

**IMPORTANT NOTES: Read First**

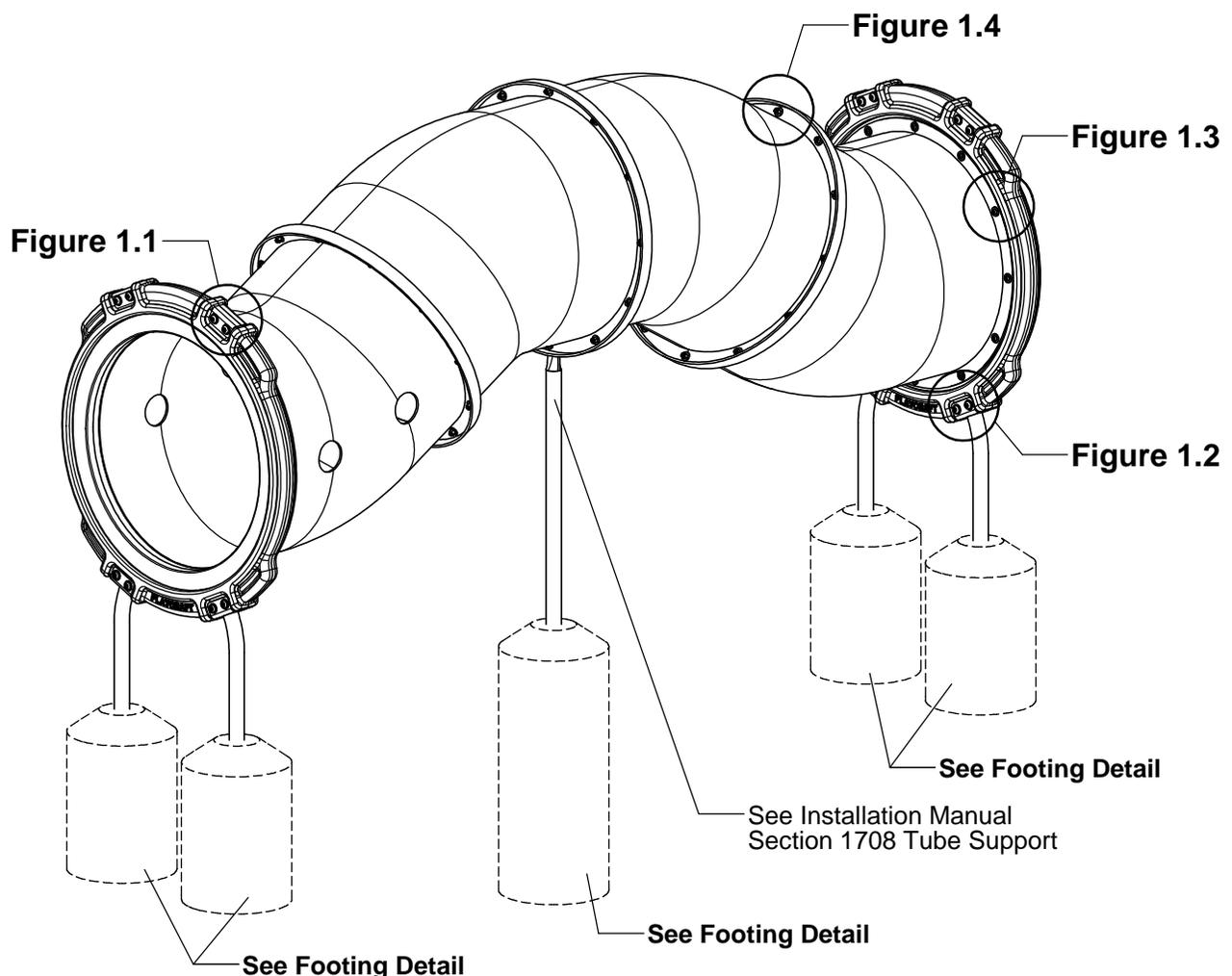
(A) Use liquid thread lock (such as Loctite®) with all threaded hardware. **Important:** Liquid thread lock (prior to curing) helps to eliminate the common problem of "thread seizure" in stainless steel hardware by serving as a lubricant during assembly.

(B) Do not pour concrete until the equipment is completely assembled, leveled and plumbed. Concrete must be allowed to cure completely before using the equipment (at least 72 hours).

(C) Refer to Installation Manual for 1708 Tube Support installation instructions.

(D) An appropriate energy absorbing safety surface is required under and around all playground equipment. Loose fill protective surfacing is shown only as an example for the purpose of this assembly instruction. Other surfacing material may vary in thickness and/or compression depths. See free publication - The Handbook for Public Playground Safety, Publication #325 at [www.cpsc.gov](http://www.cpsc.gov) for the surfacing appropriate for the fall height of the equipment or consult your surfacing supply representative.

**FIGURE 1  
Single Worm  
Crawl Tube**



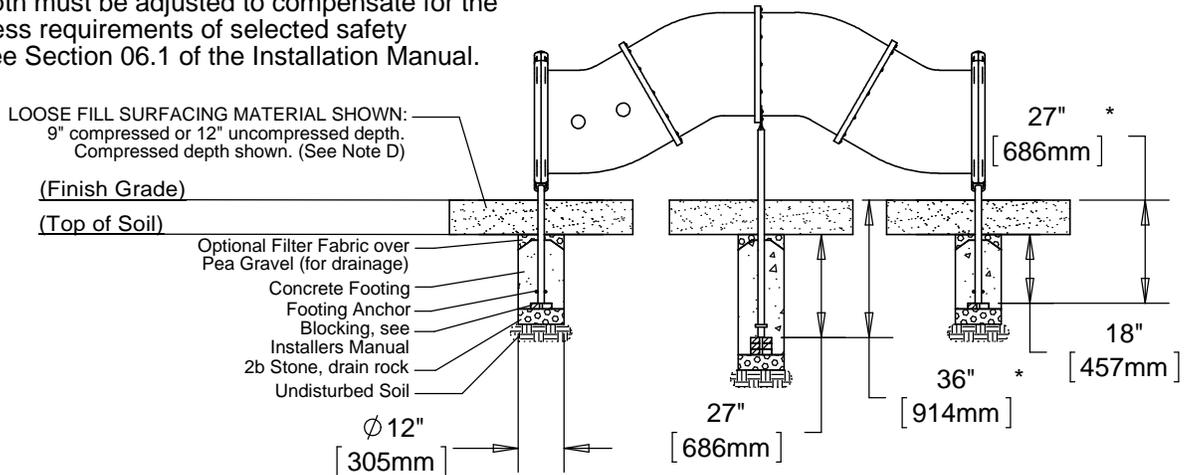
## Step 1

Refer to Footing Layout and mark footing hole locations. Dig (5)  $\varnothing$  12" footing holes. Refer to Footing Detail for depth and details.

**IMPORTANT:** For areas with soft soil conditions, larger footings may be required.

\* Footing depth must be adjusted to compensate for the depth/thickness requirements of selected safety surfacing. See Section 06.1 of the Installation Manual.

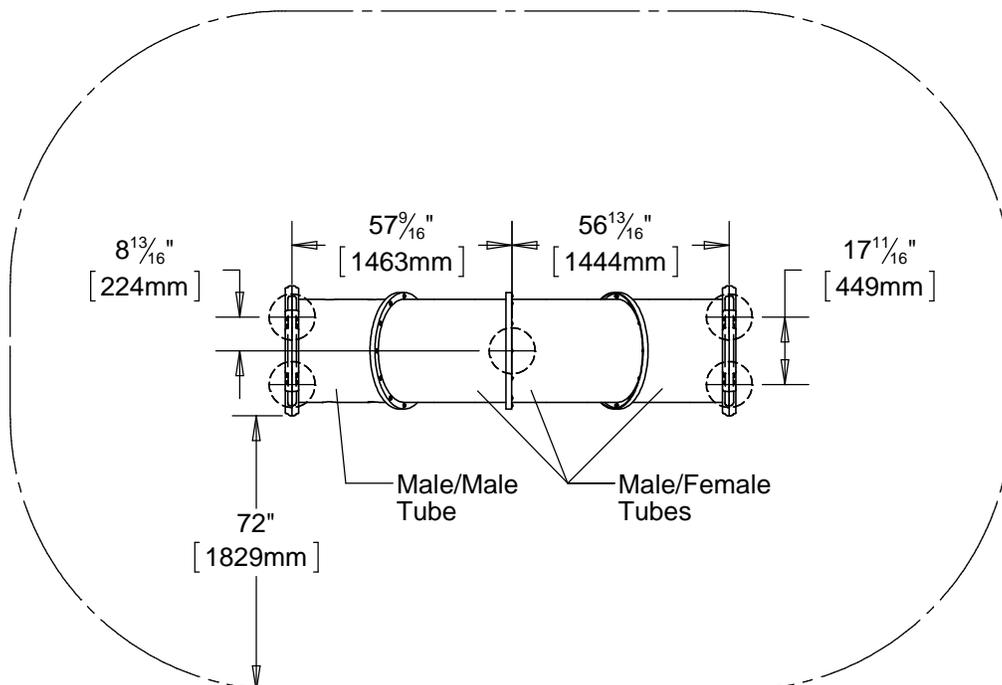
### Footing Detail



### Top View - Footing Layout

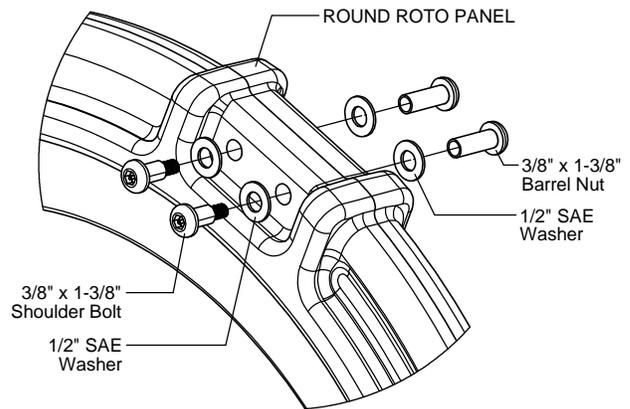
**72" [1829mm] Enchroachable use zone recommended.**  
**Refer to current ASTM 1487 standards.**

The Use Zone for Stationary Play equipment shall be no less than 72" [1829mm] in all directions from the perimeter of the play structure. If the adjacent structure has a play surface greater than 30" (762 mm) above surfacing, the distance between structures shall be no less than 108" (2473mm).



## Step 2 (Factory Assembled)

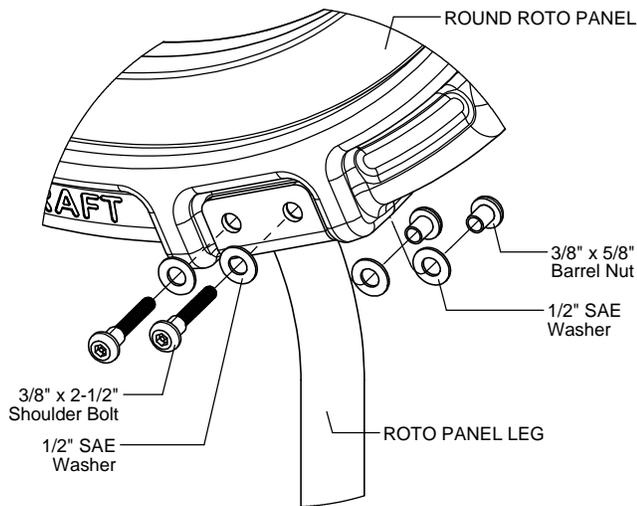
Refer to Figure 1 and attach hardware to Round Roto Panels as shown in Figure 1.1. (See Note A)



**Figure 1.1**

## Step 3

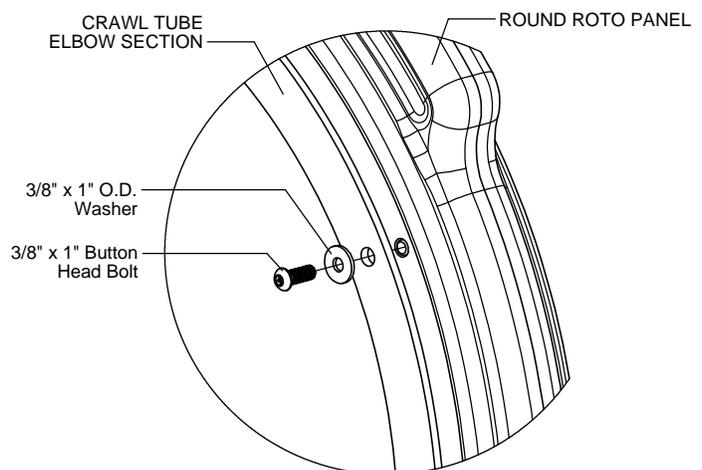
Attach Roto Panel Legs to Round Roto Panels as shown in Figure 1.2. (See Note A)



**Figure 1.2**

## Step 4

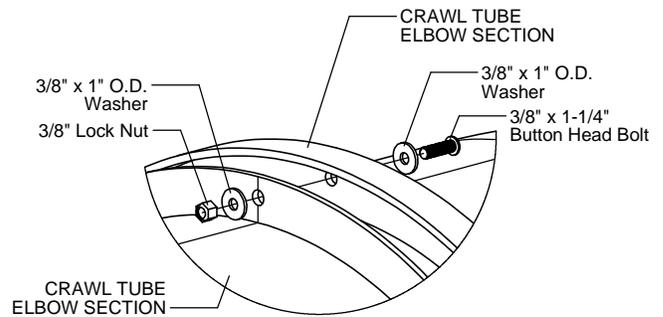
Refer to Top View for orientation and attach Crawl Tube Elbow Sections to Round Roto Frames as shown in Figure 1.2. (See Note A)



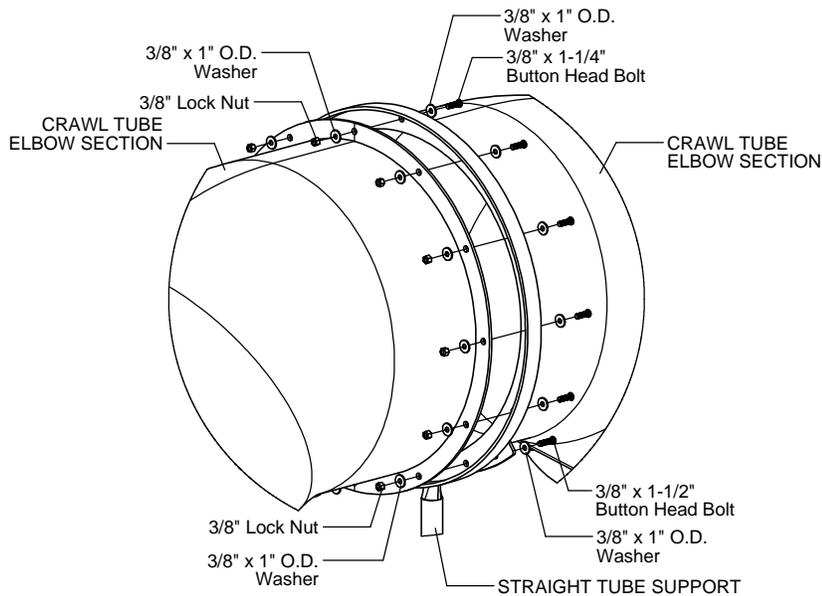
**Figure 1.3**

## Step 5

Refer to Top View for orientation and attach Crawl Tube Sections together as shown in Figure 1.4. For tube connections with Tube Support refer to Figure 2. (See Notes A & C)



**Figure 1.4**



**FIGURE 2**

## Step 6

Fully tighten all fasteners according to the "TIGHTENING TORQUE FOR HARDWARE" section of the Installation Manual.

## Step 7

Place Single Worm Crawl Tube into footing holes. Plumb and level entire component. Pour concrete into footing holes. Allow at least 72 hours to cure before using this equipment. (See Note B)

## Step 8

Place required protective surfacing under and around Single Worm Crawl Tube. (See Note D)

# SINGLE WORM CRAWL TUBE INSTALLATION INSTRUCTIONS

**PC-2341**  
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## Parts List

Part #	DESCRIPTION	QTY
DE-1503	Tube Elbow 30°	3
DE-1503-VMM	Vertical Crawl Tube Elbow 30 Deg MM	1
FS-1708-STRT12	Tube Support Straight	1
FS-16101-LEG	Roto Panel Leg RV	4
9103052-TR	Bolt Button Head 3/8" x 1"	24
9103062-TR	Bolt Button Head 3/8" x 1-1/4"	33
9103072-TR	Bolt Button Head 3/8" x 1-1/2"	3
9143112-TR	Bolt Shoulder 3/8" x 2-1/2" BH	8
9333002	Washer Flat 3/8" x 1" O.D. x .100" thick	96
9345002	Washer Flat SAE 1/2"	16
9413002	Nut Lock 3/8"	36
9443022-TR	Nut Barrel 3/8" x 5/8" BH	8

## Assembled Parts List

Part #	DESCRIPTION	QTY
DH-0002	Round Roto Panel RV	2
9143062-TR	Bolt Shoulder 3/8" x 1-3/8" BH	8
9345002	Washer Flat SAE 1/2"	16
9443062-TR	Nut Barrel 3/8" x 1-3/8"	8

## Specifications

### CRAWL TUBE SECTION:

Shall be constructed of UV-stabilized, rotationally molded, linear, low density polyethylene. All tube sections are single-wall construction with an average wall thickness of .250".

### ROTO PANEL LEG RV:

Shall be fabricated using 1.660" O.D. 11 gauge steel tubing with welded 3/16" thick steel mounting bracket. The Roto Panel Leg RV shall have a multi-stage baked-on powder coat finish.

### ROUND ROTO PANEL RV:

Shall be constructed of UV-stabilized, rotationally molded, linear, low density polyethylene with an average wall thickness of .250".

### TUBE SUPPORT LEG:

Shall be fabricated of 1.660" O.D. 11 gauge steel tubing with welded 3/16" thick steel plate. The Tube Support Leg shall have a multi-stage baked on powder coat finish.

### HARDWARE:

Shall be stainless steel, zinc/nickel plated or galvanized as required to resist rust and corrosion.

## Maintenance

Periodically tighten all screws, bolts and nuts. A periodic inspection of all parts is necessary. If a part is broken or worn, replace immediately. For general maintenance please refer to our Playground Maintenance Manual.



Manufactured by Krauss Craft, Inc.  
www.playcraftsystems.com

For Customer Service Call  
800.333.8519 (U.S.A.) or  
541.955.9199 (International)

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