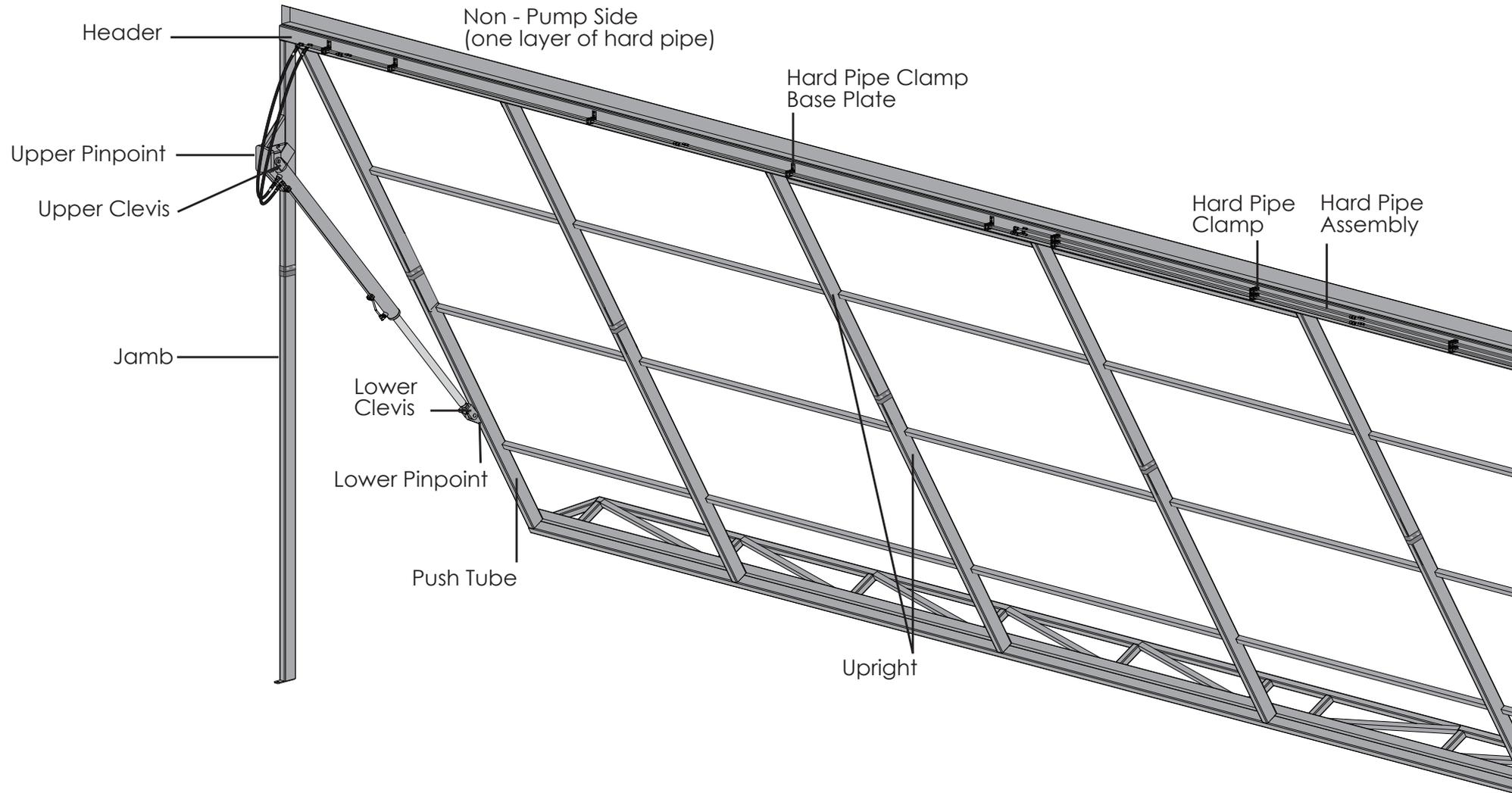




Hydraulic Doors by Well Bilt Industries
American Owned | American Operated | American Built

DOOR INSTALLATION INSTRUCTION MANUAL



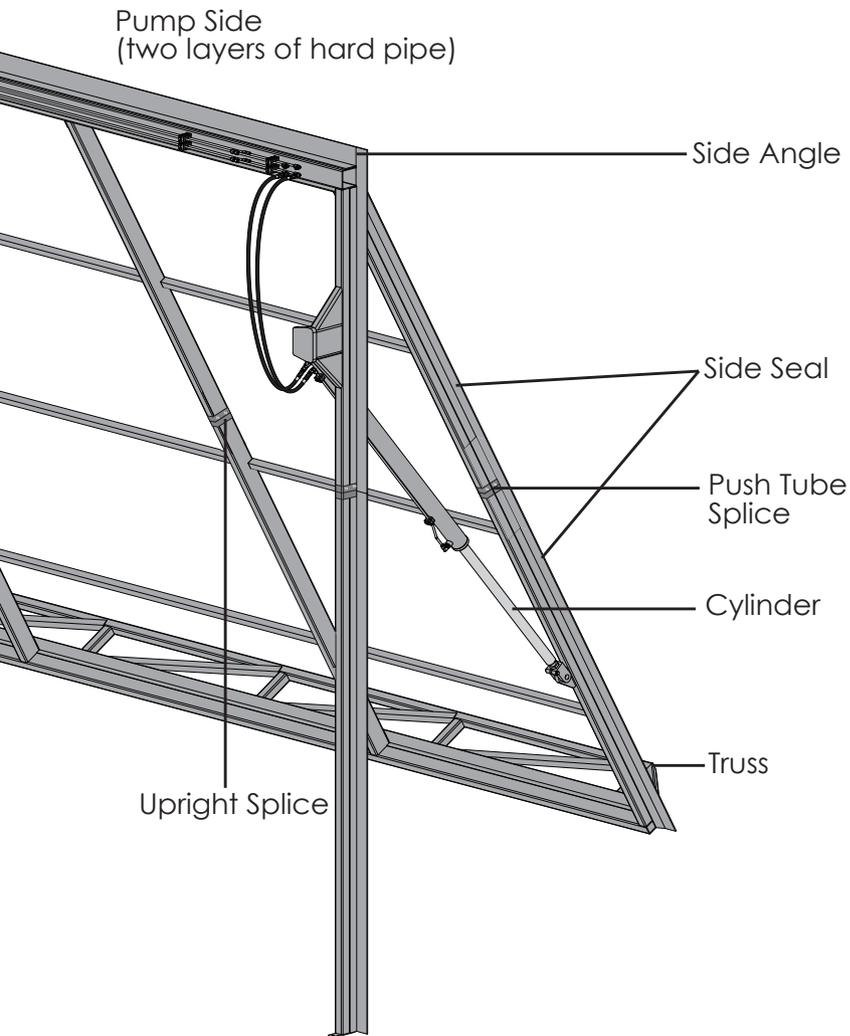


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Limited Warranty

I. Well Bilt Doors warrants that a Well Bilt Doors® overhead door (the "Product") shall:

(i) Comply with the then current specifications for the Product issued by Well Bilt Doors, and

(ii) Be free from defects in workmanship for a period of five (5) years from the date of shipment by Well Bilt Doors or a period of seven (7) years if installed using the Well Bilt Installation Assist program. For more details concerning an Install Assist, please contact Well Bilt.

II. Limitations of Liabilities and Disclaimers of Warranties:

A. Well Bilt Doors Obligation:

Well Bilt Doors' sole obligation in the case of any breach of this Limited Warranty shall be, at Well Bilt Doors' option, to repair or replace without charge or to refund the purchase price of the defective components. In order to recover under this Limited Warranty, the purchaser must send Well Bilt Doors written notice of the defect (setting forth the problem in reasonable detail) within thirty (30) days of discovery of the defect and prior to the expiration of the Warranty Period. If Buyer makes a warranty claim that is not subject to warranty coverage, additional charges may apply.

B. Voiding Warranty:

This Limited Warranty is void as to any Product (i) for which Well Bilt Doors has not been paid in full, (ii) which has not been operated or maintained in accordance with specified procedures or and established operating parameters, (iii) which has been improperly installed, modified, tampered with or (iv) which has been subjected to abuse, misuse, or negligence.

C. Disclaimer of Warranty:

Except as provided in Paragraph I, each Product is sold to purchaser on an "as is" basis. This Limited Warranty does not cover consumable and other items that normal operation and maintenance dictates may wear-out or require replacement within the otherwise applicable Warranty Period. Well Bilt Doors disclaims all other warranties, expressed or implied, including, but not limited to, any implied warranties or merchantability, fitness for a particular purpose and warranties arising from the course of dealing and usage of trade. In the event an implied warranty is determined to exist, the duration of the implied warranty shall expire upon the expiration of the Warranty Period. No employee, representative, or agent of Well Bilt Doors other than an executive officer of Well Bilt Doors has any authority to bind Well Bilt Doors to any affirmation, representation, or warranty except for this written warranty policy.

III. Limitations of Remedy:

Well Bilt Doors shall not be liable to any person for any indirect, special, incidental, punitive, or consequential damages, including, without limitations, lost profits or damage or injury, caused by any defect, failure, or malfunction or otherwise of the product, regardless of the form and whether arising under warranty or other contract, negligence, or other tort or other theory. The remedy provided above shall constitute purchaser's sole remedy for breach of warranty. In no event shall Well Bilt Doors' liability under any cause of action relating to the product exceed the purchase price of the product.

The Buyer has specific legal rights and Buyer may also have other rights that vary by State. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply. Please consult the appropriate State agency governing product warranty issues for more detail.

Warranty Voiding Actions:

Below is a list of specific actions that will damage your door and void its warranty. Take care to avoid the them.

- Completely tightening the Standard Pump adjustment screw will crack your pump and void your warranty.
- Corrosion due to unpainted surfaces is not covered under warranty.
- Unapproved field modifications will void your warranty.
- Failure to weld the door in accordance with the weld schedule will void your warranty.
- Adding a door covering heavier than that which the door was engineered to hold will void your warranty.
- Using the door in a manner inconsistent with its design will void your warranty.
- Having the pump wired by anyone other than a certified electrician will void your warranty.

A Note on Mounting Types:

There are generally two ways to install your door. Flush mounting is the most common type of installation for new buildings. Flush mounting fits the door inside the building header and jamb making it flush with the face of the building.

Outside mounting is common on existing buildings. Outside mount doors fit against the face of the building.

This manual includes instructions for both types of installations. When a step is intended for a specific mount type, it will be called out. Follow the correct instructions for your type of install.

A Note on This Manual:

Since each door we manufacture is unique, no two doors will be installed alike or ship with exactly the same components. For example, your door may have several extra sections of hard pipe if it's particularly wide. Conversely, if your door is very tall, it may be split into three parts rather than two. This also means that your door may not ship with all the features and options covered here. Skip the steps that don't apply to your door.

The pump may be mounted on either side of the door. Once you've chosen the side you want the pump on, assemble the header so the double end of hard pipe is on the pump side.

If your door differs from the configuration covered in this manual, the solution is generally to repeat a step — joining three sections of hard pipe rather than two or making two sets of splices instead of one. Use your best judgement or contact Customer Service at 1.855.688.4266 if you are unsure about how to complete a step. Your door will ship with special installation instructions if it differs significantly from what is covered in this manual or if it has special features.

If you have any questions regarding the differences between this manual and your door, or any questions at all, please contact Customer Service at 1.855.688.4266.

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Tool List

Below is a comprehensive list of tools that you will need to install your door. While some items on this list are interchangeable with similar tools, we strongly recommend that you have all the items listed present at your install. Having them present will prevent you from having to stop your installation to locate specific items.

Standard Hand Tools

- Tin Snips
- 3/4" Impact Socket
- 3 lb. Hammer
- 12-15" Bessey/C- Clamps/Welder's Vice Grips (two needed)
- Needle Nose Pliers
- Standard Pliers
- Vice Grip
- Crescent Wrench (at least 1 1/4")
- 4' Level
- Funnel
- Regular and Phillips Screwdrivers
- Grease Gun and Grease
- Chalk Line (outside mount)

Wrenches

- 1/4" Wrench
- 7/16" Wrench
- 1/2" Wrench (two needed)
- 9/16" Wrench
- 5/8" Wrench
- 1 1/16" Wrench
- 3/4" Wrench (two needed)
- 7/8" Wrench

Power Tools

- Electric Impact Driver (corded)
- Hammer Drill w/ 1/2" masonry bit (concrete anchors only)
- 2" Coring Bit (cane bolts only)
- Cordless Drill (w/ 5/16" and 7/16" drives)
- Electric Drill (corded w/bit asst. up to 9/16")
- 4 1/2" Grinder with Grinding Wheels, Cutoff Wheels, and a Wire Wheel
- Extension cords.

Welding Supplies

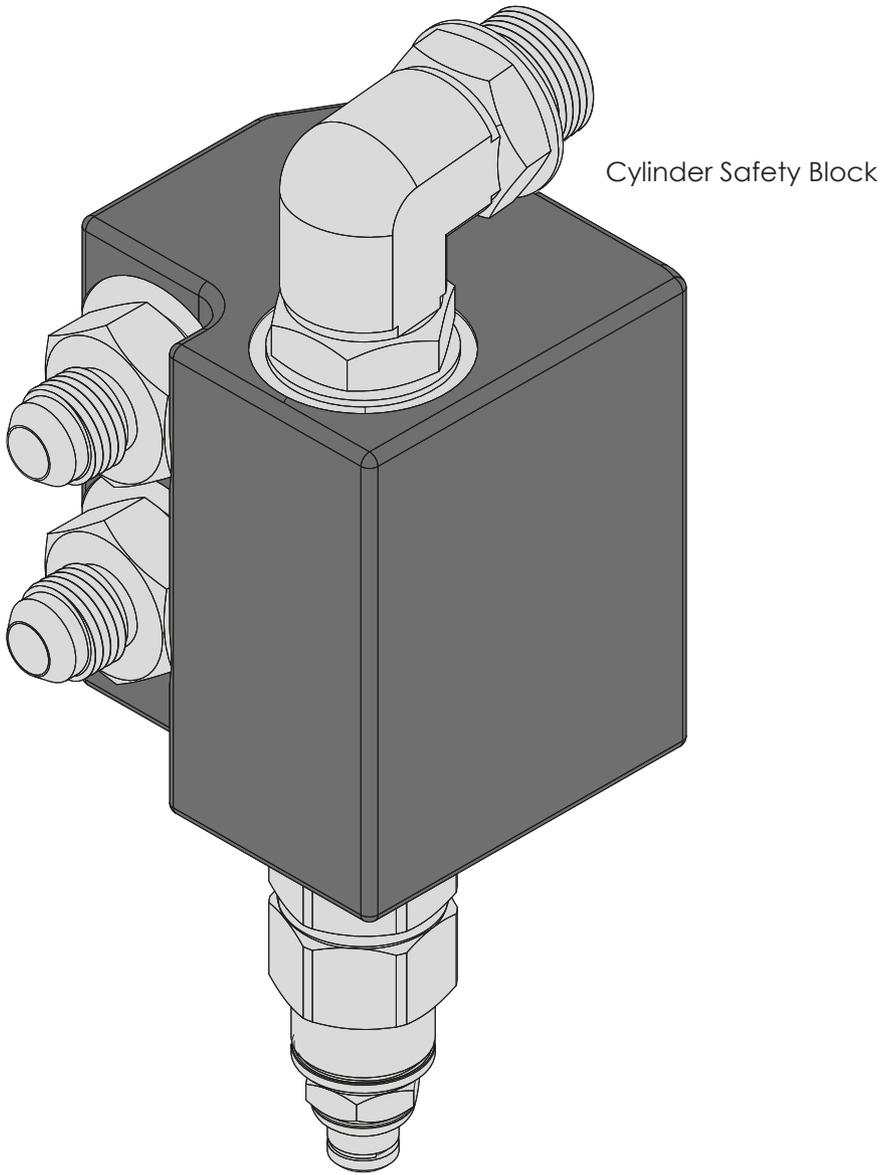
- Welder/Generator with at least 6600 Watts (220V/30 Amp)
- 1/8" 7018 Welding Rods or
- 1/8" 6011 Welding Rods
- Slag Hammer

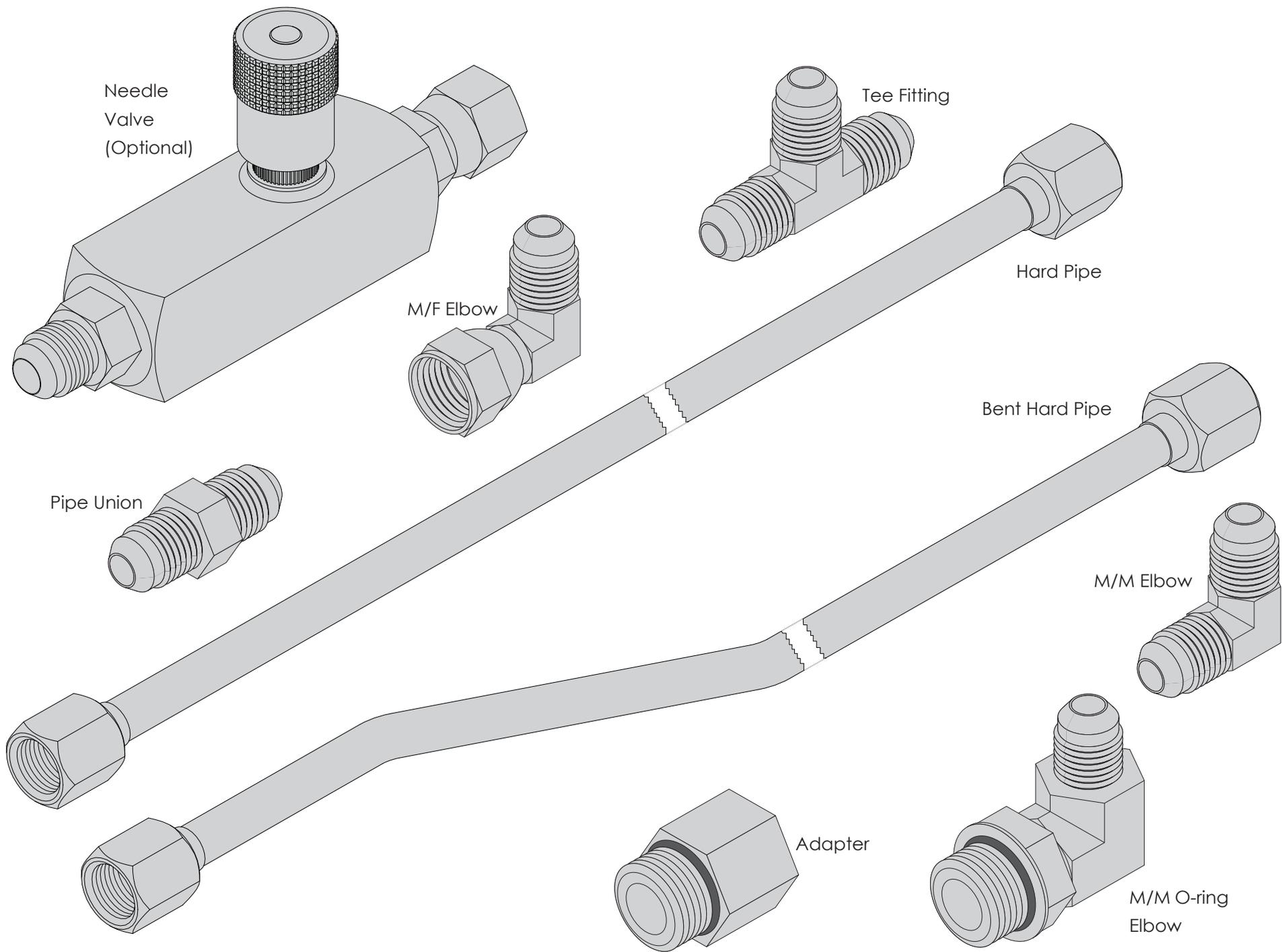
Safety Equipment

- Safety Glasses
- Welding Mask
- Hearing Protection
- Work Gloves
- Steel Toe Boots
- Safety Harness
- Anything else specific to your work site

Other

- 2 people to help install
- 15-20' Log Chain
- 6000 lb. Telescoping Forklift (Doors weigh about 4.75 lbs. / sq. ft. You may need more than one lift for larger doors.)
- All Terrain Scissor Lift
- Telescopic Ladder
- SAE 10 / ISO 32 Weight Hydraulic Oil
- Red oxide primer (Spray Cans)





Needle Valve (Optional)

Tee Fitting

Hard Pipe

M/F Elbow

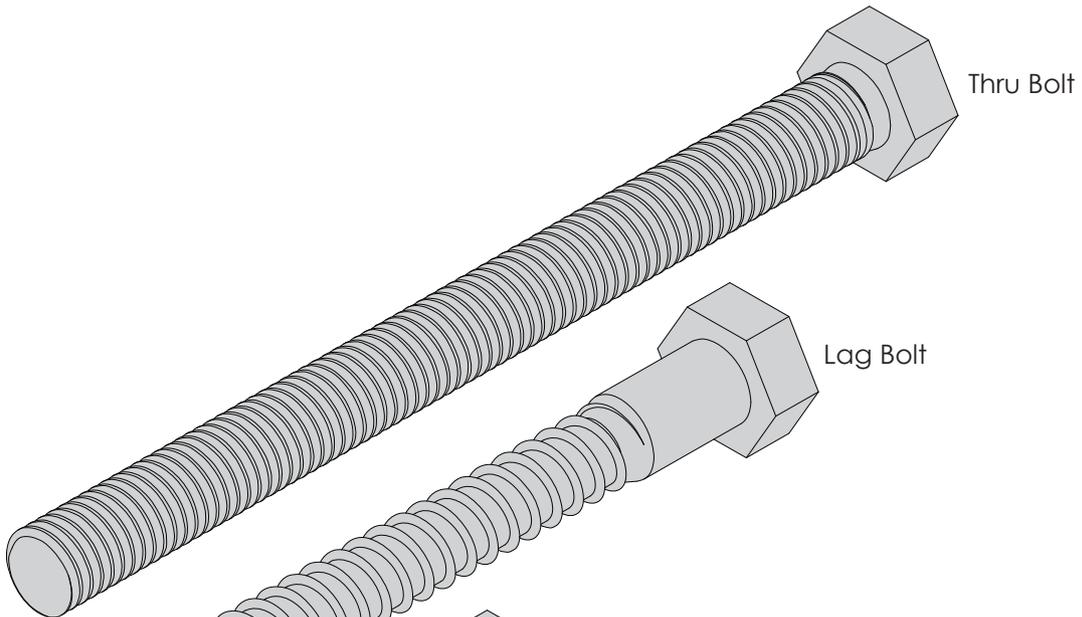
Bent Hard Pipe

Pipe Union

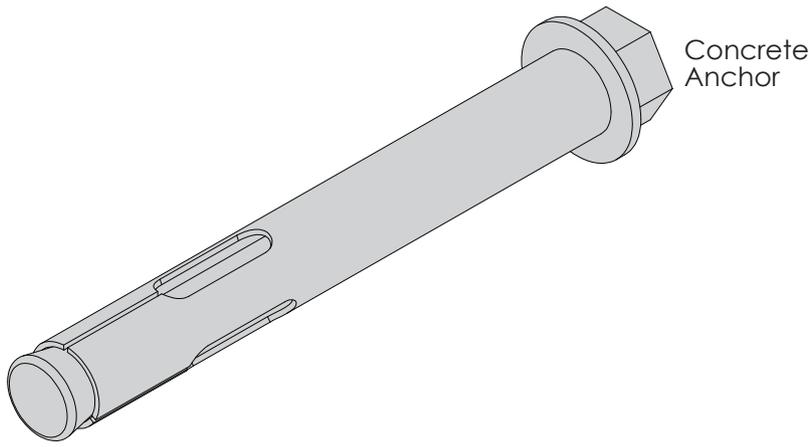
M/M Elbow

Adapter

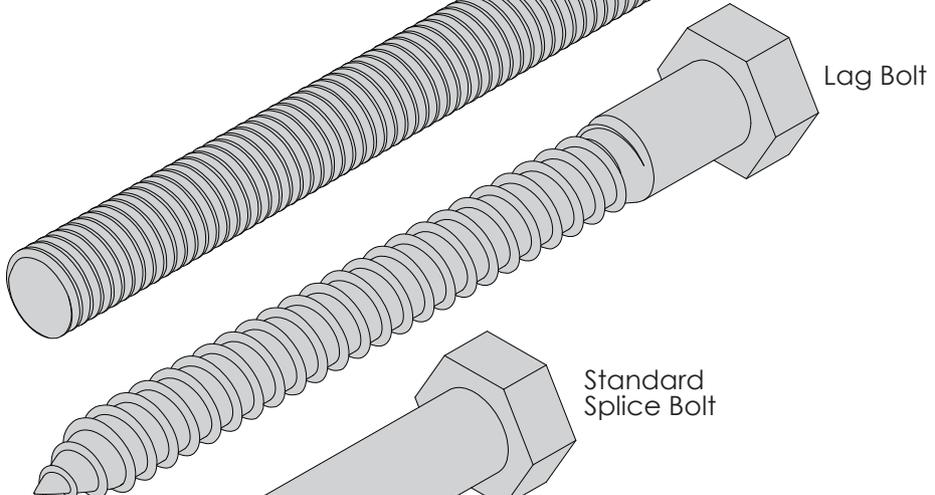
M/M O-ring Elbow



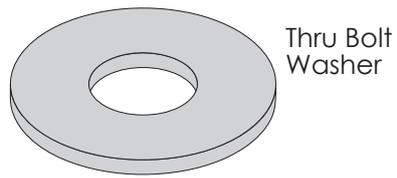
Thru Bolt



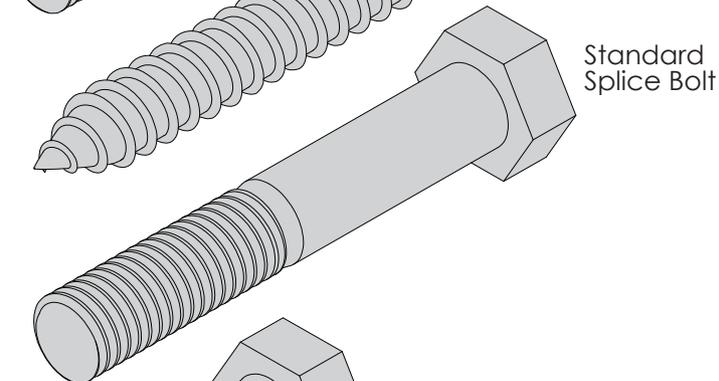
Concrete Anchor



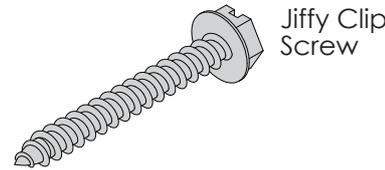
Lag Bolt



Thru Bolt Washer



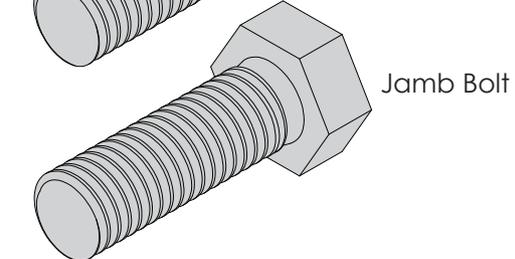
Standard Splice Bolt



Jiffy Clip Screw



Thru Bolt Nut / Standard Splice Nut



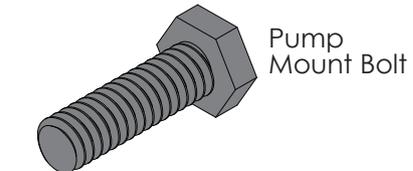
Jamb Bolt



Tek Screw



Pump Mount Washer



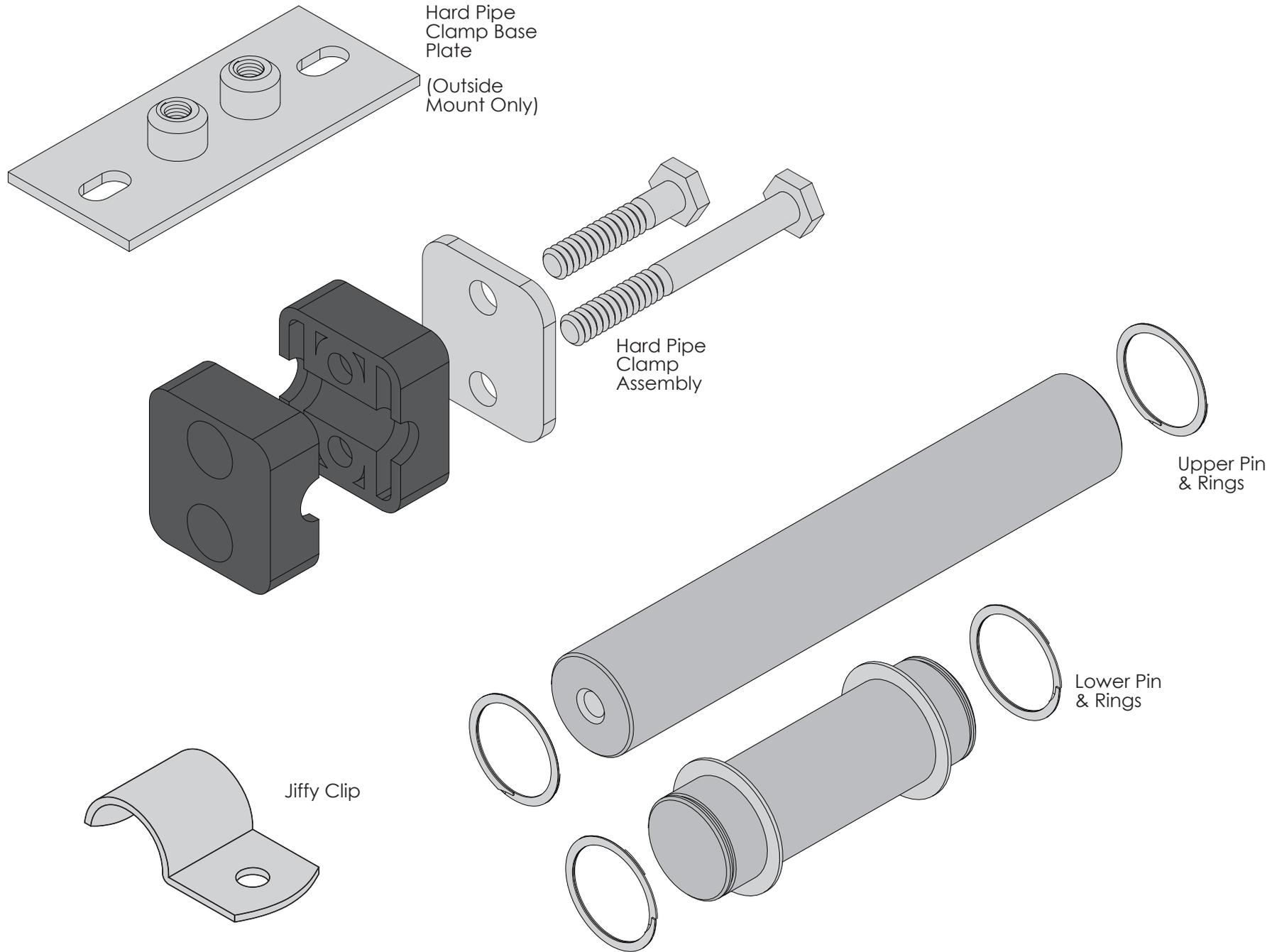
Pump Mount Bolt

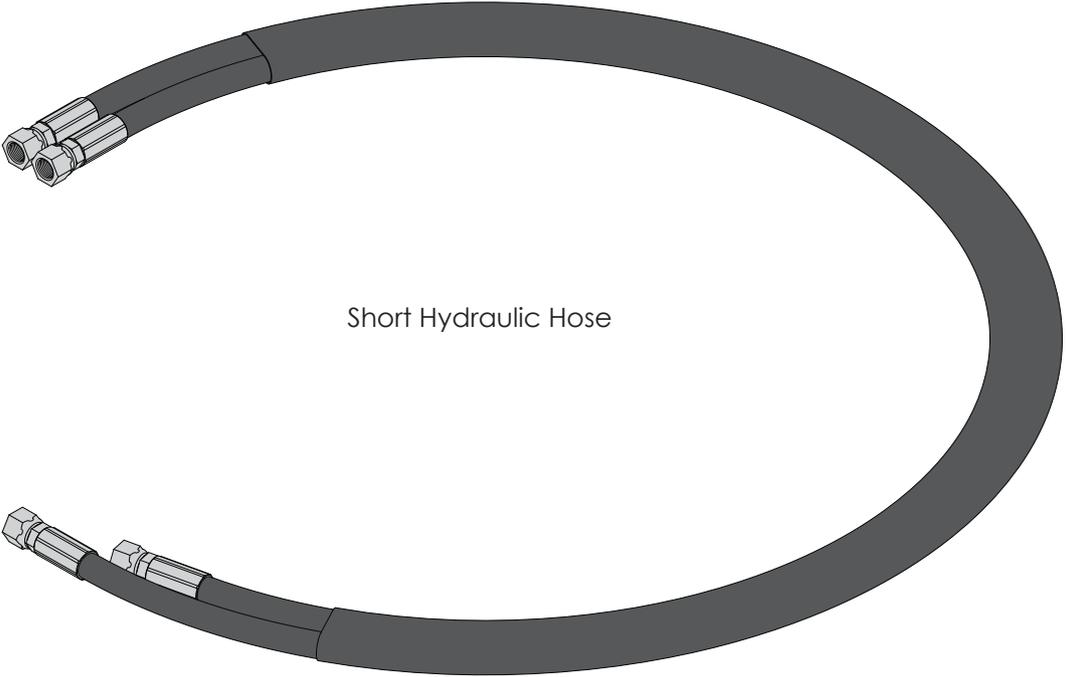


Grease Zerk

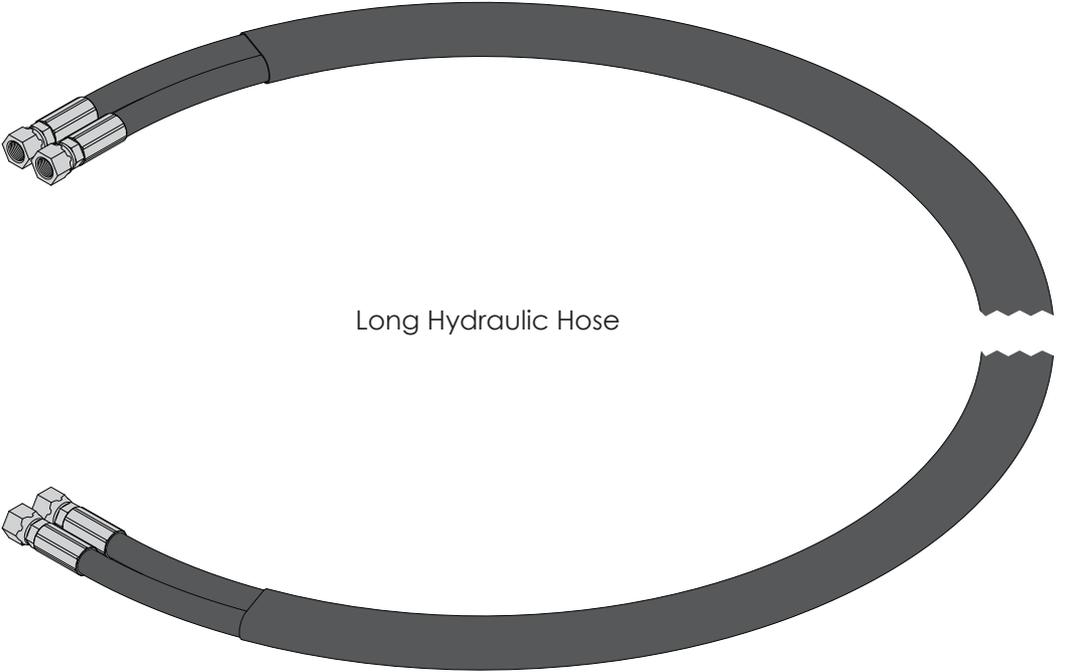


Pump Mount Bolt





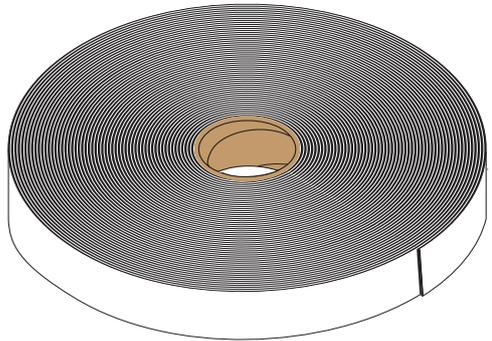
Short Hydraulic Hose



Long Hydraulic Hose

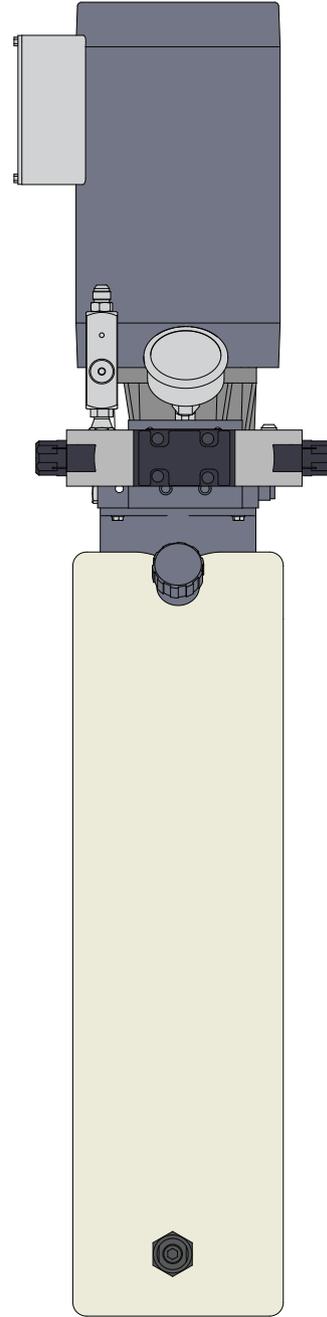


Bottom/Top Seal Rubber

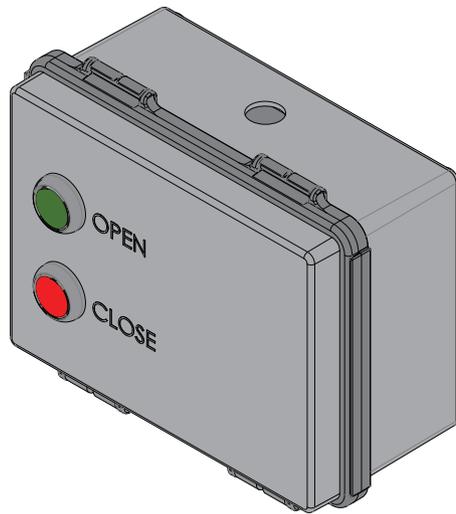


Weather Seal

Standard
Pump



Standard
Pump
Control Box



Pre-Installation

On new buildings, leave the sheathing around the rough opening off. Schedule your installation before you begin sheathing that side of your building.

On existing building, loosen the sheathing enough that it can be pulled back 6-12".

The building jamb and header should be clear and flush for 4" around the rough opening for a flush mount, 7" on the top and 5" on the sides for an outside mount.

Any gaps along the jamb or header, **fig. 1**, must be filled. For example, many headers are fixed across the jamb. In that case, material should be added until the jamb is flush with the header, **fig. 2**.

Steel rough openings should have angle iron plates welded along the gaps to provide a surface to weld the door to, **fig. 3**.

Wooden headers should be 2-ply and at least 3" thick. Lateral X-braces are recommended.

The area directly in front of the rough opening should be clear of obstructions.

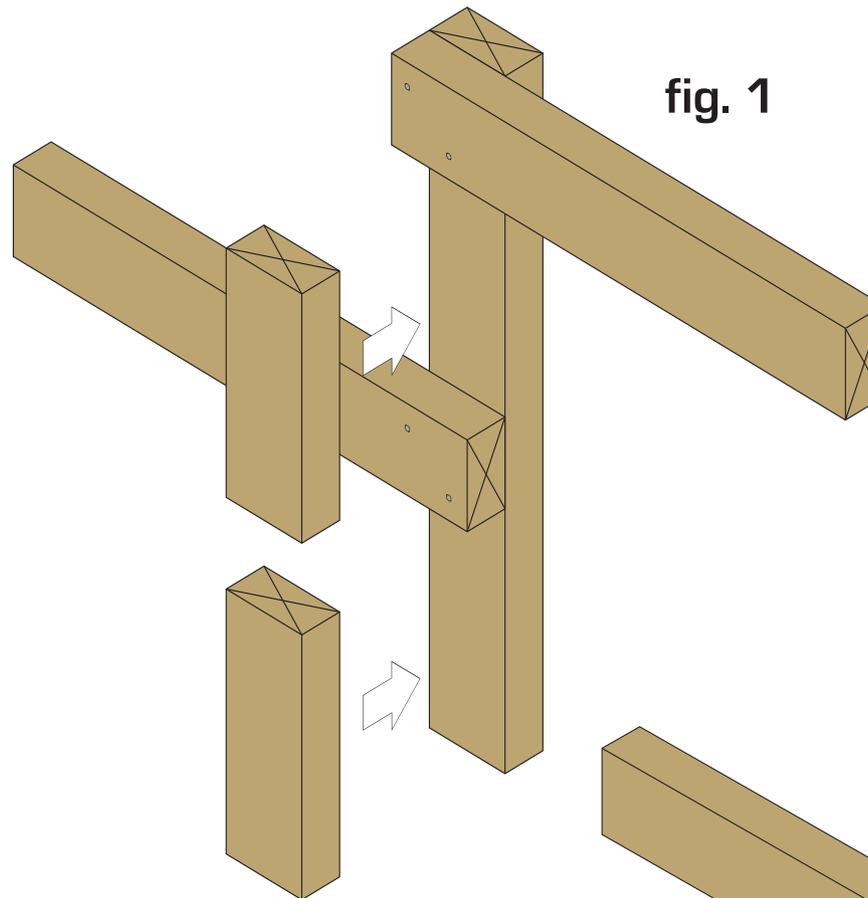


fig. 1

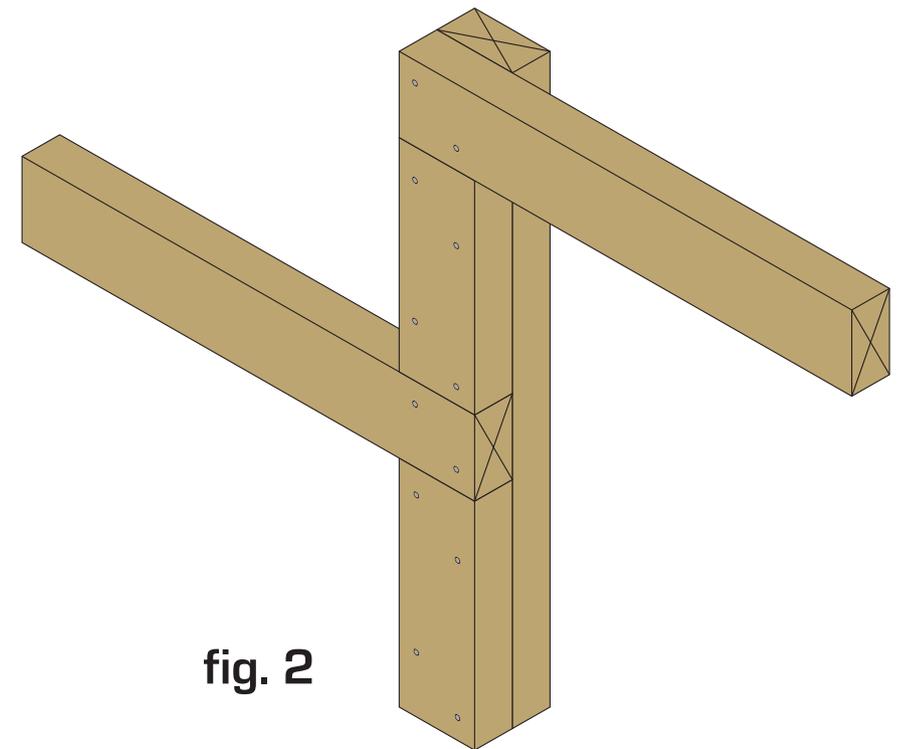


fig. 2

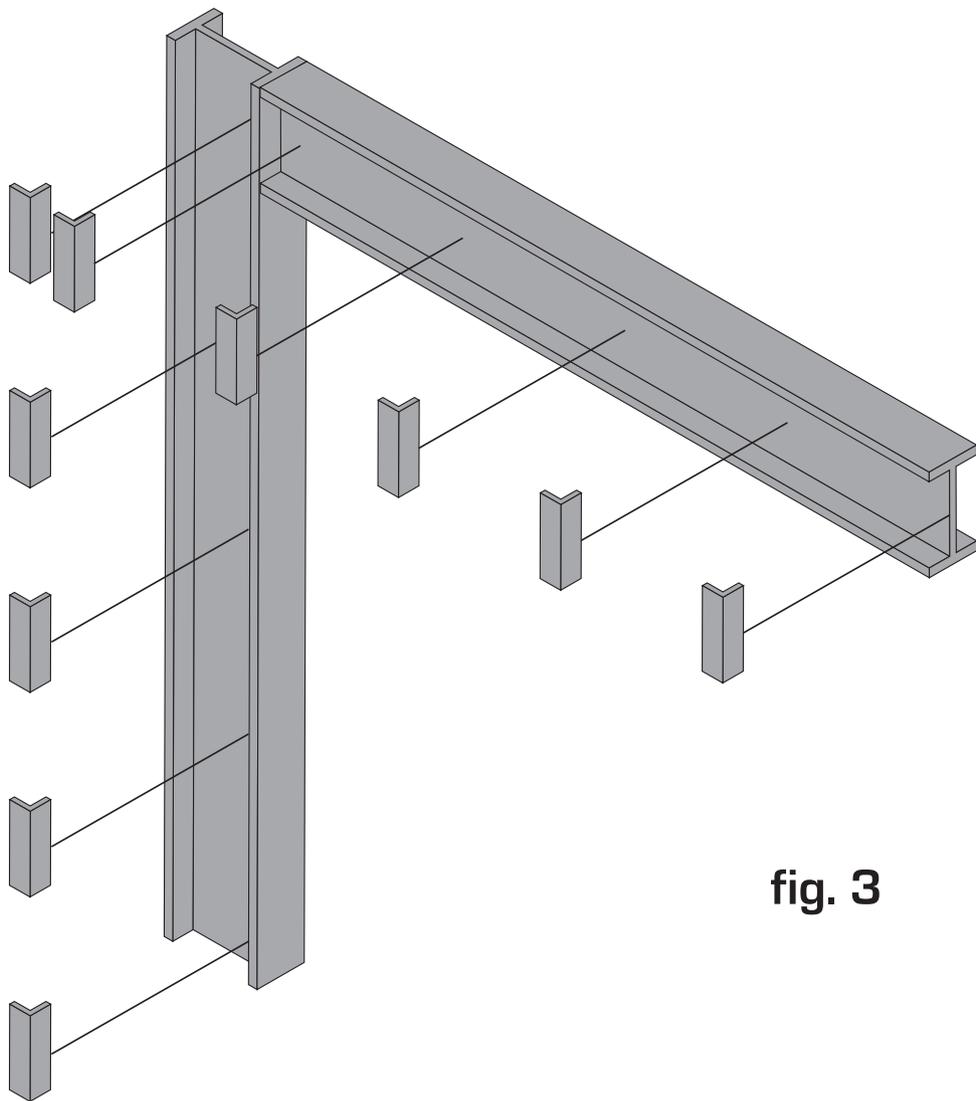
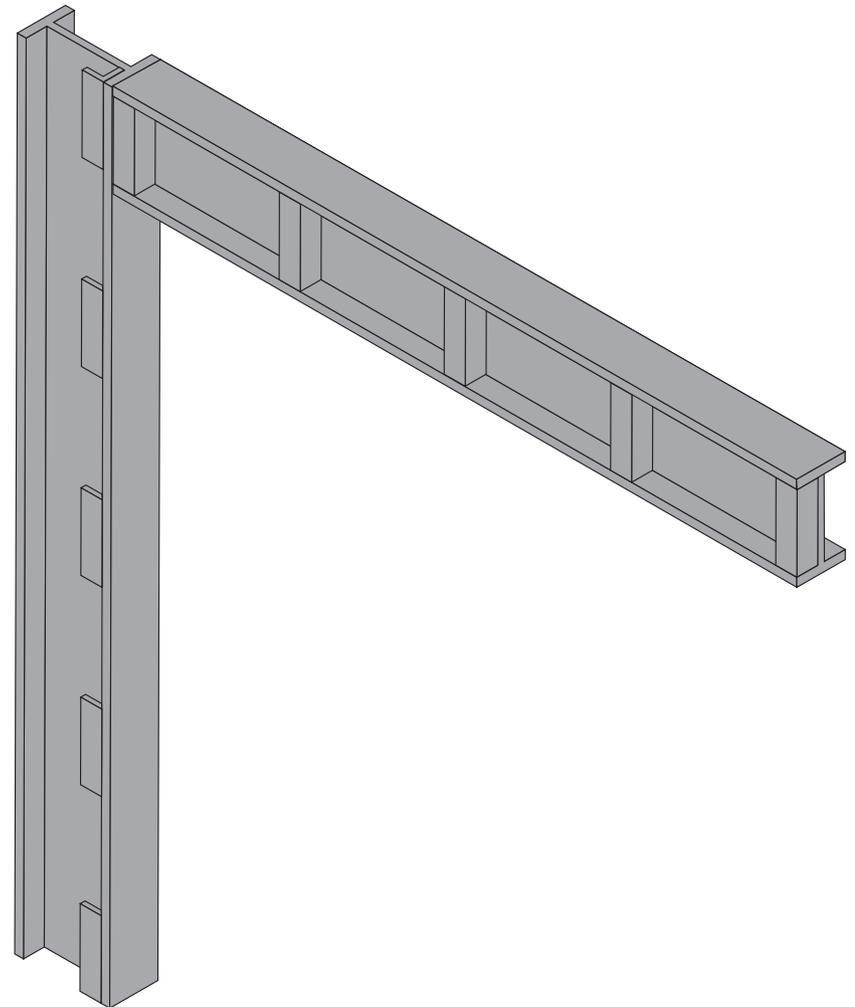


fig. 3



Unloading

Loosen the straps securing the door to the flatbed.

Remove the pallet from the flatbed. Place it where it is easy to access but won't interfere with fitting the door into the rough opening.

Carefully lift the door sections ensuring the load is spread evenly across the door.

Place the door in front of the rough opening with the truss up and away from the building, **fig. 4**.

Be sure to leave adequate room to assemble the door and maneuver the lifting equipment.

Inventory the pallet using the included packing list, **fig. 5**. If the inventory is incorrect, immediately contact Well Bilt Doors Customer Service at 1.855.688.4266.

Cut the banding straps holding the door sections together.

Set the two jamb tubes and cylinders aside.

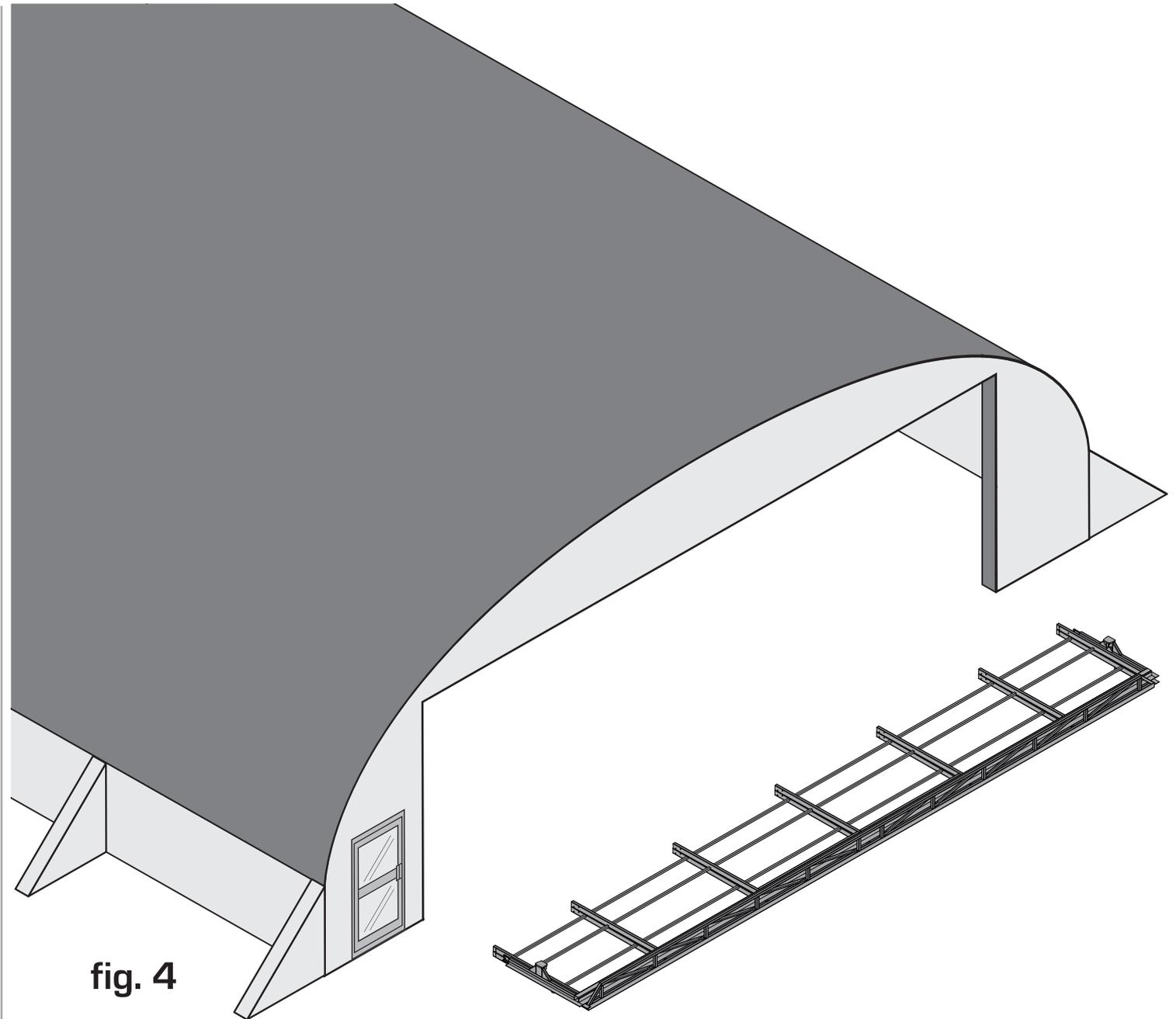


fig. 4

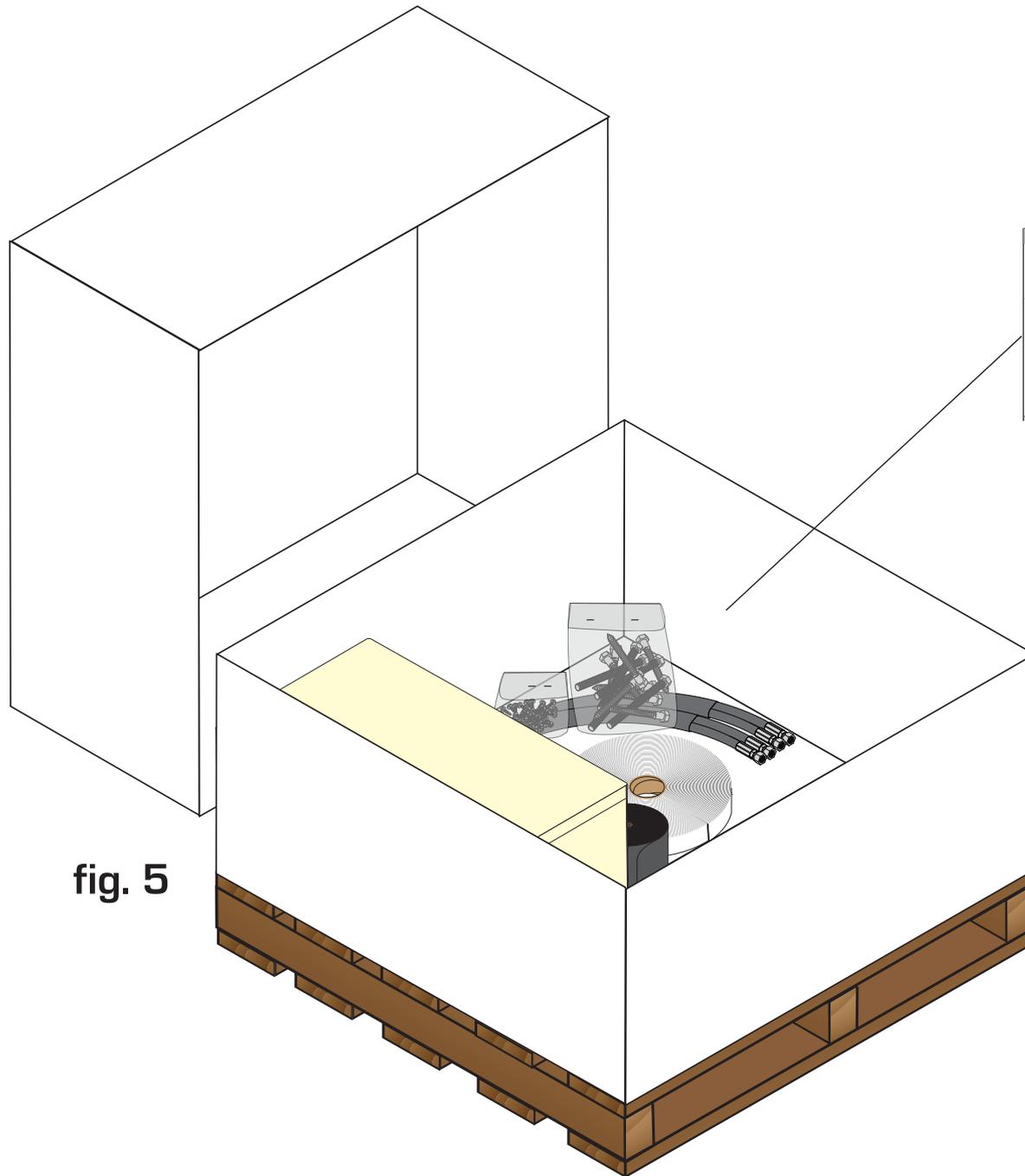


fig. 5

WELLBILT		Inventory Sheet	Date: 12/14/13
Part	Part Name	Quantity	Location
1	1/4" x 1/2" Screws	10	Box 101
2	1/4" x 1/2" Bolts	10	Box 101
3	1/4" x 1/2" Washers	10	Box 101
4	1/4" x 1/2" Nuts	10	Box 101
5	1/4" x 1/2" Spacers	10	Box 101
6	1/4" x 1/2" Spacers	10	Box 101
7	1/4" x 1/2" Spacers	10	Box 101
8	1/4" x 1/2" Spacers	10	Box 101
9	1/4" x 1/2" Spacers	10	Box 101
10	1/4" x 1/2" Spacers	10	Box 101
11	1/4" x 1/2" Spacers	10	Box 101
12	1/4" x 1/2" Spacers	10	Box 101
13	1/4" x 1/2" Spacers	10	Box 101
14	1/4" x 1/2" Spacers	10	Box 101
15	1/4" x 1/2" Spacers	10	Box 101
16	1/4" x 1/2" Spacers	10	Box 101
17	1/4" x 1/2" Spacers	10	Box 101
18	1/4" x 1/2" Spacers	10	Box 101
19	1/4" x 1/2" Spacers	10	Box 101
20	1/4" x 1/2" Spacers	10	Box 101

Unloading Cont.

Lift the top of the door, **Side A**, and place it back, away from the building.

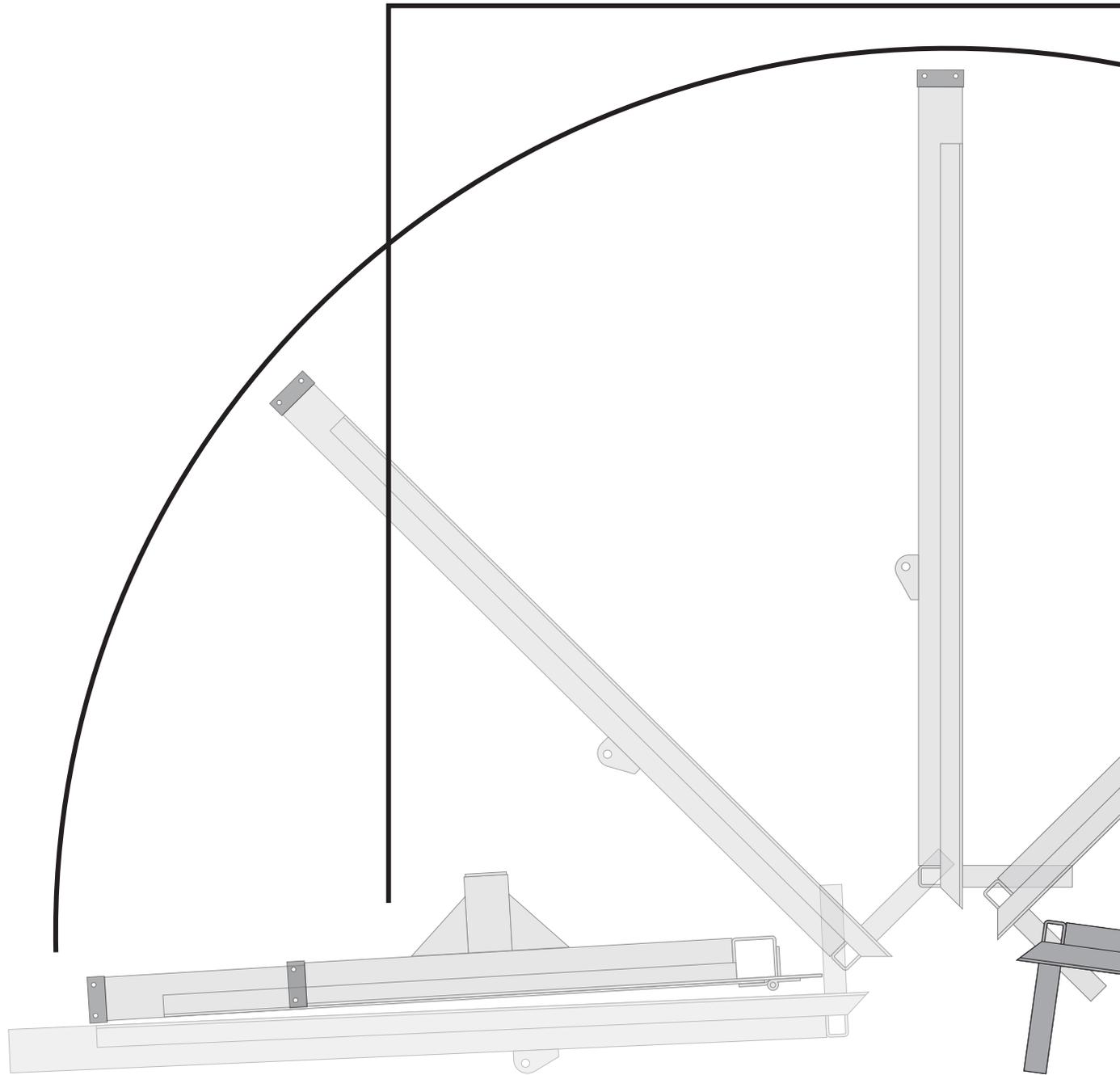
The hinges on **Side A** should be facing the ground and the hard pipe assembly plates on the header (flush mount only) should be facing up.

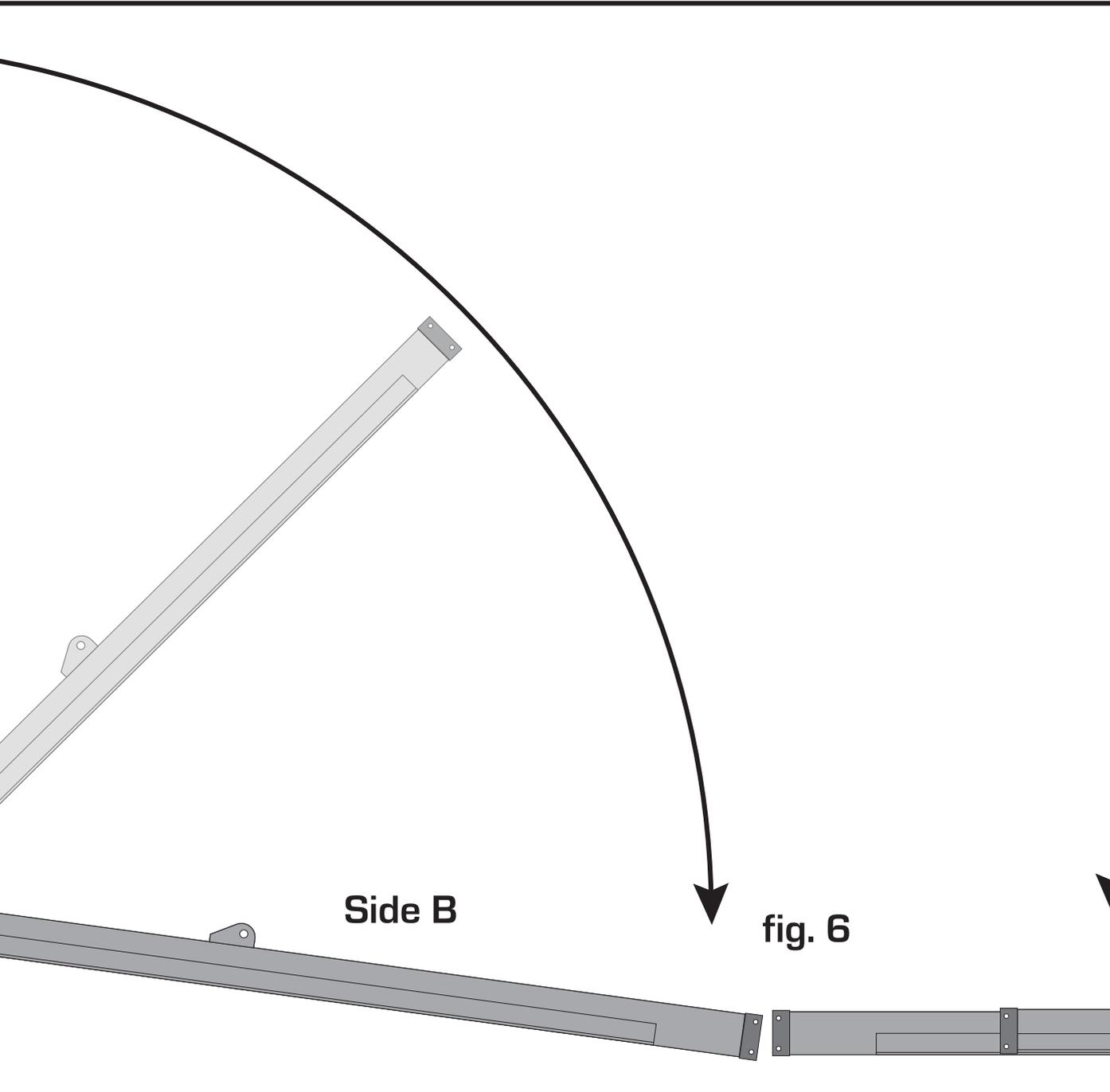
On **Side B**, lift the edge opposite the truss up and over, gently lowering it to the ground.

Now the truss on the bottom section of the door, **Side B**, should be closest to the rough opening and facing down. **fig. 6.**

The hinges on the header section, **Side A**, should be farthest away from the rough opening.

Remove any wood bracing still attached to the door.





⚠ Note:
If your door is larger than 65' wide, you will need to brace the truss when you lay the bottom half of the door on its face. Failure to do so could result in broken welds or other damage to the truss. Field weld angle iron from the truss to the uprights, **fig. 6.1**.

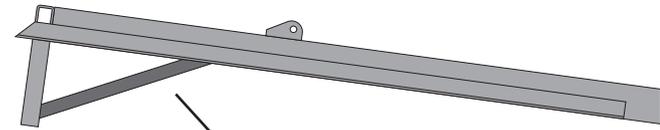


fig. 6.1

Push Tube Assembly

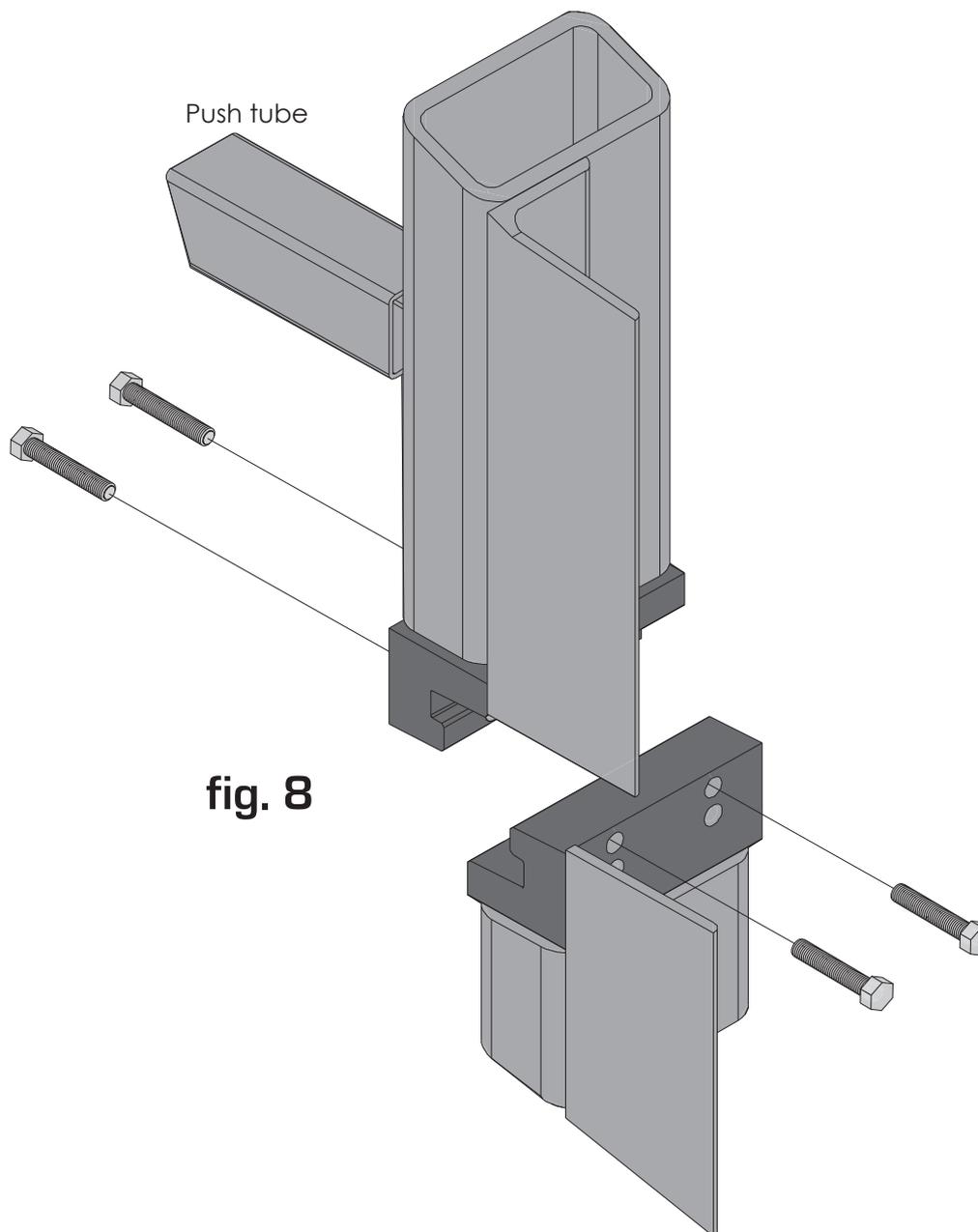
Carefully bring the two sections together so the uprights line up.

On one side of the door, lift the push tubes and bring them together until they're aligned.

Slide the bolts through both sides of the splice block, **fig. 8**.

Snug the bolts while paying close attention to the splice to insure it stays aligned, once aligned, tighten bolts to final torque, **fig. 9**.

Move on to the closest upright and follow the instructions on the next page. Keep moving in the same direction across door until all uprights and push tubes are straight and tight.



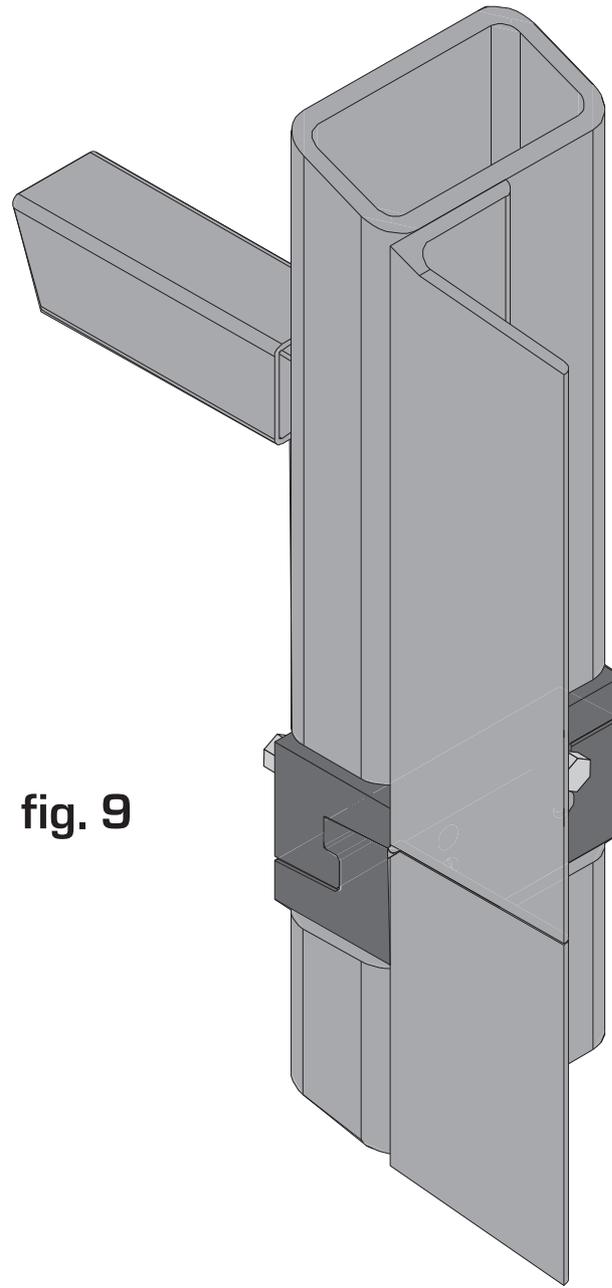


fig. 9

Uprights

To join the uprights, start at the end where you tightened the first pushtube.

Lift and align the uprights ensuring that their ends are snug.

Slide the bolts through both sides of the splice block, **fig. 14**.

Snug the bolts while paying close attention to the splice to insure it stays aligned, **fig. 15**.

Once the uprights splice is snug and straight, tighten to final torque. Move to the next upright and repeat until all uprights and push tubes are straight and tight.

Once all of the uprights are assembled, assemble the remaining push tube.

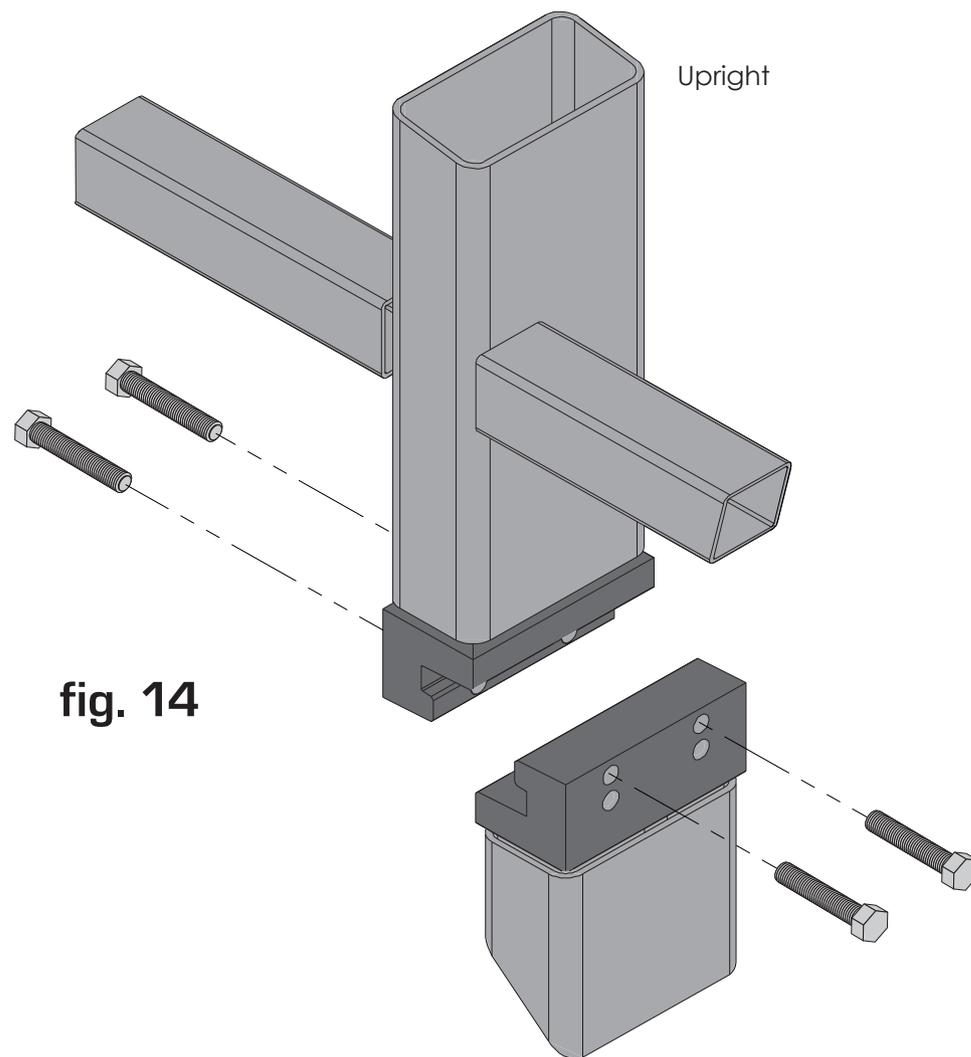


fig. 14

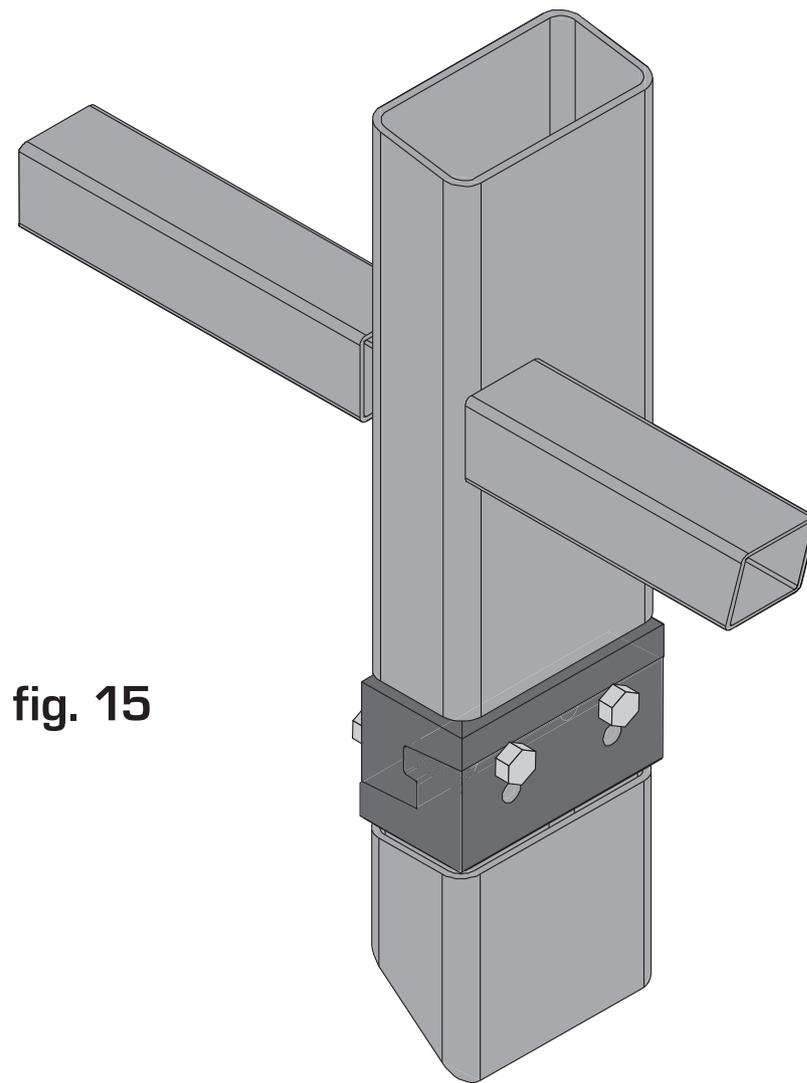


fig. 15

Jambs

Lift the upper doorjamb on **Side A** up and brace it with blocks of wood.

Slide the lower jamb onto the upper jamb, **fig. 16**.

Ensure the angle plates on the jamb match up.

Slide the bolts through both sides of the splice block and tighten, **fig. 17**.

Repeat on the opposite jamb.

Remove the wood blocks and lower the completed jamb.

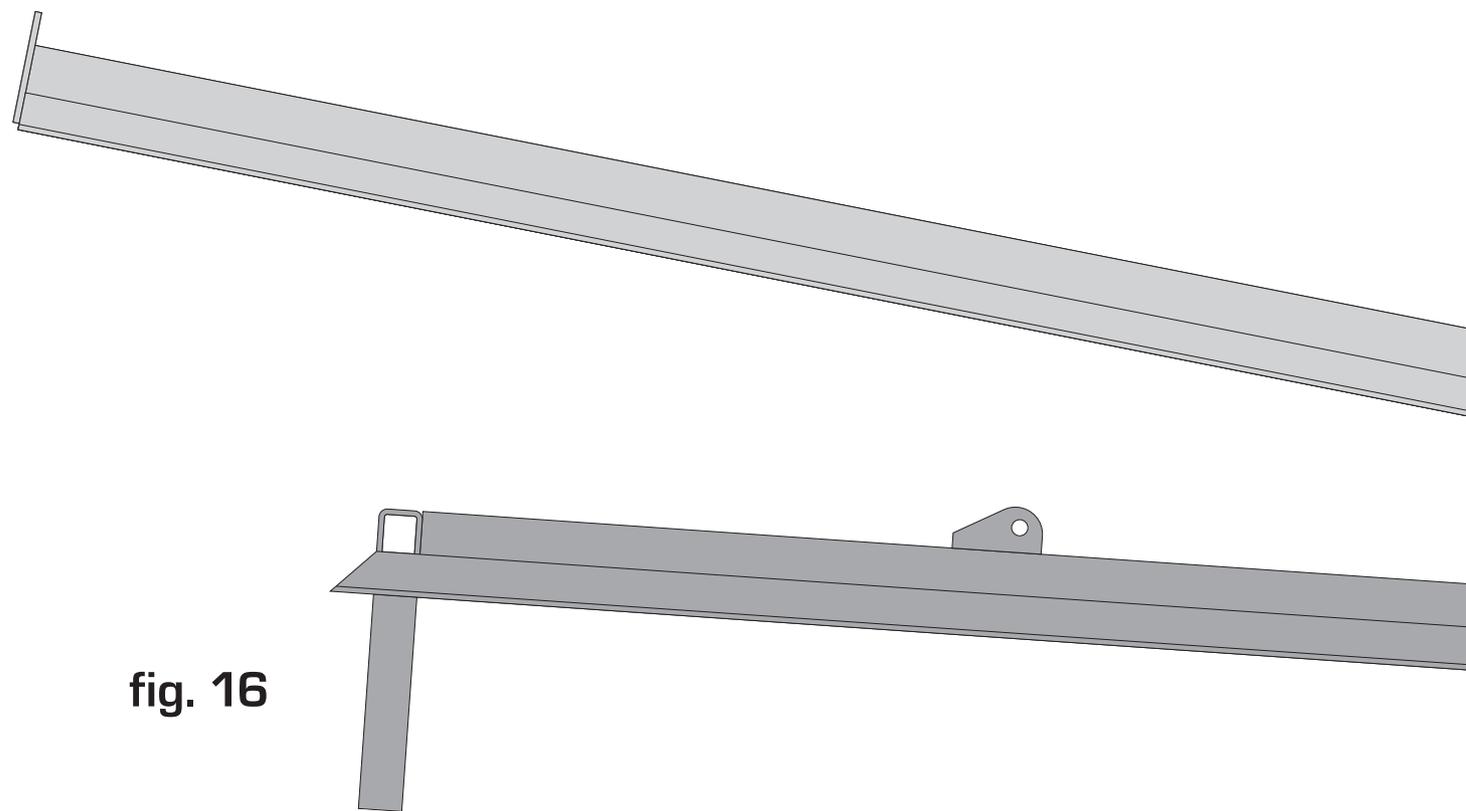
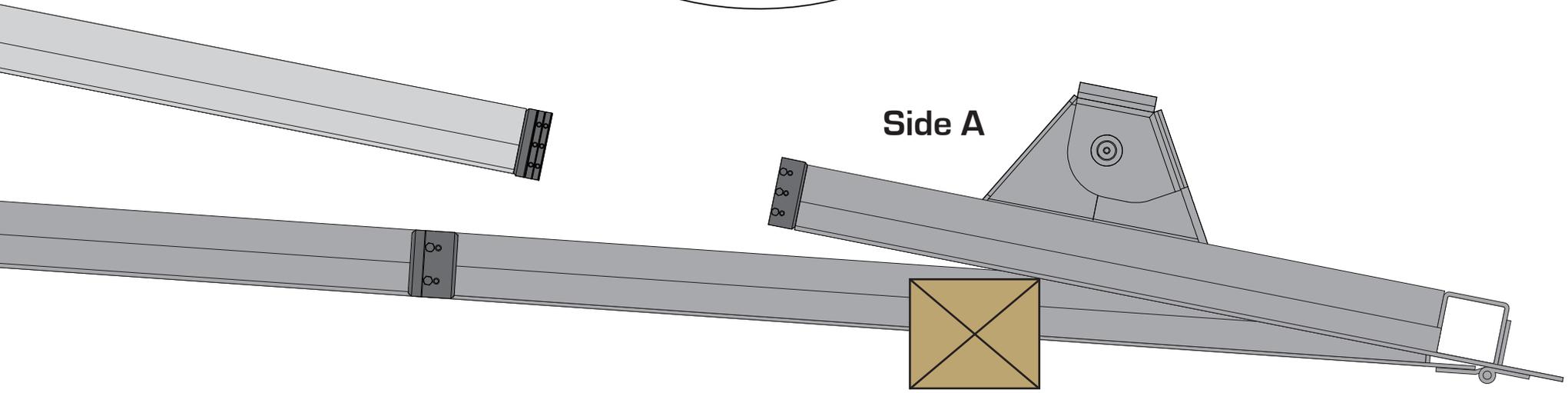
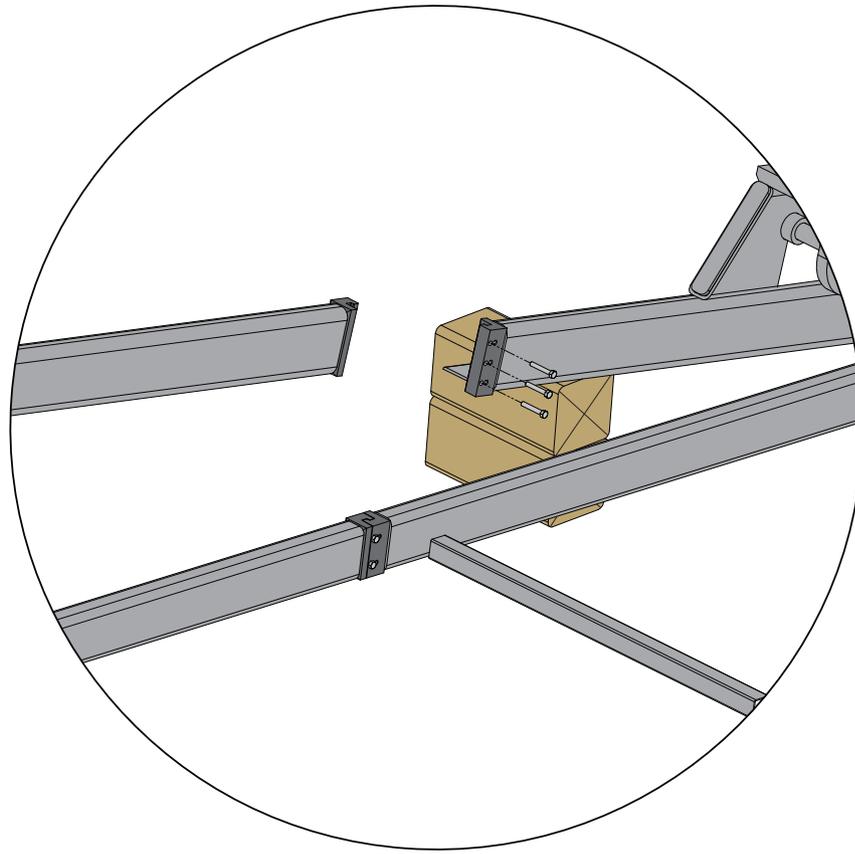


fig. 16

fig. 17



Hard Pipe Assembly

Follow the appropriate step for your type of install, either outside or flush mount.

Flush Mount

Place pipe clamp halves along the bottom row of tapped holes on the header, **fig. 18**.

Place half a row of pipe clamp halves on the top row of the header on the side the pump will be located on.

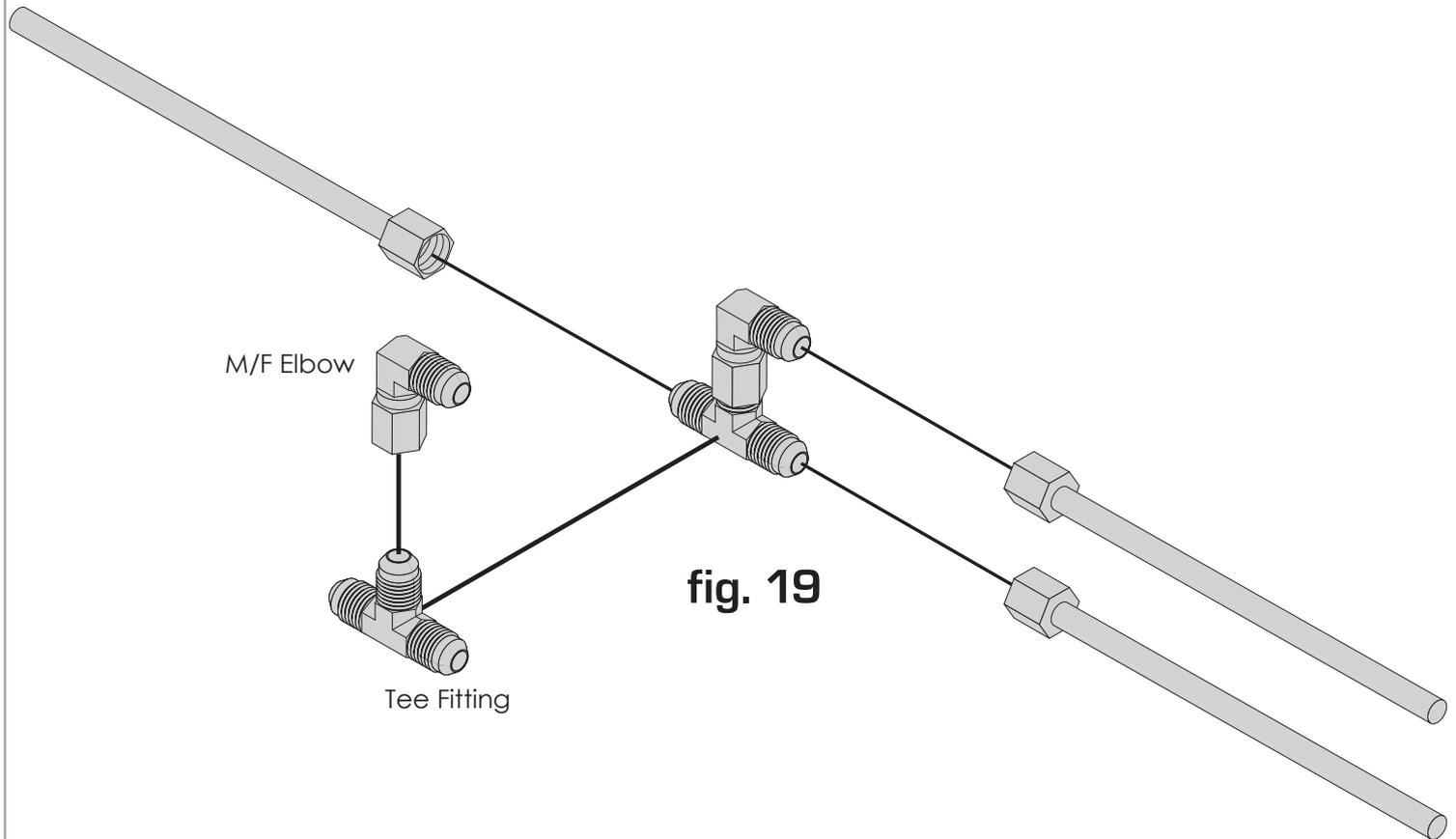
The hard pipe sections are pre-cut to appropriate lengths to span the header. Divide them into six equal sets.

Join a set of hard pipe sections with a T-fittings, **fig. 19**.

Add an elbow to the top section of the T-fitting.

Screw a section of hard pipe to the open end of the elbow.

Add more hard pipe to each end of the assembly by joining them with pipe unions, **fig. 20**, to span the header.



Pump Side

fig. 18

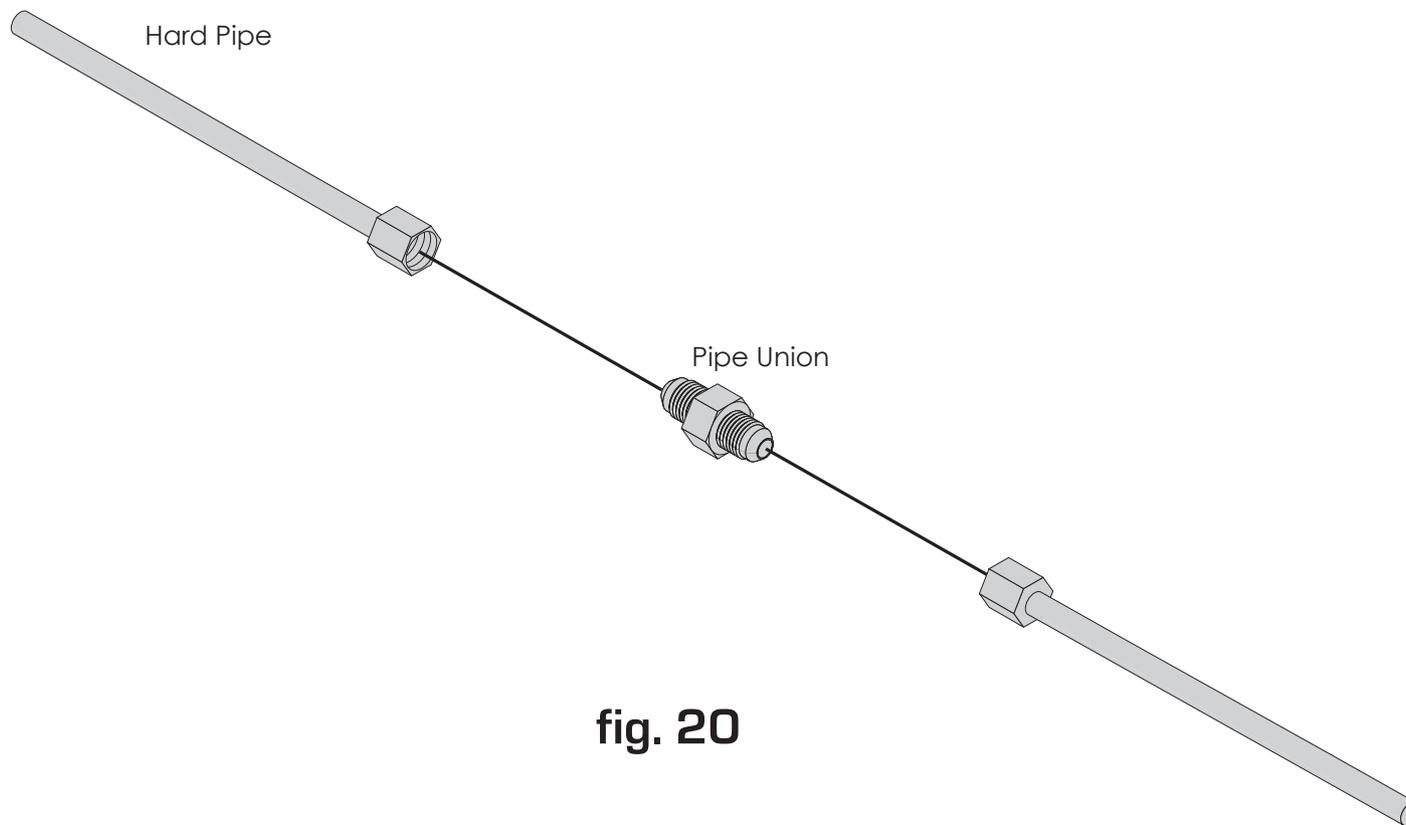


fig. 20

Flush Mount Cont.

Lay the completed pipe assembly in the groove of the pipe clamp halves, **fig. 21**.

Place 2 pipe clamp halves, one up one down, on top of each existing clamp to ready the header for the next pipe assembly, **fig. 22**.

Assemble another set of pipes, T-fitting, and elbow.

Lay the second pipe assembly over the first.

Place the last set of hard pipe clamps over the second assembly and secure them with the metal plates and bolts, **fig. 23**. Do not completely tighten the bolts yet.

Add elbows to the ends of the hard pipe assemblies.

Slide the top pipe assembly 3 or 4" in the opposite direction of the pump. Having the hard pipes staggered will help when attaching the hoses.

Tighten all the hard pipe clamp assemblies.

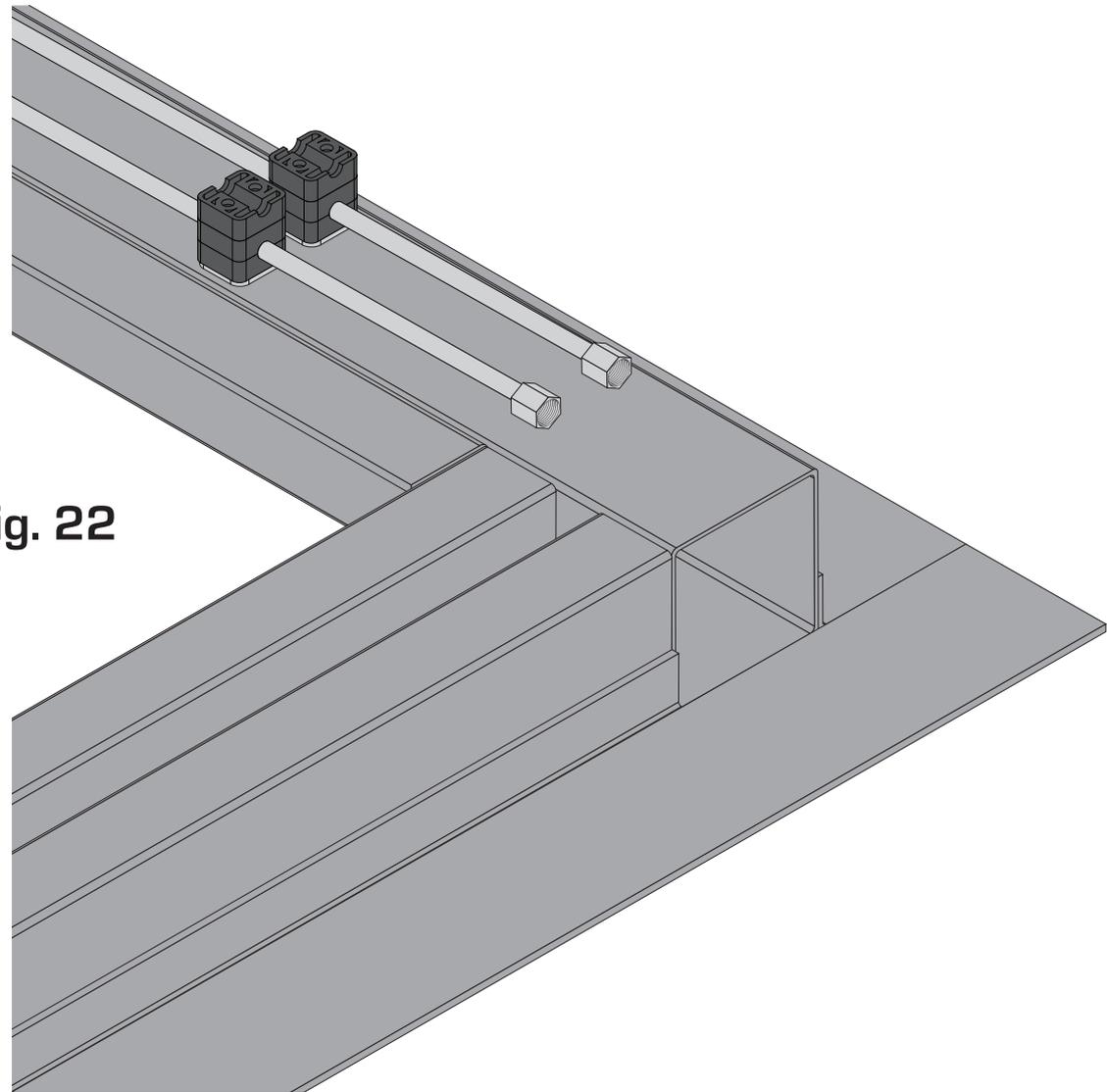


fig. 22



fig. 21

Pump Side

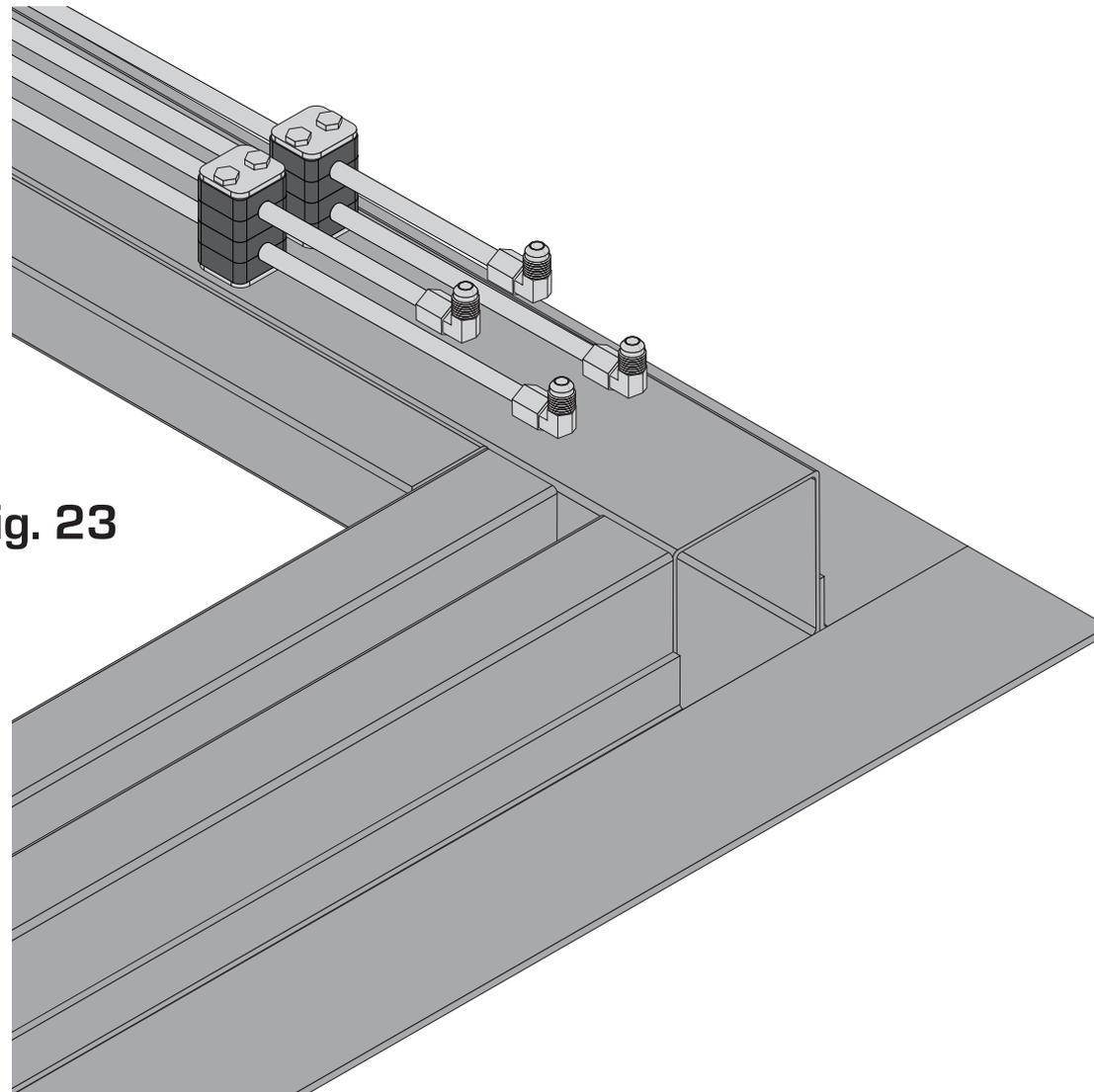


fig. 23

Outside Mount

If you are doing an outside mount install, assemble your header as follows.

Measure carefully to ensure hard pipe clamp plates are correctly spaced to hold the pipe assemblies. Striking a line across the rough opening is suggested, **fig. 24**.

Secure the hard pipe clamp base plates to the rough opening's header, spaced so they clamp the hard pipe sections near their middle.

Assemble a complete hard pipe clamp assembly including two lengths of hard pipe, **fig. 25**.

Bolt the whole assembly to a base plate on the lower level adjacent to the middle of the header. Snug the bolts but don't fully tighten them.

Assemble another clamp with hard pipes and bolt it in place next to the first.

Join the four lengths of hard pipe with two pipe unions, **fig. 26**.

Repeat the last two steps until you reach the edge of the door.

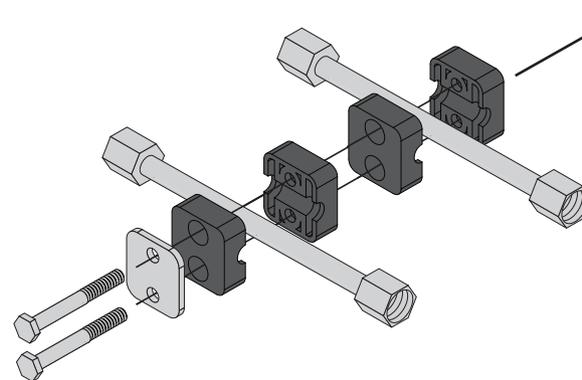


fig. 25

fig. 24

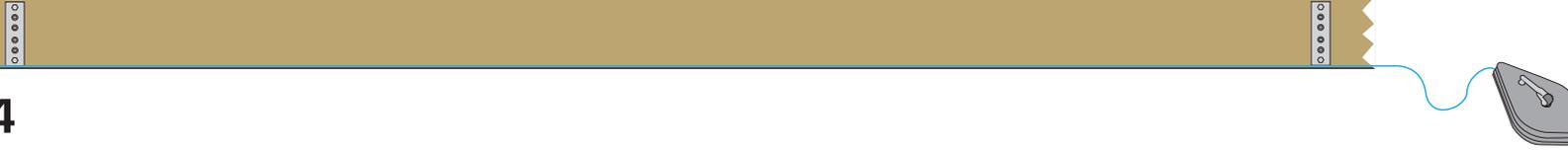
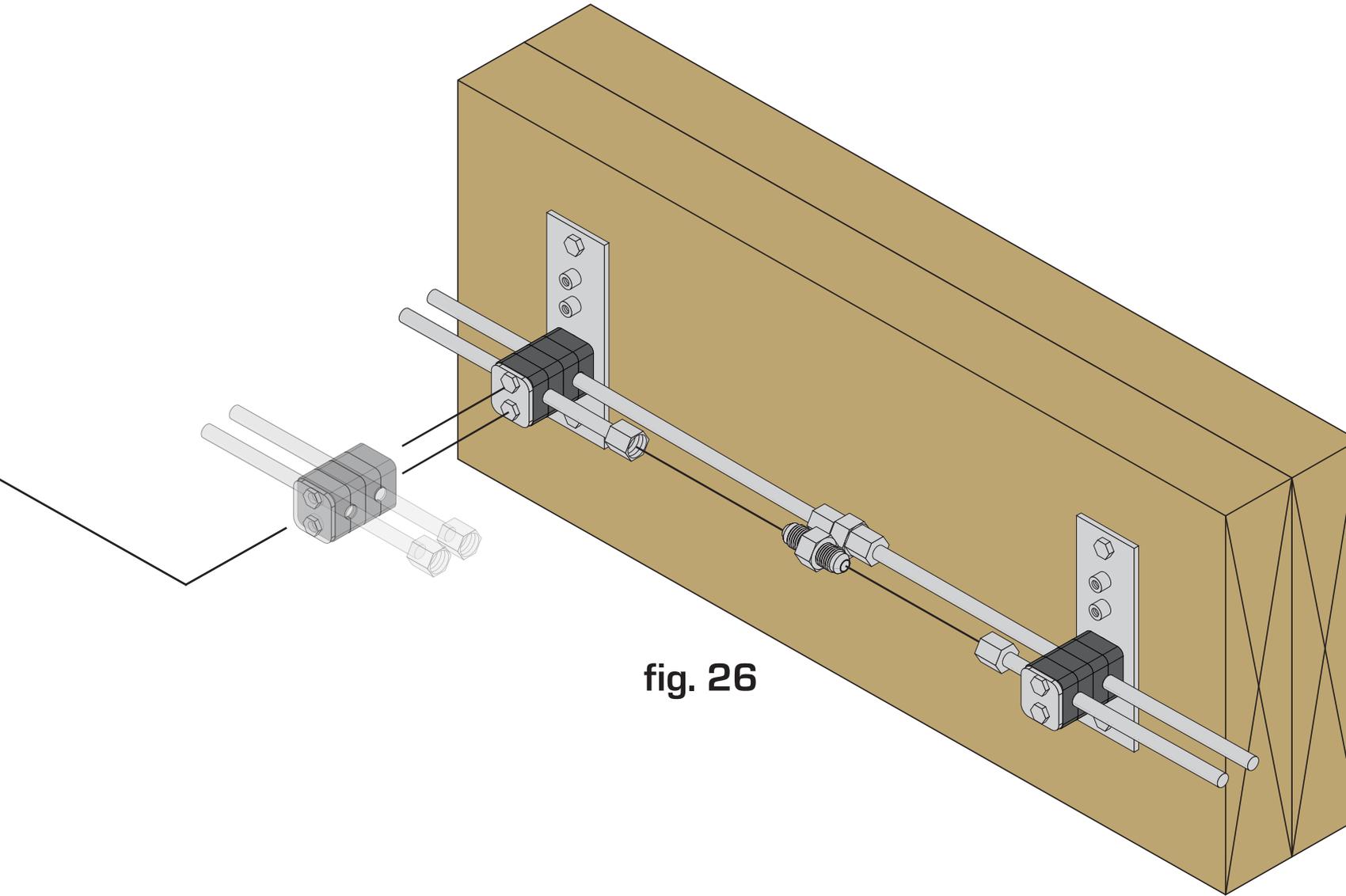


fig. 26



Outside Mount Cont.

Install and join a second line of pipes above the first on the pump side of the door.

Install and join a third line of pipes on the lower level on the non-pump side of the door, **fig. 27**.

Once all three sets of hard pipes are loosely in place, join the bottom two sets in the middle with two tee fittings, **fig. 28**.

Add elbows to the tops of the tee fittings and join those elbows to the upper layer of hard pipes on the pump side.

Add elbows to the six open ends of the hard pipe assemblies, **fig. 29**.

Slide the top pipe assembly 3-4" in the opposite direction of the pump. Having the hard pipes staggered will help when attaching the hoses.

Tighten all the hard pipe clamp bolts.

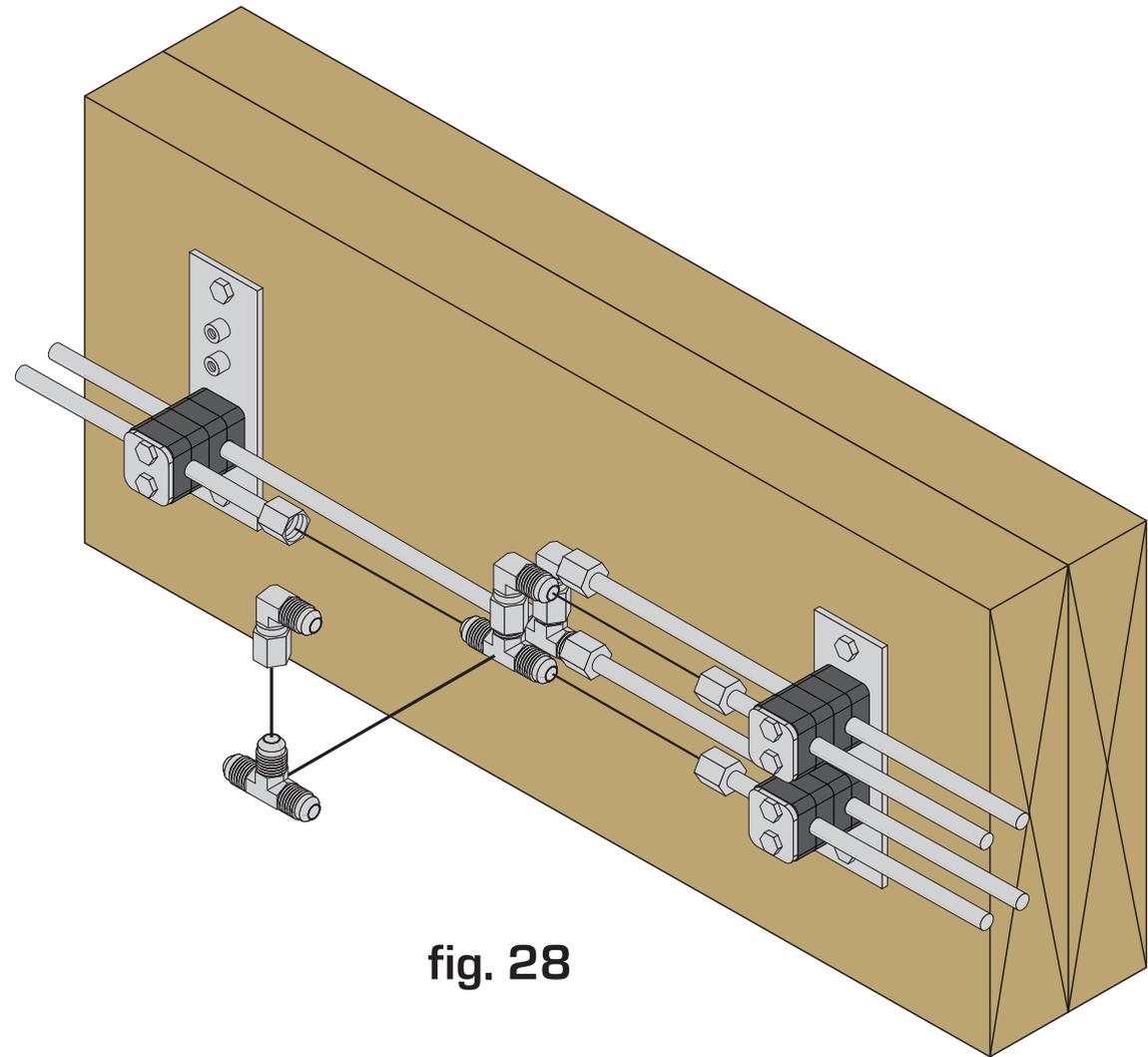


fig. 28

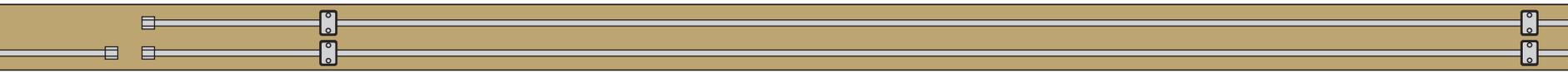


fig. 27

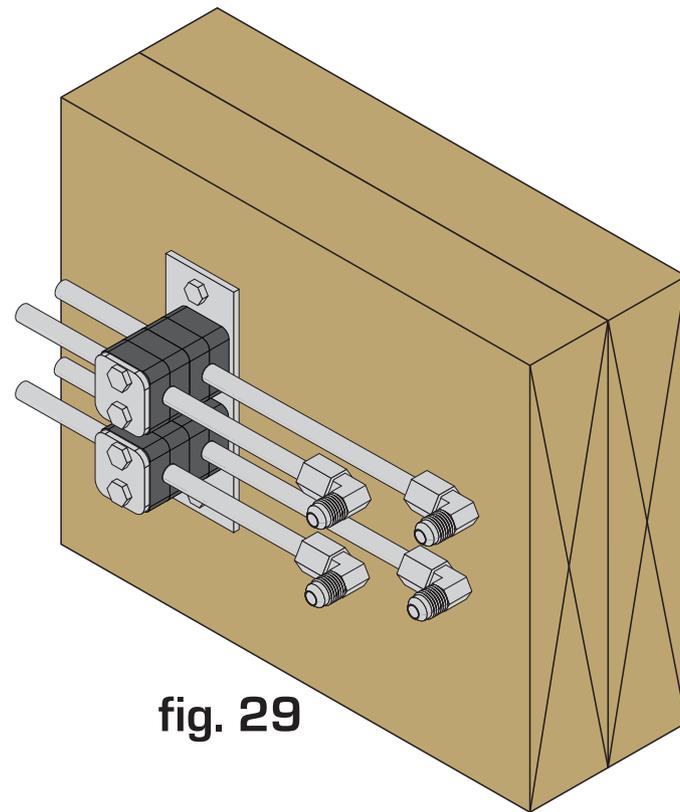


fig. 29

Cylinder Assembly

Lay a hydraulic cylinder out with the ports up.

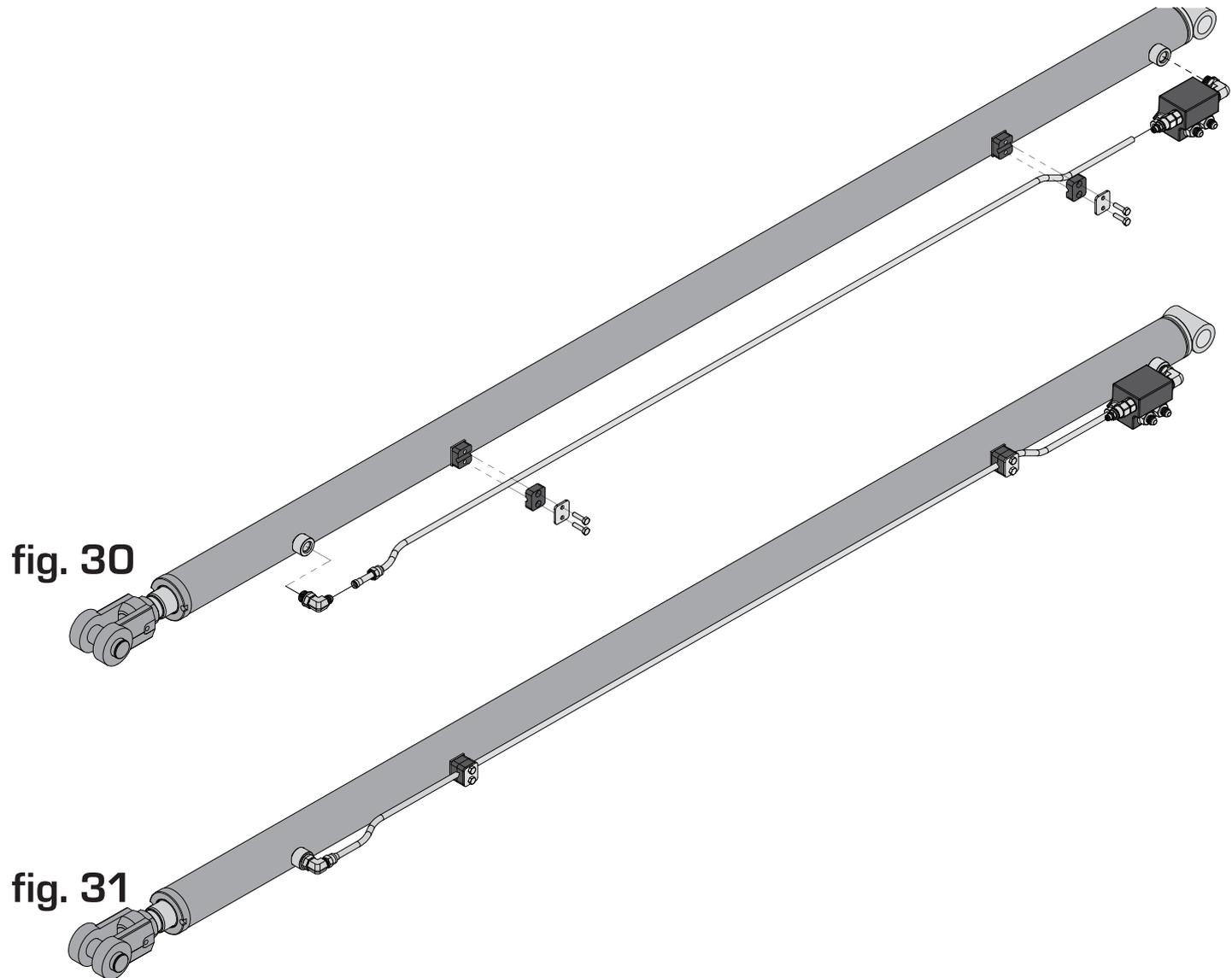
Remove the metal plugs on the hydraulic cylinder ports. Thread 08 morb to 06 JIC 90 into cylinder and at rod end and tighten MORB side in proper orientation (JIC end pointing towards safety block) as shown **fig. 30**.

Screw M/M o ring 90 onto cylinder and align as show in **fig 31.1**. You may have to rotate the block 90 degrees as you tighten to get the fitting screwed on properly) Once re-aligned, tighten nuts at block side and cylinder side.

Read instructions for Lenz brand fittings that come with safety blocks. Place hard line tube into Lenz fitting on bottom of Safety block per instructions but do not tighten.

Thread flared end of tube onto lower fitting and align as per **fig 30**. Snug nut down on flared tube. Add HCA clamps and tighten HCA clamps. Next tighten tube fitting at flared end. Then tighten Lenz fitting (per instructions). DO NOT OVERTIGHTEN!

Repeat with the second cylinder.



left cylinder
looking outward.

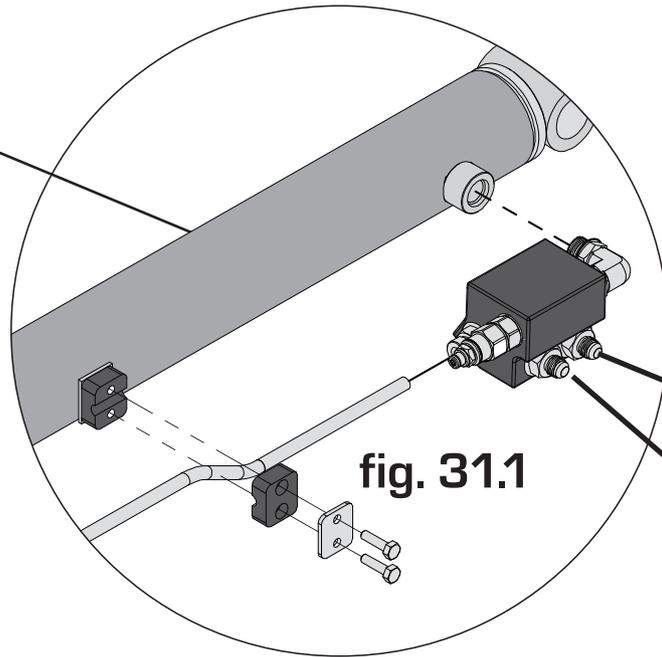


fig. 31.1

Open

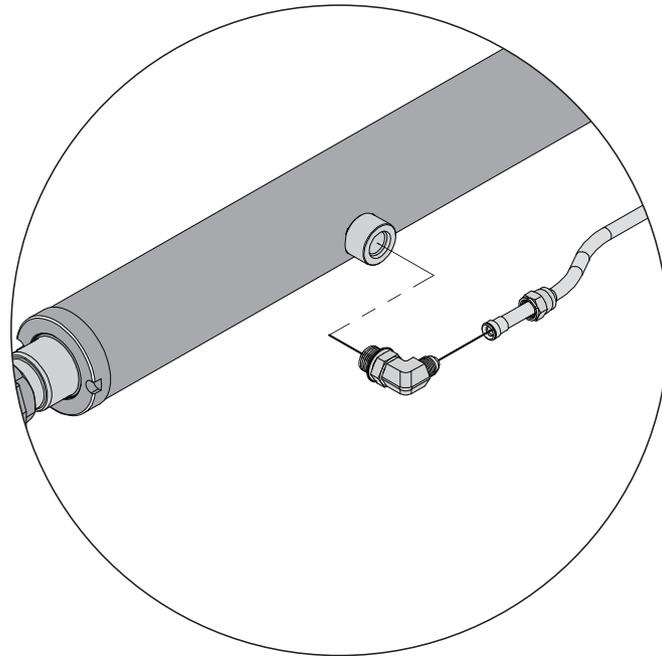
Close



Note:

Take care when inserting the cylinder hard pipe into the bottom Lenz Fitting of the safety block, **fig 31.1**. Any burrs or rough edges could damage the o-ring resulting in a leaky connection.

Read Lenz fittings instruction (included with safety blocks) before attempting install.



Securing Cylinders - I

Cylinder pins come with a spiral lock fasteners.

Upper and lower Pins have different style spiral locks. Note the orientation of the tang for removal. Tang to ID for Upper Pins and tang to OD for lower pins. See parts page for drawing.

Apply a light coat of grease to the upper pin before installing. Once pin is installed grease the upper pin using the zerk fitting.

Fit the upper clevis to upper pin-point (on the jamb), with the hard pipe facing the opposite end of the door, **fig. 32**.

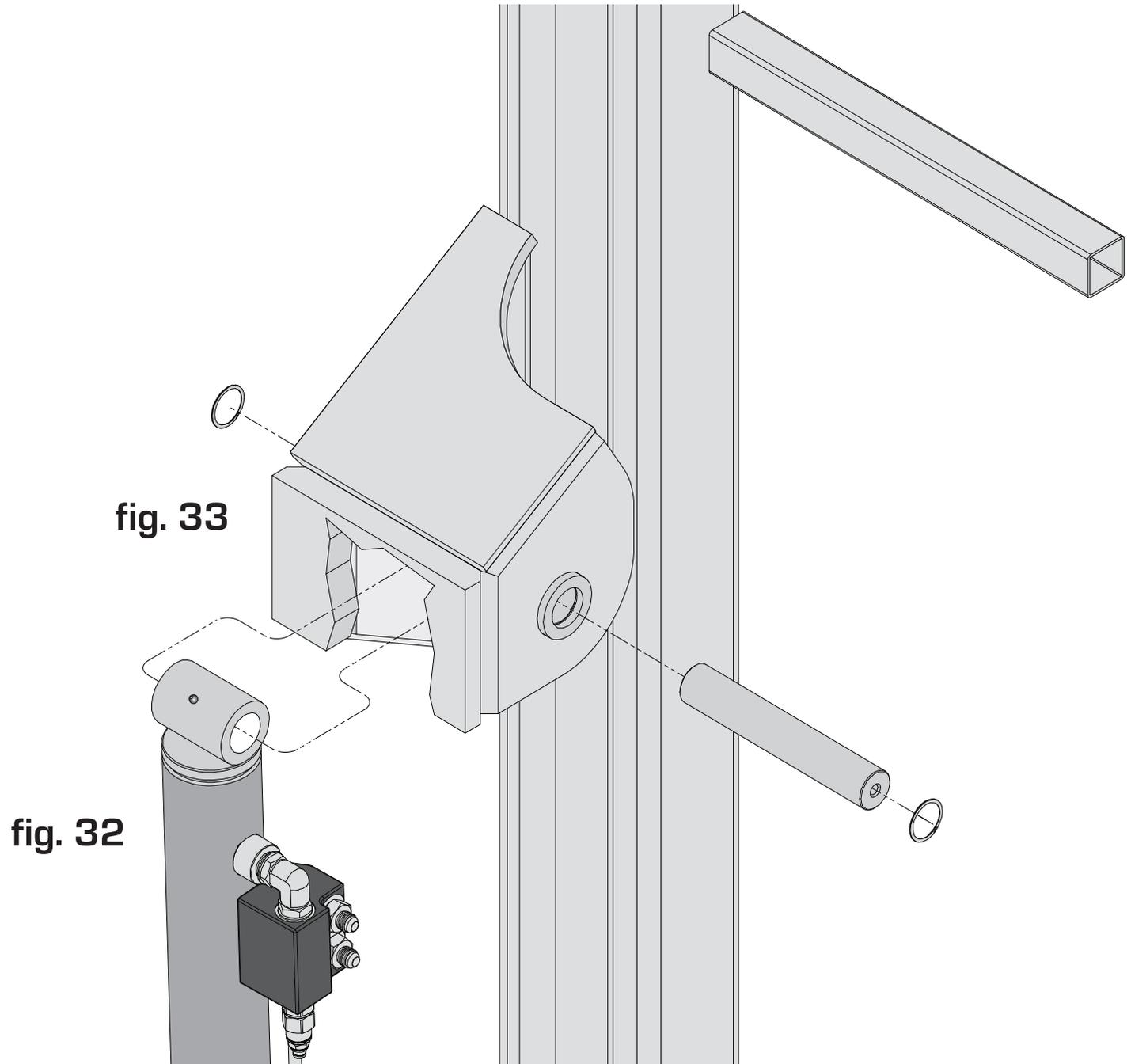
Slip the cylinder pin through the clevis and pinpoint, **fig. 33**.

Slip an end of the second spiral lock fastener into the groove on the cylinder pin.

Spin the spiral lock until it slips entirely into the groove.

Do not install lower pin yet.

Repeat with the second cylinder.



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Flush Mount Plumbing

See **page 66** for a full hydraulic plumbing diagram.

These steps should only be completed now if you are installing a flush mount (with integrated header). If you are installing an outside mount, do not attach the hoses until you have secured your door, p. 44.

Attach the short lengths of hose to the bottom 2 hard pipes on the hard pipe assemblies, these are the pipes that branch off of the T and elbow in the middle of the header, **fig. 35**.

Follow the hose from the bottom inside header pipe to the bottom port on the cylinder safety block, **fig. 35-36**

Follow the hose from the bottom outside header pipe to the top port on the cylinder safety block, **fig. 35-36**.

Follow the same instructions for the opposite cylinder.

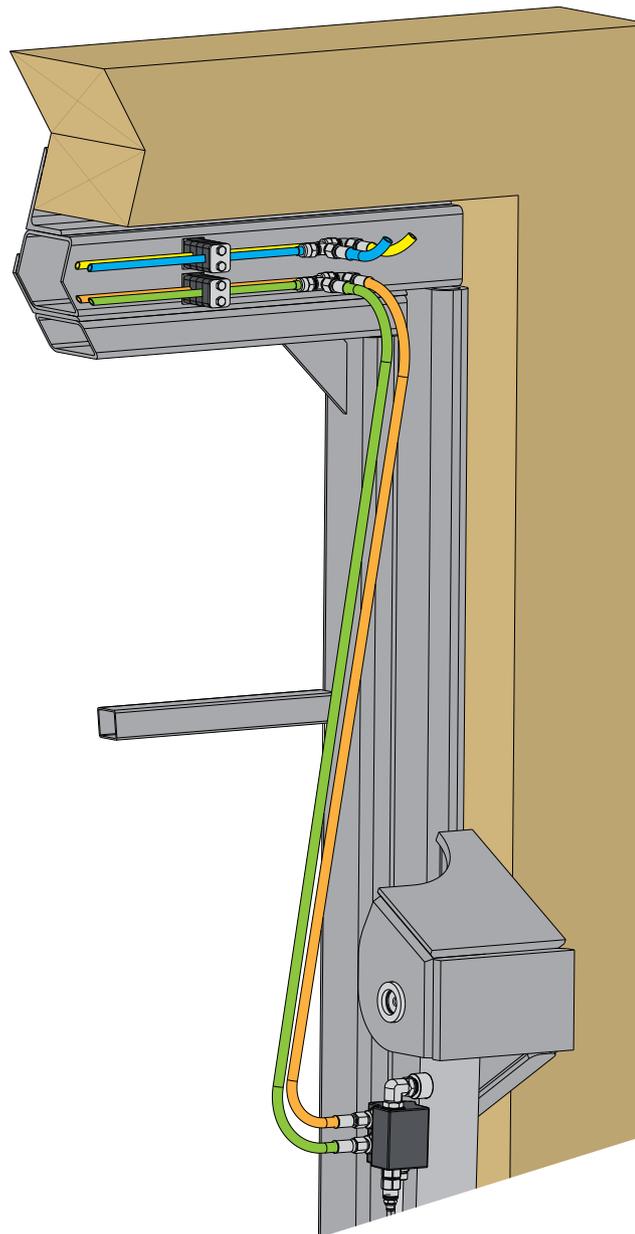
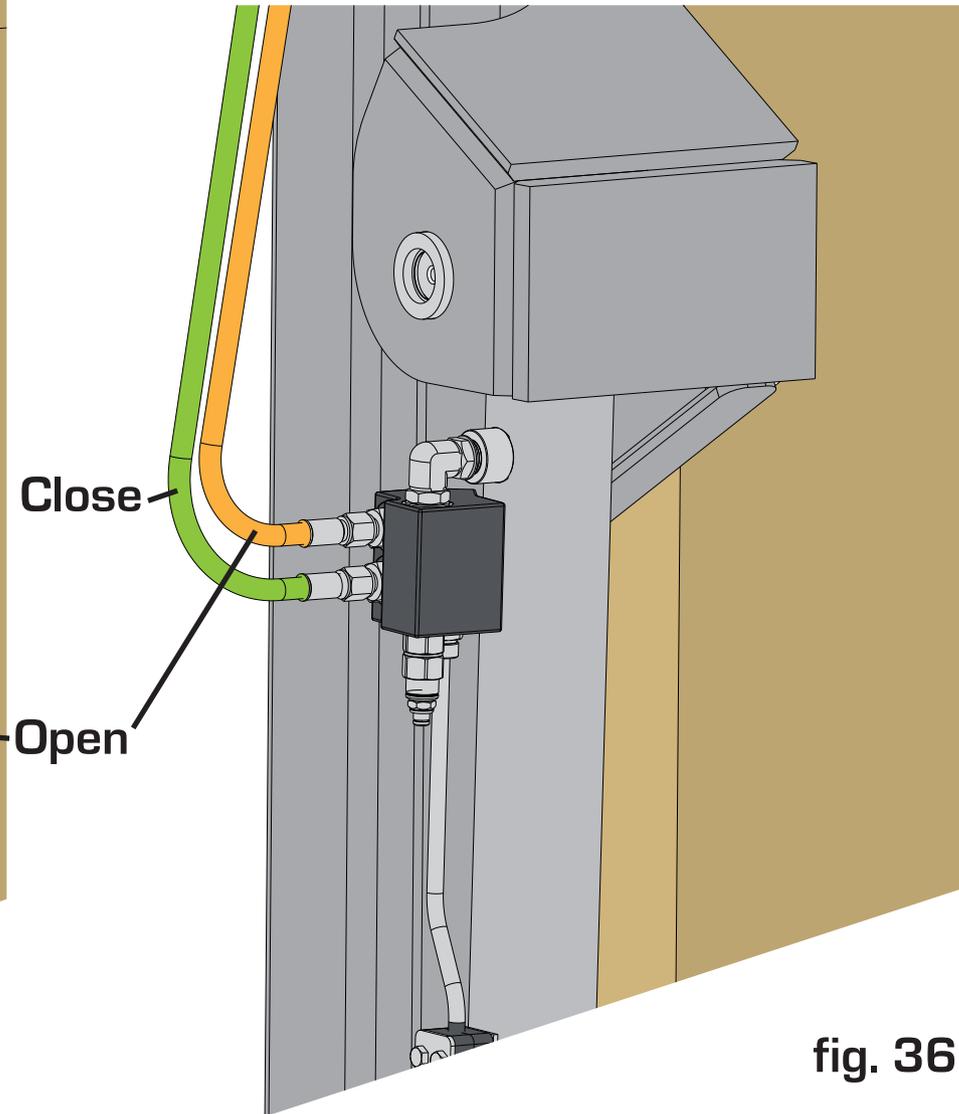
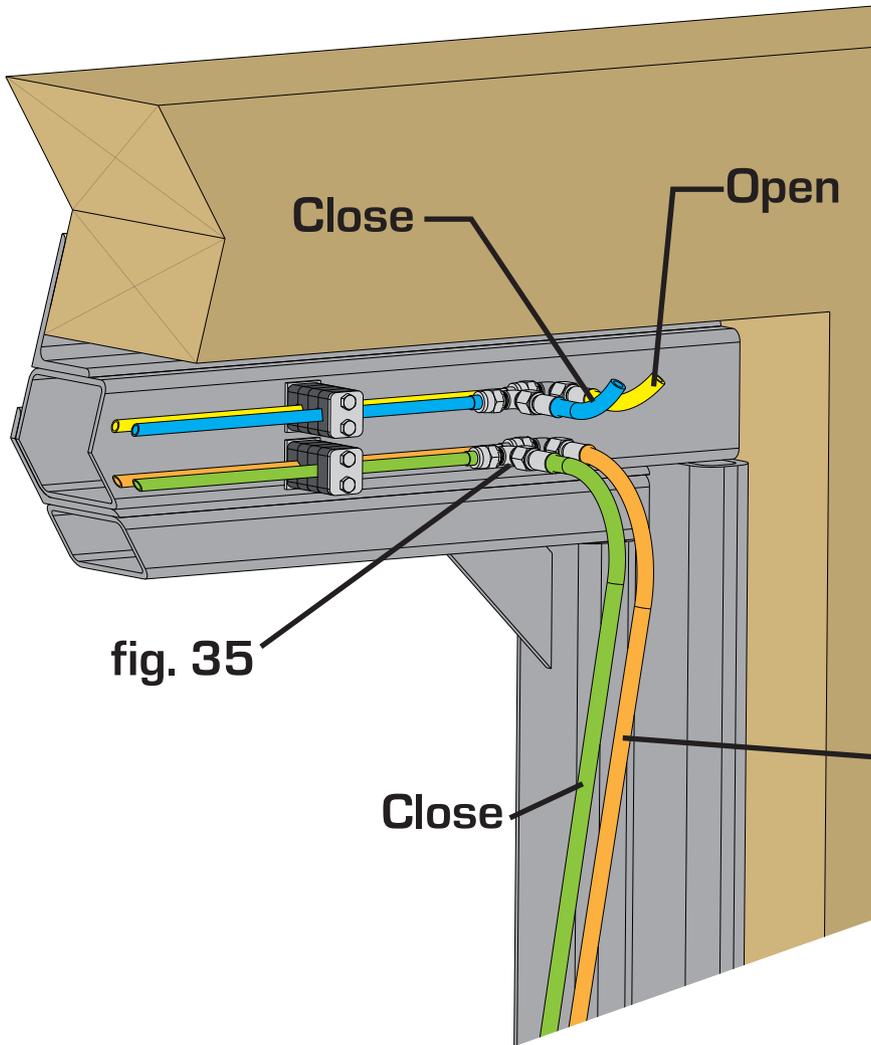


fig. 34



Fitting

Carefully slip the forks under the middle of the header section.

Chain the uprights to the forklift until the door is fully secured to the rough opening.

Take special care not to damage the hard pipe assemblies or hoses when lifting and fitting door.

Lift slowly up and forward until the door is vertical.

Move the door to within about a foot of the rough opening and lower it until it's almost on the ground, **fig. 37**. Make sure the door is aligned with the opening.

Have ground workers push the bottom of the door forward into place then lower the door until the jambs are in place on the ground, **fig. 38**.

Bring the forklift forward slowly and lower the door until the header is straight, **fig. 39**.

Do not release the door. Keep the forklift in place to support the door.

Ensure the door is flush, level, and plum in its final position before fixing the door to the building.

Flush Mount

fig. 37

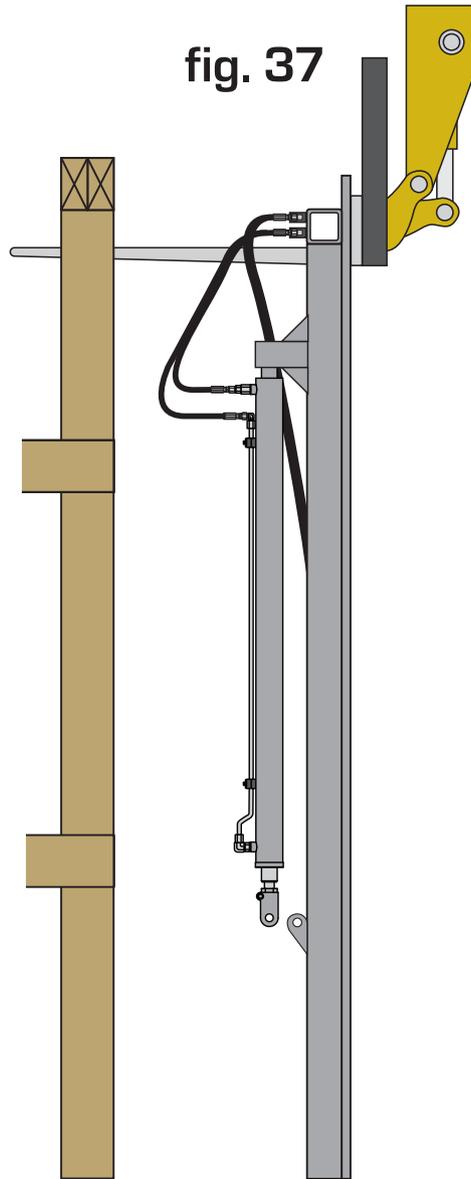


fig. 38

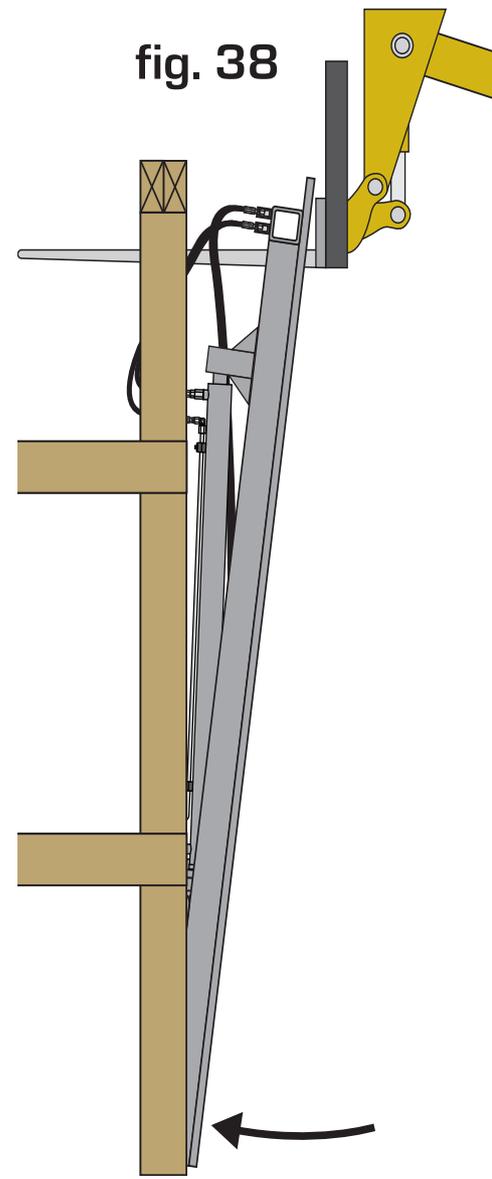
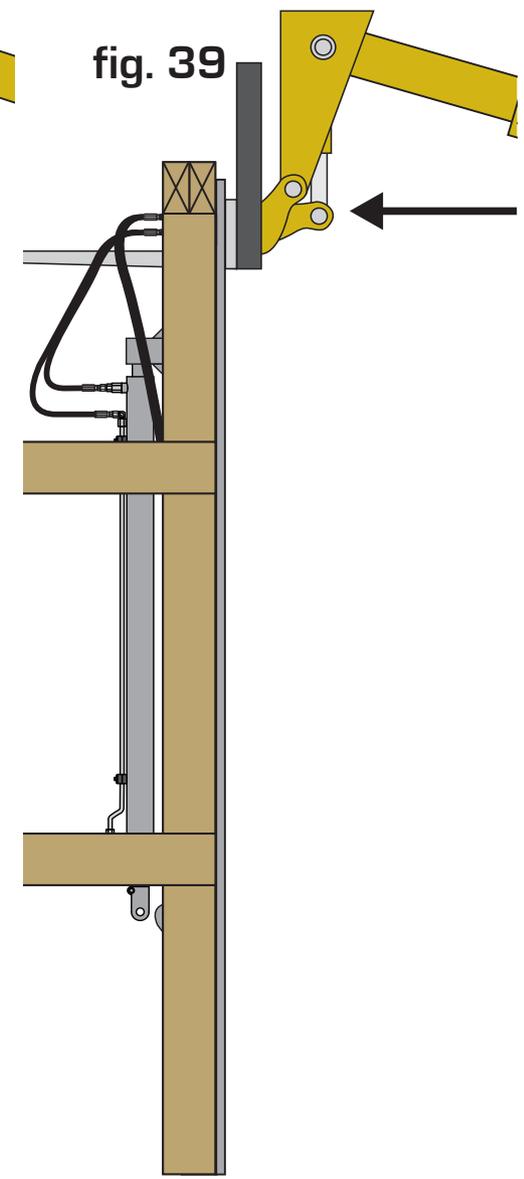
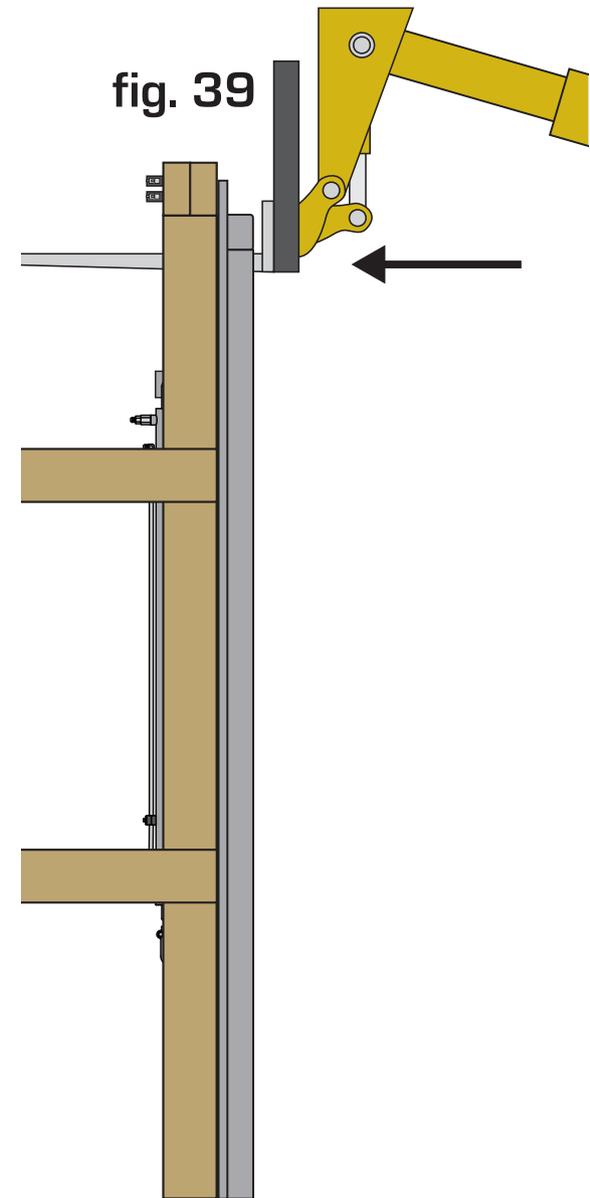
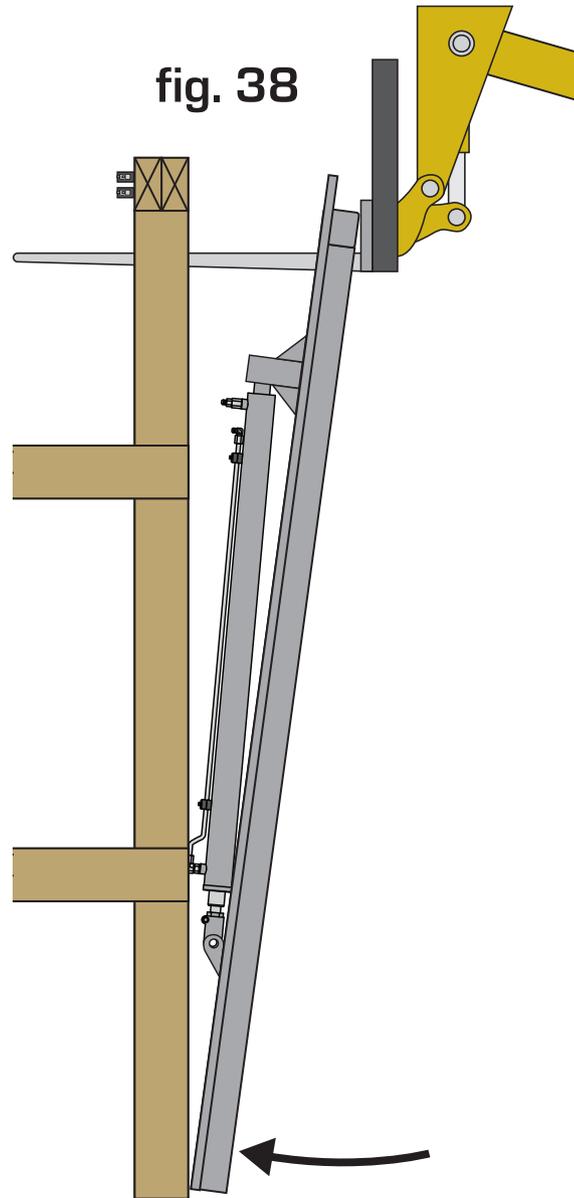
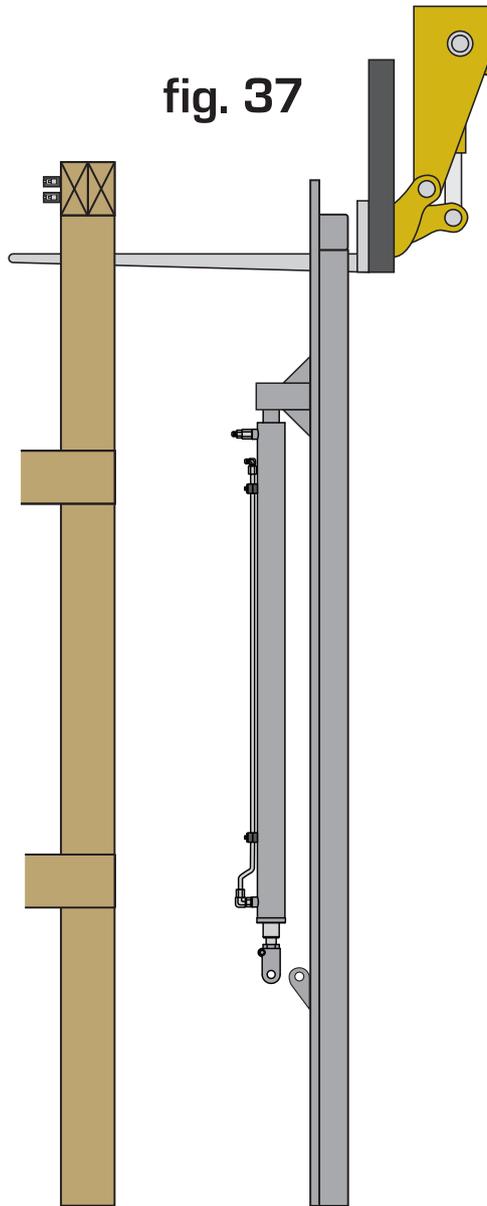


fig. 39



Outside Mount



Steel Building

If your building is steel, see the Weld Schematic on p. 69 for details.

Wood Building

Drill 1/4" pilot holes for each lag along the jambs, **fig. 40**.

Drive lag bolts into each pre-drilled hole. Ensure the bolts seat well and do not strip out.

Drill 1/2" holes along the header for thru bolts. Slip bolts through and secure with nuts and washers.

Concrete Building

Hammer drill 1/2" holes for concrete anchors, **fig. 41**.

Insert concrete anchors and tighten. Ensure the anchors grab properly.

Concrete Pad

If you're going to fix the jambs to the concrete pad, hammer drill 1/2" holes for concrete anchors, **fig. 42**.

Insert concrete anchors and tighten. Ensure the anchors grab properly.

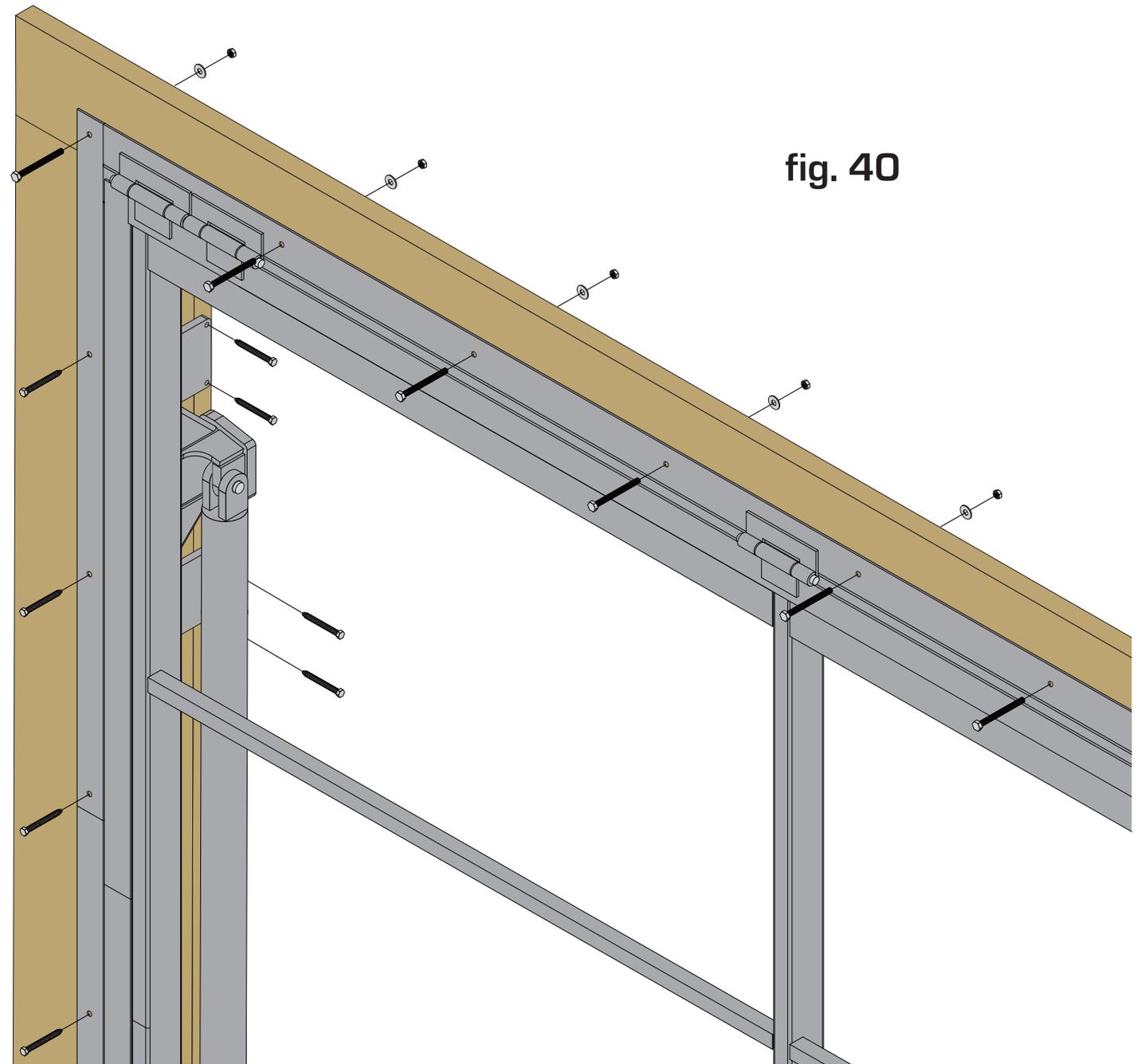


fig. 40

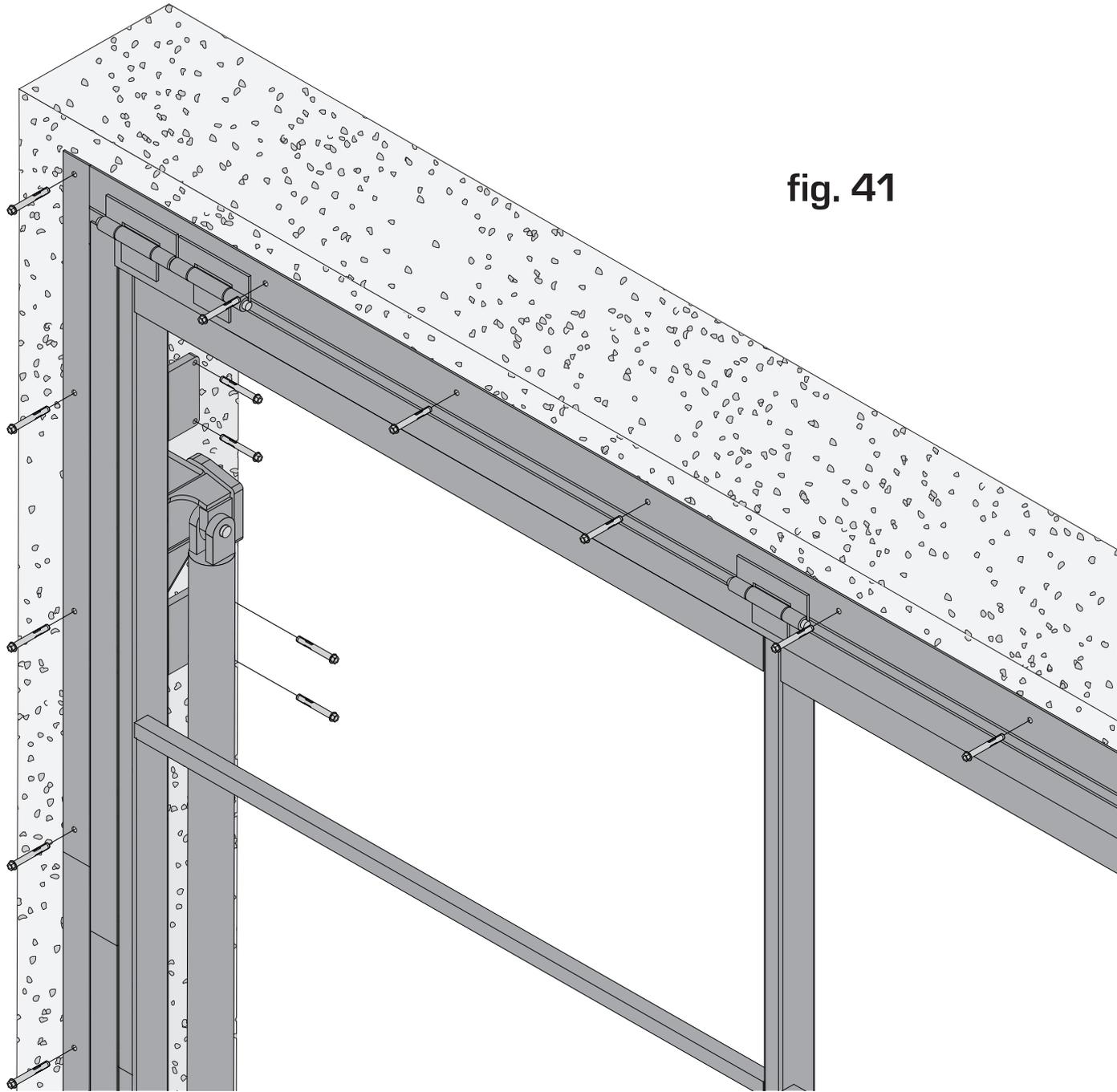


fig. 41

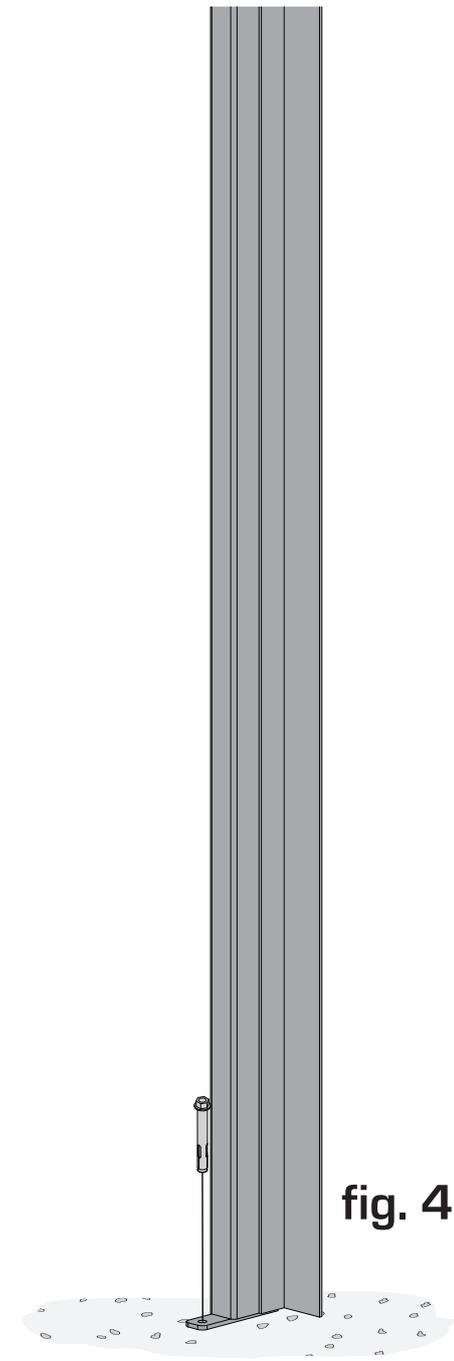


fig. 42

Remove Forklift

Once the door is completely secured to the building, remove the chain and forklift.

Outside Mount Plumbing

See **page 66** for a full hydraulic plumbing diagram.

If you're installing an outside mount door, attach the hydraulic hoses now.

Attach the short lengths of hose to the bottom 2 hard pipes on the hard pipe assemblies, these are the pipes that branch off of the T and elbow in the middle of the header, **fig. 44**.

Follow the hose from the bottom inside header pipe to the bottom port on the cylinder safety block, **fig. 44-45**.

Follow the hose from the bottom outside header pipe to the top port on the cylinder safety block, **fig. 44-45**.

Follow the same instructions for the opposite cylinder.

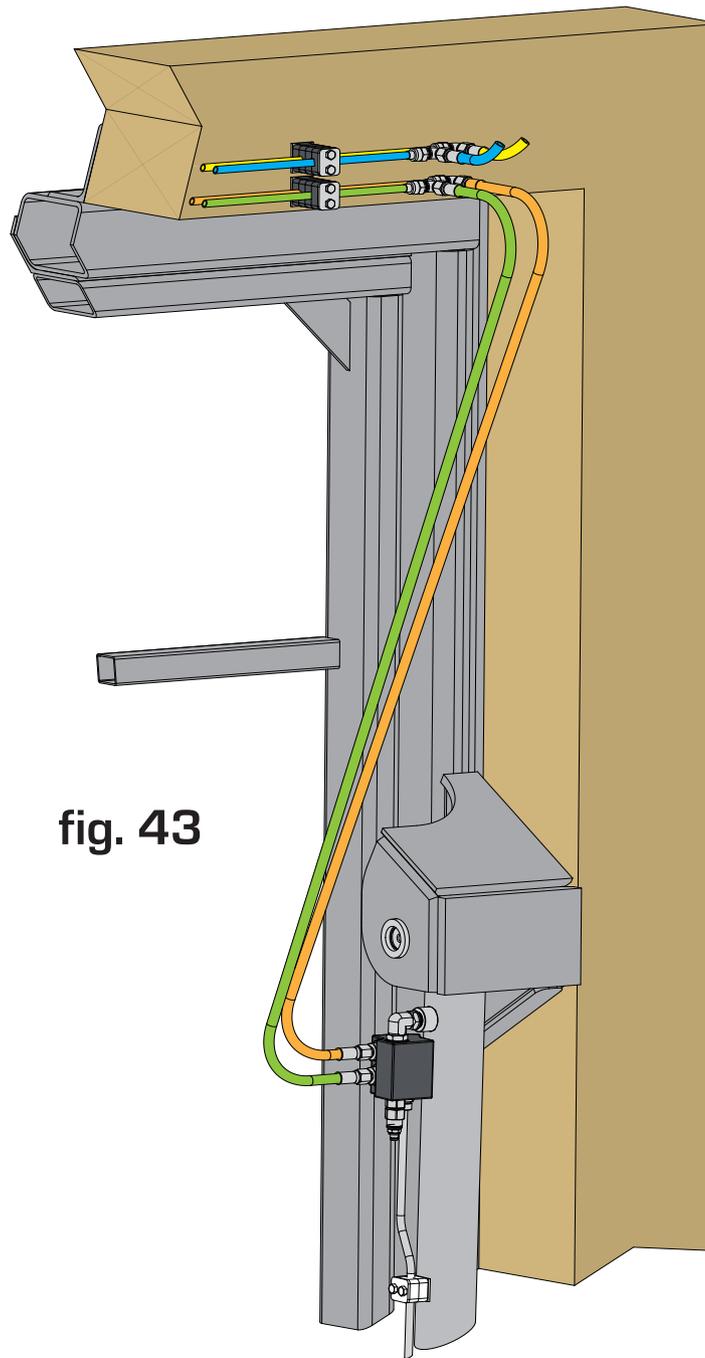
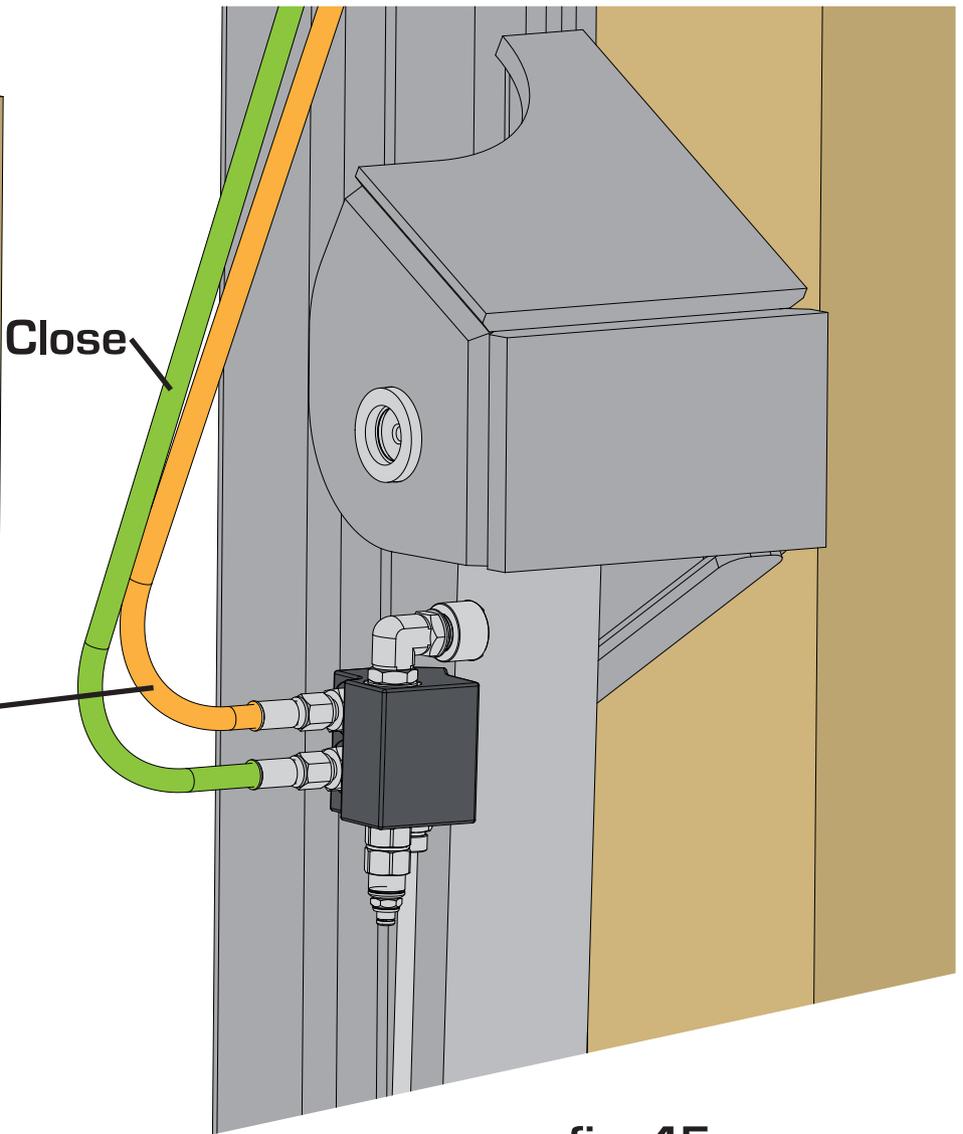
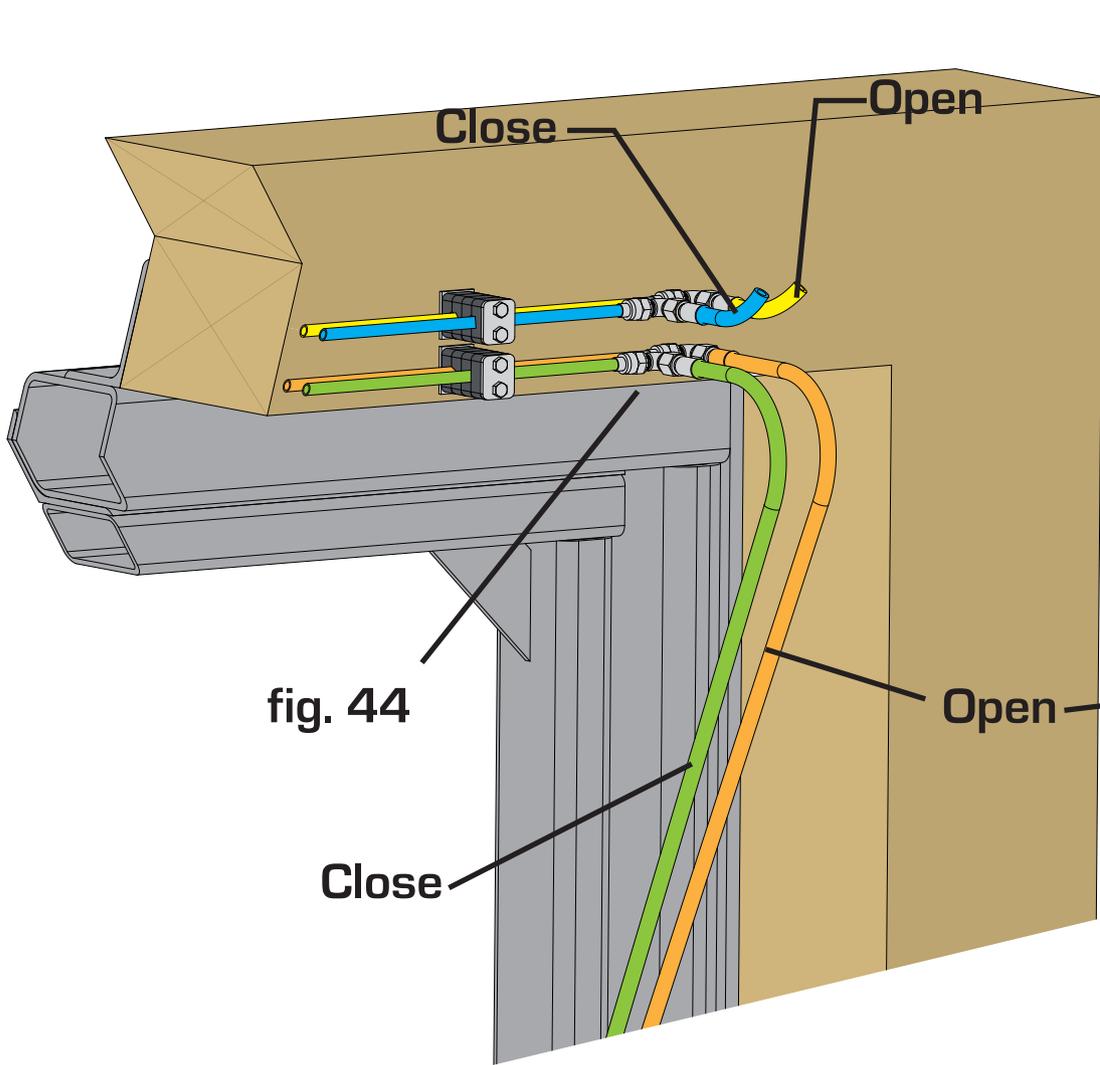


fig. 43



Pump Installation

See **page 66** for a full hydraulic plumbing diagram.

Weld, bolt, or screw the pump mounting bracket in place.

Bolt the pump to the mounting bracket.

Connect the outside "close" hydraulic hose to the right side of the pump, **fig. 48**.

Connect the inside "open" hydraulic hose to the left side of the pump.

Fill the pump reservoir.

Mount the control box next to the pump.

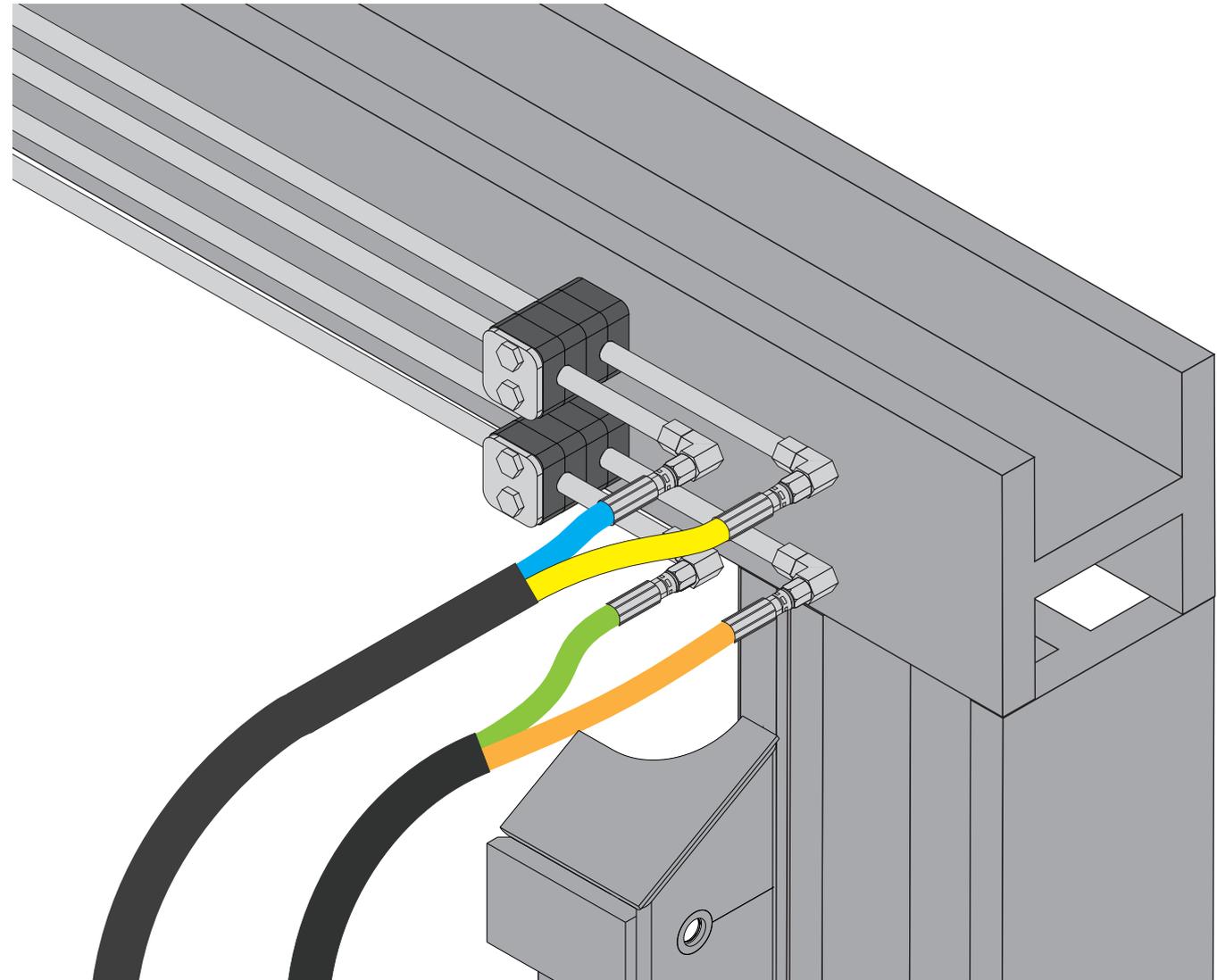
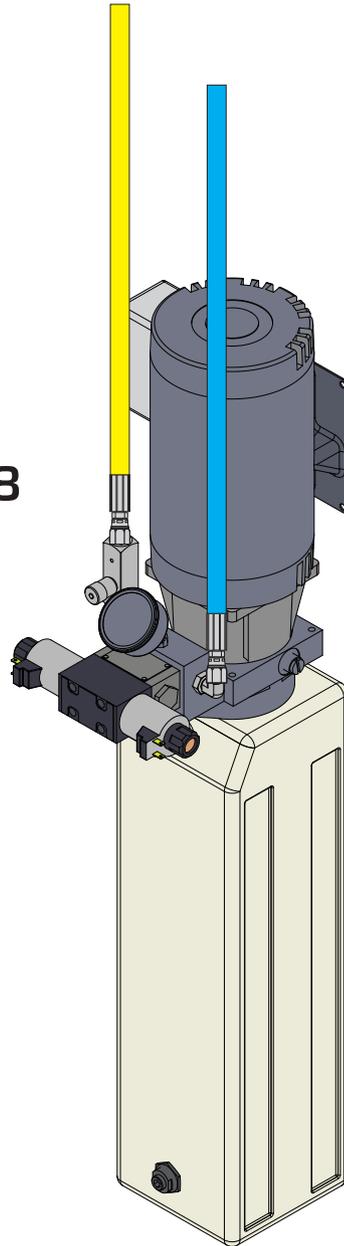


fig. 48



Securing Cylinders - II

Once the pump is plumbed, filled, and wired, cycle the cylinders several times to fill the lines with fluid.

Connect the lower clevises of the cylinders with cylinder pins, **fig. 50**. Cycling the cylinders or pushing on the door will help align the holes.

Once the cylinders are connected to the lower pin points and the pins and spiral locks are in place, the door is now ready for initial opening.

Check the hydraulic reservoir after cycling the door open and closed. The reservoir should be $\frac{3}{4}$ full when the door is closed. Check all fittings for leaks and tighten accordingly.

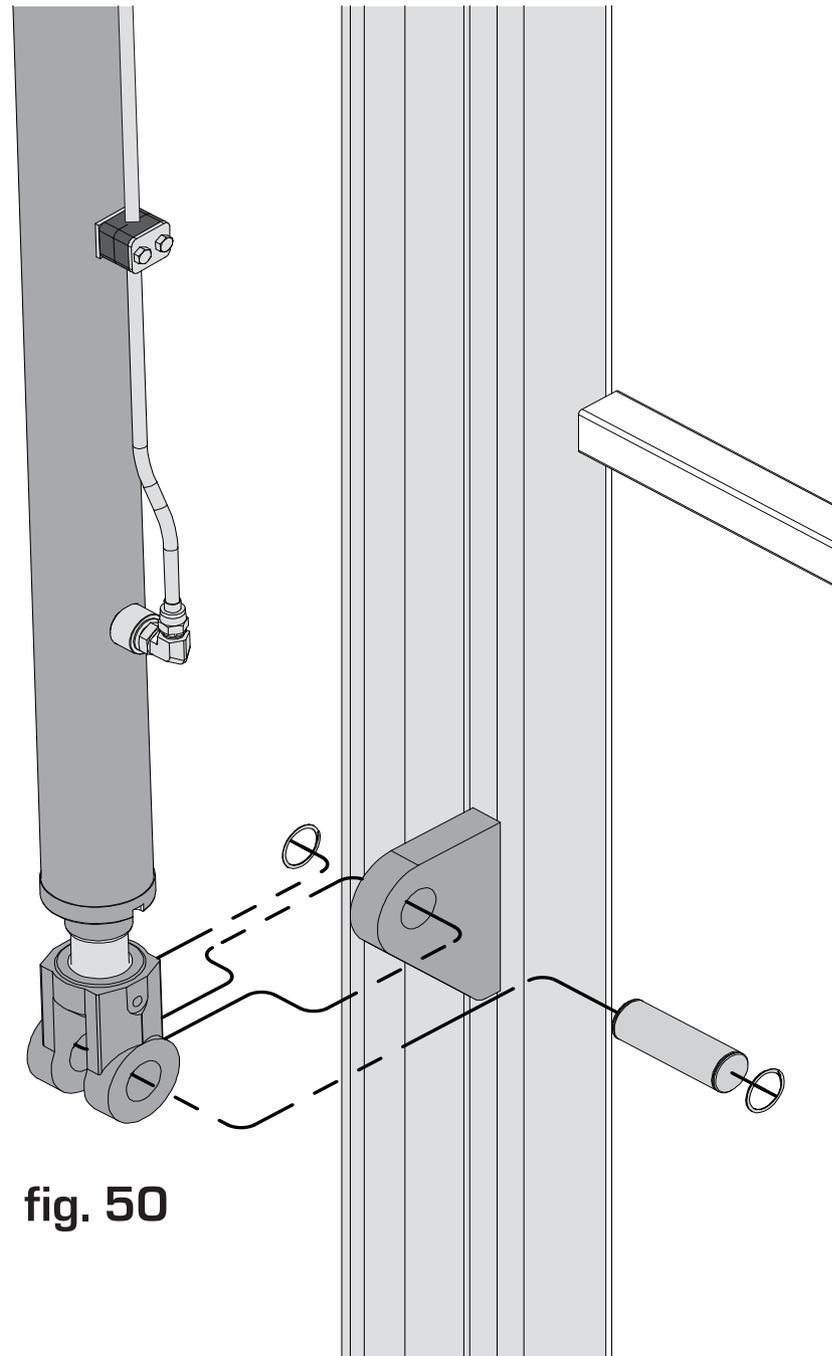


fig. 50

Painting

We strongly recommend that you paint your door before sheeting. Corrosion due to unpainted surfaces is not covered under warranty.

At a minimum, all welds should be touched up with primer.

Well Bilt Doors are primed with an oil-based primer (PPG ASP-7035). It is the responsibility of the painter to make sure his or her paint is compatible.

Standard Push Button Stations Configuration.

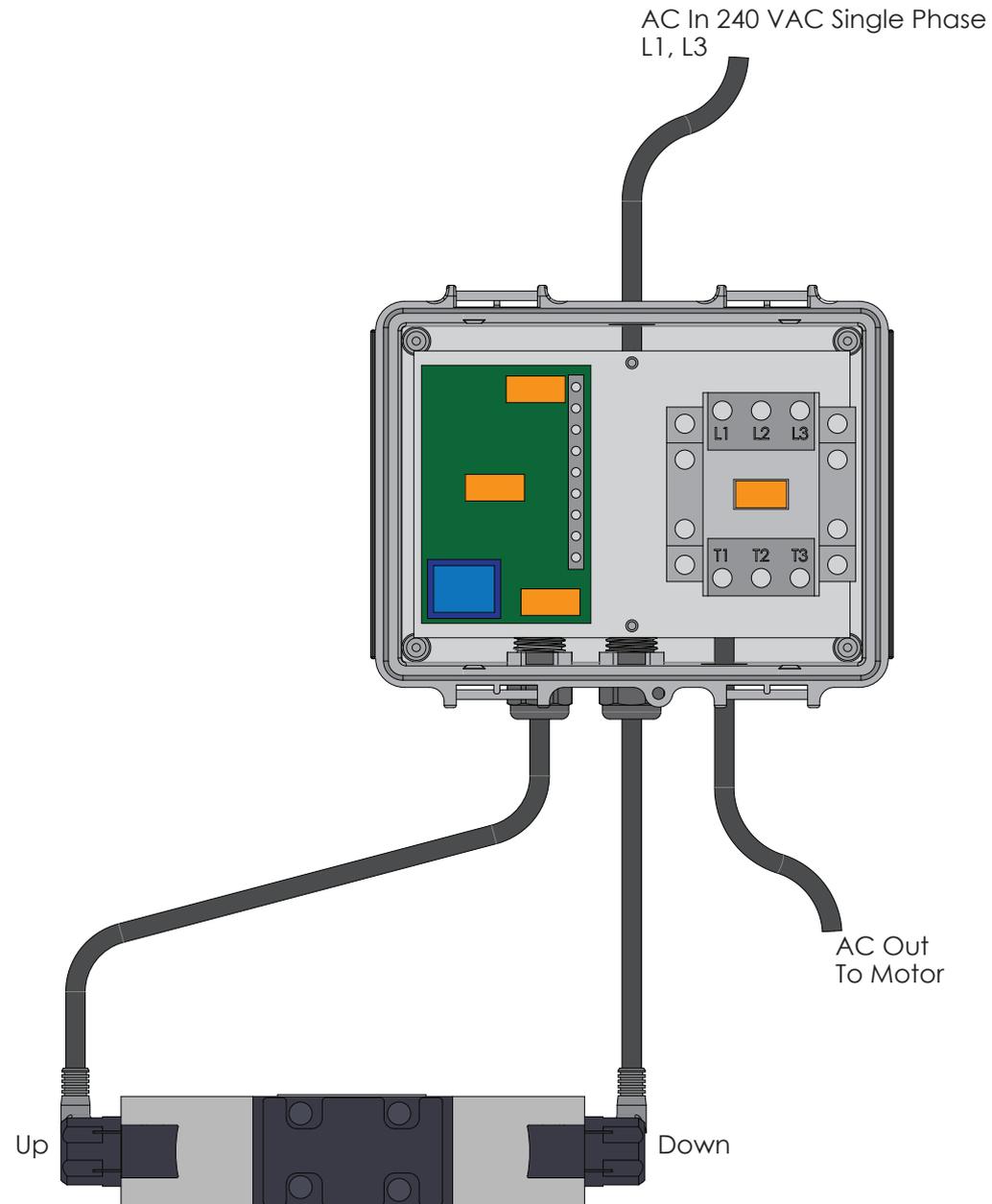
Wiring should be completed by a licensed electrician per local and national electric codes.

Makes sure that the incoming power goes to the line side of the contactor.

Make sure that the box is properly grounded.

Wire Box to motor and check to make sure motor is tapped for supplied power.

Attach spade connectors or DIN connectors to coils per drawings.



Initial Opening

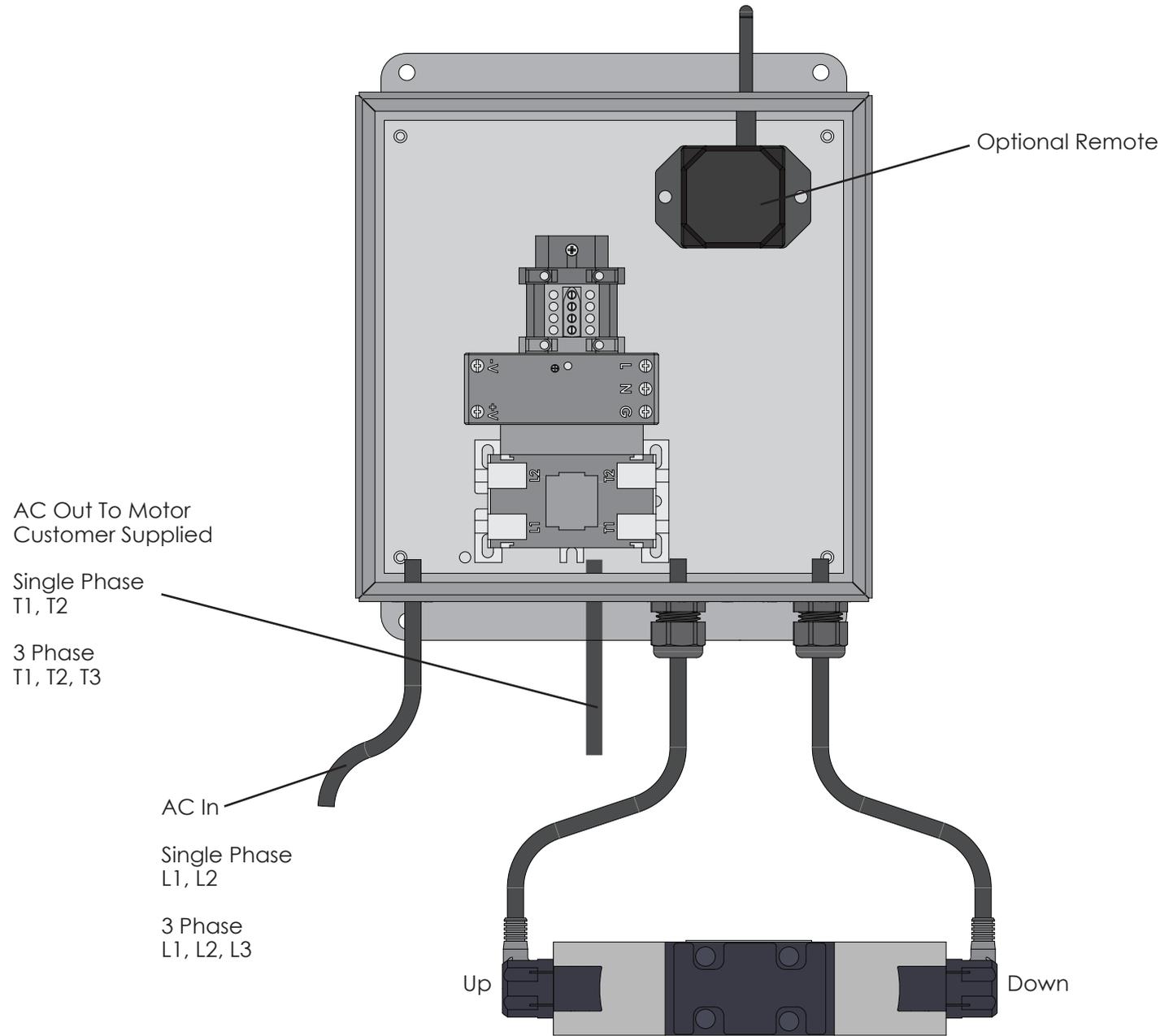
Before attempting to open door:

1. Make sure door is clear of all people and obstructions.
2. If door has cane bolts, make sure that they are lifted and secure.

To begin, bring the door open no more than 1/2 of the way up. Then bring the door down to close.

Note:

1. If the door bounces follow instructions in the trouble shooting section at end of manual.



Bottom Seal

Open the door to about shoulder level or a height that is comfortable working under.

Roll out the rubber labeled 'bottom'.

Layout the pre drilled metal strips in two sets. You may need to trim the strips to size.

Clamp or hold the pre drilled metal strip to the backside of the bottom member, **fig. 55**.

Place the edge of the rubber between the strip and the door. The rubber should extend to the edges of the steel side seals.

Screw the rubber and the strip to the door with Tek screws. Add strips as needed.

Clamp or hold another strip to the bottom of the bottom member slightly to the rear of center, **fig. 56**.

Place the edge of the rubber between the strip and the door.

Screw the rubber and the strip to the door with Tek screws. Add strips as needed.

Lower door to ensure it seals.

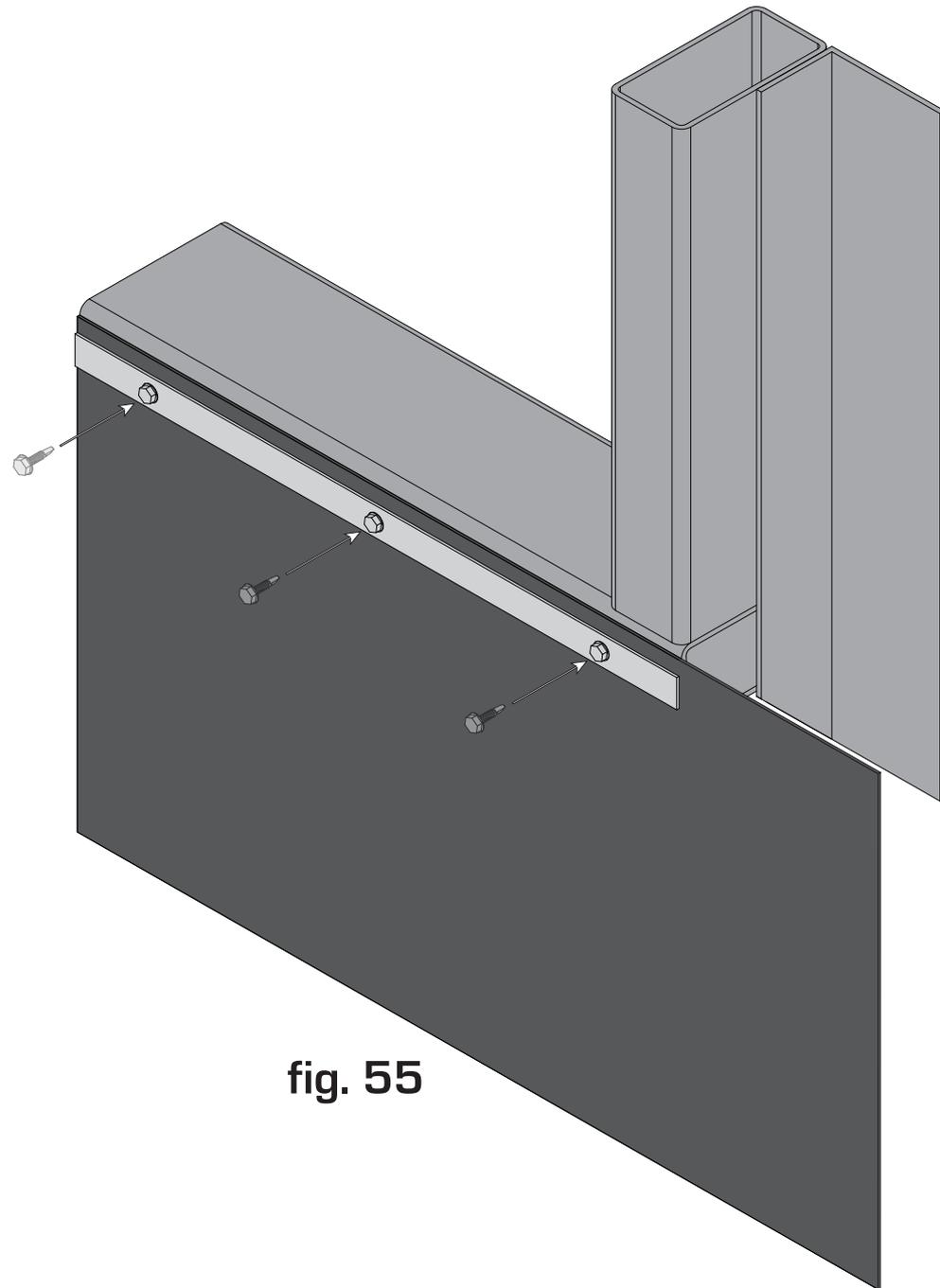


fig. 55

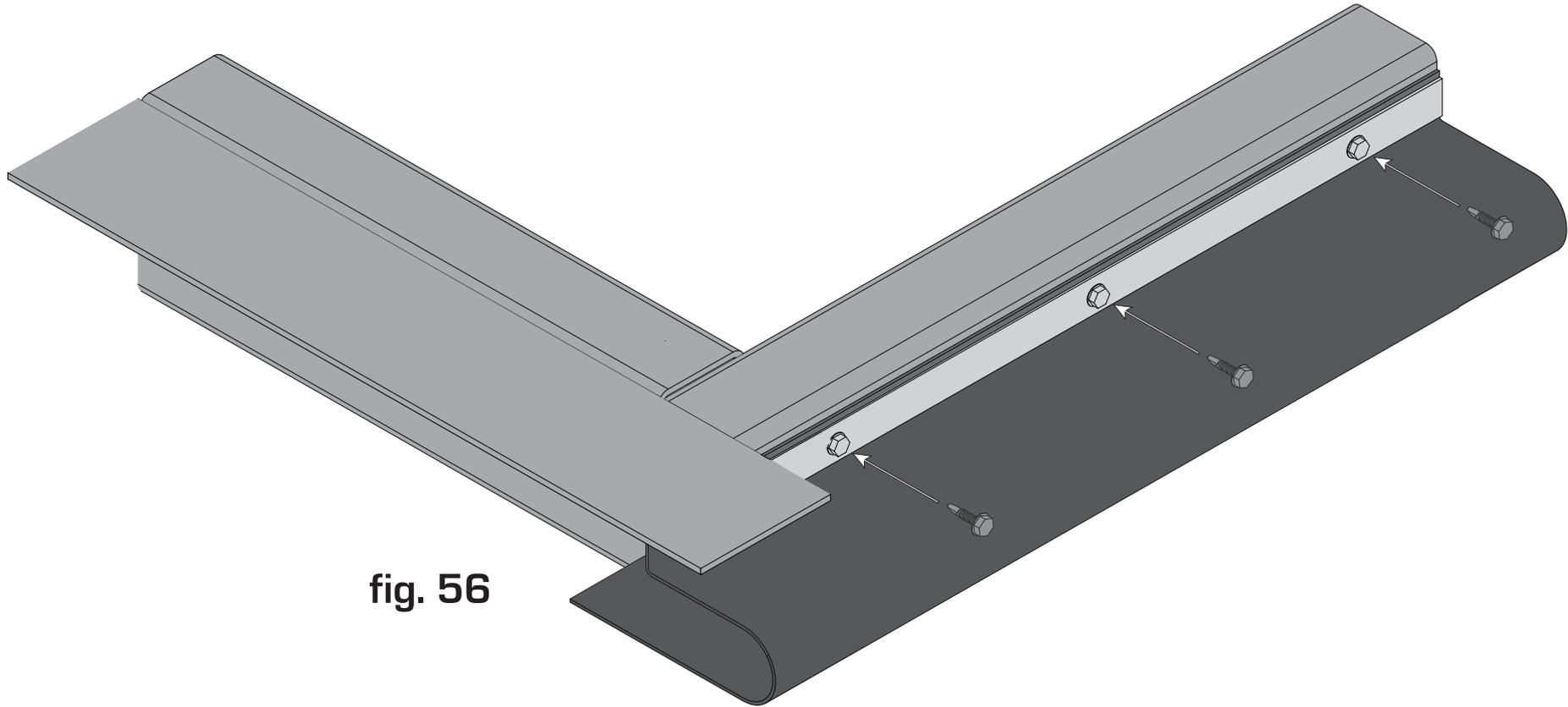


fig. 56

Door and Windows

Fit the window/door into the casing built into the door's framing.

Secure the window/door with Tek screws. Wind-loaded doors are screwed across their face, **fig. 57**. To secure a standard door, fit it in place, open it, and screw through the jamb into the tube.

Cut one piece of J-trim 2" longer than the top width of the window/door. Trim the ends so each end has a 1" tab that can be folded down over the side trim.

Cut two pieces of J-trim 1" longer than the height of the window/door. Trim the bottom ends to form 1" tabs that can be folded down and in across the bottom piece of trim.

Cut one piece of J-trim the width of the bottom of the window/door.

Screw the bottom J-trim to the bottom, **fig. 58**.

Screw the side trim to the sides with the tabs pointing down.

Screw the top trim to the top.

Bend the top tabs down over the sides and the side tabs over the bottom.

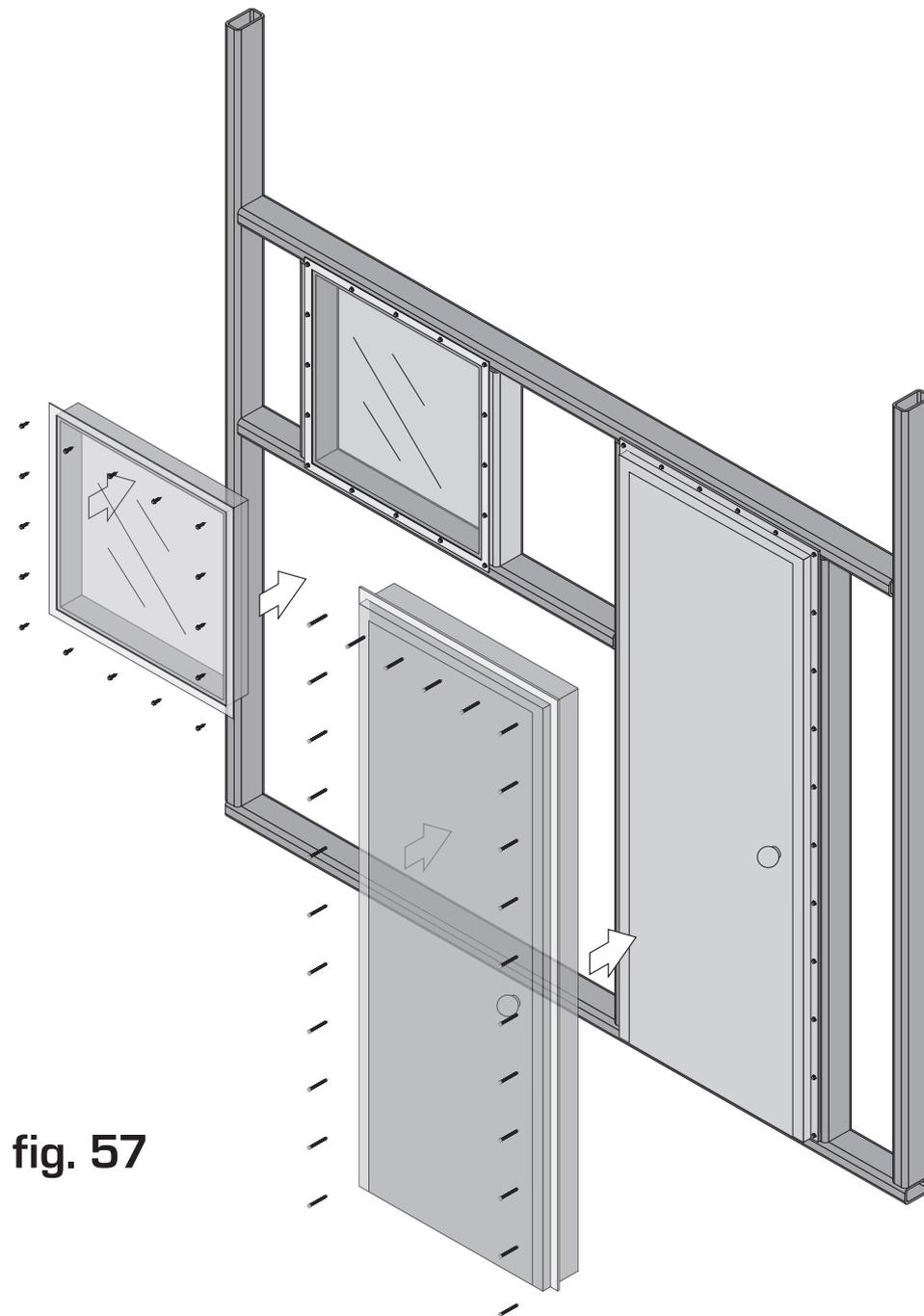


fig. 57

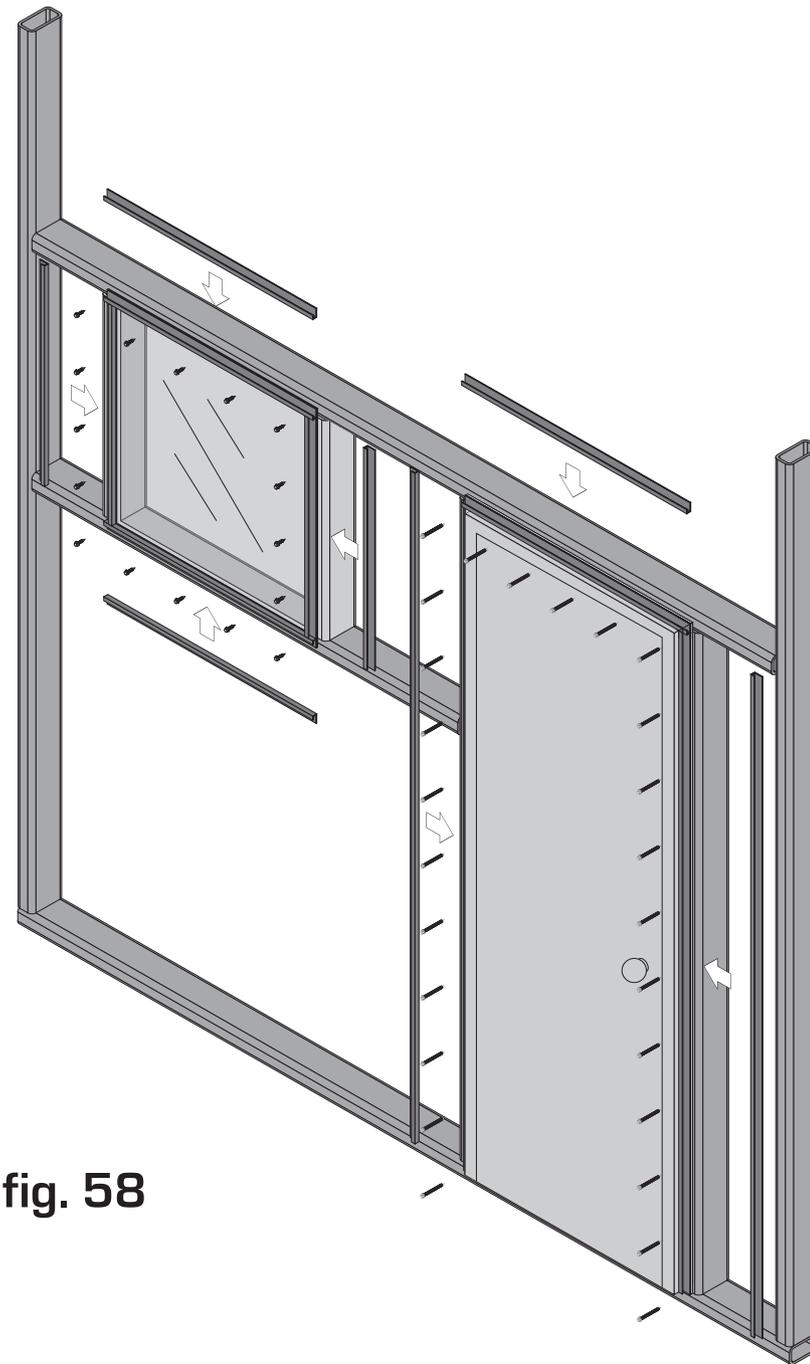


fig. 58

Cane Bolts

Do not install cane bolts if it's windy. Doing so will cause the bolts and bolt holes to be misaligned.

With the door closed, fit the cane bolt assembly onto the upright with the flanges on either side of the pre drilled holes, **fig. 59**. The cane bolt should be inside the door.

Slip the bolts through the bolt holes, add the nuts, and tighten.

Slip the cane bolt itself out of the holder and let the cane bolts rest against the concrete floor.

Trace a circle on the floor around the base of each bolt, **fig. 60**.

Lift the cane bolts and let the handle rest in the retaining groove.

Prior to drilling make sure holes will not harm the structural integrity of the concrete slab. Also make sure area to be drilled is free of obstructions in the slab. (For example: post tension cables or floor heating tubes)

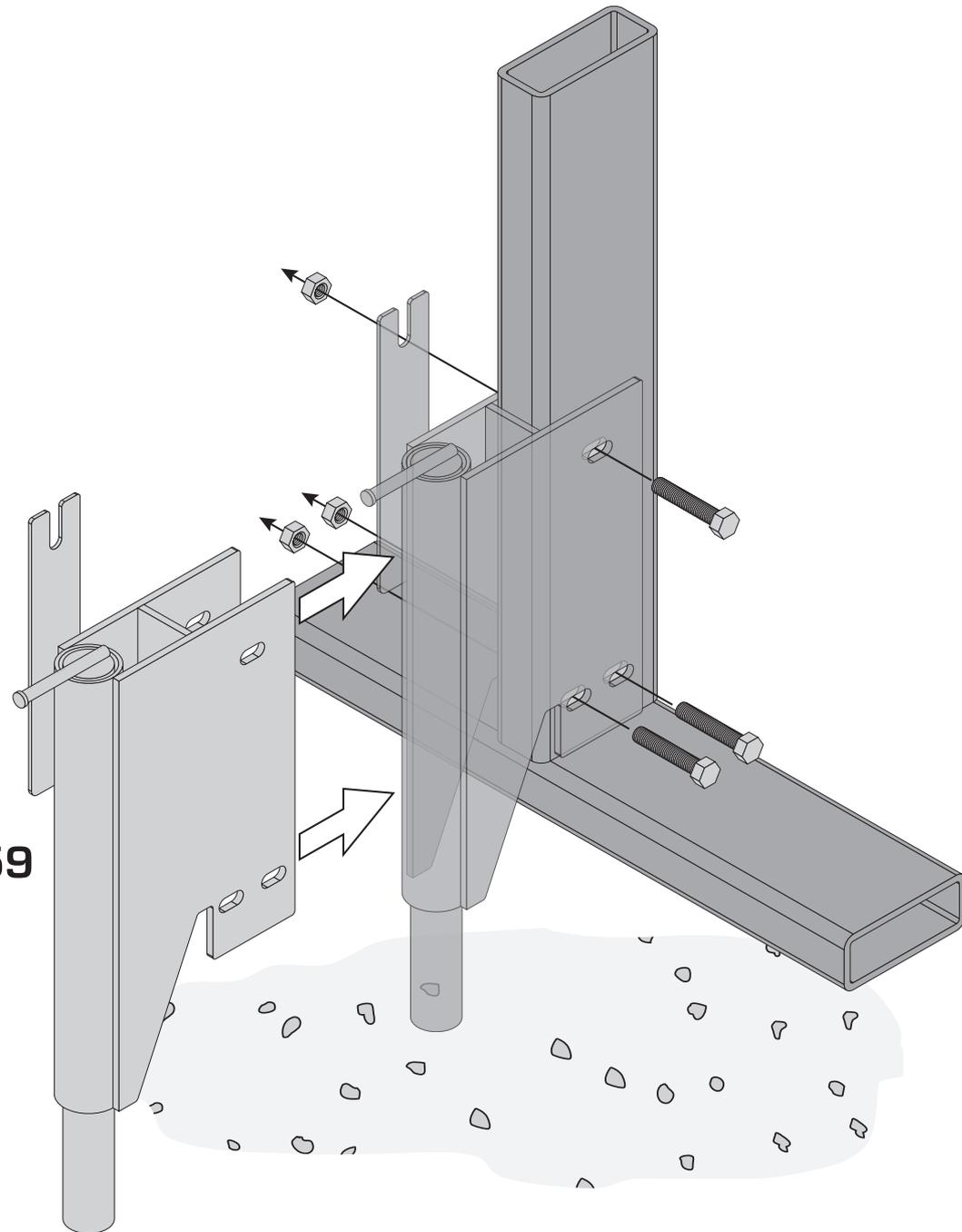
Open the door. Core drill a 2" wide hole deep enough that the cane bolt has 1" of clearance below it when in the closed position, **fig. 61**. Do not use the drill's hammer feature.

If the hole fills with debris, remove it.

Lower the door and ensure the cane bolt slips in place.

Repeat with the remaining cane bolts.

fig. 59



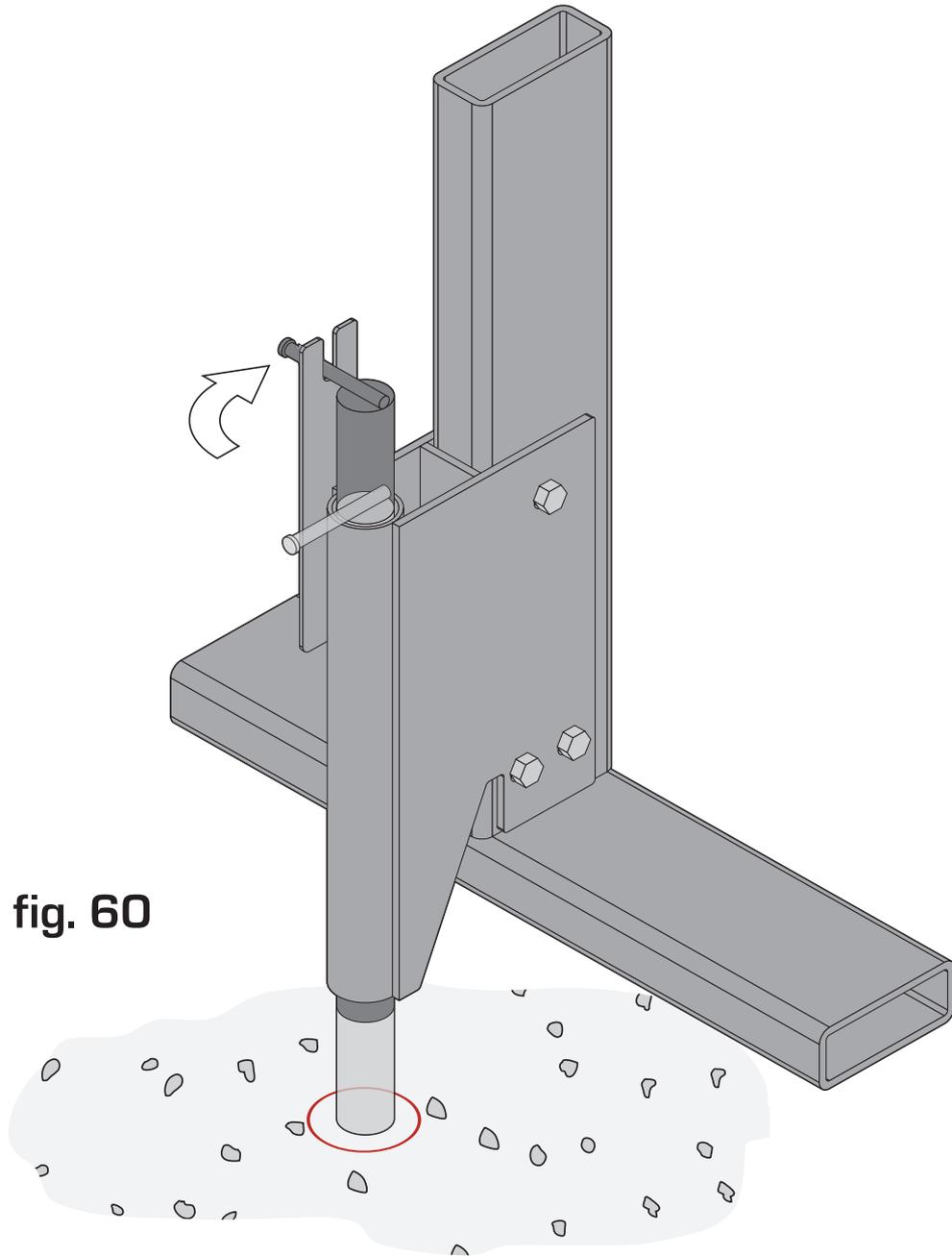


fig. 60

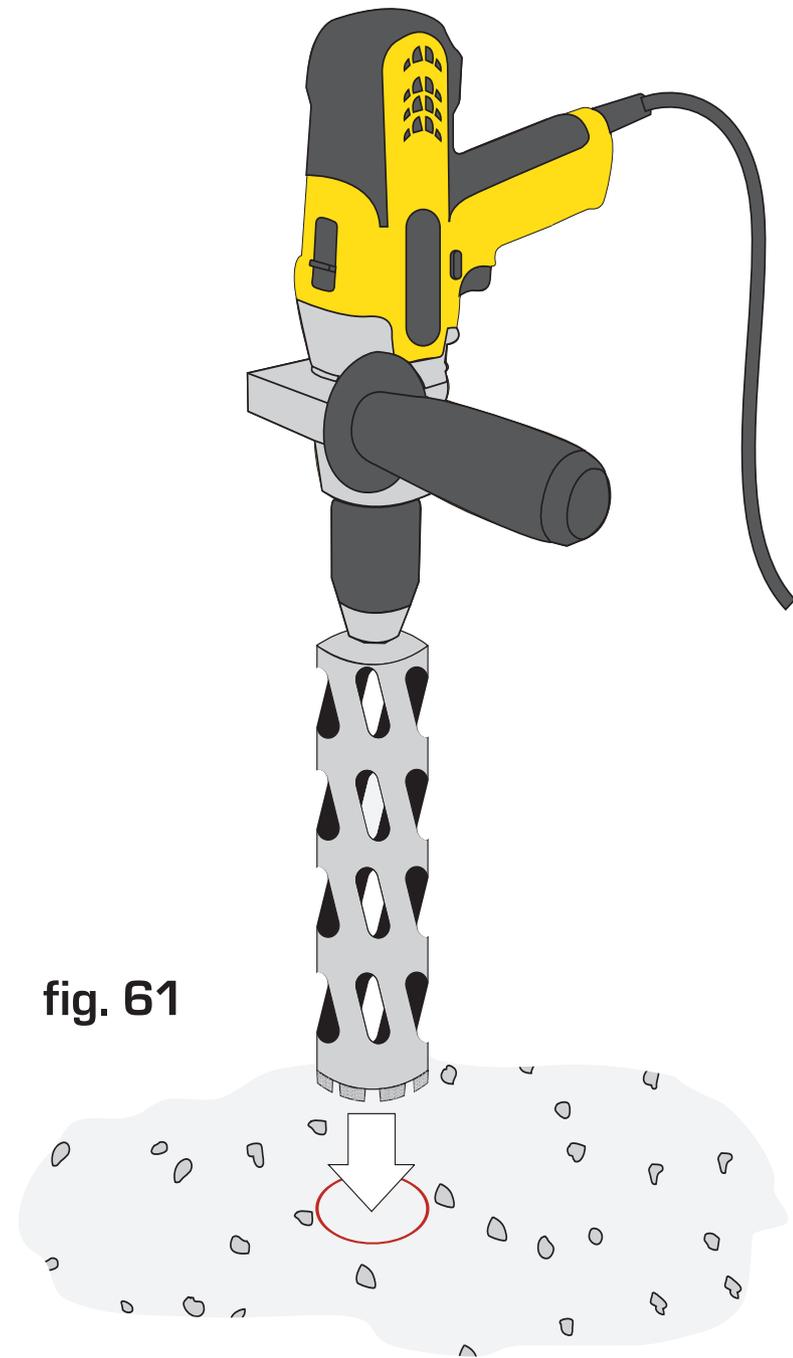


fig. 61

Sheeting

Secure the starter strip along the bottom of the door with screws every 12" on center, **fig. 62**.

Secure a section of J-trim vertically along one side of the door with screws every 12" on center.

Cut the sheet steel to the appropriate height for the door.

Fit the sheet against the door and screw to cross members between ribs or every 12-18". Do not screw past the last rib. Do not screw the top of the sheet (X).

Fit another sheet so the first rib of the second sheet laps the last rib of the first sheet and screw it down.

Continue adding sheets until you reach the last sheet of the door.

Trim the final sheet to fit and screw it in place leaving the outside edge loose.

Slip J-trim, channel facing in, behind the edge of the final sheet and secure both to the door screwing through sheet and trim, **fig. 63**.

Slip another strip of J-trim, channel facing down, between the sheeting and door along the top.

Screw through the top of the sheeting and trim along the top of the door.

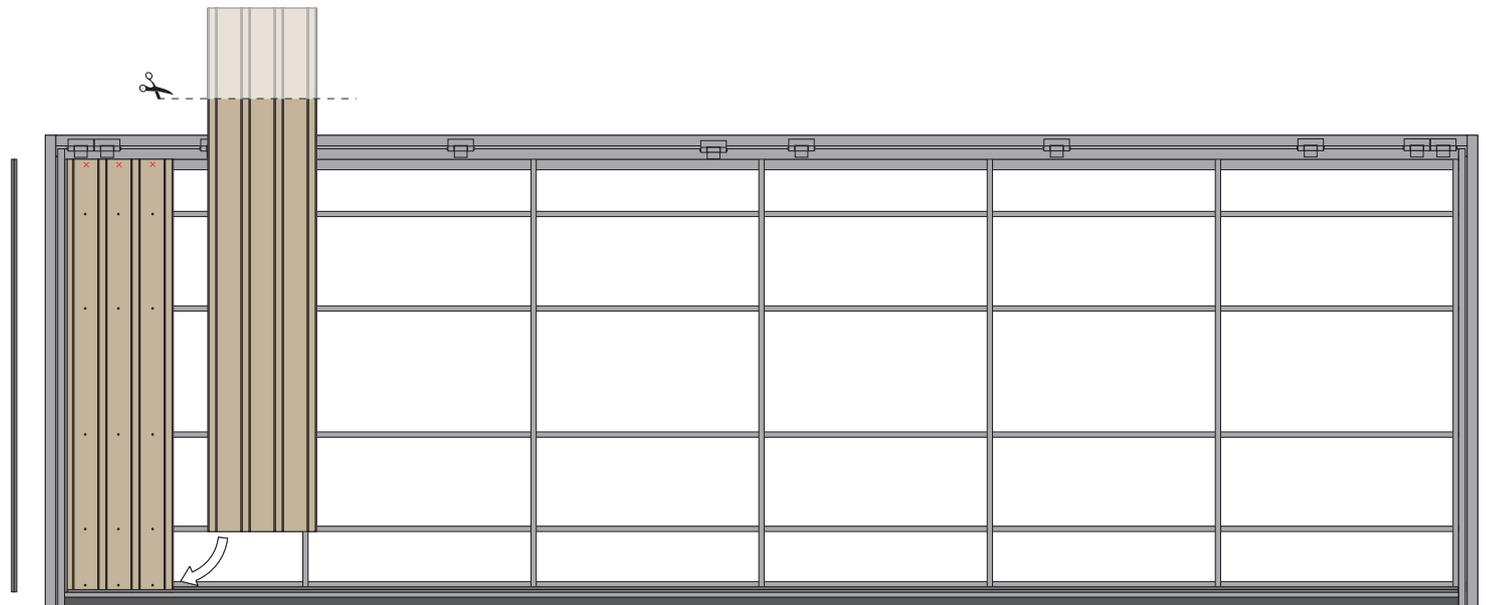


fig. 62

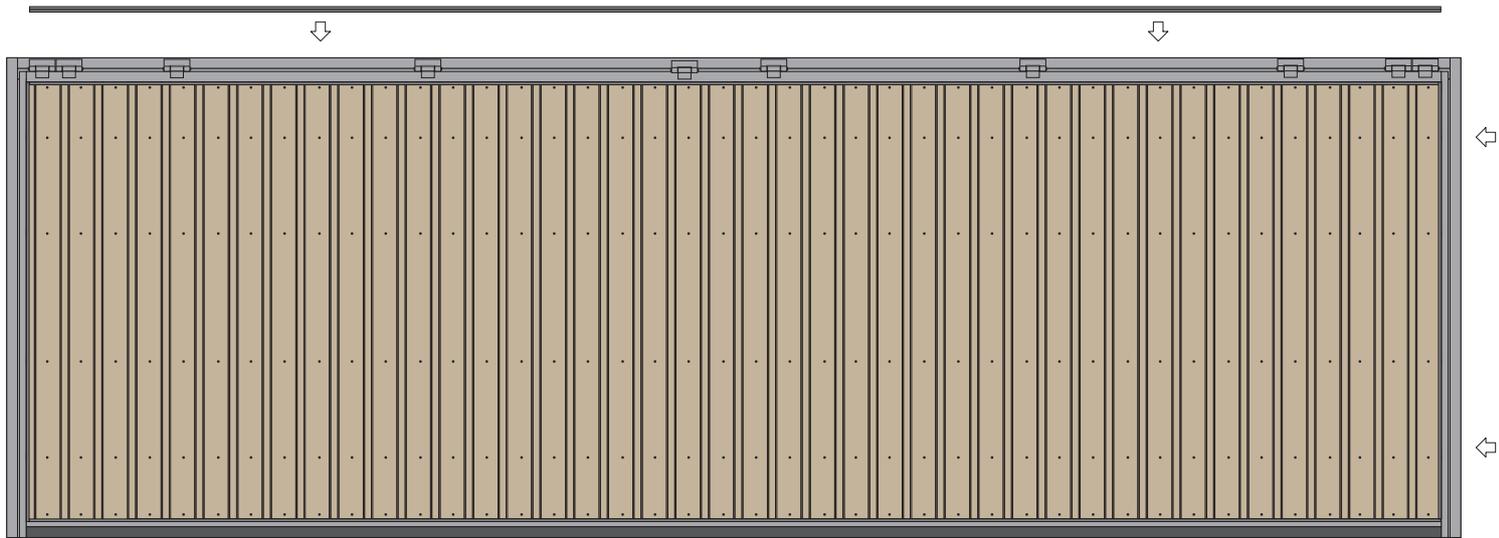


fig. 63

Grease Zerks

Zerks are pound in style. To install, place a socket or zerk driver over the zerk fitting and strike with a hammer. Be sure to follow proper safety precautions and also to never strike ball bearing surface of zerk fitting.

Pump grease in until it oozes out both sides of the hinge.

Repeat with the other hinges.

Top Rubber Flashing

flush mount doors use 12" rubber and outside mount use 18" rubber.

Slip the rubber flashing under the sheeting above the door, **fig. 65**.

Add trim between the rubber and the sheeting if you choose to use trim.

Screw through the sheeting, trim, and rubber between every rib to secure it to the building.

Screw through the bottom of the rubber into every rib in the steel.

Securing Hoses

To secure the hydraulic hoses, use the included jiffy clips to run the hoses away from the door opening and cylinders.

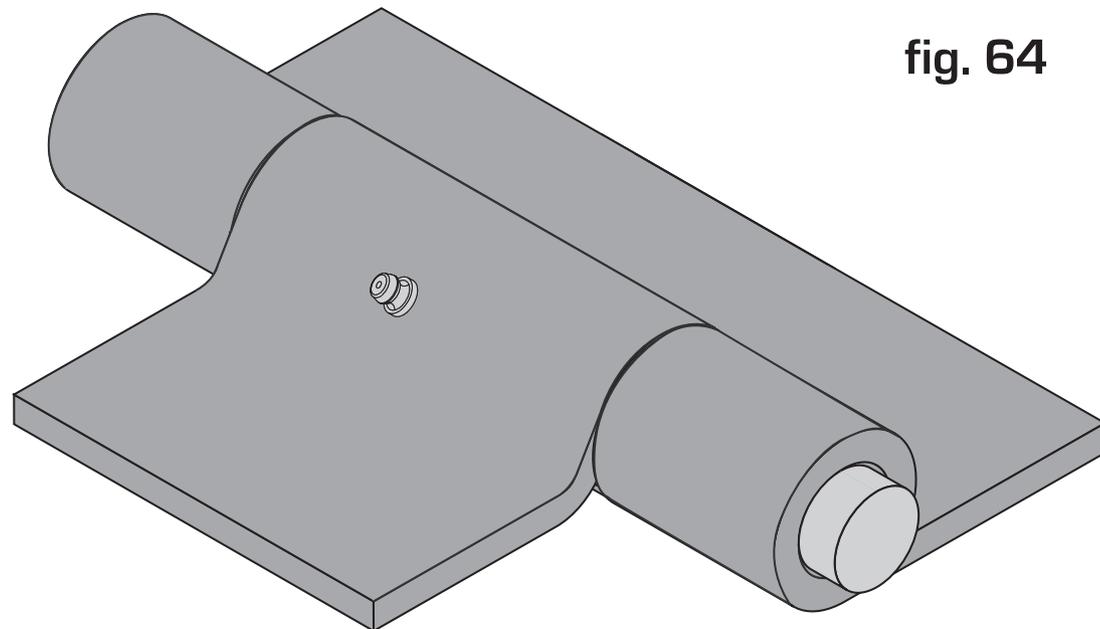
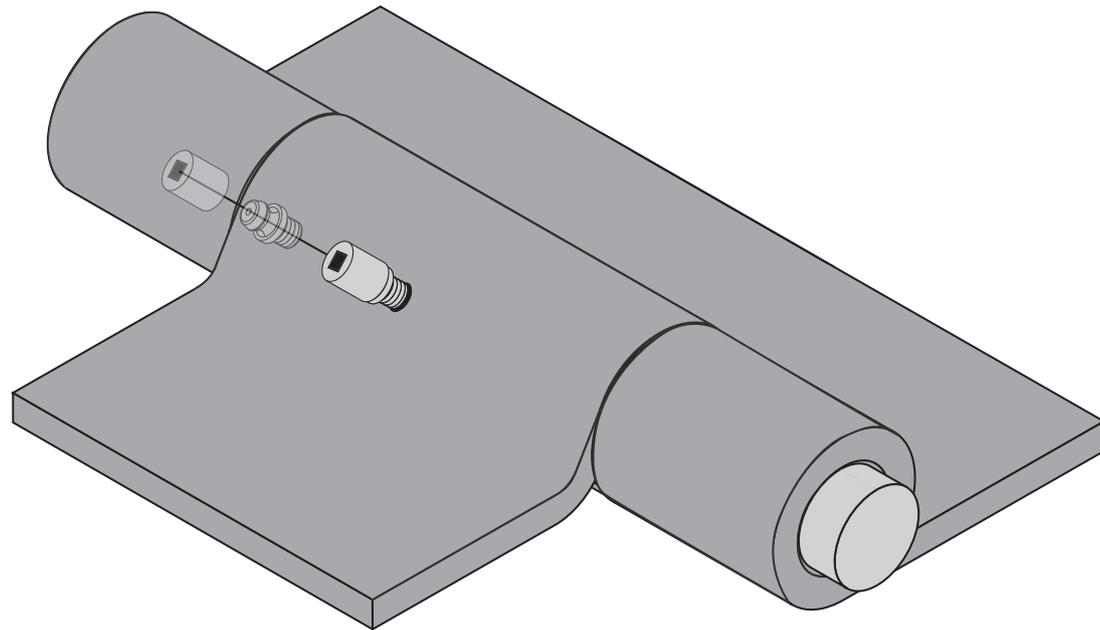


fig. 64

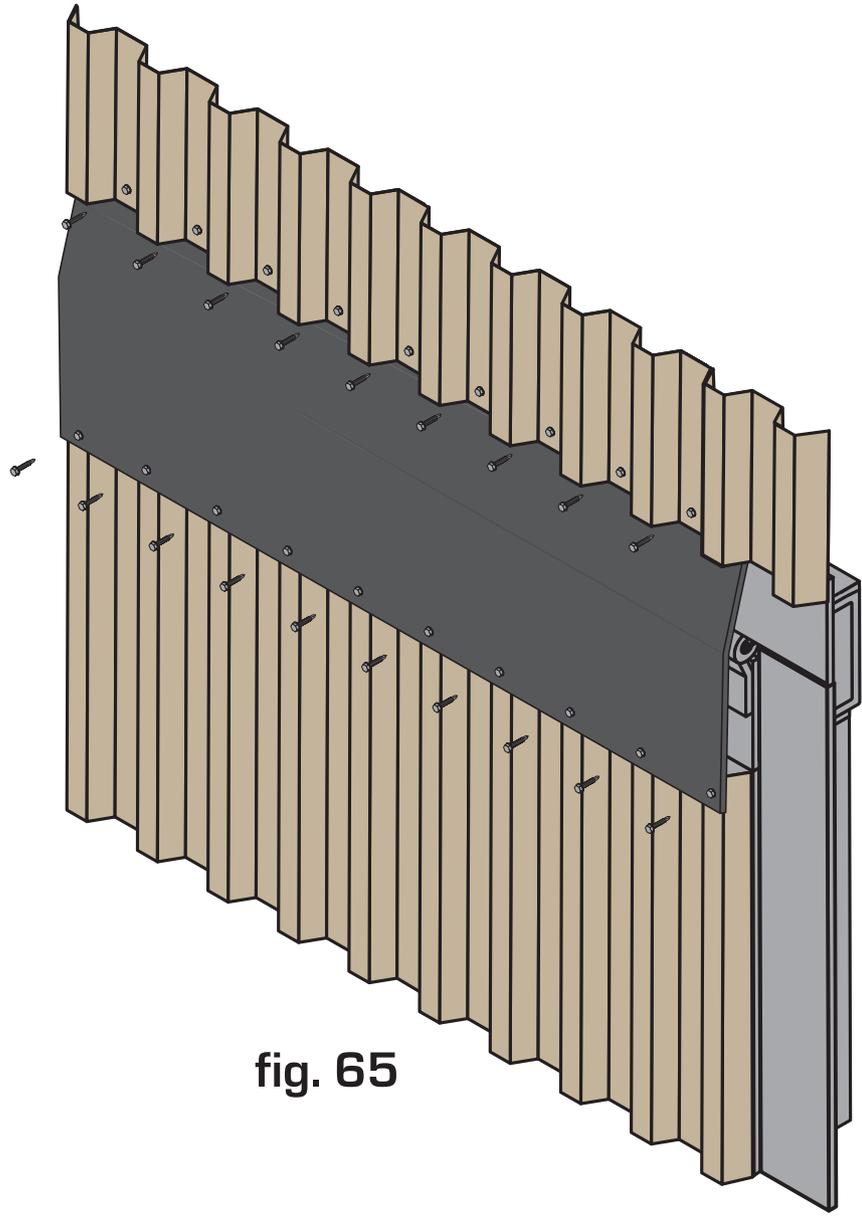
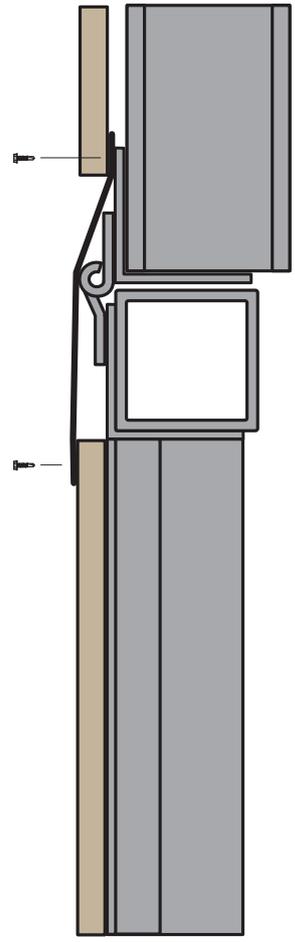
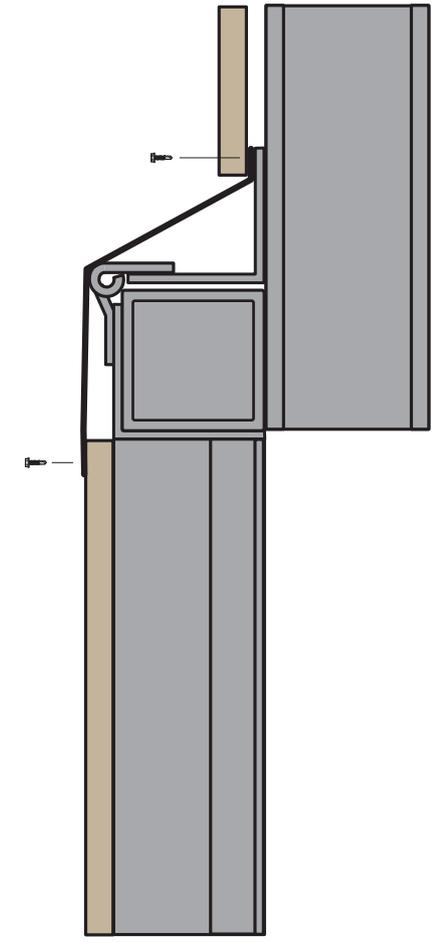


fig. 65

Flush Mount



Outside Mount



Operation

If door has never been opened or hydraulic fluid has been drained. Follow instructions in section "Initial Opening"

To open the door from a control panel, key station, or remote, ensure the area in front of the door is clear from people or obstructions.

If your door is fitted with cane bolts, make sure all of them are lifted before you attempt to open or close the door.

Press and hold the "Open" button.

The door may be opened up to 88°. Limiters built into the cylinders prevent overextension.

Release the button when the door is at the desired height.

The door may be left open at any angle however, doors should not be left unattended in the open position. Sudden changes in weather (wind) may necessitate the door being shut therefor it is best to leave doors in the closed position if unattended.

To close the door, simply hold the "Close" button until the door pulls itself tight against the jamb.

Built in valves in the pump unit will keep the door pulled closed.

We suggest you avoid putting the remote in your pocket as it may inadvertently cycle the door.

When using the remote, never drive away before the door is completely closed.

Auxiliary Operation

To operate the door with a secondary system (12V DC Backup, Tractor, etc.), First connect the secondary system to the hydraulic circuit.

Dedicated secondary systems like our 12V DC Backup should be left plumbed at all times.

If you plan to operate your door with a secondary system, it's a good idea to have two hoses on hand set up specifically for connecting to the secondary system.

You MUST have the same type of hydraulic fluid in both systems.

Connect the secondary hoses to the capped ends of the tee fittings near the pump.

Operate the door as appropriate with the type of secondary system you are using.

Disconnect the non-dedicated secondary system.

There is no risk of damage when operating the door with a dedicated secondary backup system like our 12V DC Backup. However, we recommend extreme care when non-dedicated equipment (tractor, skid steer) is used as it risks introducing contaminants into both systems.

Maintenance

Well Bilt Doors are designed to be very low maintenance. Door usage varies drastically between applications, so for uniformity we recommend that maintenance be carried out every year.

Hinges: Use a grease gun to pump grease into the hinges' grease zerks.

Pin Points: Lower pins only rotate 1/8 turn during operation and require

minimal lubrication. Upper pins have a much greater rotation and require regular greasing. Squeeze grease into zerks until a small amount squeezes out from around pin.

Paint: Retouch scratched or otherwise compromised primer with compatible primer. See painting section for details.

Fluid: Replace the hydraulic fluid in the reservoir every 2 years.

1. With the door closed, remove the reservoir plug and drain the oil.
2. Apply oil-tolerant thread seal to the plug and reinstall.
3. Refill with light hydraulic fluid like SAE 10 or ISO 32 (approximately 3 gallons).

If you plan to operate the door with a secondary hydraulic system (tractor), ensure you use the same type of hydraulic fluid.

Dispose of the old hydraulic fluid in accordance with local laws.

Troubleshooting

Door buttons work backwards

If you push the up button and the door goes down or vice versa check the following.

1. Make sure that the "up" DIN connector lights when the "up" button is pushed.
2. Make sure that the hydraulic lines and hoses are exactly as in the manual.
3. Make sure that the coil wires are on the proper coils.

Door opens only part way / Door opens then won't come down

Check hydraulic fluid level. Add a small amount and check level when door is down. Once system has been filled, oil level is around 3/4 full with door closed.

Pump squeals as door opens / Door opens slowly

Remove Aluminum cap on right side of pump viewed when facing valves. While raising door, turn screw in. Once squeal stops, turn screw in an additional 1/8 turn.

When adjusting, do not exceed the pressures in the table below. When complete, reinstall aluminum cap paying special attention to not over tightening cap.

2 HP 1800 psi

5 HP 2250 psi

7.5+ HP 3500 psi

Door bounces as it comes down / Door comes down too quickly

Loosen the set screw on the needle valve. Turn knob in (clockwise) until it stops. Turn back out 1 ½ turns.. Lower door and turn valve out until the door comes down smoothly.

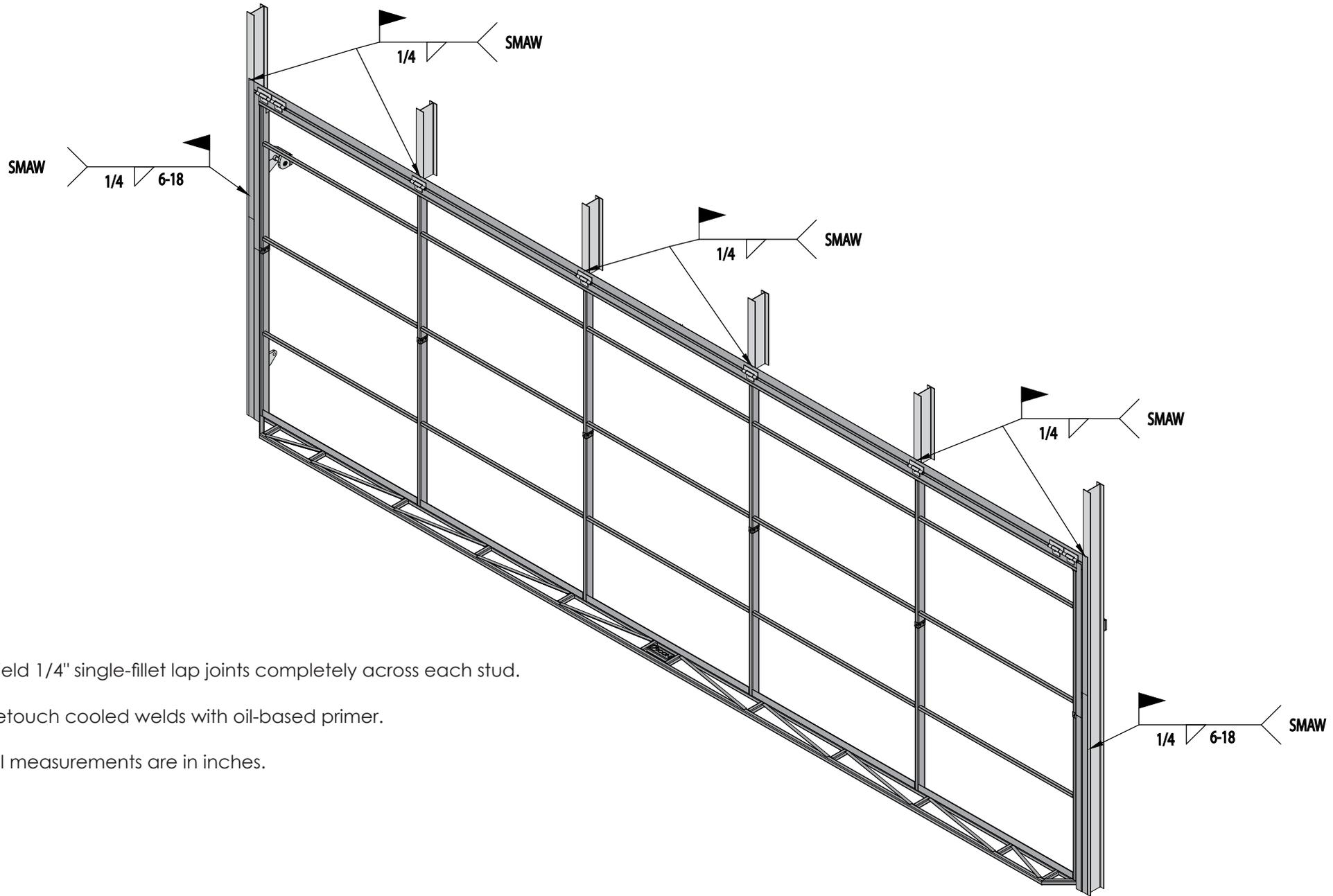


Note:

Do not completely tighten the pressure adjustment screw because it may crack the pump, voiding your warranty.

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Appendix B - Fitting Weld Schedule

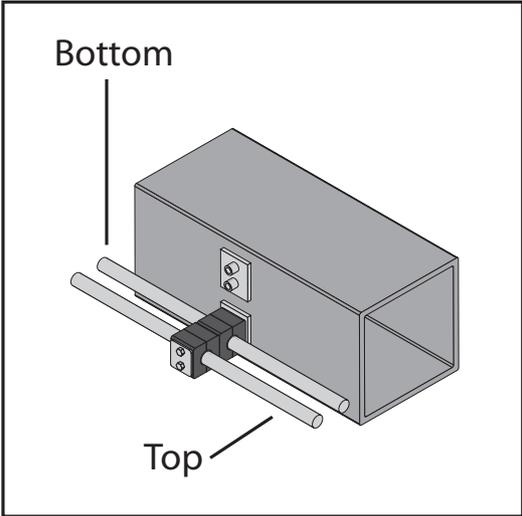


Weld 1/4" single-fillet lap joints completely across each stud.

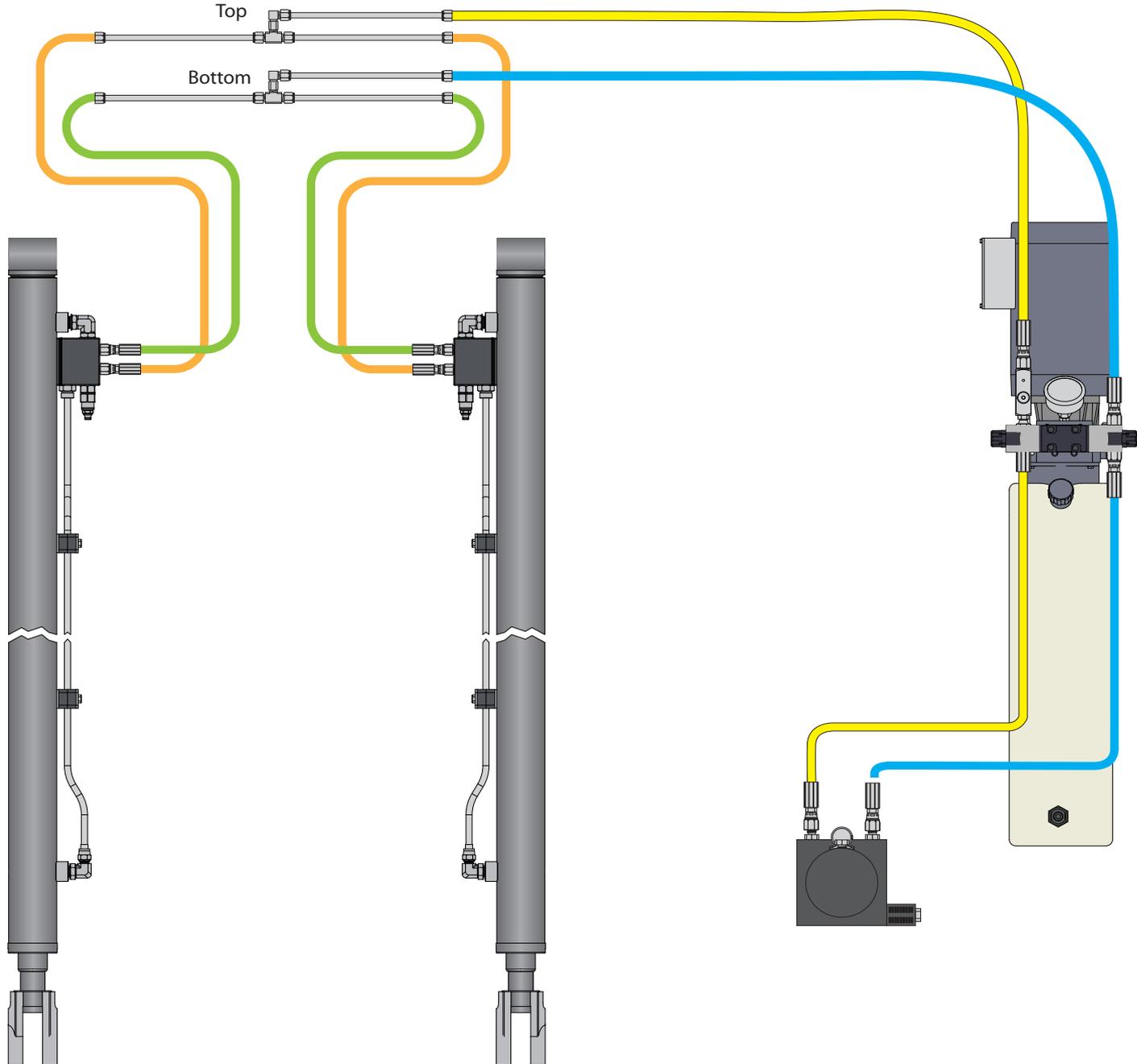
Retouch cooled welds with oil-based primer.

All measurements are in inches.

Appendix C - Hydraulic Diagram



The 12V DC Backup Unit shown at the bottom is optional. The hoses for connecting a 12V Backup Unit should be left connected.







Hydraulic Doors by Well Bilt Industries
American Owned | American Operated | American Built