

OWNER'S MANUAL



Set-up Instructions

Building
Truss End Walls

! READ BEFORE INSTALLATION !

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REV. C

P/N: 300590

SAFETY FIRST!



CONSTRUCTION IS A DANGEROUS ACTIVITY FOR EVEN AN EXPERIENCED BUILDING CONTRACTOR.

READ THE ENTIRE OWNER'S MANUAL BEFORE BEGINNING THE CONSTRUCTION PROCESS!

IF YOU ARE NOT EXPERIENCED IN SITE PREPARATION AND CONSTRUCTION WE RECOMMEND THAT YOU HIRE A PROFESSIONAL CONTRACTOR FOR A SUCCESSFUL AND SAFE PROJECT. FAILURE TO PREPARE AND CONSTRUCT IN A SAFE MANNER MAY RESULT IN SEVERE INJURY OR DEATH.



An inadequate foundation, pony wall or construction techniques may cause building damage, damage to contents or injury to people or livestock.

VBS makes no representations as to what is required to meet local foundation codes and conditions.

IMPORTANT WARRANTY INFORMATION!

- Completely fill out the Warranty Registration provided with each building
 - White Envelope contains the Warranty Registration Information
- Photos must be included to validate VBS Building Warranty
 - Sample Photos are provided with packet
- Send completed Warranty Registration to:
 - VBS at 3150 W. Wigwam Ave, Las Vegas, NV 89139
 - or ddahlem@visionbuildingsystems.com for electronic registrations - If electronic submissions are not clear, a hard copy will be requested by VBS



IMPORTANT INFORMATION FOR INSTALLATION OF VBS END WALLS

Framework supported End Walls must meet local wind load ratings and safety standards. If you are constructing framework support for fabric end panels supplied by VBS, the framework **MUST BE DESIGNED** to match the fastening system of the fabric end panel and must be constructed to meet load ratings and safe building standards. Failure to comply can result in damage to the building and will void fabric end panel warranty. Contact a structural engineer or your VBS representative for information.

END WALL INSTALLATION

STEP 1: Suggested Equipment/Tools/Supplies

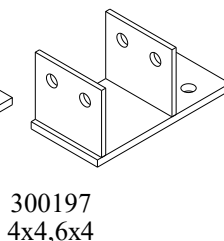
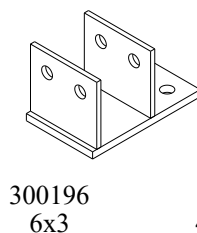
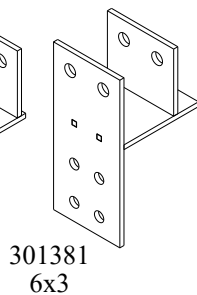
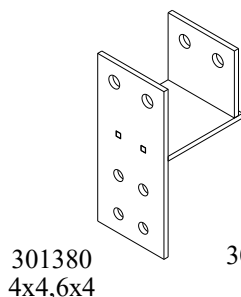
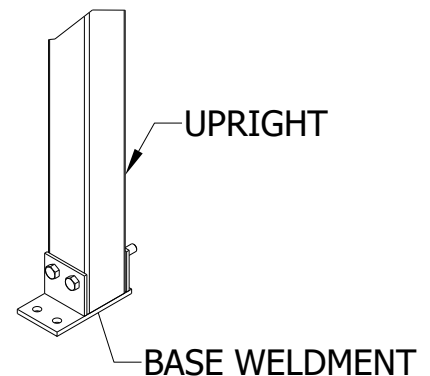
- Alignment string or device
- Measuring tape
- Movable scaffolding or a platform lift
- Square level
- Pull rope
- Wrenches and sockets
- Drill
- Driver and miscellaneous bits
- Hacksaw
- **Optional**—power wrench

STEP 2: Locate Uprights & Headers - Reference the drawing with the packing slip for the size and placement of uprights.

- Refer to the drawing enclosed with the fabric end wall for installation dimensions.
- Custom ends will be determined by user's needs.

STEP 3: Assemble Uprights

- If base supplied separate, assemble base to tube, drill holes clearance holes for 5/8-11 cap screws. Secure with supplied fastening hardware, cap screws, washers and nuts. (either 5/8-11 x 5" cap screws for 6x3, or 5/8-11 x 6" cap screws for 4x4 and 6x4)
- Loosely install saddles directly above upright locations, with carriage bolts, washers and nuts.
- Measure from base location to saddle pivot.
- Drill 3/4" clearance hole on upright from base to measured dimension.
- Cut off excess material above hole allowing no less than 1/2" thickness.

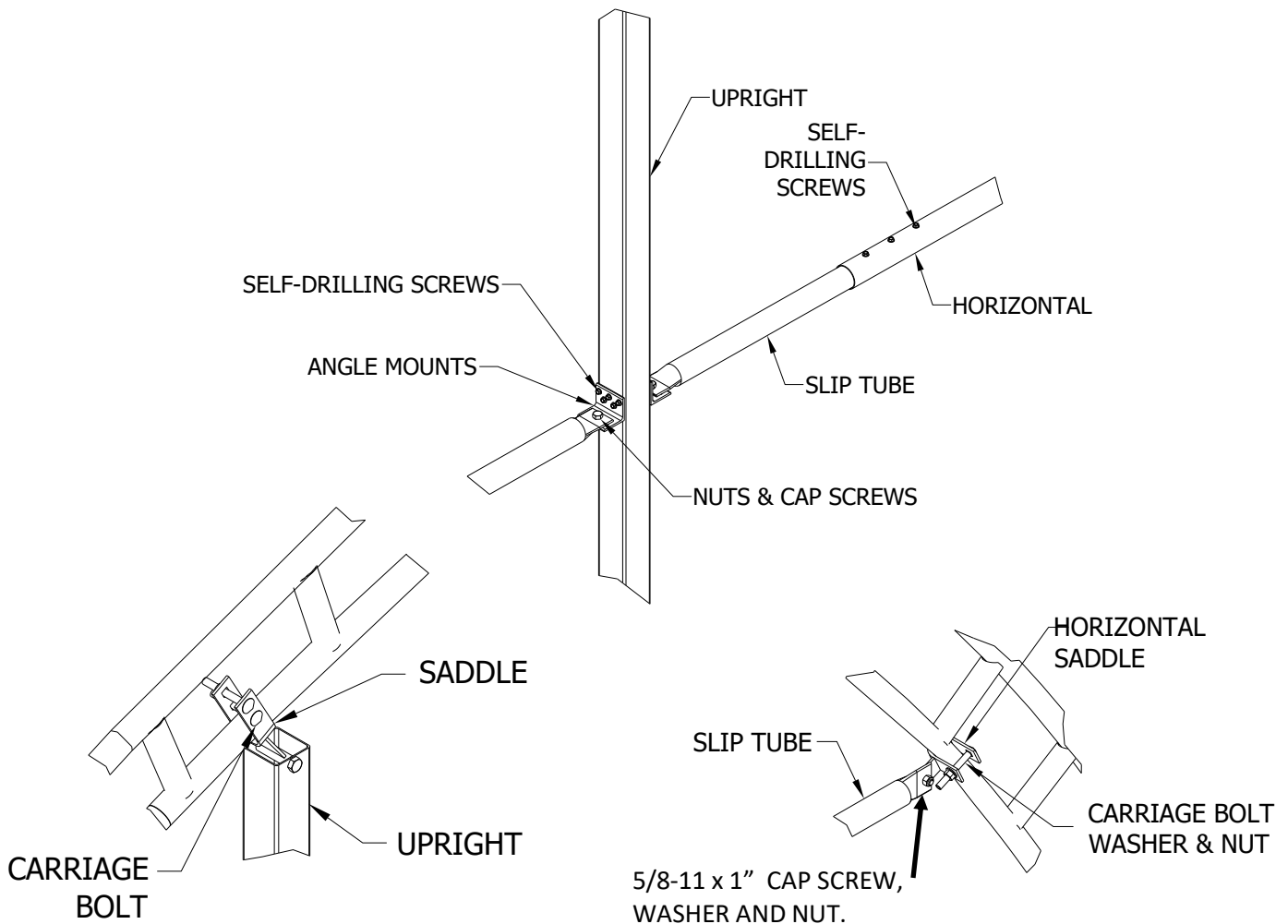


STEP 4: Place Uprights

- Safely hoist uprights into place.
- Attach saddle to upright with 3/4-10 cap screw, washer and nut. (5" long cap screw for 4x4 and 6x4, 7" long cap screw for 6x3)
- Anchor upright to foundation with customer supplied hardware.
- Secure cap screws.

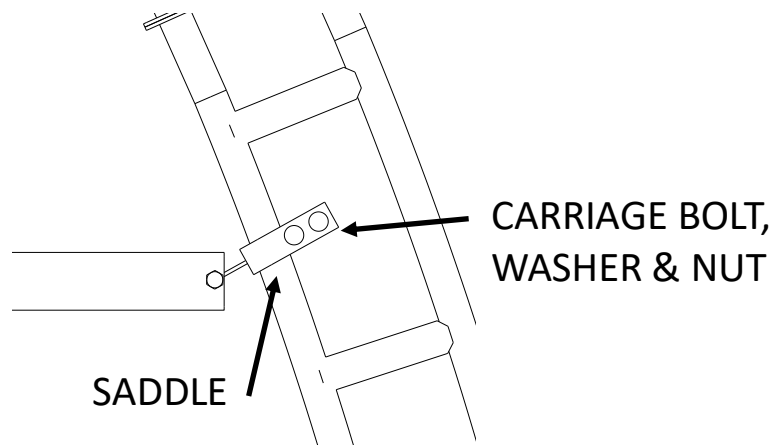
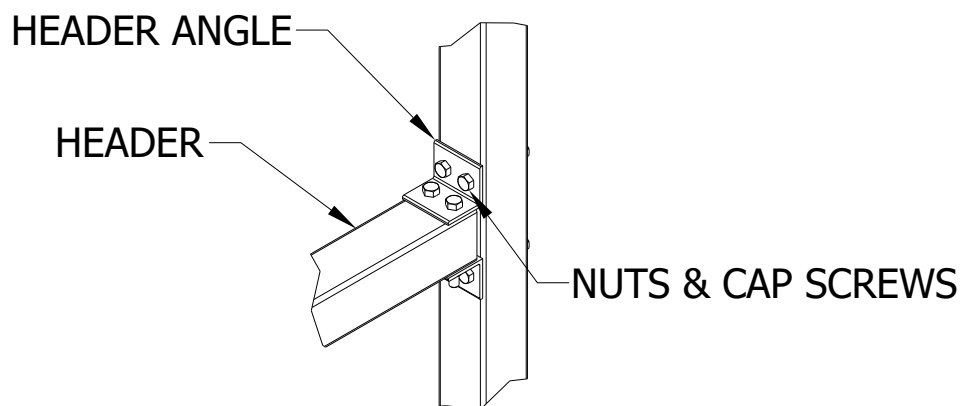
STEP 5: Install Horizontals

- **Note: Some horizontals may be supplied with excess length . The horizontals should be laid out prior to install and cut if necessary.**
- Note height on supplied drawing.
- Fasten angle mounts to upright with supplied 5/16 x 1" self drilling screws.
- Slide slip tube partially into horizontal.
- Fasten horizontal tubes to angle mounts using 5/8-11 x 1" long cap screws, washers and nuts. Continue inserting the slip tube into horizontal tube and secure to angle mounts or horizontal saddles.
- Truss ends are secured with horizontal saddle (see diagram).
- Secure slip tube to horizontal with 3, 5/16 x 1" self-drilling screws. **Note: Self drilling screw heads should be installed seated away from the fabric.**



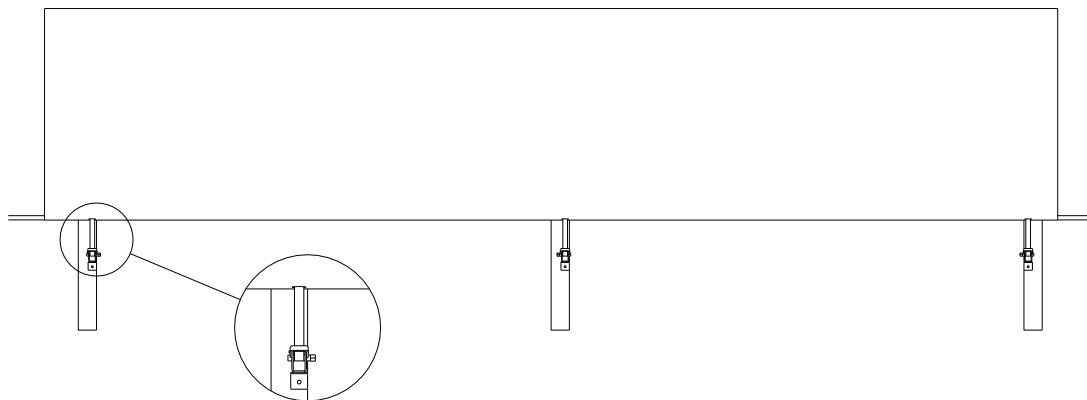
STEP 6: Install Header(s) (If Supplied)

- Standard header is a 4x4 square tube.
- Measure the distance between the uprights and cut header to fit in between.
- Install angle brackets with provided fasteners. (5/8-11 cap screws and nuts, 5" cap screws for 4x4 uprights, 6" cap screws, for 6x3 or 6x4 uprights)
- Drill clearance holes in header to set 5/8-11 cap screws.
- Place header and secure with 5/8-11 cap screws and nuts.



STEP 7: Install Lashing Winches

- Mount winch 18-24" below rub rail.
- Installer responsible for meeting local anchor codes.

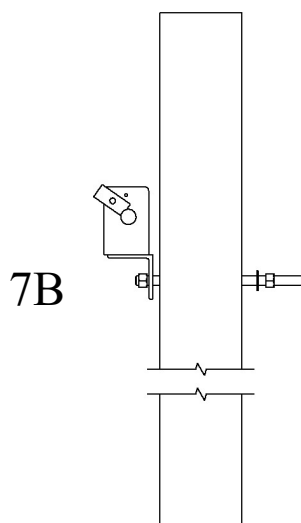
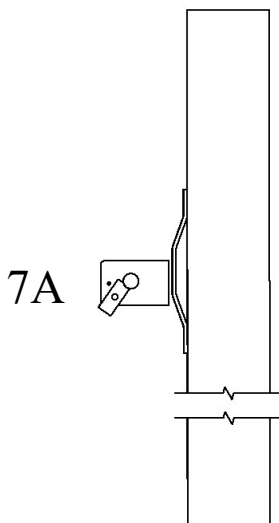


STEP 7A: Concrete Mount

- Mounts are attached to wall with customer supplied anchors.

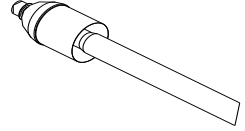
STEP 7B: Through Post Mount

- Drill through post for 5/8" bolt.
- Place washer and spin one nut onto threaded rod.
- Insert into drilled hole; washer to inside of post.
- Place mount on rod, outside of building.
- Secure mount firmly, tightening nut until both mount and washer have slightly compressed into post.
- Even and/or trim excess rod as desired.
- Mount winches on top of angle with 5/8" x 1.25" cap screws.



STEP 8: Assemble Tension Tube

- Unfold end wall fabric.
- Protect end of 2 3/8" main tension pipe (suggestion - use a 20 oz. pop bottle with the bottom cut off and duct tape the funnel end onto the pipe).
- Slide first section into pocket along length of cover (capped end first).
- Slide next section of pipe into swage and secure with self drilling screws. Make sure screw heads are facing top of pocket so that they do not interfere with sliding pipe into pocket. This will prevent screws from coming in contact with the cover once the cover is tied down.
- In this manner, continue to add pipe sections until assembly of tension tube is complete.
- **Note: One section of pipe may need to be cut for proper length.**

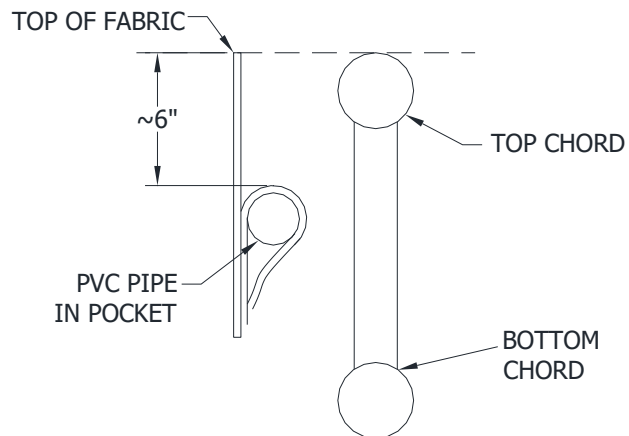
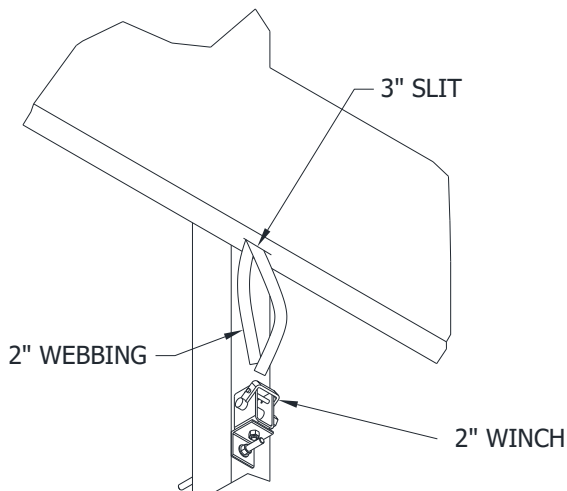


STEP 9: Install End wall PVC Pipe

- Along the arch of the end wall there is a PVC pipe pocket on the inside. Push-Pull the PVC into the pocket. Glue the lengths of PVC together as you proceed.
Hint- A small funnel or cone (not supplied) on the leading edge of the PVC will help spread the PVC pocket.
- **IMPORTANT-** Install a self-drilling screw, 12-24 x 7/8" long, at every connection. We cannot guarantee the supplied PVC glue has not been subject to freezing temperatures.
Hint: PVC tubes should slide easily into the pockets. Do not force. Check for twisted fabric or misaligned pocket openings if you experience difficulty.

STEP 10: Install End wall

- If main cover is installed, loosen end flaps.
- Hoist fabric to top of top cord of truss (PVC pipe is approximately 6" from the top).
- Attach to arch with 1" cam buckles.
 - a) Attach at top of arch and work down each side attaching to every slot.
- Make a 3" slit at each winch location in the bottom of the main pull tube pocket.
- Feed 2" strap thru slit, around pull tube and back out of the slit. Feed both open end thru 2" winch and into the winch.
- Attach to uprights with 1" ratchets. See figure A on page 7.
 - a) **STANDARD:** Attach to every other slot
 - b) **OPTION:** Attach to every slot (if purchased)

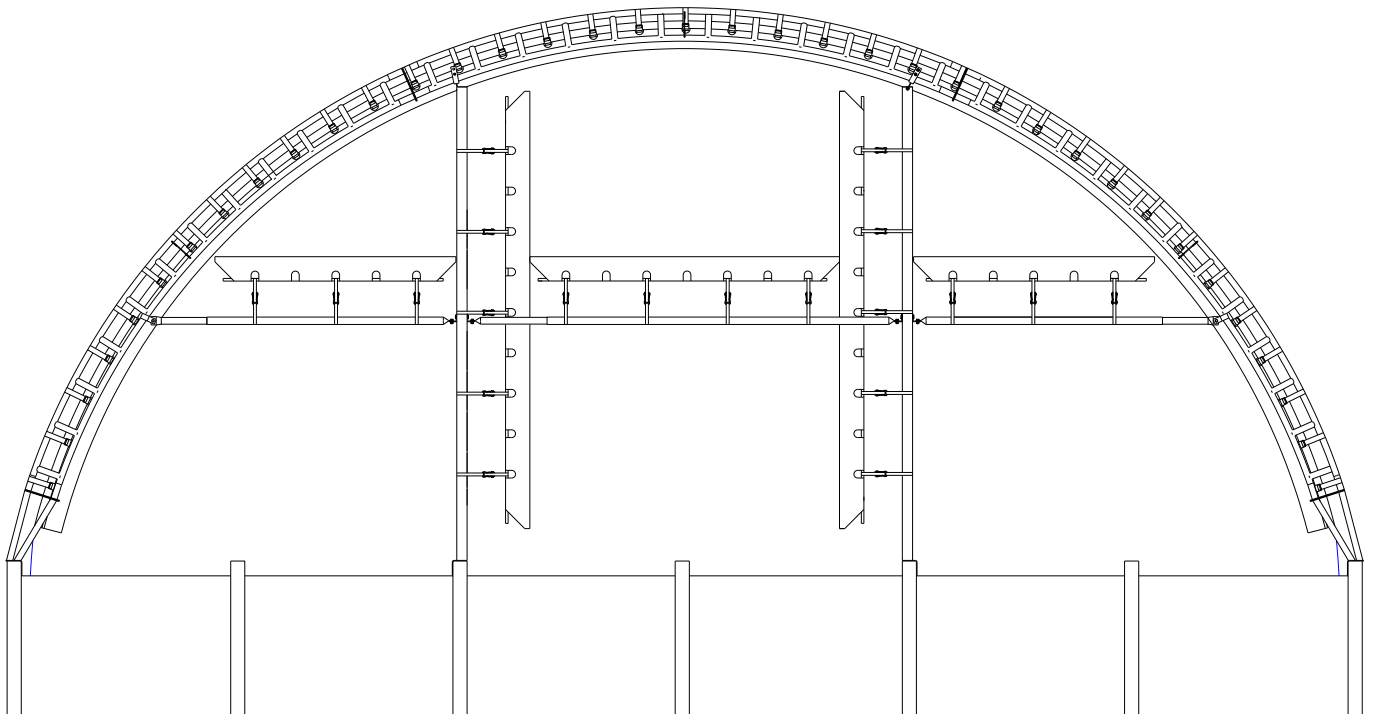


STEP 10: Tighten End Walls

- Tension 2" winch.
- Install cotter pins on winches if supplied.
- Check tension on cam buckles around arch and uprights. Re-tension if necessary.
- Re-secure main cover end flap if previously loosened.
- Trim tension tube to width of building and install end caps.

STEP 11: Enjoy your VBS Products!

FIGURE A - INSIDE VIEW



Information for installation of Suspended objects in a VBS Building

Always suspend weighted objects from truss arches, **not purlins or bracing**. Attach to the **lower chord only**, and only using clamps for attachment to **avoid drilling or piercing chord**. Do not attach anything to building brackets or hardware; **never use the truss webbing as an attachment point**.

When mid-bay suspensions are required, use a separate member committed only to the suspension. **Do not use purlins or bracing**. In some cases, a special bracing, capable of supporting weighted objects may be provided instead standard purlins – **always contact a structural engineer or your VBS representative before altering building in any way**.

Exceptions to above can include lightweight roof vents, very simple lighting fixtures (without ballasts or transformers), electrical wiring, or control cables. Always secure with clamps or ties; do not penetrate any tubing provided as part of your building without consulting with a structural engineer or your VBS representative.



Owners Maintenance and Adjustment Reminders

Maintenance Schedule

Failure to comply with this maintenance schedule will invalidate the warranty.

- **INSTALLATION ADJUSTMENT** - The fabric on your VBS BUILDING may relax after installation. It is important to keep the fabric tight to prevent wear and ensure a long life. Adjust the fabric to remove as many wrinkles, creases and bagging as possible.

NOTE: *Fabric installed during cooler weather tend to relax more than covers installed during warmer weather. If installation was done in cooler weather re-check its tightness on the first available sunny warm day.*

- **INSTALLATION INSPECTION– 1 WEEK**

- Cover Tension and for Wear/Abrasion
- Cable Tension and for Wear/Abrasion (Main Cover Only)
- End Flap Tension and for Wear/Abrasion
- Belting Tension and for Wear/Abrasion
- Frame for Stress, Cracking, Rust, Loose Fasteners
- Steel– Seal all surface penetration marks with a sealant or high zinc content paint

- **QUARTERLY MAINTENANCE AND FOLLOWING EACH HIGH WIND OR WEATHER EVENT**

- Cover Tension and for Wear/Abrasion
- Cable Tension and for Wear/Abrasion (Main Cover Only)
- End Flap Tension and for Wear/Abrasion
- Belting Tension and for Wear/Abrasion

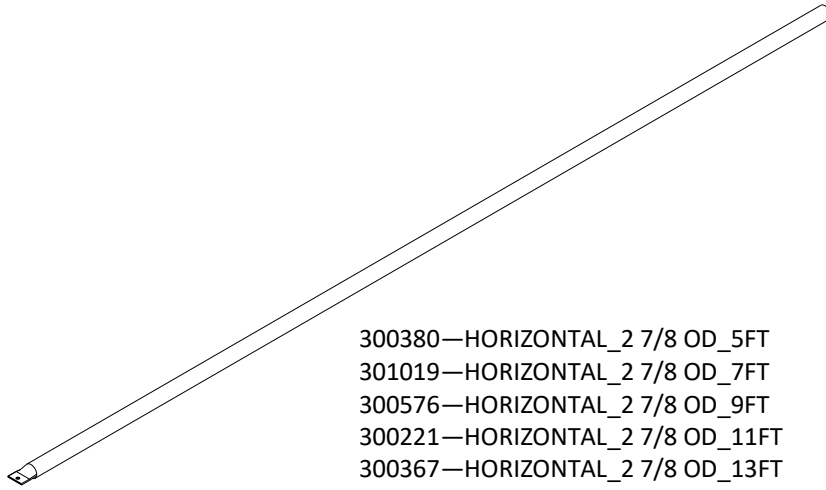
- **GENERAL MAINTENANCE**

- **Cover**– Clean with water and non-abrasive soap. Do not use solvents or chemicals. Use caution when using high pressure washers.
- **Snowfall**– Snow accumulating on the cover could indicate that the cover needs re-tensioning. Remove snow and check tension. Severe Snow buildup should be corrected or damage will occur. Use caution when using equipment to clear away snow. Do not use sharp objects to clear snow .

- **ACCIDENTAL DAMAGE**

- **Cover:** Sharp objects can perforate and damage the cover. Do not attempt to repair with conventional materials. Call your local authorized VBS representative. He can assess the damage and initiate replacement or provide a heat-weld repair service.
- **Structure:** Report and document any damage to the steel structure, components or foundation immediately.
- Have your local authorized VBS representative inspect the damage and provide a thorough evaluation; perform any temporary or emergency repairs as determined, replace or repair damaged components as determined.

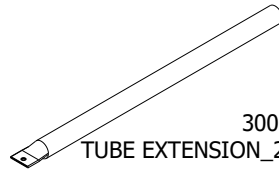
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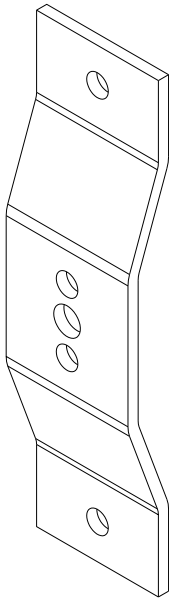
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- 301019—HORIZONTAL_2 7/8 OD_7FT
- 300576—HORIZONTAL_2 7/8 OD_9FT
- 300221—HORIZONTAL_2 7/8 OD_11FT
- 300367—HORIZONTAL_2 7/8 OD_13FT
- 301020—HORIZONTAL_2 7/8 OD_15FT
- 300310—HORIZONTAL_2 7/8 OD_17FT
- 300217—HORIZONTAL_2 7/8 OD_21FT



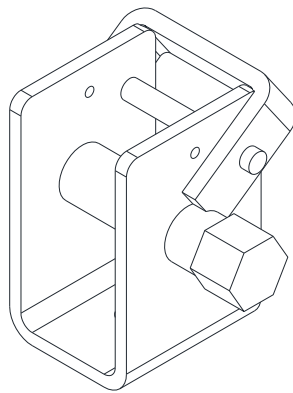
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COTTER PIN_3/16 DIA X 1 1/2 LG_ZP



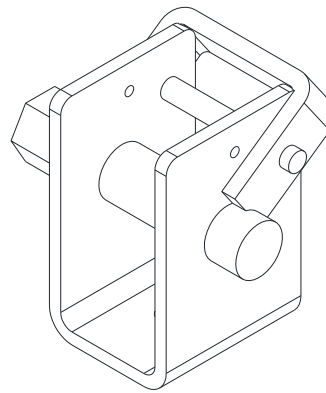
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TUBE EXTENSION_2 5/8 OD_46 3/4 LG



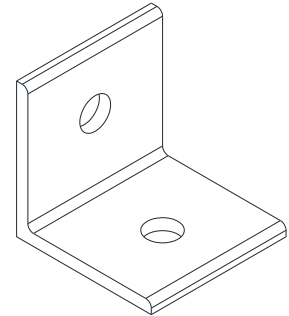
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RATCHET LASHING BRKT
2_CONCRETE ANCHOR



200240
LASHING WINCH_2_LEFT HEX_1 HOLE



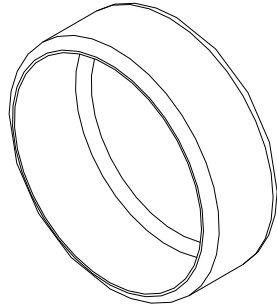
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LASHING WINCH_2_RIGHT HEX_1 HOLE



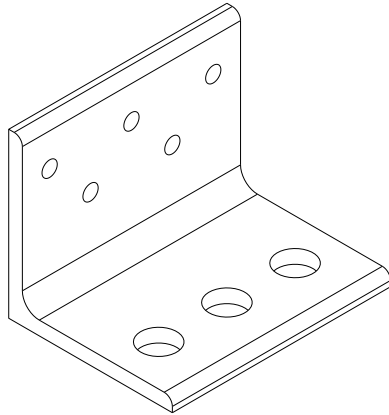
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WINCH MOUNT ANGLE_3 X 3 X 3/8_3 LG

Part quantities will vary according to building configuration. Check your packing slip for exact parts and quantities.
KEEP ALL PACKING SLIPS AND REFER TO APPROPRIATE NUMBERS IN ANY COMMUNICATION WITH DEALER OR MANUFACTURER.

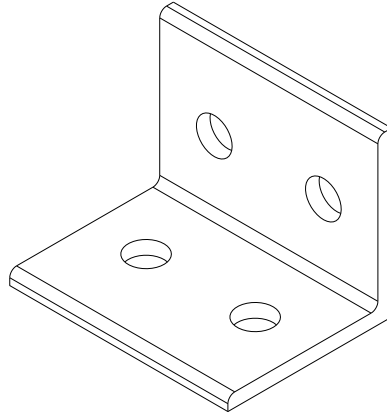
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CAP_2.375 OD X 1_VINYL_GRAY



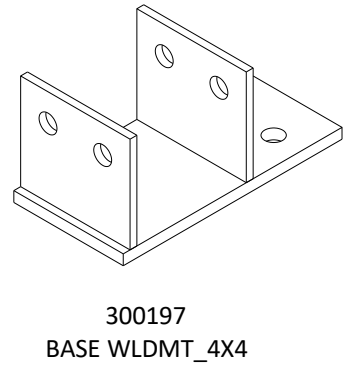
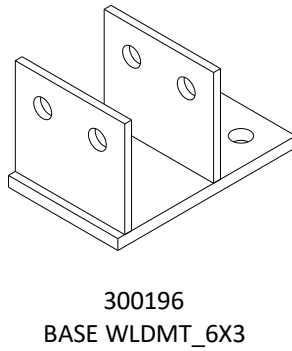
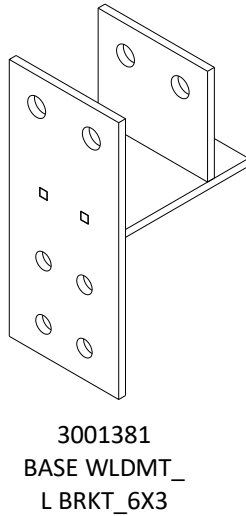
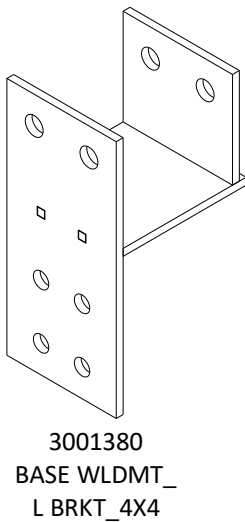
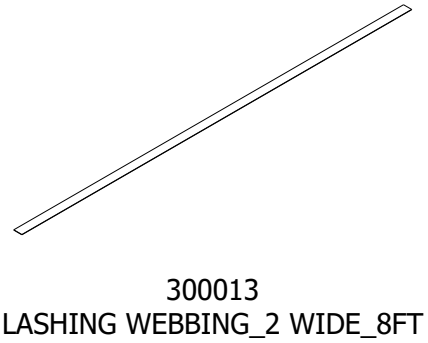
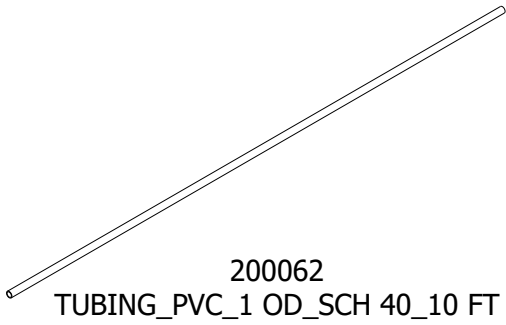
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HEADER ANGLE_3 X 3 X 1/4_4 LG

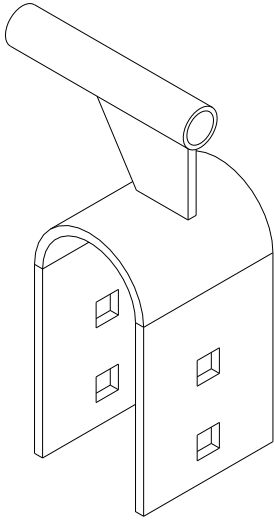
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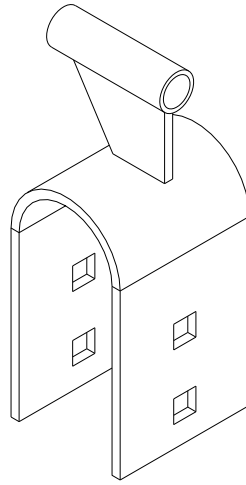


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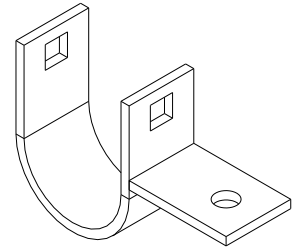
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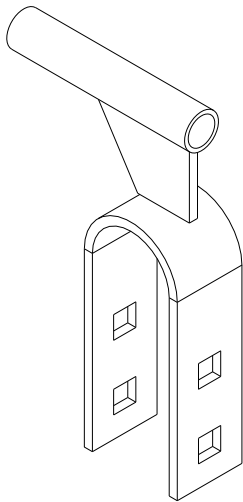
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TOP SADDLE WLDMT_2 7/8_6 IN



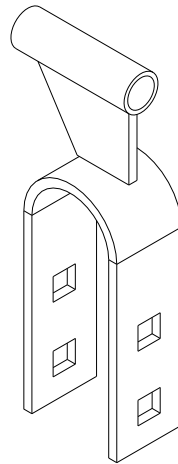
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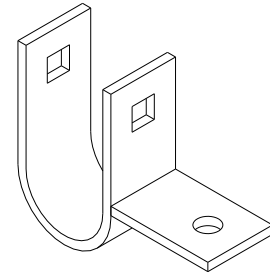
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300257
TOP SADDLE WLDMT_2 3/8 SADDLE_6 IN



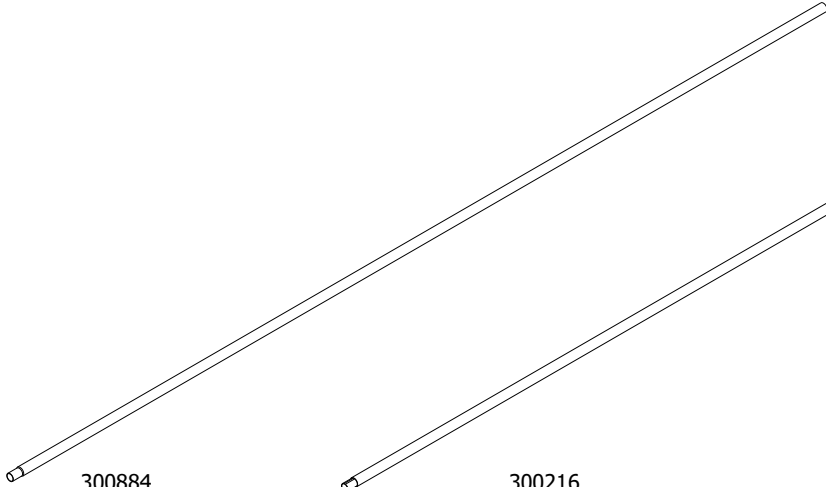
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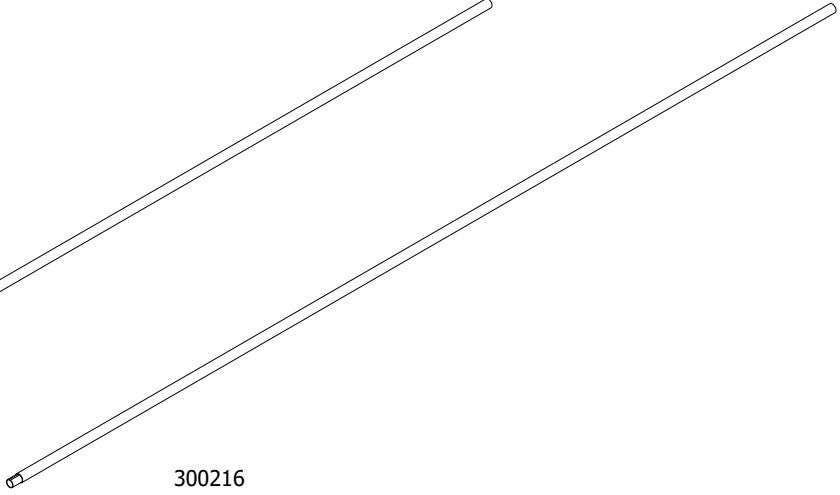
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2 3/8 HORIZONTAL SADDLE WELDMENT

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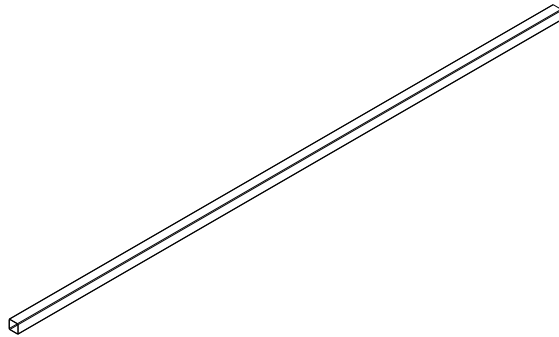
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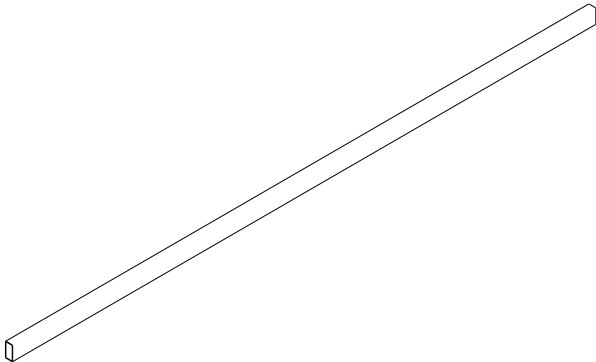
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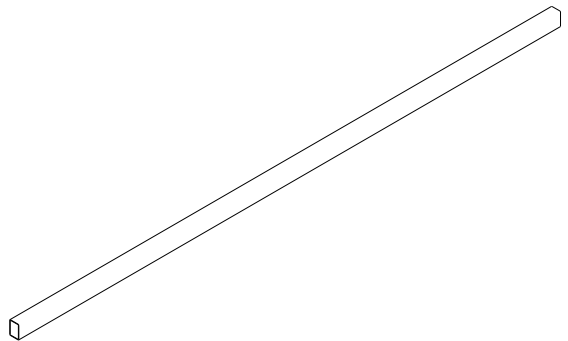
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FASTENING TUBE_2 3/8 OD_267 LG



TUBING-4X4



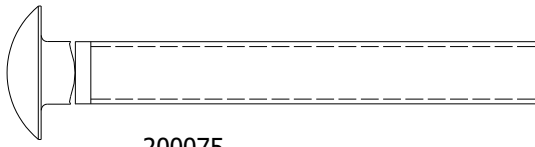
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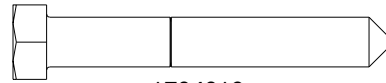
TUBING-6X4

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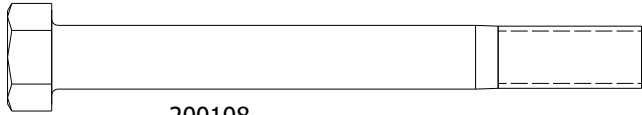
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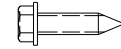
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CARRIAGE BOLT_5/8-11 X 5_G5



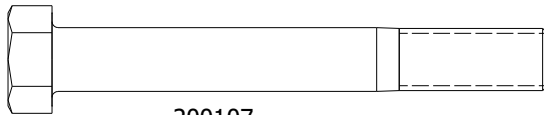
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LAG SCREW_HEX HD_1/2 X 3 1/2



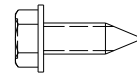
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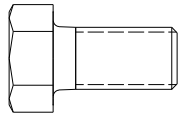
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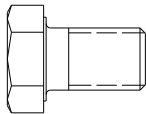
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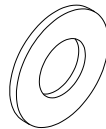
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SELF-DRILL SCREW_HEX WASHER HD_5/16 X 1



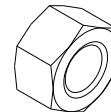
200102
CAP SCREW_HEX HD_5/8-11 X 1 1/4_G5



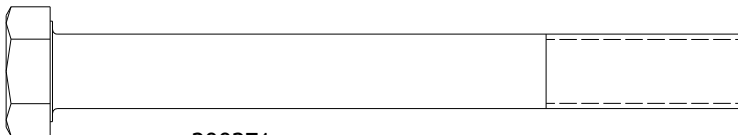
200081
CAP SCREW_HEX HD_5/8-11 X 1_G5



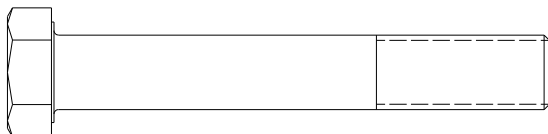
1201342
FLAT WASHER_5/8_SAE



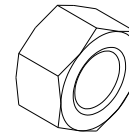
200349
HEX NUT_TOP LOCK_5/8-11_G5



200271
CAP SCREW_HEX HD_3/4-10 X 7_G5



200347
CAP SCREW_HEX HD_3/4-10 X 5_G5



1202587
HEX NUT_TOP LOCK_3/4-10_G5

Part quantities will vary according to building configuration. Check your packing slip for exact parts and quantities.
KEEP ALL PACKING SLIPS AND REFER TO APPROPRIATE NUMBERS IN ANY COMMUNICATION WITH DEALER OR MANUFACTURER.