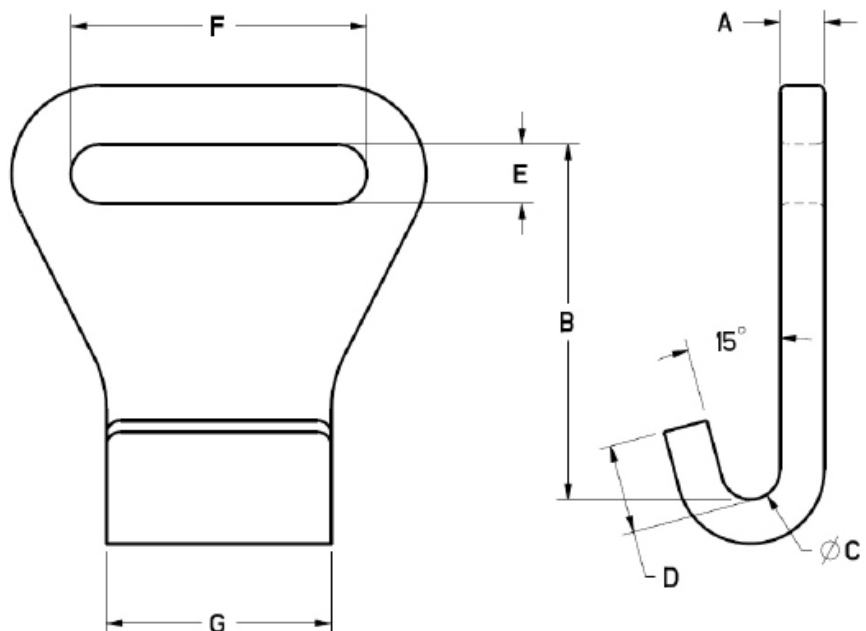
*Larger capacities and custom configurations available. Please call for ordering assistance.



Lifting Hooks : Alloy Steel Flat Hooks

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Corrosion resistant finish.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **Maximum use temperature is 400° F.**
- Working Load Limit indicated is for the bottom of the hooks - DO NOT TIP LOAD.

| | Part Number | A | B | C | D | E | F | G | Weight | Working Load Limit in Pounds* |
|------|--------------|------|------|------|------|------|------|------|--------|-------------------------------|
| 3/16 | 17618 | 0.19 | 1.50 | 0.25 | 0.38 | 0.25 | 1.25 | 0.95 | 0.2 | 400 |
| 3/16 | 17619 | 0.19 | 1.50 | 0.38 | 0.50 | 0.25 | 1.25 | 0.95 | 0.2 | 300 |





INSPECTION, TESTING, AND MAINTENANCE

A. Initial Inspection

1. New and reinstalled J-hooks shall be inspected by a qualified person prior to initial use. J-hooks manufactured by **Machining & Welding** are proof loaded prior to delivery of the J-hook.
2. Altered, repaired, or modified J-hooks shall be inspected by a qualified person.

B. Every Lift Inspection

1. Visual inspection by the operator before and during each lift made with the J-hook.

C. Frequent Inspection

1. Normal service – monthly.
2. Heavy service - weekly.
3. Severe service - daily.
4. Special or infrequent service – as recommended by a qualified person before and after each occurrence.

C. Periodic Inspection

Visual inspection by a qualified person making records of apparent external conditions to provide the basis for continuing evaluation. An external legible tag on the J-hook is an acceptable identification in lieu of written records.

1. Normal service – yearly.
2. Heavy service - semiannually.
3. Severe service - quarterly.
4. Special or infrequent service – as recommended by a qualified person before the first such occurrence and as directed by the qualified person for any subsequent occurrences.

PAINT REMOVAL AND INSPECTION

J-hooks (including paint line hooks) which are used in a painting booth or paint line environment shall be visually inspected by a qualified person and classified as operating in a “Severe service” environment. When paint residue is cleaned from the J-hook, a visual inspection by a designated person shall take place and be documented.

PAINT LINE J-HOOK REMOVAL CRITERIA

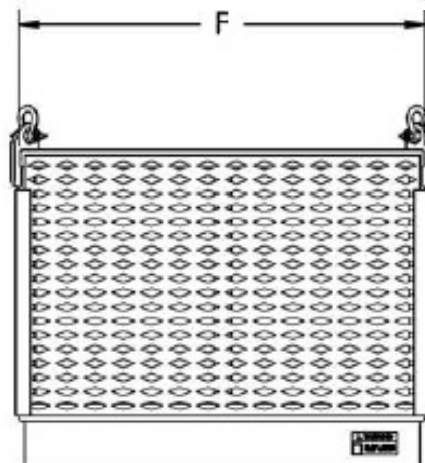
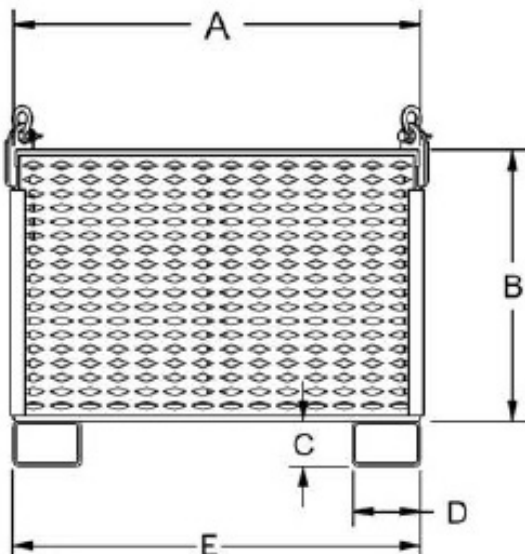
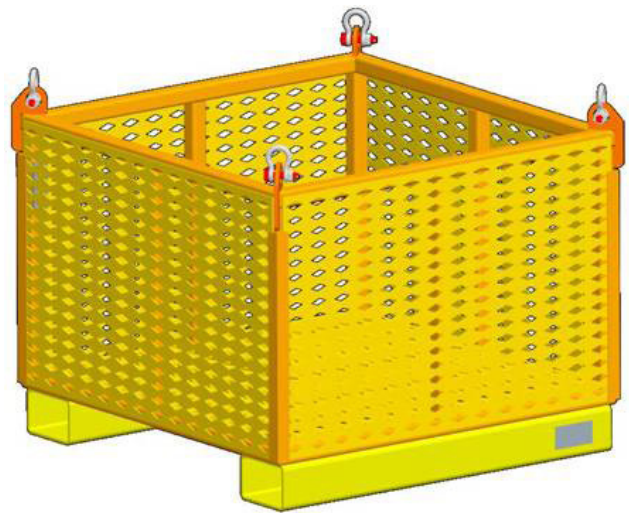
J-hooks (including paint line hooks) which are used in a painting booth or paint line environment should be replaced, regardless of apparent external condition, every 6 months. Chemicals used in modern paint booth and paint line environments commonly contribute to the fatigue and crystallization of alloy steel when used repeatedly. In service periods longer than 6 months, J-hooks can become dangerously brittle. This condition contributes to the J-hooks service life being shortened. This condition also causes the J-hook to become susceptible to sudden and catastrophic failure. Therefore, any J-hook (including paint line hooks) used in a painting booth or paint line environment should be replaced every 6 months.

Material Baskets with Fixed Sides

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for resistance to corrosion.
- **ALL** material baskets shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Pick from lifting points with top rigging.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **NOT INTENDED FOR PERSONNEL LIFTING.**

| Capacity in Pounds* | Part Number | A | B | C | D | E | F | Weight |
|---------------------|--------------|----|----|-----|-----|----|----|--------|
| 2,500 | 11827 | 36 | 24 | 4.0 | 6.0 | 36 | 36 | 320 |
| 2,500 | 11829 | 48 | 24 | 4.0 | 8.0 | 48 | 48 | 360 |
| 2,500 | 16006 | 60 | 24 | 4.0 | 8.0 | 60 | 48 | 450 |

* Call for specifications on larger sizes and capacities



Material Basket with Drop Side

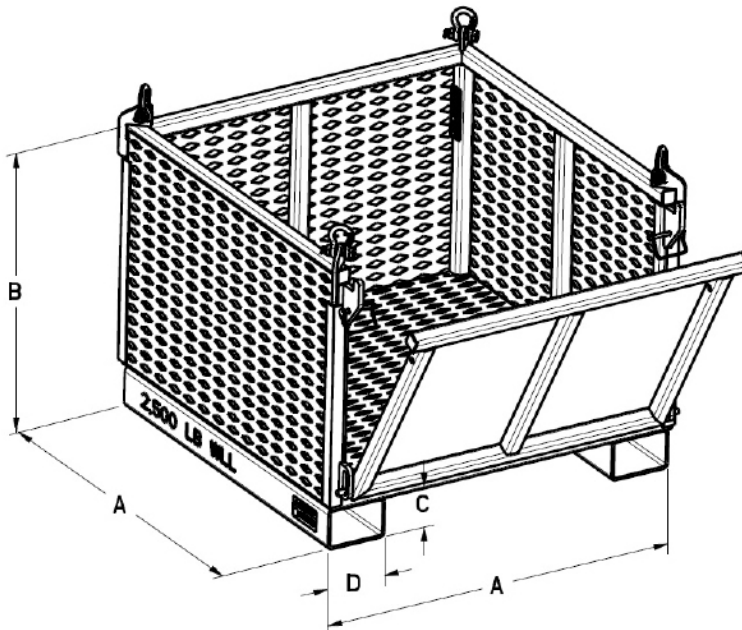
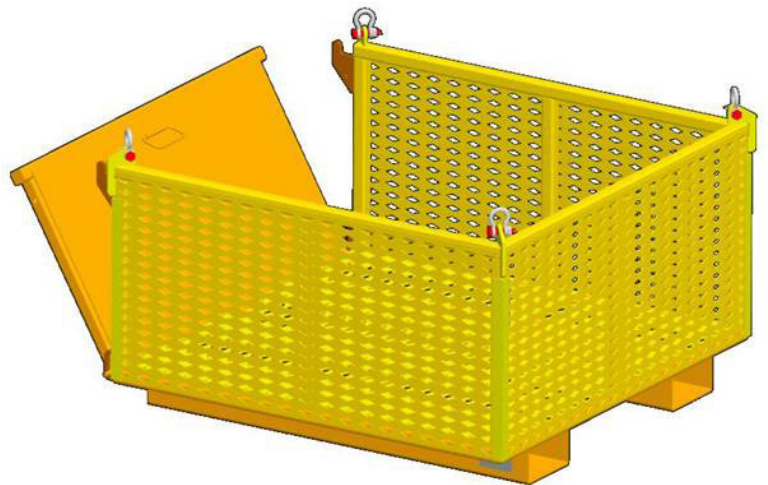
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for resistance to corrosion.
- **ALL** material baskets shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Pick from lifting points with top rigging.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **NOT INTENDED FOR PERSONNEL LIFTING.**

| Capacity in Pounds* | Part Number | A | B | C | D | Weight |
|---------------------|--------------|-----|-----|------|------|--------|
| 2,500 | 12902 | 48" | 28" | 3.6" | 7.6" | 410 |
| 2,500 | 17594 | 36" | 28" | 3.6" | 7.6" | 400 |

* Call for specifications on larger sizes and capacities

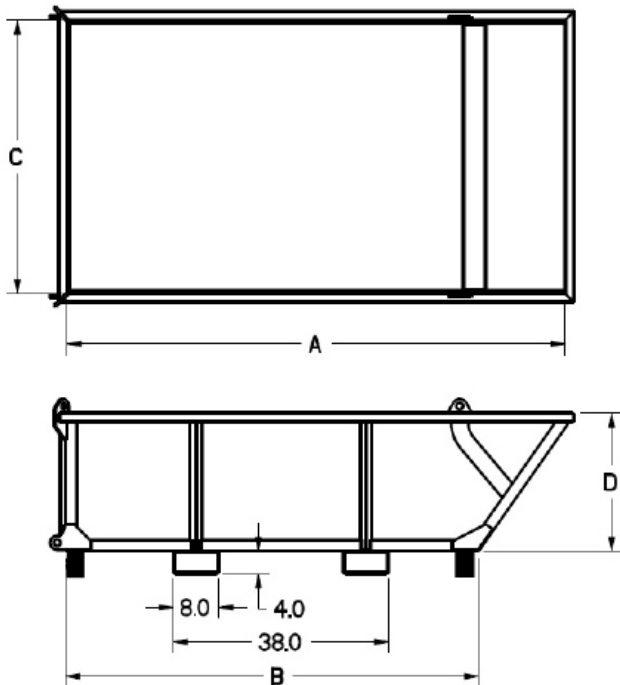


**RFID
TRACKING**
CHIP EQUIPPED



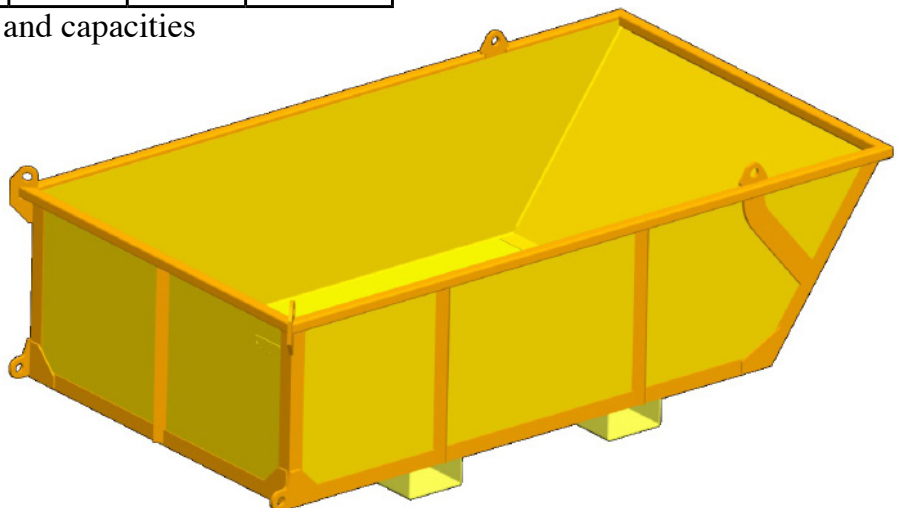
Material Baskets with Fixed Sides

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for resistance to corrosion.
- **ALL** material baskets shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use. Made in U.S.A.
- Custom designs available - call for engineering.
- **NOT INTENDED FOR PERSONNEL LIFTING.**
- **Not water tight**



| Capacity in Pounds* | Part Number | A | B | C | D | Weight |
|---------------------|--------------|----|----|----|----|--------|
| 2,500 | 11857 | 87 | 72 | 48 | 24 | 700 |
| 4,000 | 15211 | 96 | 81 | 48 | 24 | 720 |

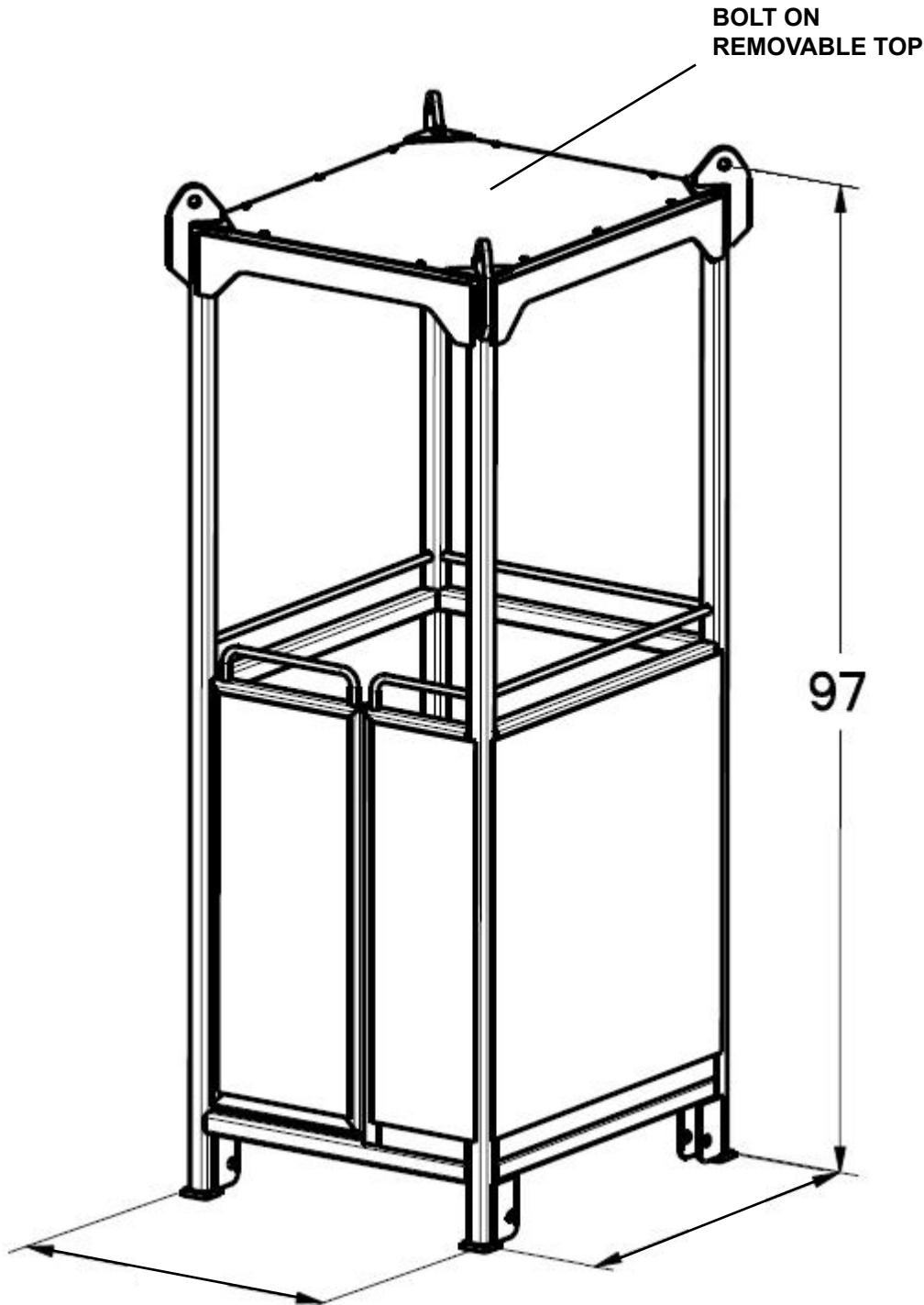
* Call for specifications on larger sizes and capacities



Suspended Personnel Basket with optional Test Weight and Suspension Rigging

- Painted safety yellow for increased visibility.
- **ALL** Personnel Baskets shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Lifting point shackles included with suspension rigging

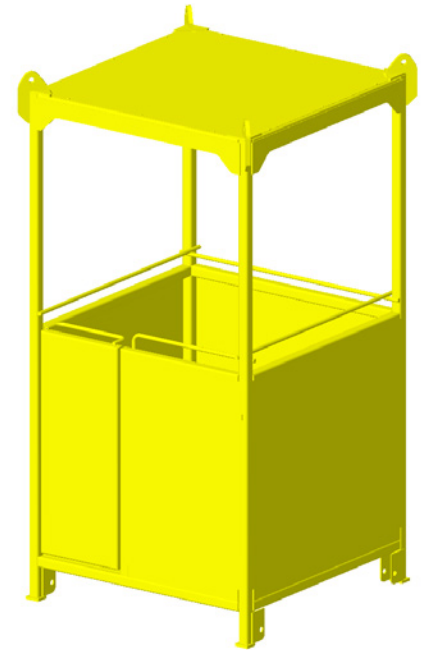
PERSONNEL BASKETS



Personnel Basket with optional Test Weight and Suspension Rigging

Specifications:

- Meets or exceeds ASME B30.23 specifications.
- EACH personnel basket individually load tested with inspection and OSHA certification paperwork included.
- Sides enclosed with solid metal to the intermediate rail.
- Grab rail on entire perimeter.
- Non-slip, diamond plate steel floor.
- Inward swing, self-closing locking access door. Heavy-duty hinge and latch standard on all models.
- Guardrail system complies with OSHA 29 CFR Part 1926.1421(e)6 and 1926.1421(e)7.
- Permanent identification/data plate standard on all models.
- Product liability insurance certificate available upon request.
- Solid, removable roof design is standard on all models - keeps weather off personnel to comply with OSHA 1926.1421(e)10.
- Permanent tie-off points for materials and tools to comply with OSHA 1926.1431(e).
- Lifting point shackles not included.



PERSONNEL BASKETS



**RFID
TRACKING**
CHIP EQUIPPED

OPTIONAL EQUIPMENT

- Pin-on, removable test weight.
- 4-leg suspension rigging bridle with Bolt-Type anchor shackles.

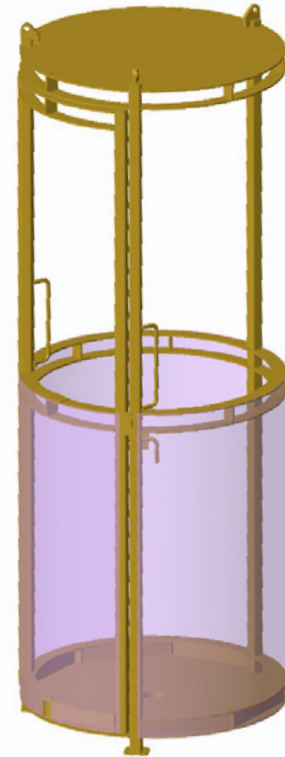
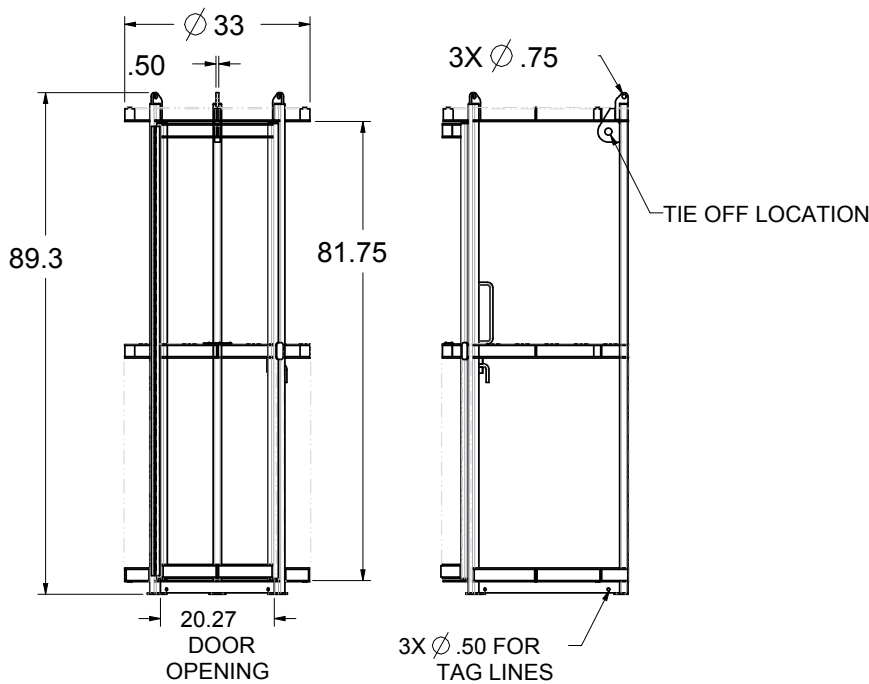
| Capacity in Pounds* | Basket Part Number | Weight | Size |
|------------------------|--------------------------|--------|-----------|
| 500 | 14347 | 735 | 34" X 40" |
| 1,000 | 12741 | 945 | 48" X 48" |
| 1,500 | 12757 | 1200 | 72" X 48" |
| 2,000 | 12755 | 1525 | 94" X 48" |

| Optional Equipment | | |
|----------------------------|-------------------------|-------------------------------------|
| Test Weight Part Number | Test Weight Quantity | Suspension Bridle Part Number |
| 14369 | 1 | 15189 |
| 12748 | 1 | 15189 |
| 12766 | 1 | 15190 |
| 12748 | 2 | 15191 |

* Call for specifications on larger sizes and capacities

Suspended Round Personnel Basket with optional Test Weight and Suspension Rigging

- Painted safety yellow for increased visibility.
- **ALL** Personnel Baskets shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Lifting point shackles not included.



| Capacity in Pounds* | Basket Part Number | Weight | Outside Diameter |
|---------------------|--------------------|--------|------------------|
| 500 | 16465 | 550 | 33" |

* Call for specifications on larger sizes and capacities

| Optional Equipment | |
|--|--------------|
| Test Weight | 15729 |
| 3-leg suspension rigging bridle with Bolt-Type anchor shackles | 19514 |



Forklift Attachments Heavy Duty Fork Personnel Basket

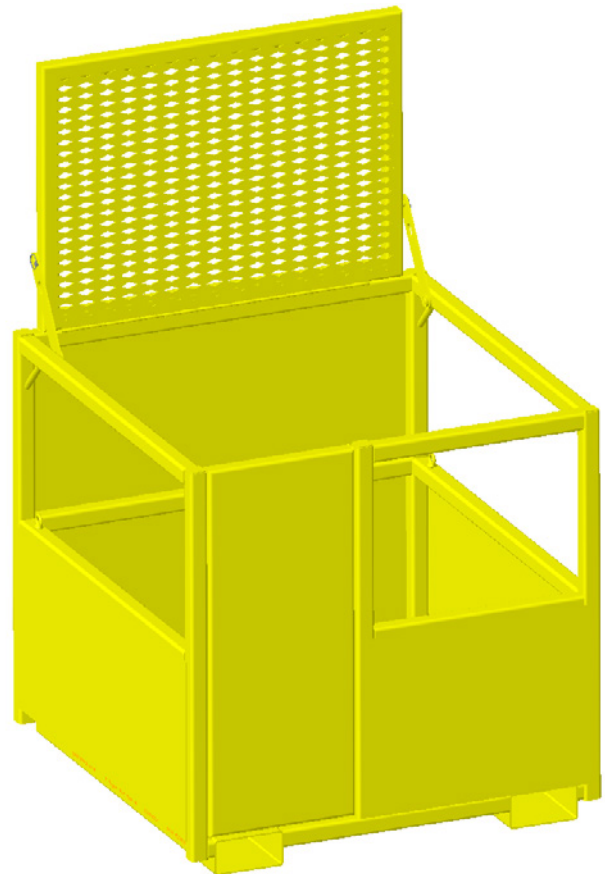
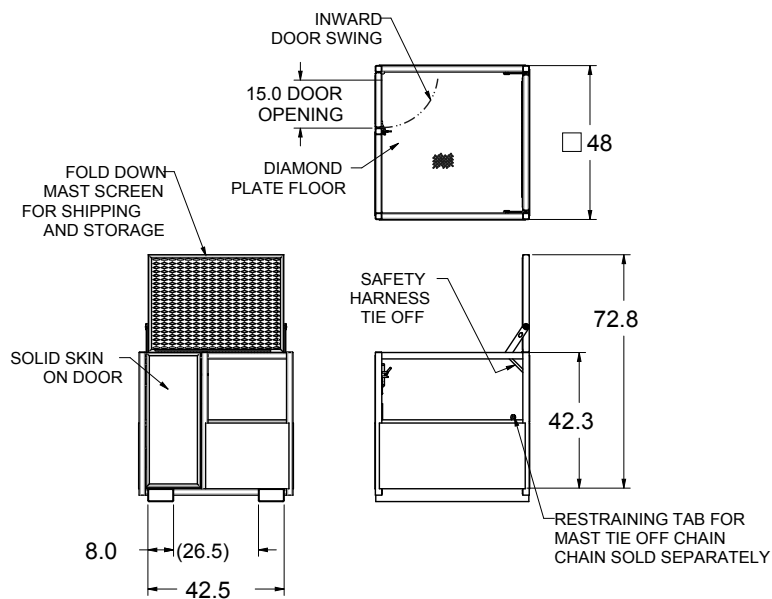
Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



Fork Personnel Basket

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** material handling equipment proof loaded and shipped with certification paperwork.
- Inward swing, self-closing locking access door.
- Durable construction ideally suited to jobsite or warehouse use. Made in U.S.A.
- **MUST** be tied to forklift during use



PERSONNEL BASKETS

| Part Number | Capacity in Pounds | Weight in Pounds |
|--------------|--------------------|------------------|
| 20988 | 1,000 | 775 |

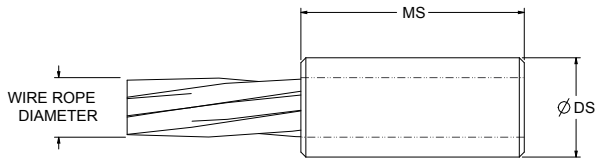
OPTIONAL MAST TIE OFF CHAIN:

| Part Number | |
|-------------|-------------------------------------|
| 20410 | Mast Tie Off Chain - 8' Long |



SA Wire Rope Ferrules

Mild carbon steel construction. Length is measured from outside and end of terminal. Can also be attached at any point in the assembly as well as at the end. Length and diameter can be modified per customer specifications.

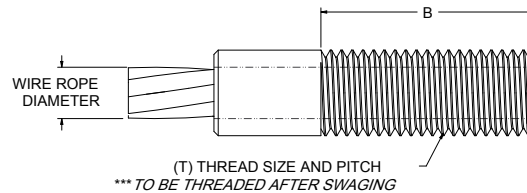


| Part Number* | Wire Rope Diameter | DS | MS (approx) | Chamfer |
|--------------|--------------------|---------|-------------|------------|
| MWSA157-02 | 1/16" | 1/4" | 3/8" | 1/32 X 45° |
| MWSA157-03 | 3/32" | 5/16" | 1/2" | 1/32 X 45° |
| MWSA157-04 | 1/8" | 3/8" | 5/8" | 1/32 X 45° |
| MWSA157-05 | 5/32" | 7/16" | 3/4" | 1/32 X 45° |
| MWSA157-06 | 3/16" | 1/2" | 7/8" | 1/32 X 45° |
| MWSA157-07 | 7/32" | 9/16" | 1" | 3/64 X 45° |
| MWSA157-08 | 1/4" | 5/8" | 1-1/8" | 3/64 X 45° |
| MWSA157-09 | 9/32" | 11/16" | 1-1/4" | 3/64 X 45° |
| MWSA157-10 | 5/16" | 3/4" | 1-3/8" | 3/64 X 45° |
| MWSA157-12 | 3/8" | 7/8" | 1-3/4" | 1/16 X 45° |
| MWSA157-14 | 7/16" | 1" | 2" | 1/16 X 45° |
| MWSA157-16 | 1/2" | 1-1/8" | 2-1/4" | 1/16 X 45° |
| MWSA157-18 | 9/16" | 1-1/4" | 2-1/2" | 5/64 X 45° |
| MWSA157-20 | 5/8" | 1-3/8" | 3" | 5/64 X 45° |
| MWSA157-24 | 3/4" | 1-9/16" | 3-1/2" | 5/64 X 45° |
| MWSA157-28 | 7/8" | 1-3/4" | 4-1/4" | 5/64 X 45° |
| MWSA157-32 | 1" | 2" | 4-3/4" | 3/32 X 45° |

* Call for specifications on larger sizes and metric sizes

SA Wire Rope Threaded Sleeves

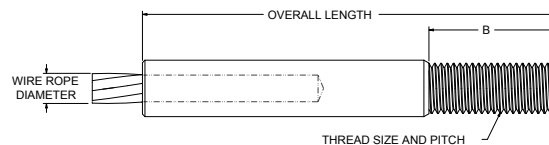
Mild carbon steel construction. NC thread pitch furnished as standard; NF thread pitch available. Right hand threads standard; left hand available. Wrench grips available per customer request. Metric sizes available.



| Part Number* | Wire Rope Diameter | Thread Size (T) | | B |
|--------------|--------------------|-----------------|---------|-------|
| | | NC | NF | |
| MWSA155-03 | 3/32" | 1/4-20 | 1/4-28 | 1/2 |
| MWSA155-04 | 1/8" | 1/4-20 | 1/4-28 | 3/4 |
| MWSA155-05 | 5/32" | 5/16-18 | 5/16-24 | 1 |
| MWSA155-06 | 3/16" | 3/8-16 | 3/8-24 | 1-1/4 |
| MWSA155-07 | 7/32" | 7/16-14 | 7/16-20 | 1-1/4 |
| MWSA155-08 | 1/4" | 1/2-13 | 1/2-20 | 1-1/2 |
| MWSA155-09 | 9/32" | 9/16-12 | 9/16-18 | 1-1/2 |
| MWSA155-10 | 5/16" | 5/8-11 | 5/8-18 | 1-3/4 |
| MWSA155-12 | 3/8" | 3/4-10 | 3/4-16 | 2 |
| MWSA155-14 | 7/16" | 7/8-9 | 7/8-14 | 2-1/4 |
| MWSA155-16 | 1/2" | 1-8 | 1-14 | 2-1/2 |
| MWSA155-18 | 9/16" | 1-1/8-7 | | 2-3/4 |
| MWSA155-20 | 5/8" | 1-1/4-7 | | 3 |
| MWSA155-24 | 3/4" | 1-1/2-6 | | 4 |
| MWSA155-28 | 7/8" | 1-3/4-5 | | 5 |
| MWSA155-32 | 1" | 2-4-1/2 | | 6 |

* Call for specifications on larger sizes and metric sizes

SA Wire Rope Threaded Studs



| Part Number* | Wire Rope Diameter | Thread Size (T) | | B |
|--------------|--------------------|-----------------|---------|-------|
| | | NC | NF | |
| MWSA156-02 | 1/16" | 10-24 | 10-32 | 1/2 |
| MWSA156-03 | 3/32" | 1/4-20 | 1/4-28 | 1/2 |
| MWSA156-04 | 1/8" | 1/4-20 | 1/4-28 | 3/4 |
| MWSA156-05 | 5/32" | 5/16-18 | 5/16-24 | 7/8 |
| MWSA156-06 | 3/16" | 3/8-16 | 3/8-24 | 1 |
| MWSA156-07 | 7/32" | 7/16-14 | 7/16-20 | 1 |
| MWSA156-08 | 1/4" | 1/2-13 | 1/2-20 | 1-1/8 |
| MWSA156-09 | 9/32" | 9/16-12 | 9/16-18 | 1-1/4 |
| MWSA156-10 | 5/16" | 5/8-11 | 5/8-18 | 1-1/2 |
| MWSA156-12 | 3/8" | 3/4-10 | 3/4-16 | 1-5/8 |
| MWSA156-14 | 7/16" | 3/4-10 | 3/4-16 | 1-7/8 |

* Call for specifications on larger sizes and metric sizes

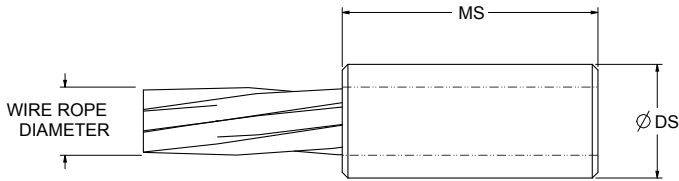
| Part Number* | Wire Rope Diameter | Thread Size (T) | | B |
|--------------|--------------------|-----------------|--------|-------|
| | | NC | NF | |
| MWSA156-16 | 1/2" | 7/8-9 | 7/8-14 | 2-1/4 |
| MWSA156-18 | 9/16" | 1-8 | 1-14 | 2-1/2 |
| MWSA156-20 | 5/8" | 1-1/8-7 | | 3 |
| MWSA156-24 | 3/4" | 1-3/8-6 | | 3-1/4 |
| MWSA156-28 | 7/8" | 1-1/2-6 | | 3-1/2 |
| MWSA156-32 | 1" | 1-3/4-5 | | 4-3/8 |
| MWSA156-36 | 1-1/8" | 2-4-1/2 | | 4-3/4 |
| MWSA156-40 | 1-1/4" | 2-1/4-4-1/2 | | 5-1/8 |
| MWSA156-44 | 1-3/8" | 2-1/2-4 | | 5-1/2 |

* Call for specifications on larger sizes and metric sizes

Wire Rope Terminations
Wire Rope Ferrules
1/4" to 7/16" Wire Rope Diameter

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



Mild carbon or stainless steel. Recommended for use on 6X19, 6X37 or 7X19 IWRC wire rope constructions only. Not intended to hold the breaking strength of the wire rope - a destructive test is recommended before use. Ends chamfered to help assembly. WHEN ORDERING: replace '-X' in part number with "M" for mild carbon steel or "S" for stainless steel material.

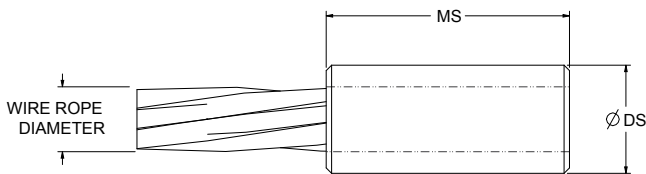
| Part Number* | Wire Rope Diameter | DS After Swage Dim Min | DS After Swage Dim | DS After Swage Dim Max | MS (approx) | Weight Each |
|--------------|--------------------|------------------------|--------------------|------------------------|-------------|-------------|
| WR-10400-X | 1/4" | 0.49 | 0.50 | 0.51 | 1.03 | 0.04 |
| WR-10401-X | 1/4" | 0.49 | 0.50 | 0.51 | 1.125 | 0.06 |
| WR-10402-X | 1/4" | 0.49 | 0.50 | 0.51 | 1.25 | 0.04 |
| WR-10403-X | 1/4" | 0.49 | 0.50 | 0.51 | 1.50 | 0.06 |
| WR-10404-X | 1/4" | 0.615 | 0.625 | 0.635 | 0.875 | 0.07 |
| WR-10405-X | 1/4" | 0.615 | 0.625 | 0.635 | 1.25 | 0.10 |
| WR-10406-X | 1/4" | 0.615 | 0.625 | 0.635 | 1.50 | 0.12 |
| WR-10407-X | 1/4" | 0.74 | 0.75 | 0.77 | 1.125 | 0.13 |
| WR-10408-X | 1/4" | 0.74 | 0.75 | 0.77 | 1.25 | 0.15 |
| WR-10409-X | 1/4" | 0.74 | 0.75 | 0.77 | 1.50 | 0.18 |
| WR-10410-X | 1/4" | 0.855 | 0.875 | 0.895 | 1.00 | 0.17 |
| WR-10411-X | 1/4" | 0.855 | 0.875 | 0.895 | 1.125 | 0.19 |
| WR-10412-X | 1/4" | 0.855 | 0.875 | 0.895 | 1.25 | 0.21 |
| WR-10413-X | 1/4" | 0.855 | 0.875 | 0.895 | 1.50 | 0.26 |
| WR-10414-X | 1/4" | 0.98 | 1.00 | 1.02 | 1.125 | 0.26 |
| WR-10415-X | 1/4" | 0.98 | 1.00 | 1.02 | 1.25 | 0.28 |
| WR-10416-X | 1/4" | 0.98 | 1.00 | 1.02 | 1.50 | 0.32 |
| WR-10417-X | 1/4" | 1.23 | 1.25 | 1.29 | 1.75 | 0.64 |
| WR-10418-X | 5/16" | 0.615 | 0.625 | 0.635 | 1.25 | 0.08 |
| WR-10419-X | 5/16" | 0.74 | 0.75 | 0.77 | 1.25 | 0.13 |
| WR-10420-X | 5/16" | 0.855 | 0.875 | 0.895 | 0.875 | 0.14 |
| WR-10421-X | 5/16" | 0.855 | 0.875 | 0.895 | 1.00 | 0.16 |
| WR-10422-X | 5/16" | 0.855 | 0.875 | 0.895 | 1.25 | 0.20 |
| WR-10423-X | 5/16" | 0.855 | 0.875 | 0.895 | 1.50 | 0.25 |
| WR-10424-X | 5/16" | 0.855 | 0.875 | 0.895 | 2.00 | 0.33 |
| WR-10425-X | 5/16" | 0.98 | 1.00 | 1.02 | 1.50 | 0.32 |
| WR-10426-X | 3/8" | 0.74 | 0.75 | 0.77 | 1.50 | 0.15 |
| WR-10427-X | 3/8" | 0.855 | 0.875 | 0.895 | 1.50 | 0.23 |
| WR-10428-X | 3/8" | 0.98 | 1.00 | 1.02 | 1.00 | 0.30 |
| WR-10429-X | 3/8" | 0.98 | 1.00 | 1.02 | 1.50 | 0.32 |
| WR-10430-X | 3/8" | 0.98 | 1.00 | 1.02 | 1.75 | 0.36 |
| WR-10431-X | 3/8" | 0.98 | 1.00 | 1.02 | 2.00 | 0.41 |
| WR-10432-X | 3/8" | 1.23 | 1.25 | 1.27 | 2.00 | 0.69 |
| WR-10433-X | 7/16" | 0.855 | 0.875 | 0.895 | 1.875 | 0.24 |
| WR-10434-X | 7/16" | 0.855 | 0.875 | 0.895 | 1.625 | 0.23 |
| WR-10435-X | 7/16" | 0.98 | 1.00 | 1.03 | 1.375 | 0.27 |
| WR-10436-X | 7/16" | 0.98 | 1.00 | 1.03 | 1.50 | 0.32 |
| WR-10437-X | 7/16" | 1.105 | 1.125 | 1.145 | 1.75 | 0.34 |

* Call for specifications on different sizes or material

Wire Rope Terminations

Wire Rope Ferrules

1/2" to 1-1/2" Wire Rope Diameter



Mild carbon or stainless steel. Recommended for use on 6X19, 6X37 or 7X19 IWRC wire rope constructions only. Not intended to hold the breaking strength of the wire rope - a destructive test is recommended before use. Ends chamfered to help assembly. WHEN ORDERING: replace '-X' in part number with "M" for mild carbon steel or "S" for stainless steel material.

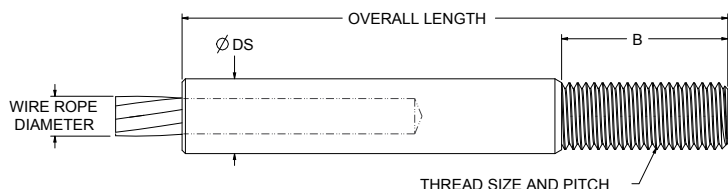
| Part Number* | Wire Rope Diameter | DS After Swage Dim Min | DS After Swage Dim | DS After Swage Dim Max | MS (approx) | Weight Each |
|--------------|--------------------|------------------------|--------------------|------------------------|-------------|-------------|
| WR-10438-X | 1/2" | 0.98 | 1.00 | 1.03 | 2.00 | 0.34 |
| WR-10439-X | 1/2" | 0.98 | 1.00 | 1.02 | 1.75 | 0.33 |
| WR-10440-X | 1/2" | 1.105 | 1.125 | 1.16 | 2.00 | 0.50 |
| WR-10441-X | 1/2" | 1.23 | 1.25 | 1.27 | 1.25 | 0.40 |
| WR-10442-X | 1/2" | 1.23 | 1.25 | 1.27 | 1.75 | 0.57 |
| WR-10443-X | 1/2" | 1.105 | 1.125 | 1.16 | 2.19 | 0.59 |
| WR-10444-X | 1/2" | 1.105 | 1.125 | 1.16 | 2.375 | 0.59 |
| WR-10445-X | 9/16" | 1.04 | 1.063 | 1.09 | 2.438 | 0.52 |
| WR-10446-X | 9/16" | 1.105 | 1.125 | 1.16 | 1.50 | 0.34 |
| WR-10447-X | 9/16" | 1.23 | 1.25 | 1.29 | 2.438 | 0.74 |
| WR-10448-X | 9/16" | 1.23 | 1.25 | 1.29 | 2.625 | 0.80 |
| WR-10449-X | 5/8" | 1.23 | 1.25 | 1.29 | 2.75 | 0.79 |
| WR-10450-X | 5/8" | 1.355 | 1.375 | 1.42 | 2.50 | 0.93 |
| WR-10451-X | 5/8" | 1.355 | 1.375 | 1.42 | 2.875 | 1.06 |
| WR-10452-X | 3/4" | 1.48 | 1.50 | 1.55 | 3.25 | 1.35 |
| WR-10453-X | 3/4" | 1.48 | 1.50 | 1.55 | 2.00 | 0.93 |
| WR-10454-X | 3/4" | 1.48 | 1.50 | 1.55 | 3.50 | 1.46 |
| WR-10455-X | 7/8" | 1.73 | 1.75 | 1.80 | 3.875 | 2.18 |
| WR-10456-X | 7/8" | 1.73 | 1.75 | 1.80 | 2.50 | 1.50 |
| WR-10457-X | 7/8" | 1.73 | 1.75 | 1.80 | 2.79 | 1.61 |
| WR-10458-X | 7/8" | 1.73 | 1.75 | 1.80 | 3.00 | 1.74 |
| WR-10459-X | 7/8" | 1.73 | 1.75 | 1.80 | 4.125 | 2.32 |
| WR-10460-X | 1" | 1.98 | 2.00 | 2.05 | 4.36 | 3.23 |
| WR-10461-X | 1" | 1.98 | 2.00 | 2.05 | 4.75 | 3.53 |
| WR-10462-X | 1-1/8" | 2.22 | 2.25 | 2.30 | 5.00 | 4.60 |
| WR-10463-X | 1-1/8" | 2.22 | 2.25 | 2.30 | 4.81 | 4.60 |
| WR-10464-X | 1-1/8" | 2.22 | 2.25 | 2.30 | 5.25 | 5.00 |
| WR-10465-X | 1-1/4" | 2.47 | 2.50 | 2.56 | 5.50 | 6.27 |
| WR-10466-X | 1-1/4" | 2.47 | 2.50 | 2.56 | 5.875 | 6.79 |
| WR-10467-X | 1-3/8" | 2.72 | 2.75 | 2.81 | 6.00 | 8.46 |
| WR-10468-X | 1-3/8" | 2.72 | 2.75 | 2.81 | 6.50 | 9.24 |
| WR-10469-X | 1-1/2" | 2.97 | 3.00 | 3.06 | 6.50 | 10.98 |
| WR-10470-X | 1-1/2" | 2.97 | 3.00 | 3.06 | 7.125 | 11.97 |

* Call for specifications on different sizes or material

Wire Rope Terminations
Wire Rope Threaded Stud Ends
1/4" to 1-1/2" Wire Rope Diameter

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



Mild carbon steel, stainless, NC or NF thread pitch, right hand threads or left hand threads available - specify when ordering. See ordering note below. Wrench grips available upon request - supplied without wrench grips unless requested.

| Part Number* | Wire Rope Diameter | DS After Swage Dim Min | DS After Swage Dim | DS After Swage Dim Max | Overall Length (approx) | B | NC Thread Pitch | NF Thread Pitch | Weight Each |
|--------------|--------------------|------------------------|--------------------|------------------------|-------------------------|-------|-----------------|-----------------|-------------|
| WR-10471 | 1/4" | 0.553 | 0.563 | 0.573 | 4.72 | 1.50 | 9/16-12 | 9/16-18 | 0.28 |
| WR-10472 | 1/4" | 0.49 | 0.50 | 0.51 | 4.72 | 1.50 | 1/2-13 | 1/2-20 | 0.21 |
| WR-10473 | 1/4" | 0.43 | 0.438 | 0.46 | 4.06 | 1.50 | 1/2-13 | 1/2-20 | 0.16 |
| WR-10474 | 1/4" | 0.43 | 0.438 | 0.46 | 5.06 | 2.50 | 1/2-13 | 1/2-20 | 0.20 |
| WR-10475 | 5/16" | 0.615 | 0.625 | 0.65 | 5.72 | 1.75 | 5/8-11 | 5/8-18 | 0.41 |
| WR-10476 | 5/16" | 0.615 | 0.625 | 0.65 | 8.97 | 5.00 | 5/8-11 | 5/8-18 | 0.64 |
| WR-10477 | 5/16" | 0.553 | 0.563 | 0.585 | 5.06 | 1.87 | 5/8-11 | 5/8-18 | 0.33 |
| WR-10478 | 3/8" | 0.74 | 0.75 | 0.78 | 6.75 | 2.00 | 3/4-10 | 3/4-16 | 0.72 |
| WR-10479 | 3/8" | 0.74 | 0.75 | 0.78 | 9.75 | 5.00 | 3/4-10 | 3/4-16 | 1.05 |
| WR-10480 | 3/8" | 0.615 | 0.625 | 0.65 | 6.25 | 2.25 | 3/4-10 | 3/4-16 | 0.58 |
| WR-10481 | 7/16" | 0.865 | 0.875 | 0.91 | 7.66 | 2.25 | 7/8-9 | 7/8-14 | 1.13 |
| WR-10482 | 7/16" | 0.74 | 0.75 | 0.78 | 7.31 | 2.62 | 7/8-9 | 7/8-14 | 0.90 |
| WR-10483 | 1/2" | 0.99 | 1.00 | 1.03 | 8.56 | 2.50 | 1-8 | 1-12 | 1.64 |
| WR-10484 | 1/2" | 0.99 | 1.00 | 1.03 | 12.06 | 6.00 | 1-8 | 1-12 | 2.4 |
| WR-10485 | 1/2" | 0.865 | 0.875 | 0.91 | 8.25 | 3.00 | 1-8 | 1-12 | 1.36 |
| WR-10486 | 1/2" | 0.74 | 0.75 | 0.78 | 6.625 | 2.25 | 7/8-9 | 7/8-14 | 1.00 |
| WR-10487 | 9/16" | 1.115 | 1.125 | 1.16 | 9.625 | 2.75 | 1-1/8-7 | 1-1/8-12 | 2.33 |
| WR-10488 | 9/16" | 0.99 | 1.00 | 1.03 | 9.25 | 3.375 | 1-1/8-7 | 1-1/8-12 | 1.93 |
| WR-10489 | 5/8" | 1.24 | 1.25 | 1.28 | 10.66 | 3.125 | 1-1/4-7 | 1-1/4-12 | 3.23 |
| WR-10490 | 5/8" | 1.115 | 1.125 | 1.16 | 10.125 | 3.75 | 1-1/4-7 | 1-1/4-12 | 2.66 |
| WR-10491 | 3/4" | 1.49 | 1.50 | 1.55 | 12.69 | 3.75 | 1-1/2-6 | 1-1/2-12 | 5.51 |
| WR-10492 | 3/4" | 1.365 | 1.375 | 1.42 | 12.81 | 4.50 | 1-1/2-6 | 1-1/2-12 | 4.56 |
| WR-10493 | 7/8" | 1.74 | 1.75 | 1.80 | 14.625 | 4.375 | 1-3/4-5 | 1-3/4-12 | 8.58 |
| WR-10494 | 7/8" | 1.49 | 1.50 | 1.55 | 14.56 | 5.25 | 1-3/4-5 | 1-3/4-12 | 7.14 |
| WR-10495 | 1" | 1.99 | 2.00 | 2.05 | 16.66 | 5.00 | 2"-4.5 | 2"-12 | 12.60 |
| WR-10496 | 1" | 1.74 | 1.75 | 1.80 | 16.25 | 6.00 | 2"-4.5 | 2"-12 | 10.66 |
| WR-10497 | 1-1/8" | 2.24 | 2.25 | 2.30 | 18.625 | 5.625 | 2-1/4-4.5 | 2-1/4-12 | 18.00 |
| WR-10498 | 1-1/8" | 1.99 | 2.00 | 2.05 | 18.25 | 6.75 | 2-1/4-4.5 | 2-1/4-12 | 15.63 |
| WR-10499 | 1-1/4" | 2.49 | 2.50 | 2.56 | 20.66 | 6.25 | 2-1/2-4 | 2-1/2-12 | 24.69 |
| WR-10500 | 1-1/4" | 2.24 | 2.25 | 2.30 | 20.25 | 7.50 | 2-1/2-4 | 2-1/2-12 | 21.00 |
| WR-10501 | 1-3/8" | 2.74 | 2.75 | 2.81 | 22.53 | 6.875 | 2-3/4-4 | 2-3/4-12 | 33.06 |
| WR-10502 | 1-3/8" | 2.365 | 2.375 | 2.41 | 22.875 | 8.25 | 2-3/4-4 | 2-3/4-12 | 30.50 |
| WR-10503 | 1-1/2" | 2.99 | 3.00 | 3.06 | 24.25 | 7.50 | 3"-4 | 3"-12 | 49.30 |
| WR-10504 | 1-1/2" | 2.74 | 2.75 | 2.81 | 24.75 | 9.00 | 3"-4 | 3"-12 | 41.10 |

* Call for specifications on different sizes or material

When ordering, please specify as follows: **PartNumber - A - B - C - D**

For **field A**, please specify "M" for mild carbon steel or "S" for stainless steel

For **field B**, please specify "C" for coarse thread or "F" for fine thread

For **field C**, please specify "R" for right hand thread or "L" for left hand thread

For **field D**, please indicate "W" for wrench flats or leave blank for none

For example, **WR-10471-M-C-R** would be a threaded stud end for 1/4" wire rope made out of mild carbon steel with coarse right-hand threads and no wrench flats.

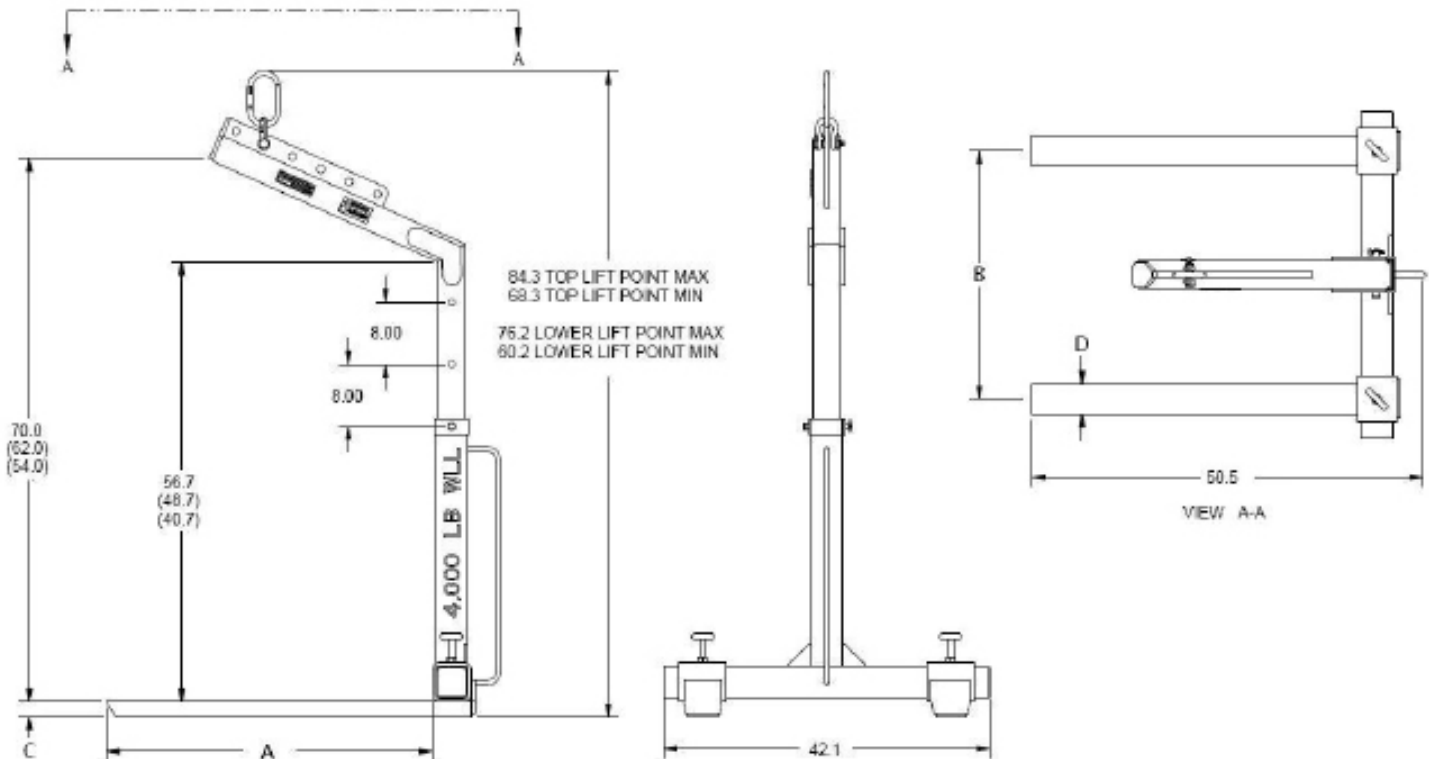
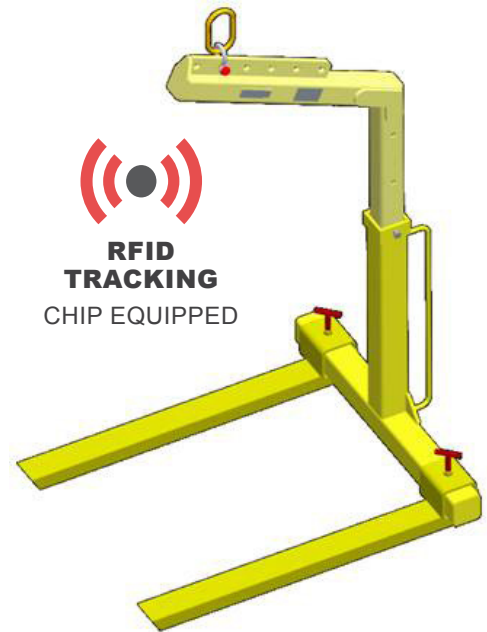
Pallet Lifter with Adjustable Lifting Base and Adjustable Lift Bale

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** material handling equipment proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.

- Converts crane or hoist into aerial forklift.
- Fork Length : 42"
- Adjustable Fork Spacing : 17 - 36"

| Working Load Limit in Pounds* | Part Number | A | B | C | D | Weight in Pounds |
|-------------------------------|--------------|----|----------|---|---|------------------|
| 4,000 | 12412 | 42 | 17 to 36 | 2 | 4 | 400 |

* Call for specifications on larger sizes and capacities



Pallet Lifters

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



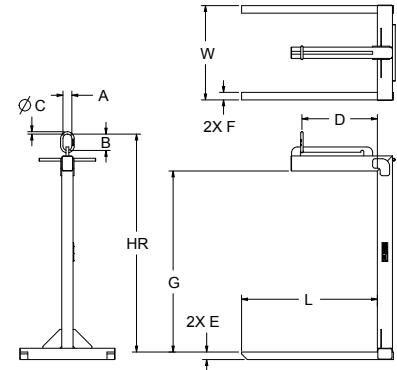
Pallet Lifters

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- ALL** material handling equipment proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.



**RFID
TRACKING**
CHIP EQUIPPED

- Converts crane or hoist into aerial forklift.



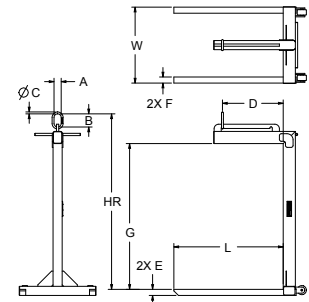
| Working Load Limit in Pounds* | Part Number | Weight in Pounds | HR | A | B | C | D | E | F | G | L | W |
|-------------------------------|--------------|------------------|------|------|------|------|------|-----|-----|----|----|----|
| 2,000 | 14511 | 190 | 57.8 | 2.36 | 4.33 | 0.63 | 20 | 2 | 2 | 48 | 36 | 25 |
| 4,000 | 14512 | 335 | 58.8 | 2.36 | 4.33 | 0.63 | 20 | 2 | 4 | 48 | 36 | 25 |
| 6,000 | 14513 | 460 | 62.8 | 3.94 | 7.09 | 1.03 | 18 | 2.5 | 4.5 | 48 | 36 | 27 |
| 8,000 | 16664 | 660 | 46.2 | 3.94 | 7.09 | 1.03 | 17.5 | 3 | 5 | 48 | 36 | 27 |

* Call for specifications on larger sizes and capacities



**RFID
TRACKING**
CHIP EQUIPPED

- Converts crane or hoist into aerial forklift.



| Working Load Limit in Pounds* | Part Number | Weight in Pounds | HR | A | B | C | D | E | F | G | L | W |
|-------------------------------|--------------|------------------|------|------|------|------|----|---|---|----|----|----|
| 2,000 | 14538 | 190 | 57.8 | 2.36 | 4.33 | 0.63 | 20 | 2 | 2 | 48 | 36 | 25 |
| 4,000 | 14537 | 335 | 58.8 | 2.36 | 4.33 | 0.63 | 20 | 2 | 4 | 48 | 36 | 25 |

* Call for specifications on larger sizes and capacities

Pallet Lifters

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** material handling equipment proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.

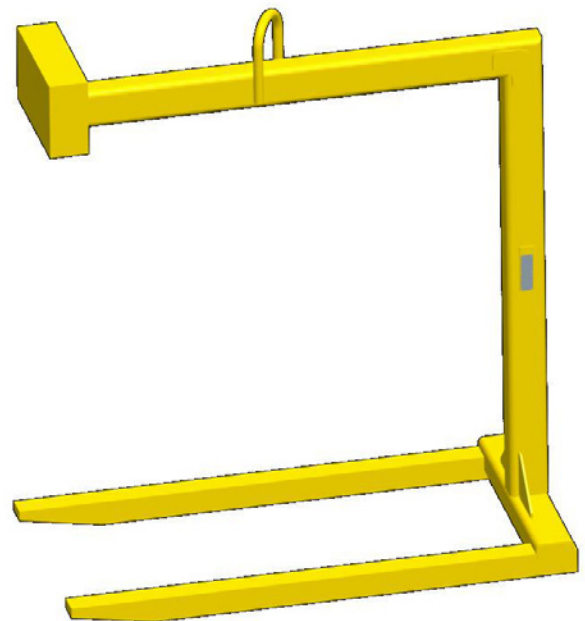
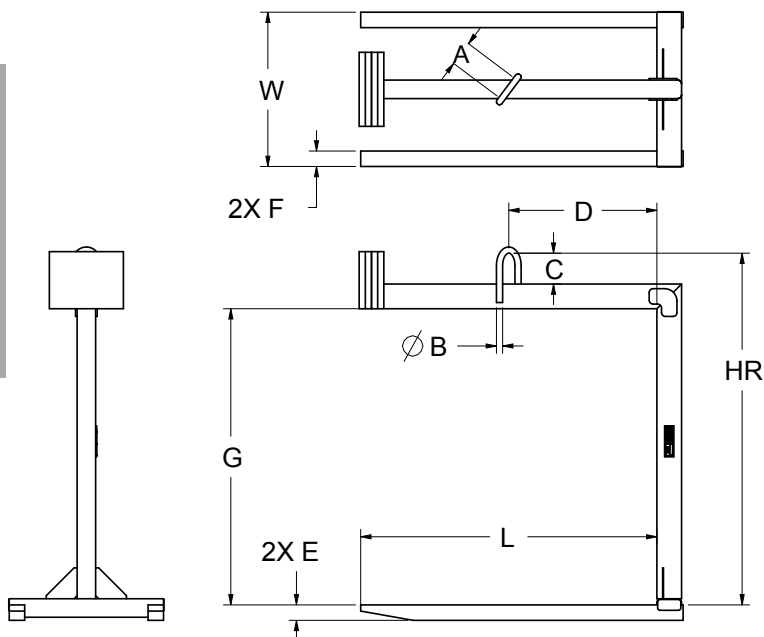
| Working Load Limit in Pounds* | Part Number | Weight in Pounds | HR | A | B | C | D | E | F | G | L | W |
|-------------------------------|--------------|------------------|----|---|---|-----|----|-----|-----|----|----|----|
| 2,000 | 14631 | 190 | 57 | 4 | 5 | 1 | 24 | 2.5 | 2.5 | 48 | 48 | 25 |
| 4,000 | 14630 | 760 | 59 | 4 | 5 | 1 | 24 | 2.5 | 4 | 48 | 48 | 25 |
| 6,000 | 14629 | 965 | 62 | 4 | 7 | 1.5 | 24 | 3 | 5 | 48 | 48 | 27 |

* Call for specifications on larger sizes and capacities

- Converts crane or hoist into aerial forklift.
- Counter balance allows lifter to hang level when empty.



PALLET LIFTERS



Adjustable Wheeled Pallet Lifters

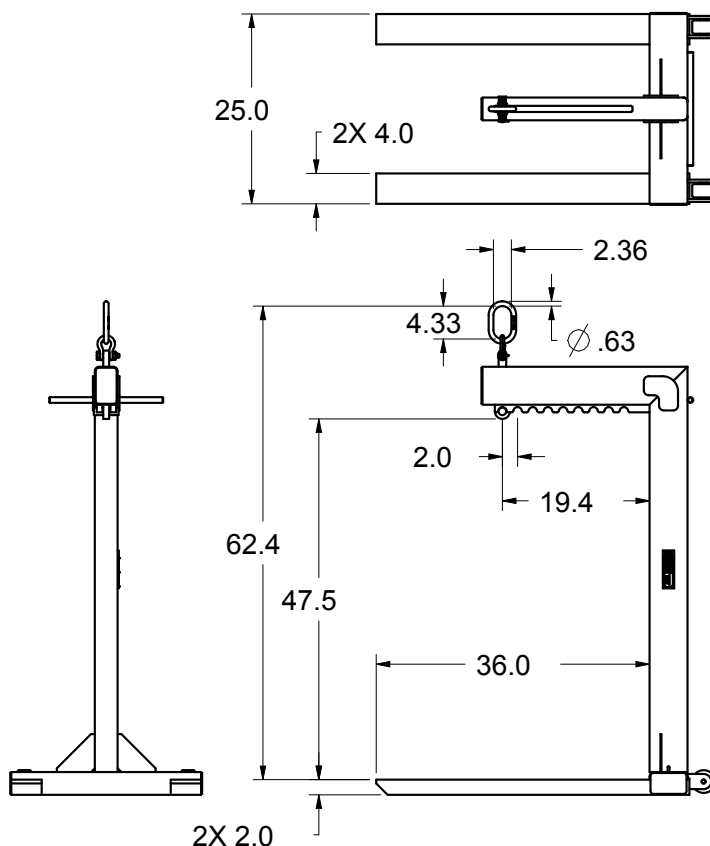
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** material handling equipment proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- Converts crane or hoist into aerial forklift.
- Multiple Lift Bale adjustments.

| Working Load Limit in Pounds* | Part Number | Weight in Pounds |
|-------------------------------|--------------|------------------|
| 4,000 | 14998 | 330 |

* Call for specifications on larger sizes and capacities



**RFID
TRACKING**
CHIP EQUIPPED



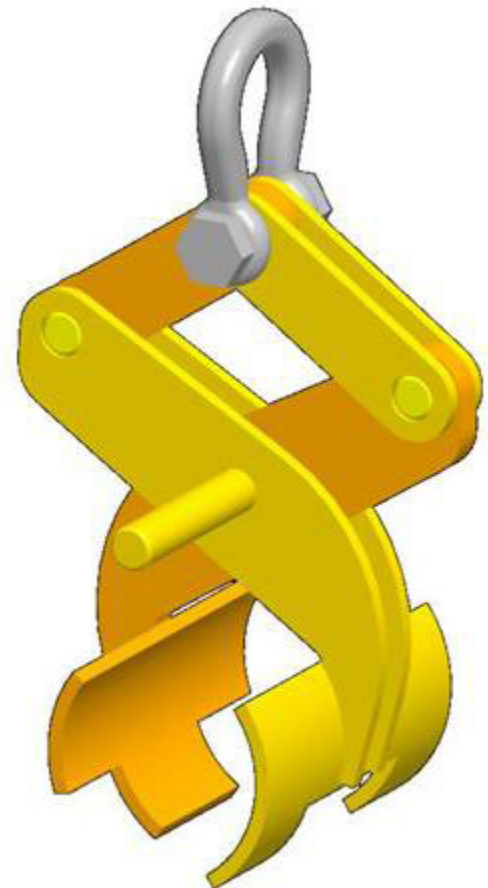
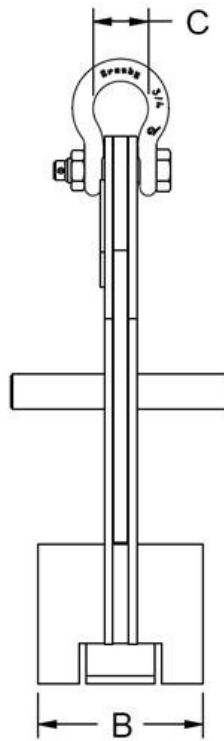
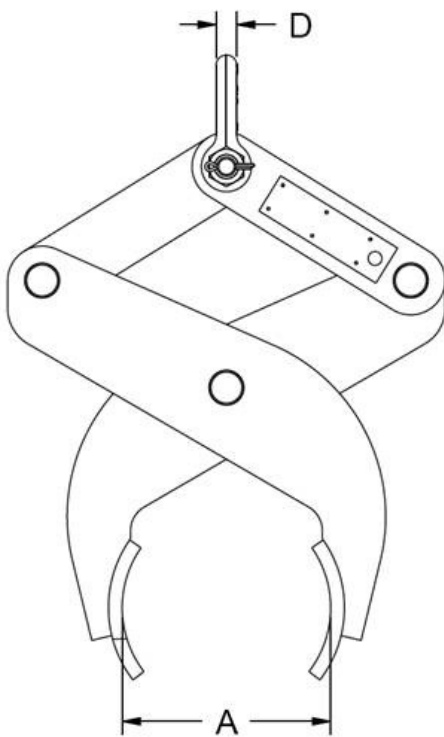
Bar Tong Lifter

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- **ALL** material handling equipment shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Ideal for moving round bars and pipe.

| Working Load Limit in Pounds* | Part Number | A | B | C | D | Weight |
|-------------------------------|--------------|----------|------|------|------|--------|
| 1,000 | 11855 | 0 - 4" | 6.00 | 1.69 | 0.63 | 12 |
| 2,000 | 16890 | 7 - 12" | 6.00 | 2.00 | 0.75 | 55 |
| 4,000 | 11902 | 4 - 7.5" | 6.00 | 2.00 | 0.75 | 41 |

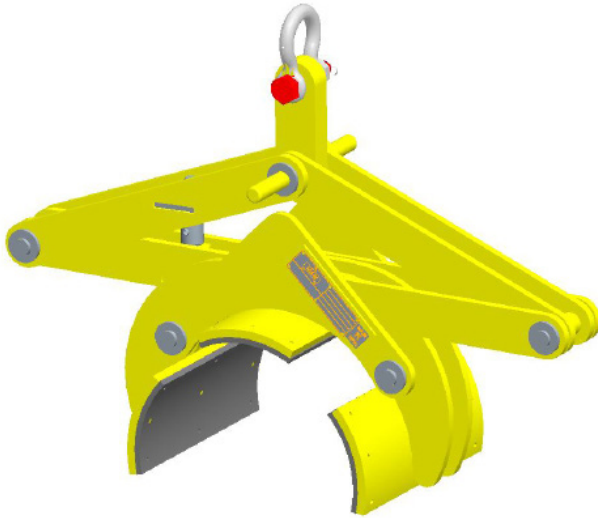


* Call for specifications on larger sizes and capacities



Indexing Padded Pipe Lifting Clamps

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifters proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.



- Heavy-duty design to hold up to outdoor environments.
- Rugged gripping pads conform to load.
- Eliminates the need for rigging when handling large pipe.
- To be used only for vertical lifting.
- Large lifting shackle accommodates crane hooks or supplementary rigging.
- Can be used in pairs to handle longer pipes with lifting beam or spreader beam.
- Replacement pad set installs easily and quickly.
- Indexing latch mechanism allows lifter to be held open.

| Working Load Limit in Pounds* | Part Number | Weight | Pipe Dia Min | Pipe Dia Max | Max Grip Opening | Replacement pad set Part Number |
|-------------------------------|--------------|--------|--------------|--------------|------------------|---------------------------------|
| 1,200 | 20053 | 26 | 3.5" | 5.5" | 6.4" | 20053-17 |
| 2,000 | 19911 | 82 | 5.5" | 8.8" | 10.3" | 19911-17 |
| 4,500 | 20054 | 253 | 8.8" | 14" | 16.4" | 20054-17 |
| 10,000 | 20055 | 550 | 14" | 22" | 25.5" | 20055-17 |

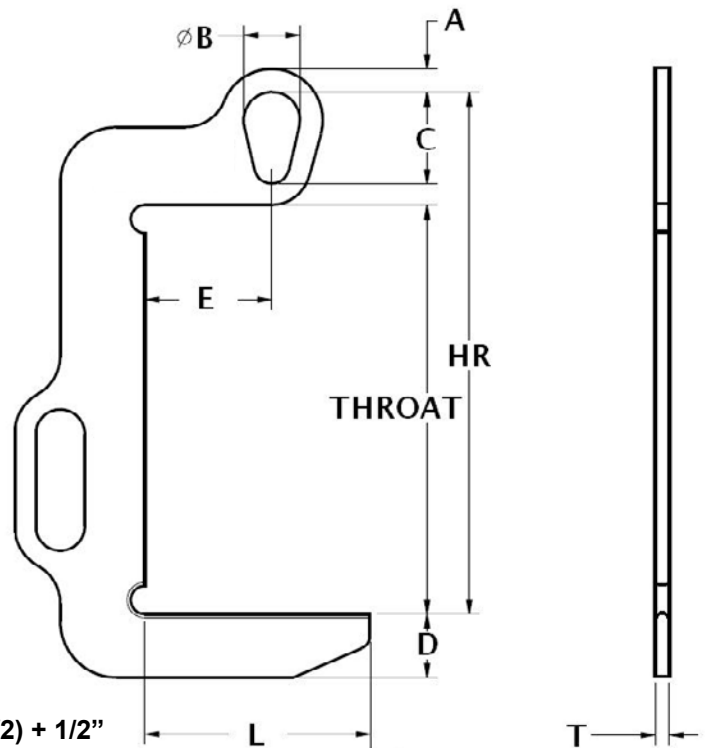
* Call for specifications on larger sizes and capacities



Coil Lifters

COIL LIFTERS

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Coil Lifters proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.



NOTE: $E = (L/2) + 1/2"$

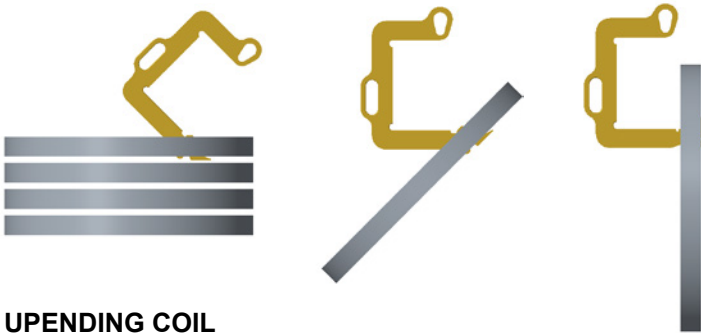
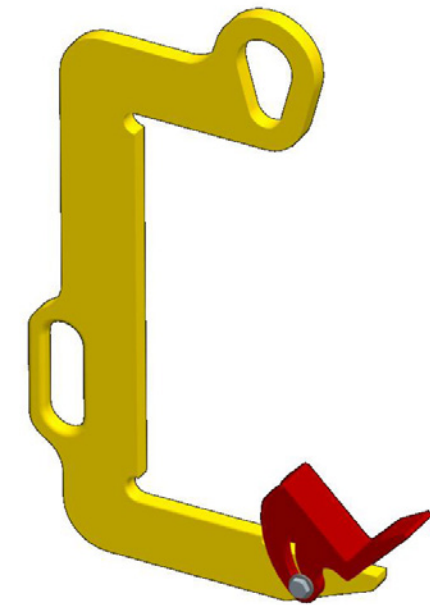
| Working Load Limit in Pounds* | Part Number | Throat | HR | A | B | C | D | E | L | T | Weight in Pounds |
|-------------------------------|--------------|--------|------|------|------|------|------|------|------|------|------------------|
| 1,000 | 14463 | 14.5 | 18.5 | 0.81 | 2.00 | 3.25 | 2.25 | 4.5 | 8.0 | 0.50 | 14 |
| 1,000 | 14464 | 14.5 | 18.5 | 0.81 | 2.00 | 3.25 | 2.63 | 6.5 | 12.0 | 0.50 | 15 |
| 2,000 | 14465 | 17.5 | 21.5 | 0.81 | 2.00 | 3.25 | 2.00 | 4.5 | 8.0 | 0.50 | 14 |
| 2,000 | 14466 | 17.5 | 21.5 | 0.81 | 2.00 | 3.25 | 2.50 | 8.5 | 16.0 | 0.50 | 19 |
| 4,000 | 14467 | 19.5 | 24.6 | 1.00 | 2.56 | 4.06 | 2.13 | 4.5 | 8.0 | 0.75 | 27 |
| 4,000 | 14468 | 19.5 | 24.6 | 1.00 | 2.56 | 4.06 | 3.00 | 8.5 | 16.0 | 0.75 | 35 |
| 7,000 | 14469 | 21.5 | 28.2 | 1.18 | 3.63 | 5.31 | 2.87 | 6.5 | 12.0 | 1.00 | 52 |
| 7,000 | 14470 | 21.5 | 28.2 | 1.18 | 3.63 | 5.31 | 3.38 | 8.5 | 16.0 | 1.00 | 59 |
| 10,000 | 14471 | 25.5 | 32.9 | 1.50 | 4.00 | 5.81 | 3.50 | 8.5 | 16.0 | 1.25 | 87 |
| 10,000 | 14472 | 25.5 | 32.9 | 1.50 | 4.00 | 5.81 | 4.00 | 10.5 | 20.0 | 1.25 | 101 |

* Call for specifications on larger sizes and capacities

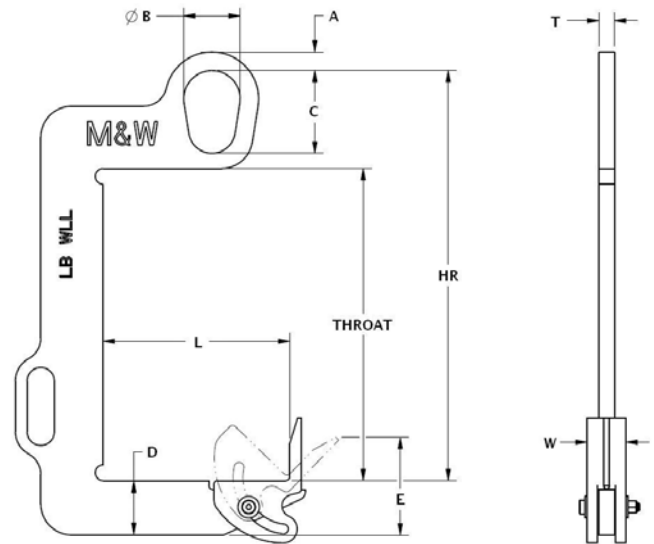
Coil Lifter/Upender

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Coil Lifters proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to warehouse use.

- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL lifting equipment individually proof loaded per OSHA requirements.**
- Easy horizontal to vertical upending of coils



UPENDING COIL



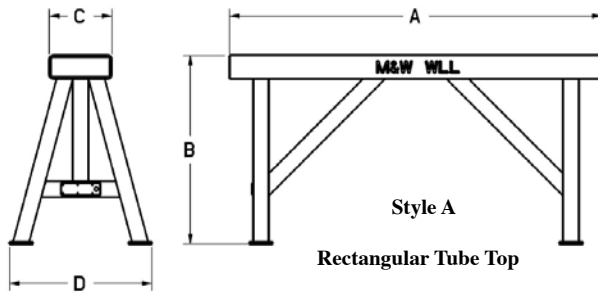
| Working Load Limit in Pounds* | Part Number | Throat | HR | A | B | C | E | T | W | L | D | Weight in Pounds |
|-------------------------------|--------------|--------|------|------|------|------|------|------|------|------|------|------------------|
| 1,000 | 14480 | 13.0 | 17.0 | 0.81 | 2.00 | 3.31 | 4.06 | 0.50 | 2.00 | 6.0 | 2.25 | 17 |
| 1,000 | 14481 | 13.0 | 17.0 | 0.81 | 2.00 | 3.31 | 4.56 | 0.50 | 2.00 | 12.0 | 2.75 | 23 |
| 2,000 | 14482 | 16.0 | 20.0 | 0.81 | 2.00 | 3.31 | 3.89 | 0.50 | 2.00 | 8.0 | 2.50 | 20 |
| 4,000 | 14483 | 18.0 | 23.1 | 1.00 | 2.63 | 4.00 | 5.05 | 0.75 | 2.00 | 10.0 | 2.75 | 33 |
| 7,000 | 14484 | 20.0 | 26.3 | 1.18 | 3.63 | 5.31 | 6.26 | 1.00 | 2.50 | 12.0 | 3.50 | 61 |

* Call for specifications on larger sizes and capacities

Material Stands Load Tested, Heavy-Duty Material Stands with Channel or Box Steel top options

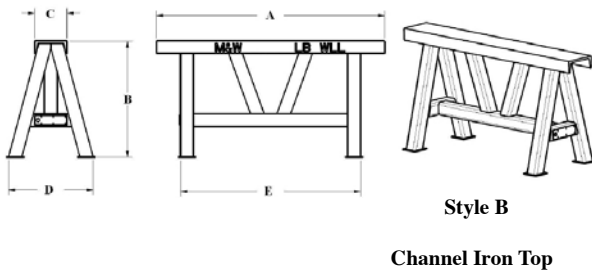
Material Stands: Load Tested, Heavy Duty

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- Durable construction ideally suited to warehouse or manufacturing shop floor use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- ALL Material Stands individually proof loaded and shipped with certification paperwork.**



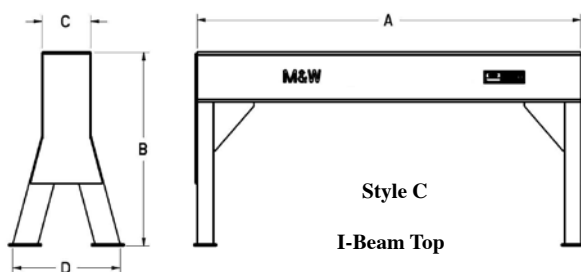
| Working Load Limit in Pounds* | Part Number | A | B | C | D | E | Weight in Pounds |
|-------------------------------|--------------|------|------|------|------|------|------------------|
| 3,000 | 13903 | 42.0 | 28.0 | 12.0 | 20.0 | 36.0 | 140 |
| 5,000 | 16527 | 42.0 | 29.0 | 12.0 | 20.0 | 36.0 | 173 |
| 7,000 | 13777 | 47.5 | 24.0 | 8.0 | 18.2 | 41.5 | 125 |
| 10,000 | 16528 | 47.5 | 25.0 | 8.0 | 19.2 | 41.5 | 130 |

* Call for specifications on larger sizes and capacities



| Working Load Limit in Pounds* | Part Number | A | B | C | D | E | Weight in Pounds |
|-------------------------------|--------------|------|------|------|------|------|------------------|
| 2,000 | 15262 | 35.5 | 18.0 | 5.0 | 13.2 | 28.0 | 75 |
| 2,000 | 15281 | 35.5 | 32.0 | 5.0 | 20.7 | 28.0 | 105 |
| 5,000 | 15307 | 35.5 | 18.0 | 6.0 | 14.3 | 28.0 | 90 |
| 5,000 | 15306 | 35.5 | 32.0 | 6.0 | 21.5 | 28.0 | 120 |
| 7,000 | 15309 | 35.5 | 18.0 | 8.0 | 14.6 | 28.0 | 100 |
| 7,000 | 15308 | 35.5 | 32.0 | 8.0 | 22.1 | 28.0 | 135 |
| 10,000 | 15327 | 35.5 | 18.0 | 10.0 | 14.5 | 28.0 | 125 |
| 10,000 | 15312 | 35.5 | 32.0 | 10.0 | 22.0 | 28.0 | 160 |

* Call for specifications on larger sizes and capacities



| Working Load Limit in Pounds* | Part Number | A | B | C | D | Weight in Pounds |
|-------------------------------|--------------|------|------|-----|------|------------------|
| 5,000 | 16533 | 47.5 | 24.0 | 4.0 | 13.4 | 110 |
| 10,000 | 16534 | 47.5 | 24.0 | 6.0 | 13.3 | 145 |
| 15,000 | 16535 | 47.5 | 24.0 | 5.3 | 14.3 | 150 |
| 20,000 | 16536 | 47.5 | 24.0 | 6.5 | 14.4 | 195 |
| 30,000 | 16537 | 47.5 | 24.0 | 8.0 | 15.5 | 245 |

* Call for specifications on larger sizes and capacities

Bottle Lifting Device

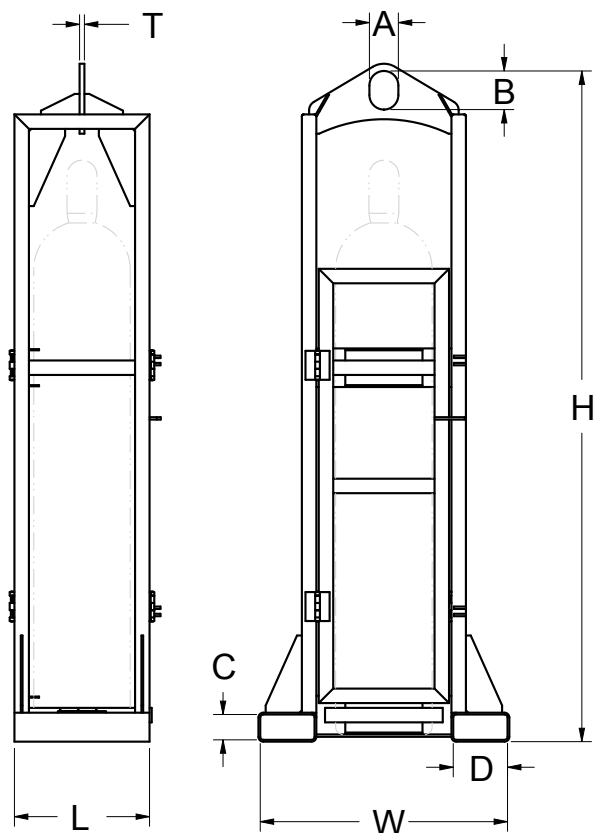
Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com



Bottle Lifting Device

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Bottle Lifters proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
 - Adjustable straps to hold tanks
 - Lockable doors
- Made in U.S.A..
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.



BOTTLE LIFTERS

| Part No. | Working Load Limit | Tank Capacity | A | B | C | D | T | L | W | H | WEIGHT |
|----------|--------------------|---------------|----|-----|------|------|-----|------|------|------|--------|
| 20199 | 500 | 1 | 3 | 4 | 2.62 | 5.62 | 0.5 | 14 | 26 | 70 | 150 |
| 16307 | 750 | 2 | 3 | 4 | 3 | 6 | 0.5 | 29.5 | 26 | 64.5 | 300 |
| 17324 | 1500 | 3 | 15 | 325 | 5 | 9 | 0.5 | 31 | 30.5 | 65 | 525 |

* Call for specifications on larger sizes and capacities

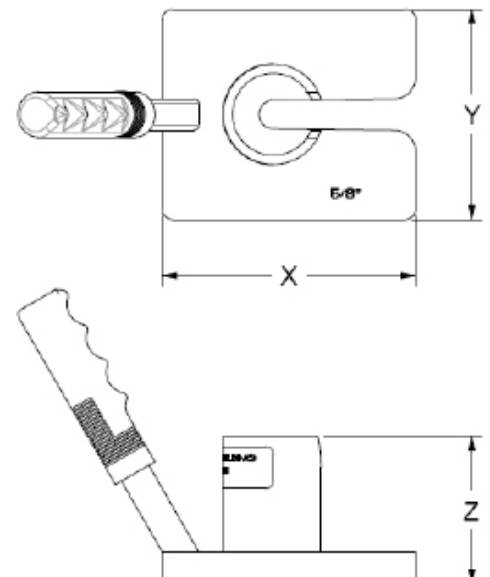
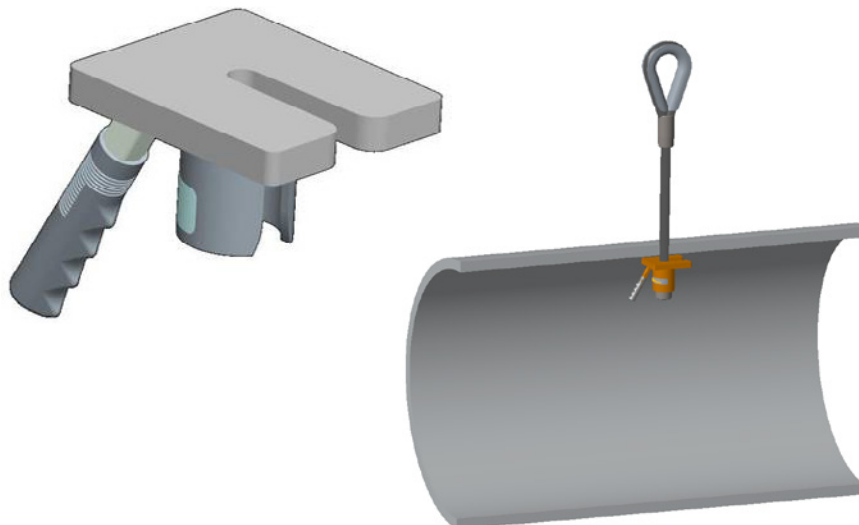
Concrete Pipe Lifting

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Wire rope lifting sling available - call for quote.
- Wire rope ferrules available separately - order by part number and wire rope diameter.
- Durable construction ideally suited to jobsite use.
- Made in U.S.A.
- Efficient method for handling of water and sewer concrete pipes.

| Capacity in Pounds* | Teacup Part Number | Wire Rope Diameter | X | Y | Z | Color |
|---------------------|--------------------|--------------------|------|------|------|--------|
| 4,400 | 11575 | 1/2" | 5.00 | 6.00 | 3.50 | Orange |
| 6,800 | 11576 | 5/8" | 5.00 | 6.00 | 3.50 | Gray |
| 9,800 | 11577 | 3/4" | 5.00 | 6.00 | 3.50 | Blue |
| 13,200 | 11578 | 7/8" | 5.00 | 6.00 | 3.50 | Black |
| 17,000 | 11579 | 1" | 5.00 | 6.00 | 4.25 | Red |
| 20,000 | 11580 | 1-1/8" | 5.00 | 6.00 | 4.25 | Green |
| 26,000 | 11581 | 1-1/4" | 6.00 | 7.50 | 5.00 | Yellow |
| 30,000 | 11582 | 1-3/8" | 6.00 | 7.50 | 5.00 | White |
| 36,000 | 11583 | 1-1/2" | 6.00 | 7.50 | 5.50 | Orange |
| 50,000 | 11783 | 1-3/4" | 6.00 | 7.50 | 5.50 | Brown |

| Wire Rope Ferrule Part Number |
|-------------------------------|
| 12370 |
| 12371 |
| 12372 |
| 12373 |
| 12374 |
| 12375 |
| 12376 |
| 12380 |
| 12381 |
| 12421 |

* Call for specifications on larger sizes and capacities



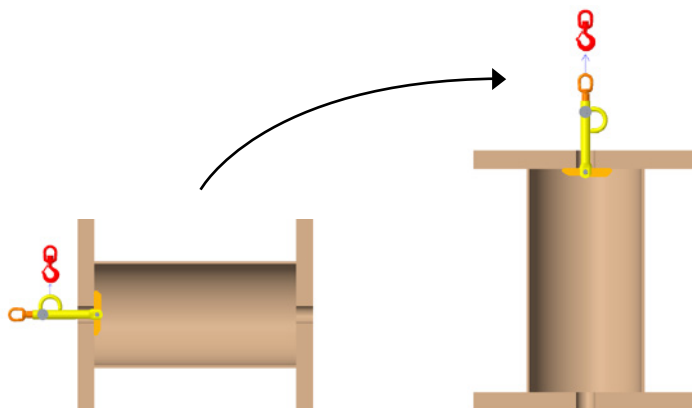
Reel Lifting and Turning

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- **ALL** material handling equipment proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Machined to exacting tolerances.
- Working Load Limit stamped on each lifter.
- Safely allows personnel to flip reels from rolling to non-rolling position quickly and easily.

| Working Load Limit in Pounds* | Part Number | A | B | C | D | Arbor Dia | Weight |
|-------------------------------|--------------|------|------|------|------|-------------|--------|
| 500 | 19455 | 0.75 | 1.05 | n/a | 1.00 | 1-1/4" - 2" | 3 |
| 3,000 | 12782 | 1.50 | 2.00 | 2.75 | 1.66 | 2" - 4" | 7 |
| 4,500 | 13037 | 2.00 | 2.63 | 2.75 | 2.38 | 3" - 6" | 14 |

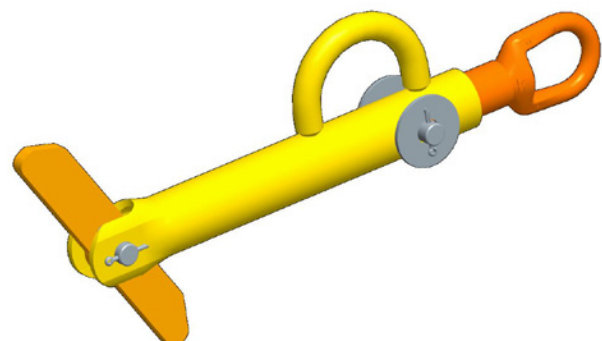
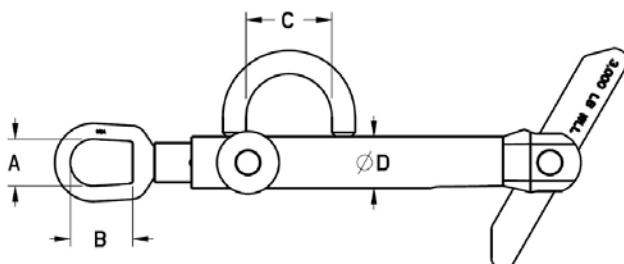
*
*
*

* Call for specifications on larger sizes and capacities



*** TIP UP REEL FROM A ROLLING POSITION TO AN UPRIGHT POSITION, PAY OUT REEL IN UPRIGHT POSITION
PART NUMBER 12782 & 13037**

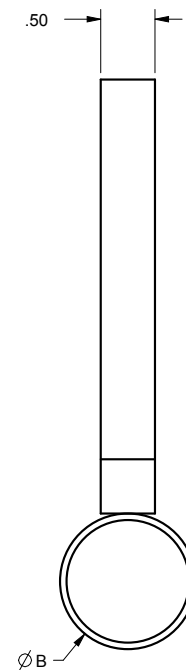
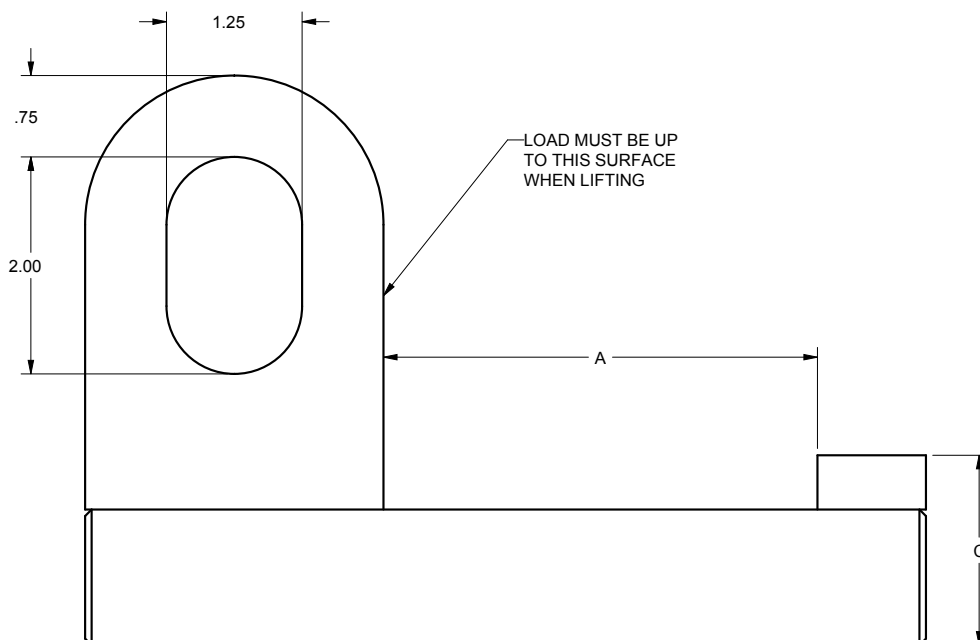
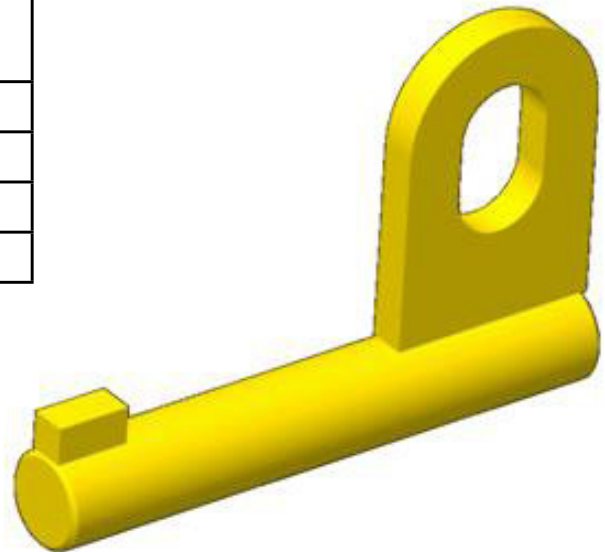
PART NUMBER 19455 NOT FOR TIPPING UP REELS



Manhole Toggle Key

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Machined to exacting tolerances.
- Custom designs available - call for engineering.
- **ALL** manhole toggles individually proof loaded per OSHA requirements.

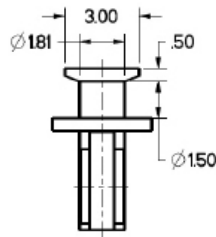
| Working Load Limit in Pounds | Part Number | Weight | A | B | C |
|------------------------------|--------------|--------|------|------|------|
| 3,500 | 12434 | 3 | 4.0 | 1.25 | 1.75 |
| 3,200 | 16300 | 5 | 8.25 | 1.13 | 1.63 |
| 2,200 | 17761 | 6 | 11.0 | 1.25 | 1.38 |
| 3,400 | 19123 | 5 | 6.0 | 1.25 | 1.75 |



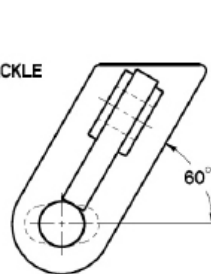
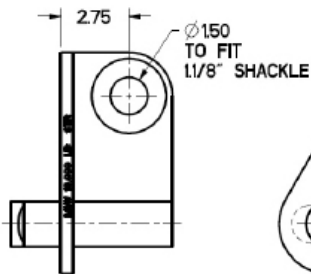
Container Lifting Lugs

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Lifting Lugs proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Sold individually
- Made in U.S.A.
- Top of lug must be horizontal to show proper engagement for lifting.

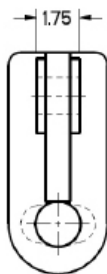
NOTE : Typical container lift will require 2 left and 2 right lugs.
Or will require 4 straight lugs with appropriate spreader / lifting beam and rigging.



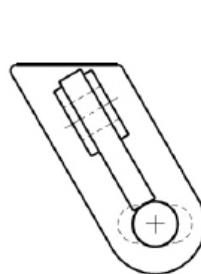
| Working Load Limit in Pounds* | Part Number | Color | Style | Weight in Pounds |
|-------------------------------|--------------|--------|----------|------------------|
| 19,000 | 15373 | Yellow | Straight | 17 |
| 19,000 | 15375 | Blue | Left | 17 |
| 19,000 | 15445 | Red | Right | 17 |



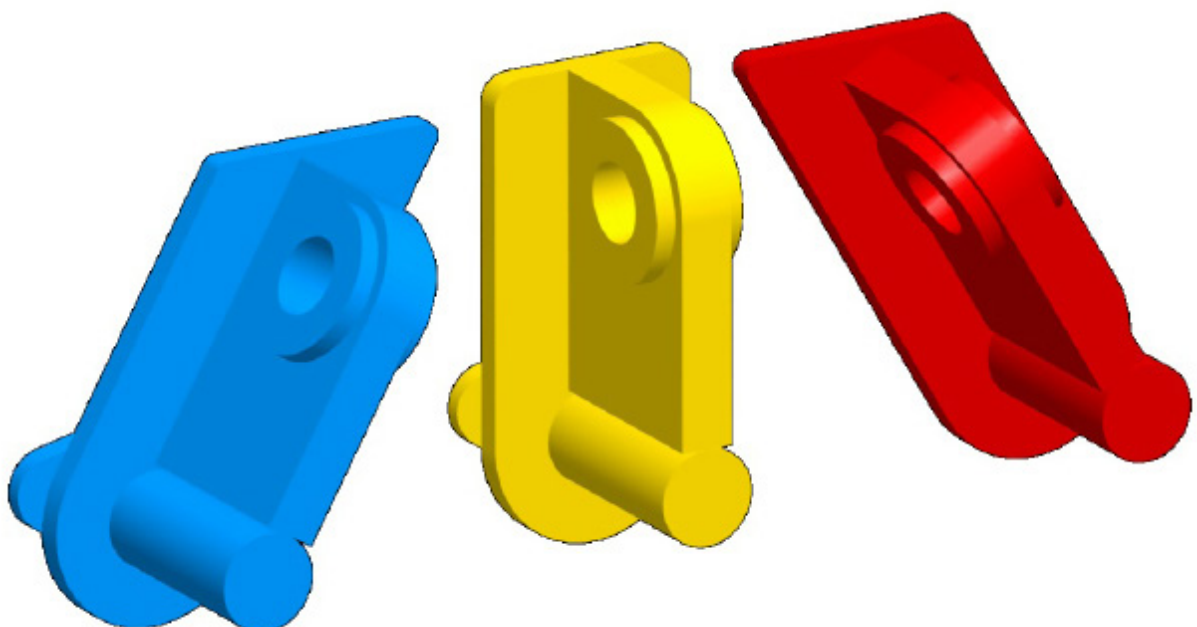
LH
-15375 BLU



STR
-15373 YEL



RH
-15445 RED



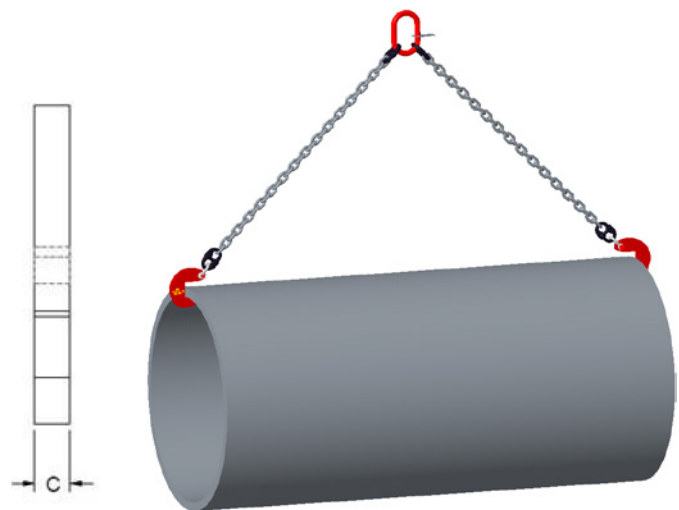
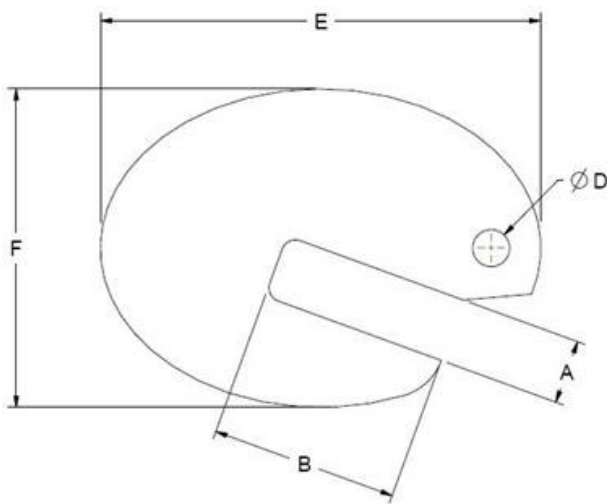
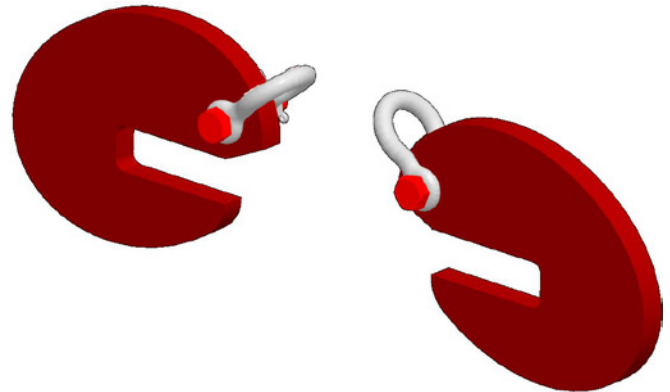
Pipe Lifting Hooks - SOLD IN PAIRS

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety red for increased visibility.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting hooks individually proof loaded per OSHA requirements.

| Working Load Limit in Pounds* | Part Number | A | B | C | D | E | F | Weight per Pair | Shackle Part Number |
|-------------------------------|--------------|------|------|------|------|------|------|-----------------|---------------------|
| 4,000 | 11903 | 1.13 | 3.30 | 0.63 | 0.65 | 7.75 | 5.60 | 12 | 1019472 |
| 8,000 | 11904 | 1.25 | 2.50 | 0.75 | 0.65 | 7.60 | 6.47 | 14 | 1019472 |
| 10,000 | 16194 | 3.38 | 3.00 | 1.00 | 0.81 | 8.28 | 8.72 | 28 | 1019490 |

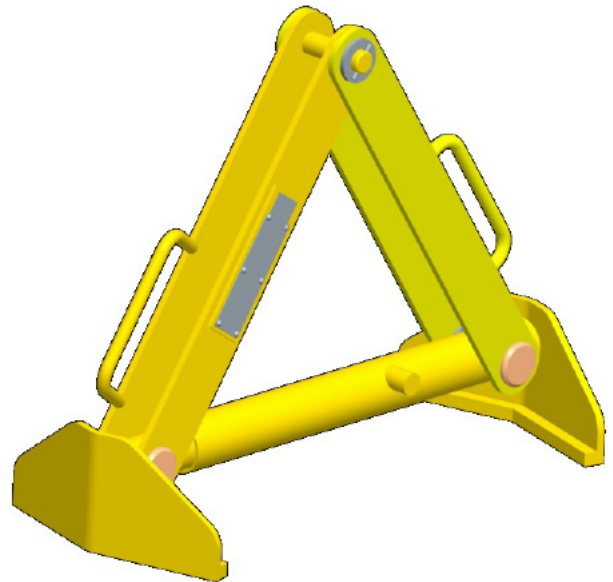
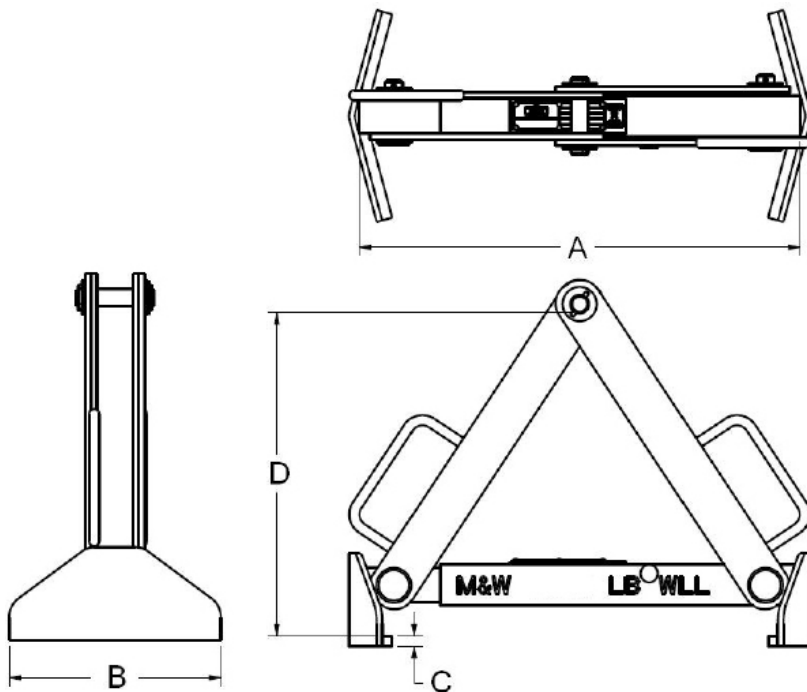
* Call for specifications on larger sizes and capacities

- Working load limit capacity is **PER PAIR**.
- Supplied **with** Safety Shackle as per picture.
- Painted safety red for increased visibility.
- Designed to carry and lift steel and other types of pipe.



Barrel / Bucket Lifter

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- Durable construction ideally suited to jobsite or warehouse use.
- Drum lid **MUST** be properly secured
- Self-adjusting to lift rimmed steel, plastic or fiber drums
- Made in U.S.A.
- Machined to exacting tolerances.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.

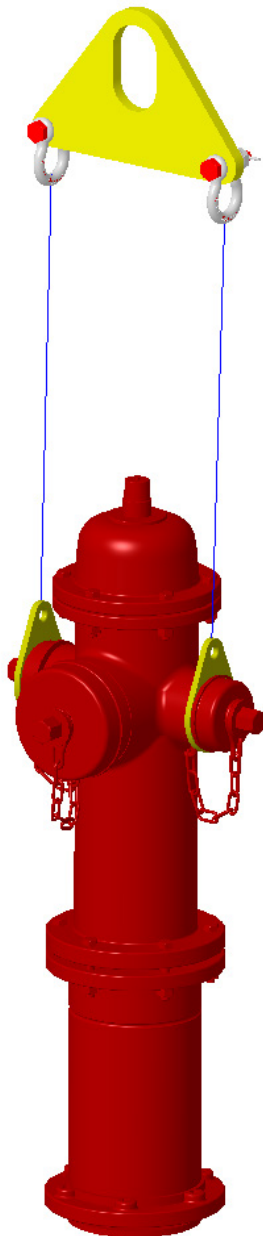


| Working Load Limit in Pounds* | Part Number | Weight in Pounds | A min | A max | B | C | D |
|-------------------------------|--------------|------------------|-------|-------|-----|------|------|
| 1,200 | 16291 | 22 | 18.0 | 29.0 | 9.1 | 0.44 | 13.9 |
| 1,000 | 16656 | 17 | 14.0 | 20.0 | 9.1 | 0.44 | 11.9 |

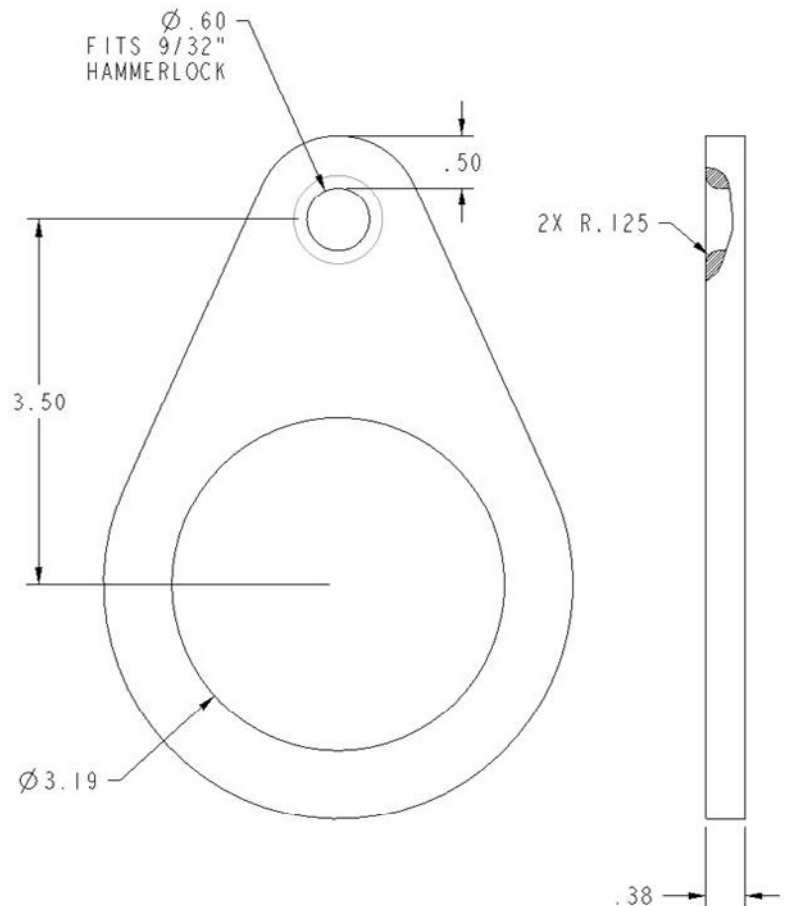
* Call for specifications on larger sizes and capacities

Hydrant Lifter

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Hydrant Lifter proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Sold individually as parts - see note below
- Rigging by others
- Made in U.S.A..
- Custom designs available - call for engineering.



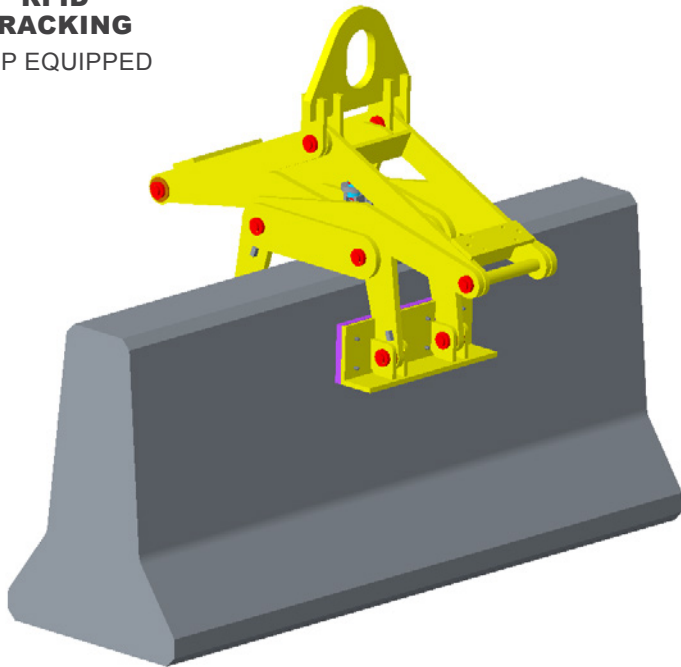
- **19964** bottom Hydrant Lift Lug - 2,000 pound Working Load Limit per pair, sold as each.
- **20350** Standard Short Span Beam - Found on page 6 - 2,000 LB Working Load Limit
- Lifting shackles supplied with **20350** as shown in picture



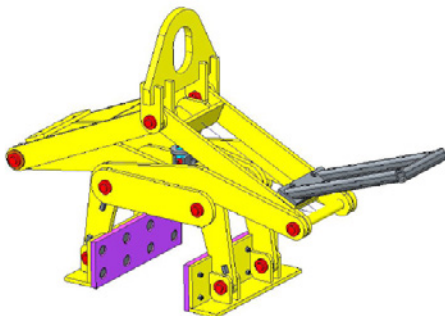
Concrete Barrier Lifter

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- Proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.

- Made in U.S.A.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.

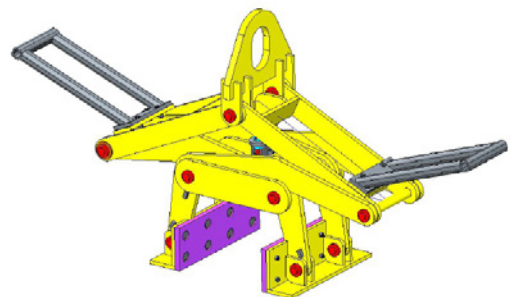


Shown with optional Part Number 19790-40 Operator Extension Handle on one side.



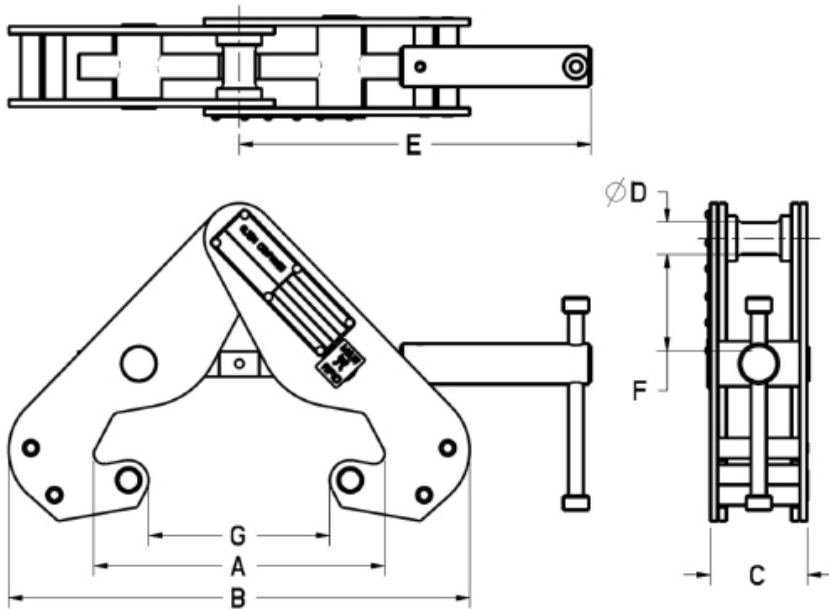
- **Part Number 19790**
 - Heavy-duty design to hold up to outdoor environments where barriers are commonly used.
 - Stainless steel indexing latch mechanism.
 - Rugged gripping pads swivel to conform to load.
 - Indexing latch mechanism allows lifter to be held open.
- **Part Number 19790-31**
Replacement pad installs easily and quickly.
- **Part Number 19790-40** optional Operator Extension Handle keeps ground personnel away from load when adjustment is needed.
- Large lifting eye accommodates crane hook.
- Handles barriers with 6" to 12" width at the top of the barrier.
- 9,000 pound capacity.

Shown with optional Part Number 19790-40 Operator Extension Handle added to both sides.

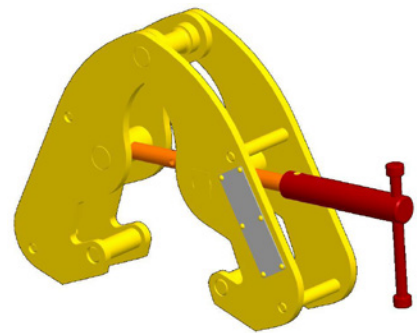


Small Frame Beam Clamps

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- Do not side load above angles of 45° from vertical.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL lifting equipment individually proof loaded per OSHA requirements.**
- Refer to side loading table below for reduction factors for side loading applications.
- Clamps to be used for lifting, pulling or as an anchor point.
- Ratings apply to clamps only. User is responsible for engineering calculations for all support steelwork.
- **WARNING:** All clamps must be correctly applied to the beam by a competent person and fully hand tightened. If in doubt, contact M&W for recommendations.



| Reduction in Working Load Limits when side loads are applied | | | | |
|---|------|------------|-------------|-------------|
| Angle from Vertical | 0° | 0 - 15° | 15 - 30° | 30 - 45° |
| Reduction factor | none | 20% | 35% | 50% |



| Working Load Limit in Pounds* | Part Number | A | B | C | D | E | F | G | Weight | Maximum Flange Thickness | Minimum Flange Thickness | Maximum Flange Width | Minimum Flange Width | Maximum Slip Over Width |
|-------------------------------------|----------------|-------|-------|------|------|-------|------|-------|--------|--------------------------------|--------------------------------|----------------------------|----------------------------|-------------------------------|
| 2,240 | 13474 | 10.94 | 14.59 | 2.41 | 0.80 | 8.75 | 1.35 | 8.33 | 8.3 | 1.21 | 0.81 | 9.50 | 3.20 | 8.85 |
| 2,240† | 13510 | 15.74 | 20.52 | 2.94 | 0.80 | 10.63 | 1.65 | 13.42 | 13.8 | 1.45 | 0.75 | 13.50 | 3.75 | 11.50 |
| 4,480 | 13486 | 10.94 | 14.59 | 2.94 | 0.80 | 8.75 | 1.35 | 8.33 | 10.4 | 1.21 | 0.87 | 9.60 | 3.20 | 9.00 |
| 4,480† | 13553 | 15.74 | 20.52 | 3.19 | 0.80 | 10.63 | 1.65 | 13.42 | 16.1 | 1.45 | 0.81 | 14.50 | 3.50 | 14.00 |
| 6,720 | 13497 | 15.11 | 19.53 | 3.94 | 1.05 | 10.13 | 2.41 | 12.51 | 21.4 | 1.63 | 1.13 | 14.00 | 5.00 | 13.25 |
| 11,200 | 13648 | 15.11 | 19.53 | 4.19 | 1.38 | 10.13 | 2.24 | 12.51 | 25.6 | 1.63 | 1.13 | 14.00 | 4.25 | 13.00 |

*Call for specifications on larger sizes and capacities.

†Indicates beam clamp for use on wide flange beams.

**Beam Clamps
Large Frame
Lifting Lug Standard**

Machining & Welding
www.MachiningAndWelding.com

Sales@MachiningAndWelding.com

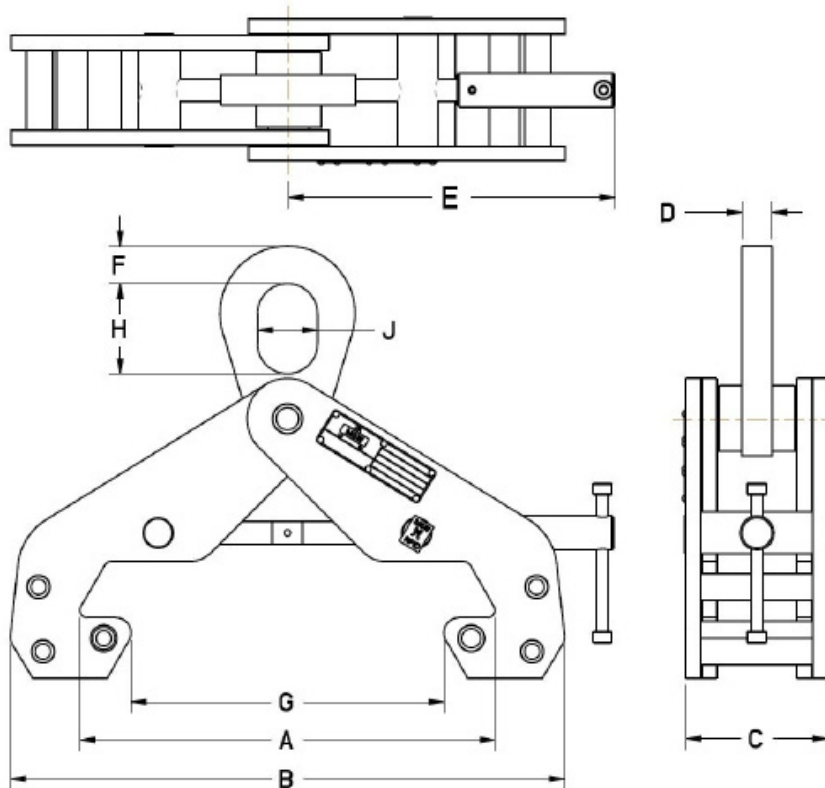


Large Frame Beam Clamps

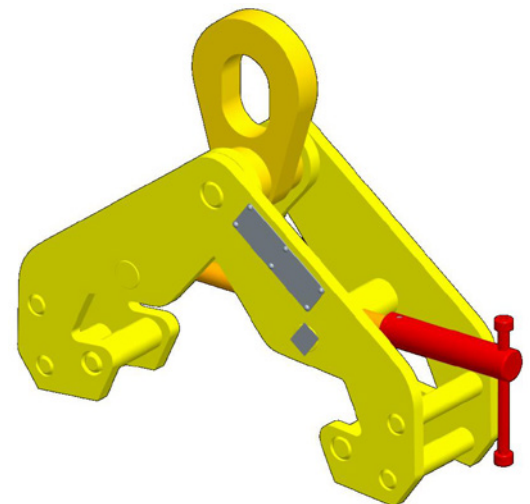
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- Do not side load above angles of 45° from vertical.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Custom designs available - call for engineering.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- Refer to side loading table below for reduction factors for side loading applications.
- Clamps to be used for lifting, pulling or as an anchor point.
- Ratings apply to clamps only. User is responsible for engineering calculations for all support steelwork.
- **WARNING:** All clamps must be correctly applied to the beam by a competent person and fully hand tightened. If in doubt, contact M&W for recommendations.



BEAM CLAMPS



| Reduction in Working Load Limits when side loads are applied | | | | |
|---|------|------------|-------------|-------------|
| Angle from Vertical | 0° | 0 - 15° | 15 - 30° | 30 - 45° |
| Reduction factor | none | 20% | 35% | 50% |



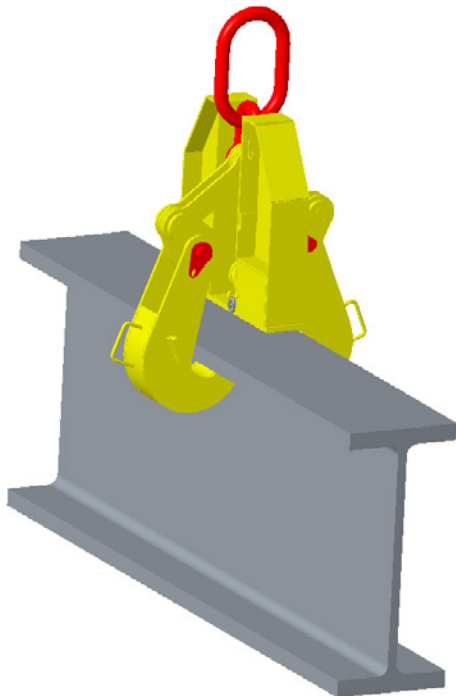
| Working Load Limit in Pounds* | Part Number | A | B | C | D | E | F | G | H | J | Weight | Maxi- mum Flange Thick- ness | Maxi- mum Flange Width | Mini- mum Flange Width | Maxi- mum Slip Over Width |
|-------------------------------------|----------------|-------|-------|------|------|-------|------|-------|------|------|--------|--|---------------------------------|---------------------------------|---------------------------------------|
| 15,680 | 13659 | 16.02 | 20.92 | 4.72 | 1.00 | 10.88 | 1.25 | 12.94 | 3.00 | 1.75 | 34.1 | 1.25 | 13.75 | 4.50 | 13.38 |
| 22,400 | 13674 | 16.02 | 20.92 | 4.72 | 1.25 | 10.88 | 1.50 | 12.94 | 3.75 | 2.50 | 43.1 | 1.25 | 13.75 | 4.50 | 13.38 |

*Call for specifications on larger sizes and capacities.

Large Beam Clamps

- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Painted safety yellow for increased visibility.
- **ALL** Lifters proof loaded and shipped with certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- **ALL** lifting equipment individually proof loaded per OSHA requirements.
- All dimensions in inches unless otherwise noted.

BEAM CLAMPS



| Working Load Limit in Pounds* | Part Number | Weight | Flange Width Min | Flange Width Max | Flange Thickness Min | Flange Thickness Max |
|-------------------------------|--------------|--------|------------------|------------------|----------------------|----------------------|
| 30,000 | 20052 | 180 | 7" | 17" | 1/2" | 2" |
| 50,000 | 20051 | 335 | 16" | 24" | 1" | 3" |
| 70,000 | 19913 | 600 | 16" | 36" | 1-5/8" | 4" |

* Call for specifications on larger sizes and capacities

- Heavy-duty design to hold up in outdoor environments.
- Eliminates the need for rigging when handling large beams.
- To be used only for vertical lifting only.
- Large lifting master link accommodates crane hooks.
- Can be used in pairs to handle longer beams using a lift beam or spreader beam.

Notes

Machining & Welding
www.MachiningAndWelding.com

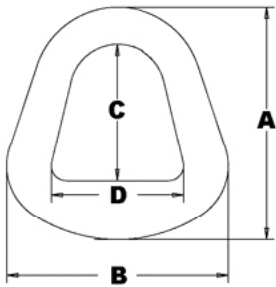
Sales@MachiningAndWelding.com



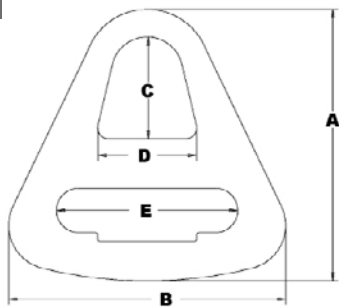
Machining & Welding reserves the right to modify information and engineering specifications in this publication without notice. All products sold by **Machining & Welding** are sold with the express understanding that the purchaser is thoroughly familiar with the safe and proper use and application of the product. Responsibility for the use and application of the products rests with the user. There are numerous government and industry standards that cover products made by **Machining & Welding**. This catalog makes no attempt to reference all of them. We do reference the standards that we are most frequently asked about. Working Load Limit (WLL) ratings indicate the greatest force or load a product can carry under usual environmental conditions. Shock loading and extraordinary conditions must be taken into account by the user when selecting BTHLD's as products for use in a lifting system. Product failure could allow the load to become out of control, resulting in possible property damage, personal injury or death.

Synthetic Sling Triangles and Chokers : Aluminum

- Aluminum Triangle and Choker fittings engineered to be used on single-ply capacity slings.
- Aluminum resists corrosion.
- Aluminum alloy designed for overhead lifting applications.
- 100% domestic parts and workmanship.
- Machined to exacting tolerances.



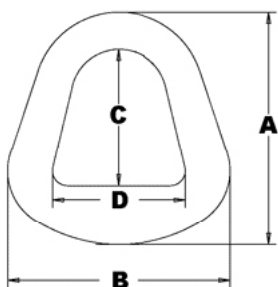
| Specifications for Aluminum Triangles | | | | | | | Minimum Breaking Strength |
|---------------------------------------|----------------|------------|------|------|------|--------|---------------------------------|
| Part Number | Sling Width | Dimensions | | | | Weight | |
| | | A | B | C | D | | |
| 11469 | 2 | 3.94 | 3.75 | 2.31 | 2.25 | .4 | 16,800 |
| 11470 | 3 | 5.31 | 5.00 | 3.31 | 3.06 | .6 | 25,000 |
| 11471 | 4 | 6.75 | 6.75 | 3.75 | 4.25 | 1.2 | 33,500 |
| 13263 | 5 | 8.00 | 8.13 | 4.75 | 5.25 | 1.5 | 40,000 |
| 11472 | 6 | 9.25 | 9.38 | 5.50 | 6.13 | 2.0 | 48,500 |



| Specifications for Aluminum Chokers | | | | | | | | Minimum Breaking Strength |
|-------------------------------------|----------------|------------|-------|------|------|------|--------|---------------------------------|
| Model Number | Sling Width | Dimensions | | | | | Weight | |
| | | A | B | C | D | E | | |
| 11473 | 2 | 6.16 | 6.29 | 2.31 | 2.24 | 4.12 | .9 | 16,800 |
| 11474 | 3 | 8.00 | 8.17 | 3.31 | 3.06 | 5.40 | 1.5 | 25,000 |
| 11475 | 4 | 9.40 | 10.67 | 3.75 | 4.25 | 7.10 | 2.4 | 33,500 |
| 13264 | 5 | 11.29 | 12.00 | 4.75 | 5.25 | 8.19 | 3.2 | 40,000 |
| 11476 | 6 | 13.25 | 14.48 | 5.50 | 6.13 | 9.75 | 8.5 | 48,500 |

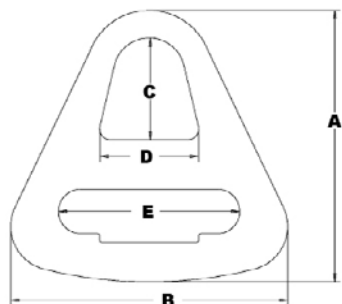
Synthetic Sling Triangles and Chokers : Steel

- Steel Triangle and Choker fittings engineered to be used on single-ply, two-ply, three-ply, and four-ply slings.
- Alloy steel for overhead lifting applications.
- Powder coat painted for resistance to corrosion.
- 100% domestic parts and workmanship.
- Machined to exacting tolerances.



| Specifications for 2-ply Steel Triangles | | | | | | | Minimum Breaking Strength |
|--|-------------|------------|-------|-------|-------|--------|---------------------------|
| Part Number | Sling Width | Dimensions | | | | Weight | |
| | | A | B | C | D | | |
| 11455 | 2 | 3.94 | 3.75 | 2.31 | 2.25 | 1.0 | 33,000 |
| 11456 | 3 | 5.31 | 5.00 | 3.31 | 3.06 | 1.8 | 44,500 |
| 11457 | 4 | 6.75 | 6.75 | 3.75 | 4.25 | 3.2 | 58,000 |
| 12337 | 5 | 7.70 | 7.81 | 4.60 | 5.13 | 3.79 | 70,000 |
| 11458 | 6 | 9.25 | 9.38 | 5.50 | 6.13 | 5.7 | 84,000 |
| 11459 | 8 | 11.88 | 12.25 | 7.50 | 8.44 | 12.06 | 112,000 |
| 11460 | 10 | 13.25 | 13.88 | 8.63 | 10.88 | 14.41 | 140,000 |
| 11461 | 12 | 15.75 | 16.69 | 10.31 | 13.00 | 20.24 | 160,000 |

| Specifications for 4-ply Steel Triangles | | | | | | | Minimum Breaking Strength |
|--|-------------|------------|-------|-------|-------|--------|---------------------------|
| Part Number | Sling Width | Dimensions | | | | Weight | |
| | | A | B | C | D | | |
| 14476 | 2 | 4.38 | 3.75 | 2.31 | 2.25 | 3.3 | 62,000 |
| 11938 | 3 | 5.81 | 5.50 | 3.31 | 3.06 | 5.7 | 93,000 |
| 12441 | 4 | 6.5 | 6.75 | 3.75 | 4.25 | 7.6 | 110,000 |
| 12440 | 6 | 9.15 | 9.38 | 5.50 | 6.13 | 13.8 | 165,000 |
| 12313 | 8 | 13.07 | 12.75 | 7.50 | 8.61 | 21.8 | 220,000 |
| 14431 | 10 | 15.87 | 16.00 | 8.87 | 11.00 | 35.2 | 285,000 |
| 12543 | 12 | 18.75 | 19.25 | 10.50 | 13.00 | 48.4 | 330,000 |



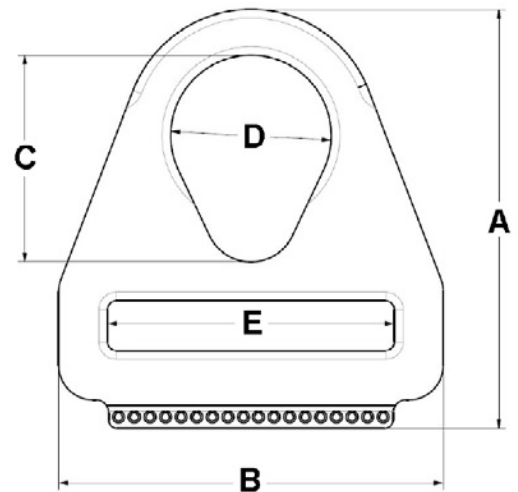
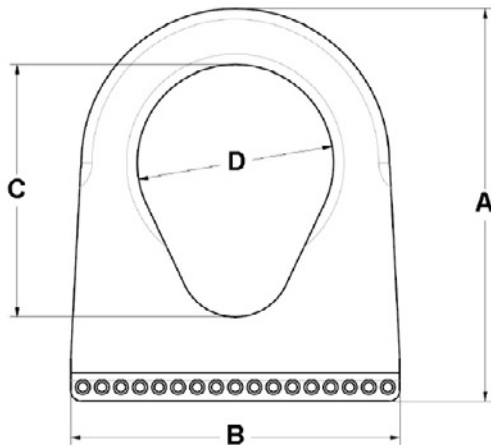
| Specifications for 2-ply Steel Chokers | | | | | | | | Minimum Breaking Strength |
|--|-------------|------------|-------|-------|------|-------|--------|---------------------------|
| Part Number | Sling Width | Dimensions | | | | | Weight | |
| | | A | B | C | D | E | | |
| 11462 | 2 | 6.16 | 6.29 | 2.31 | 2.24 | 4.12 | 2.9 | 33,000 |
| 11463 | 3 | 8.00 | 8.17 | 3.31 | 3.06 | 5.40 | 4.3 | 44,500 |
| 11464 | 4 | 9.40 | 10.67 | 3.75 | 4.25 | 7.10 | 6.8 | 58,000 |
| 12338 | 5 | 11.18 | 12.16 | 4.62 | 5.15 | 8.19 | 9.0 | 70,000 |
| 11465 | 6 | 13.25 | 14.48 | 5.50 | 6.13 | 9.75 | 13.1 | 84,000 |
| 12297 | 8 | 14.31 | 16.19 | 7.13 | 5.14 | 12.00 | 23.0 | 112,000 |
| 12296 | 10 | 16.88 | 17.88 | 8.44 | 5.26 | 13.38 | 27.0 | 140,000 |
| 12312 | 12 | 20.25 | 21.44 | 10.13 | 6.30 | 16.00 | 38.9 | 160,000 |

| Specifications for 4-ply Steel Chokers | | | | | | | | Minimum Breaking Strength |
|--|----------------|------------|-------|-------|------|-------|--------|---------------------------------|
| Part Number | Sling Width | Dimensions | | | | | Weight | |
| | | A | B | C | D | E | | |
| 14477 | 2 | 8.75 | 7.00 | 2.25 | 2.25 | 4.50 | 8.4 | 62,000 |
| 13368 | 3 | 9.13 | 9.05 | 3.00 | 3.31 | 5.75 | 11.4 | 93,000 |
| 12442 | 4 | 10.50 | 10.67 | 3.75 | 4.25 | 7.10 | 13.4 | 110,000 |
| 12439 | 6 | 14.12 | 14.48 | 5.50 | 6.13 | 9.75 | 25.7 | 165,000 |
| 12314 | 8 | 16.38 | 17.00 | 7.00 | 5.14 | 13.14 | 40.0 | 220,000 |
| 14430 | 10 | 21.75 | 24.00 | 8.50 | 6.50 | 16.68 | 65.4 | 285,000 |
| 12544 | 12 | 25.50 | 28.25 | 10.00 | 8.00 | 19.63 | 86.5 | 330,000 |

Wire Mesh Sling Triangles and Chokers

- Steel Triangle and Choker fittings engineered to be used on wire mesh body slings.
- Powder coat paint resists corrosion.
- Alloy steel for overhead lifting applications.
- 100% domestic parts and workmanship.
- Machined to exacting tolerances.

| Specifications for Wire Mesh Triangles | | | | | | | WLL Vertical | WLL 90 Degree Basket | Minimum Breaking Strength |
|--|-------------|------------|-------|------|------|--------|--------------|----------------------|---------------------------|
| Part Number | Sling Width | Dimensions | | | | Weight | | | |
| A | B | C | D | | | | | | |
| 17915 | 2 | 4.55 | 3.10 | 3.00 | 2.00 | 1.0 | 2,300 | 4,600 | 11,500 |
| 17925 | 3 | 5.18 | 3.86 | 3.50 | 2.50 | 1.5 | 3,500 | 7,000 | 17,500 |
| 17884 | 4 | 6.30 | 4.60 | 4.00 | 3.00 | 2.0 | 4,800 | 9,600 | 24,000 |
| 17917 | 6 | 7.00 | 5.87 | 4.50 | 3.50 | 3.5 | 7,200 | 14,400 | 36,000 |
| 17919 | 8 | 9.00 | 7.91 | 6.00 | 4.50 | 5.5 | 9,600 | 19,200 | 48,000 |
| 17921 | 10 | 9.25 | 9.95 | 6.25 | 4.75 | 6.5 | 12,000 | 24,000 | 60,000 |
| 17923 | 12 | 9.75 | 12.00 | 6.50 | 5.00 | 15.0 | 14,400 | 28,800 | 72,000 |



| Specifications for Wire Mesh Chokers | | | | | | | | WLL Vertical | WLL 90 Degree Basket | Minimum Breaking Strength |
|--------------------------------------|-------------|------------|-------|------|------|-------|--------|--------------|----------------------|---------------------------|
| Model Number | Sling Width | Dimensions | | | | | Weight | | | |
| A | B | C | D | E | | | | | | |
| 17916 | 2 | 6.63 | 4.50 | 3.00 | 2.00 | 3.25 | 2.0 | 2,300 | 4,600 | 11,500 |
| 17926 | 3 | 7.31 | 5.62 | 3.50 | 2.50 | 4.00 | 3.0 | 3,500 | 7,000 | 17,500 |
| 17885 | 4 | 7.93 | 6.37 | 4.00 | 3.00 | 4.75 | 3.5 | 4,800 | 9,600 | 24,000 |
| 17918 | 6 | 9.13 | 8.38 | 4.50 | 3.50 | 6.25 | 5.5 | 7,200 | 14,400 | 36,000 |
| 17920 | 8 | 11.38 | 7.91 | 6.00 | 4.50 | 8.25 | 9.0 | 9,600 | 19,200 | 48,000 |
| 17922 | 10 | 11.88 | 13.25 | 6.25 | 4.75 | 10.25 | 11.5 | 12,000 | 24,000 | 60,000 |
| 17924 | 12 | 12.88 | 15.50 | 6.50 | 5.00 | 12.36 | 15.0 | 14,400 | 28,800 | 72,000 |

Chain Mesh Sling Triangle and Choker Specifications

Machining & Welding
www.MachiningAndWelding.com

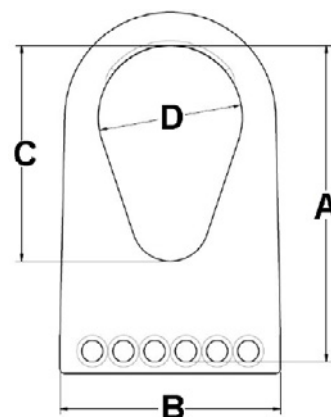
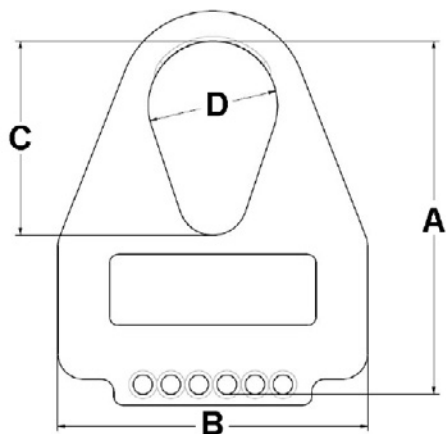
Sales@MachiningAndWelding.com



Grade 80 Alloy Chain Mesh Sling Triangles and Chokers

- Steel Triangle and Choker fittings engineered to be used on chain mesh slings.
- Powder coat painted for resistance to corrosion.
- Alloy steel for overhead lifting applications.
- 100% domestic parts and workmanship.
- Machined to exacting tolerances.

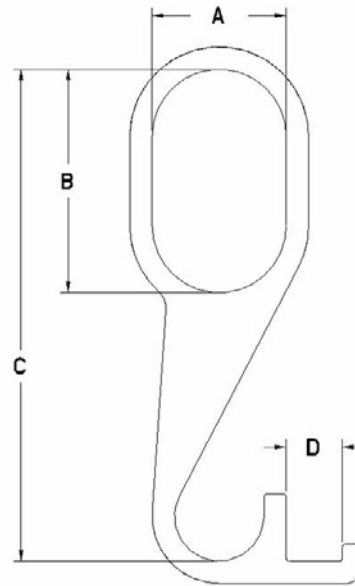
| Specifications for Chain Mesh Alloy Steel Triangles | | | | | | | | WLL Vertical | WLL Choker | WLL Basket |
|---|---------------|----------------|------------|------|------|------|--------|-----------------|---------------|---------------|
| Part Number | Chain Size | Chain Parts | Dimensions | | | | Weight | | | |
| | | | A | B | C | D | | | | |
| 18980 | 7/32" | 3 | 6.75 | 3.00 | 4.13 | 2.75 | 1.0 | 5,000 | 5,000 | 10,000 |
| 18981 | | 4 | 6.75 | 3.75 | 4.13 | 2.75 | 2.5 | 6,700 | 6,700 | 13,400 |
| 18982 | | 5 | 8.00 | 4.50 | 5.25 | 3.50 | 3.2 | 8,400 | 8,400 | 16,800 |
| 18983 | | 6 | 8.25 | 5.25 | 5.63 | 3.75 | 3.8 | 10,800 | 10,800 | 21,600 |
| 18984 | 9/32" | 3 | 6.62 | 4.5 | 4.13 | 2.75 | 3.0 | 8,400 | 8,400 | 16,800 |
| 18985 | | 4 | 6.62 | 4.5 | 4.13 | 2.75 | 3.5 | 11,200 | 11,200 | 22,400 |
| 18986 | | 5 | 8.00 | 5.25 | 5.25 | 3.50 | 4.5 | 14,000 | 14,000 | 28,000 |
| 18987 | | 6 | 8.25 | 5.75 | 5.63 | 3.75 | 5.0 | 16,800 | 16,800 | 33,600 |
| 18988 | 3/8" | 3 | 6.88 | 4.25 | 5.25 | 3.50 | 5.0 | 17,000 | 17,000 | 34,000 |
| 18989 | | 4 | 8.13 | 6.00 | 6.50 | 4.38 | 7.0 | 22,700 | 22,700 | 45,400 |
| 18990 | | 5 | 8.38 | 6.50 | 6.25 | 4.38 | 9.0 | 28,400 | 28,400 | 56,800 |
| 18991 | | 6 | 9.75 | 8.00 | 7.88 | 5.25 | 12.0 | 34,000 | 34,000 | 68,000 |
| 18992 | 1/2" | 2 | 10.38 | 4.88 | 7.88 | 5.25 | 7.0 | 19,200 | 19,200 | 38,400 |
| 18993 | | 3 | 10.38 | 6.50 | 7.88 | 5.25 | 13.0 | 28,800 | 28,800 | 57,600 |
| 18994 | | 4 | 11.00 | 8.13 | 7.88 | 5.25 | 15.0 | 38,400 | 38,400 | 76,800 |



| Specifications for Chain Mesh Alloy Steel Chokers | | | | | | | | WLL Vertical | WLL Choker | WLL Basket |
|---|------------|-------------|------------|-------|------|------|--------|--------------|------------|------------|
| Part Number | Chain Size | Chain Parts | Dimensions | | | | Weight | | | |
| | | | A | B | C | D | | | | |
| 18995 | 7/32" | 3 | 8.75 | 7.00 | 4.13 | 2.75 | 4.0 | 5,000 | 5,000 | 10,000 |
| 18996 | | 4 | 8.75 | 7.00 | 4.13 | 2.75 | 4.0 | 6,700 | 6,700 | 13,400 |
| 18997 | | 5 | 9.75 | 8.50 | 5.25 | 3.50 | 4.0 | 8,400 | 8,400 | 16,800 |
| 18998 | | 6 | 10.25 | 8.75 | 5.63 | 3.75 | 5.0 | 10,800 | 10,800 | 21,600 |
| 18999 | 9/32" | 3 | 8.69 | 7.50 | 4.13 | 2.75 | 5.7 | 8,400 | 8,400 | 16,800 |
| 19000 | | 4 | 8.62 | 7.00 | 4.13 | 2.75 | 5.7 | 11,200 | 11,200 | 22,400 |
| 19001 | | 5 | 9.75 | 8.5 | 5.25 | 3.50 | 7.0 | 14,000 | 14,000 | 28,000 |
| 19002 | | 6 | 10.25 | 9.00 | 5.63 | 3.75 | 7.5 | 16,800 | 16,800 | 33,600 |
| 19029 | 3/8" | 4 | 11.62 | 10.00 | 6.50 | 4.38 | 14.5 | 22,700 | 22,700 | 45,400 |

Sling Inspection and Measuring Hook

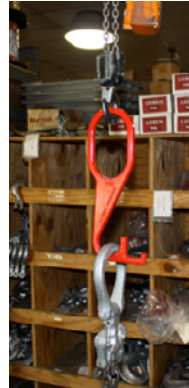
- Manufactured to exceed all ASME B30.20 and OSHA regulations.
- Powder coat painted safety red for increased visibility.
- **ALL** Lifting equipment shipped with proof load certification paperwork.
- Durable construction ideally suited to jobsite or warehouse use.
- Made in U.S.A.
- Machined to exacting tolerances.
- **U.S. Patent No. 8,028,436**



| Capacity in Pounds | Part Number | A | B | C | D | Weight in Pounds |
|-----------------------|----------------|---|---|----|-----|---------------------|
| 500 | 12187 | 3 | 5 | 11 | 1.3 | 3 |
| 1,000 | 19474 | 5 | 8 | 15 | 1.3 | 6 |

Sling Inspection and Measuring Hook

STEP 1 : Place sling into bowl of measuring hook. Make sure there are no kinks or twists in chain legs. If the sling is equipped with shortening hooks / clutches, make sure they are disengaged and legs hang free.



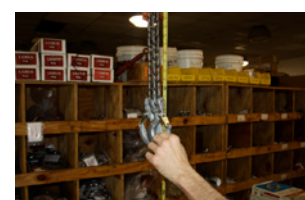
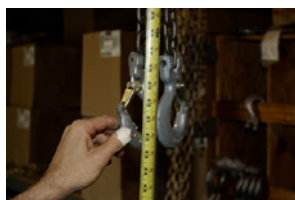
STEP 2 : Insert your tape measure into the slotted section of the hook. Make sure the tape sits into the groove and is hanging parallel with the chain legs. Do not allow the tape measure to become kinked or rest at an angle.

STEP 3 : Perform your daily, link-by-link inspection of the chain sling while raising the hoist hook. This can easily be done at eye level with no stooping or kneeling on the floor.

Required under OSHA 1910.184(d) : Each day before being used, the sling and all fastenings and attachments shall be inspected for damage or defects by a competent person designated by the employer. Additional inspections shall be performed during sling use, where service conditions warrant. Damaged or defective slings shall be immediately removed from service.



STEP 4 : Measure the bearing of the sling. This can easily be done at eye level by raising the hoist hook. **Because the sling is hanging vertically, the measurement will be more accurate than those taken while the sling is laying on the ground.** Also, the measurement can be easily done by a single person in a short time.





PROOF LOADING

1. All BTHLDs meet or exceed all ASME B30.20 and OSHA 1926.251 design specifications, and are proof loaded to 125% of their stated Working Load Limit.
2. All chain, wire rope and synthetic slings are manufactured to meet and exceed ASME B30.9 and OSHA 1910.184.

MARKING AND STENCILING OF BTHLDs

1. Stencil markings on both sides with the working load limit (WLL) and the **Machining & Welding** logo. Any additional marking, when required by the customer, will be noted on applicable paperwork or drawings.
2. Stencil markings are black unless otherwise specified. DO NOT EXCEED RATED CAPACITY. Warning decal is attached if space permits.
3. Stencil markings of the WLL is on lifter unless space does not allow.
4. The WLL marking is located in central locations so that it is both highly visible and upright during normal use.
5. A serial number tag is permanently attached which meets and exceeds ASME B30.9 and OSHA specifications.
6. All chain, wire rope, and synthetic slings are tagged to meet and exceed ASME B30.9 and OSHA 1910.184.

DESIGN SERVICE CLASS AND LIFE CATEGORY PER ASME BTH-1

Unless otherwise specified on applicable paperwork or product drawings, the design category used is “B” and the service life is Class “2” (up to 500,000 load cycles). Different design categories and service classes must be specified by the buyer **prior** to order placement. The lifting product will then be engineered to meet the specified requirements. Inspection required per ASME B30.20 “normal service.” Fixtures to be re-tested and documented annually.

SERVICE TEMPERATURES OF BTHLD'S

All lifting devices and slings sold by **Machining & Welding** are manufactured to meet or exceed ASME B30.20 and ASME B30.9 unless otherwise noted. These specifications require the user to perform a pre-lift equipment inspection and limit the amount of impact and shock loading to a minimum. This is of extreme importance especially when the service temperature is below 35°F, and increasingly important at lower temperatures. On this basis, the **Machining & Welding** standard service temperature for all BTHLDs is within the temperature range of -40°F to 150°F. The buyer has the option of purchasing BTHLDs made for arctic service to -50°F. These devices are made of special steels produced to withstand Charpy impact tests made at -50°F, and must be specified by the buyer **prior** to order placement.

PRE-LIFT INSPECTION PROCEDURES

Machining & Welding requires that before any lift, the BTHLD is inspected for cracks, gouges, or deep scratches in high stress areas in accordance with all applicable ASME B30.9, ASME B30.20 and OSHA requirements.

REPAIRS OF BTHLDs

All repairs of BTHLDs must be performed by **Machining & Welding**. Any BTHLD removed from use after inspection must be returned to **Machining & Welding** for evaluation and inspection. Contact **Machining & Welding** for instructions and Return Goods Authorization (RGA) numbers prior to returning BTHLDs for inspection or repair.

WARRANTY OF BTHLDs

Machining & Welding warrants every item of its manufacture, when used under normal operating conditions, to be free from defects in material and workmanship within thirty days from the date of original billing. If upon return of a product within thirty days from the date of original billing, our examination should disclose defects in manufacture, it is our limited obligation under this warranty to make good at our facility in Cokato, MN, the complete product or any portion thereof, within thirty days from the date of original billing. If any repairs, heat treatment, or annealing of products are conducted at any place other than our facilities, this warranty shall be rendered null and void. **Machining & Welding** will assume no other obligations or liabilities, expressed or implied, than those contained in this warranty. This warranty, which is given expressly and in lieu of all other warranties, expressed or implied, of merchantability and fitness for a particular purpose, constitutes the only warranty made by **Machining & Welding**.

Frequently Asked Questions and Buying Considerations

- **How do I know if the manufacturer of the Below-the-Hook Lifting Device conforms to ASME B30.20, ASME BTH-1 and OSHA 1926.251 design specifications?**

Ask, and if the answer is NO, then **DO NOT BUY THE DEVICE!** Companies that purchase lifting devices not conforming to ASME and OSHA requirements run the risk of endangering their worker's safety and expose themselves to potential lawsuits and potential OSHA fines. M&W proudly manufactures all Below-the-Hook Lifting Devices to meet or exceed all applicable ASME and OSHA requirements.

- **My Below-the-Hook Lifting Device was designed by a professional engineer. Do we still need to conform to ASME B30.20 and OSHA 1926.251 design specifications? Does the device need to be load tested?**

YES to both. All below-the-hook lifting devices need to conform to the ASME and OSHA specifications. OSHA 1926.251(a)(4) requires: *Special custom design grabs, hooks, clamps, or other lifting accessories, for such units as modular panels, prefabricated structures and similar materials, shall be marked to indicate the safe working loads and shall be proof-tested prior to use to 125 percent of their rated load.* If a below-the-hook lifting device is not a regularly manufactured or produced item, the device is deemed a special custom design and must be "marked to indicate the safe working loads and shall be proof-tested prior to use" in accordance with the OSHA 1926.251(a)(4) requirements.

- **We've been using a 'homemade' Below-the-Hook Lifting Device for years without any problems. Does this OSHA rule apply to us? Aren't we 'grandfathered' in?**

Yes, OSHA 1926.251 applies and NO, you are not 'grandfathered' in. These 'homemade' lifting devices are frequently in violation. They expose your company to potential OSHA fines and penalties. They also can potentially subject the designer and fabricator to personal liability litigation.

- **How do I know which Below-the-Hook Lifting Device is best suited for my application?**

As the manufacturer, we are able to help you make the best decision based on the designs available and the costs involved. Using a less expensive, lighter duty lifter in a heavy duty application is all too common in our industry. By working with our customers, we're able to keep costs, downtime and injuries to a minimum.

- **How much information does M&W need to know to determine which Below-the-Hook Lifting Device is best suited for my application?**

As a general rule, more information is better. However, we do have standard forms you can fill out to answer most of our questions.

- **Do I need to worry about spare parts for my Below-the-Hook Lifting Device?**

No. At M&W, we keep detailed engineering records of every lifter we sell so we're able to easily and quickly get you replacement parts if the situation arises.

- **Do you have personnel who are able to come in to our plant and look at our current situation?**

Yes - we have established a proven track record of service, performance, and quality with our customers for over 50 years. Part of that commitment to service is having experts available to come to your facility to inspect your equipment and offer solutions which fit your company's unique needs and technical requirements.

- **How do I educate my personnel on how to safely use the Below-the-Hook Lifting Device once we receive it?**

At M&W, we're constantly working to help our customers operate in safer, more accident-free environments. We've also teamed up with our local community college to help develop accredited curriculum which can be scheduled for employees in your plant. Our **User Responsibilities for Inspection, Maintenance, and Safe Operation for Below The Hook Lifting Devices** is an excellent reference to address safety issues concerning daily and periodic inspections.

- **Are M&W personnel certified? How do I know an M&W lifter is safe for my application?**

All M&W welding personnel are certified to AWS D14.1 and ASME BTH-1 in accordance with ASME B30.20 requirements. Certification paperwork is available upon request.

Sales@MachiningAndWelding.com



DISTRIBUTED BY:



sales@machiningandwelding.com
MACHININGANDWELDING.COM