



**MASON  
COMPANY**

Designers and Manufacturers of  
Quality Animal Enclosures Since 1892.

## Installation Instructions for Free Standing FRP Stacked Cage System

### Introduction

Thank you very much for your investment in Mason kennels. At Mason we take great pride in providing our customers with the highest quality animal enclosures, combined with an enjoyable ordering experience. The following instructions will assist you with proper assembly, cleaning, and maintenance of your Mason kennels. It is important to follow these guidelines in order to receive the best results and maximum life from your investment.

#### Assembly

The following pages will show you how to assemble your new Mason kennel. Since every order is custom built to your specifications, the instructions are designed to show the various methods used to assemble our kennels and some of the demonstrations may not apply to your order. Be sure to use the enclosed scale drawings at the end of this document of the provided hardware to ensure proper identification and usage.

#### Hardware

Depending on your Kennel project you may have some or all of the following hardware:

<b>Part #</b>	<b>Description</b>	<b>Part #</b>	<b>Description</b>
2222	#10-32 x 5/8" TEK screw(s)	1799	Square Single clamp(s) (w/Stainless Steel Gate option)
1955	5/16" x 1-1/2" SS carriage bolt(s)	1797	Square Double clamp(s) (w/Stainless Steel Gate option)
356	5/16" x 1-1/2" carriage bolt(s)	1798	Square Triple (w/Stainless Steel Gate option)
1771	5/16" x 1-3/4" SS carriage bolt(s)	330	Panel Clamp (w/Chainlink Gate option)
357	5/16" x 1-3/4" carriage bolt(s)	328	Triple Clamp (w/Chainlink Gate option)
424	5/16"-18 SS hex nut	3118	Single Clamp -1"(w/Stainless Steel Gate Option)
423	5/16" -18 nut	3119	Double Clamp -1" (w/Stainless Steel Gate option)
369	1/4"-20 x 1-1/2" hex head bolt (w/Stainless Steel Gate option)	3120	Triple Clamp -1" (w/Stainless Steel Gate option)
422	1/4" -20 hex nut		
1400	1/4" x 1-1/2" Rawl Spike(s) (anchored systems only)		
2449	Sealant		
1071	Special pulleys (w/Kennel Door option)		"Sanislope T" x length of panels
1344	1/4" X 1-1/4 " Hex Head Tapcons	421	1/ 4" Nyloc nut
		1906	1/4-20 x 5/8" Flat head screw

**Note: Wall mounting hardware is shown only for reference purposes and is not included**

A packing list has also been included, which details parts and quantities provided for your order.

## Installation

### Required installation tooling:

- Level (4' preferred)
- 1/2" Combination wrench
- 7/16" Combination wrench
- Hammer
- Hammer drill (anchored systems only)
- 1/4" Masonry bit (anchored systems only)
- 5/16" drill bit (anchored systems only)
- #2 Phillips bit (2-3)
- Caulk gun
- Variable Speed Drill (cordless preferred)
- 11/64" drill bit
- Tape measure
- Chalk line
- Denatured alcohol
- Shop rags
- 5/16" Nut driver bit

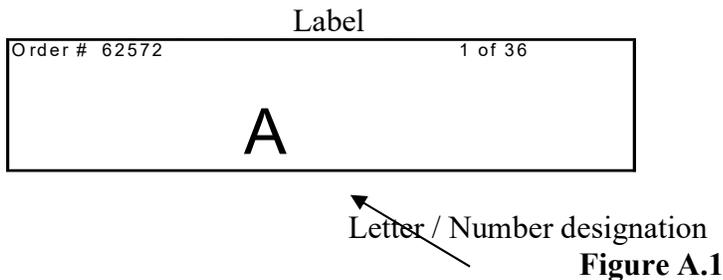
### Optional tools

- Vise Grips – 8" locking C-clamps (3 pair recommended)
- WD40 or other thread lubricant

## Section A Panel Identification

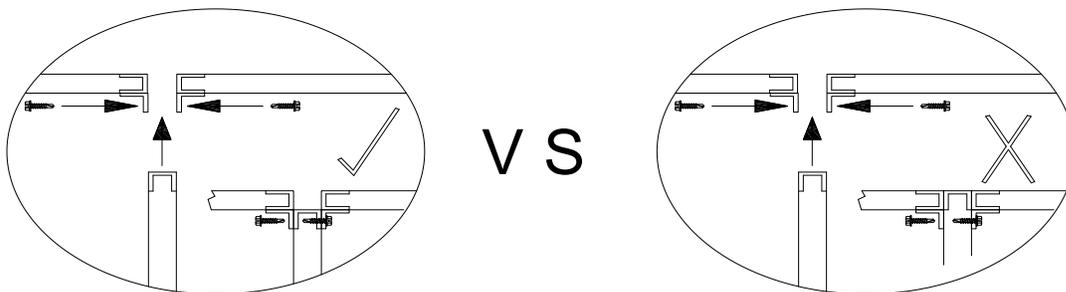
Refer to the floor plan supplied.

Depending on the nature of your Kennel Project you will have either letter and or number designations on the tag(s) wired to the top of the panel as shown in Figure A.1.



Each connection point of the panels should be aligned as shown on the floor plan. Note the difference in the alignment of the two panel connections (Figure A.2). It will make a difference as to how your runs go together if you do not align the panels properly, and in some cases they may not go together at all.

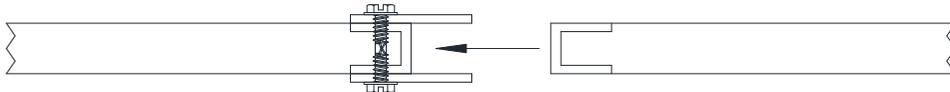
### Panel Alignment Designation



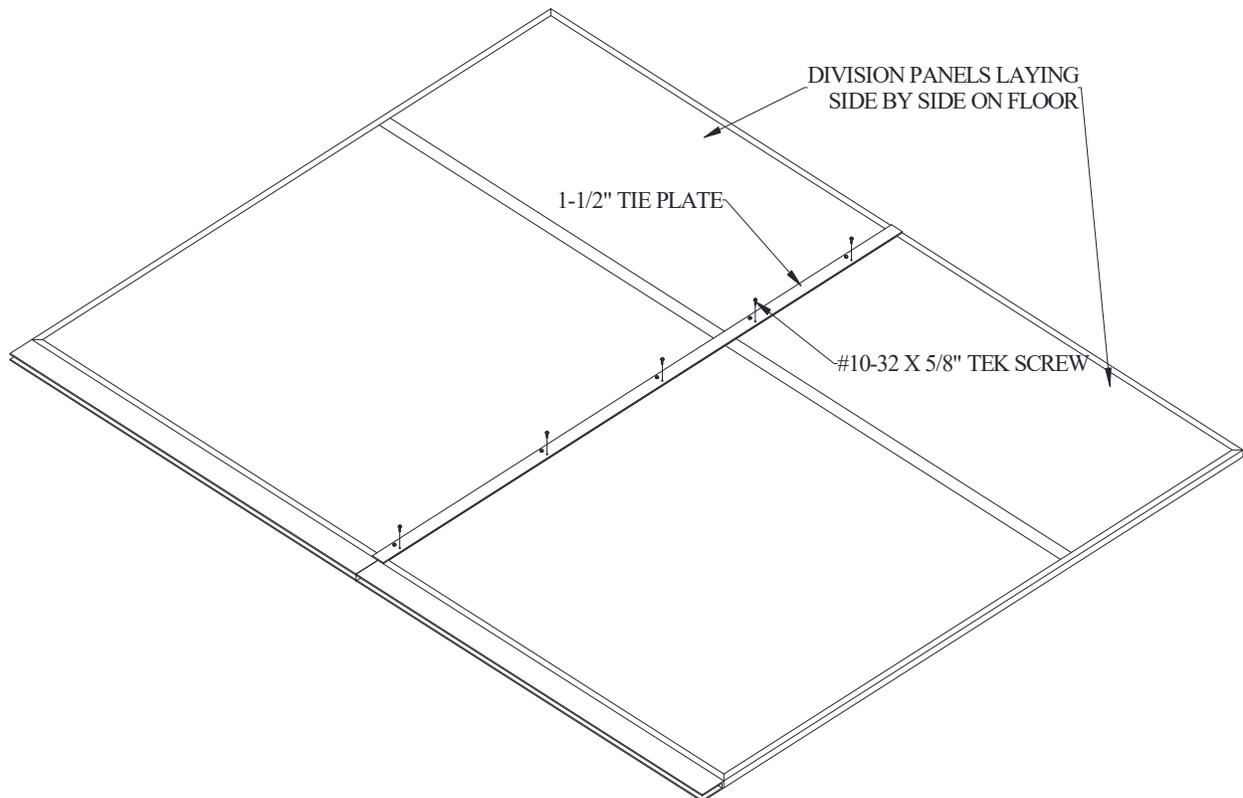
## Section B Panel Assembly and Floor Layout Preparation

Sometimes the length or layout of the division panels in a kennel requires that they be made up from multiple panels. Each of the multiple panel assemblies must be connected before assembling the runs. Referring to the Floor Plan and using the Panel Identification Tag as described in Section A, make all multi-division panel connections that are in line with one another using the following steps:

1. Lay the two panels to be connected on the floor so that they are oriented correctly per the Floor Plan and or "Panel Identification".
2. One of the two panels will have tie plates already attached, creating a channel (Figure B.1) used to insert the opposite panel.
3. Once the opposing panel has been inserted, align the top surfaces together, while pushing the panels together tightly.
4. Using the #10-32 x 5/8" TEK screws provided, connect the panel to the tie plate by fastening a screw into the panel. Fasten the screw into the tie plate/ panel adjacent to the existing screws (Figure B.2).
5. Repeat steps B-1 through B-4 for all inline division panels.



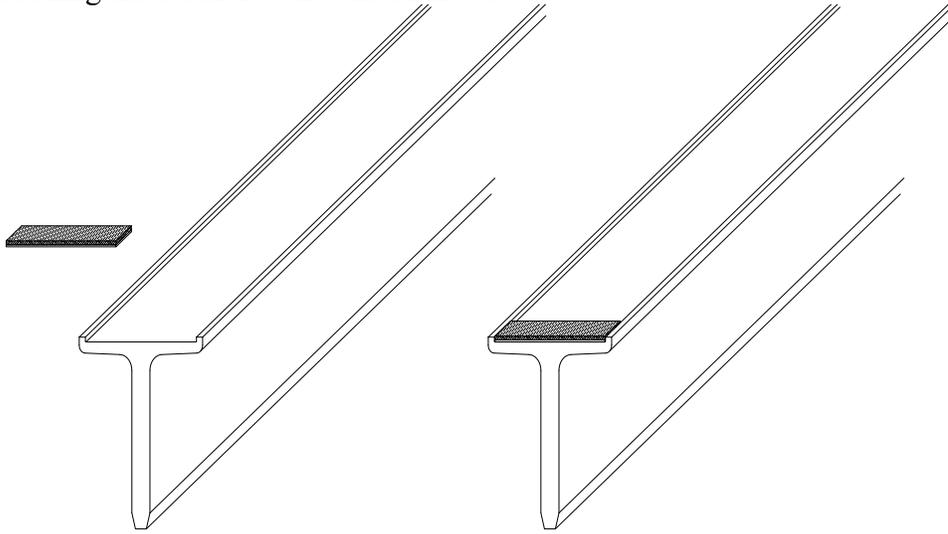
**Figure B.1**



**Figure B.2**

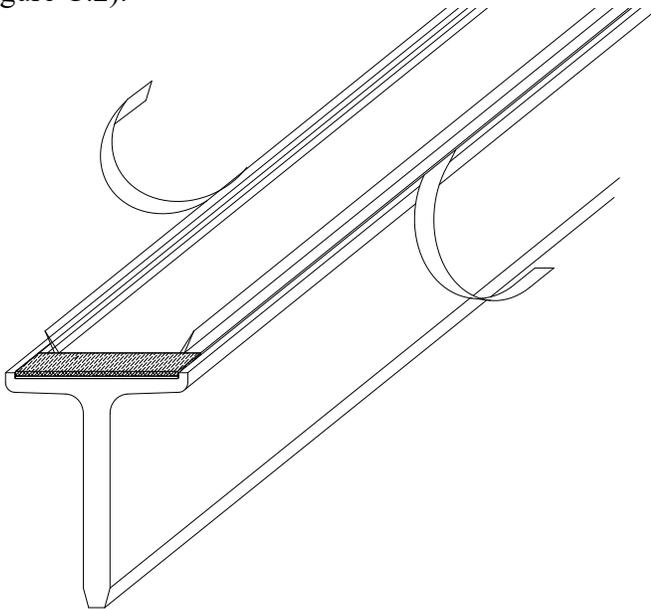
**Section C**  
**Attaching Your Silvis Seal™**

1. If your system is using Silvis Seals you must apply them to the Sanislope T's now. Orient the "T" as shown (Figure C.1). Apply the end blocker by peeling off the backing strip and positioning the blocker at the end of the "T".



**Figure C.1**

2. Apply the Silvis Seal to the "T" by removing approximately 2 ft. of backing tape. Starting at the end blocker, apply the Seal to the recessed channel in the "T" being careful to orient the Seal in line with the "T". Lay the rest of the Seal in the recessed channel. Carefully pull the remaining backing tape from the "Seal" and using light pressure adhere it to the aluminum as shown (Figure C.2).

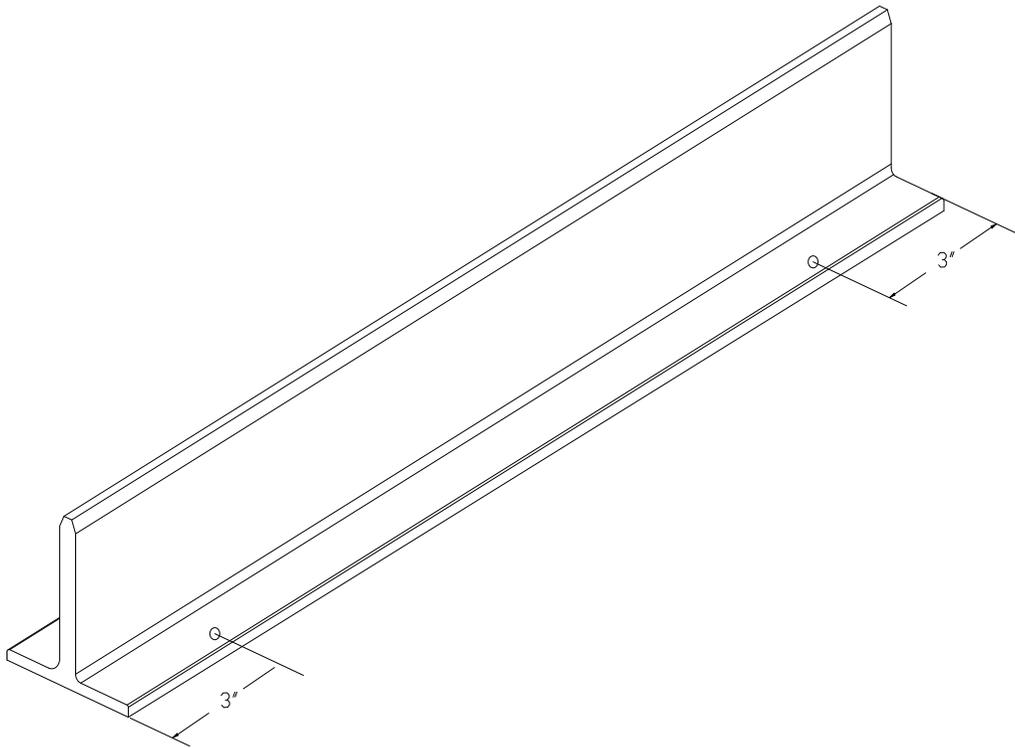


**Figure C.2**

**Section D**

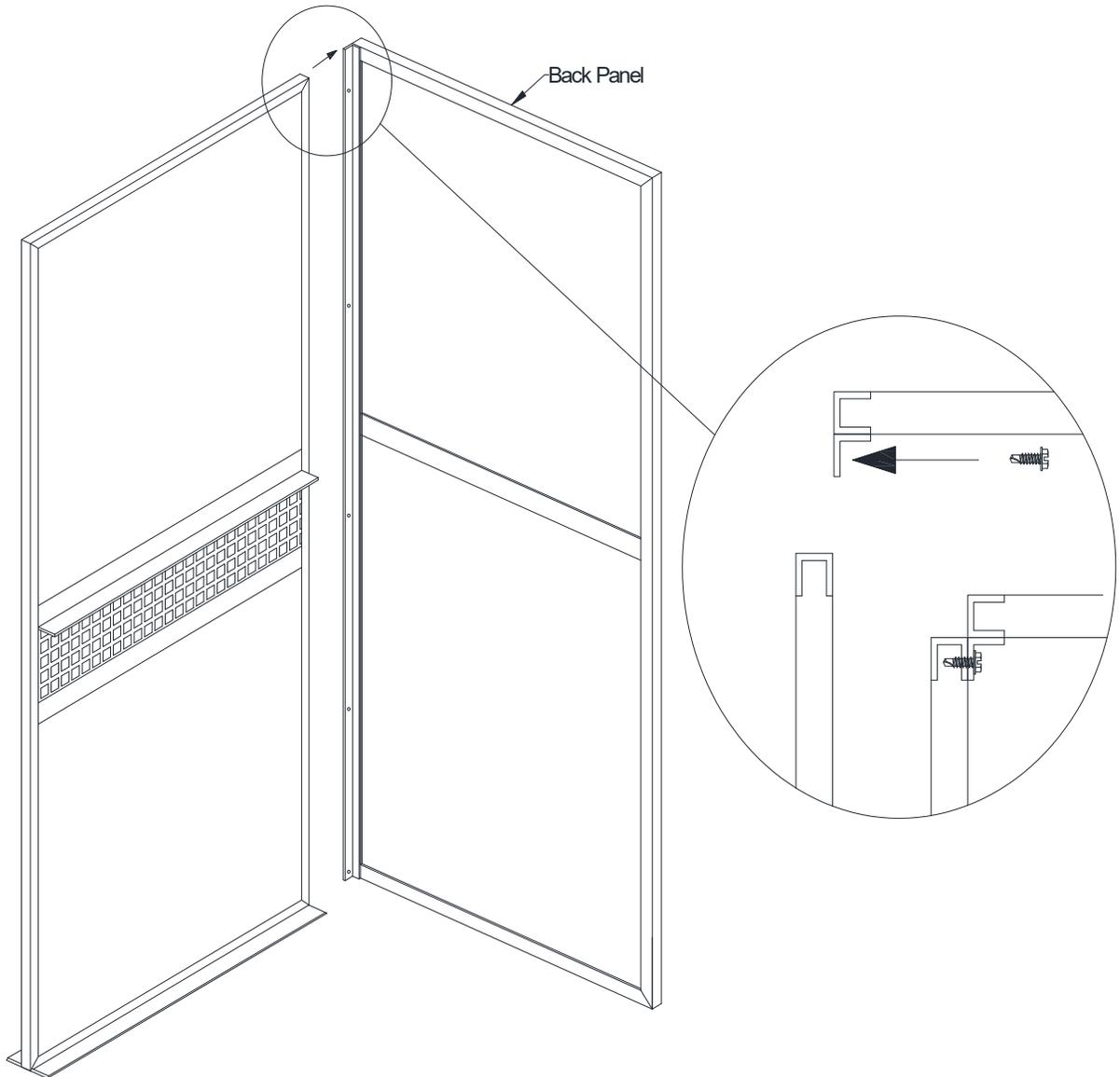
## Run Assembly

1. Refer to your floor plan and select a starting point for assembling the runs (preferably on the end of a bank of runs, at the intersection of the back panel and outside division panel), which is best for your application. **Note:** The dimensions shown on your drawings are centerline dimensions, not from edge of panel to edge of panel.
2. **Optional:** This system is designed to function equally well whether it is fastened to the floor or not. If you do not want to fasten it the floor skip to step 4; otherwise proceed with step 3.
3. Using the 5/16" drill bit, pre-drill the "Sanislope T's" (Figure D.1). These holes will be used later to anchor the system to the floor. **Do not anchor the "Sanislope T's" to the floor at this time.**



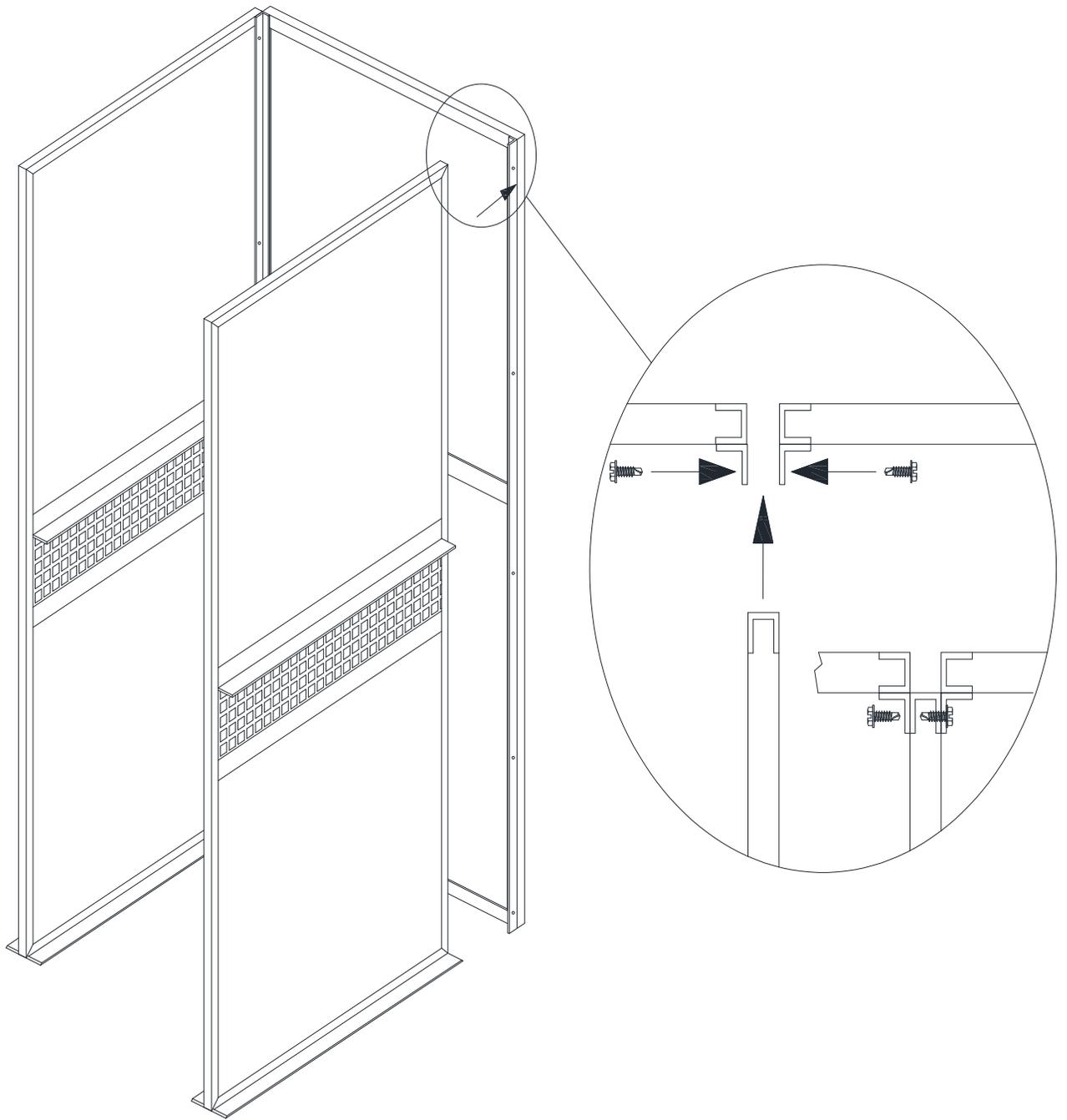
**Figure D.1**

4. Starting from the point you selected in step C-1 place the first "outside division panel" on the corresponding "Sanislope T". Place the adjacent back panel as shown in Figure D.2. Note that the vertical edges of the panel are flush with each other.



**Figure D.2**

5. Begin assembling this panel to the first back panel using the #10-32 x 5/8" TEK screws provided, connect the panels by applying a screw in every hole in the division panel. **Note: these are self drilling, self tapping screws and do not require pilot holes.**
6. Position the next division panel in place and connect with the #10-32 x 5/8" TEK screws provided. (Figure D.3).

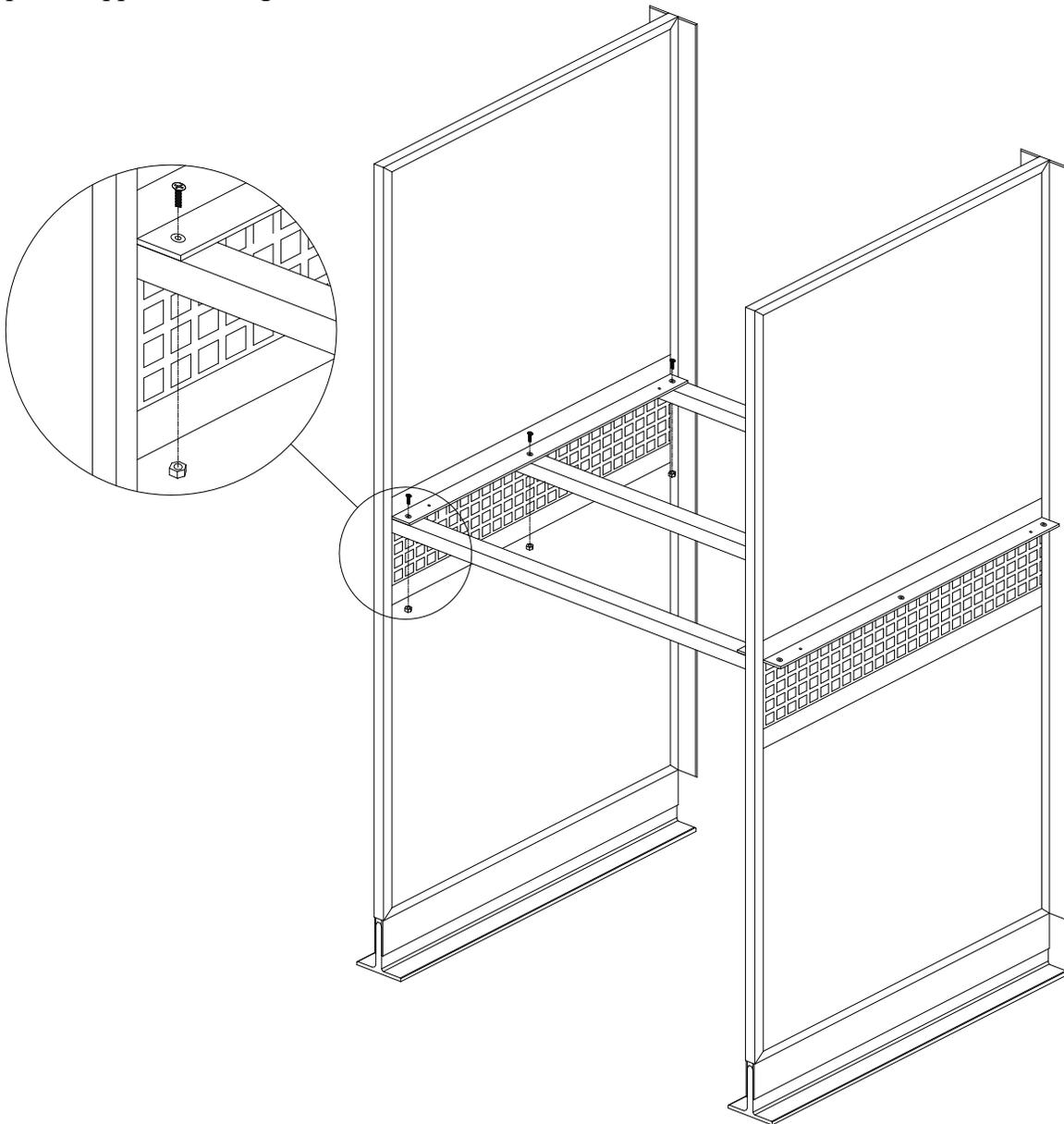


**Figure D.3**

7. Repeat steps D-1 through D-6 to assemble all of the division panels to the back panels.
8. Repeat Steps B-1 through D-6 for all other banks of runs.

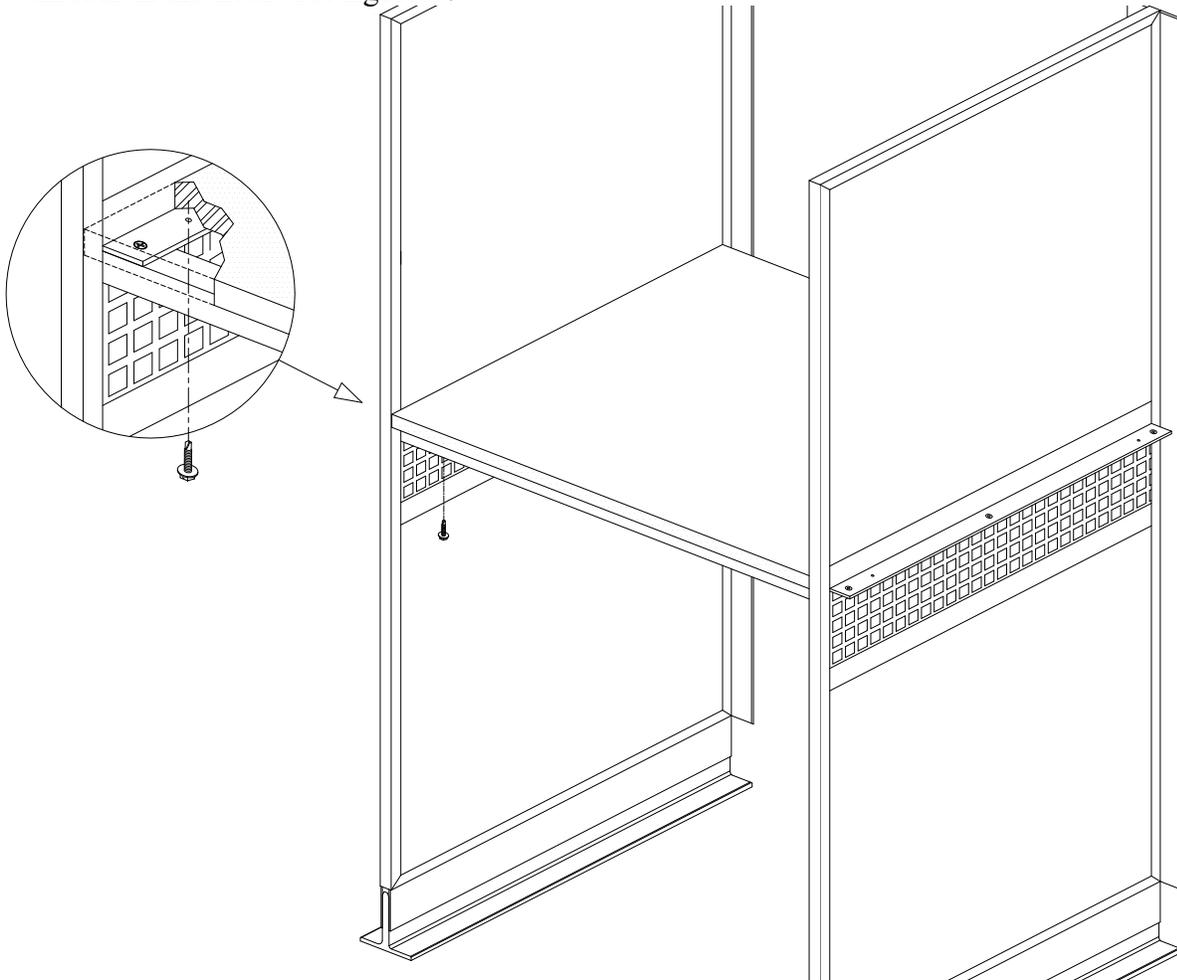
**Section E**  
**Installing the floor and floor supports**

1. Clamp the aluminum cross braces in place so that they are lined up under the holes that you marked in step 1. (Figure E.1)
2. Drill 1/4" holes through each mark and countersink the holes. Repeat on the opposite side of the panel.
3. Attach the aluminum angle floor supports across the run using the 1/4-20 x 5/8" UNC flat head machine screws and 1/4-20 Nyloc nuts. Align the holes in the floor supports with the pre-drilled and countersunk holes in the appropriate flange in the division panels and fasten.  
**Before tightening the fasteners take care to ensure that the spacing between division panels is correct, this cannot be adjusted later without removing the floor!** Note the flat head of the screw should be on the top side of the flange so that the floor sits on the division panel supports. See figure 8.



**Figure E.1**

4. Place the floor onto the supports and the support flanges of the division panels.
5. If desired you may use (4) #2222 TEK self tapping screws to secure the floor in place. Drill  $\frac{1}{4}$ " diameter holes through the support flange of the division panel near where the corners of the floor will sit but away from the cross supports.
6. With the floor in its final location, hold firmly down on the floor and drive a screw up through each of the pilot holes in the division panel support flanges into the floor, (4 places per floor). Use the minimum amount of torque necessary to drive the screws to avoid stripping out the threads in the floor. See figure 10.



**Figure E.2**

7. Apply a bead of the Boss 125 Multi-Seal sealant along the sides and back edge of the floor. The surfaces must be clean and dry before sealing. We recommend wiping the surfaces with denatured alcohol and a clean rag.

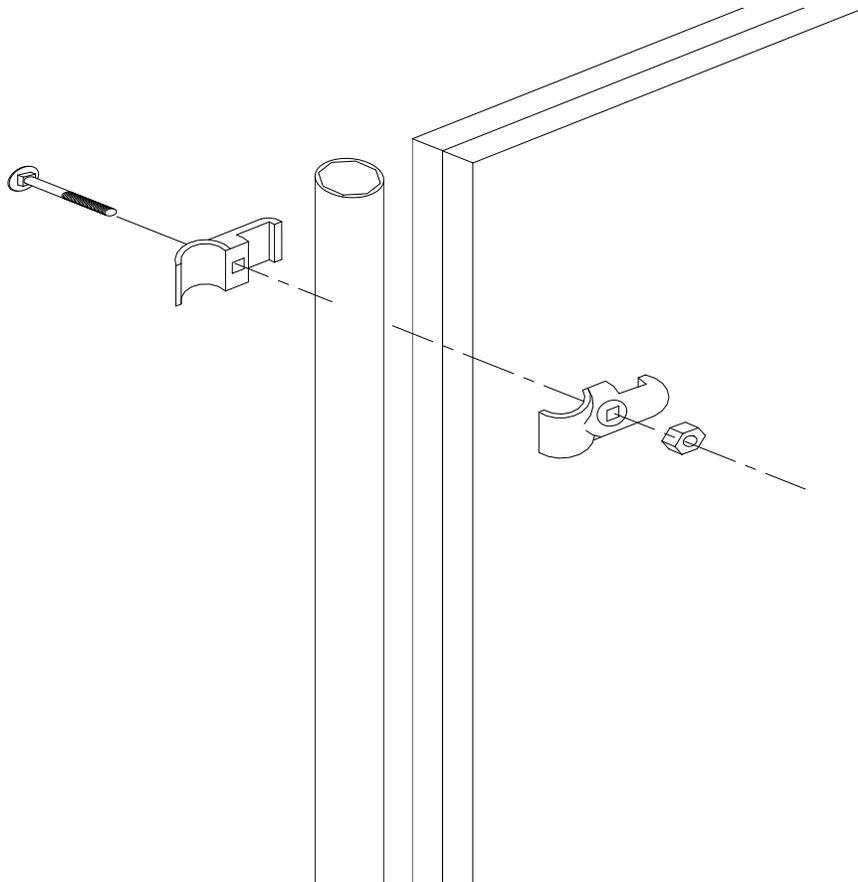
**Note: If you have Division Panels with Kennel Doors you must install the hardware at this point. Please refer to the separate instructions for Kennel Doors in Division Panels.**

## Section F Gate / Stall Front Hanging

Your system may include chain link, stainless steel gates or both. Use the appropriate instructions for hanging your gates and or stall fronts.

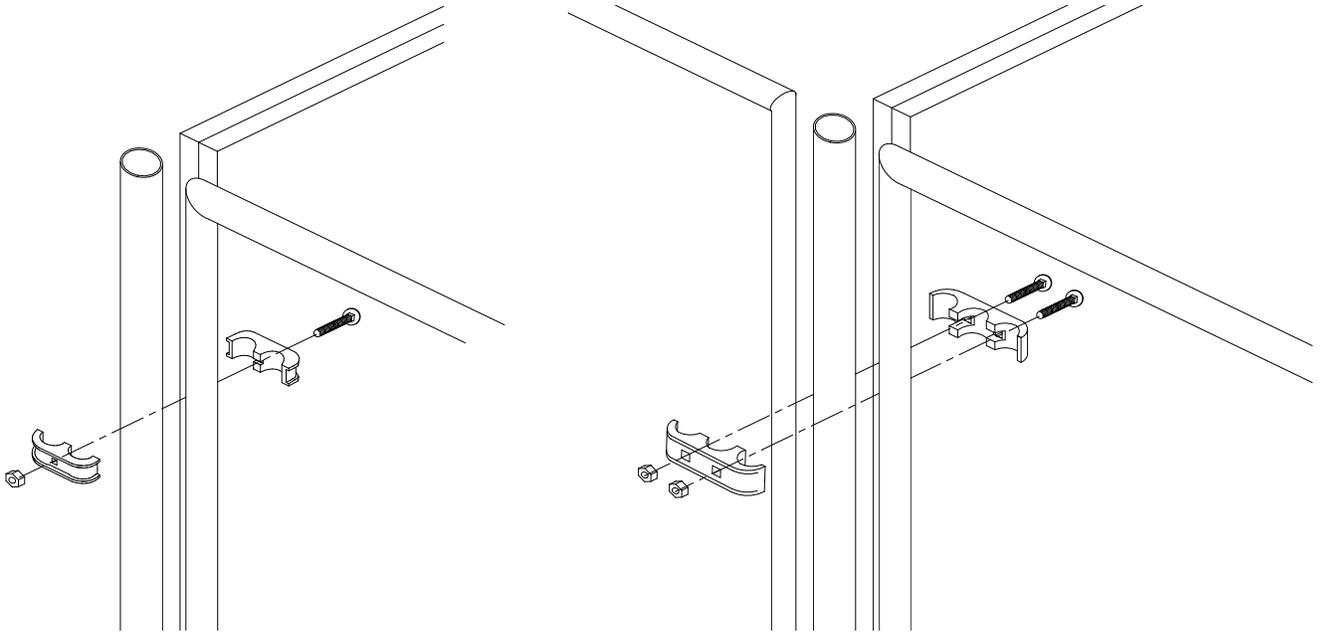
### Chainlink Gates / Stall Fronts

1. Attach the filler pipes to the front end of each division panel with two Square-Round clamps (it takes two halves to make up one clamp) approximately 6" from either end of the filler pipe using the 5/16" x 1-3/4" carriage bolts and 5/16" nuts provided (Figure F.1).

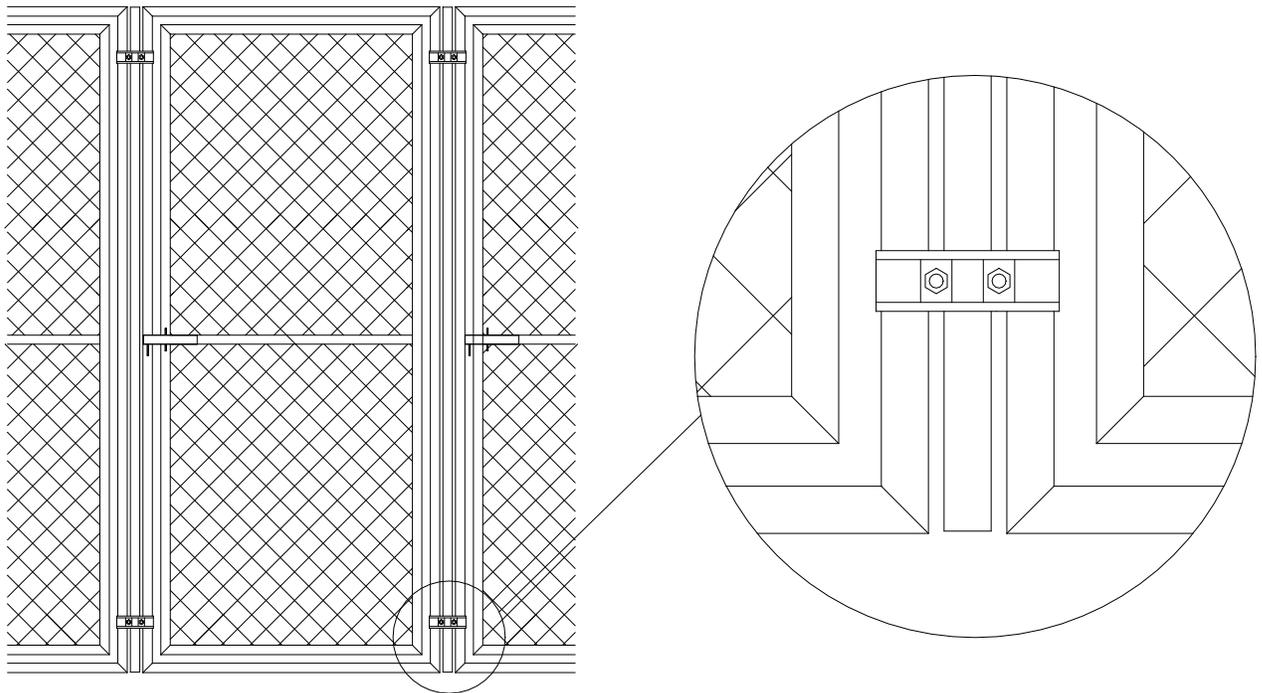


**Figure F.1**

2. Attach the gate / stall front on the front of each run between the filler pipes with two clamps on each side using the 5/16" x 1-1/2" bolts and nuts provided (Figure F.2). Note: It takes two halves to make up one clamp. Attach gates / stall fronts to outside division panels using "panel clamps". All other gates / stall fronts will use "triple clamps". **To help insure the safety of the animals the round head of the bolt should be assembled toward the inside of the run.** Note: The triple clamps attach two gates / stall fronts together. Therefore you will have to hang two gates / stall fronts at the same time (Figure F.3).
3. Adjust the gate latch following the instructions in section I, "Gate Latch Adjustment".



**Figure F.2**



**Figure F.3**

## Stainless Steel Gates / Stall Fronts

1. Attach the gate / stall front on the front of each run between the division panels with two clamps on each side using the 5/16" x 1-1/2" bolts and nuts provided (Figure F.4). Note: It takes two halves to make up one clamp. Attach gates / stall fronts to outside division panels using "square – 1" panel clamps". All other gates / stall fronts will use "square – 1" triple clamps". **To help insure the safety of the animals the round head of the bolt should be assembled toward the inside of the run.** Note: The triple clamps attach two gates / stall fronts together. Therefore you will have to hang two gates / stall fronts at the same time (Figure F.5).
2. Adjust the gate latch following the instructions in section I, "Gate Latch Adjustment".

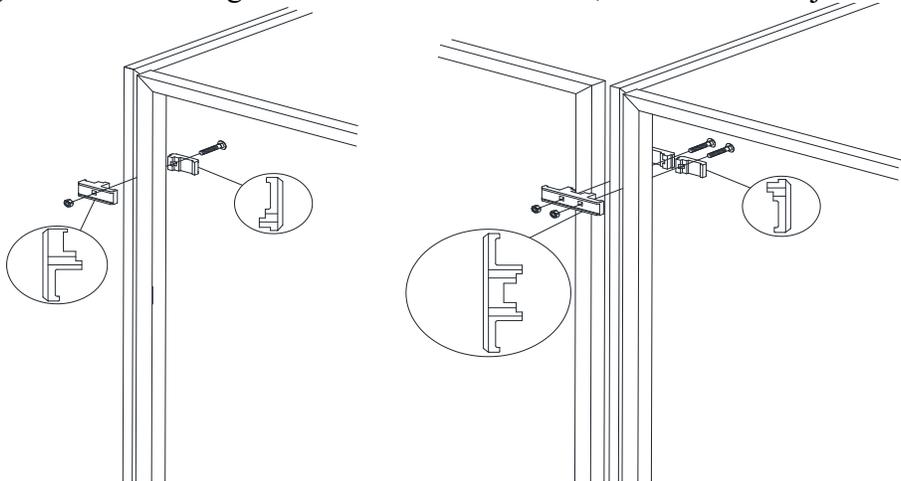


Figure F.4

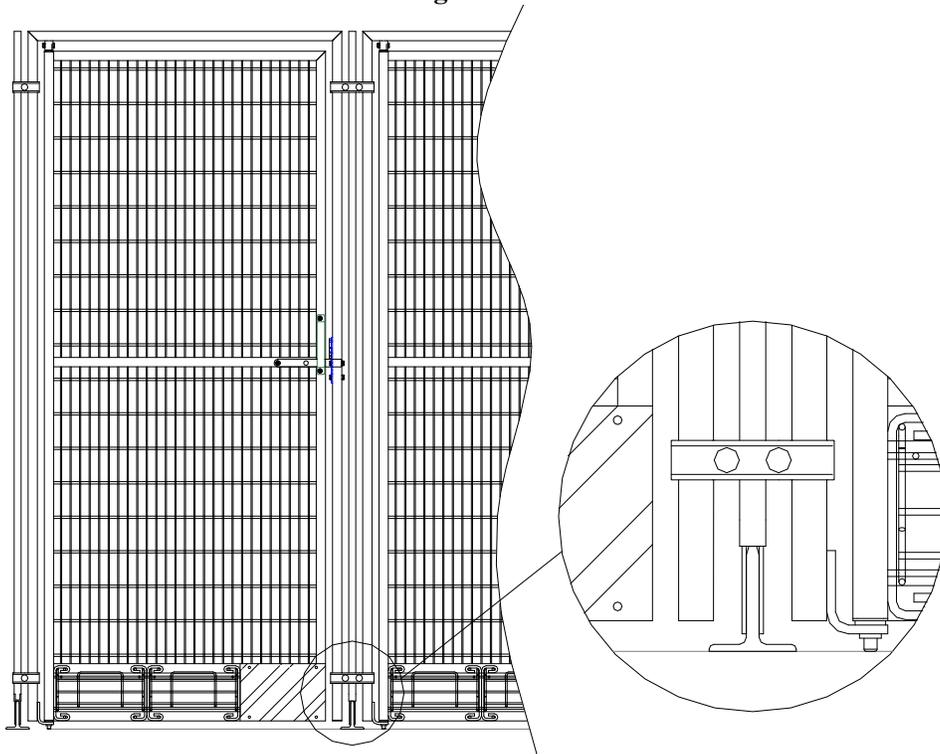


Figure F.5

This Mason system is designed to work equally well whether it is anchored to the floor or not. If you desire to anchor it to your floor proceed with Section F otherwise skip to Section G.

### Section G Anchor System to Floor

**Important:** Before anchoring your system to the floor verify the entire installation is where you want it, square to the lines marked in step C-1 and leveled. Once you have verified this, you can anchor the “Sanislope T”s on the outside division panels to the floor using the following steps:

1. Using the holes you drilled in step C-3 as a template, drill a 1/4” hole using a hammer drill, with a 1/4” masonry bit to a minimum of 1-1/4” deep.
2. Insert a 1/4” x 1-1/2” Rawl Spike provided into the hole and drive it in with a hammer until the “Sanislope T” is tight against the floor and the head of the Rawl Spike is tight against the “Sanislope T”.
3. Repeat steps F-1 and F-3 for all hole locations (Figure G.1).
4. Repeat steps F-1 through F-4 for all outside division panels.

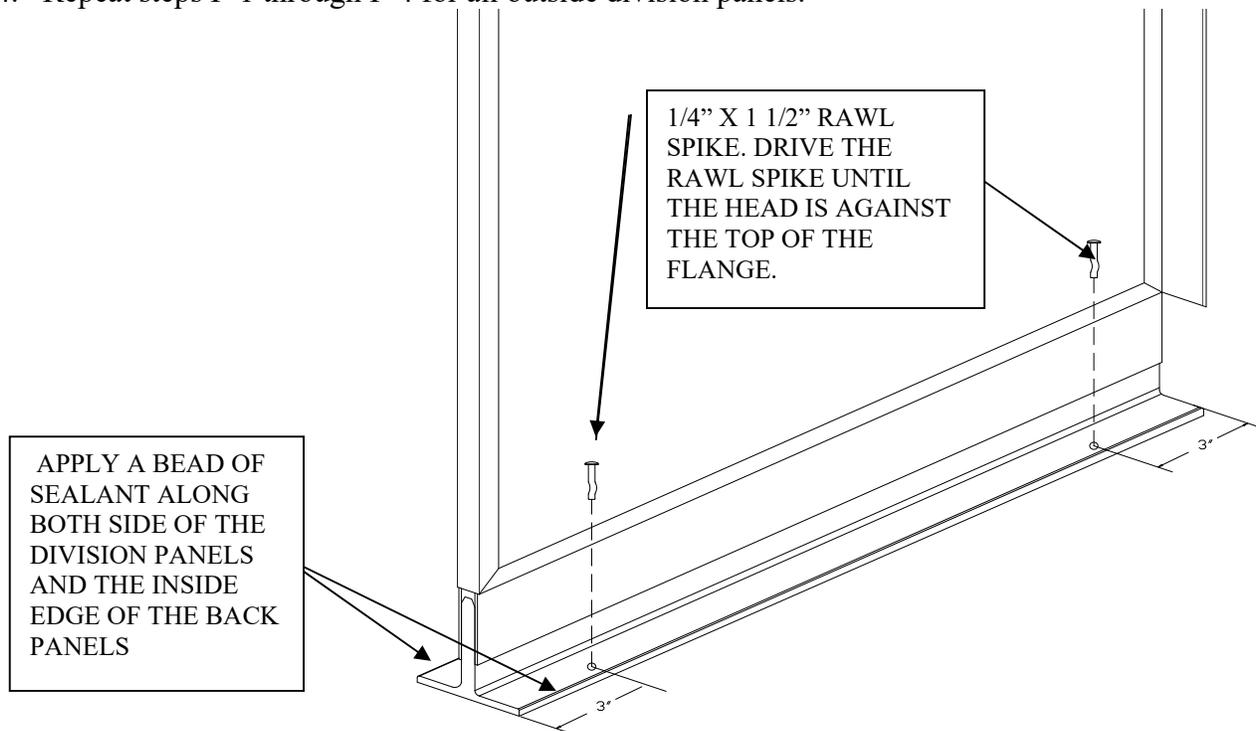


Figure G.1

### Section H Sealing

1. Clean along the edge of all of the Division and Back panels where they come in contact with the concrete using denatured alcohol applied to shop rag.
2. Apply a thin bead of sealant provided along the seam created between the panels and the concrete as shown in Figure 16.

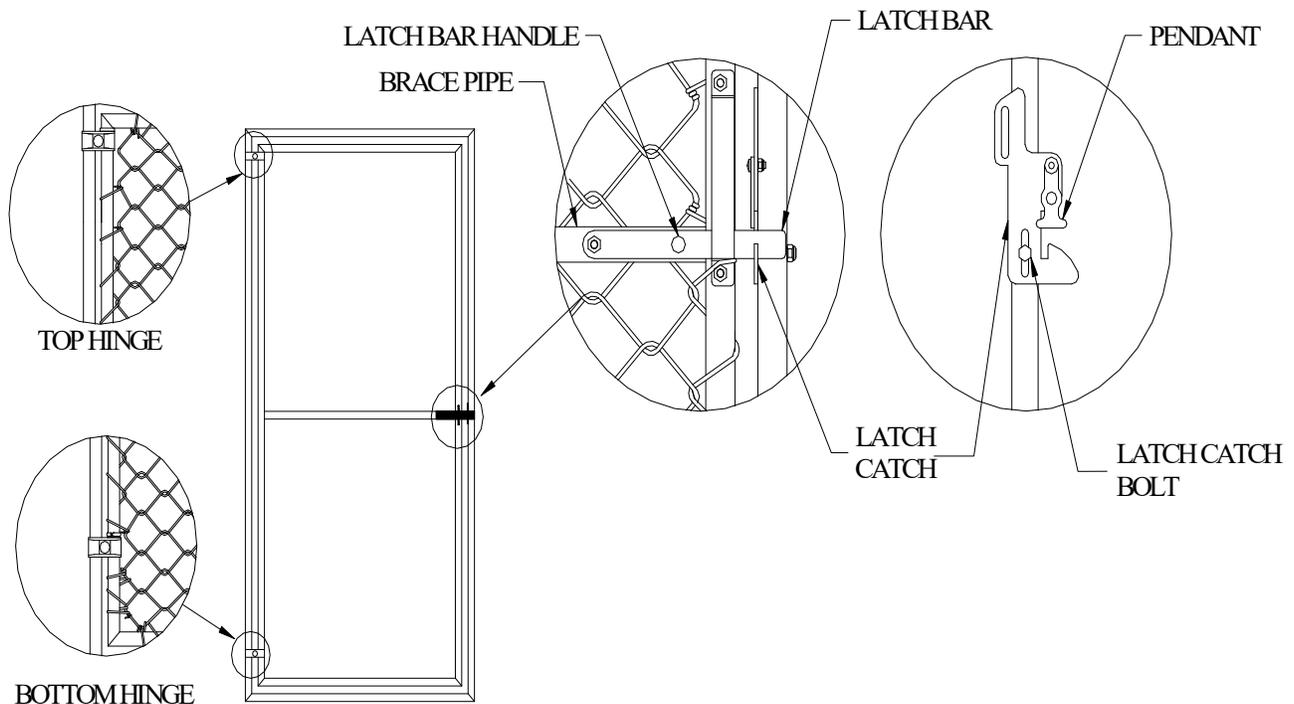
## Section I Gate / Stall Front Adjustment

During shipment and installation, gate assemblies may be forced out of adjustment. If your gate does not latch automatically when pushed closed, the latch can be adjusted by following these instructions.

### Chainlink Gate / Stall Front (Reference Figure I.1)

During the following adjustment process you may need to move the wire mesh slightly. If necessary, use a small block of wood and hammer to tap the wire out of the way.

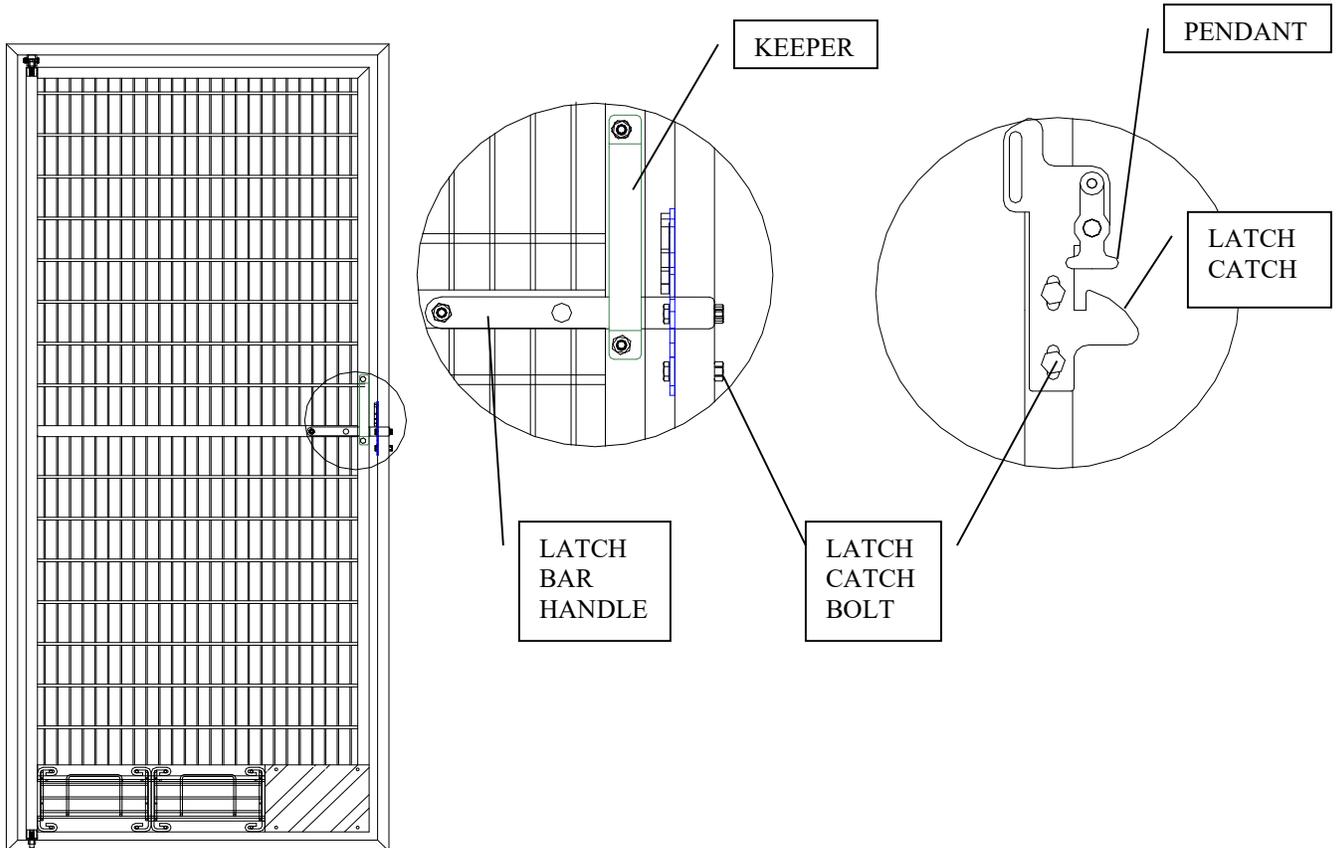
1. Loosen the latch catch bolt just enough to allow the latch catch to slide up and down.
2. Tap the latch catch up or down until the inside latch bar handle rests on the horizontal brace pipe and the latch bar rests in the bottom of the latch catch.
3. Check to insure the pendant swings freely. If it catches on the latch catch bolt or you've run out of adjustment in the latch catch slot you may have to raise the gate inside of its frame.
4. If the gate needs to be moved, loosen the top and bottom hinge bolts and raise (or lower) both the gate and the top hinge as needed then tighten both hinge bolts.
5. Re-adjust the latch catch.
6. Tighten latch catch bolt.



**Figure I.1**

**Stainless Steel Gate / Stall Front** (Reference Figure I.2)

1. Loosen the latch catch bolts just enough to allow the latch catch to slide up and down.
2. Tap the latch catch up or down until the inside latch bar handle rests on the inside of the keeper and the latch bar rests in the bottom of the latch catch.
3. Tighten latch catch bolts.

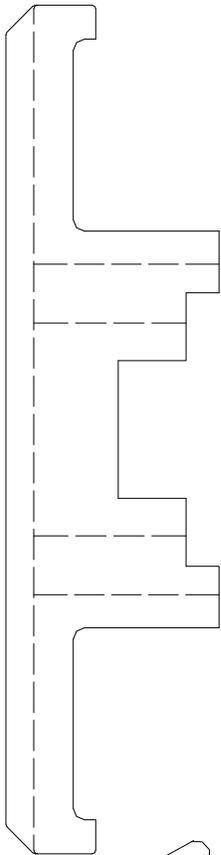


**Figure I.2**

**Maintenance**

Over time, your Mason kennels might require adjustments, lubrication, or replacement parts in order to remain in top working condition. We recommend a yearly maintenance schedule to lubricate door hinges, adjust gate locks and any other moving parts. A standard, industrial grease works well. If your kennels should need any replacement parts, our professional sales engineers will be happy to review your original order and assist you.

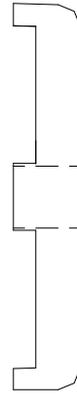
TRIPLE CLAMP - 1"  
#3120



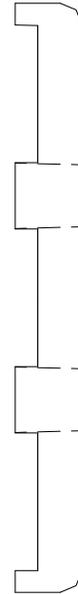
SINGLE SQUARE  
CLAMP #1799



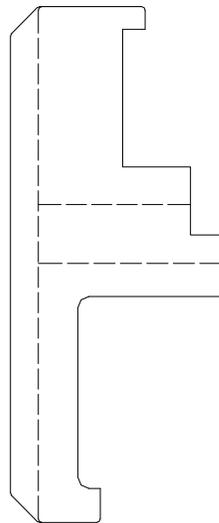
DOUBLE SQUARE  
CLAMP #1797



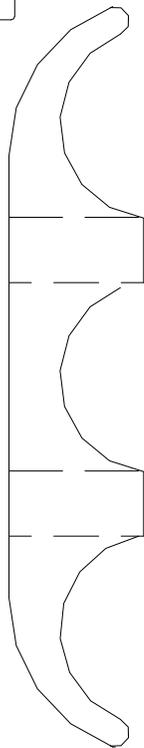
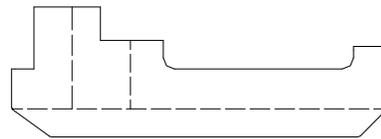
TRIPLE SQUARE  
CLAMP #1798



DOUBLE SQUARE  
CLAMP - 1" #3119



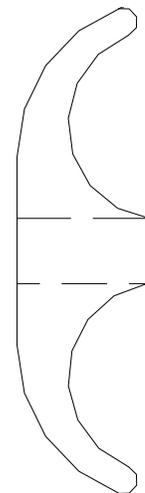
SINGLE CLAMP - 1"  
#3118



TRIPLE CLAMP  
#328

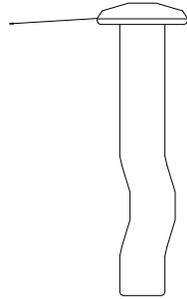


SQUARE TO  
ROUND CLAMP  
#1468



PANEL CLAMP  
#330

1/4" X 1 1/2"  
RAWL SPIKE.  
PART # 1400



#12 X 1" SELF TAPPING  
SCREW HEX HEAD  
PART # 891



1/4" x 1 1/4" TAPCON  
PART # - 1344



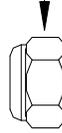
1/4-20 X 1-1/2 HHCS.  
PART # 369



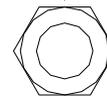
1/4-20 X 1" HHCS.  
PART # 366



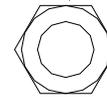
1/4-20 NUT  
PART# 421



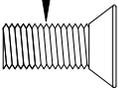
5/16-18 NUT  
PART # 423



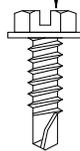
5/16-18 NUT  
STAINLESS STEEL  
PART # 424



14-20 X 5/8"  
FLAT HEAD SCREW  
PART# 1906



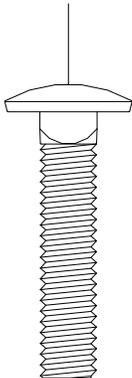
#10 X 32 X 5/8"  
HEX WASHER HEAD  
TEK SCREW  
PART # 2222



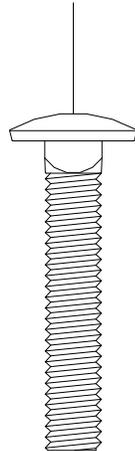
1/4-20 NUT  
PART # 422



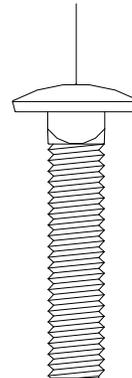
5/16" X 1-1/2"  
GALVANIZED  
CARRIAGE BOLT  
PART # 356



5/16" X 1-3/4"  
GALVANIZED  
CARRIAGE BOLT  
PART # 357



5/16" X 1-1/2"  
STAINLESS STEEL  
CARRIAGE BOLT  
PART # 1955



5/16" X 1-3/4"  
STAINLESS STEEL  
CARRIAGE BOLT  
PART # 1771

