



Fit Up Gear<sup>®</sup>  
Innovators of Fitting Aids

**NO-MAR<sup>®</sup>**  
*Magnetic Fitting Tools*



National  
Clamp

[www.fitupgear.com](http://www.fitupgear.com)

**PRODUCT USE GUIDE**



**Fit Up Gear®**

**Innovators of Fitting Aids**

Leading innovator of fitting tools that aid in the fabrication of storage tanks, ships, barges, rigs as well as many other structural applications. All of our products are designed to lower your costs and make fabrication easier and faster. We are constantly developing new tools and equipment to assist your manufacturing process.

***No-MAR®***  
***Magnetic Fitting Tools***

Magnetic fitting tools utilizing powerful compact magnets that are up to 100 times faster than traditional methods and require no temporary welding or grinding that will mar your metal.



***National  
Clamp***

Holding clamps, hooks, ratchet presses/pullers, and various jigs used to construct vessels and plants in the shipbuilding, maritime, construction and heavy industries.

***Changing the mindset of the welding industry!***  
***www.fitupgear.com***

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# Key Plate

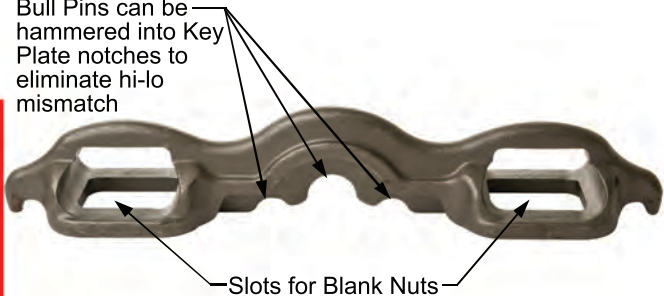
This key plate is drop forged from one piece of plate, gusseted and reinforced in all the right places to give more strength than any other key plate in the field today. At 12 pounds, this forged key plate is  $\frac{2}{3}$  the weight of conventional key plates. Quenched and tempered, it has now truly become a tool for the trade.

Used in conjunction with our Bull Pins and Blank Nuts

Weight: 12 lbs

PART: KP-F3

Bull Pins can be  
hammered into Key  
Plate notches to  
eliminate hi-lo  
mismatch



# Key Plate

## Key Plate Usage

Bull Pins can be hammered into Key Plate notches to eliminate hi-lo mismatch

Bull Pins can be hammered into either side of Blank Nuts to push or pull plate



2 Blank Nuts welded to plates 12" apart center-to-center

2 Bull Pins inserted into Blank Nuts to hold Key Plate in place

**WARNING:** Do not perform any weld on Key Plates. Welding on the high tensile material Key Plates are made from will lead to product failure.

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-key-plate](http://fitupgear.com/fitupgear-products/fitupgear-key-plate)



Use our cup shoe Key Plate for heavy duty applications with 3/4" thick material and above

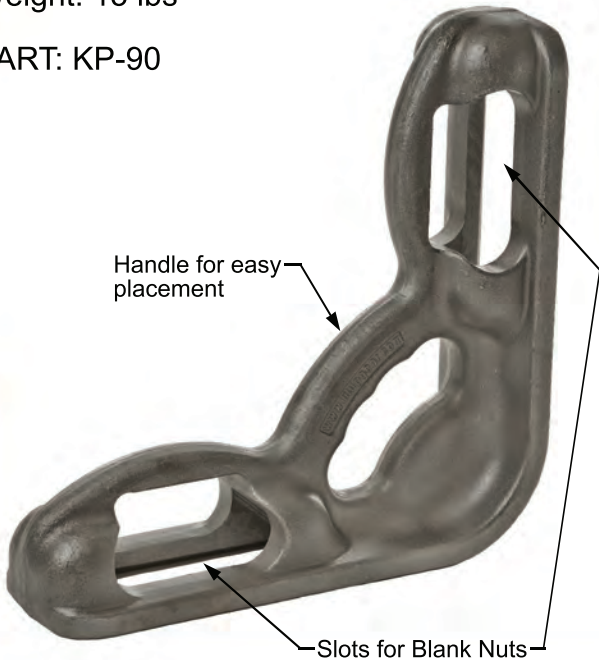
# 90° Key Plate

Like our standard Key Plate except it works at a 90° angle allowing it to push and pull walls as well as raising and lowering.

Used in conjunction with our Bull Pins and Blank Nuts

Weight: 15 lbs

PART: KP-90

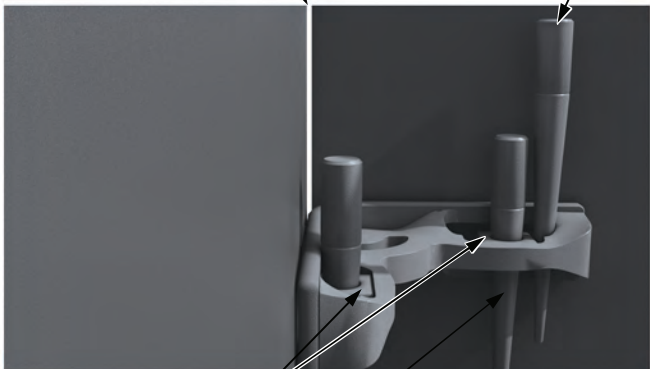


# 90° Key Plate

## 90° Key Plate Usage

Hammer Bull Pins on either side of Blank Nuts to close gaps

Bull Pins can be hammered into either side of Blank Nuts to push or pull plate



2 Blank Nuts welded to plates

2 Bull Pins inserted into Blank Nuts to hold 90° Key Plate in place

**WARNING:** Do not perform any weld on 90° Key Plates. Welding on the high tensile material 90° Key Plates are made from will lead to product failure.

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-90-key-plate](http://fitupgear.com/fitupgear-products/fitupgear-90-key-plate)

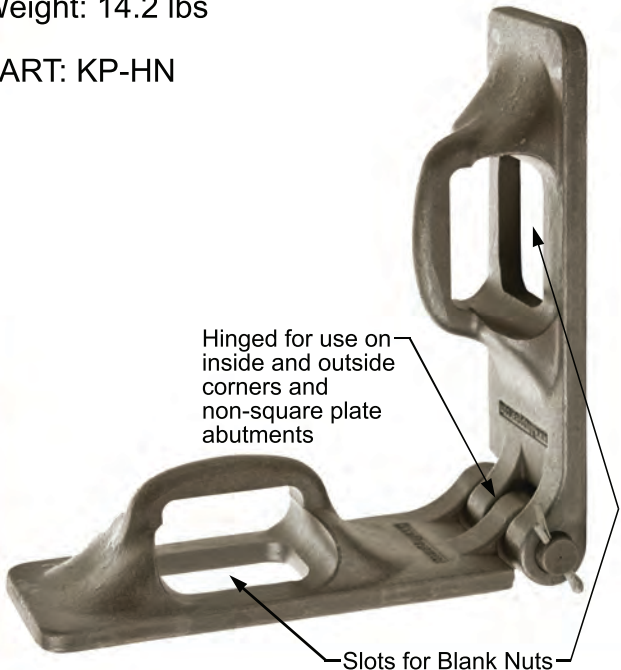
# Hinged Key Plate

With 110° of movement this key plate allows for use in numerous angles where fit up is needed while still being able to push and pull.

Used in conjunction with our Bull Pins and Blank Nuts

Weight: 14.2 lbs

PART: KP-HN





# Hinged Key Plate

## Hinged Key Plate Usage

Hammer Bull Pins on either side of Blank Nuts to close gaps

Bull Pins can be hammered into either side of Blank Nuts to push or pull plate



2 Blank Nuts welded to plates

2 Bull Pins inserted into Blank Nuts to hold Hinged Key Plate in place

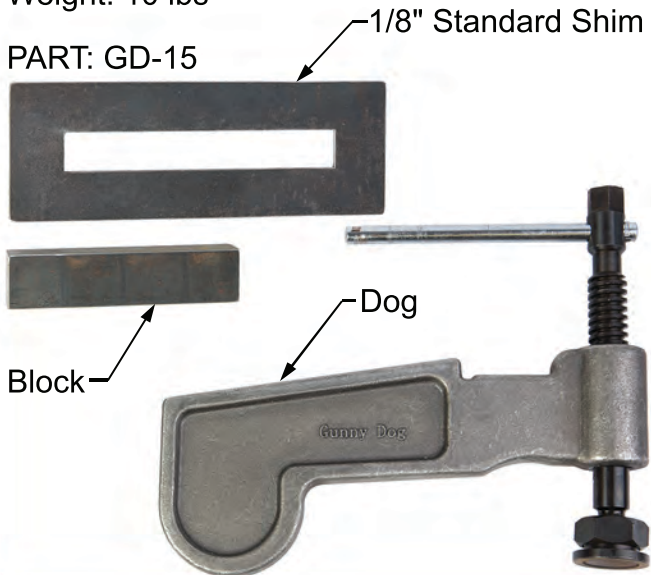
**WARNING:** Do not perform any weld on Hinged Key Plates. Welding on the high tensile material Hinged Key Plates are made from will lead to product failure.

# Gunny Dog

This new non-welded fitting aid assists in the make-up and gapping of vertical seams, deck seams, knuckles, and other plate joints that typically require the use of dogs, wedges, fishtail jacks, or other weld-on fitting aids. Also useful in fitting and aligning pipe. Set includes: dog, 1/8" standard shim, and block. Parts can be ordered separately. Custom shim sizes also available.

Weight: 10 lbs

PART: GD-15



# Gunny Dog

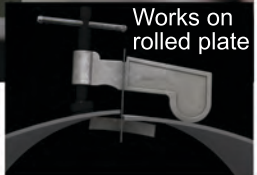
## Gunny Dog Usage

1. Slide Shim over Dog then into gap

3. Turn screw handle to level plates



2. Place Block through Shim on opposite side of Dog



**WARNING:** Do not perform any weld on Gunny Dogs. Welding on the high tensile material Gunny Dogs are made from will lead to product failure.

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-gunny-dog](http://fitupgear.com/fitupgear-products/fitupgear-gunny-dog)

# Blank Nuts

Simply weld to steel panel along top edge of Blank Nut and use to mount our Key Plate, 90° Key Plate, Hinged Key Plate, or Cup Shoe Key Plate then insert Bull Pins to hold in place and manipulate steel panels.

1 1/8" hole in all types

## A36

PART: BN-238  
2"x2"x3/8"  
Weight: .29 lbs

PART: BN-234  
2"x2"x3/4"  
Weight: .59 lbs

PART: BN-210  
2"x2"x1"  
Weight: .83 lbs

## 304 SS

PART: BN-238SS  
2"x2"x3/8"  
Weight: .28 lbs

PART: BN-234SS  
2"x2"x3/4"  
Weight: .57 lbs

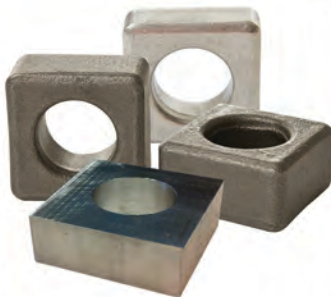
PART: BN-210SS  
2"x2"x1"  
Weight: .77 lbs

## Aluminum

PART: BN-238AL  
2"x2"x3/8"

PART: BN-234AL  
2"x2"x3/4"

PART: BN-210AL  
2"x2"x1"



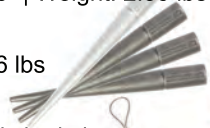
# Bull Pins

Used to mount our Key Plate, 90° Key Plate, Hinged Key Plate, or Cup Shoe Key Plate and manipulate steel panels.

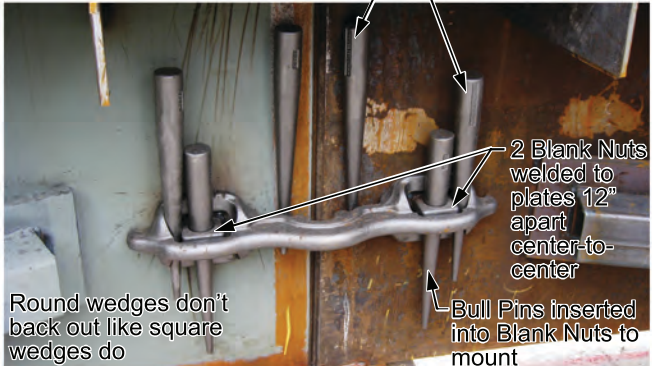
12"x1 1/4", 2" of flat tapering down to 7/16" | Weight: 2.35 lbs  
PART: BP-HT

304 Stainless Steel Version | Weight: 2.16 lbs  
PART: BP-SS

Version with lanyard to secure and prevent injuries below.  
PART: BP-LAN



Additional Bull Pins can be used to eliminate hi-lo mismatch and push or pull plate



Round wedges don't back out like square wedges do

2 Blank Nuts welded to plates 12" apart center-to-center

Bull Pins inserted into Blank Nuts to mount

**WARNING:** Do not perform any weld on Bull Pins. Welding on the high tensile material Bull Pins are made from will lead to product failure. Once Bull Pins begin to mushroom and fracture at striking point, they must be discarded and replaced to avoid injury.

# Pushing Device - Pusher Rod

Pusher Rod (also known as a Punch Bar and Porta Power Extension) with nipple on threaded end without handle.

18" Pusher Rod  
PART: PR-18

33" Pusher Rod  
PART: PR-33

54" Pusher Rod  
PART: PR-54



8" Pusher Rod  
Extension  
PART: PRE-8

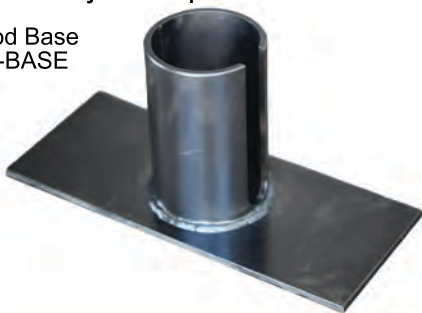
12" Pusher Rod  
Extension  
PART: PRE-12

31" Pusher Rod  
Extension  
PART: PRE-31



The Pusher Rod Base provides a secure base when using extensions with porta power. Helps prevent slip-offs. Notched to prevent hose damage. 3" diameter X 5-1/2" tall socket accepts most jacks up to 15 ton.

Pusher Rod Base  
PART: PR-BASE



# Pushing Device - Pusher Rod

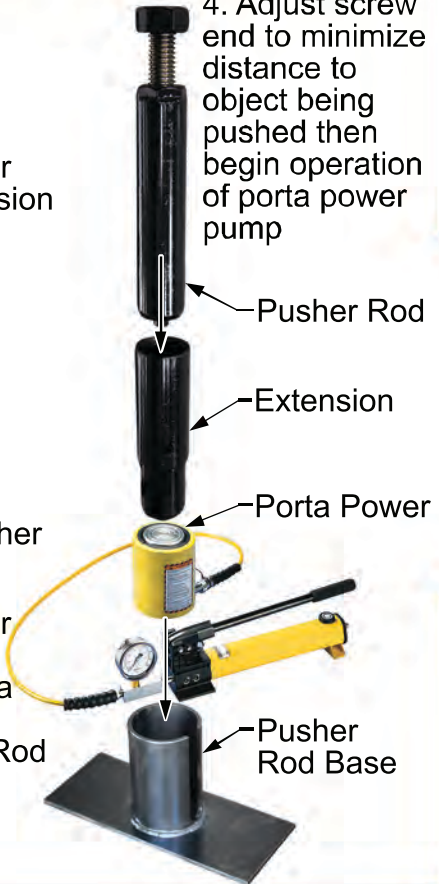
## Pusher Rod Usage

1. Insert Pusher Rod into Extension

2. Insert porta power into Pusher Rod Base

3. Insert Pusher Rod Extension nipple into porta power seated inside Pusher Rod Base

4. Adjust screw end to minimize distance to object being pushed then begin operation of porta power pump



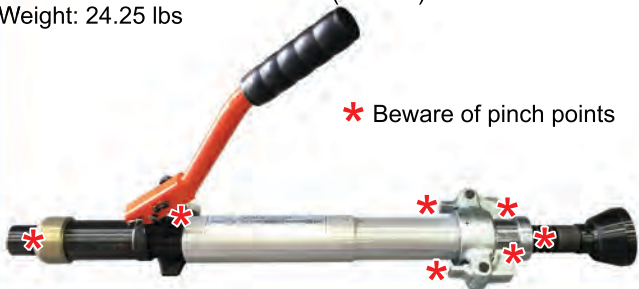
# Pushing Device - Hydra-Pack

With 5 tons or 10 tons (depending on model) of self-contained hydraulic pushing power, you can adjust misaligned stiffeners, push items into place, and perform many other pushing tasks. Easy pull-out saddle end to quickly adjust to the length needed and minimize pumping.

5 or 10-Ton Hydraulic Cylinder (load return "C" and spring return)  
Hydraulics extend up to 3.74" (95mm)  
Max Working Pressure = 700 kg/cm<sup>2</sup>

5-Ton Model | PART: HP5T  
Overall Collapsed Length = 25.6" (650mm)  
Overall Extended Length = 34.45" (875mm)  
Piston Stroke = 3.74" (95mm)  
Pull-Out Saddle Stroke = 5" (128mm)  
Weight: 14.8 lbs

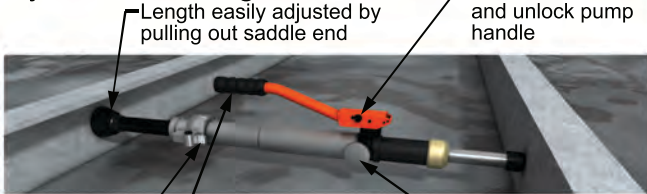
10-Ton Model | PART: HP10T  
Overall Collapsed Length = 26.77" (680mm)  
Overall Extended Length = 34.25" (870mm)  
Piston Stroke = 3.15" (80mm)  
Pull-Out Saddle Stroke = 4.33" (110mm)  
Weight: 24.25 lbs





# Pushing Device - Hydra-Pack

## Hydra-Pack Usage



Length easily adjusted by pulling out saddle end

Turn knob to lock and unlock pump handle

Squeeze clips together to retract saddle end. Not to be used when under tension

Operate pump handle to extend hydraulic piston and push object into place

Turn knob clockwise to seal hydraulics and operate. Be sure it is safe to retract hydraulics before turning knob counterclockwise

## Accessories



Hydra-Pack Shortening End Cap Shortens Hydra-Pack to 21-3/4" (550mm) long - PART: HP-ENDCAP



Hydra-Pack 8-5/8" (220mm) Extension - PART: HP-EX220



Hydra-Pack 17.25" (440mm) Extension - PART: HP-EX440



Hydra-Pack Magnet Attachment for vertical or overhead use - PART: HP-MAG

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-hydra-pack](http://fitupgear.com/fitupgear-products/fitupgear-hydra-pack)

# Pushing Device - Hydra-90

90° hydraulic press for pushing walls, stiffeners, or other structural members that are joined at a 90° angle. With 5 tons of hydraulic pushing power, you can adjust misaligned stiffeners, push items into place, and perform many other 90° pushing tasks.

- 5-Ton Hydraulic Cylinder
- Max Working Pressure = 700 kg/cm<sup>2</sup>
- Stroke of Grippers = 2"
- Size = 8.47" W (at recessed grippers) x 8.64" H x 2.61" D (not including handle)

Weight: 7.7 lbs (90° pusher only)

PART: H905T



# Pushing Device - Hydra-90

## Hydra-90 Usage



1. Place Hydra-90 where it has a stable pushing surface and against object at 90° angle to be pushed.



2. Hold Hydra-90 in place until gripper teeth take hold while pumping hydraulic cylinder.



3. Once object has been pushed into desired position, welding or other permanent fixing operation can be performed.



Hydra-90 can also be used horizontally.

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-hydra-90](http://fitupgear.com/fitupgear-products/fitupgear-hydra-90)

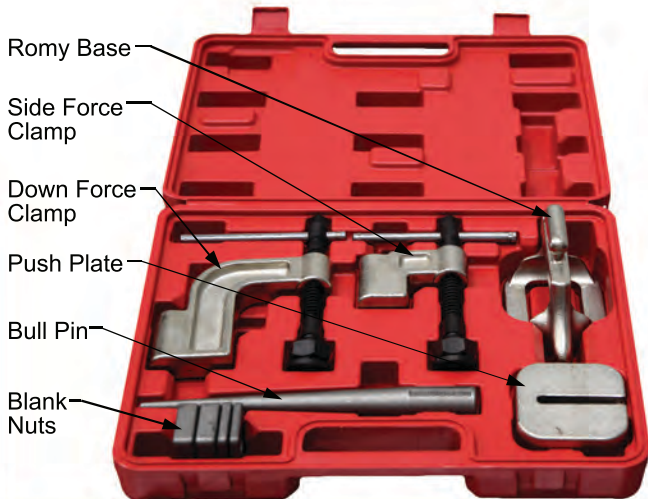
# The Romy Kit

Replace tried and true half-clamps (sometimes called grasshoppers) with a safe and effective solution. The Romy Kit includes: 1 Romy Base, 1 Down Force Clamp, 1 Side Force Clamp, 1 Push Plate, 1 Bull Pin, 2 BN-238 3/8" thick and 2 BN-234 3/4" thick Blank Nuts.

Components also sold separately.

Weight: 25 lbs

PART: ROMY-KIT



# The Romy Kit

## Romy Kit Usage



The Romy Base can be inserted into the Down Force or Side Force Clamps



Down Force application: Weld Blank Nut to plate, mount Romy Base onto Blank Nut using Bull Pin hammered into place, twist handle by hand or ratchet



Side Force application: Weld Blank Nut to plate, mount Romy Base onto Blank Nut using Bull Pin hammered into place, slide Side Force Clamp onto Romy Base, twist handle by hand or ratchet

**WARNING:** Do not perform any weld on Romy Kit parts other than Blank Nuts. Welding on the high tensile material all other components are made from will lead to product failure.

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-romy-kit](http://fitupgear.com/fitupgear-products/fitupgear-romy-kit)

# U-Bar

Also referred to as worms, U-Bars are used for fitting floors on water tanks, taking out high-lows, or securing all types of lap and butt joints. Safer replacement for conventional z-dog and wedge system.

Used in conjunction with Bull Pin

5/8" x 5/8" x 6 1/2"

PART: UB-586

Weight: .795 lbs

304 Stainless Steel Version

PART: UB-586SS

Weight: .805 lbs

Aluminum Version

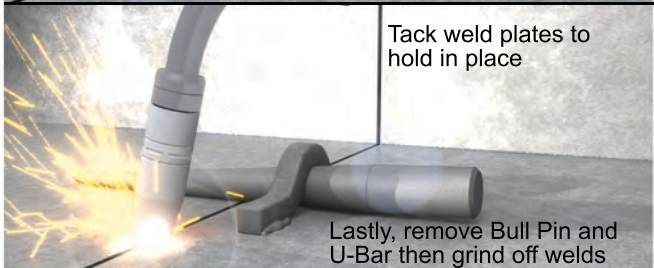
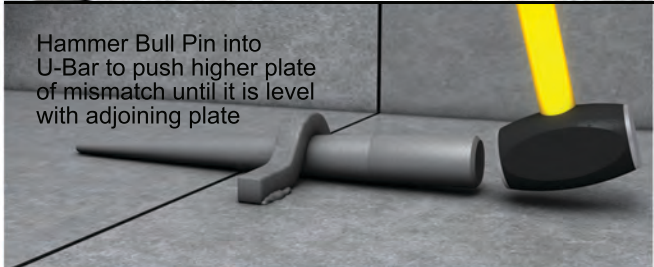
PART: UB-586AL

Weight: .29 lbs



# U-Bar

## U-Bar Usage



Video Demonstration:

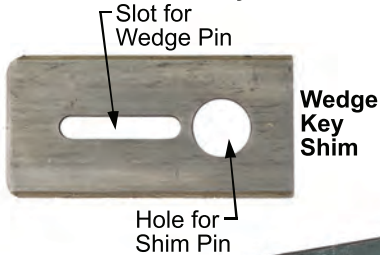
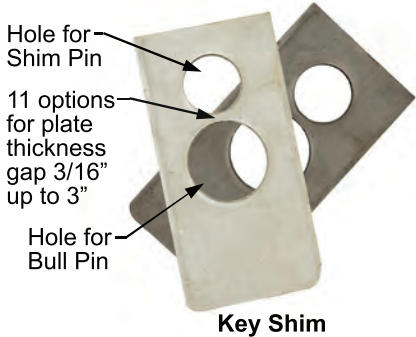
[fitupgear.com/fitupgear-products/fitupgear-u-bar](http://fitupgear.com/fitupgear-products/fitupgear-u-bar)

# Shims

Used for girth seam fit up on tanks and horizontal seams where a gap is required. Requires no clean-up after usage. Solely based on gravity to assist in the fit. All components available in carbon steel and stainless steel.



Shim Pin for use with Key Shim and Wedge Key Shim



Visit [www.fitupgear.com](http://www.fitupgear.com) for all sizes and part numbers

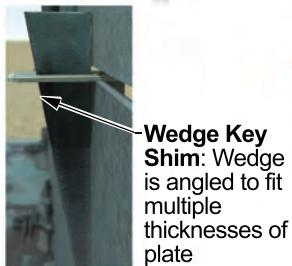
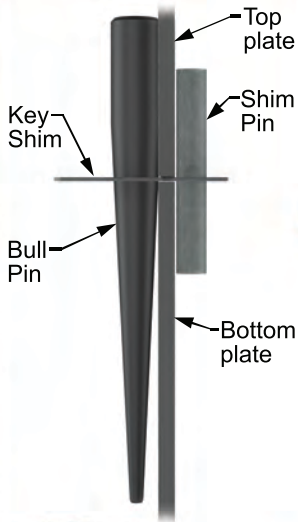
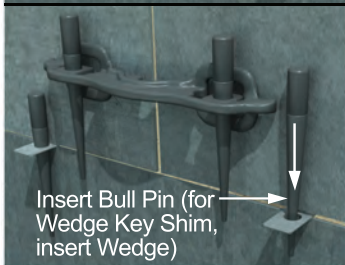
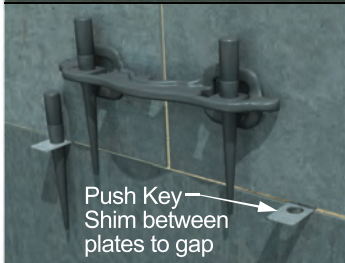


Wedge Pin



# Shims

Shim Usage (applies to both shim types)



Video Demonstrations:

[fitupgear.com/fitupgear-products/fitupgear-key-shim](http://fitupgear.com/fitupgear-products/fitupgear-key-shim)

[fitupgear.com/fitupgear-products/fitupgear-wedge-pin](http://fitupgear.com/fitupgear-products/fitupgear-wedge-pin)

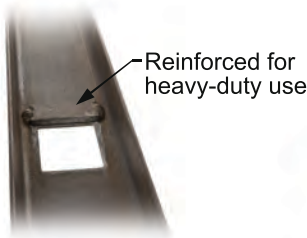
# Key Channel

Key channel is designed to form a stiffener between two horizontal sheets giving more stability to each ring. Also known as a strongback in some industries.

4' L x 5" W x 2" H

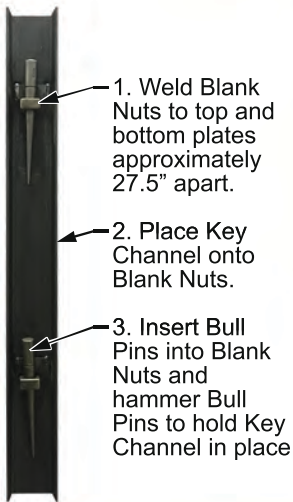
Weight: 26.6 lbs

PART: KC-45



# Key Channel

## Key Channel Usage



# Tank Trolley

The SM/RTC Tank Trolley is a mobile anchoring point that rolls along the top ridge of field erected storage tanks or other similar surfaces. Provides continuous tie-off of lanyard while working. The trolley contains two bearings that roll along the top of the tank. A forged steel O-ring provides a convenient anchoring point for fall protection equipment.

Weight: 14 lbs

PART: SM/RTC-TankTrolley



# Tank Trolley

## Tank Trolley Usage



Bearings

O-ring for fall protection tie-off

Place on top edge of tank. Trolley body straddles vertical plate and rolls on bearings

Connect fall protection and safely move about as Tank Trolley follows



# Vacuum Boxes

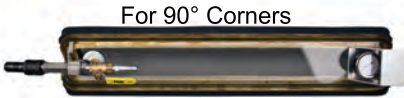
Used for leak testing in building of ships, barges, tanks, or any seal weld application. Double-sided gasket design ensures a good seal during vacuum test. Vacuum pump or compressed air source can be used.



For Flat Surfaces

18" Flat  
PART: VB18

30" Flat  
PART: VB30



For 90° Corners

18" Corner  
PART: VB18C

30" Corner  
PART: VB30C



For Arched Corners

Flexible Boat Tail  
4" W X 18" L  
PART: VBBT-4

6" W X 24" L  
PART: VBBT-6

For Concave or Convex



Flexible  
PART: VB30FX-3  
3" W X 30" L

PART: VB30FX-4  
4" W X 30" L

Vacuum  
Pump  
PART:  
VB-PUMP

For Inside Box Corners



3-Way Inside Corner  
PART: VB3WIC  
(special order outside  
corner available)

# Vacuum Boxes

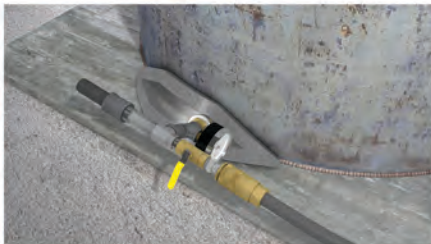
## Vacuum Box Usage



1. Spray area to be vacuum tested with a soapy water solution for better seal and to create bubbles revealing any weld failure locations.



2. Place onto area to be vacuum tested.



3. Connect vacuum pump or compressor hose to begin vacuum test.

Custom sizes available

# Multi-Press

3-ton system used to close gaps where angles and T-section stiffeners transverse. Interchangeable feet allow for connection to flanges or bulb flat profiles or use optional XBAM-L-1000 1,100 lb capacity lift (each) magnets to quickly attach to ferrous metal surfaces.

Simply turn Acme screw clockwise after inserting foot opening onto end of section steel flange or bulb profile or securing magnets to pull steel sheets flush at stiffener transverses.

PART: MPS-3T



Bulb Profile Attachment



Section Flange Attachment



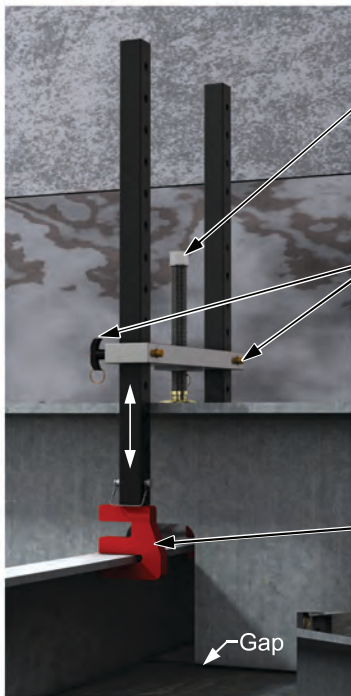
Optional Magnet Attachment





# Multi-Press

## Multi-Press Usage



3. Turn Acme screw clockwise to pull up on flange or bulb profile or plate (with magnets) and close gap then weld to hold

1. Pull pins to adjust position of legs for different heights of stiffeners



Feet are interchangeable to fit the need

2. Slots in angle/section flange attachment allow tool to fit different thicknesses



Magnets are available for more efficiency

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-multi-press](http://fitupgear.com/fitupgear-products/fitupgear-multi-press)

# Bulkhead Brace Clamp

Used to hold up bulkheads, walls and other structures during construction. Using any combination of 3 optional end mounts, you can easily hold, spin Brace Bar to adjust in place, then weld or use other permanent method to secure workpiece before removing Bulkhead Brace Clamp.

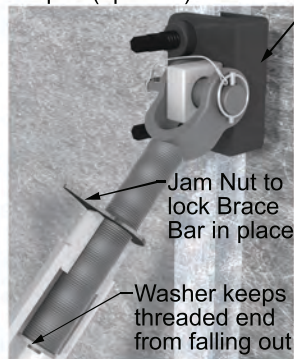
PART: TRex-38 (Clamp for 3"-8" wide Ts)

PART: BB-84 (84" Brace Bar with 2 Yoke Ends and 2 Jam Nuts -  
Brace Bar lengths up to 40' available)

PART: FUGX-H-1-BN (Magnet)

PART: PMB-BN-1-1 (Pacman Clamp)

Pacman Clamp for flat plate, L shapes or areas with access to only one side of T shapes (optional)

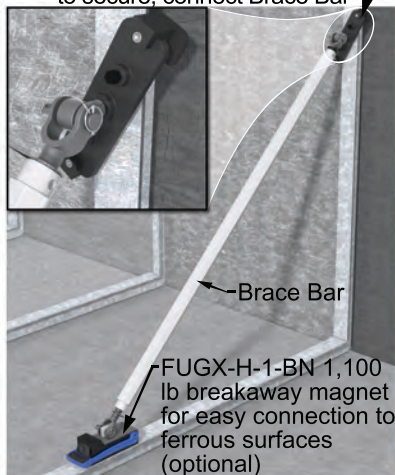


Not to be used for lifting

Video Demonstration:

[fitupgear.com/fitupgear-products/fitupgear-bhd-brace-clamp](http://fitupgear.com/fitupgear-products/fitupgear-bhd-brace-clamp)

TRex-38 Clamp slips over T shape, turn until it hits flange, tighten middle mount then bolts to secure, connect Brace Bar



# Plastic "S" Hook

Non-conductive 220 lb capacity 12" plastic "S" hook used for housekeeping and cable and hose management.

Weight: .65 lbs

PART: SH-12-220

Hang off of any sturdy surface.

Hang cables and hoses to keep area clear of trip hazards and create a more efficient work area.



# Mag Hook

Non-conductive 220 lb capacity 12" Plastic "S" Hook with Fit Up Gear's FUGL-100, a 770 lb breakaway magnet. Perfect for housekeeping and cable and hose management.

Weight: 7.21 lbs

PART: MSH-220



Attach Mag Hook to clean ferrous surface, turn magnet handle to on position, then lock handle (hold strength of magnet depends upon thickness of material attached to).

Hang cables and hoses to keep area clear of trip hazards and create a more efficient work area.

# Mag-Pry®

Strong, easy to use magnetic pry bar for material leveling and alignment also known as mismatch or high/low. Eliminates the need for welded tabs. Easy on/off actuation of the Maglogix XBAM-750 magnet provides high breakaway forces on thin plate materials.

750lb breakaway on 1/4" thick material and above. Far exceeds breakaway of any other magnet on the market on thinner materials.

100 times faster than traditional methods!

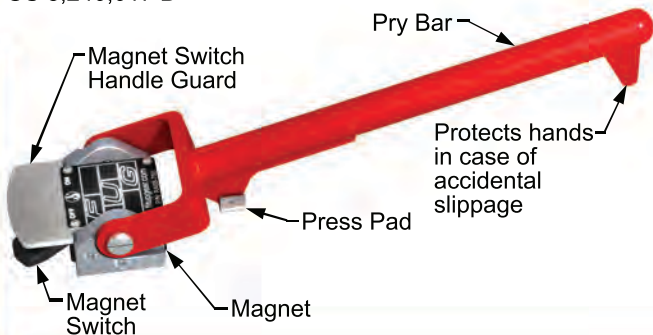
Weight: 5 lbs

PART: MPML-V2

Patent #s

US 7,587,800 B2

US 8,240,017 B



# Mag-Pry®

## Mag-Pry Usage



1. Place Mag-Pry® with space between back of magnet and press pad centered over joint with high-low mismatch



2. Switch Magnet on



3. Press down on back of pry bar to level plate



4. Tack weld plates



5. Switch off magnet and remove Mag-Pry®

Video Demonstration:

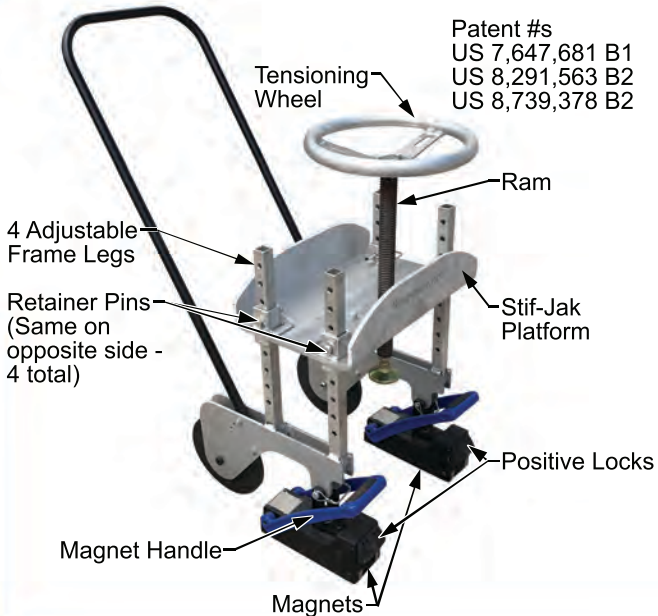
[fitupgear.com/no-mar-products/no-mar-mag-pry](http://fitupgear.com/no-mar-products/no-mar-mag-pry)

# Stif-Jak®

Magnetically held press with all aluminum construction for downward pressure on stiffeners in shipbuilding. Uses 2 Maglogix switchable magnets with over 3,000 lbs breakaway strength each and a maintenance-free mechanical tensioning system. Up to 95% time savings.

Weight: 73 lbs

PART: SJ-AL-500SW

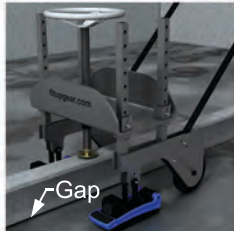


# Stif-Jak<sup>®</sup>

## Stif-Jak<sup>®</sup> Usage



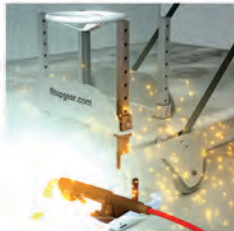
1. Adjust the height by removing Retainer Pins and sliding Adjustable Frame Legs.



2. Position with Ram above vertical column of stiffener. Engage Magnets.



3. Turn the Tensioner Wheel clockwise until the bottom plate is pulled to the stiffener and gap closed.



4. Tack weld stiffener to plate then release pressure by turning Tensioner Wheel counter clockwise.



5. Turn Magnets off and move to next work area.

# Stif-Jak®

## Fit Up Gear® Stif-Jak® User Manual

1. Store the Stif-Jak in a clean and dry location when not in use.
2. Inspect the Stif-Jak for worn, damaged or loose components prior to use. Make sure that the surface of the Magnets is clean and debris free.
3. Adjust the height of the Stif-Jak Ram to accommodate the height of your stiffener by removing the 4 Retainer Pins from the 4 Adjustable Frame Legs. Select the desired height and reinsert the 4 Retainer Pins. Ensure that the Stif-Jak Platform is level and square on the Adjustable Frame Legs.
4. Roll the Stif-Jak into position with the Ram directly above the vertical column of the stiffener.
5. Engage the Magnets making sure that the Positive Locks are engaged. NEVER force the Magnet Handle.
6. Turn the Tensioner Wheel clockwise until the bottom plate is pulled to the stiffener. **WARNING:** Do not over tension, this will cause the Magnets to break free.
7. When you are done tack welding the stiffener to the plate, release the pressure by turning the Tensioner Wheel counter clockwise.
8. Turn Magnets off. **WARNING: ALWAYS RELIEVE THE TENSIONER WHEEL PRESSURE PRIOR TO TURNING THE MAGNETS OFF.** Failure to do so could result in serious injury. Never overheat the Magnets as it will cause them to weaken.

*Refer any questions to Customer Service at 281-440-1725*



# Bigfoot Material Leveler

Used for material leveling and alignment also known as mismatch or high/low. The Bigfoot is built to maximize point loading of the magnets and create equal loads on each end with single knob control. Numerous designs tested to failure before final design was consistently achieving 2,500 lbs. of force. Can also be used with impact tools.

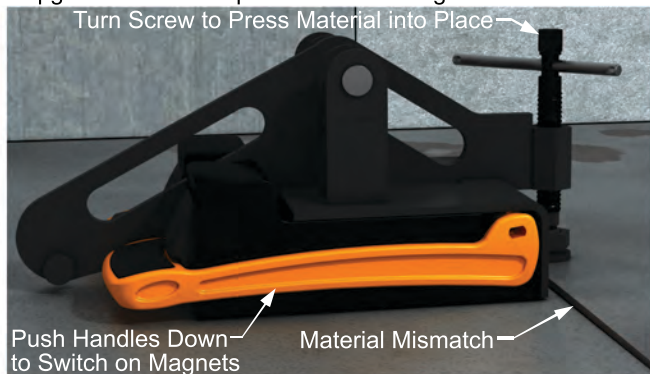
Features:

- 2 XBAM-L-1000 1,100 lb magnets
- Pivoting assembly centers load for maximum press
- Effortless and ergonomic lever activation of magnet
- TiN coated, hardened steel magnetic surface

Weight: 51 lbs | PART: BF-2500

Video Demonstration:

[fitupgear.com/no-mar-products/no-mar-bigfoot](http://fitupgear.com/no-mar-products/no-mar-bigfoot)

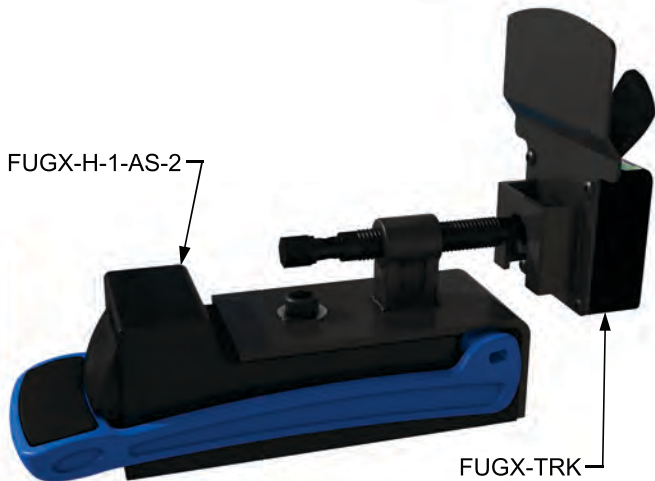


# Mag Push-Pull

Using an XBAM-L-1000 850 lb sheer hold magnet and an XBAM-1500 1,500 lb breakaway magnet, this combined unit can both push and pull ferrous structures to align, straighten or flatten into the desired position.

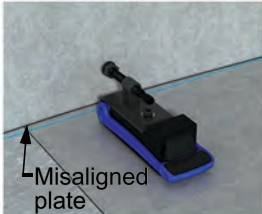
PART: FUGX-H-1-AS-2 (large magnet)  
Weight: 16 lbs

PART: FUGX-TRK  
Weight: 6 lbs



# Mag Push-Pull

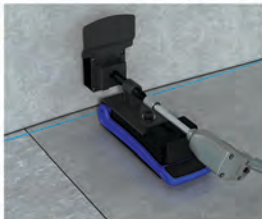
## Mag Push-Pull Usage



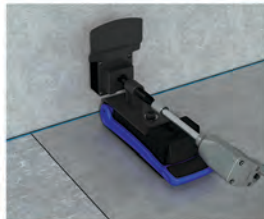
1. Place FUGX-H-1-AS-2 magnet



2. Place FUGX-TRK magnet with slot over Acme screw



3. Use an impact wrench to turn Acme screw



4. Tighten Acme screw to pull plate into place



5. Once plate is in place, weld to hold



You can also push objects into place

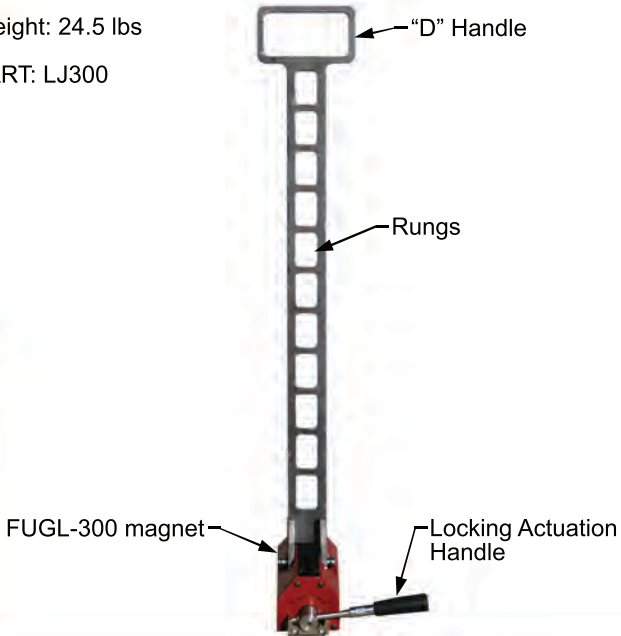
Video Demonstration:  
[fitupgear.com/no-mar-products/mag-push-pull](http://fitupgear.com/no-mar-products/mag-push-pull)

# Ladder-Jak

Designed to help eliminate air gaps for tacking stiffeners, baffles, or frames. The 31" ladder has 2-1/2" rung spacing to accommodate a wide range of applications. Mounted on our FUGL-300 magnet, this unit has a breakaway capacity of 2,310 lbs. Features an easy to carry "D" handle. Can be used in conjunction with our Fit Up Bars.

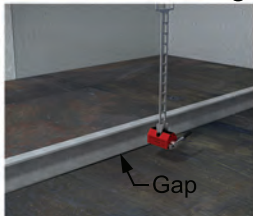
Weight: 24.5 lbs

PART: LJ300



# Ladder-Jak

## Ladder-Jak Usage



Move Ladder-Jak into place at gap



Turn magnet handle to on position and lock



Insert pry bar into rung for best pivoting



Push down on pry bar to pull plate closing gap



Weld plate in place



Turn off magnet and go to next work area

Video Demonstration:

[fitupgear.com/no-mar-products/no-mar-ladder-jak](http://fitupgear.com/no-mar-products/no-mar-ladder-jak)

# Magnet Wedge Block

Using our powerful XBAM-L-1000 permanent lifting magnet and an industrial grade plastic protective block, wedging on ferrous surfaces is quicker and easier than ever.

Simply place magnet on ferrous surface at angle of wedge, turn magnet on, then hammer wedge until object being pushed is in desired position. Wide variety of uses including: wedging plate, stiffeners, beams, equipment and much more into place.

Need more holding strength? Purchase an XBAM-L-1000 or XBAM-L-500 magnet and place it perpendicularly at the back of the Magnet Wedge Block.

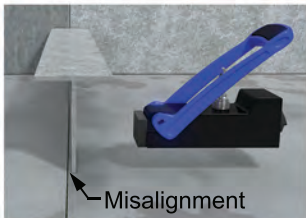
PART: XBAM-MWB-1000

Weight: 14.76 lbs



# Magnet Wedge Block

## Magnet Wedge Block Usage



1. Locate misaligned piece



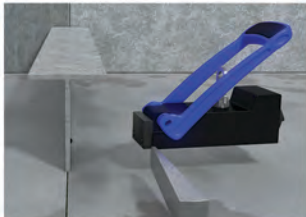
2. Place Magnet Wedge Block and wedge



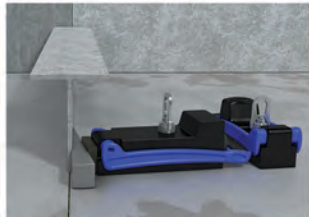
3. Hammer wedge until it pushes piece into place



4. Perform welding operation



5. Once weld is finished, release magnet and wedge



If magnet slips when hammering, add magnet perpendicularly to hold

Video Demonstration:

[fitupgear.com/no-mar-products/no-mar-magnet-wedge-block](http://fitupgear.com/no-mar-products/no-mar-magnet-wedge-block)

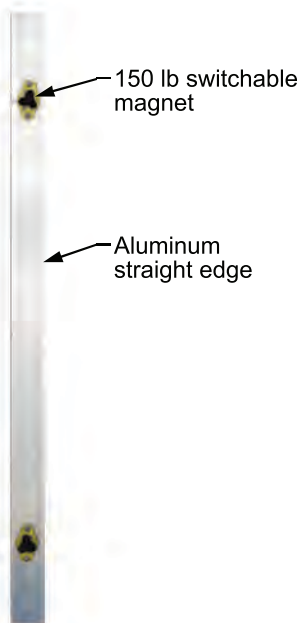
# Trim Bar

Magnetic straight edge for torch cutting. 2 - 150 lb durable, switchable magnets hold it in any position to assure a clean professional cut. Available in 24", 36" and 72" models.

24" Model  
PART: TB-2  
Weight: 3.5 lbs

36" Model  
PART: TB-3  
Weight: 4 lbs

72" Model  
PART: TB-6  
Weight: 7 lbs



Place Trim Bar on ferrous surface, switch on magnets and perform desired process



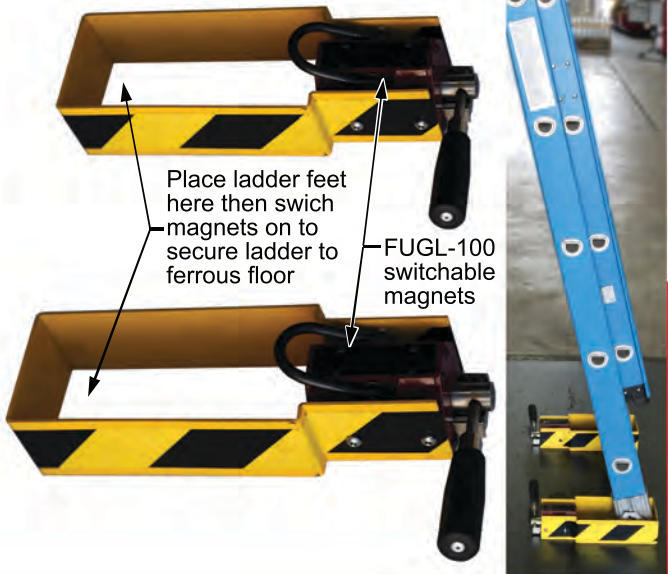
# Ladder Sentry

This magnetic attachment secures the foot of your ladder to the deck or floor of any ferrous structure. Eliminates scars from welded on stops. Each Ladder Sentry will accommodate the safety foot of a 1A or 1AA ladder. Each magnet supports 220 pounds.

Sold in pairs providing 440 lbs total support.

Weight: 8.6 lbs

PART: LS-100



# Hand Lifter Magnet

- Hand lift up to 75 lbs
- Incredibly lightweight and easy to handle
- Easy actuation for rapid on/off control. Handle locks on for safety—lift the handle up slightly to release
- Hardened steel base with TiN coating for long lasting flatness and fewer airgaps caused by damage to the base
- OSHA friendly 10:1 safe working load when used at the maximum single person lift of 70lbs
- Saves hands and fingers from contacting hot and sharp steel (176° F max.)
- Invaluable for anyone removing parts off of a plasma cutter
- Beveled magnetic surface allows for use on round steel

Weight: 3.45 lbs

PART: XBAM-HL-750R



# Variable Angle Magnet

- Dual MX-750 magnets with 750lb breakaway strength on as thin as .25" material
- Stepless adjustable angle side plates from 0° to 90° to hold/weld worksheets at different angles
- Lightweight and easy to handle
- Padded carrying case included

6.4" long X 4.9" wide X 8.8" high  
Weight: 6 lbs (8.3 lbs with carrying case)

PART: XBAM-VA-750



# Right Angle Magnets

90° magnetic right angles for fast and easy way to secure steel sheets for fillet welds and fabrication.



6"x8" right angle  
with 2 - 750 lbs  
breakaway  
magnets

Weight: 7 lbs  
PART: RA68-750

10"x12" right angle  
with 2 - 750 lbs  
breakaway  
magnets

Weight: 9 lbs  
PART: RA1012-750



4"x5" right angle  
with 2 - 750 lbs  
breakaway  
magnets

Weight: 7 lbs  
PART: RA45-750



6"x8" right angle  
with 2 - 770 lbs  
breakaway  
magnets

Weight: 16 lbs  
PART: RA68-770



24"x36" right angle  
with 4 - 1,500 lbs  
breakaway magnets

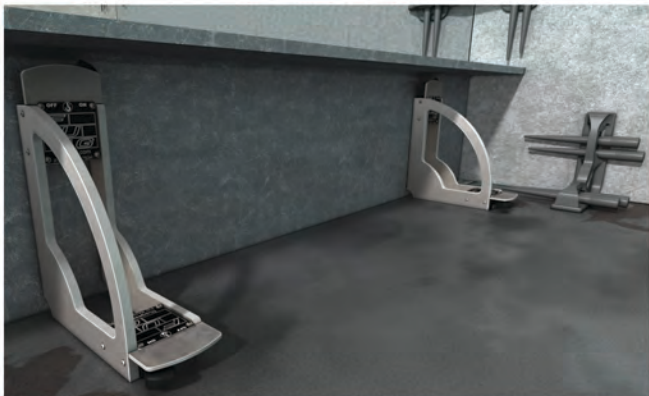
Weight: 35 lbs  
PART: RA2436-3000

# Right Angle Magnets

## Right Angle Magnet Usage

Can be used to hold steel sheets, stiffeners, angles, channels, bulb profiles and more that are joined at a 90° angle to easily weld in place.

1. Place Right Angle Magnet on fixed ferrous surface. Multiple Right Angle Magnets can be used.
2. Switch on magnet(s) in contact with fixed ferrous surface.
3. Move ferrous object to be joined at 90° into place against other magnet(s).
4. Switch second magnet(s) on to hold.
5. Weld objects together.
6. Switch off magnets and remove Right Angle Magnet(s).



# Extras - Magnets



## Heavy Lifter Magnets

- Outstanding performance on thin walled materials
- 70% less weight than standard lifting magnets
- 360° rotating lifting hook
- TiN coated, hardened steel magnetic surface

PART: XBAM-L-500

Max Load: 550 lbs

PART: XBAM-L-1000

Max Load: 1,100 lbs

PART: XBAM-L-2200

Max Load: 2,200 lbs

## Lifter Magnet

- 360° rotating and swiveling hook
- 750 lb breakaway (from .25" thick material)
- Maximum vertical lifting capacity of 66 lbs at 90°

PART: XBAM-L-220

Max Load: 220 lbs



## Magnet with Hundreds of Uses

- Handle locks on for safety
- Hardened steel base with TiN coating for long lasting flatness
- Ideal for plate levelling, platform building, fixturing, and work holding of all types
- Compact magnetic field allows for welding as close as .5"

PART: XBAM-750

PART: XBAM-750R (for round)

Up to 750 lbs. of holding force

## Switchable Magnetic Squares

Switchable permanent rare earth Magnetic Squares are extremely powerful and eliminate the need for tedious clamping. The Magnetic Squares offer fast work-holding on multiple sides for flat or round steel. Features pre-tapped holes on all sides for mounting and a locking On/Off handle for safety.

150 lb Breakaway

PART: SQ150IM

450 lb Breakaway

PART: SQ450IM

1,000 lb Breakaway

PART: SQ1000IM



# Extras



Welder's Windshield

Overcome the elements and weld outside. Reduce arc flash occurrences, when multiple operators are working in tight quarters. Steady rest support for operator's hands and arms reduces operator fatigue.

Weight: 5.23 lbs

Magnetic Version  
PART: WW-1

Non-Ferrous  
Version with  
Suction Cups →  
PART: WW-1SC



Fit Up Gear Tool Basket

Used to carry, hoist and keep all your items together. Also stops items from being knocked off and hitting people or equipment below. Replaces the need for and misuse of 5-gallon buckets.

Weight: 8.44 lbs  
PART: FUG-BOX



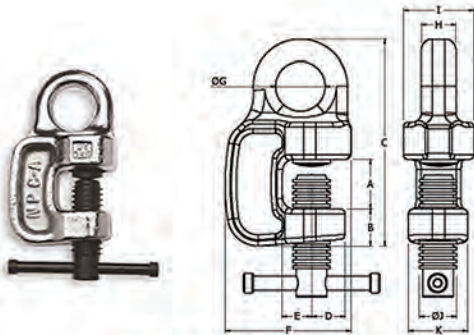
# NPC-A SCREW CLAMP

- A means of placing a temporary attachment for pulling or pushing in the fitting process
- Versions available in the following tonnage ratings: 1, 1.5, 2, 3 and 5

Weight: 1 Ton - 5 lbs | 1.5 Ton - 5.7 lbs | 2 Ton - 7 lbs 3 Ton - 10.1 lbs | 5 Ton - 23.4 lbs

PART: 1 Ton - NPC-A1 | 1.5 Ton - NPC-A1.5 | 2 Ton - NPC-A2 | 3 Ton - NPC-A3 | 5 Ton - NPC-A5

*NOTE: Please read the Safe and Proper Use of Screw Clamps page for warnings, maintenance, and repair of all Screw Clamps.*



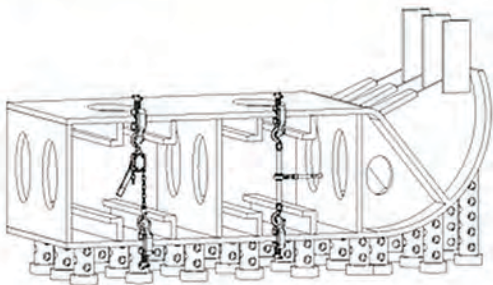
## SPECIFICATION

MODEL	RWT TON	SHR OPENING	A	B	C	D	E	F	OG	H	I	J	K	RWT KG
NPC-A	1	0-25	32	30	156	25	25	98	38	17	50	25	40	2.3
	1.5	0-25	35	32	166	25	25	98	38	18	55	28	45	2.6
	2	0-30	40	35	182	25	25	100	40	20	60	30	50	3.2
	3	0-35	58	38	205	30	38	116	42	22	65	36	60	4.6
	5	0-50	85	52	265	35	50	152	55	28	80	40	70	10.6



# NPC-A SCREW CLAMP

## NPC-A Screw Clamp Usage



1. Place clamp opening onto plate, beam edge, or other flat steel object.
2. Tighten clamp screw to secure.
3. Connect hook or other means of connection to perform desired work.

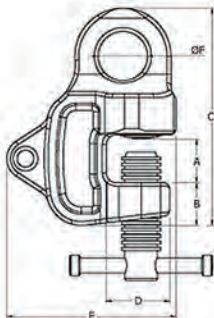
# NPC-T SCREW CLAMP

- A means of placing a temporary attachment for pulling or pushing in the fitting process
- Up and down straight operation and right or left using the small eye hole
- Versions available in the following tonnage ratings: 1.5, 3 and 5

Weight: 1.5 Ton - 6.2 lbs | 3 Ton - 9.9 lbs | 5 Ton - 25.1 lbs

PART: 1.5 Ton - NPC-T1.5 | 3 Ton - NPC-T3 | 5 Ton - NPC-T5

*NOTE: Please read the Safe and Proper Use of Screw Clamps page for warnings, maintenance, and repair of all Screw Clamps.*

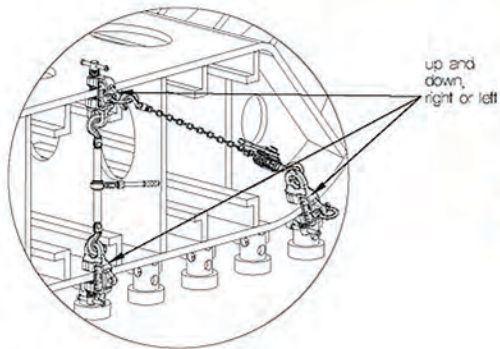


## SPECIFICATION

MODEL	WLL TON	ØP ØIN	A	B	C	D	E	ØF	G	H	ØI	WT KG
NPC-T	1.5	Ø-25	30	30	165	50	135	40	18	55	28	2.8
	3	Ø-35	40	34	198	60	160	42	20	65	30	4.5
	5	Ø-50	55	50	264	90	218	55	28	80	40	11.4

# NPC-T SCREW CLAMP

## NPC-T Screw Clamp Usage



1. Place clamp opening onto plate, beam edge, or other flat steel object.
2. Tighten clamp screw to secure.
3. Connect hook or other means of connection to perform desired work.

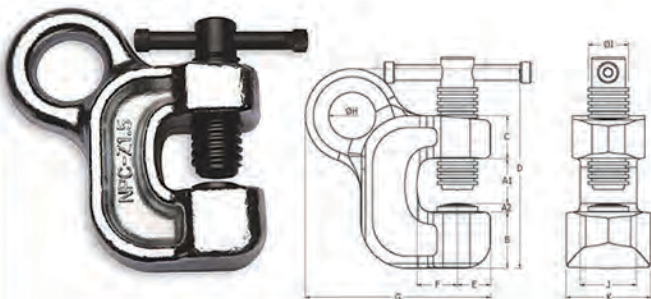
# NPC-Z SCREW CLAMP

- A means of placing a temporary attachment for pulling or pushing in the fitting process
- Screw is next to eye hook in top of clamp for easy bite of upper and lower work pieces
- Rated at 1.5 ton

Weight: 7.7 lbs

PART: NPC-Z1.5

*NOTE: Please read the Safe and Proper Use of Screw Clamps page for warnings, maintenance, and repair of all Screw Clamps.*

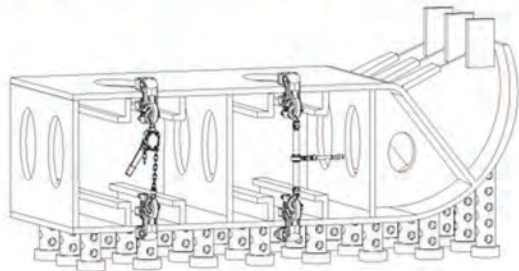


## SPECIFICATION

MODEL	WLL TON	SWP OPERATING	A1	A2	B	C	D	E	F	G	SH	G1	J	K	WT. KG.
NPC-Z	1.5	0-25	33	8	42	33	158	28	30	148	38	30	55	60	3.5

# NPC-Z SCREW CLAMP

## NPC-Z Screw Clamp Usage



1. Place clamp opening onto plate, beam edge, or other flat steel object.
2. Tighten clamp screw to secure.
3. Connect hook or other means of connection to perform desired work.

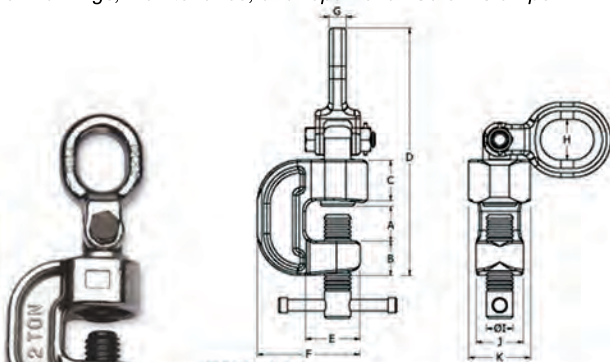
# NPC-DB SCREW CLAMP

- A means of placing a temporary attachment for pulling or pushing in the fitting process
- Upper eye hook rotates 360° making operation in all directions possible
- Versions available in the following tonnage ratings:  
1.5, 2, 3 and 5

Weight: 1.5 Ton - 7.3 lbs | 2 Ton - 9.5 lbs | 3 Ton - 13.5 lbs | 5 Ton - 30.4 lbs

PART: 1.5 Ton - NPC-DB1.5 | 2 Ton - NPC-DB2 | 3 Ton - NPC-DB3 | 5 Ton - NPC-DB5

*NOTE: Please read the Safe and Proper Use of Screw Clamps page for warnings, maintenance, and repair of all Screw Clamps.*

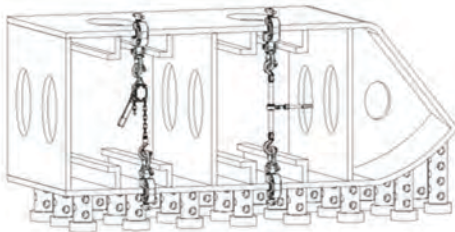


## SPECIFICATION

MODEL	WELL TON	MAX OPENING	A	B	C	D	E	F	G	H	ØI	J	K	WT. KG
NPC-DB	1.5	Ø-25	30	34	40	235	50	104	16	35	28	44	58	3.3
	2	Ø-30	35	36	45	255	57	110	18	40	30	48	62	4.3
	3	Ø-35	40	40	48	280	70	130	20	45	34	56	70	6.1
	5	Ø-50	58	52	60	378	90	155	30	55	40	70	84	13.8

# NPC-DB SCREW CLAMP

## NPC-DB Screw Clamp Usage



1. Place clamp opening onto plate, beam edge, or other flat steel object.
2. Tighten clamp screw to secure.
3. Connect hook or other means of connection to perform desired work.

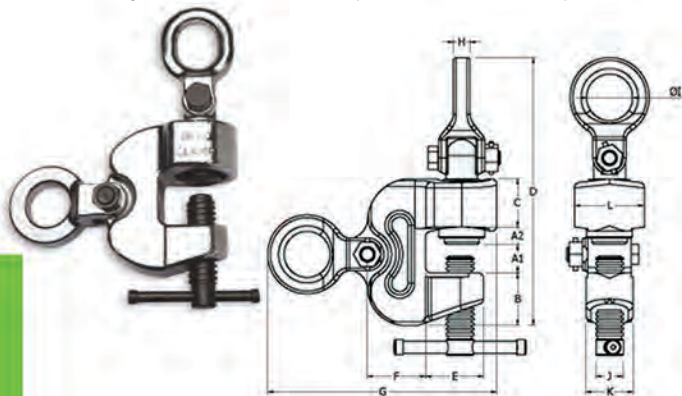
# NPC-NT SCREW CLAMP

- A means of placing a temporary attachment for pulling or pushing in the fitting process
- Upper eye hook rotates 360° making operation in all directions possible
- Versions available in the following tonnage ratings:  
1.5 and 3

Weight: 1.5 Ton - 11 lbs | 3 Ton - 18.7 lbs

PART: 1.5 Ton - NPC-NT1.5 | 3 Ton - NPC-NT3

*NOTE: Please read the Safe and Proper Use of Screw Clamps page for warnings, maintenance, and repair of all Screw Clamps.*



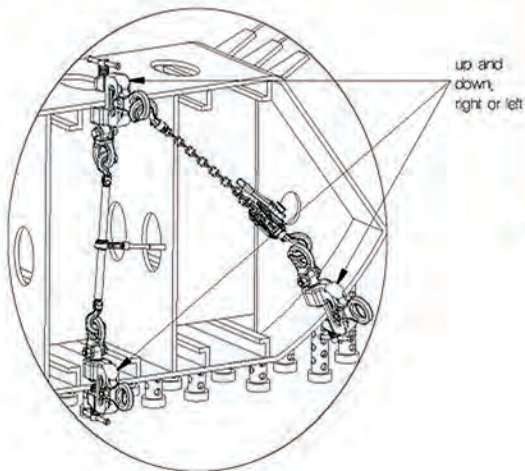
## SPECIFICATION

MODEL	WT. (TON)	DRY OPENING	A <sub>1</sub>	A <sub>2</sub>	B	C	D	E	F	G	H	I	J	K	L	WT. (KG)
NPC-NT	1.5	0-25	30	14	43	45	235	62	44	210	16	35	25	45	64	5.0
	3	0-35	40	14	46	52	262	68	53	240	20	45	30	57	90	8.5



# NPC-NT SCREW CLAMP

## NPC-NT Screw Clamp Usage



1. Place clamp opening onto plate, beam edge, or other flat steel object.
2. Tighten clamp screw to secure.
3. Connect hook(s) or other means of connection to perform desired work.

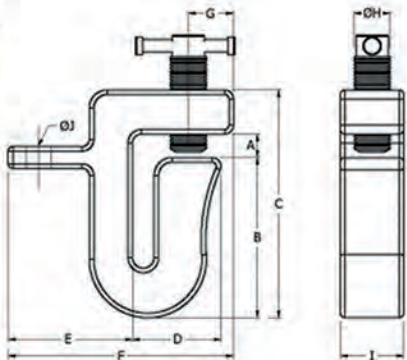
# NPC-FS SCREW CLAMP

- A means of placing a temporary attachment for pulling or pushing in the fitting process
- Clamp jaw opening designed for use on flat steel used as frame material for outer plating and inner bottom plates
- Rated at 5 tons

Weight: 37.3 lbs

PART: NPC-FS5

*NOTE: Please read the Safe and Proper Use of Screw Clamps page for warnings, maintenance, and repair of all Screw Clamps.*

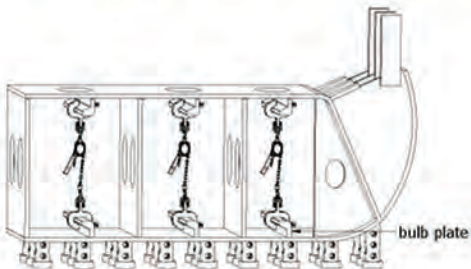


## SPECIFICATION

MODEL	WLL TON	JAW OPENING	A	B	C	D	E	F	G	H	I	Wt. Lbs.
NPC-FS	5	0-25	28	178	254	97	90	248	35	38	70	16.9

# NPC-FS SCREW CLAMP

## NPC-FS Screw Clamp Usage



1. Place clamp opening onto plate, beam edge, or other flat steel object.
2. Tighten clamp screw to secure.
3. Connect hook or other means of connection to perform desired work.

# NH-TB PULLING HOOK

- Used where T-section flanges are too narrow for screw clamps
- A means of placing a temporary attachment for pulling or pushing in the fitting process
- Have hook bite flange of T-section steel
- Rated at 1.5 ton

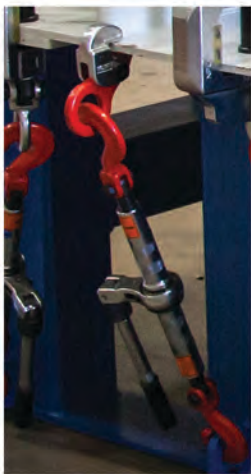
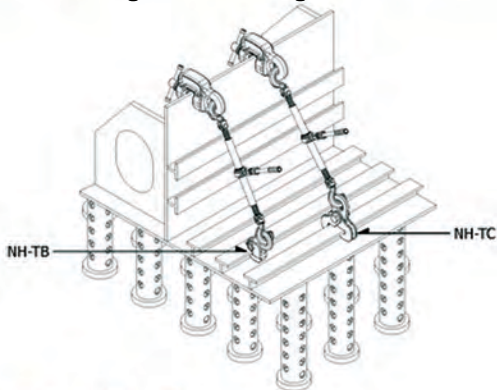
Weight: 3.8 lbs

PART: NH-TB1.5



# NH-TB PULLING HOOK

## NH-TB Pulling Hook Usage



1. Place Pulling Hook opening onto plate, beam edge, or other flat steel object.
2. Insert hook or other type of pulling device connection into red loop of Pulling Hook.
3. Connect other end of pulling device to second object to manipulate or use as anchor point.
4. Operate pulling device and adjust object(s) into place.

# NLH-A PULLING HOOK

- Used on materials that should not have teeth marks
- Incorporates a screw to prevent slippage of work pieces
- Insert work pieces into the end of the hook's jaw opening
- Rated at 2 tons

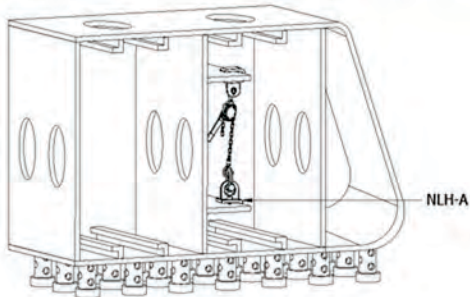
Weight: 7.1 lbs

PART: NLH-A2



# NLH-A PULLING HOOK

## NLH-A Pulling Hook Usage



1. Place Pulling Hook opening onto plate, beam edge, or other flat steel object and tighten screw.
2. Insert hook or other type of pulling device connection into loop of Pulling Hook.
3. Connect other end of pulling device to another mounted Pulling Hook or second object to manipulate or use as anchor point.
4. Operate pulling device and adjust object(s) into place.

# NHG-NE PULLING HOOK

- Used as a hook of a lever block in making a tank of a ship or plant
- Pads attached to bottom of hook prevent slippage
- Use where you cannot hang a hook or use screw clamps when building square boxes
- Rated at 2 tons

Weight: 9.7 lbs

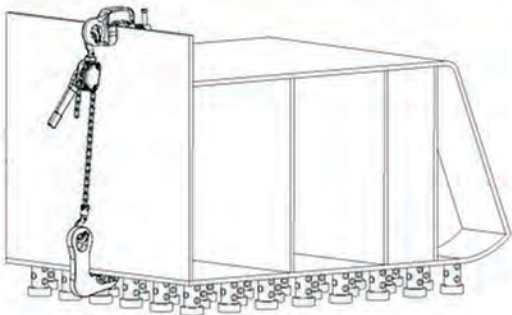
PART: NHG-NE2





# NHG-NE PULLING HOOK

## NHG-NE Pulling Hook Usage



1. Place Pulling Hook opening onto plate, beam edge, or other flat steel.
2. Insert hook or other type of pulling device connection into loop of Pulling Hook.
3. Connect other end of pulling device to another mounted Pulling Hook or second object to manipulate or use as anchor point.
4. Operate pulling device and adjust object(s) into place.

# NH-AB LONG HOOK

- Long hook for hanging a hook of a long and tall lever block
- Hook can rotate 45° right and left
- Hang the clevis hook on a high area
- Rated at 3 tons
- Versions available in the following lengths:  
1m, 1.5m, 2m, 3m and 4m

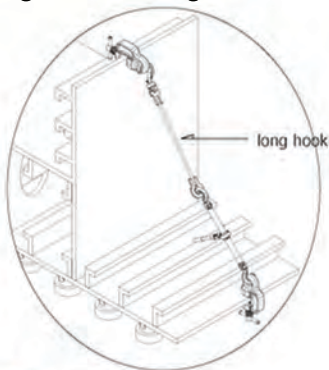
Weight: 1m - 11 lbs | 1.5m - 14 lbs | 2m - 17lbs | 3m - 21 lbs |  
4m - 25 lbs

PART: 1m - NH-AB1 | 1.5m - NH-AB1.5 | 2m - NH-AB2 | 3m -  
NH-AB3 | 4m - NH-AB4



# NH-AB LONG HOOK

## NH-AB Long Hook Usage



1. Place Long Hook into padeye, screw clamp or other attachment for pulling.
2. Insert hook or other type of pulling device connection into loop of Long Hook.
3. Connect other end of pulling device to another mounted attachment for pulling or second object to manipulate or use as anchor point.
4. Operate pulling device and adjust object(s) into place.

# NH-D SHORT HOOK

- For hanging a hook of a lever block when attaching ships and steel structures
  - Hook can rotate 90° right and left from middle of hook
  - Hang hook on eye piece hole of a surface plate pin jig when assembling bottom or outer plating blocks
- 2 and 3 ton versions available

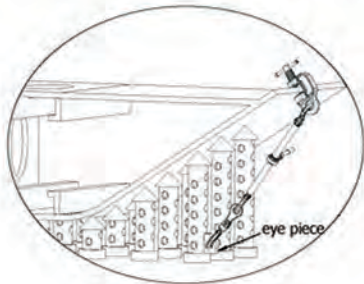
Weight: 2 Ton - 5.5 lbs | 3 Ton - 7.3 lbs

PART: 2 Ton - NH-D2 | 3 Ton - NH-D3



# NH-D SHORT HOOK

## NH-D Short Hook Usage



1. Place Short Hook into padeye, screw clamp or other attachment for pulling.
2. Insert hook or other type of pulling device connection into loop of Short Hook.
3. Connect other end of pulling device to another mounted attachment for pulling or second object to manipulate or use as anchor point.
4. Operate pulling device and adjust object(s) into place.

# NH-CC CHAIN AND HOOK

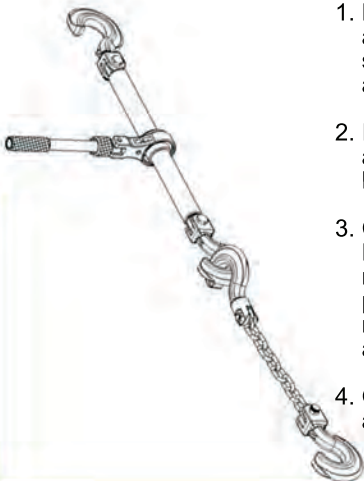
- Used in conjunction with Ratchet Pullers
- Versions available in the following tonnage ratings: 1.5 and 3

Weight: 1.5 Ton - 6 lbs | 3 Ton - 11 lbs

PART: 1.5 Ton - NH-CC1.5 | 3 Ton - NH-CC3



## NH-CC Chain and Hook Usage



1. Place one hook of Chain and Hook into padeye, screw clamp or other attachment for pulling.
2. Insert other hook of Chain and Hook into hook of NRP-A Ratchet Puller.
3. Connect other end of Ratchet Puller to another mounted attachment for pulling or second object to manipulate or use as anchor point.
4. Operate Ratchet Puller and adjust object(s) into place.

# NH-C CHAIN AND HOOK

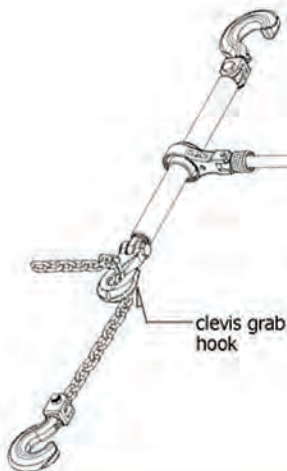
- Used in conjunction with Ratchet Pullers
- Versions available in the following tonnage ratings: 1.5 and 3

Weight: 1.5 Ton - 5 lbs | 3 Ton - 8 lbs

PART: 1.5 Ton - NH-C1.5 | 3 Ton - NH-C3



## NH-C Chain and Hook Usage



1. Place hook end of Chain and Hook into padeye, screw clamp or other attachment for pulling.
2. Connect large hook end of NRP-B Ratchet Puller to another mounted attachment for pulling or second object to manipulate or use as anchor point.
3. Insert chain end of Chain and Hook into clevis grab hook of Ratchet Puller.
4. Operate Ratchet Puller and adjust object(s) into place.

# NRP-A RATCHET PULLER

- For pulling or fixing a block for ships or steel structure manufacturing
- Faster and more convenient than turnbuckles
- Folding handle for easy transport and use
- Have screw clamps bite both ends of a steel structure, insert hook into eye, set stopper to “IN” and operate handle
- 1.5 and 3 ton versions available

Weight: 1.5 Ton - 13.7 lbs | 3 Ton - 19.4 lbs

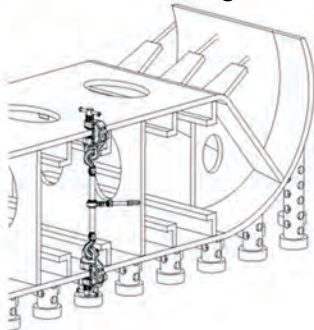
PART: 1.5 Ton - NRP-A1.5 | 3 Ton - NRP-A3





# NRP-A RATCHET PULLER

## NRP-A Ratchet Puller Usage



1. Place hook of Ratchet Puller into padeye, screw clamp or other attachment for pulling.
2. Connect opposite Ratchet Puller hook to another mounted attachment for pulling.
3. Operate Ratchet Puller and adjust object(s) into place.

# NRP-B RATCHET PULLER

- For pulling or fixing a block for ships or steel structure manufacturing
- Faster and more convenient than turnbuckles
- Folding handle for easy transport and use
- Have screw clamps bite both ends of a steel structure, insert hook into eye, set stopper to “IN” and operate handle
- 1.5 and 3 ton versions available
- Can be used in conjunction with NH-C Chain and Hook

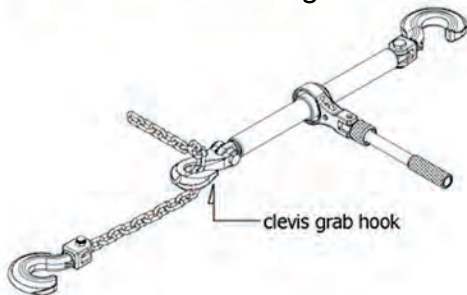
Weight: 1.5 Ton - 12.6 lbs | 3 Ton - 17.9 lbs

PART: 1.5 Ton - NRP-B1.5 | 3 Ton - NRP-B3



# NRP-B RATCHET PULLER

## NRP-B Ratchet Puller Usage



1. Place hook end of Chain and Hook into padeye, screw clamp or other attachment for pulling.
2. Connect large hook end of NRP-B Ratchet Puller to another mounted attachment for pulling or second object to manipulate or use as anchor point.
3. Insert chain end of NH-C Chain and Hook into clevis grab hook of Ratchet Puller.
4. Operate Ratchet Puller and adjust object(s) into place.

# NRP-C RATCHET PULLER

- For pulling or fixing a block for ships or steel structure manufacturing
- Faster and more convenient than existing turnbuckles
- Folding handle for easy transport and use
- Special hooks for thickness of work pieces
- Hang the hook on steel structures to be pulled or fixed, set stopper to “IN” and operate handle
- Rated at 1.5 tons

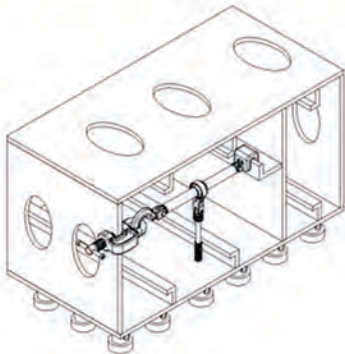
Weight: 18.5 lbs

PART: NRP-C1.5



# NRP-C RATCHET PULLER

## NRP-C Ratchet Puller Usage



1. Place hook end of NRP-C Ratchet Puller into padeye, screw clamp or other attachment for pulling.
2. Connect large flat hook end of NRP-C Ratchet Puller to plate, angle steel or other flat object to manipulate or use as anchor point.
3. Operate Ratchet Puller and adjust object(s) into place.

# NPR-C RATCHET PUSHER

- Used for adjusting the interval of side frames
- Pads rotate 13° and have teeth to prevent slippage
- Operate handle after fixing ratchet inside a work piece to be pushed
- Versions available in the following tonnage ratings: 1.5 and 3

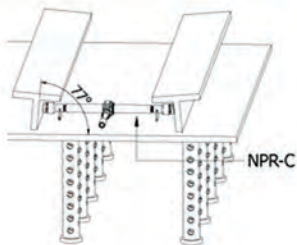
Weight: 1.5 Ton - 16 lbs | 3 Ton - 18.3 lbs

PART: 1.5 Ton - NPR-C1.5 | 3 Ton - NPR-C3



# NPR-C RATCHET PUSHER

## NPR-C Ratchet Pusher Usage



1. Place NPR-C Ratchet Pusher between items to be pushed.
2. Operate Ratchet Pusher and adjust object(s) into place.

# NPR-S RATCHET PUSHER

- Used for adjusting the interval of side frames
- Elongates as handle is operated
- Support legs keep pusher horizontal
- Can support structures
- Versions available in the following tonnage ratings: 1.5, 3 and 5

Weight: 1.5 Ton - 15.4 lbs | 3 Ton - 19.4 lbs | 5 Ton - 21.6 lbs

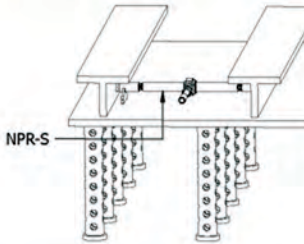
PART: 1.5 Ton - NPR-S1.5 | 3 Ton - NPR-S3 | 5 Ton - NPR-S5





# NPR-S RATCHET PUSHER

## NPR-S Ratchet Pusher Usage



1. Place NPR-S Ratchet Pusher between items to be pushed.
2. Operate Ratchet Pusher and adjust object(s) into place.

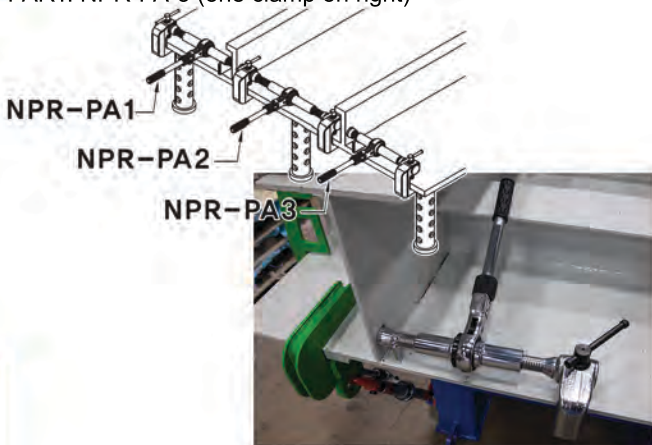
# RATCHET PUSHERS WITH CLAMP

- For pushing or fixing stiffeners for ships or steel structure manufacturing
- Rated at 2 tons

Weight: 22 lbs

PART: NPR-PA-1 (one clamp on left)

PART: NPR-PA-3 (one clamp on right)



## Ratchet Pusher With Clamp Usage

1. Place Ratchet Pusher between items to be pushed with pad against object to be pushed.
2. Slide clamp end over flat steel and tighten screw.
3. Operate Ratchet Pusher and adjust object(s) into place.

## **NPR-PA-2 RATCHET PUSHER/PULLER WITH 2 CLAMPS**

- For pulling, pushing, or fixing stiffeners for ships or steel structure manufacturing
- Push and pull to achieve the gap you need
- Rated at 2 tons

Weight: 29 lbs

PART: NPR-PA-2 (two clamps)



### **NPR-PA-2 Ratchet Pusher/Puller With 2 Clamps Usage**

1. Place NPR-PA-2 Ratchet Pusher/Puller between items to be pushed or pulled.
2. Slide clamp ends over flat steel and tighten screws on both clamps.
3. Operate Ratchet Pusher/Puller and adjust object(s) into place.

# PUSH/PULL BAR

- For pushing, pulling, or fixing a block for ships or steel structure manufacturing
- Rated at 3 tons

PART: NRC-W-3T-J30 (with lead screw)

Weight: 25 lbs

PART: NRC-R-3T-J30 (with ratchet)

Weight: 30 lbs



## Push/Pull Bar Usage

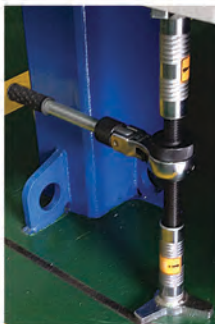
1. Attach both ends of Push/Pull Bar to flat edges of objects to be manipulated and tighten bolts to secure.
2. Turn lead screw or operate ratchet to adjust object(s) into place.

## **NPR-KB RATCHET PUSHER WITH MAGNETS**

- For pushing or fixing stiffeners for ships or steel structure manufacturing
- Rated at 1 ton

Weight: 12 lbs

PART: NPR-KB

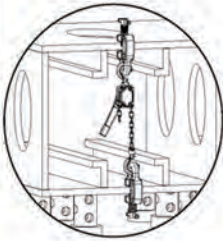


### **Ratchet Pusher with Magnets Usage**

1. Attach Ratchet Pusher with Magnets to one of the objects to be manipulated and twist legs to extend to other object.
2. Operate ratchet to adjust object(s) into place.

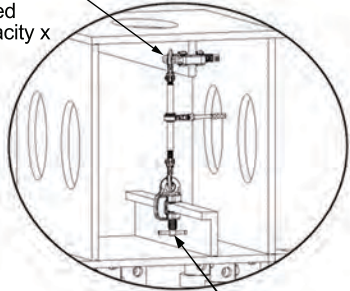
# SAFE AND PROPER USE OF SCREW CLAMPS

On the Straight Line  
(The Rated Capacity)



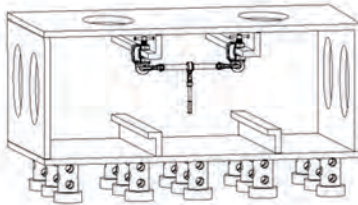
On the Side  
(Rated Capacity x .5)

On the Straight Line and Side

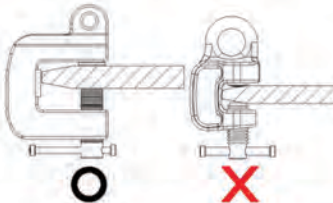


On the Straight Line  
(Rated Capacity)

On the Side  
(Rated Capacity x .5)



For Bulb Flat Steels



# SAFE AND PROPER USE OF SCREW CLAMPS

## **Warnings**

- NEVER use Screw Clamps as a lifting device.
- NEVER make alterations to the clamps or clamp components for other uses
- NEVER heat up or weld on not only clamps but also components
- NEVER use as fall protection
- NEVER remove warning label from clamps
- The Working Load Limit (WLL) specified on the Screw Clamp is the load for one clamp. It is also a maximum load which clamps are designed to sustain in the straight line load condition. Horizontal or side pulls are rated at 75 percent of the WLL.
- Never use the clamps for other materials except steel.
- Do not use clamps on materials with a hardness greater than 300HB or less than 80HB which could cause a slip.
- Do not use clamps on materials whose surface temperature is greater than 300 degrees F or less than 0 degrees F.
- Always observe the rated capacity specified on the clamp.
- The thickness of the work piece must fall within the range of the jaw opening specified on the clamp or in the specifications on each screw clamp page.
- When clamping, insert the work piece into the end of the clamp's jaw opening, make the swivel jaw horizontal to the work piece. Tightly fasten the screw. You are now ready to proceed with your fitting operation.
- Failure to comply with manufacturers warnings may result in severe personal injury or even death.
- For your safety and others around you always ask employer or manufacturer if it is safe to use tool in any questionable circumstance.

## **Maintenance**

- Store Screw Clamps in a clean and dry location when not in use.
- Inspect the Screw Clamp for worn, damaged or missing parts prior the use.
- After inspection, grease the operating parts liberally.
- Conduct regular inspections of stored and in use clamps by maintenance personnel.
- Before use, always check clamps for any problem and then hand over them to users.

## **Repair**

Repair of clamps should always be performed by qualified maintenance personnel in a designated tool repair shop.



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