

ESS / HSS END SYSTEMS

Owner's Manual

GROUND & WALL MOUNT

TAS MODEL 220/320

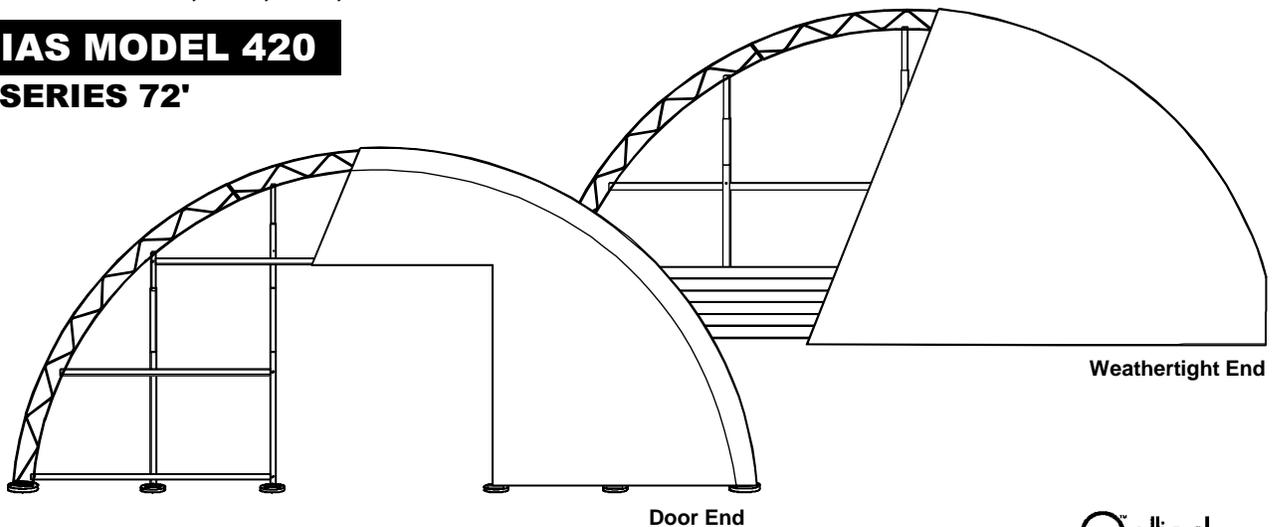
SERIES 30', 40', 50', 62'

TAS MODEL 320

SERIES 18', 32', 42', 55'

IAS MODEL 420

SERIES 72'



INCLUDES

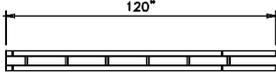
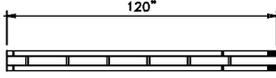
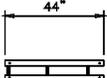
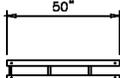
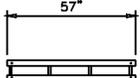
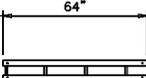
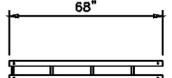
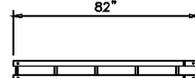
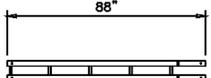
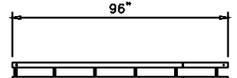
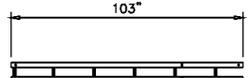
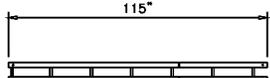
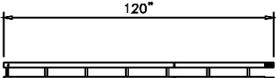
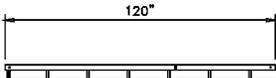
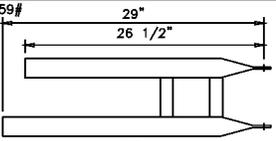
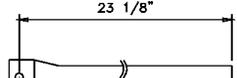
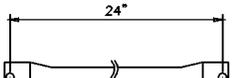
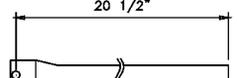
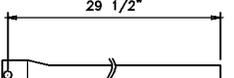
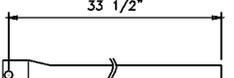
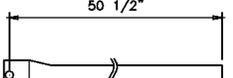
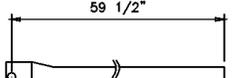
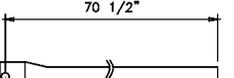
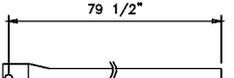
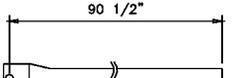
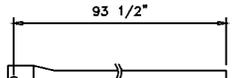
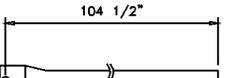
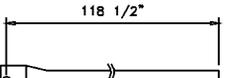
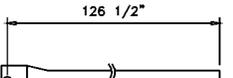
ESS/HSS FRAME
END PANELS
ROLL-UP DOORS
POST & BEAM

FOUNDATIONS

ESS/HSS
DURATRAC DOORS
COMMERCIAL OVERHEAD DOORS
ROLL-UP DOORS
POST & BEAM

DURAWEAVE®
End Panels

ESS End Components

| | | | |
|---|---|---|---|
| <p>43.91#</p>  <p>B2</p> <p>ESS VERTICAL LADDER BASE ASSEMBLY 330005</p> | <p>43.63#</p>  <p>B1</p> <p>ESS VERTICAL LADDER BASE SWAGED ASSEMBLY 330008</p> | <p>7.34#</p>  <p>I11</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330010</p> | <p>12.08#</p>  <p>I10</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330015</p> |
| <p>15.76#</p>  <p>I9</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330020</p> | <p>17.76#</p>  <p>I8</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330025</p> | <p>20.44#</p>  <p>I13</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330028</p> | <p>22.82#</p>  <p>I7</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330030</p> |
| <p>24.16#</p>  <p>I12</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330032</p> | <p>27.50#</p>  <p>I6</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330035</p> | <p>29.20#</p>  <p>I5</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330040</p> | <p>31.22#</p>  <p>I15</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330042</p> |
| <p>34.22#</p>  <p>I4</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330045</p> | <p>36.60#</p>  <p>I16</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330048</p> | <p>40.94#</p>  <p>I3</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330050</p> | <p>42.64#</p>  <p>I1</p> <p>ESS VERTICAL LADDER INSERT SWAGED ASSEMBLY 330055</p> |
| <p>42.64#</p>  <p>I2</p> <p>ESS VERTICAL LADDER INSERT ASSEMBLY 330060</p> | <p>13.59#</p>  <p>E3</p> <p>ESS VERTICAL LADDER EXTENSION TAS / IAS ASSEMBLY 330064</p> | <p>3.68#</p>  <p>X1</p> <p>ESS HORIZONTAL EXTENSION Ø1.9" - 13 GA 330070</p> | <p>2.94#</p>  <p>H19</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330071</p> |
| <p>2.46#</p>  <p>H11</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330072</p> | <p>3.51#</p>  <p>H8</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330075</p> | <p>3.97#</p>  <p>H12</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330078</p> | <p>5.95#</p>  <p>H7</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330080</p> |
| <p>7.00#</p>  <p>H13</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330082</p> | <p>8.29#</p>  <p>H6</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330085</p> | <p>9.54#</p>  <p>H9</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330088</p> | <p>10.62#</p>  <p>H5</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330090</p> |
| <p>10.97#</p>  <p>H15</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330093</p> | <p>12.25#</p>  <p>H4</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330095</p> | <p>13.88#</p>  <p>H3</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330100</p> | <p>11.82#</p>  <p>H16</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330102</p> |



IMPORTANT – READ MANUAL FIRST

Improper Site Preparation, Assembly and Maintenance may invalidate warranty and cause unnecessary and costly mistakes. If you have any questions contact your local dealer.

MAINTENANCE SCHEDULE

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

A. INSTALLATION ADJUSTMENT

1. The end panel on your Cover-All™ building may relax after installation. It is important to keep the fabric tight to prevent wear and ensure a long life.

NOTE: *End panels installed during cooler weather tend to relax more than covers installed during warmer weather. If your end panel was installed in cooler weather recheck its tightness on the first available warm sunny day.*

B. INSTALLATION INSPECTION - 1 WEEK

1. Perimeter lacing - ensure the belting is secure and the end panel is tight.
2. Interior lacing - ensure the end panel is fastened tightly to the vertical and horizontal members.
3. Belting - check for premature belting wear.
4. Steel - Seal all surface penetration marks with a sealant or high zinc content paint.

C. QUARTERLY MAINTENANCE

1. Repeat above "INSTALLATION INSPECTION - 1 WEEK" a minimum of 4 times per year.

D. GENERAL

1. Fabric - Clean with water and non-abrasive soap. Do not use solvents or chemicals.

E. ACCIDENTAL DAMAGE

Fabric: Sharp objects can puncture and damage the DURAWEAVE™ fabric. Do not attempt to seal or repair with conventional materials. Call your local Cover-All™ representative. He can assess the damage and facilitate replacement or provide a heat-weld service if the fabric is repairable.

Damage under 4": A gel tape is available from your local representative for temporary repair of fabric damage under 4". A heat-weld repair should be scheduled as soon as possible.

Structure: Report and document any damage to the steel structure, components or foundation immediately. Have your local Cover-All™ representative inspect the damage and provide a comprehensive evaluation. Perform any temporary or emergency repairs as determined. Replace or repair damaged components as determined.

Other: Any fabric or structural irregularities not resulting from accidents or extreme weather should be documented and reported immediately. Have your local Cover-All™ representative inspect the damage and provide a comprehensive evaluation.

REPLACE BENT OR DAMAGED DOOR TUBES IMMEDIATELY

BENT OR DAMAGED TUBES CAN FAIL IN HIGH WINDS AND CAUSE SERIOUS DAMAGE

IMPORTANT

COVER-ALL BUILDING SYSTEMS™ IS NOT RESPONSIBLE FOR ANY DAMAGES WHICH MAY OCCUR DURING INSTALLATION

**IMPORTANT: The instructions and illustrations are for a Standard ESS End Enclosure System and Standard ESS DURATRAC Door End enclosure.
ROLL-UP DOORS foundation - See APPENDIX A, Page 20.**

**Foundation requirements are the responsibility of the individual purchaser as soil conditions vary from location to location.
Please check with a qualified engineer in your area to ensure adequate pile/post installation.**

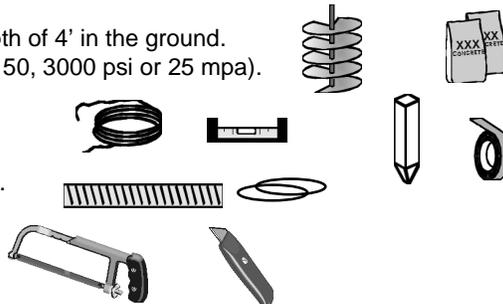
If you have any questions contact your local dealer.

REQUIRED EQUIPMENT AND MATERIALS

NOTE: Materials specified are for installing ESS ends on ground piles or a 4' (48") wall or a 6' (72") wall. Adjust material requirements if walls are not the specified height and check with a geotechnical engineer for the recommended pile/post specifications. If end wall configuration changes significantly check with your Cover-All™ Dealer for loading on piles/posts.

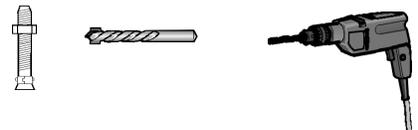
PILES and POSTS

1. Post hole auger with a 18"-20" diameter to drill to a depth of 4' in the ground.
2. Concrete (recommended concrete specifications: Type 50, 3000 psi or 25 mpa).
Eg. A 20" hole 4' deep requires 1/3 yard.
3. String and string level for alignment.
4. Stakes and tape to mark the pile locations.
5. 5/8" rebar and #3 circular ties as required—see Page 5.
6. Square level.
7. Knife
8. Hacksaw
7. **Optional** -A transit (available from a local rental store)



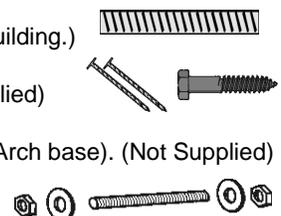
PILES

1. 3/8" X 4" tapered anchor bolts. Two (2) for each pile. (Not Supplied)
2. Drill and concrete bit for anchor bolts.



POSTS

1. 6" x 6" (minimum) or 6" x 8" posts or posts equivalent to ones used in building.
2. 2" x 10" dimensional lumber to use as a top plate. (Enough to span 2 widths of the building.)
3. Two (2) pieces of 5/8" (minimum) rebar, 12" long, for each post.
4. 3/8" x 3 1/2" lag bolts to fasten the base of the ESS to posts (2 per base). (Not Supplied)
5. 3 1/2" spiral nails to fasten the top plate to posts (2-4 per post). (Not Supplied)
6. 5/8" x 12" threaded rod, nuts and washers to mount lashing winches (1 per Ess and Arch base). (Not Supplied)
7. 5/8" bit for threaded rods.



FRAME

1. Drill and 1/2" drill bit.

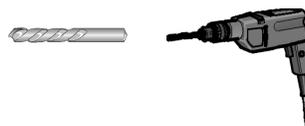




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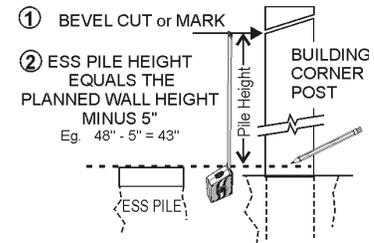
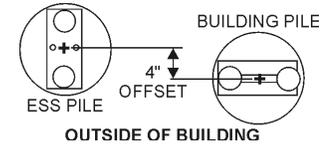
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A - WT4 and WT05 - PILES

The ESS frame fits between the pile and the lower truss tube.

IMPORTANT – NON-STANDARD DURATRAC & COMMERCIAL OVERHEAD DOORS – SEE FOUNDATION INSTRUCTIONS THAT COME WITH THAT DOOR.

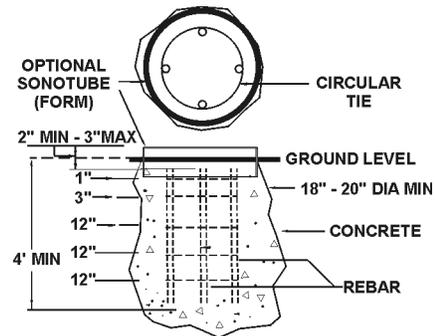
- Use the diagrams on Pages 6 through 12 to determine the locations of the piles for your end wall. **All ESS piles are offset 4" to the inside** of the building. Always use center-to-center measurements.
- The piles **must be** the correct height - **there is only a small amount of adjustment in the vertical ladders.**
- WT4** - It is recommended that ESS piles height be determined from installed building corner posts. Pouring the ESS piles the same height as the building corner piles is acceptable provided the corner piles are all level and there will be no changes to, or deviations from, the recommended installation and finishing procedures for the building's posts.
- WT05** - Pour the ESS piles the same height as the building piles.
- Drill holes 18" in diameter (minimum) and 4' deep (minimum). *Your soil and frost conditions may warrant a larger or deeper pile - check with a qualified engineer before drilling.*



REBAR AND FORMS

A 4' pile requires five (5) #3 circular ties.

- The circular ties should be placed as follows:
1st tie - 1" from the top end of the rebar.
2nd tie - 3" on center below the first tie.
3rd tie - 12" on center below the 2nd tie.
4th & 5th ties - every 12" on center.
- Place rebar, drainage and sonotubes (optional forms) in each hole.
Check offset and center-to-center distances.
- Use an accepted method to determine a level height for the piles. The sonotubes (forms) *should not exceed 6" above ground level.*
- Center the rebar, set the height of the rebar, and secure in position.
- Pour concrete level in the sonotubes (forms) using proper concrete pouring techniques.

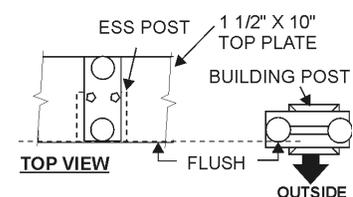


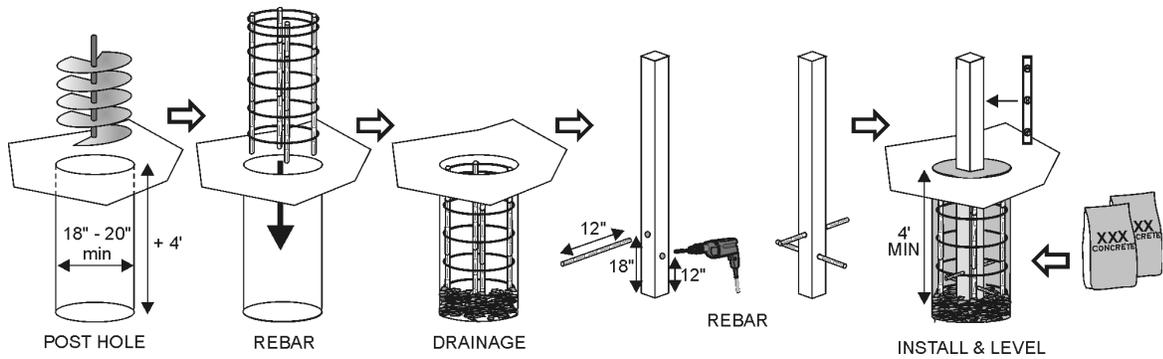
NOTE: Top of rebar must be a minimum of 2" and a maximum of 3" below the top edge of the form. The first tie should be 3" below the top edge of the form.

B - WT1 - POSTS

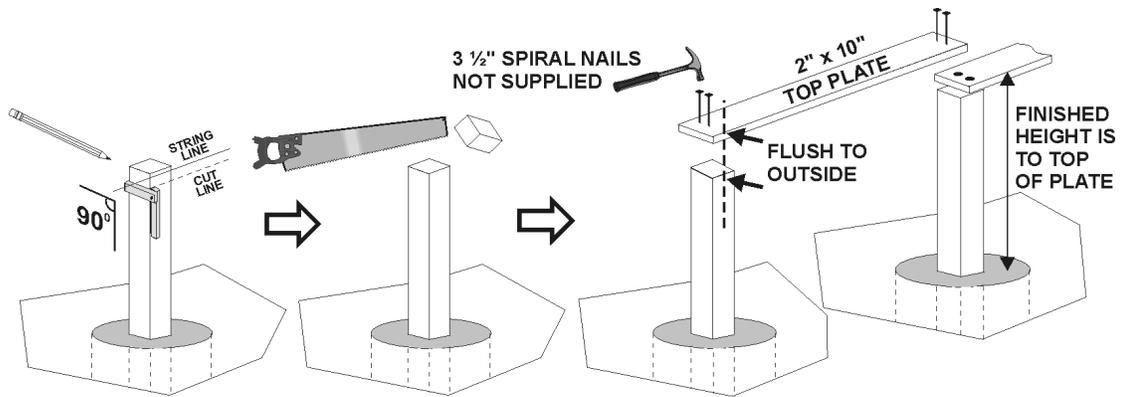
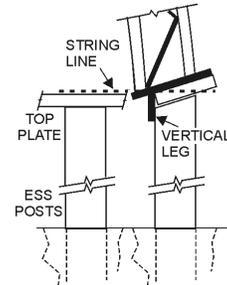
The ESS frame fits between the top of the post and the lower truss tube.

- Use the diagrams on Pages 6 through 12 to determine the locations of the ESS posts for your end wall. The posts support the vertical ladders. *Always use center-to-center measurements.*
- Drill holes and add rebar verticals, circular rings, drainage and sonotubes (forms—optional) as in A - PILES above.
- Add 12" bottom rebar to posts and install posts (6" x 6" or 8" x 8" posts or same as side wall). *See diagram next page.* The tops of the ESS posts **must be higher than** the side wall posts.
- Align the ESS posts so that the outside face of each post is even with the outside edge of the end arch and brace in position (See Appendix B, Page 21). Secure the posts by pouring concrete.





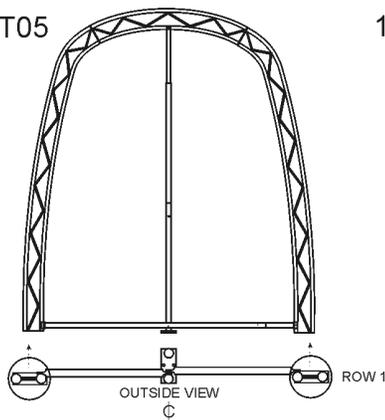
5. String a line between the base plates of the end arch at the point where the inside vertical truss tube is welded to the base plate. Mark the ESS posts at string level. This mark represents the finished height of the ESS post **with** a 2" x 10" top plate. Cut the posts and fasten the top plate with 3 1/2" spiral nails (not supplied). **There is only a small amount of adjustment in the vertical ladders. Proper post height is critical.**



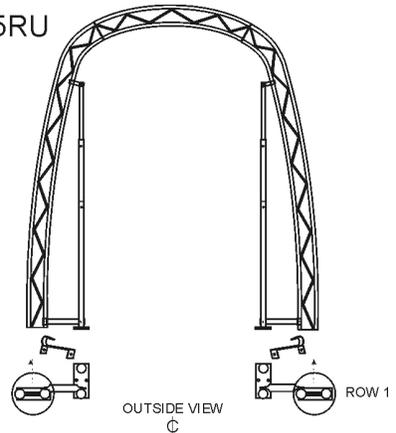
ESS SERIES TAS 18

STANDARD MODEL 320

18WT05

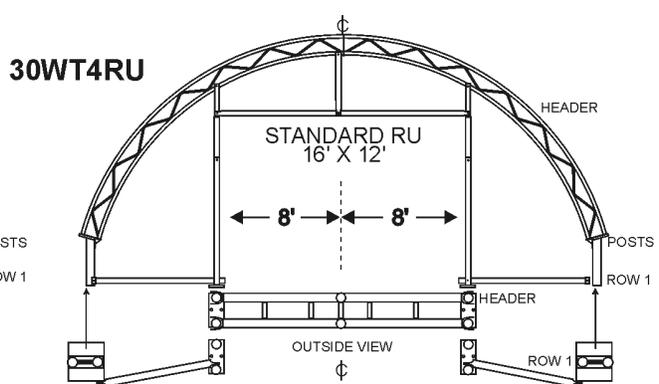
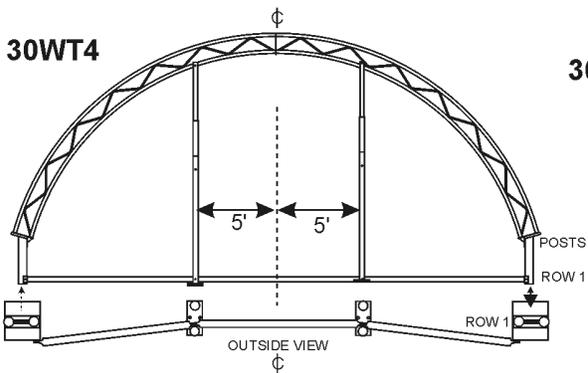
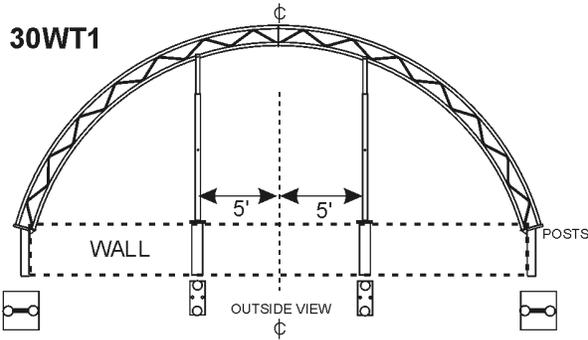


18WT05RU

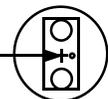
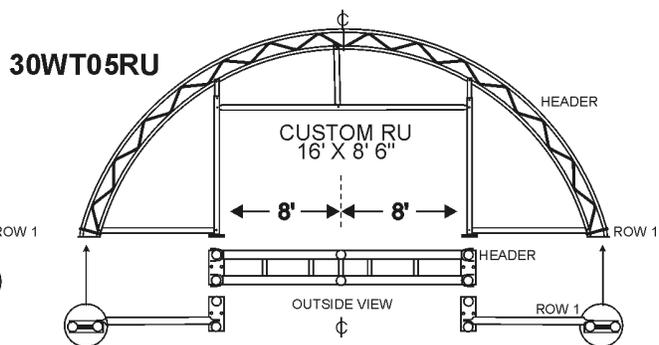
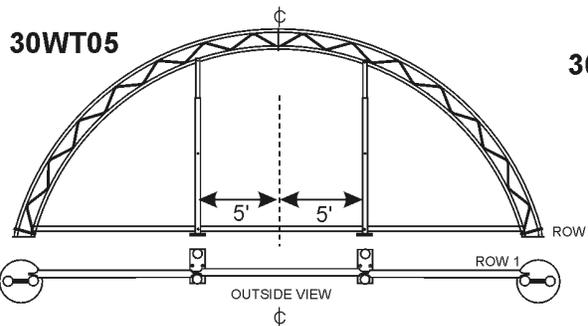


STANDARD MODEL 220

*- Non-standard end enclosures -
USE THE MEASUREMENTS
AND SPECIAL INSTRUCTIONS THAT
COME WITH THAT ENCLOSURE.
Follow this manual for general assembly
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STANDARD MODEL 320

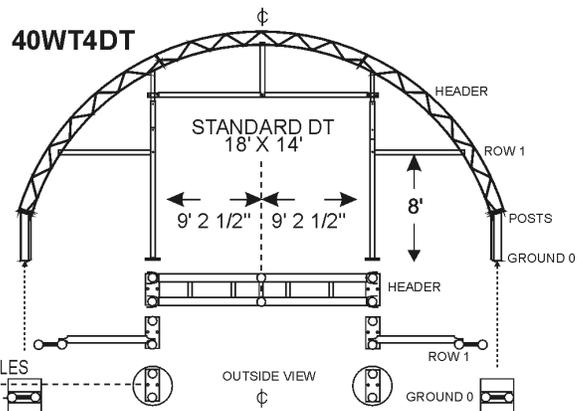
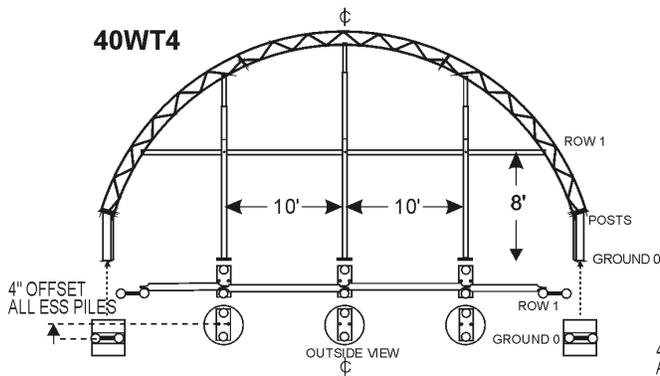
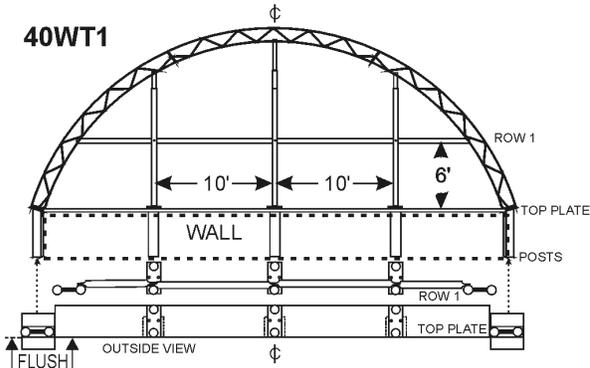


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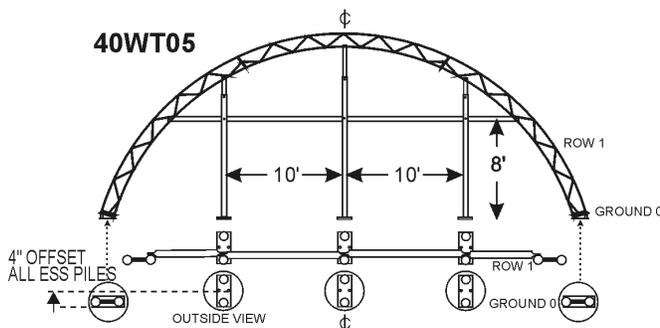
SERIES TAS 40

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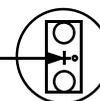
STANDARD MODEL 320



**MODEL 320
WITH DOOR IS A
CUSTOM ORDER.**

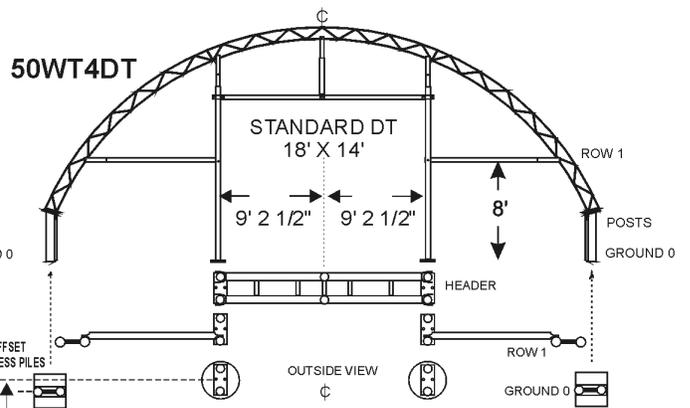
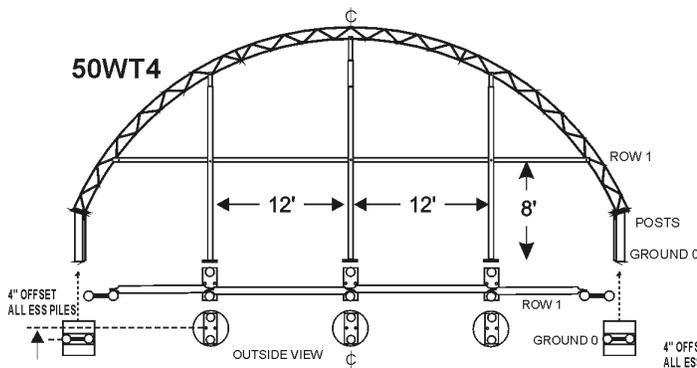
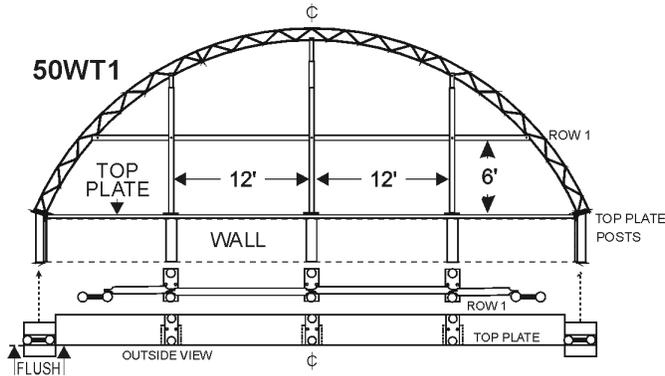


ALL MEASUREMENTS ARE CENTER-TO-CENTER

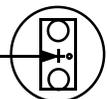
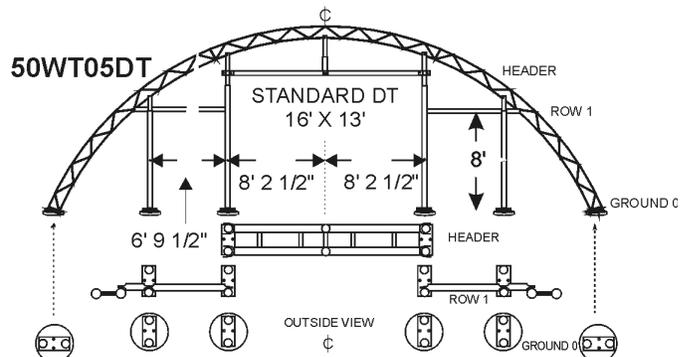
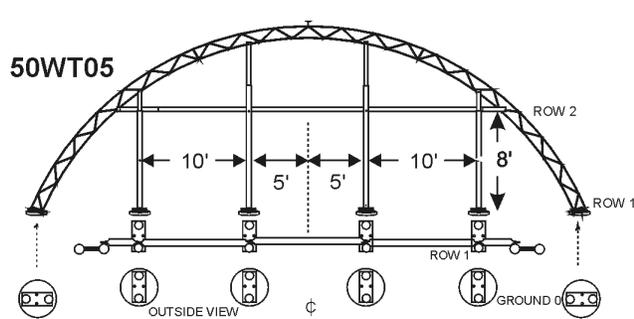


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STANDARD MODEL 320

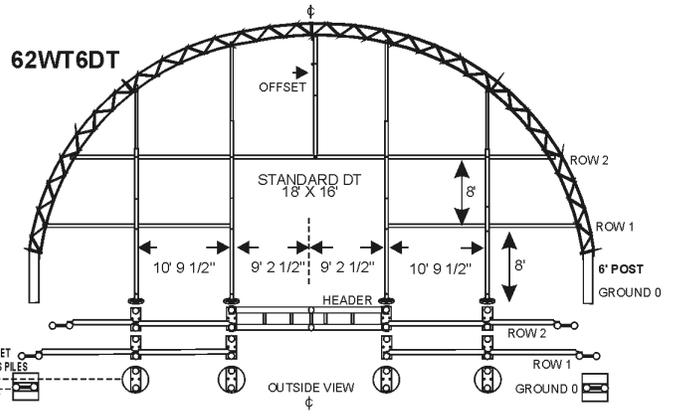
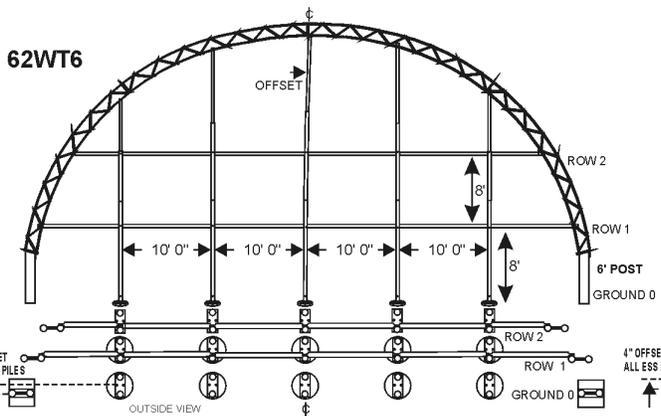
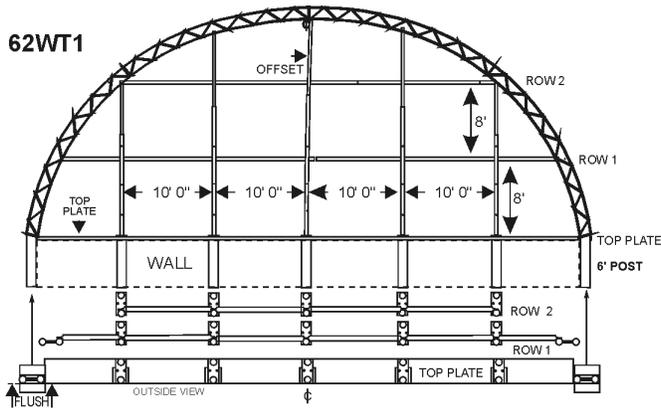


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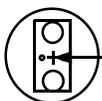
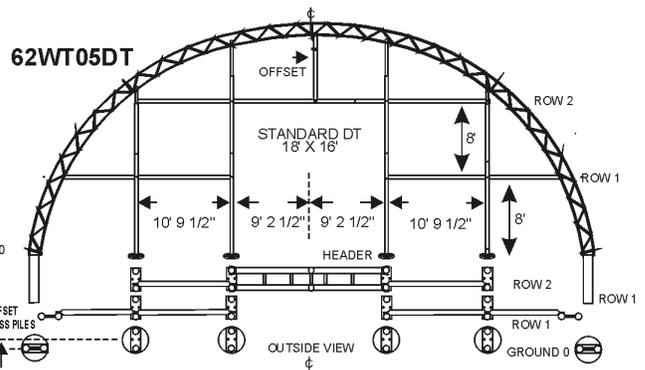
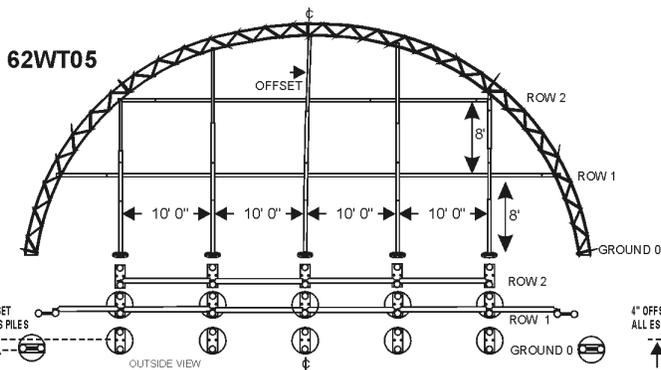
SERIES TAS 62

STANDARD MODEL 220

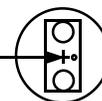
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STANDARD MODEL 320



ALL MEASUREMENTS ARE CENTER-TO-CENTER



10

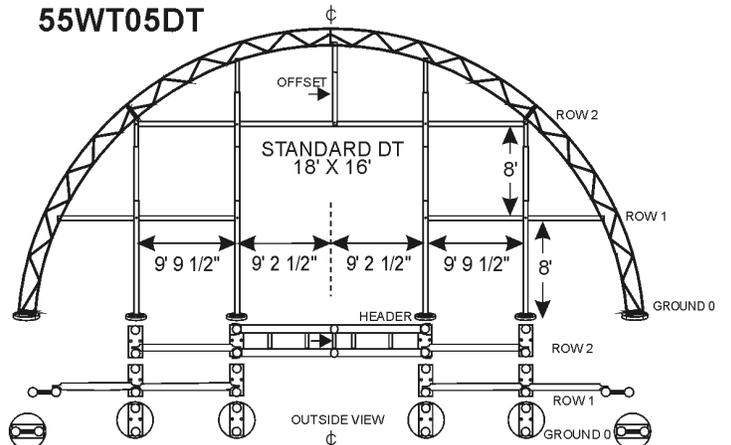
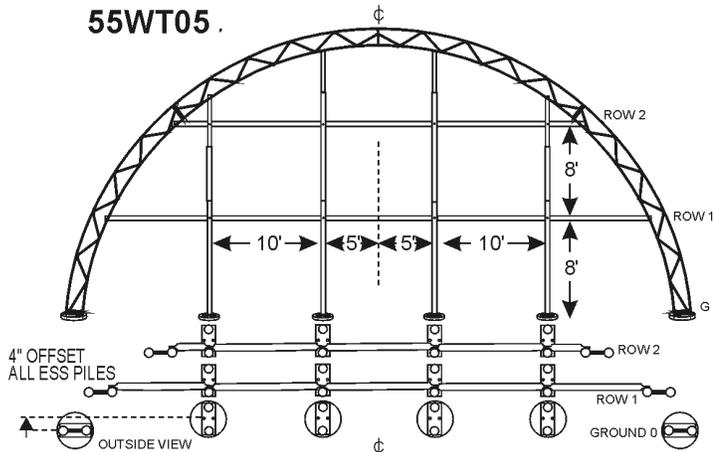
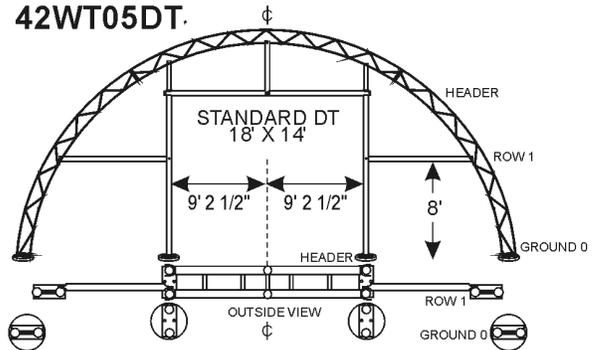
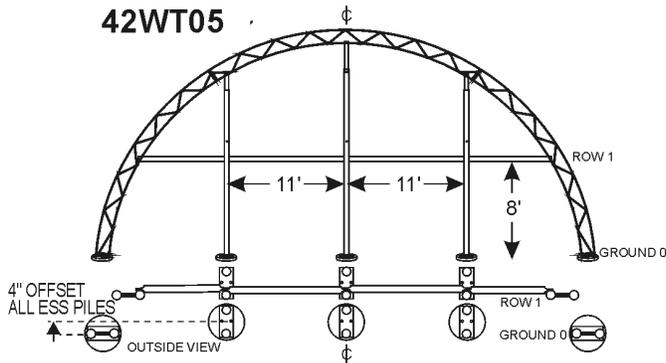
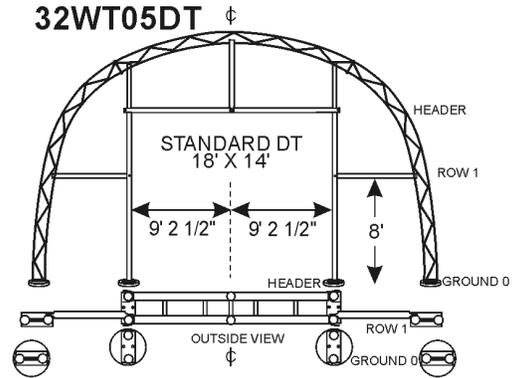
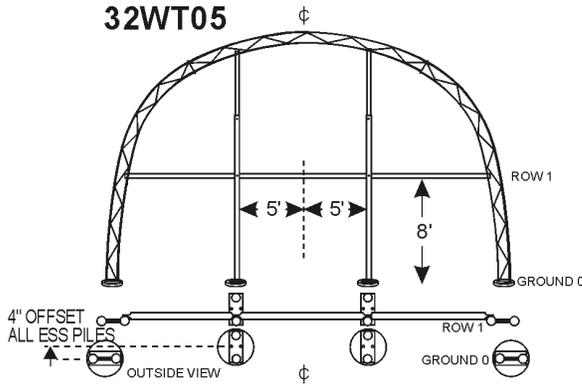
289.7

ESS

SERIES TAS 32 / 42 / 55

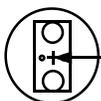
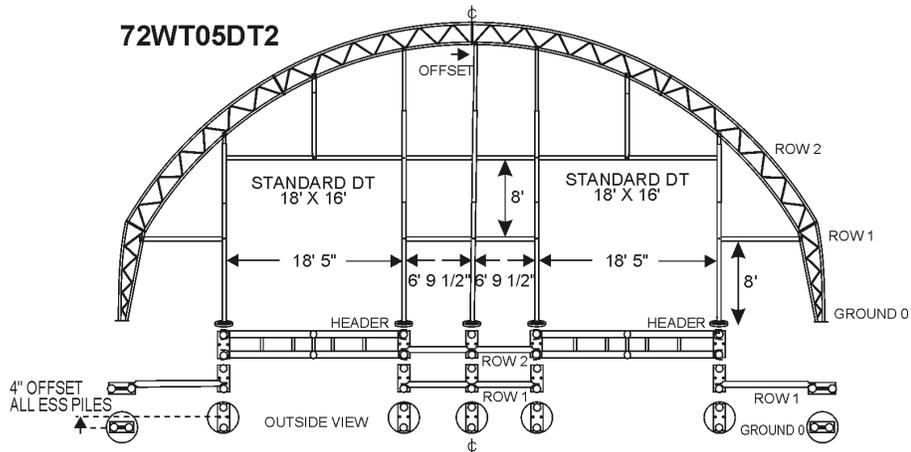
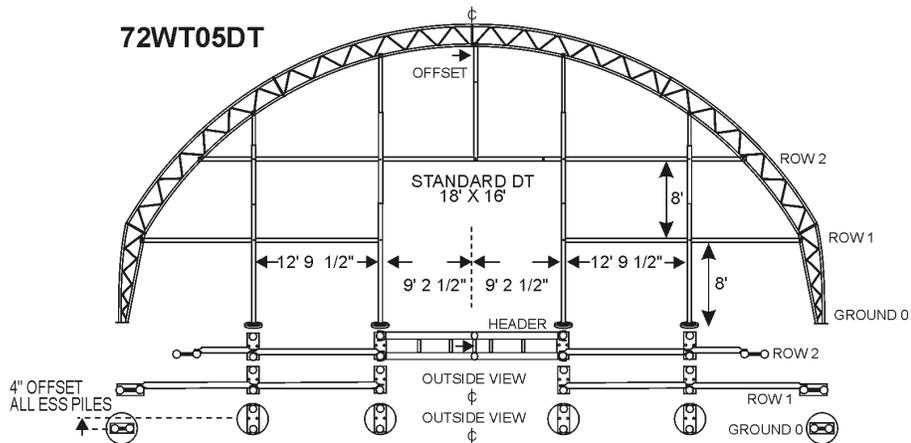
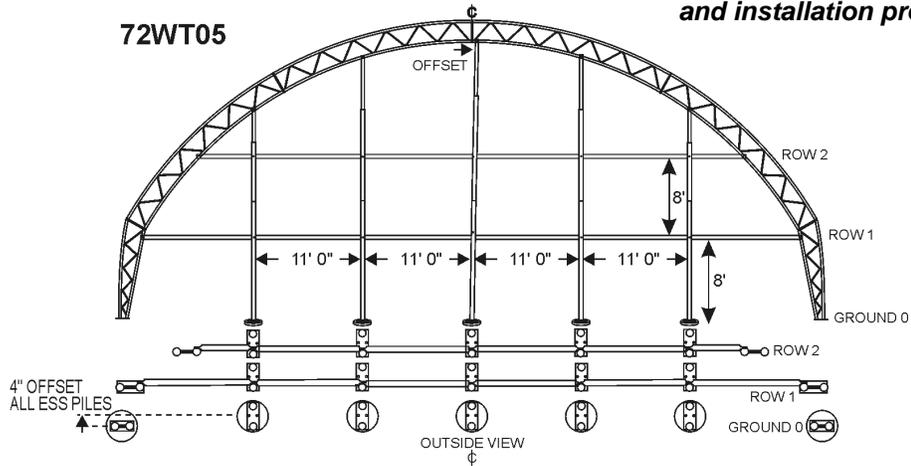
STANDARD MODEL 320

- Non-standard end enclosures -
USE THE MEASUREMENTS AND SPECIAL INSTRUCTIONS
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installation procedures only.

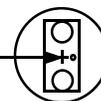


STANDARD MODEL 420

- Non-standard end enclosures -
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and installation procedures only.



ALL MEASUREMENTS ARE CENTER-TO-CENTER



IMPORTANT

WARRANTY IS VOID IF BOLTS ARE NOT INSTALLED AS ILLUSTRATED.

➤ ALL INDICATED HOLES MUST HAVE BOLTS INSTALLED.

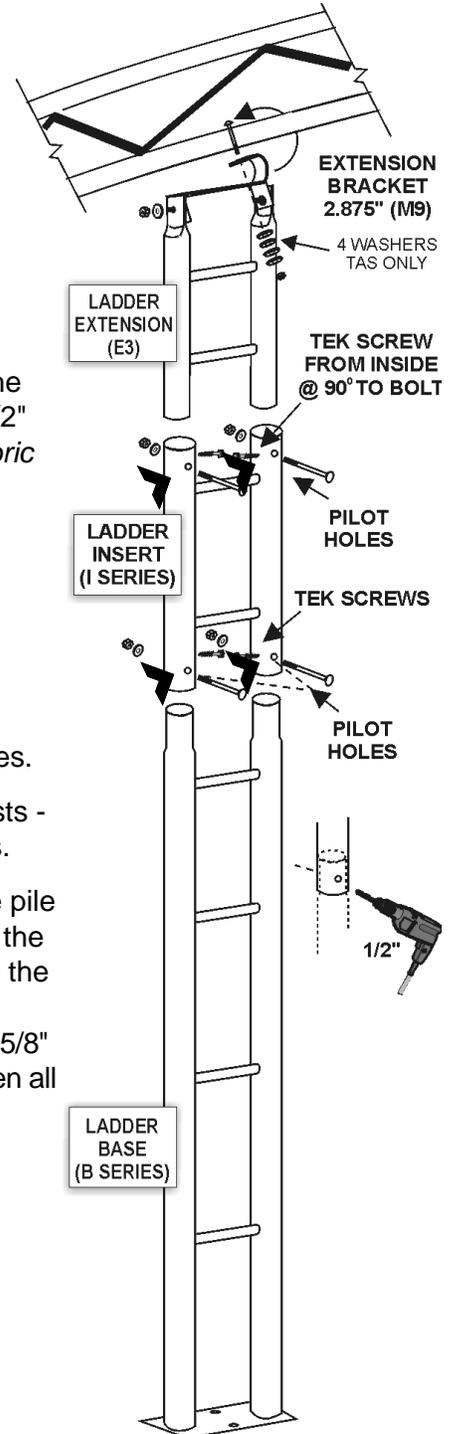
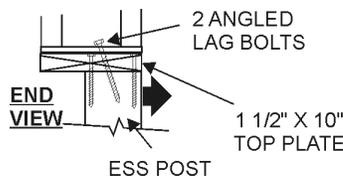
C - ESS - STANDARD WT FRAME

If the cover has been installed on your building, release the end flap ratchets and flip the end flaps back to expose the end arch.

VERTICAL LADDERS

1. Identify the vertical ladder bases (B), vertical ladder inserts (I) and vertical ladder extensions (E). All ESS vertical ladders (except 30WT1 and 40WT1 & 40WT05) require one vertical ladder base, one vertical ladder insert and one vertical ladder extension.
2. Determine the assembled height and components for each vertical ladder.
3. Assemble a vertical ladder base and ladder insert. Using the pilot holes as guides, drill 1/2" holes and install 7/16" x 3 1/2" carriage bolts/washers/nuts. *Install the bolts so that the fabric will not be damaged.*
4. Attach an extension bracket to a ladder extension using 5/8" x 2" bolts/nuts.
5. Insert the ladder extension w/ bracket into the ladder insert. **Do not drill or fasten the extension to the ladder insert (or base) at this time.**
6. Assemble all vertical ladders following the above procedures.
7. Mark the center-to-center measurements on the piles. (Posts - mark measurements on the top plate). See previous pages.
8. Place an assembled ladder upright and into position on the pile (top plate). With the base plate on the center mark, extend the ladder extension to the lower truss and hook the bracket to the lower truss tube. **Align so that the ladder is straight and plumb.** Secure the extension bracket to the truss tube with a 5/8" x 4" hex bolt/nut. (TAS SERIES - 2 washers required) Tighten all bracket bolts. Repeat this procedure for each pile.
9. Fasten the base plate to the pile using 3/8" x 4" concrete wedge anchors- recommended but not supplied.

Posts - use 3/8" x 3 1/2" lag bolts – not supplied.



10. Using the pilot holes in the vertical insert (or base) as guides, drill 1/2" holes through **both** extension legs and secure using 7/16"x 3 1/2" carriage bolts/washers/nuts. *Install the bolts so that the fabric will not be damaged. Install Tek screws @ 90° to bolts.*
11. Install the remaining vertical ladders in the same manner.

NOTE: A minimum of 5" overlap in the ladder extension is required. If necessary, place shims underneath the base of the vertical ladder to elevate the entire ESS assembly.

HORIZONTAL SUPPORTS

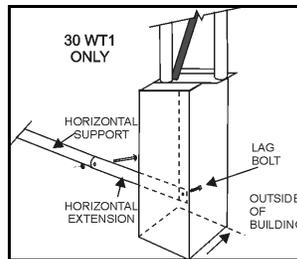
1. Each horizontal support is comprised of a length of 1 5/8" steel tube (H) and one 2" steel tube horizontal extension (X), 24" long.
2. Slide an extension onto each horizontal tube and sort according to the lengths required. There should be a minimum of 5" overlap in the extension and tube.

NOTE: 40WT1 & 50WT1 buildings require one "row" of horizontal supports at 6' up from the base. Vertical ladders are not pre-drilled at the 6' mark. Measure and drill 1/2" holes, 6' up from the base

3. Each vertical ladder base has holes at the 8' mark. Install Row 1 horizontal supports between the vertical ladders. Position the horizontal support on the inside of the outside ladder tube. Temporarily fasten using 7/16" x 3 1/2" carriage bolts/washers/nuts - *install bolts from the outside.*

4. To install horizontal supports between the outside vertical ladders and the arch, first attach one end of the sleeved horizontal to the vertical ladder and extend it, parallel to the base, to the arch. Mark a level line on the arch truss tube (post). Drill a 1/2" hole through the truss tube and fasten the horizontal support tube using 7/16" x 3 1/2" carriage bolts and nuts *installed from the outside.* (SERIES 72 - 7/16" x 4" bolts/nuts) Posts – fasten the horizontal support tube on the **outside** of the post using a lag bolt.

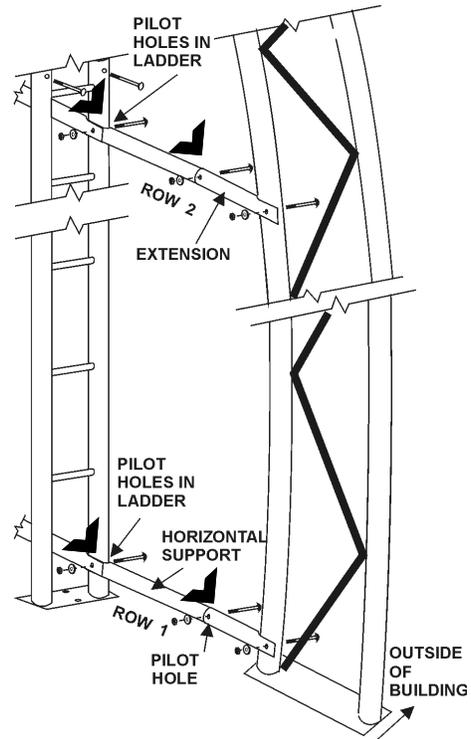
5. Once you have finished installing the Row 1 horizontal supports, tighten all carriage bolts securely.



6. IMPORTANT PROCEDURE

Drill 1/2" holes through the horizontal extensions and supports and secure using 7/16" x 2 1/2" carriage bolts/washers/nuts - *installed from the outside* - or 2 of 1/4" x 3/4" Tek screws - *installed from the inside.* Tek screws not supplied.

7. Repeat Steps 1 - 5 to install Row 2 horizontal support tubes if required.
8. Repeat Steps 1 - 5 to install Row 3 horizontal support tubes if required.



D - ESS - STANDARD DOOR FRAME

If the cover has been installed on your building, release the end flap ratchets and flip the end flaps back to expose the end arch.

DURATRAC DOORS - use pile dimensions

1. Follow the assembly instructions for the Vertical Ladders Section C - STANDARD WT ESS FRAME on Page 13 and 14.
2. Follow the assembly instructions for the Horizontal Supports Section C - STANDARD WT ESS FRAME on Page 13 with the following exception: - *Do not place any horizontal supports in the door opening(s).*

3. Measuring from the piles, mark the ordered door height on the door frame vertical ladders. Attach purlin brackets to the door header (D) using 5/8" x 2" bolts/lock washers/nuts. Lift the ladder header into place. Secure the door header in position. *Install the bolts from the outside. All measurements are center-to-center.*

4. Locate and mark the center of the arch.
Series 30, 55, 62 & 72 - offset as close as possible to the coupler. See diagrams Page 6 to 12.

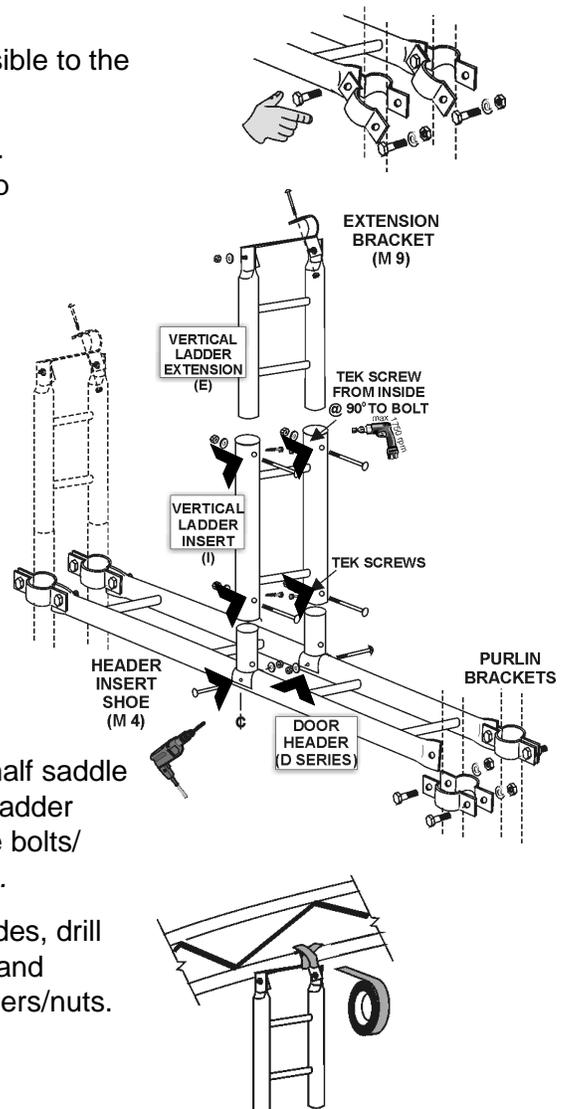
5. Measure and mark center on the ladder header.
Series 30, 55, 62 & 72 - offset the same as step 4 above.

6. Insert the header insert shoes (M4) into ladder insert (I). Drill 1/2" holes at the pre-drilled holes and fasten using 7/16" x 3 1/2" carriage bolts/washers/nuts.

7. Attach an extension bracket (M) to a ladder extension (E) and insert the extension into the ladder insert. Lift the assembly into place and rest the half saddle brackets of the insert shoes on the center mark on the ladder header. Attach the extension bracket to the lower truss tube using a 5/8" x 4" bolt/nut. (TAS SERIES - 4 washers required) Tighten all bracket bolts.

8. Using the pilot holes in the header insert shoe half saddle brackets as guides, drill 1/2" holes through the ladder header and secure using 7/16" x 3 1/2" carriage bolts/washers/nuts - *install the bolts from the outside.*

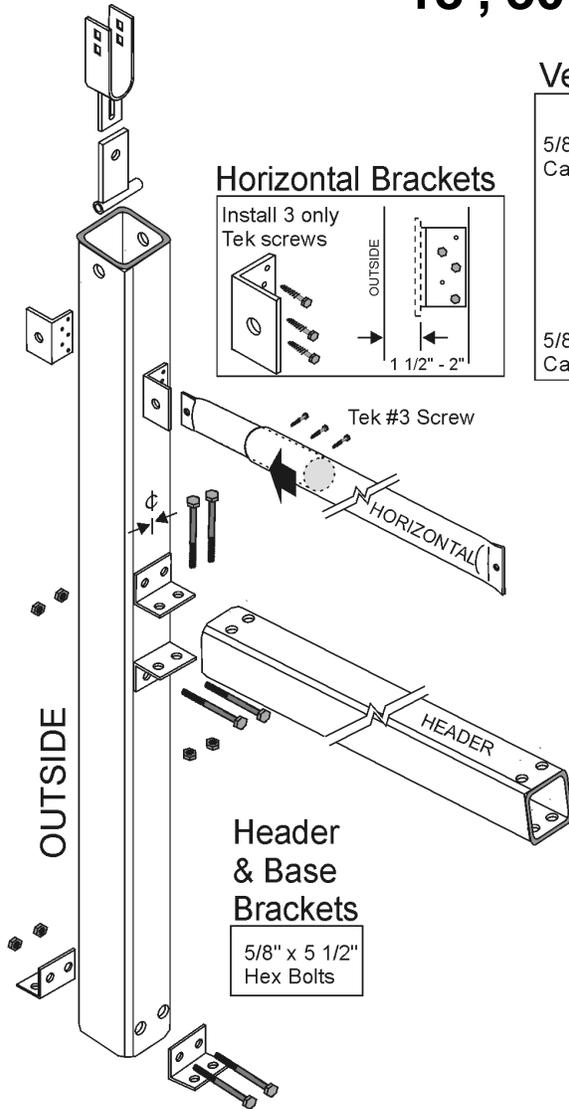
9. Using the pilot holes in the header insert as guides, drill 1/2" holes through **both** header extension legs and secure using 7/16" x 3 1/2" carriage bolts/washers/nuts. *Install Tek screws @ 90° to bolts.*



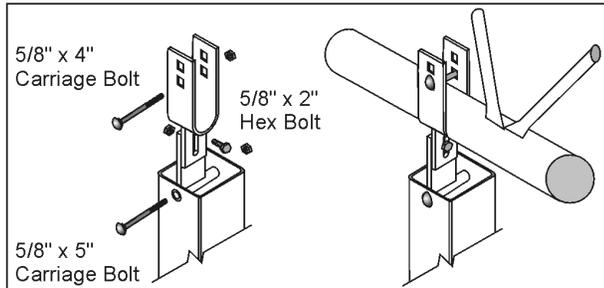
HSS END SYSTEM

4" x 4"

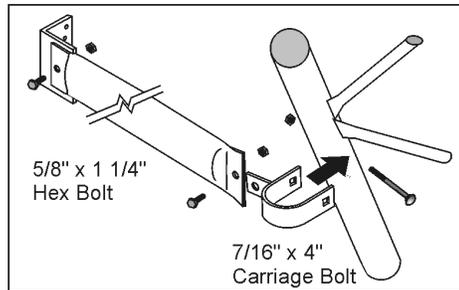
18', 30', 40', 42'



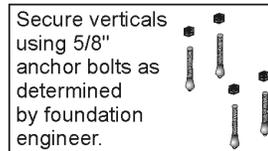
Vertical Connection at Arch



Horizontal Connection at Arch



Foundation

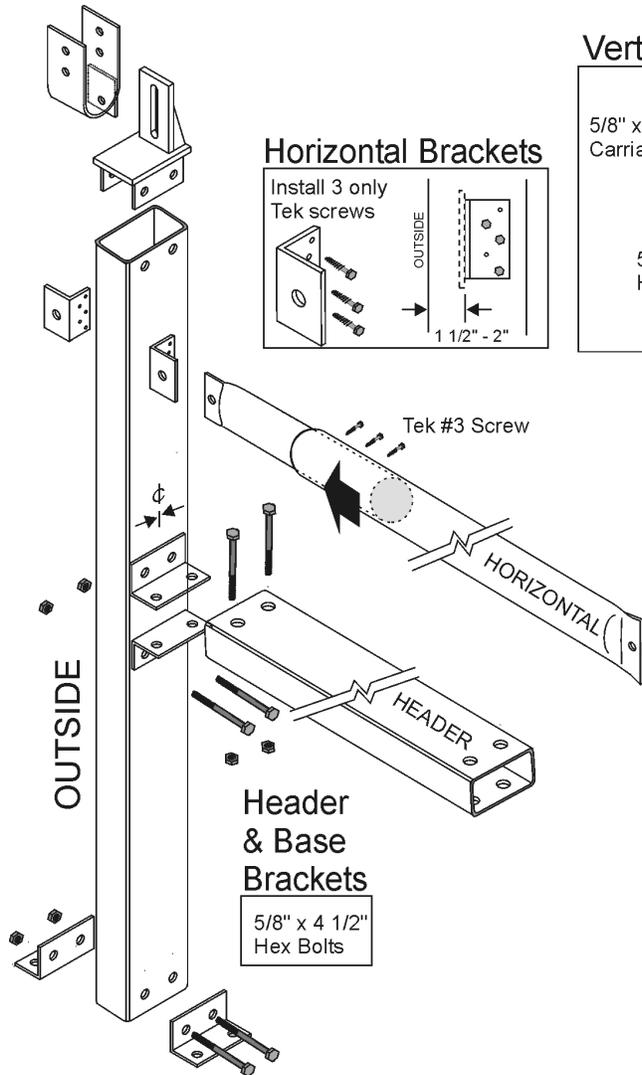


| | | | |
|---|--|---|---|
| <p>HSS VERTICALS & HORIZONTALS SL 4" X 4" X 1/4" HSS CUSTOM</p> | <p>BRACKET - PLATE ASSEMBLY 4" X 4" HSS 33100760</p> | <p>BRACKET - TOP PLATE ASSBL 4" X 4" HSS 33100750</p> | <p>ESS HORIZONTAL TAB 3" X 3" X 1/4" ANGLE BROWN 32000085</p> |
| <p>ESS 20' / 26' SADDLE w/ TAB ASSEMBLY 330182</p> | <p>ESS HORIZONTALS 2 7/8" - 14 g CUSTOM</p> | <p>ESS TRUSS EXTENSION 2 1/2" - 14 g 330550</p> | <p>BRACKET - HEADER ANGLE 4 X 4 HSS 3" X 3" X 1/4" ANGLE 33100740</p> |

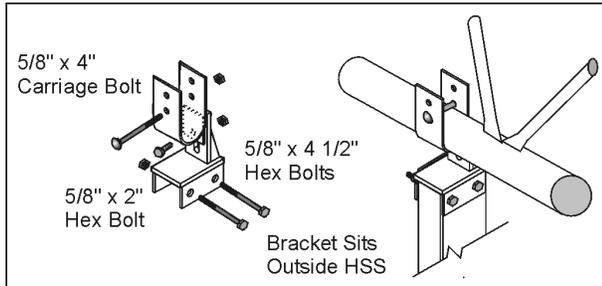
HSS END SYSTEM

3" x 6"

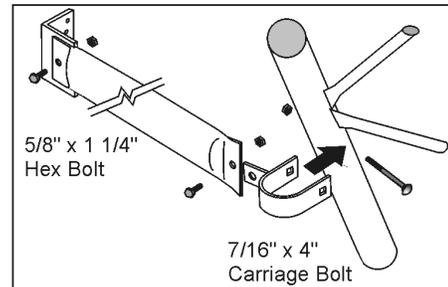
50', 55', 62'



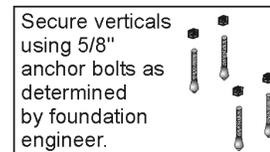
Vertical Connection at Arch



Horizontal Connection at Arch



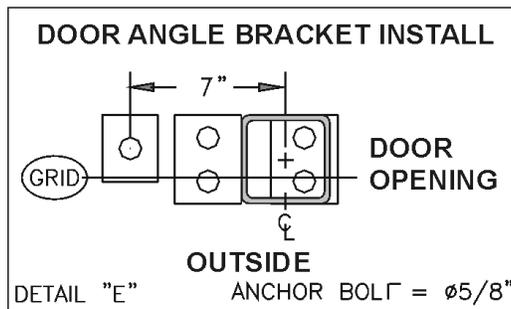
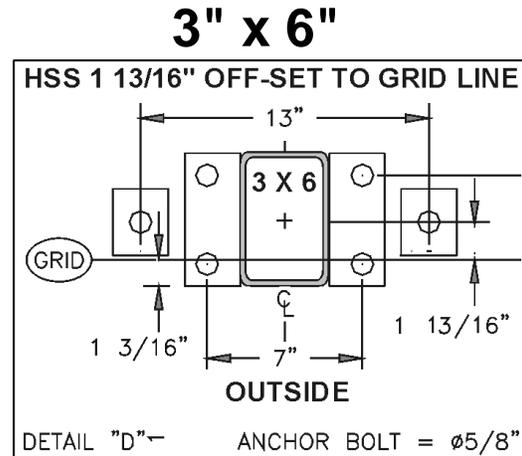
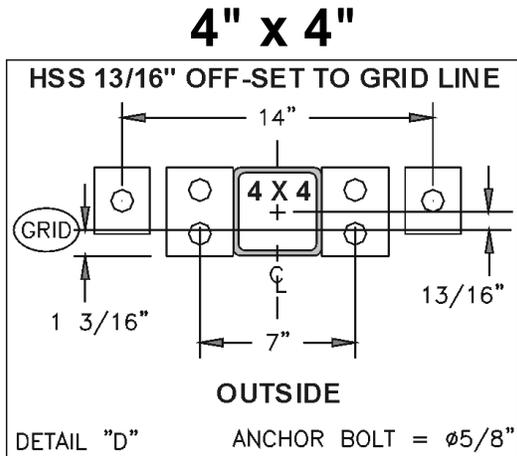
Foundation



| | | | |
|--|---|---|---|
| <p>ESS 20' / 26' SADDLE w/ TAB ASSEMBLY 330182</p> | <p>ESS TOP PLATE ASSEMBLY 33100730</p> | <p>ESS SADDLE w/ TAB ASSEMBLY 32000007</p> | <p>ESS HORIZONTAL TAB 3" x 3" x 1/4" ANGLE BROWN 32000085</p> |
| <p>ESS 20' / 26' SADDLE w/ TAB ASSEMBLY 330182</p> | <p>ESS HORIZONTALS 2 7/8" - 14 g CUSTOM</p> | <p>ESS TRUSS EXTENSION 2 1/2" - 14 g 330550</p> | <p>ESS BASE ANGLE IRON 3" 3" x 3" x 1/4" ANGLE 32000005</p> |

HSS END SYSTEM

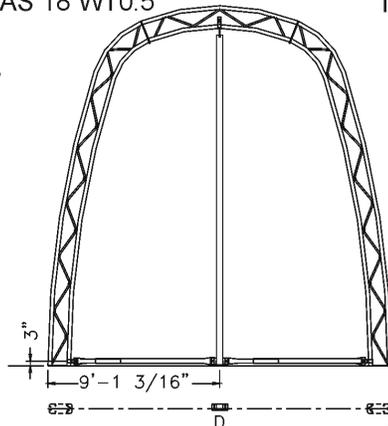
HSS Base Off-Set



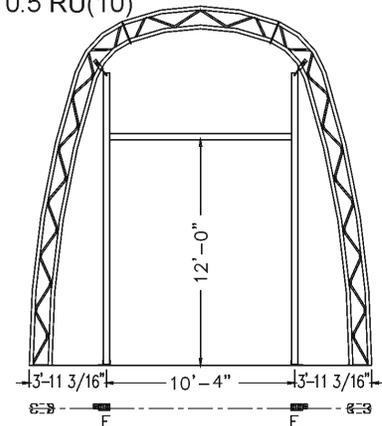
HSS SERIES TAS 18

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TAS 18 WT0.5



TAS 18 WT0.5 RU(10)



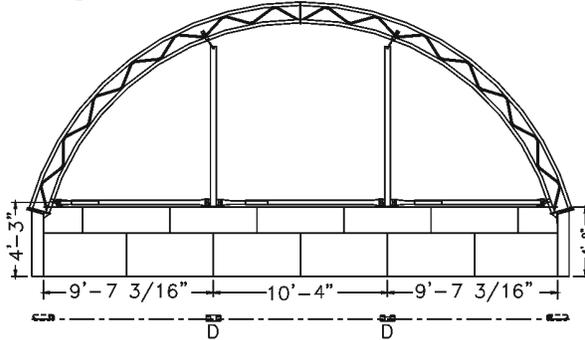
ALL MEASUREMENTS ARE CENTER-TO-CENTER



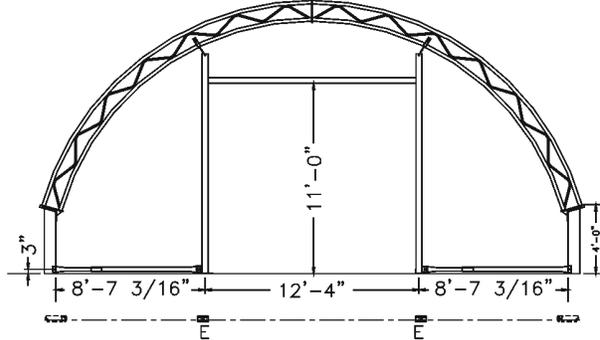
HSS

SERIES TAS 30

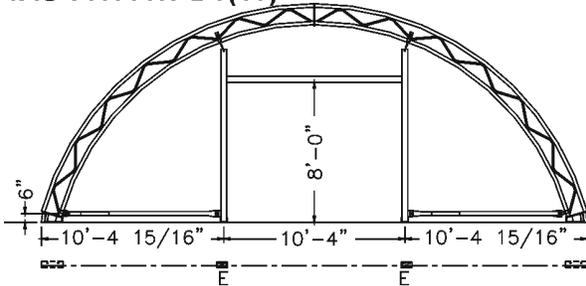
TAS 30 WT1



TAS 30WT0.5 DT(12)



TAS 30WT0.5 DT(10)

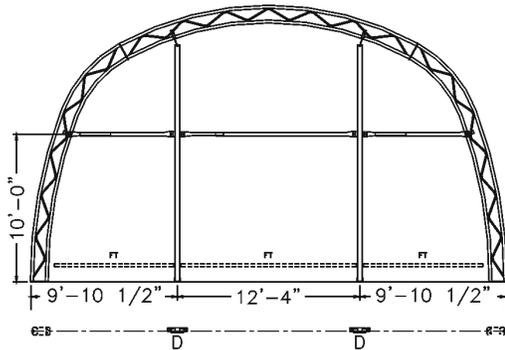


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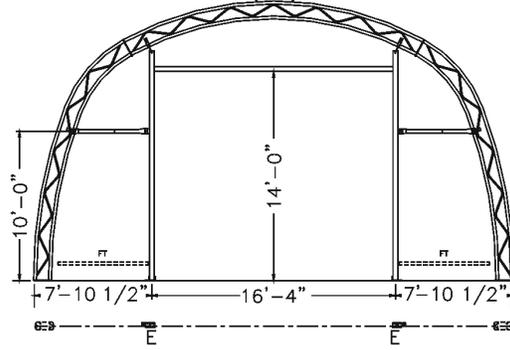
HSS

SERIES TAS 32

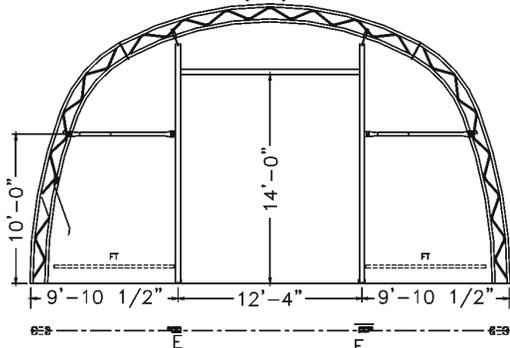
TAS 32 WT0.5



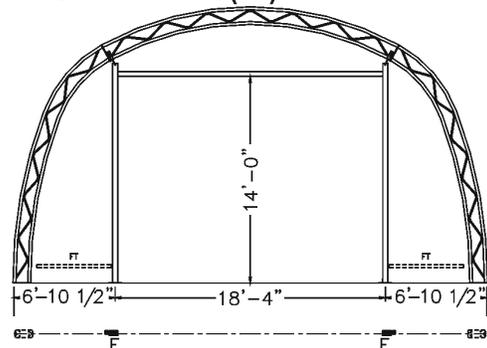
TAS 32WT0.5 DT(16)



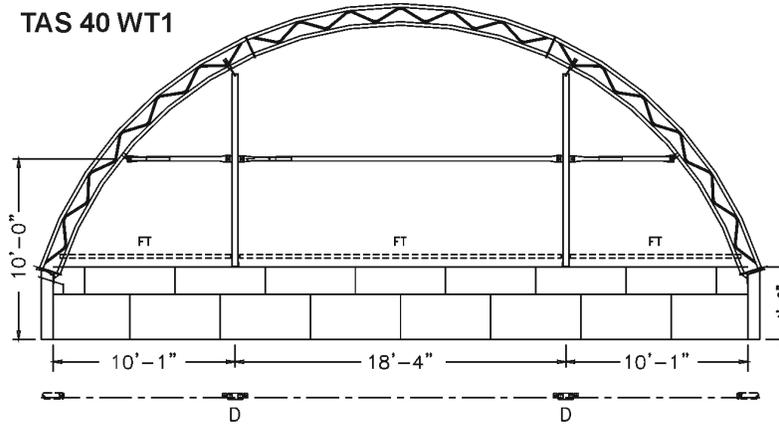
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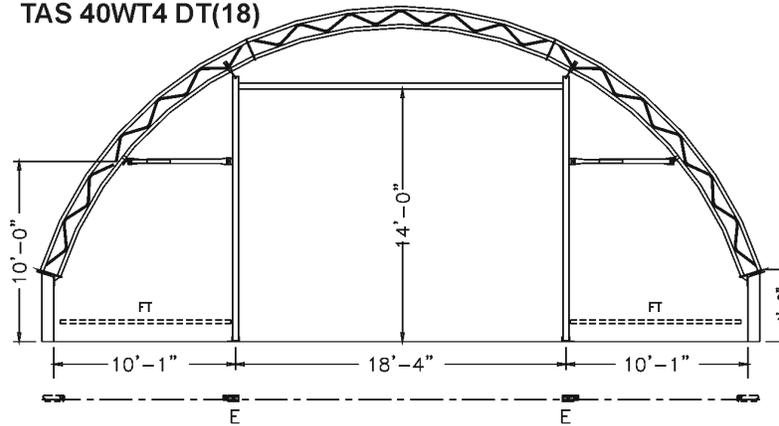
TAS 32WT0.5 DT(18)



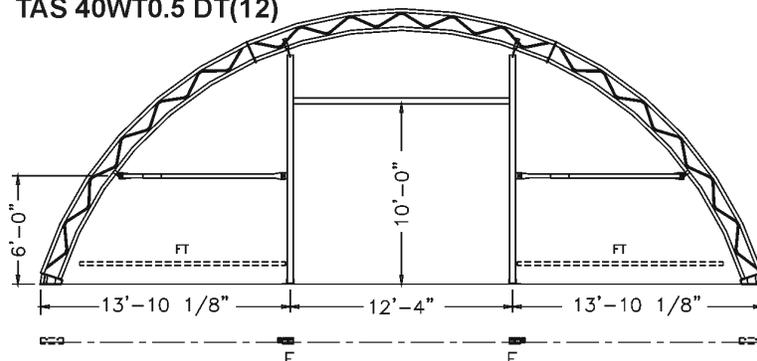
TAS 40 WT1



TAS 40WT4 DT(18)



TAS 40WT0.5 DT(12)

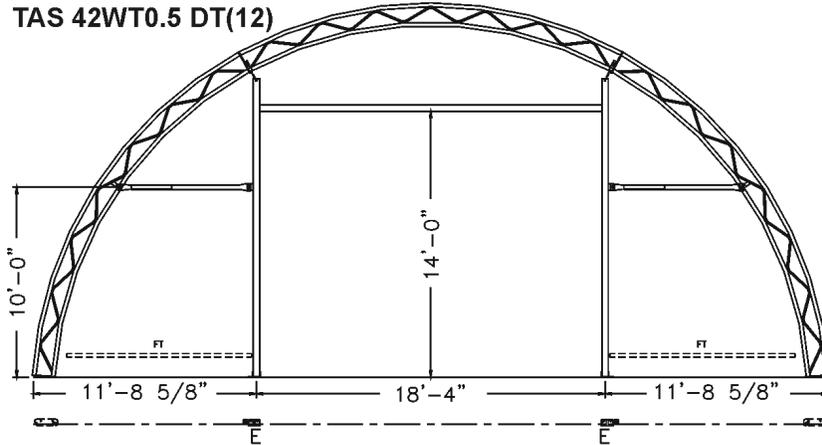


ALL MEASUREMENTS ARE CENTER-TO-CENTER

HSS

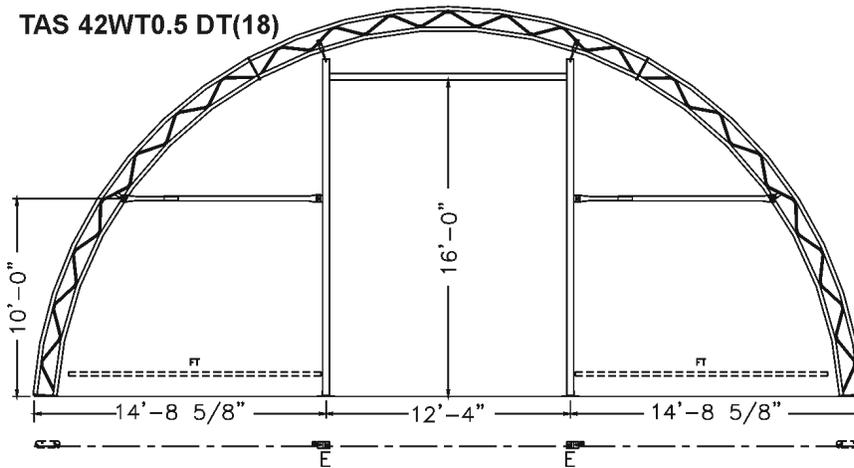
SERIES TAS 42

TAS 42WT0.5 DT(12)



- Non-standard end enclosures -
USE THE MEASUREMENTS
AND SPECIAL INSTRUCTIONS
THAT COME WITH THAT
ENCLOSURE.
Follow this manual for general
assembly and
installation procedures only.

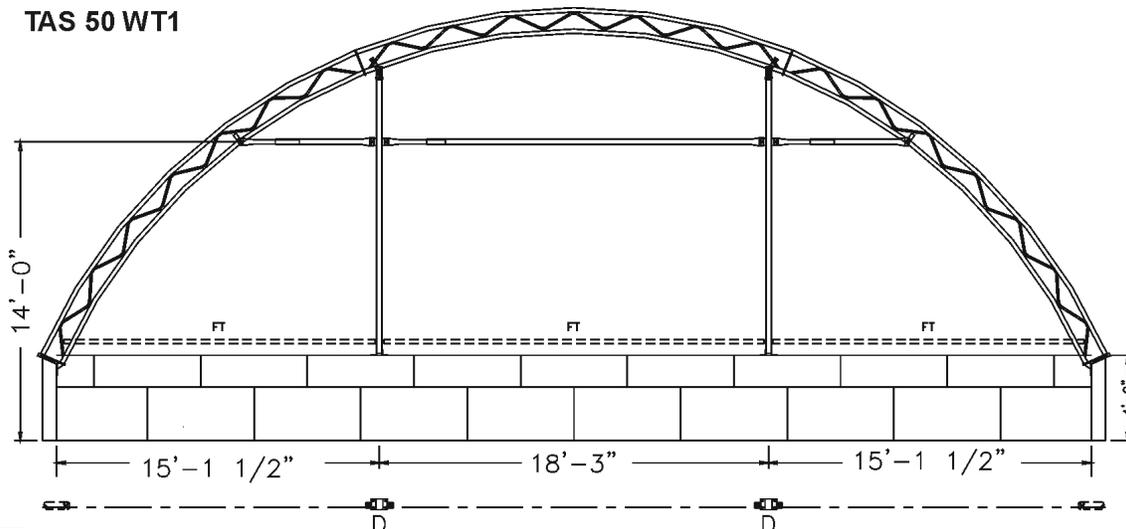
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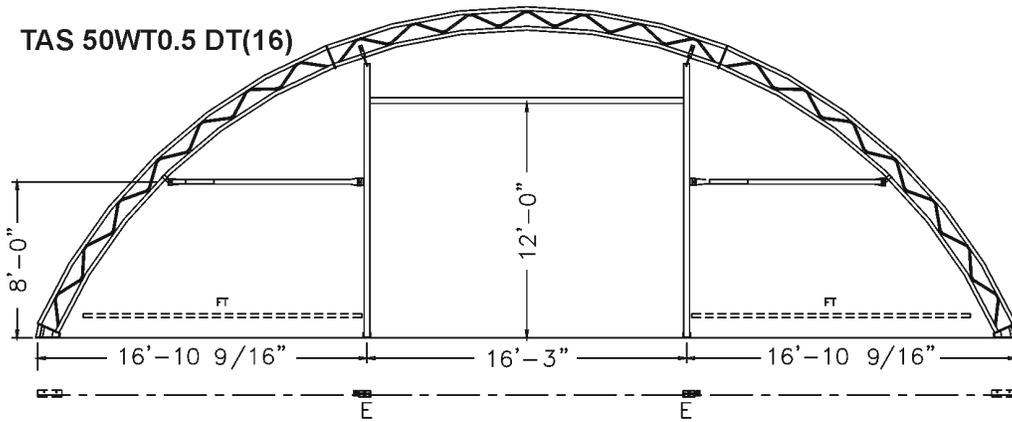
HSS

SERIES TAS 50

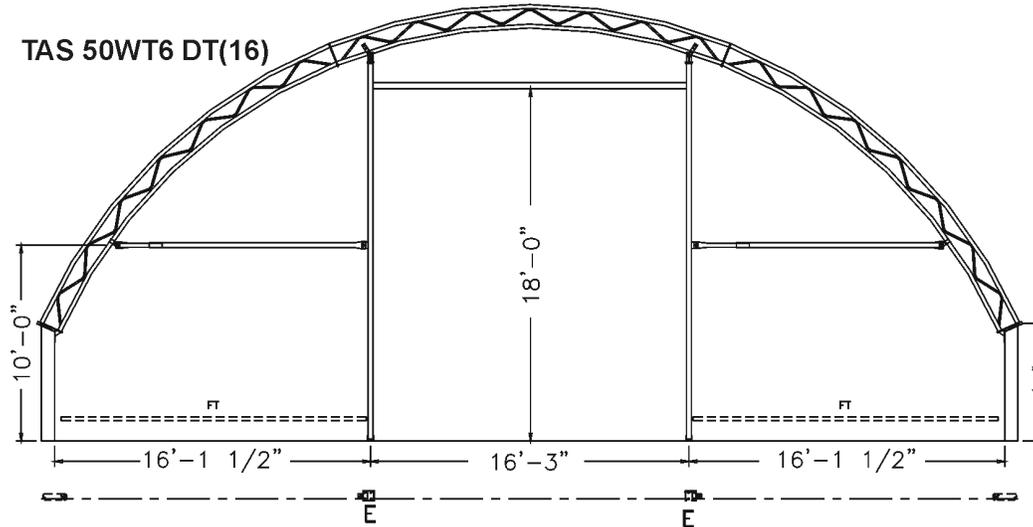
TAS 50 WT1



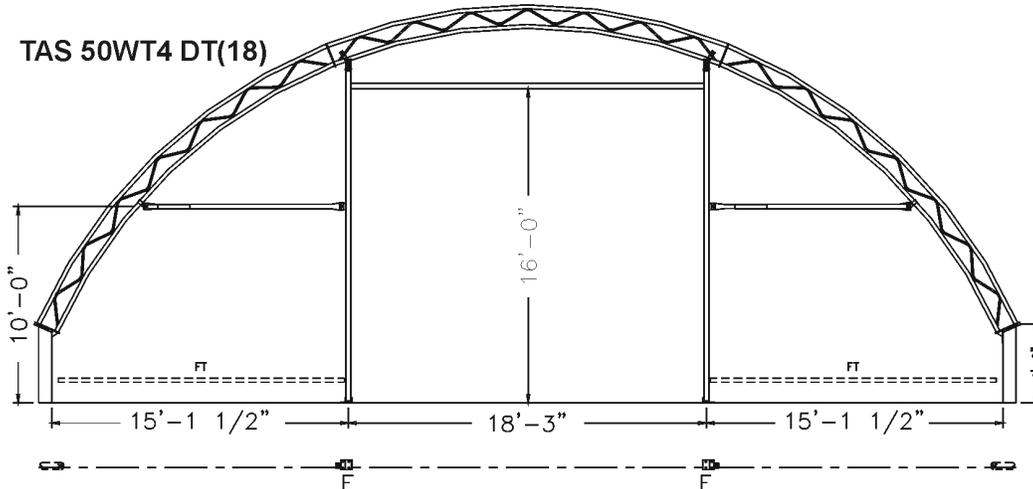
TAS 50WT0.5 DT(16)



TAS 50WT6 DT(16)



TAS 50WT4 DT(18)

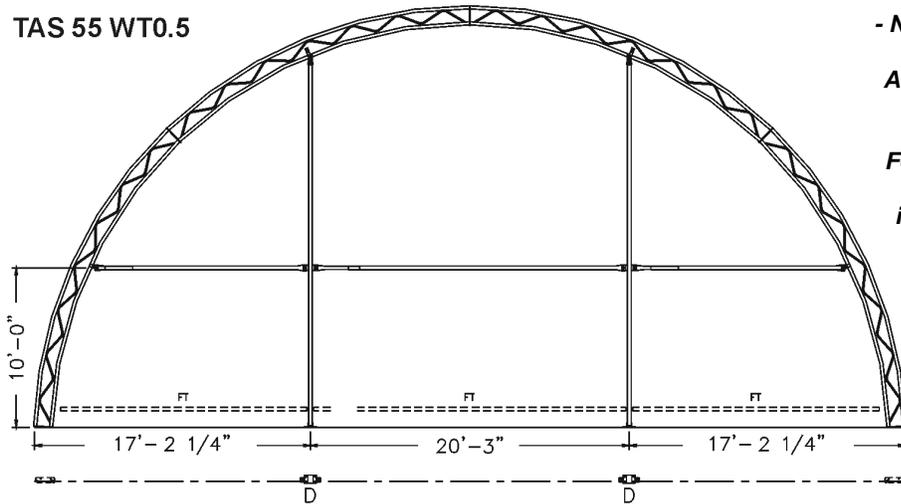


ALL MEASUREMENTS ARE CENTER-TO-CENTER

HSS

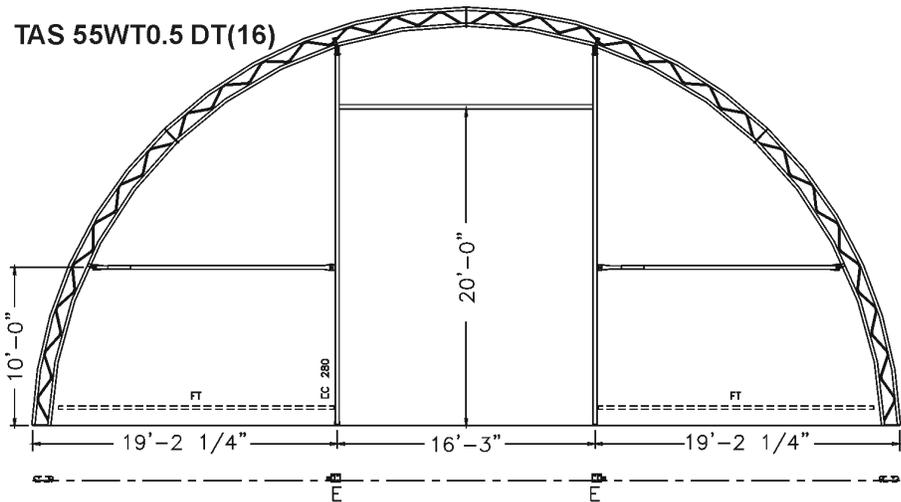
SERIES TAS 55

TAS 55 WT0.5

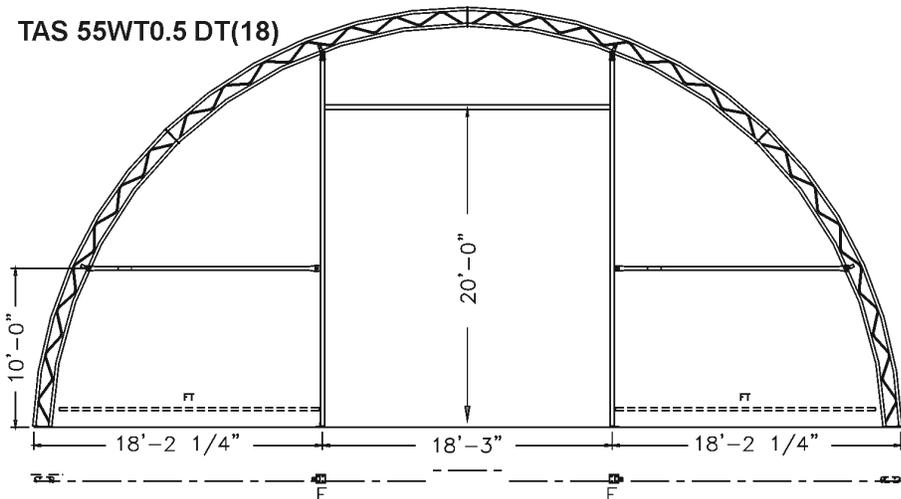


- Non-standard end enclosures -
USE THE MEASUREMENTS
AND SPECIAL INSTRUCTIONS
THAT COME WITH THAT
ENCLOSURE.
Follow this manual for general
assembly and
installation procedures only.

TAS 55WT0.5 DT(16)



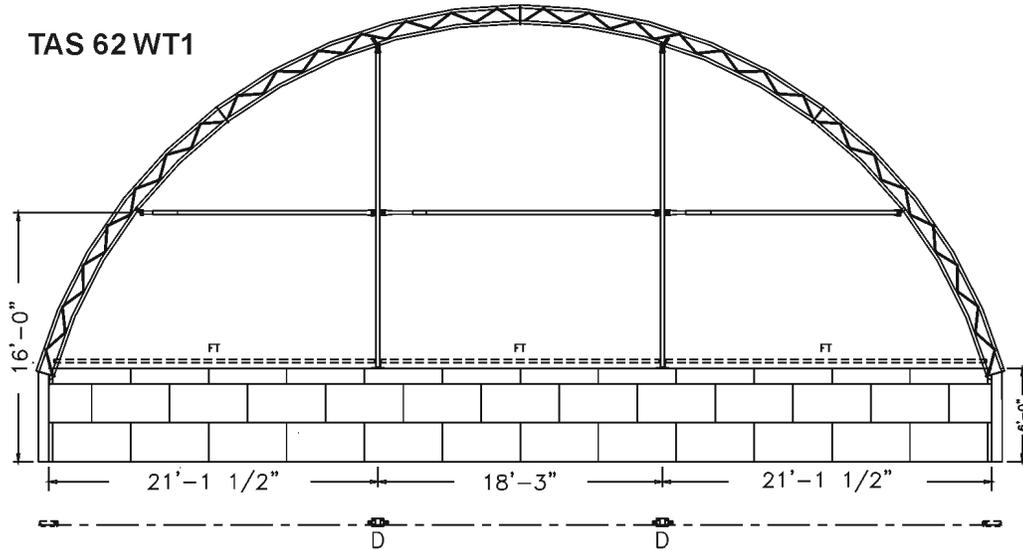
TAS 55WT0.5 DT(18)



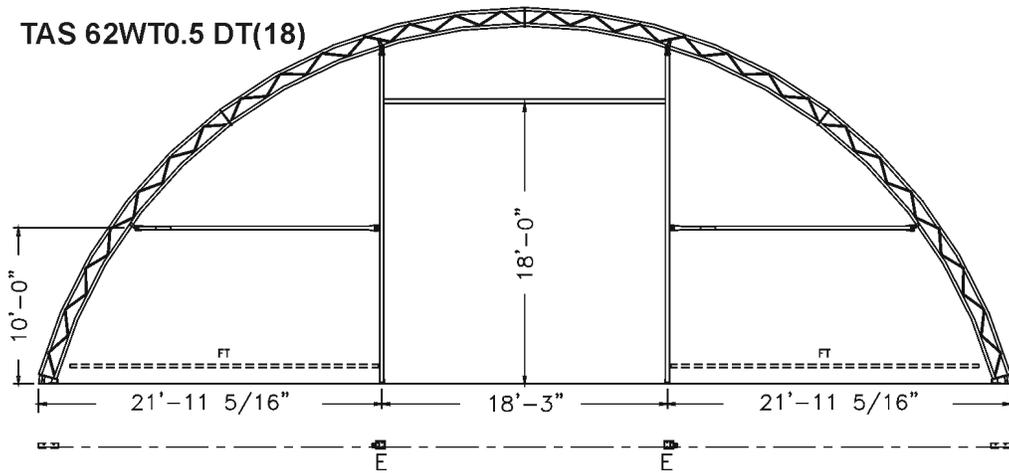
HSS

SERIES TAS 62

TAS 62 WT1

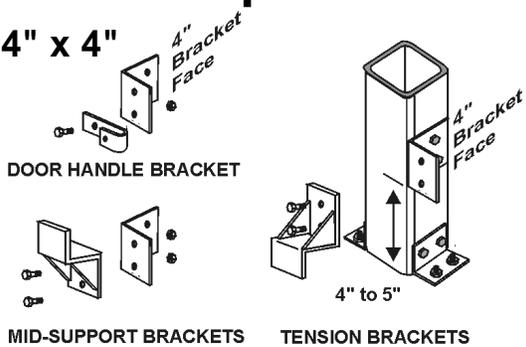


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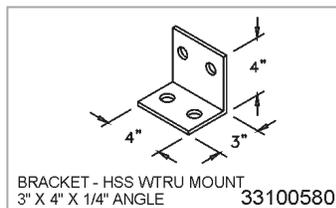
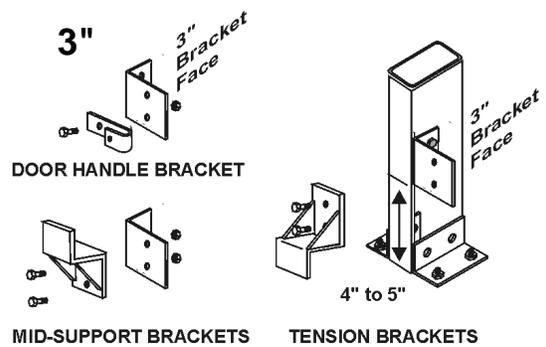


HSS Roll-Up Door Bracket

4" x 4"



3"



IMPORTANT - INSTALL COVER BEFORE PROCEEDING

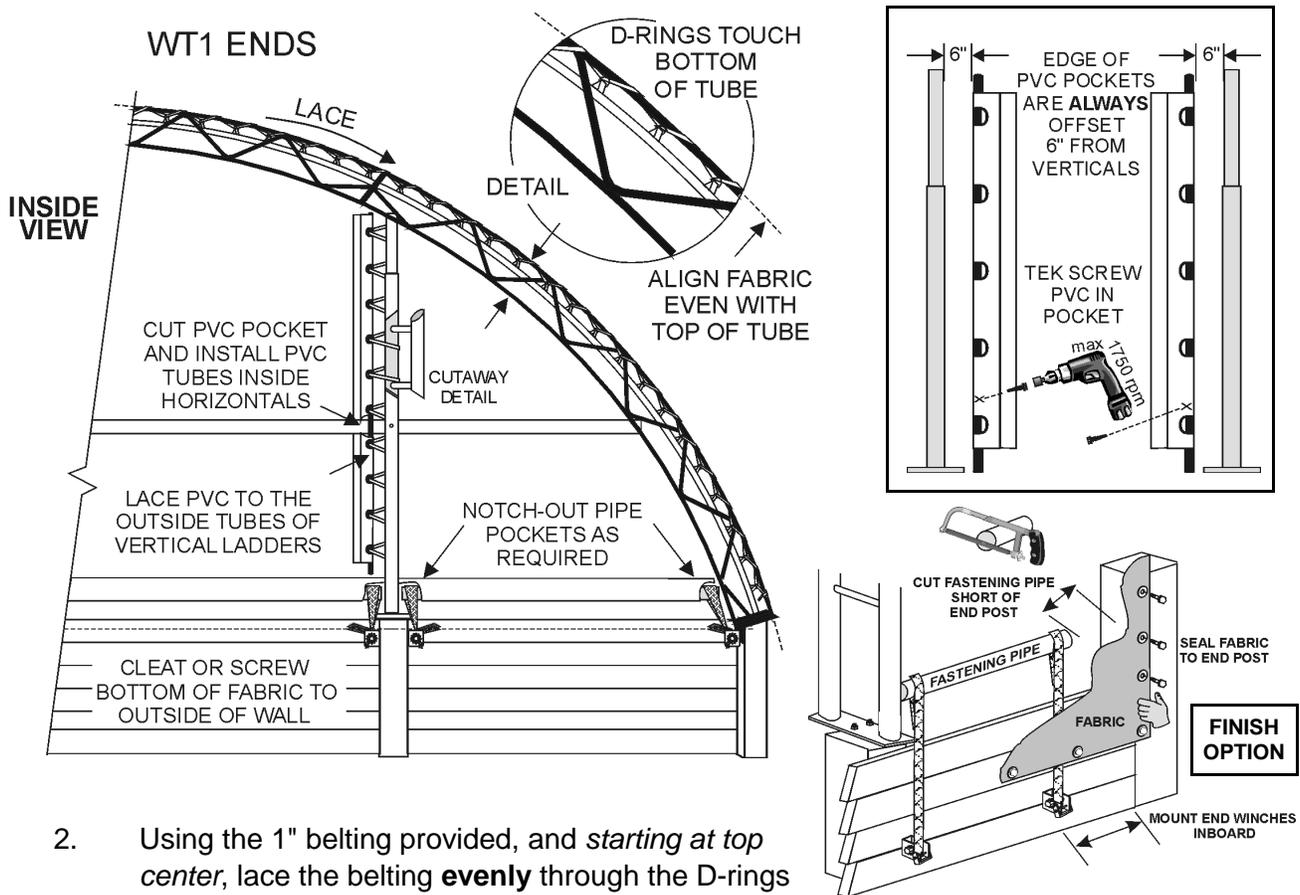
Wind damage can occur if end panels are installed before the cover.
Install the upwind end panel first. Always install both end panels the same day.

E - FABRIC - STANDARD WT END PANEL

Check the installed frames for jagged or sharp edges that may damage the end panel.
Grind and/or file smooth or use duct tape.

STANDARD TAS 18 and TAS 30 BUILDINGS - have horizontal and vertical rows of D-rings (not shown). PVC tubes, fastening pipes and winches are custom order. Lash the D-rings to the ESS verticals, working from the center out, and tension to the bottom horizontal tubes.

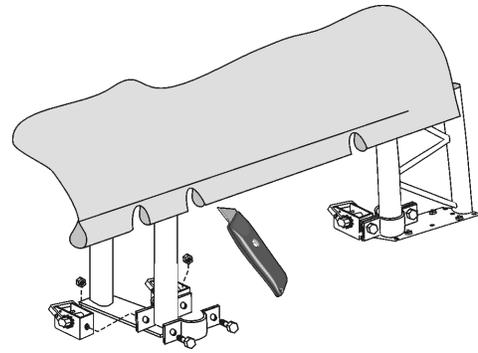
1. Lace a piece of rope (or belting) through the top center D-ring(s) and temporarily suspend the end panel from the upper truss tube. The D-rings should align with the bottom of the truss tube. The outside perimeter of the panel should align with the top of the truss tube. *Align the PVC pockets 6" offset to the vertical ladders.*



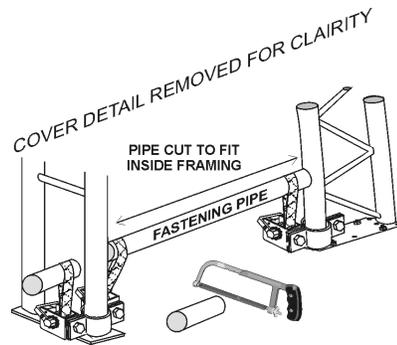
2. Using the 1" belting provided, and *starting at top center*, lace the belting **evenly** through the D-rings and then back to the top truss tube, down one side. Repeat this lacing procedure for the other side. *Remove the rope suspending the end panel before it interferes with lacing the top center D-rings.* The D-rings should touch the bottom of the truss tube. The perimeter of the end panel should align with the top of the truss tube. Secure belt ends to the truss tube.
3. **WT1 ends** - Attach the lashing winches to the post or wall - inside or outside the wall - at each ESS vertical and at the building arch base using threaded rod (not supplied) through the post. **Lag bolts are not recommended.**

WT4 & WT05 Ends - Attach purlin brackets and lashing winches at the base of each ESS vertical and at the building arch base.

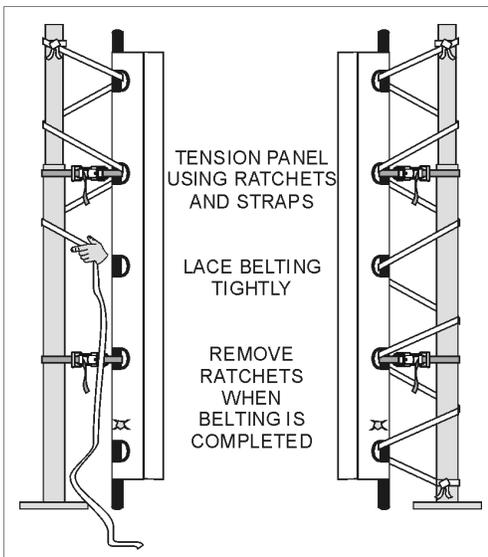
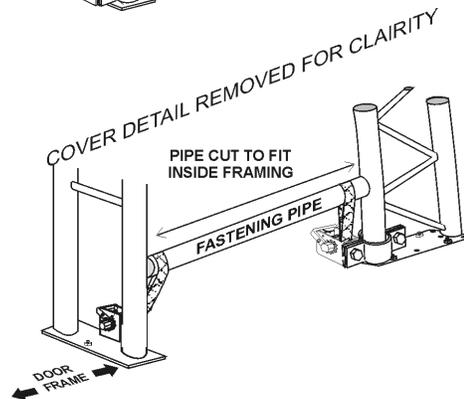
4. Notch out the fastening pipe pocket at the lashing winches for the lashing straps.
5. Cut and install a fastening pipe in the pipe pocket.
6. Install the fastening straps and apply even tension to the fastening pipe with the winches. **DO NOT OVERTIGHTEN.** Winches can apply more tension than the D-rings can sustain.



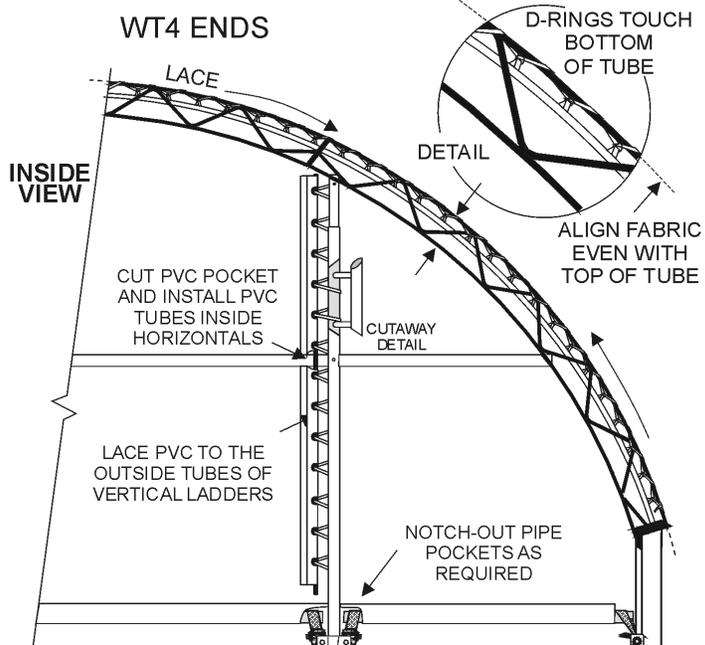
7. Install the PVC tubes in the PVC tube pockets, gluing and cutting to length as required. **IMPORTANT** - Tek screw the PVC tube into the vertical PVC pockets. This prevents the PVC from falling out if the panel relaxes and assists during panel lashing.



8. **Working from the center panel(s) out,** attach ratchet straps - not supplied - and tension the PVC to the ESS verticals.
9. Lash the PVC to the ESS verticals tightly using 1" belting. Remove the ratchets when belting is complete. Repeat for each panel.



ALWAYS TEK SCREW PVC TUBES IN VERTICAL PVC POCKETS.



10. Check that the upper perimeter D-rings touch the bottom of the truss tube. Tighten if necessary.
11. Replace the end flap over the outside arch and tighten the end flap ratchets or winches.
12. After installation, the end enclosure may relax slightly so it is important to check for tightness after one or two weeks making any necessary adjustments.
13. Check final tension on the lashing winches - DO NOT OVERTIGHTEN - less tension is required than on the cover lashing winches.

30WT1, 40WT1, 50WT1 and 62WT1 - fasten the bottom edge of the end panel to the wall with 1/4" x 3/4" Tek screws and fender washers after panel tightening.



F - FABRIC - STANDARD WT DOOR END PANEL

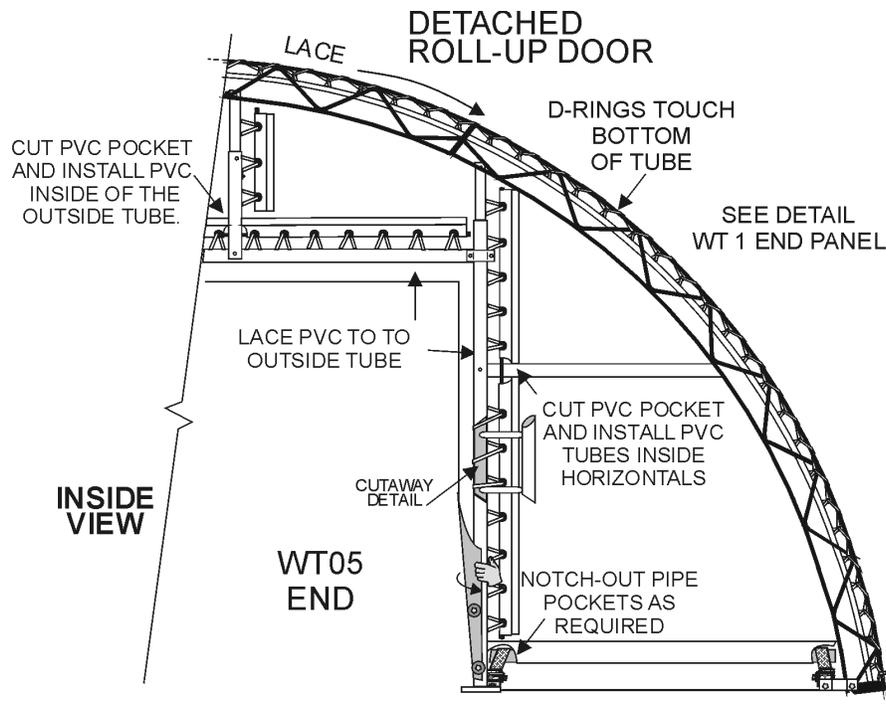
Check the installed frames for jagged or sharp edges that may damage the end panel. Grind and/or file smooth or use duct tape.

1. Detached Roll-Up Doors

TAS 42' & smaller - The door opening is factory cut.

TAS 50' & larger - the door opening will need to be cut in the WT end panel.

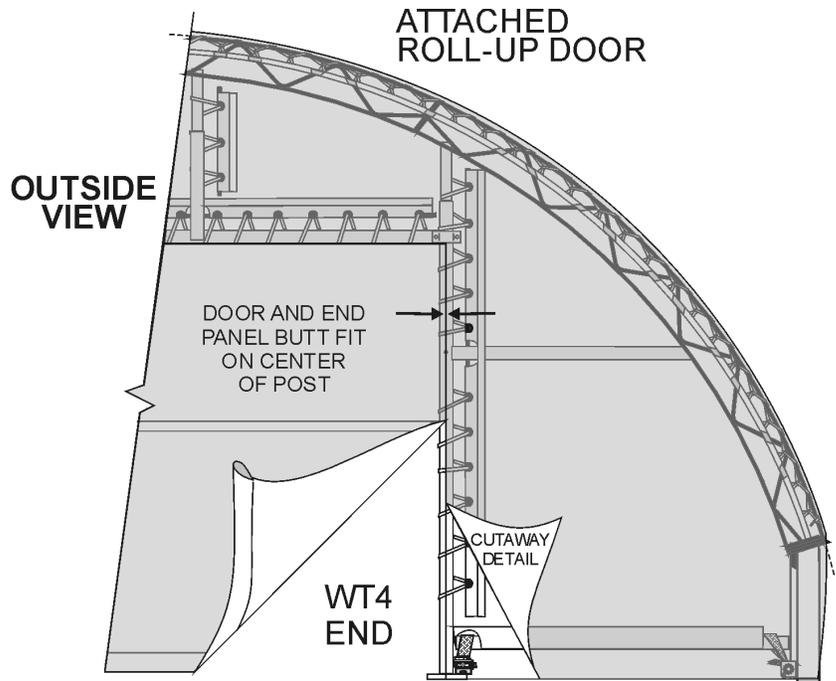
Install a Door End Panel or Weathertight End Panel following Section E – FABRIC - STANDARD WT END PANEL on Page 16. Lace and tension to the door frame as illustrated.



2. Attached Roll-Up Doors

Install a Door End Panel following Section E – FABRIC - STANDARD WT END PANEL on Page 16.

Lace and tension to the door frame as illustrated.



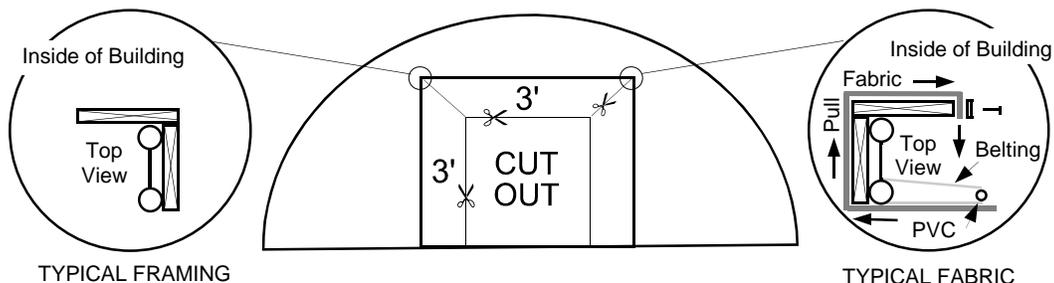
NOTE: *The end enclosure may relax slightly after installation so it is important to check it for tightness after one or two weeks making any necessary adjustments.*

G - DURATRAC DOOR

1. Follow the installation instructions that come with the door.

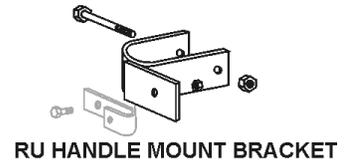
H - COMMERCIAL OVERHEAD DOOR

1. Follow the manufacturer's installation directions that come with the door.
2. Cut an opening in the end panel as shown in the diagram below.
3. Wrap the panel fabric around the framed vertical ladders and ladder header. Pull the fabric tight and secure to the frame using 1" x 2" plywood cleats or use a combination of screws and fender washers. *Do not place cleats or screws where they could interfere with mounting the door.*



I - WT ROLL-UP - DETACHED DOOR

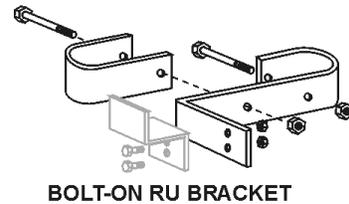
1. Attach the mounting plate brackets to the vertical ladders:
RU Handle Mount Bracket – 60" above ground level on operating side.



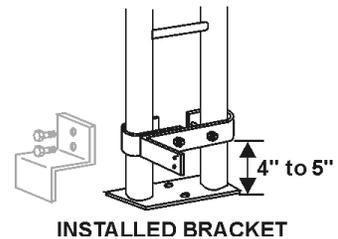
Bolt-On RU Bracket for Mid-Support brackets – 1/2 the door's height from ground level.

Bolt-On RU Bracket for Bottom Tensioning brackets – 4" to 5" above ground level.

2. Install a Weathertight End Panel following Section E – FABRIC - STANDARD WT END PANEL instructions on Page 16 with the following additions and changes:



Hint: Keeping the door panel rain cap on the end panel level with the header ladder will assist in installing the end panel

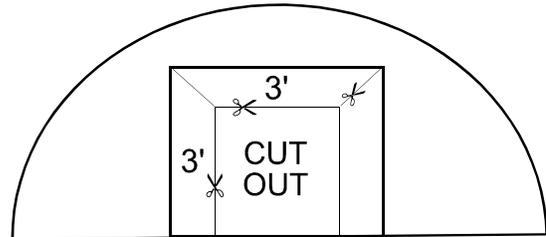


3. **Do not** install the self-drilling Tek screws and fender washers used to secure the door opening fabric at this time.

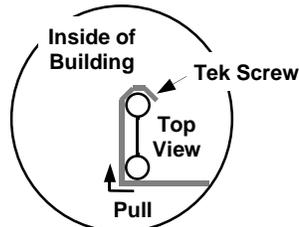


4. **TAS 50' & larger**- When the end panel is completely installed, cut the door opening in the end panel as shown.

TAS 42' & smaller - Door opening is factory cut.



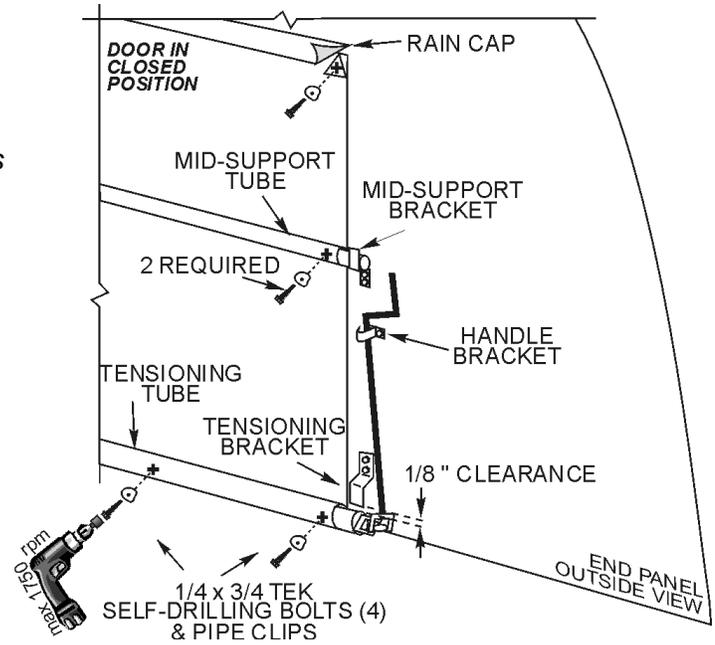
5. **Detached Doors** - Trim or tuck the fabric so that you can finish the door opening to the vertical and header ladders.



TYPICAL DETACHED DOOR

6. Cut bolt slits in the end panel at the tensioning, mid-support and handle mounting plate brackets located on the vertical ladders.

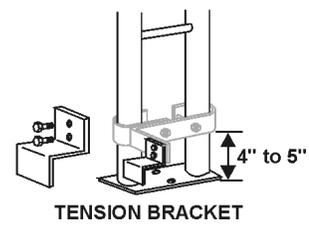
- Align the door panel square with the vertical ladders, header and ground (posts, beam and ground). *The door panel attaches underneath the welded-on rain cap and should overlap each edge by approximately 4".* Secure the door panel using fender washers and self drilling screws (wood screws for post & beam) through the gusseted reinforced fabric into the frame.



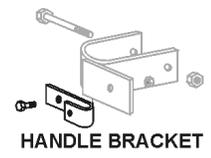
Hint: The door pockets face the outside of the door.

- Carefully slide the 1" mid-support pipe into the center pocket on the door. The support pipe should stick out 4" on each side of the door panel.
- Determine which side of the door will have the operating handle (generally as illustrated). Carefully slide the 2 3/8" tensioning pipe into the bottom pocket of the door. Install with the drilled adjustment holes OR with the attached u-joint on the operating side. The tensioning pipe should stick out 4" on each side of the door panel.
- With the door panel hanging straight, fasten the 1" mid-support tube to the outside hem of the door panel using 2 self-drilling bolts and pipe clips.
- Fasten the bottom tensioning tube to the door panel with 4 self-drilling bolts and pipe clips.

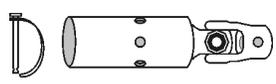
- Attach the door tensioning brackets to the bottom of both vertical ladders (posts) using 5/16" x 1 1/4" carriage bolts and nuts. *Leave loose for adjustment.* Position the tensioning brackets outside the door panel with enough side clearance to allow the door fabric to roll up without interference *and* just enough bottom clearance to allow the tensioning tube to pass beneath it (1/8" clearance is adequate). Tighten the bolts and nuts.



- Attach the handle bracket to the handle mounting plate on the operating side of the door.



- If required, insert the stub shaft of the u-joint into the door tensioning tube. Fasten using a 3/8" spring clip. Attach the handle to the u-joint using a 3/8" x 2" bolt and nut .

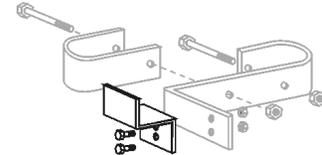


- With the tube in the tensioning brackets, turn the handle to apply tension to the door.

16. **Stub Shaft U-Joint** - Holding the tensioning tube in place (use a pipe wrench), carefully remove the spring clip and remove the handle assembly. Place the handle assembly flat against the end panel at the handle bracket and secure in the handle bracket using a pin and spring clip. Re-insert the u-joint into the tensioning tube. Replace the spring clip.

Attached U-Joint - If the handle assembly does not lie flat against the building under tension you can try adjusting the tensioning brackets. You may need to unroll the door, remove the self-drilling bolts, reposition the tube, and reinstall the self-drilling bolts.

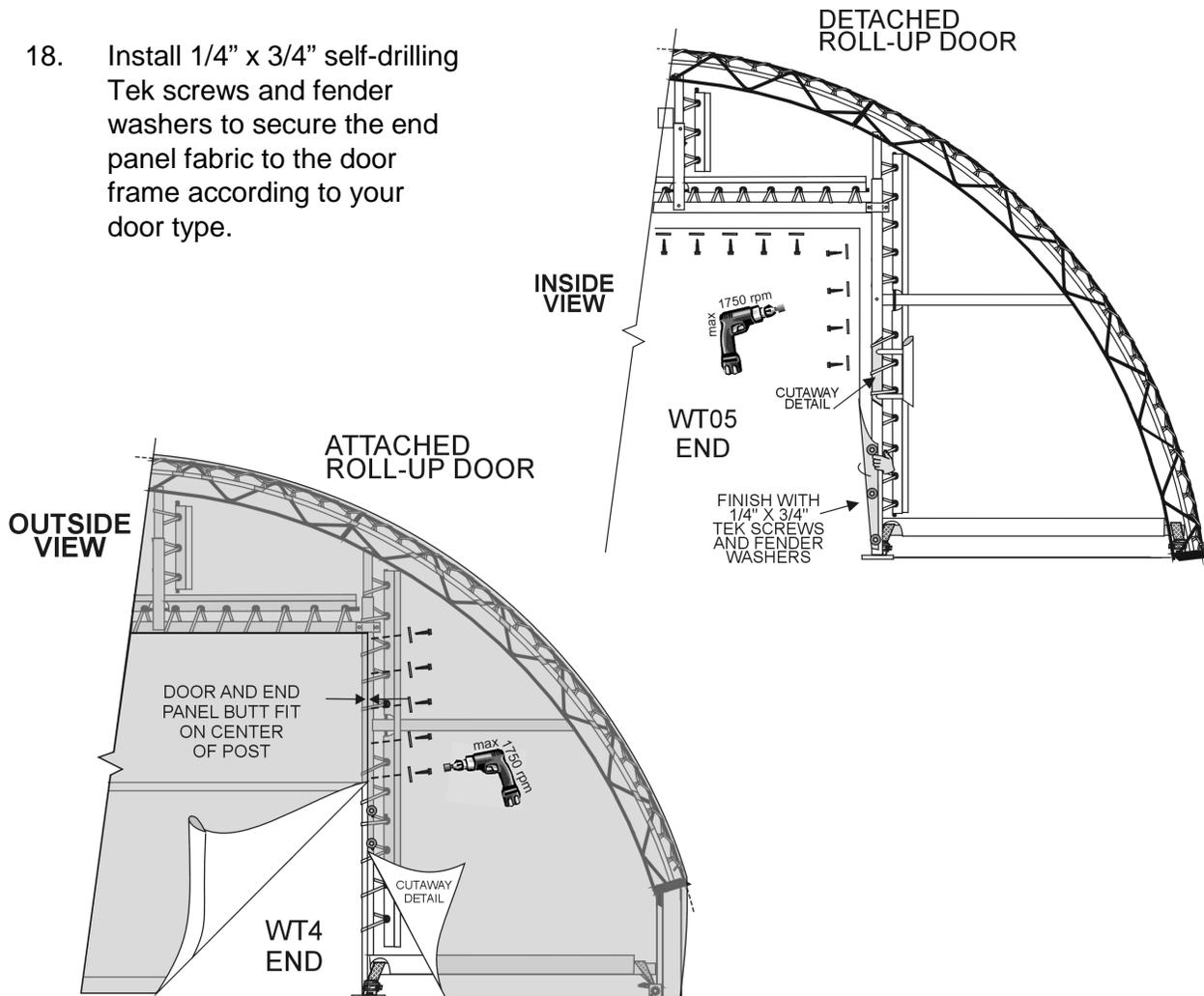
17. With the door now locked in the tensioned position, fasten the mid-support brackets (2) to the vertical ladders (posts). Position the brackets face up just outside the door panel's edge so that the tube gently rests on the bracket. Attach using 5/16" x 1 1/4" bolt/nut.



MID-SUPPORT BRACKET

IMPORTANT: Use extreme caution when raising and lowering the roll-up door always keep both hands firmly on the handle to prevent it from spinning out of control.

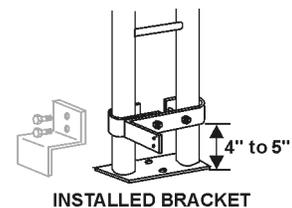
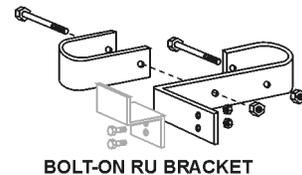
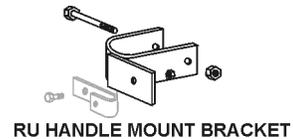
18. Install 1/4" x 3/4" self-drilling Tek screws and fender washers to secure the end panel fabric to the door frame according to your door type.



J - ATTACHED WT ROLL-UP DOOR

The roll-up door panel is attached to the end panel.

1. Attach the mounting plate brackets to the vertical ladders:
 - RU Handle Mount Bracket* – 60" above ground level on operating side.
 - Bolt-On RU Bracket for Mid-Support brackets* – 1/2 the door's height from ground level.
 - Bolt-On RU Bracket for Bottom Tensioning brackets*– 4" to 5" above ground level.
2. Secure the end panel to the face of the door posts using 1/4" x 3/4" self-drilling bolts. See diagram previous page.
3. Cut bolt slits in the end panel at the tensioning, mid-support and handle mounting plate brackets located on the vertical ladders.
4. Follow the installation instructions for the door tubes and crank assembly in Section I - WT ROLL-UP - DETACHED DOOR on Page 20 - Items 8 - 18.



IMPORTANT: Use extreme caution when raising and lowering the roll-up door, always keep both hands firmly on the handle to prevent it from spinning out of control.

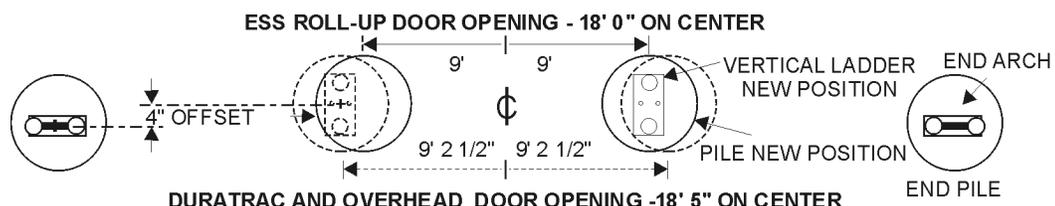
APPENDIX A

WT ROLL-UP DOOR FOUNDATION

If you are installing a standard Roll-Up door in an ESS system or post and beam end frame that normally has a standard DURATRAC door you must position the piles/posts to accommodate each "door post" moving inwards 2 1/2" towards center.

The remaining ESS piles (posts) do not move and are placed as described on Pages 4 through 8.

1. Calculate the required Roll-Up door opening (18' x 14') by taking the Standard DT door (center-to-pile measurement) from Pages 4 to 8 and **subtracting 2 1/2"**. Eg: DT door (18'x 14') center-to pile measurement = 9' 2 1/2" minus 2 1/2" = 9' for a Roll-up door.
2. Follow the ESS - PILES instructions Section A, Page 5.



APPENDIX B

POST & BEAM FOUNDATION AND END FRAME

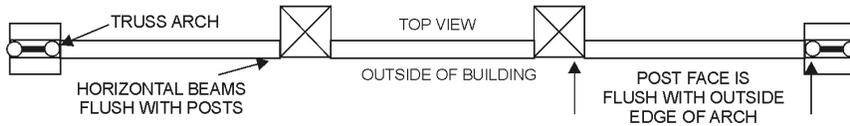
If you are installing a DURATRAC door in a post & beam end frame you must use an inside-to-inside-post measurement for the door opening.

SEE THE DURATRAC DOOR OWNER'S MANUAL FOR MEASUREMENTS.

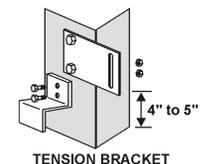
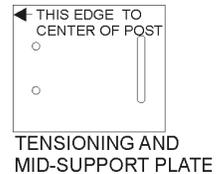
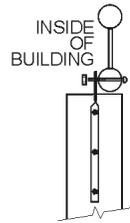
The remaining posts do not move and are placed as described on Pages 6 through 12.

If you are installing a Roll-Up door in a post & beam end frame use the Roll-Up Door Foundation instructions, APPENDIX A, Step 1, Page 23 for door post placement.

1. Determine the locations of the vertical posts for your building as above. The length of the post is equal to the ground to arch height *plus* the depth of the drilled holes. *Always use center-to-center measurements unless indicated otherwise.*
2. Drill holes and install 6" x 6" or 8" x 8" posts. (Building should be erected *before* installing posts.) The tops of the posts should just reach the lower truss tube.
3. Align the posts so that the outside face of each post -*at the top and at ground level* - is even with the outside edge of the end arch, and brace in position.



4. Secure the posts by tamping in crushed rock or gravel or by pouring concrete. See Rebar and Forms Page 5 or consult a qualified engineer.
5. Secure the tops of the posts to the lower truss tube. Each post requires a 90° twist bracket **as illustrated - not supplied** (3/16" x 1 1/2" x 18"). Drill a hole through the lower truss tube and fasten the bracket on the inside with a carriage bolt *installed from the outside*. Fasten the bracket to the side of the post using 2 or more lag bolts. **Brackets, carriage bolts and lag bolts are not supplied.**
6. Install beams according to the diagrams Pages 8 through 12. The outside faces of the beams must be flush with the posts' outside faces and the outside edge of the arch. Do not allow anything to extend past the face of the beams that could damage the end panel.
7. On the operating side of the door, attach the 2 tensioning mounting plates and 2 mid-support mounting plates to both door posts using 3/8" lag bolts. The edge of the plate (the edge opposite the slotted hole) should be positioned on the center of the post so that the slotted hole is exposed. Attach the handle mounting plate to allow attachment of the handle bracket. Use 3/8" lag bolts. See Section I, Page 20 for mounting plate locations.



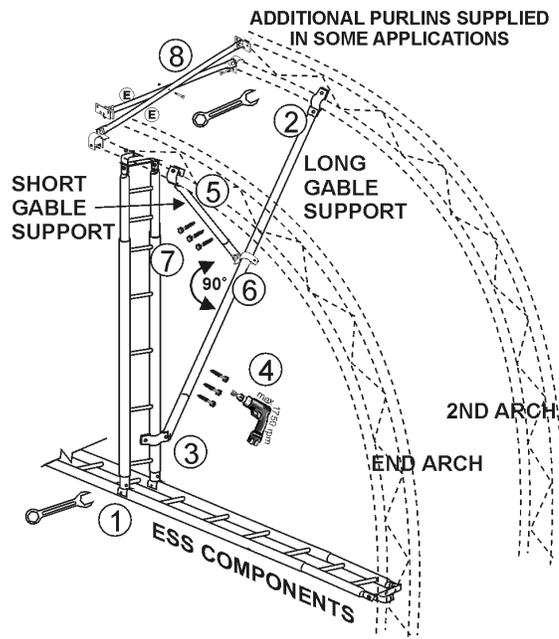
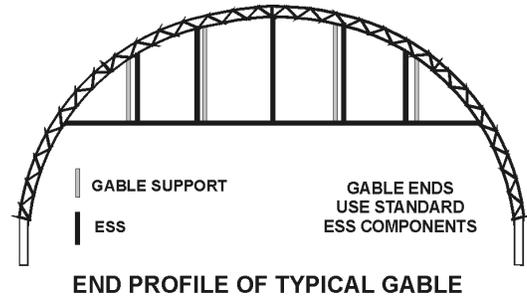
NOTE: *Install all posts and beams on center unless otherwise indicated. TAS 18 & TAS 30 end panels have single horizontal and single vertical rows of D-rings used to secure the panel to the frame. These single rows of D-rings are offset 6" from the indicated center measurements. All other buildings have PVC pockets offset 6". Posts and beams larger than 6", or placed off-center, may restrict proper tightening of the end panel.*

Keep in mind that Post & Beam end frames may require installation procedures that are unique to the materials that you have selected.

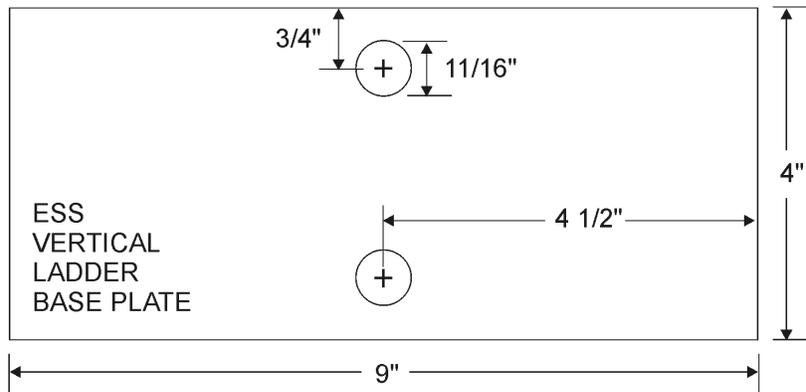
APPENDIX C

GABLE SUPPORTS

1. Assemble and install the vertical and horizontal ESS end components.
2. Attach a long 2 7/8" gable support tube to the lower truss tube of the second arch, across from a vertical ladder, using purlin brackets and 5/8" x 2 " bolts/nuts.
3. Sleeve a 2 1/2" tube onto the long tube (cut long tube if necessary - sleeve 8" min) and attach to the ESS vertical using a saddle bracket w/tab, 7/16" x 3 1/2" carriage bolts/nuts and 5/8" x 2 " bolts/nuts.
4. Fasten the sleeved tubes with 3 of Tek 3 screws.
5. Attach a short 2 7/8" gable support tube to the lower arch tube on the end arch, beside the vertical ladder, using a saddle bracket w/tab, 7/16" x 3 1/2" carriage bolts/nuts and 5/8" x 2 " bolts/nuts.
6. Sleeve a 2 1/2" tube onto the short tube (cut tube if necessary - sleeve 8" min) and attach a saddle bracket w/tab to the long gable support tube at a 90° angle using a 7/16" x 3 1/2" carriage bolts/nuts and 5/8" x 2 " bolts/nuts.
7. Fasten the sleeved tubes with 3 of Tek 3 screws.
8. Add additional purlins if supplied. Purlins are installed adjacent to supports.



TEMPLATE



LIMITED WARRANTY DURAWEAVE™ AND DURAWEAVE™ FR ("FIRE RETARDANT")



1. Scope of Limited Warranty

Only the DURAWEAVE™ and DURAWEAVE™ FR cover, end enclosure and DURATRAC and DT/LS fabric portion of the Cover-All™ building described in this agreement are warranted to the original Customer/Purchaser against deterioration that hampers the effectiveness of the cover caused by UV rays, hail and to be free of defects in materials and workmanship under normal use. This warranty shall be effective only if and when a) Cover-All Building Systems™ has received a completed warranty registration within 60 days after installation of the Cover-All™ building; and b) Cover-All Building Systems™ receives notice of such defect during the period of the warranty. Replacement of the cover and/or end enclosure or any components thereof (the "Warranted Parts"), supplied under this warranty may be new, used or repaired, at the option of Cover-All Building Systems™. The Customer's/Purchaser's sole remedy shall be such repair or replacement as is expressly provided above. Any Warranted Parts of the Cover-All™ building repaired or replaced under this warranty are subsequently warranted only for the remaining unexpired portion of the warranty period applicable to the original product. If Cover-All Building Systems™ elects to repair or replace the defective product or component, Cover-All Building Systems™ shall have a reasonable time to do so.

DURAWEAVE™ Main Building Cover Warranty

The DURAWEAVE™ cover is warranted, under normal use and maintenance in accordance to the instruction manual, to the original Customer/Purchaser for a period of 15 years following the original date of purchase. In the event that the DURAWEAVE™ cover needs to be repaired, the Customer/Purchaser would be held responsible for the cost at 1/15 or 6.66% of the current retail price for each year following the original date of purchase. In the event that the DURAWEAVE™ cover needs to be repaired, the cost of the repair will be prorated by Cover-All Building Systems™. A cover repaired under this warranty is subsequently warranted for only the unexpired portion of the original warranty period. The replacement cover, if required, will be made available at the nearest authorized Cover-All Building Systems™ Dealer.

DURAWEAVE™ FR ("Fire Retardant") Main Building Cover Warranty

The DURAWEAVE™ FR cover is warranted, under normal use and maintenance in accordance to the instruction manual, to the original Customer/Purchaser for a period of 10 years following the original date of purchase. In the event that the DURAWEAVE™ FR cover needs to be repaired, the Customer/Purchaser would be held responsible for the cost at 1/10 or 10% of the current retail price for each year following the original date of purchase. In the event that the DURAWEAVE™ FR cover needs to be repaired, the cost of the repair will be prorated by Cover-All Building Systems™. A cover repaired under this warranty is subsequently warranted for only the unexpired portion of the original warranty period. The replacement cover, if required, will be made available at the nearest authorized Cover-All Building Systems™ Dealer. DURAWEAVE™ and DURAWEAVE™ FR ("Fire Retardant") End Enclosure Warranty. The DURAWEAVE™ and DURAWEAVE™ FR end enclosures are warranted, under normal use and maintenance in accordance with the instruction manual, to the original Customer/Purchaser for a period of 3 years following the original date of purchase.

FIRST YEAR: Should the end enclosure be found to have manufacturer defects within the first year following purchase by the Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced at no cost to the Customer/Purchaser except for delivery costs of the Warranted Parts to the Customer/Purchaser, which shall be the sole responsibility of the Customer/Purchaser.

SECOND YEAR: Should the end enclosures be found to have manufacturer defects within the second year following purchase by the Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced. The Customer/Purchaser shall be responsible for thirty-three (33%) percent of the repair or replacement costs plus the cost of delivery of the Warranted Parts to the Customer, which shall be the sole responsibility of the Customer/Purchaser.

THIRD YEAR: Should the end enclosure be found to have manufacturer defects within the third year following purchase by the Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced. The Customer/Purchaser shall be responsible for sixty-six (66%) percent of the repair or replacement costs plus the cost of delivery of the Warranted Parts to the Customer/Purchaser, which shall be the sole responsibility of the Customer/Purchaser.

DURATRAC and DT/LS DURAWEAVE™ and DURAWEAVE™ FR ("Fire Retardant") Door Fabric Warranty

The DURATRAC and DT/LS DURAWEAVE™ and DURAWEAVE™ FR door fabric is warranted for one year, under normal use and maintenance in accordance with the instruction manual, to the original Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced at no cost to the Customer/Purchaser except for delivery costs of the Warranted Parts to the Customer/Purchaser which shall be the sole responsibility of the Customer/Purchaser. The warranted parts, if required, will be made available at the nearest authorized Cover-All Building Systems™ Dealer.

This warranty contains the sole expressed warranty of Cover-All Building Systems™. There are no other warranties, expressed or implied. This warranty is made in lieu of any implied warranties of merchantability or fitness for a particular purpose. Specifications and warranties are applicable to units sold in Canada, the United States, its territories and possessions, and may vary outside these areas.

2. Limits and Release of Liability

This warranty does not apply to defects or damage resulting from a) installation that is improper and/or not in accordance with the instruction manual; b) improper or inadequate maintenance; c) modification or alteration of the product; d) neglect, misuse or abuse of product; e) accident; f) unauthorized repair or alteration; g) integration with other products or accessories not manufactured specifically for use with the Cover-All™ building; h) exposure to corrosive elements; i) exposure to conditions in excess, or not meeting, as the case may be, the wind and snow load specifications of each building model (check with our engineering dept.); j) foundation design and/or installation and/or deficiency in the foundation; k) product upgrades; l) product recall; or m) an act of God. This warranty shall not apply to any products not manufactured by Cover-All Building Systems™. No one is authorized to change or add to this warranty. Cover-All Building Systems™ shall not be liable for any damages, incurred during or as a result of installation of Cover-All Building Systems™ product, whether or not in accordance with the instruction manual. This warranty gives you specific legal rights. You may also have other rights which vary from jurisdiction to jurisdiction. In no event shall Cover-All Building Systems™, any distributor, or the selling dealer be liable for any direct, indirect, special incidental or consequential damages (including loss of profits, loss of time, inconvenience, or the use or inability to use this product for any purpose whatsoever), whether based on contract, tort, strict liability or any other legal basis; even if Cover-All Building Systems™, its distributor, or selling dealer was advised of the possibility of the occurrence of such damages. The Customer/Purchaser expressly releases and discharges Cover-All Building Systems™, all distributors, and all dealers from all claims, demands, actions, suits, judgments and executions for any actual, incidental or consequential damages, bodily or otherwise, that the Customer/Purchaser ever had, now has, or may have created by arising out of the assembly, erection, use and/or operation of any Cover-All™ building. All references to Customer's/Purchaser's, Cover-All Building Systems™, all distributors and all dealers, include such parties' spouse, heirs, successors, legal representatives and assigns.

LIMITED WARRANTY - STEEL



1. Scope of Limited Warranty

Only the steel framework, end support systems and DURATRAC and DT/LS door tubes and steel fabricated parts of the Cover-All™ building described in this agreement are warranted to the original Customer/Purchaser to be free of defects in materials and workmanship under normal use. This warranty shall be effective only if and when a) Cover-All Building Systems™ has received a completed warranty registration within 60 days after installation of the Cover-All™ building; and b) Cover-All Building Systems™ receives notice of such defect during the period of the warranty. Replacement framework or any components thereof (the "Warranted Parts"), supplied under this warranty may be new, used or rebuilt, at the option of Cover-All Building Systems™. The Customer's/Purchaser's sole remedy shall be such repair or replacement as is expressly provided above. Any Warranted Parts of the Cover-All™ building repaired or replaced under this warranty are subsequently warranted only for the remaining unexpired portion of the warranty period applicable to the original product. If Cover-All Building Systems™ elects to repair or replace the defective product or component, Cover-All Building Systems™ shall have a reasonable time to do so.

Steel Framework (main arches and end support system)

The steel main arches and steel end support systems are warranted, under normal use and maintenance in accordance with the instruction manual, to the original Customer/Purchaser for a period of 3 years following the original date of purchase.

FIRST YEAR: Should the Warranted Parts be found to have manufacturer defects within the first year following purchase by the Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced at no cost to the Customer/Purchaser except for delivery costs of the Warranted Parts to the Customer/Purchaser, which shall be the sole responsibility of the Customer/Purchaser. The Warranted Parts, if required, will be made available at the nearest authorized Cover-All Building Systems™ Dealer.

SECOND YEAR: Should the Warranted Parts be found to have manufacturer defects within the second year following purchase by the Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced. The Customer/Purchaser shall be responsible for thirty-three (33%) percent of the repair or replacement costs plus the cost of delivery of the Warranted Parts to the Customer/Purchaser. The Warranted Parts, if required, will be made available at the nearest authorized Cover-All Building Systems™ Dealer.

THIRD YEAR: Should the Warranted Parts be found to have manufacturer defects within the third year following purchase by the Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced. The Customer/Purchaser shall be responsible for sixty-six (66%) percent of the repair or replacement costs plus the cost of delivery of the Warranted Parts to the Customer/Purchaser. The Warranted Parts, if required, will be made available at the nearest authorized Cover-All Building Systems™ Dealer.

DURATRAC and DT/LS Doors

The DURATRAC and DT/LS door tubes and steel fabricated parts (the "Warranted Parts") are warranted, under normal use and maintenance in accordance with the instruction manual, to the original Customer/Purchaser for a period of 1 year following the original date of purchase. Should the Warranted Parts be found to have manufacturer defects within the first year following purchase by the Customer/Purchaser, the defect(s) will be, at the option of Cover-All Building Systems™, repaired or replaced at no cost to the Customer/Purchaser except for delivery costs of the Warranted Parts to the Customer/Purchaser which shall be the sole responsibility of the Customer/Purchaser. The warranted parts, if required, will be made available at the nearest authorized Cover-All Building Systems™ Dealer. All mechanical and moving parts carry an OEM Manufacturer warranty of one year.

This warranty contains the sole expressed warranty of Cover-All Building Systems™. There are no other warranties expressed or implied. This warranty is made in lieu of any implied warranties of merchantability or fitness for a particular purpose. Specifications and warranties are applicable to units sold in Canada, the United States, its territories and possessions and may vary outside these areas.

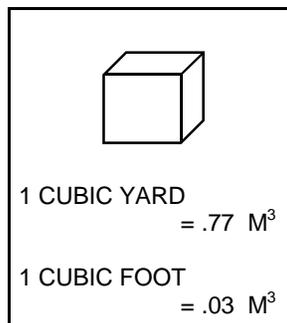
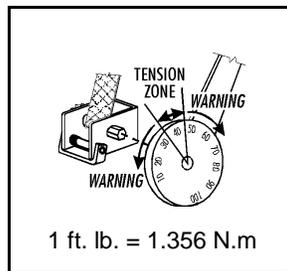
2. Limits and Release of Liability

Refer to Limits and Release of Liability in LIMITED WARRANTY - DURAWEAWE™ AND DURAWEAWE™ FR ("FIRE RETARDANT").

6/98

CONVERSIONS

| INCHES | | MILLIMETERS | |
|--------|-------|-------------|------------|
| 1/32" | | | |
| 2/32 | 1/16" | | 1.6 |
| 3/32 | | | |
| 4/32 | 2/16 | 1/8" | 3.2 |
| 5/32 | | | |
| 6/32 | 3/16" | | 4.8 |
| 7/32 | | | |
| 8/32 | 4/16 | 2/8 | 1/4" |
| | 5/16 | | 6.4 |
| | 6/16 | 3/8" | 9.5 |
| | 7/16 | | |
| | 8/16 | 4/8 | 2/4 |
| | 9/16 | | 1/2" |
| | 10/16 | 5/8" | 12.7 |
| | 11/16 | | 15.9 |
| | 12/16 | 6/8 | 3/4" |
| | 13/16 | | 19.0 |
| | 14/16 | 7/8" | 22.2 |
| | 15/16 | | |
| | 16/16 | 8/8 | 4/4 |
| | | 2/2 | 1" |
| | | | 25.4 |



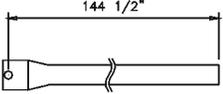
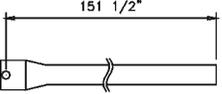
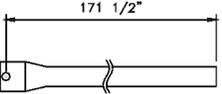
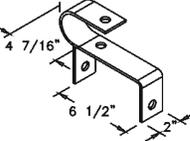
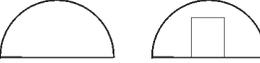
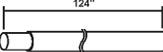
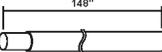
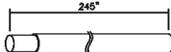
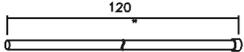
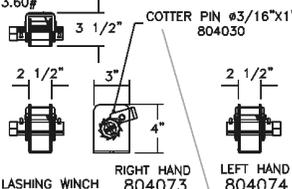
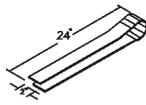
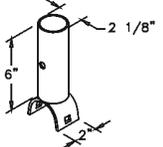
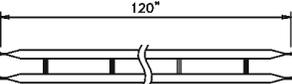
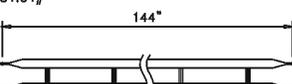
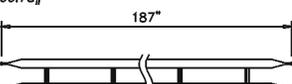
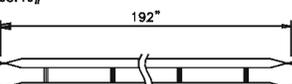
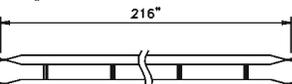
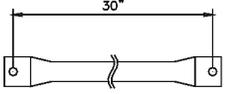
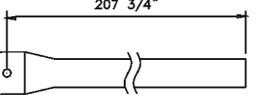
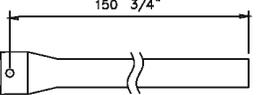
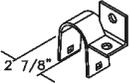
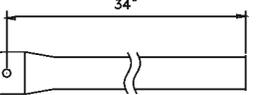
| FEET | METERS |
|------|--------|
| 1' | .305 |
| 2 | .610 |
| 3 | .914 |
| 4 | 1.219 |
| 5 | 1.524 |
| 6 | 1.829 |
| 7 | 2.134 |
| 8 | 2.438 |
| 9 | 2.743 |
| 10 | 3.048 |
| 25 | 7.620 |
| 30 | 9.144 |
| 35 | 10.668 |
| 40 | 12.192 |
| 45 | 13.716 |
| 50 | 15.240 |
| 60 | 18.288 |
| 70 | 21.336 |
| 80 | 24.384 |
| 90 | 27.432 |
| 100' | 30.480 |

| Roll-Up Door Components | <p>1.99#</p> <p>BRACKET MOUNTING PLATE 00 332850</p> | <p>0.89#</p> <p>ESS FULL SADDLE 3/16\" PLATE 304240</p> | <p>2.96#</p> <p>BOLT-ON -RU- DOOR BRACKET 3/16\" PLATE 332135</p> | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|---|--------|--------|--------|--------|---|--------|--------|--|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|
| | <p>0.90#</p> <p>2 1/2\" TENSION BRACKET H.D. ASSEMBLY 332820</p> | <p>0.90#</p> <p>2\" L.D. TENSION BRACKET 3/16\" PLATE 332810</p> | <p>0.48#</p> <p>HANDLE BRACKET 3/16\" PLATE 332830</p> | <p>1.78#</p> <p>-RU- HANDLE MOUNT BRACKET 3/16\" PLATE 332825</p> | | | | | | | | | | | | | | | | | | | | | | |
| | <p>2.68#</p> <p>MID-SUPPORT BRACKET 3/16\" PLATE 332840</p> | <p>2.57#</p> <p>U-JOINT w/ 5\" EXTENSION ASSEMBLY 332860</p> | <p>DURAWEAWE DOOR PANEL</p> | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>.92# /LFT</p> <table border="1"> <thead> <tr> <th>ITEM</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr> <td>332720</td> <td>7'</td> </tr> <tr> <td>332730</td> <td>11'</td> </tr> <tr> <td>332740</td> <td>13'</td> </tr> <tr> <td>332750</td> <td>15'</td> </tr> </tbody> </table> <p>HANDLE Ø1\" - 14 GA c/w CAP</p> | ITEM | LENGTH | 332720 | 7' | 332730 | 11' | 332740 | 13' | 332750 | 15' | <p>0.8136#/LFT</p> <table border="1"> <thead> <tr> <th>ITEM</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr> <td>332510</td> <td>11'-4"</td> </tr> <tr> <td>332520</td> <td>13'-4"</td> </tr> <tr> <td>332530</td> <td>15'-4"</td> </tr> <tr> <td>332540</td> <td>16'-10"</td> </tr> <tr> <td>332550</td> <td>17'-4"</td> </tr> <tr> <td>332560</td> <td>19'-4"</td> </tr> </tbody> </table> <p>MID-SUPPORT PIPE Ø1\" - 14 GA c/w CAPS</p> | ITEM | LENGTH | 332510 | 11'-4" | 332520 | 13'-4" | 332530 | 15'-4" | 332540 | 16'-10" | 332550 | 17'-4" | 332560 | 19'-4" |
| | ITEM | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | |
| | 332720 | 7' | | | | | | | | | | | | | | | | | | | | | | | | |
| 332730 | 11' | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332740 | 13' | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332750 | 15' | | | | | | | | | | | | | | | | | | | | | | | | | |
| ITEM | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332510 | 11'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332520 | 13'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332530 | 15'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332540 | 16'-10" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332550 | 17'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332560 | 19'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>2.0336#/LFT</p> <table border="1"> <thead> <tr> <th>ITEM</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr> <td>332008</td> <td>15'-4"</td> </tr> <tr> <td>332010</td> <td>17'-4"</td> </tr> <tr> <td>332015</td> <td>19'-4"</td> </tr> </tbody> </table> <p>ROLL-UP PIPE Ø2 3/8\" - 14 GA</p> | ITEM | LENGTH | 332008 | 15'-4" | 332010 | 17'-4" | 332015 | 19'-4" | <p>1.8331#/LFT</p> <table border="1"> <thead> <tr> <th>ITEM</th> <th>LENGTH</th> </tr> </thead> <tbody> <tr> <td>332610</td> <td>10'-5"</td> </tr> <tr> <td>332620</td> <td>12'-5"</td> </tr> <tr> <td>332630</td> <td>11'-9"</td> </tr> <tr> <td>332640</td> <td>16'-5"</td> </tr> </tbody> </table> <p>ROLL-UP PIPE w/ UNIVERSAL Ø1.9\" - 13 GA</p> | ITEM | LENGTH | 332610 | 10'-5" | 332620 | 12'-5" | 332630 | 11'-9" | 332640 | 16'-5" | | | | | | | |
| ITEM | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332008 | 15'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332010 | 17'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332015 | 19'-4" | | | | | | | | | | | | | | | | | | | | | | | | | |
| ITEM | LENGTH | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332610 | 10'-5" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332620 | 12'-5" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332630 | 11'-9" | | | | | | | | | | | | | | | | | | | | | | | | | |
| 332640 | 16'-5" | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Personnel Door</p> | <p>0.77#</p> <p>ESS WALK-IN DOOR BRACKET 14 GA PLATE 804750</p> | | | | | | | | | | | | | | | | | | | | | | | | | |

TORQUE VALUES

| SUGGESTED ASSEMBLY TORQUE VALUES FOR STRUCTURAL BOLTS | | | | | |
|---|---------------------|---------------------|-----|--|--|
| SIZE DIA (INCH) | THREADS PER INCH | GRADE 5 ft - lbs | | | |
| | | DRY | WET | | |
| 3/8 | 16 | 30 | 23 | | |
| 7/16 | 14 | 50 | 35 | | |
| 1/2 | 13 | 75 | 55 | | |
| 5/8 | 11 | 150 | 110 | | |
| 3/4 | 10 | 260 | 200 | | |
| 1 1/4 | 7 | 1120 | 840 | | |

ESS End Components - con't

| | | | |
|---|--|---|--|
| <p>16.10#</p>  <p>H2</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330105</p> | <p>16.91#</p>  <p>H17</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330106</p> | <p>17.73#</p>  <p>H18</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330108</p> | <p>13.88#</p>  <p>H1</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330110</p> |
| <p>2.25#</p>  <p>M9</p> <p>IAS ESS EXTENSION BRACKET ASSEMBLY (Ø2 7/8" SADDLE) 330450</p> | <p>0.85 #</p>  <p>NO STAMP</p> <p>TAS PURLIN BRACKET 3/16" PLATE (Ø2 3/8" PIPE) 310860</p> | <p>DURAWEAWE™ END PANELS</p>  | <p>1.4 #</p>  <p>1" BELTING 804540</p> |
| <p>21.01 #</p>  <p>FASTENING TUBE 2 3/8"Ø - 14 GA FT2.375-124S</p> | <p>25.08 #</p>  <p>FASTENING TUBE 2 3/8"Ø - 14 GA FT2.375-148S</p> | <p>41.52#</p>  <p>FASTENING TUBE 2 3/8"Ø - 14 GA FT2.375-245S</p> | <p>2.80 #</p>  <p>PVC TUBE 3/4Ø 900290</p> |
| <p>3.60#</p>  <p>RIGHT HAND 804073 LEFT HAND 804074</p> <p>COTTER PIN #3/16"X1" 804030</p> | <p>2LS2 TIE DOWN STRAP FOR 2 3/8"Ø PIPE 350048</p>  | | |
| <p>ESS Header Components</p> | | | |
| | <p>1.88#</p>  <p>M4</p> <p>ESS HEADER INSERT SHOE ASSEMBLY 330111</p> | <p>42.94#</p>  <p>D10</p> <p>ESS HEADER ASSEMBLY 330186</p> | <p>49.94#</p>  <p>D11</p> <p>ESS HEADER ASSEMBLY 330188</p> |
| <p>51.64#</p>  <p>D12</p> <p>ESS HEADER 12'-5" ASSEMBLY 330190</p> | <p>66.78#</p>  <p>D13</p> <p>ESS HEADER 16'-0" ASSEMBLY 330192</p> | <p>68.46#</p>  <p>D14</p> <p>ESS HEADER 16'-5" ASSEMBLY 330194</p> | <p>75.46#</p>  <p>D15</p> <p>ESS HEADER 18'-0" ASSEMBLY 330196</p> |
| <p>77.16#</p>  <p>D16</p> <p>ESS HEADER 18'-5" ASSEMBLY 330198</p> | <p>3.64#</p>  <p>H10</p> <p>ESS HORIZONTAL SUPPORT Ø1.66" - 14 GA 330280</p> | <p>Gable Components</p> | |
| <p>1.33#</p>  <p>TAS SADDLE BRACKET w/ TAB ASSEMBLY 310850</p> | <p>43.07#</p>  <p>TBS2 - ESS HORIZONTAL Ø 2 7/8" - 14GA 32000075</p> | <p>31.30#</p>  <p>TBS2 - ESS HORIZONTAL Ø 2 7/8" - 14GA 32000060</p> | <p>1.71 #</p>  <p>IAS SADDLE BRACKET w/ TAB ASSEMBLY 310870</p> |
| | | <p>12.20#</p>  <p>TBS2 - ESS TRUSS EXTENSION Ø 2 1/2" - 14GA 330550</p> | |

Maintenance Recommendations For Buildings in Corrosive Environments

BUILDING STEEL

Cover-All™ manufactured steel components are hot dipped galvanized, hot zinc plated or coated with a high quality sealant. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from resting against or covering the building steel.
- Remove any environmental residue that accumulates on the building steel.
- Seal all surface penetration marks with a high quality sealant or a high zinc content paint.

BUILDING HARDWARE

Hardware components are made of galvanized steel or aluminum alloy; are zinc plated with an added leachant-sealant; or are zinc or cadmium plated. *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from coming in direct contact with the building hardware.
- Remove any environmental residue that accumulates on the building hardware.
- Seal or protect from corrosion any non-building components that are connected to, or that come in contact with, the building hardware.

ANCHOR BOLTS *It is recommended that the building owner/operator:*

- Seal the exposed anchor bolt threads with a high quality sealant or a high zinc content paint.

FABRIC LASHING WINCHES *It is recommended that the building owner/operator:*

- Spray the lashing winches with a moisture displacing filming lubricant. (WD40 or equivalent)

DURAWEAWE™ FABRIC *It is recommended that the building owner/operator:*

- Prevent corrosive material or product from resting against or covering the building fabric.
- Remove any environmental residue that accumulates on the building fabric.
Where moisture will not contribute to corrosion – wash with water and non-abrasive soap.

FOR TECHNICAL ASSISTANCE CALL YOUR LOCAL DEALER OR SALES REPRESENTATIVE OR 1-800-268-3768



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