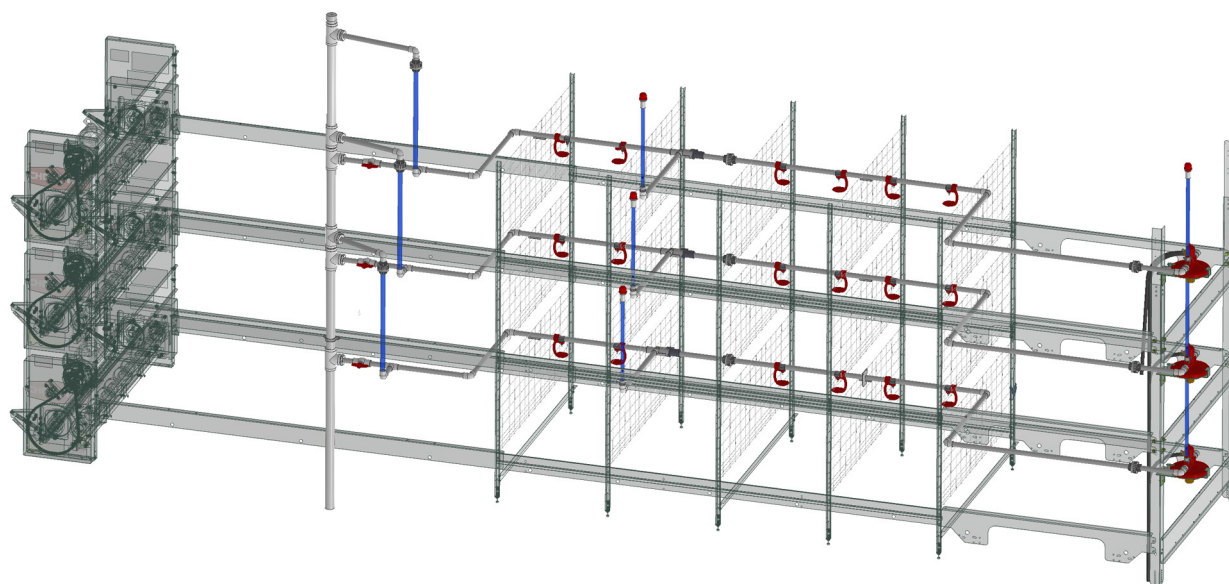




## Modular Manure Belt Layer, Versa, & Versa Plus Watering



Operation and Instruction Manual

Operation and Instruction Manual

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## Introduction

The intent of this manual is to help you in two ways. One is to follow step-by-step in the order of assembly of your product. The other way is for easy reference if you have questions in a particular area.

**Important: Read ALL instructions carefully before starting construction.**

**Important: Pay particular attention to all SAFETY information.**

- *Metric measurements are shown in millimeters and in brackets, unless otherwise specified. “” equals inches and “'” equals feet in English measurements.*

*Examples:*

*1" [25.4]*

*4' [1219]*

- Optional equipment contains necessary instructions for assembly or operation.
- Very small numbers near an illustration (*i.e.*, 1257-48) are identification of the graphic, not a part number.

## General

### Support Information

The Chore-Time Nipple Watering System is designed to provide water to poultry. Using this equipment for any other purpose or in a way not within the operating recommendations specified in this manual will void the warranty and may cause personal injury.

This manual is designed to provide comprehensive planning and installation information. The Table of Contents provides a convenient overview of the information in this manual

Note: The original, authoritative version of this manual is the English version produced by CTB, Inc. or any of its subsidiaries or divisions, (hereafter collectively referred to as "CTB"). Subsequent changes to any manual made by any third party have not been reviewed nor authenticated by CTB. Such changes may include, but are not limited to, translation into languages other than English, and additions to or deletions from the original content. CTB disclaims responsibility for any and all damages, injuries, warranty claims and/or any other claims associated with such changes, inasmuch as such changes result in content that is different from the authoritative CTB-published English version of the manual. For current product installation and operation information, please contact the customer service and/or technical service departments of the appropriate CTB subsidiary or division. Should you observe any questionable content in any manual, please notify CTB immediately in writing to: CTB Legal Department, P.O. Box 2000, Milford, IN 46542-2000 USA.

## Safety

**Caution, Warning and Danger Decals** have been placed on the equipment to warn of potentially dangerous situations. Care should be taken to keep this information intact and easy to read at all times. Replace missing or damaged safety decals immediately.

Using the equipment for purposes other than specified in this manual may cause personal injury and/or damage to the equipment.

### Safety–Alert Symbol



**This is a safety–alert symbol.** When you see this symbol on your equipment, be alert to the potential for personal injury. This equipment is designed to be installed and operated as safely as possible...however, hazards do exist.

### Understanding Signal Words

**Signal words** are used in conjunction with the safety–alert symbol to identify the severity of the warning.



**DANGER** indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.



**WARNING** indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.



**CAUTION** indicates a hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

## Safety Instructions

### Follow Safety Instructions

Carefully read all safety messages in this manual and on your equipment safety signs. Follow recommended precautions and safe operating practices.

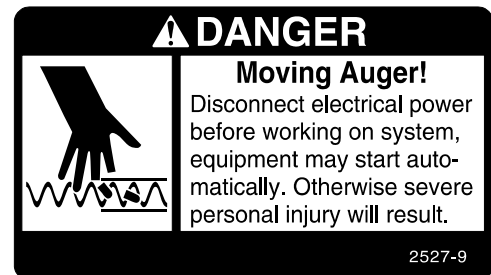
Keep safety signs in good condition. Replace missing or damaged safety signs.

### Decal Descriptions

#### **DANGER: Moving Auger**

This decal is placed on the Panel Weldment.

Severe personal injury will result, if the electrical power is not disconnected, prior to servicing the equipment.



#### **DANGER: Electrical Hazard**

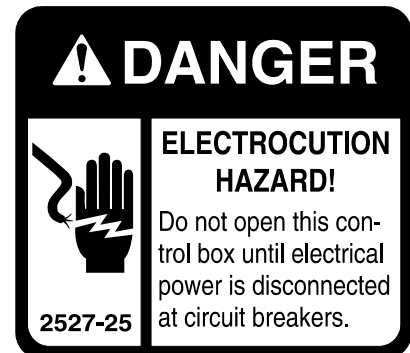
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

All electrical wiring must be done by a qualified electrician in accordance with local and national electric codes.

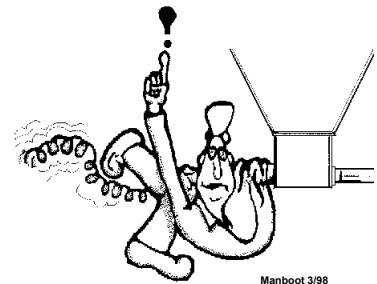
Ground all non-current carrying metal parts to guard against electrical shock.

With the exception of motor overload protection, electrical disconnects and over current protection are not supplied with the equipment.



#### **CAUTION:**

Use caution when working with the Auger—springing Auger may cause personal injury.





## Chore-Time Limited Warranty

CTB, Inc. ("Chore-Time") warrants new CHORE-TIME Cage and Cage Components manufactured by Chore-Time to be free from defects in material or workmanship under normal usage and conditions, for One (1) year from the date of installation by the original purchaser ("Warranty"). If such a defect is determined by Chore-Time to exist within the applicable period, Chore-Time will, at its option, (a) repair the Product or Component Part free of charge, F.O.B. the factory of manufacture or (b) replace the Product or Component Part free of charge, F.O.B. the factory of manufacture. This Warranty is not transferable, and applies only to the original purchaser of the Product.

### CONDITIONS AND LIMITATIONS

THIS WARRANTY CONSTITUTES CHORE-TIME'S ENTIRE AND SOLE WARRANTY AND CHORE-TIME EXPRESSLY DISCLAIMS ANY AND ALL OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, EXPRESS AND IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSES. CHORE-TIME shall not be liable for any direct, indirect, incidental, consequential or special damages which any purchaser may suffer or claim to suffer as a result of any defect in the Product. Consequential or Special Damages as used herein include, but are not limited to, lost or damaged products or goods, costs of transportation, lost sales, lost orders, lost income, increased overhead, labor and incidental costs, and operational inefficiencies. *Some jurisdictions prohibit limitations on implied warranties and/or the exclusion or limitation of such damages, so these limitations and exclusions may not apply to you. This warranty gives the original purchaser specific legal rights. You may also have other rights based upon your specific jurisdiction.*

Compliance with federal, state and local rules which apply to the location, installation and use of the Product are the responsibility of the original purchaser, and CHORE-TIME shall not be liable for any damages which may result from non-compliance with such rules.

The following circumstances shall render this Warranty void:

- Modifications made to the Product not specifically delineated in the Product manual.
- Product not installed and/or operated in accordance with the instructions published by the CHORE-TIME.
- All components of the Product are not original equipment supplied by CHORE-TIME.
- Product was not purchased from and/or installed by a CHORE-TIME authorized distributor or certified representative.
- Product experienced malfunction or failure resulting from misuse, abuse, mismanagement, negligence, alteration, accident, or lack of proper maintenance, or from lightning strikes, electrical power surges or interruption of electricity.
- Product experienced corrosion, material deterioration and/or equipment malfunction caused by or consistent with the application of chemicals, minerals, sediments or other foreign elements.
- Product was used for any purpose other than for the care of poultry and livestock.

The Warranty and Extended Warranty may only be modified in writing by an officer of CHORE-TIME. CHORE-TIME shall have no obligation or responsibility for any representations or warranties made by or on behalf of any distributor, dealer, agent or certified representative.

Effective: **April, 2014**

## Planning

Chore-Time recommends taking time to lay out the sections of water pipe and other large components prior to beginning each installation step. Hardware, tools, and small components (valves, etc.) may be conveniently carried in a carpenter's apron.

It may speed up installation, if you assemble sub-assemblies prior to the nipple water installation. Assembly instructions are included in this manual for the stand tube sub-assemblies.

Installation of Chore-Time Cage Watering System can be broken down into the following general steps:

- Installation of the water lines and accessories.
- Installation of the regulators.
- Installation of the stand tubes.
- Installation of the drain/overflow pipes.
- Installation of incoming water supply (Incoming water piping is not supplied).

## Tools Required

Tools needed to install your nipple water system include:

- Regular Screwdriver
- Pop Rivet Tool
- 5/16 Hex Bit or Nut Driver
- Electric Drill and Drill Bits
- PVC Pipe Cutters
- Pipe De-Burring tool

## Incoming Pressure

A good starting point for incoming pressure is 25 psi [172 kPa]. Optimal system life is achieved by finding the lowest pressure that provides adequate flow during flush.

CHORE-TIME recommends a minimum incoming water pressure of 3 psi [21 kPa] for gravity feed systems. The tank should be 8' [2.4m] above the Nipple Line.

For every 28" [711 mm] of water column, water pressure increases one pound. Measure the operating pressure at bottom of the water pipe.

Incoming water supply should be at least a 1" [25 mm] diameter incoming line (preferably PVC) from a single well. Other factors such as: multiple wells, the distance from the well(s), and the needs of other equipment which requires water could demand larger lines.

**Note:** All pressure settings are to be made when no water is flowing.

## Filtration

Good water quality maximizes performance of the equipment, minimizes maintenance and repair, and increases the life of the system.

Pump the well prior to hookup of the system to clear sand, mud, or debris. CHORE-TIME recommends a water test by a reputable water treatment company in the area. Water treatment and/or extra filtration may be required, depending on the water test results.

A minimum of 1, 140 mesh (105 microns) filter is recommended. For systems with high sand/silt levels a secondary, more aggressive 1250 mesh (10 micron) or 635 mesh (20 micron), filter should be placed down stream of the 140 mesh filter.

## Installation

### Proper use of PVC Cement

**Important!** FOLLOW THE DIRECTIONS ON THE CONTAINER OF PVC CEMENT FOR SAFE HANDLING AND BEST RESULTS.

1. Be sure pipe is cut off squarely. USE PIPE CUTTERS ONLY. Failure to use pipe cutters voids the warranty.
2. Remove dirt and burrs from outside and inside of the pipe.
3. Dry fit all parts before cementing. Pipe should be fit into fittings without applying excess force.
4. Surfaces to be joined should be clean--free from dirt, oil, and grease. Use PVC Pipe Cleaner, as needed.
5. Apply cement to both surfaces to be joined. Apply cement sparingly, but evenly over the entire surface, leave no bare spots.

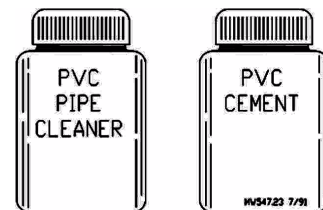


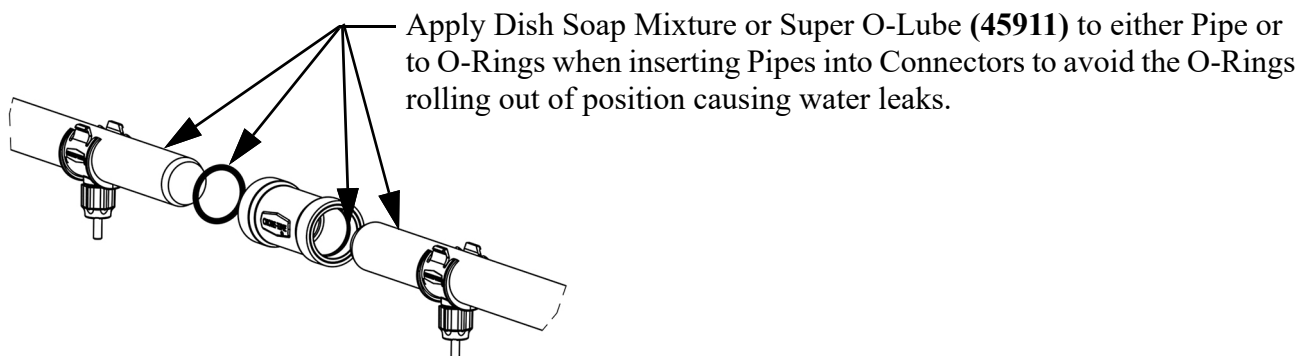
Figure 1. PVC Cement (Part No. 6303-4)

### Lubrication

The following applies to Stand Tubes, Couplings, Midline Air Removers, slope Compensators, and Regulators

#### Acceptable Lubrication:

- Plain water or light dish soap mixture.
  - Silicone oil based Parker **Super** O-Lube (available through Chore-Time part number **45911**).
- Note: Very little (thin film) of this product is needed to provide necessary lubrication.



#### Unacceptable Lubrication:

- **DO NOT USE** petroleum based Parker O-Lube Product! Only the Parker Silicone oil based **Super** O-Lube is acceptable.
- **DO NOT USE** silicone spray! These may have petroleum based properties that may damage water line components.
- **DO NOT USE** any petroleum based product! This would include, but is not limited to, items such as Vaseline, WD 40, motor oil, etc.
- **DO NOT USE** vegetable or any other similar oil! This would include, but is not limited to, sunflower oil, peanut oil, coconut oil, linseed oil, corn oil, etc.

**Important!** Use of any lubricant during installation, other than those approved by Chore-Time, will void the manufactures warranty.

## Water Meter Installation

If using an Amco/ABB brand Water Meter, they are not polar sensitive. Therefore: when wiring a Amco/ABB Water Meter, the wire color does not matter.

### Badger® Water Meter Installation

#### Wiring

The Badger® water meter is supplied with 10 ft. (3.05 m) of cable with red and black leads with stripped ends. When connecting to a Chore-Tronics® control, proper polarity must be maintained. The red lead is connected to the DI (digital input) of your choice, and the black lead is connected to the ground terminal of the chosen DI

#### Mounting

The Badger® Water Meter must be installed with the Cap up as shown below. Refer to the Badger® installation manual for more information.

Chore-Tronics® Control  
D1 of your choice

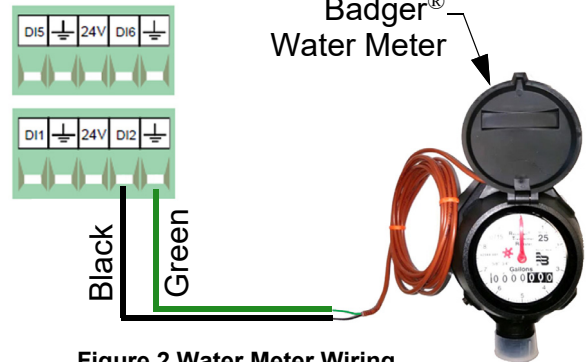
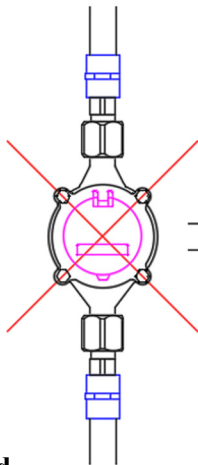
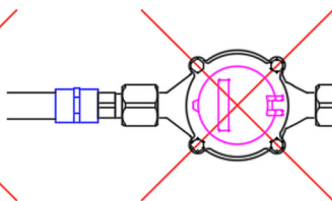


Figure 2. Water Meter Wiring

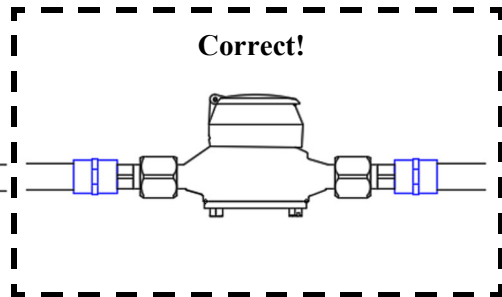
**Incorrect!**



**Incorrect!**



**Correct!**



Ground

Figure 3. Water Meter Mounting

## Water Meter Start Up

**Attention!** Air and debris in the supply line upstream of the meter installation must be removed before pressurizing the meter with water or damage to the meter is likely!

**If the Water Meter is located very close to the Filter Panel-** Valves #1 and #2 can be opened to remove any air and debris from the upstream piping to the inlet point of the Meter. After flushing, valve #2 can be closed and the Meter can be installed. Once installed, valve #2 must be opened **very slowly** to fill the downstream line and pressurize the Meter without damaging it.

**If the water meter is not located very close to the Filter Panel-** another optional valve can be installed close to the Meter. Before installing the meter, valves #1, #2 and the Optional valve can be opened to remove any air and debris from the upstream piping to the inlet point of the Meter. After flushing, the Optional valve can be closed and the Meter can be installed. Once the Meter is installed the Optional valve must be opened **very slowly** to fill the downstream line and pressurize the Meter without damaging it.

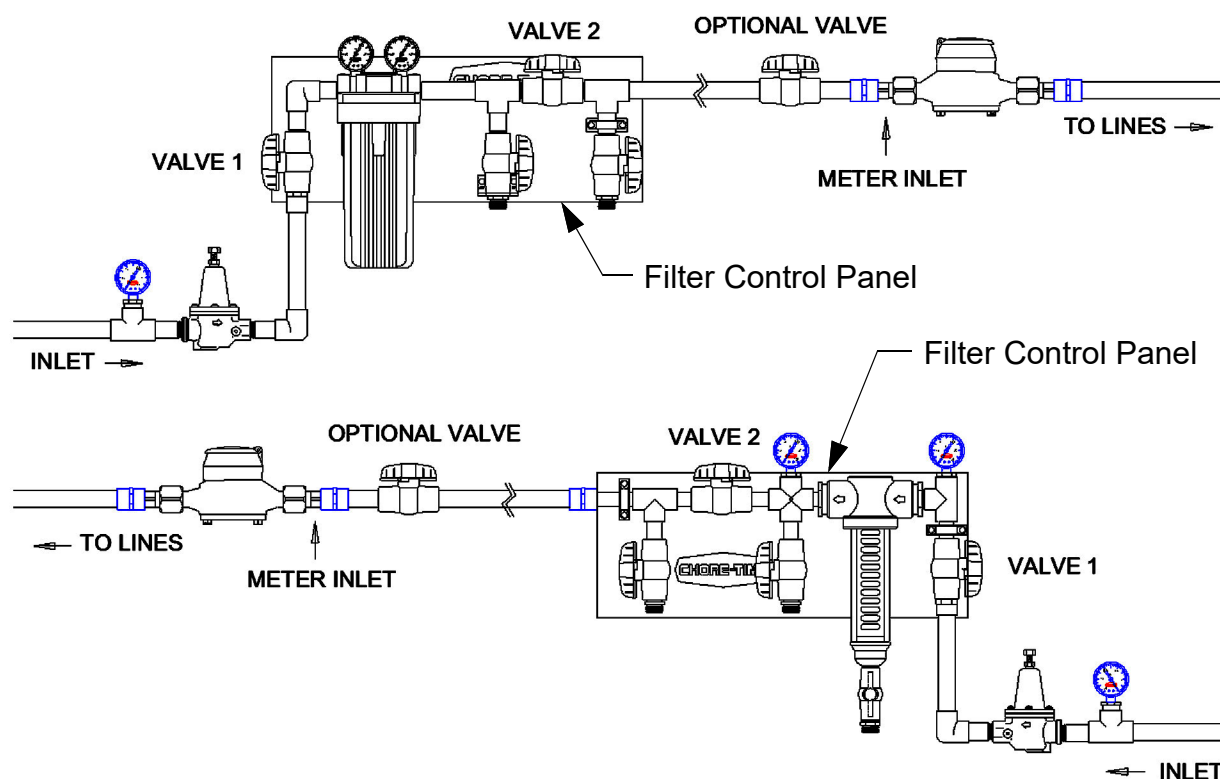


Figure 4. Water Meter Start Up

## Filter Control Panel Installation

The filter control panel is used to remove foreign material from the incoming water, and, if necessary, add medication to the water.

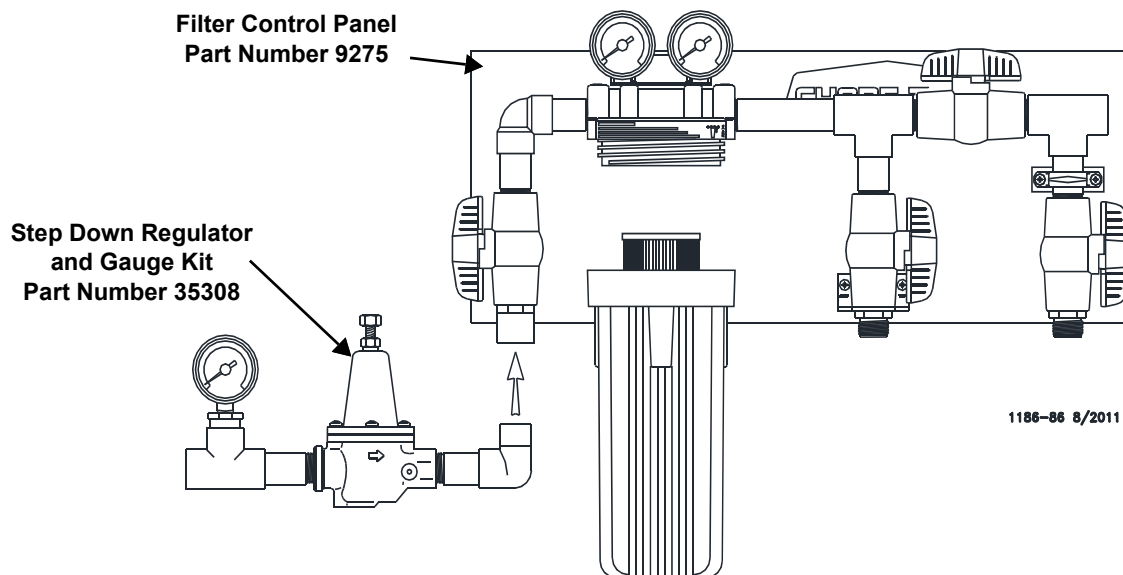
The filter control panel is shipped secured to a mounting board. The mounting board and filter control panel should be secured to wall or post using lag bolts (not supplied).

The step down regulator and gauge assembly is used to reduce the water pressure supplying the filter control panel. The filter control panel and step down regulator should be installed in a convenient location where incoming and outgoing water supply lines can be easily run. The control panel must be out of the reach of birds.

The filter control panel is shipped secured to a mounting board. The mounting board and filter control panel should be secured to wall or post using lag bolts (not supplied).

The step down regulator and gauge assembly is shipped un-assembled. Assemble the step down regulator and gauge assembly components as specified in the instruction (MW1052) shipped with the kit.

Connect the step down regulator and gauge assembly to the filter control panel, as shown in **Figure 17**.



**Figure 5. 9275 Control Panel**

## Flushable Filter Control Panel Installation

### (Optional alternative to the standard filter control panel)

The flushable filter control panel is used to remove foreign material from the incoming water, and, if necessary, add medication to the water. This control panel features a filter that may be flushed, removed, cleaned, then reinstalled.

Two versions of the filter control panel are available.

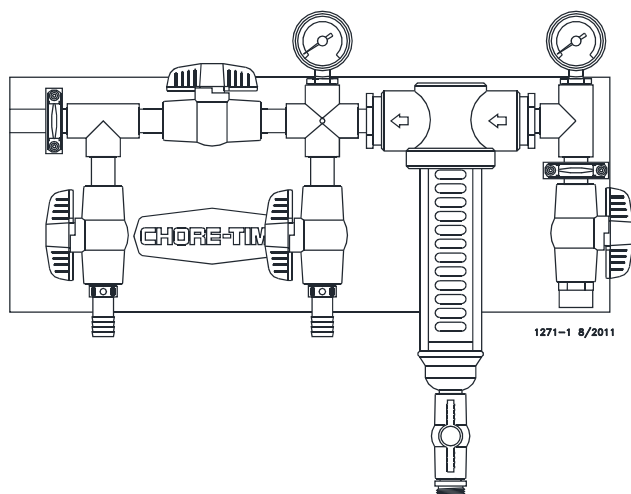
The low pressure version is designed to accommodate gravity flow systems with 5 - 10 p.s.i. [34.5 - 69.0 kPa]. Do not exceed 15 p.s.i. [103.4 kPa] with this control panel, or damage will occur to the gauges.

Systems with 11+ p.s.i. [75.8+ kPa] should use the high pressure control panel. For systems above 35 psi, order a step down regulator.

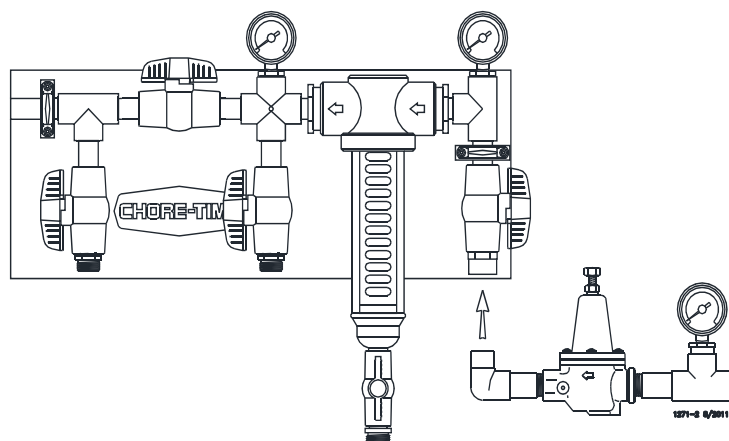
The filter control panel should be installed in a convenient location where incoming and outgoing water supply lines can be easily run. The control panel must be out of the reach of birds.

The filter control panel is shipped secured to a mounting board. The mounting board and filter control panel should be secured to wall or post using lag bolts (not supplied).

The gauge assembly is shipped un-assembled. Assemble the gauge assembly components as specified in the instruction (MW1052) shipped with the kit.



**Low Pressure Control Panel**  
**Part Number 36802-1**  
**(5-10 p.s.i. [34.5 - 69.0 kPa])**



**High Pressure Control Panel**  
**Part Number 36802-2**  
**(11+ p.s.i. [75.8+ kPa])**

**Figure 6. Optional Control Panels**

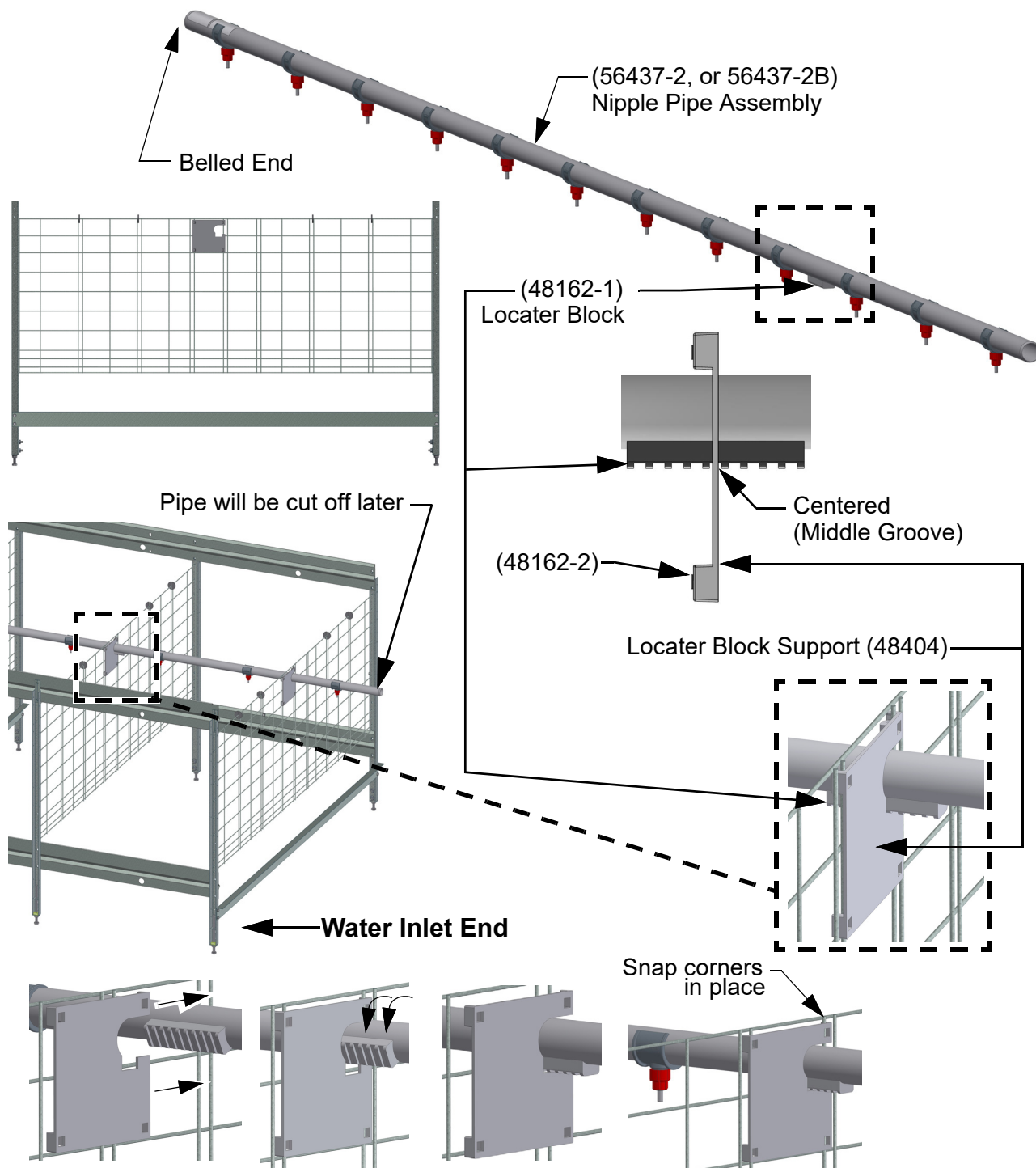
## Water Line Installation

Each Cage Type (MMB, Versa) requires a different Locator Block Support. See **Figure 7**, **Figure 8**, and **Figure 9**.

**Note:** It is advised to attach the Locator Block Supports during the building of the framework.

### Starter Pipe (Ultra MMB Cage with No Air)

1. Starting at the Water Inlet end, insert a **(56437-2, or 2B)** Nipple Pipe Assembly (Orient as shown with locator block toward the Inlet end of the cage row) centered in the cage between the top two partition wires **as shown**.
2. Line up the Locator Block with 2nd Partition and install the Locator Block Supports **(48162-2) as shown**.



**Figure 7. Starter Pipe (Ultra MMB Without Air)**



## Starter Pipe (Ultra MMB Cage with Air)

1. Starting at the Water Inlet end, insert a **(56437-2, or -2B)** Nipple Pipe Assembly (Orient as shown with locator block toward the water inlet end of the cage row) centered in the cage between the top two partition wires **as shown**.
2. Line up the Locator Block with 2nd Partition and install the Locator Block Supports **(48404)** **as shown**.

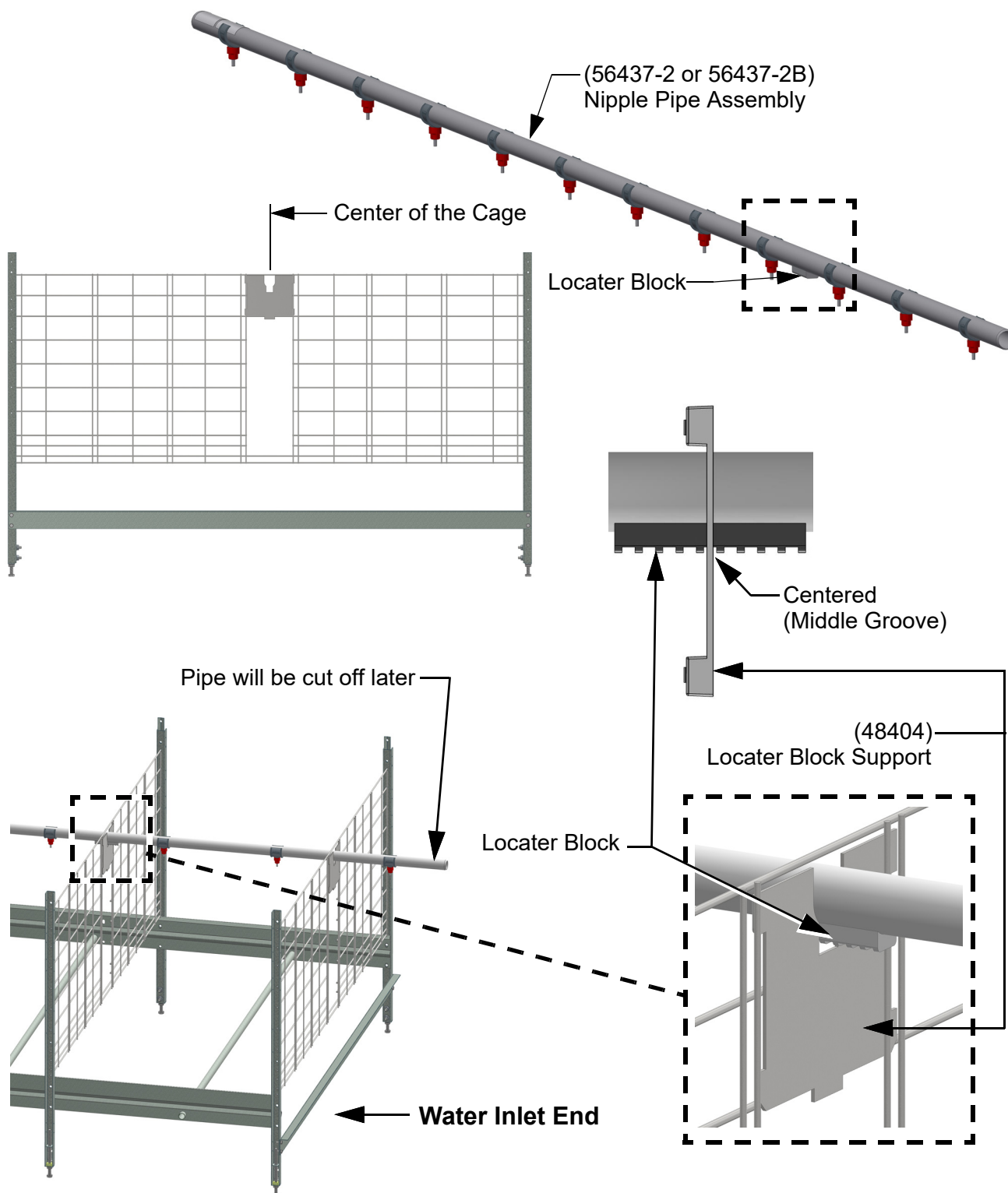
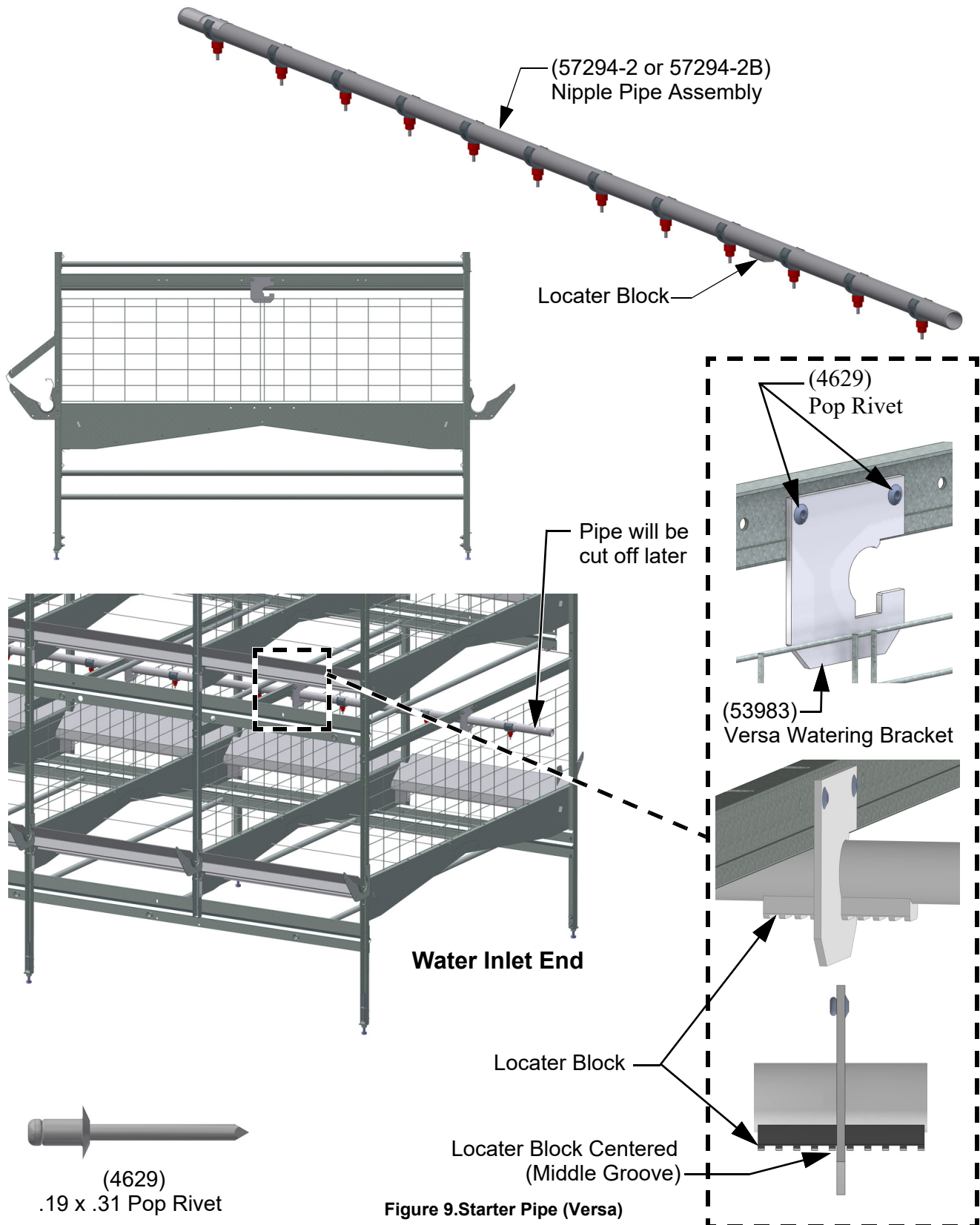


Figure 8.Starter Pipe (Ultra MMB with Air)

Centered

## Starter Pipe (Versa Cage)

1. Start at the Water Inlet end of the system and Install a (53983) Versa Locator Block Support with (4629) Pop-Rivets **as shown**.
2. Insert a (57294-2, or 57294-2B) Nipple Pipe Assembly (Orient as shown with locator block toward the water inlet end of the cage row) **as shown**.



## Starter Pipe (Versa Plus Cage)

1. Start at the Water Inlet end of the system and Install two (53983) Versa Locator Block Supports with (4629) Pop-Rivets **as shown**.
2. Insert a (57294-9B) Nipple Pipe Assembly (Orient as shown with locator block toward the water inlet end of the cage row) **as shown**.

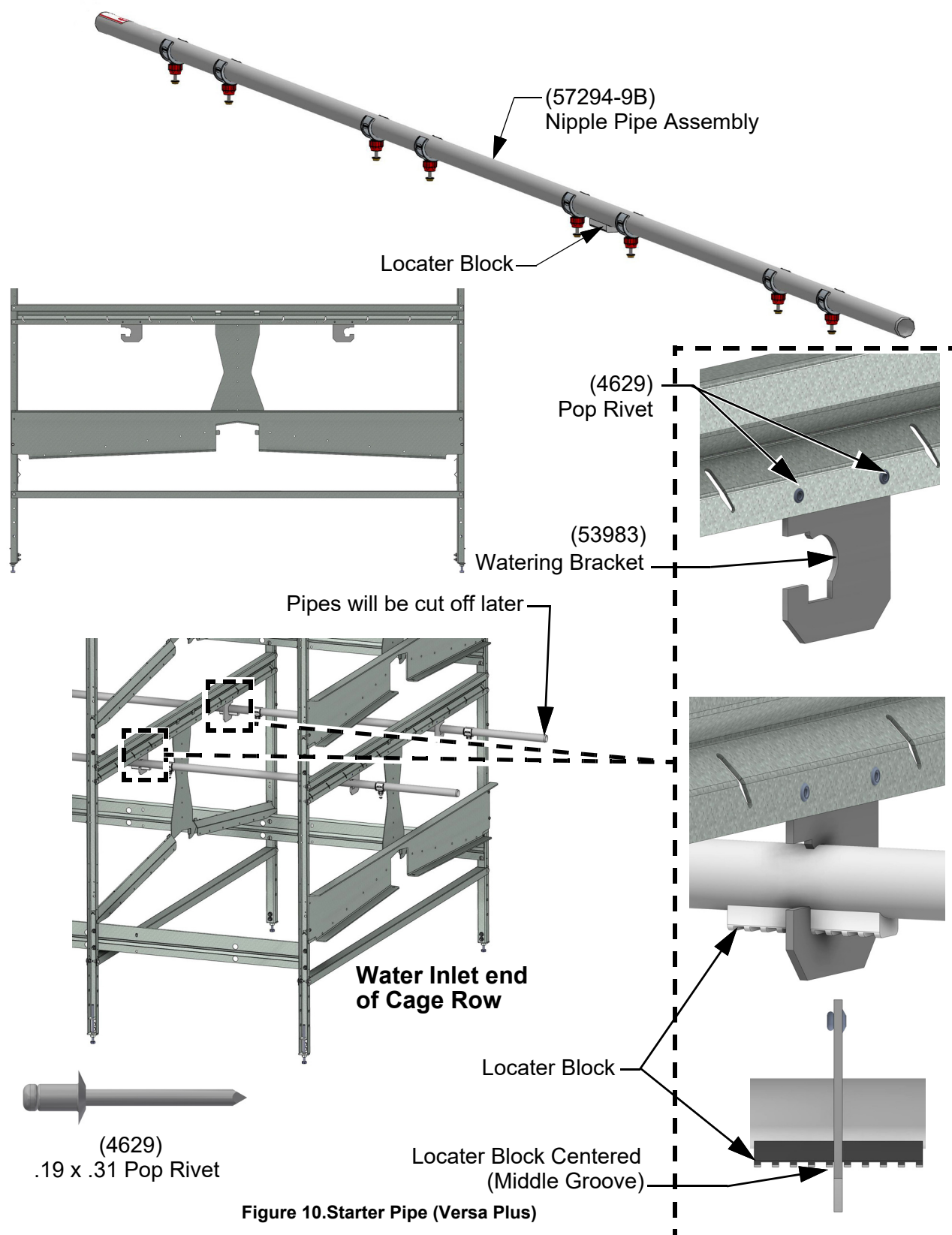


Figure 10.Starter Pipe (Versa Plus)

## Nipple Pipe Assembly

1. Attach Nipple Pipe Assembly's together using (56373) Pipe Couplings as shown. See "Lubrication" on page 7. for lubrication instructions. Install Nipple Pipe until you reach the Mid-Line of the system. The center groove of the Locator Blocks should line up with cage partitions.
2. If more than half of a Pipe Assembly gets cut off at the end of the cage row, keep it and use it at the back of the next cage.

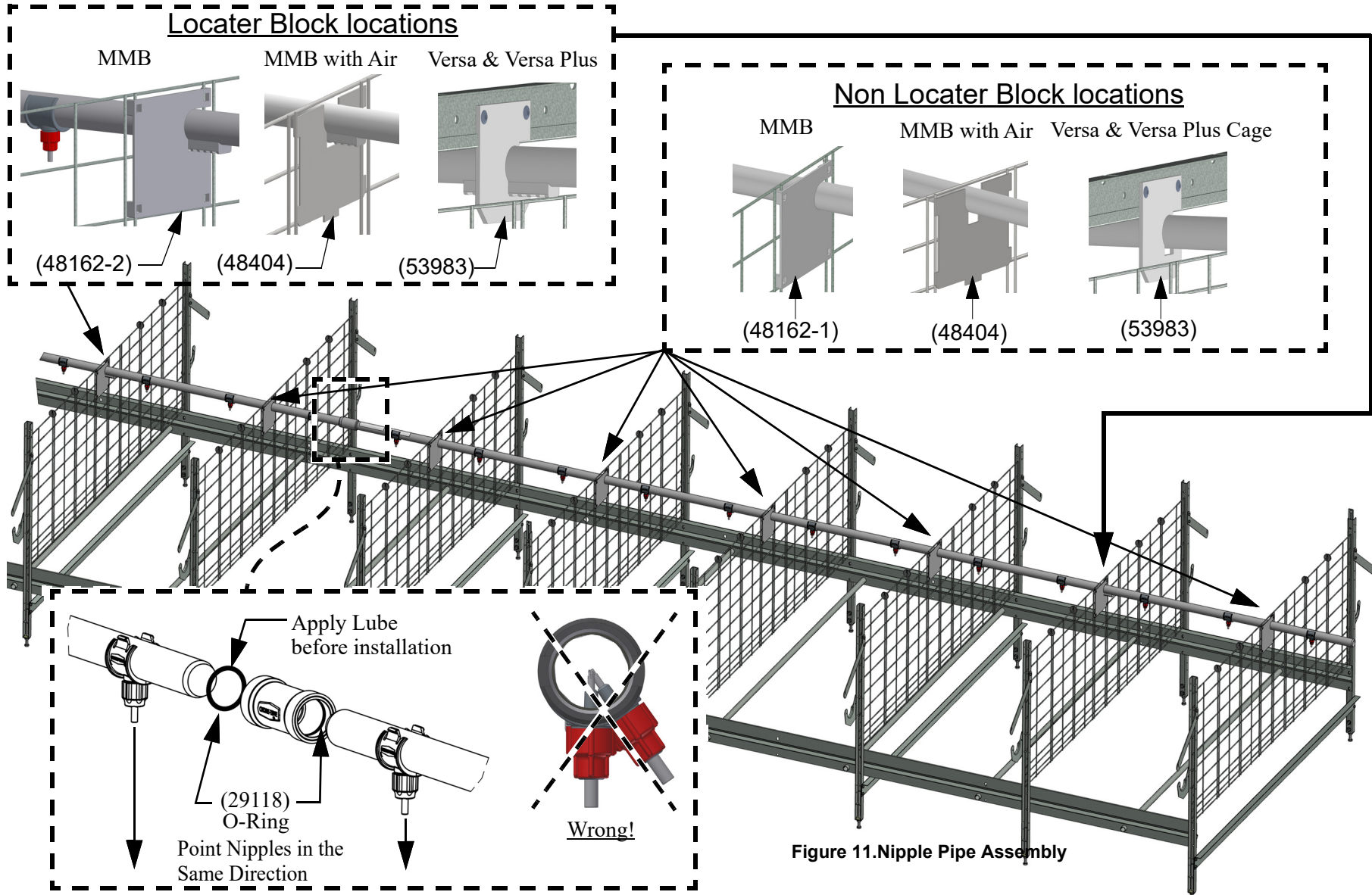


Figure 11. Nipple Pipe Assembly



## Mid-Line Installation

**Important!** See “Lubrication” on page 7. for Lubrication instructions.

Chore-Time recommends installing the Mid-Line (Stand Tubes) between the same partitions as the Motor.

1. Mid-line Stand Tubes must be staggered (**See below**) so they do not interfere with each other tier to tier.
2. The Stand Tubes fits between the Cage Rail and the Trough **as shown**.
3. Measure and cut a 3/4" PVC Pipe (**8083-10**) so that the Stand Tube will fit between the Trough and Cage Rail.

**Note:** If there is a slope, use a Slope Compensator. Note the water flow direction arrow. Each Slope Compensator reduces slope by 7" [17.8 cm].

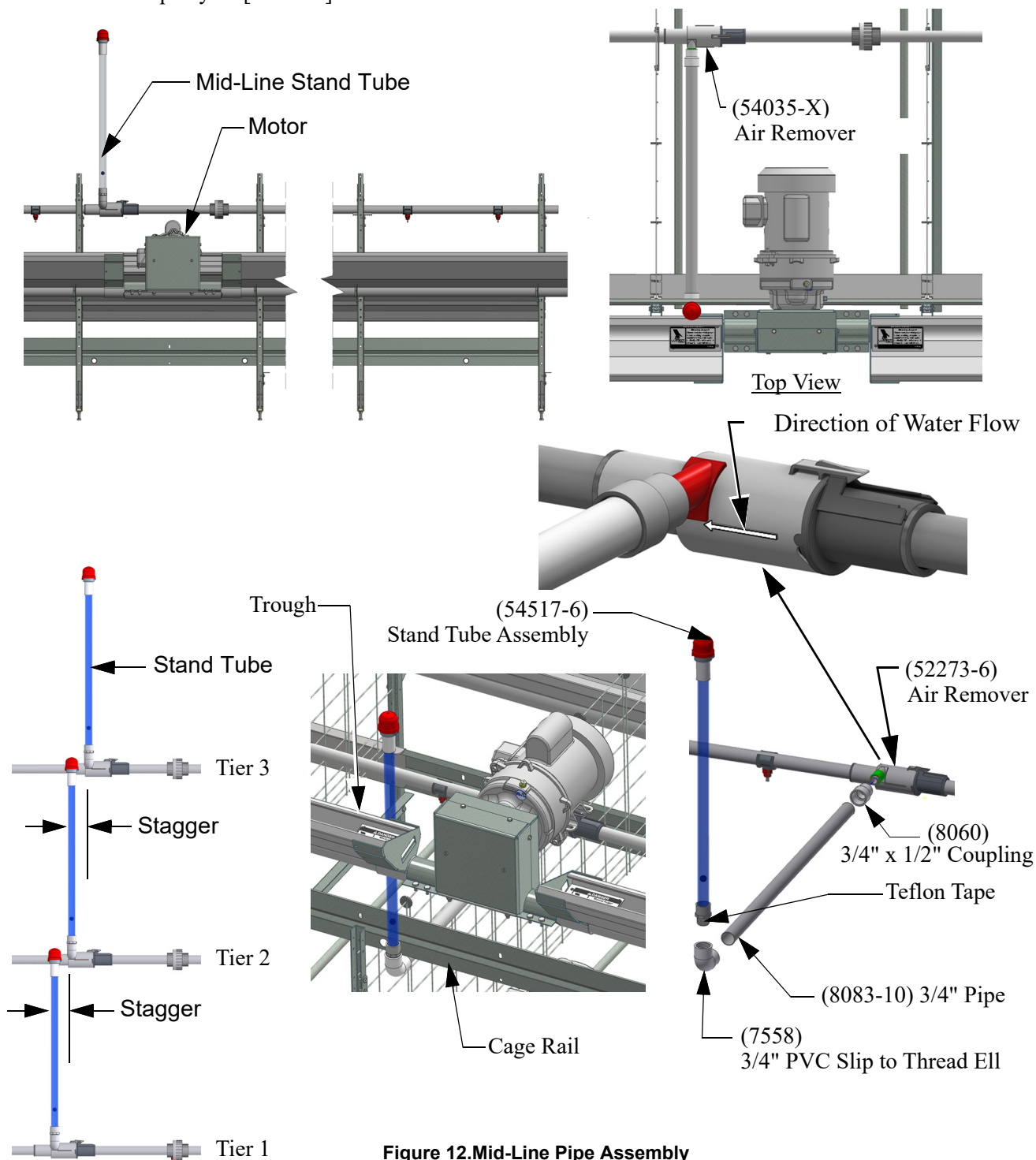
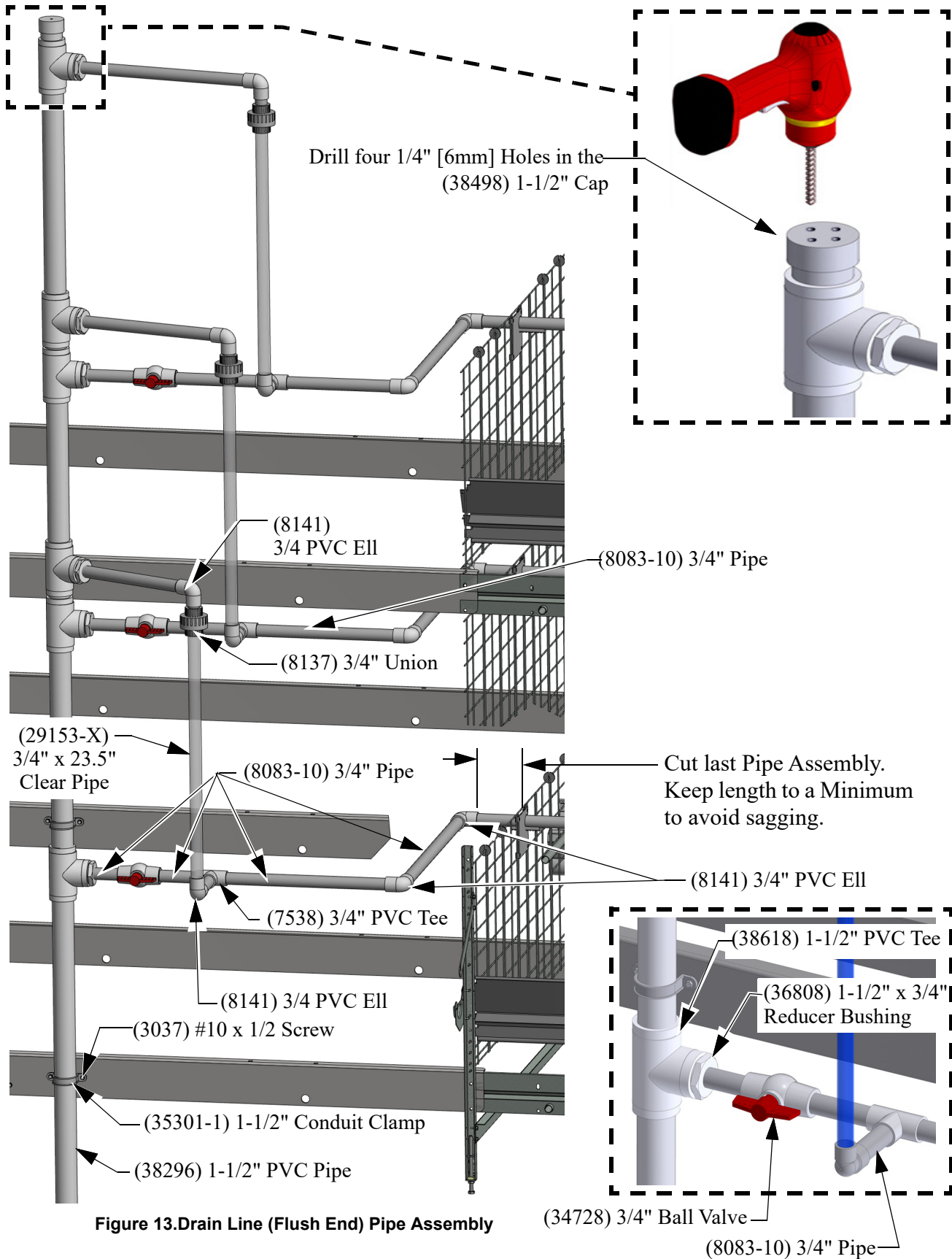


Figure 12. Mid-Line Pipe Assembly

## Drain Line (Flush End) Assembly (Ultra MMB and Versa)

1. Use teflon tape on threads as required. Use PVC glue (see PVC glue directions) on slip connections.
2. De-burr the PVC piping before assembly.



## Drain Line (Flush End) Assembly (Versa Plus)

1. Use teflon tape on threads as required. Use PVC glue (see PVC cement directions) on slip connections.
2. De-burr the PVC piping.

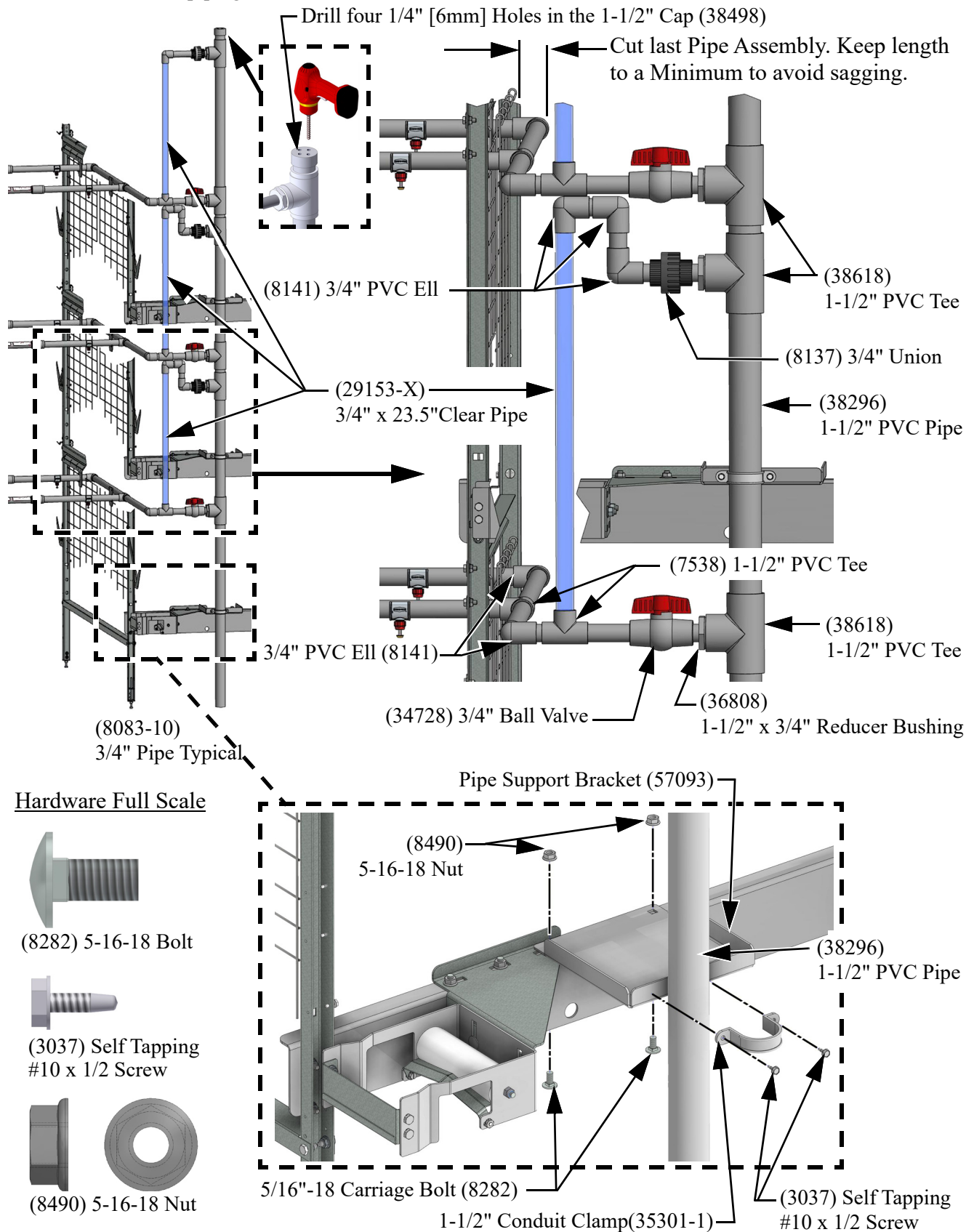
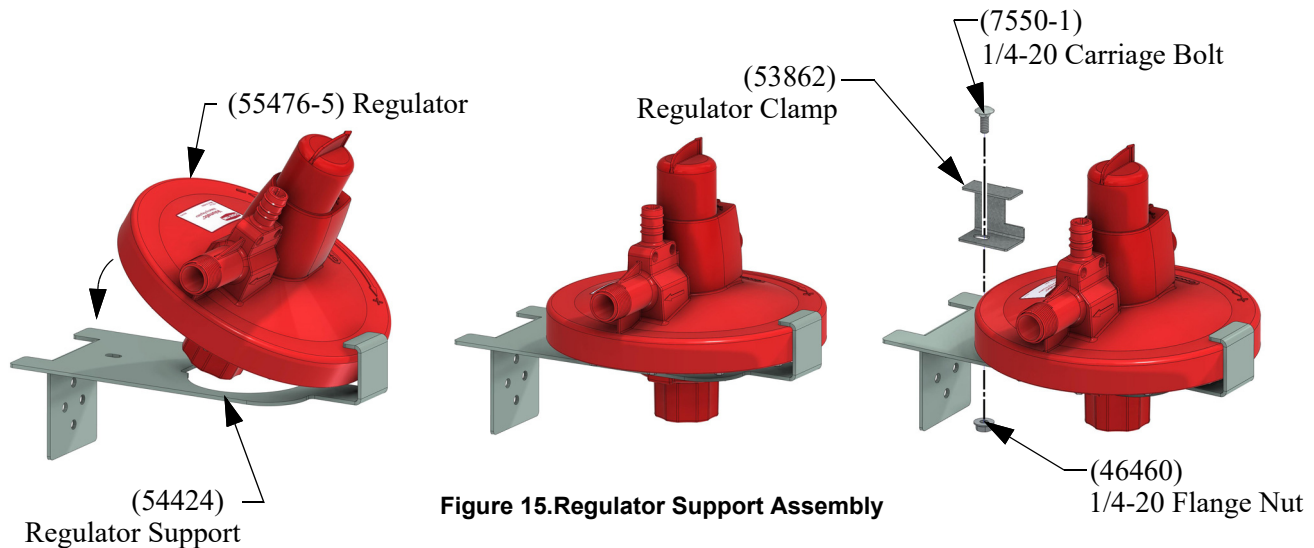


Figure 14. Drain Line (Flush End) Versa Plus

## Supply Line (Regulator End) Assembly

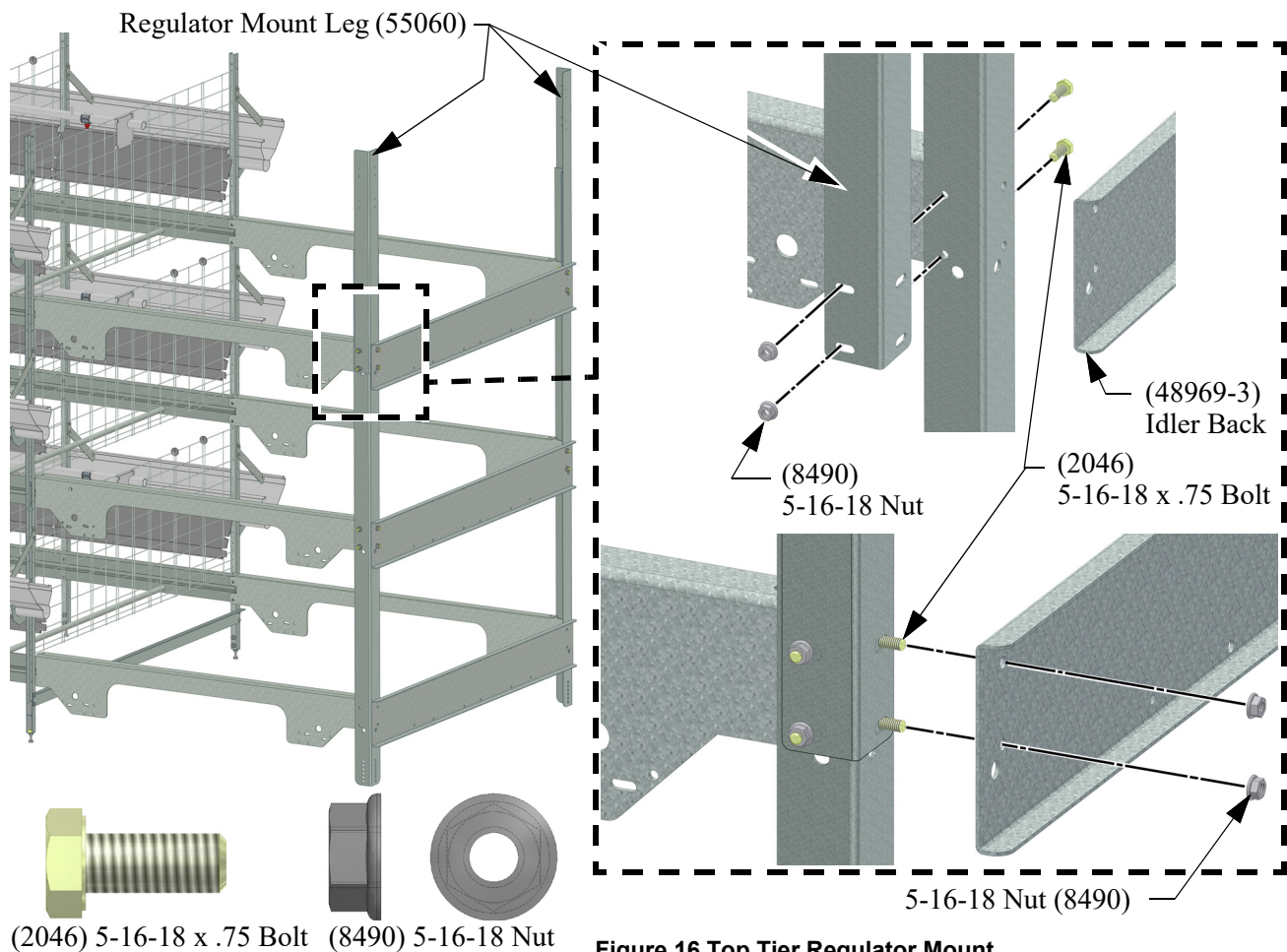
Tip: Place Regulators in adjacent rows in the same walkway for easier inspection.

1. Snap the Regulator **(55476-5)** onto the Regulator Support **as shown**.
2. Attach a **(53862)** Regulator Clamp with a **(7550-1)** Car. Bolt and **(46460)** 1/4-20 Flange Nut to hold Regulator in place as shown.



## Top Tier Regulator Mount

The top tier requires installation of Regulator Mount Legs **(55060)**. (See Figure below).





## Pipe Installation (Regulator End)

Important! See "Lubrication" on page 7. for Lubrication instructions.

Cut last Pipe Assembly.

Keep length to a Minimum  
to avoid sagging.

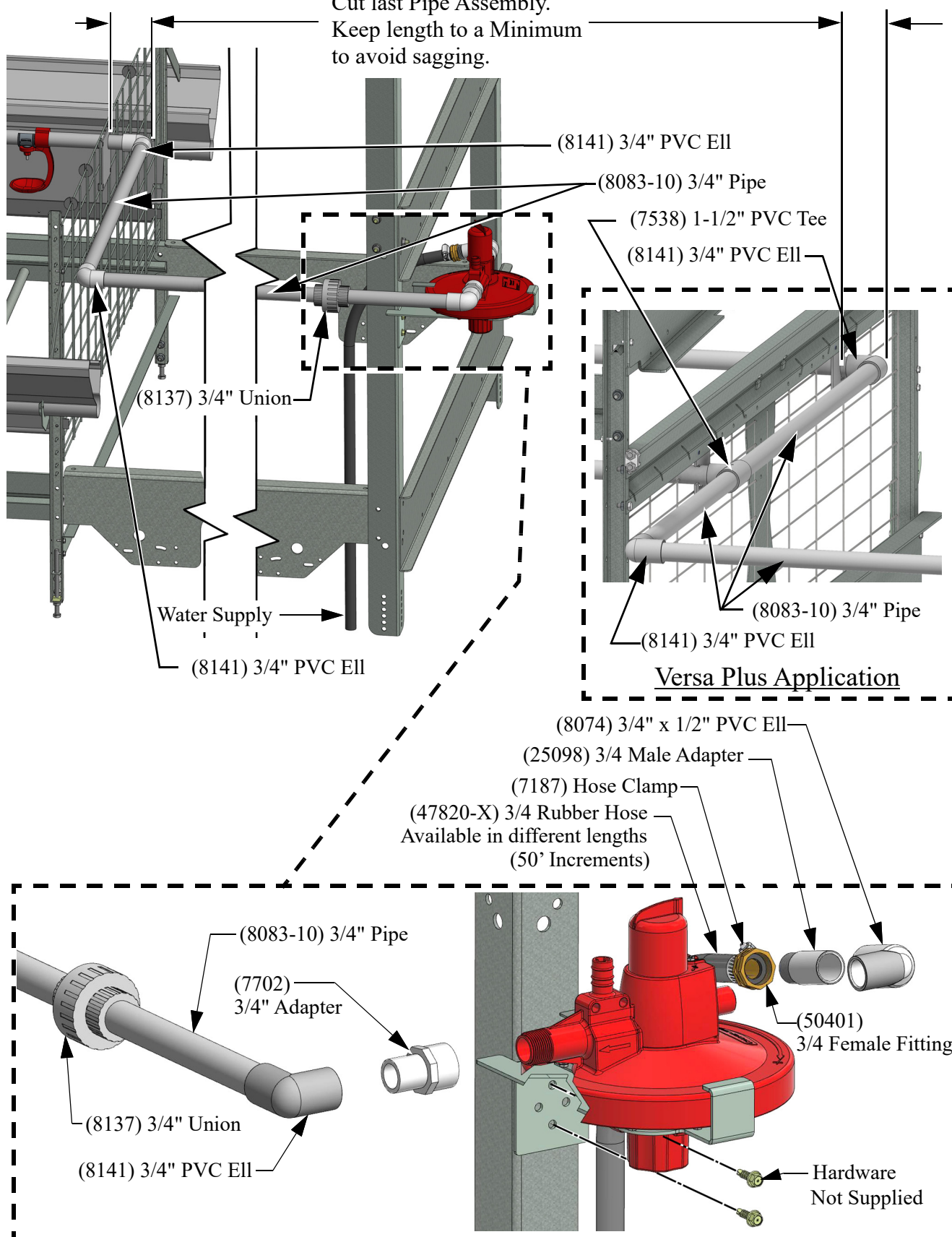


Figure 17. Supply Line (Regulator End) Assembly

## Regulator Stand Tube Installation

**Important!** See “Lubrication” on page 7. for Lubrication instructions.

1. Attach a Stand Tube to the Regulator with a (7187) Hose Clamp.

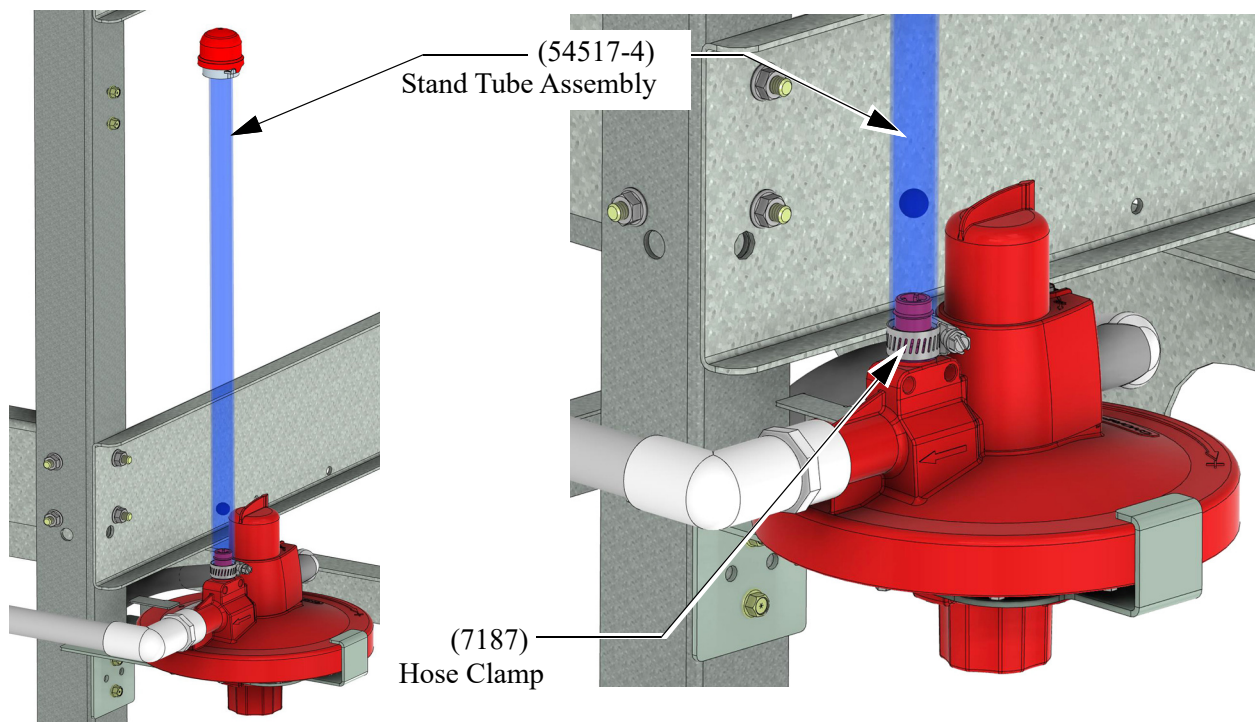


Figure 18.Regulator Stand Tube Installation

## Catch Cup Installation

1. Attach the Catch Cups (50250) by snapping them onto the Nipple Pipe as shown.

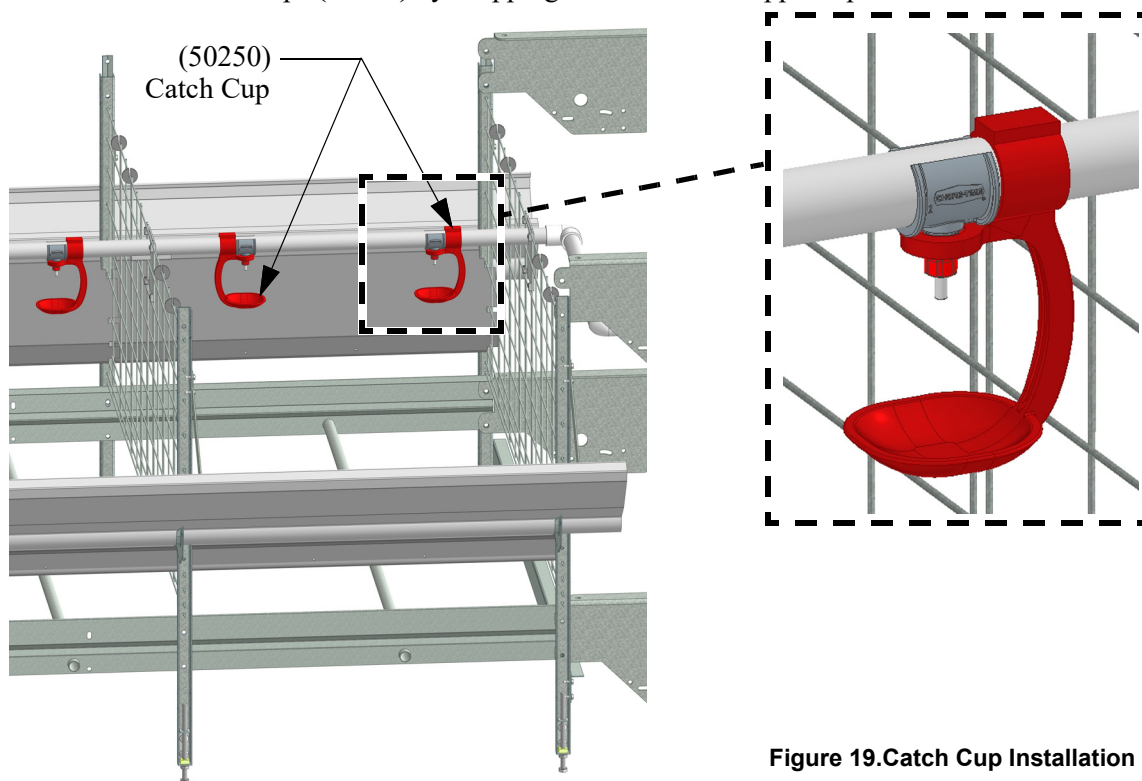


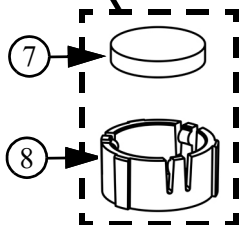
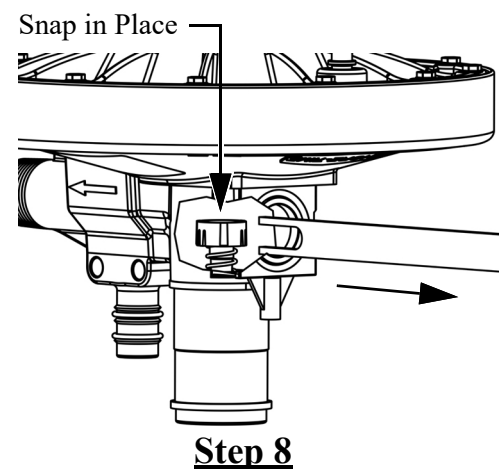
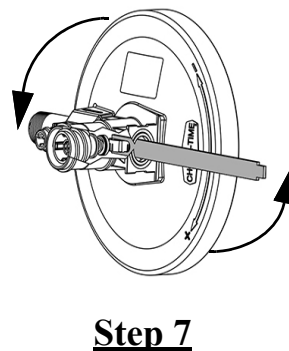
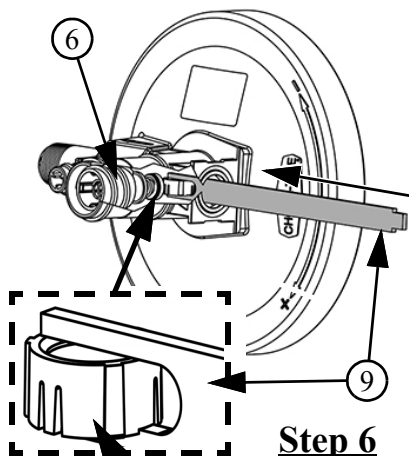
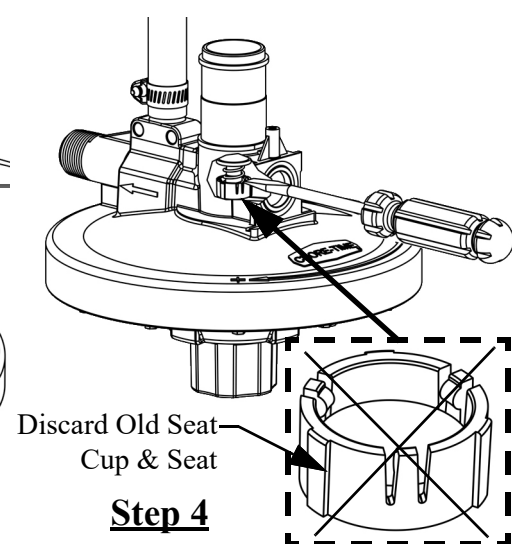
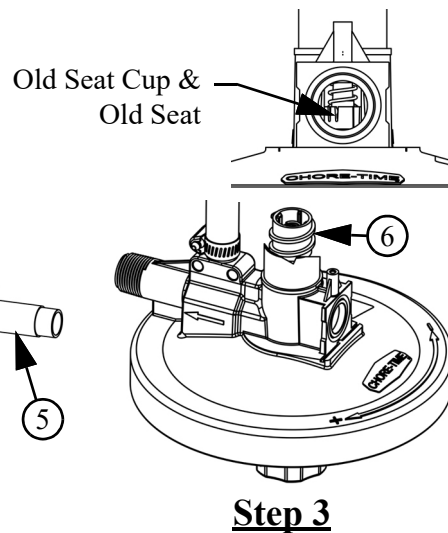
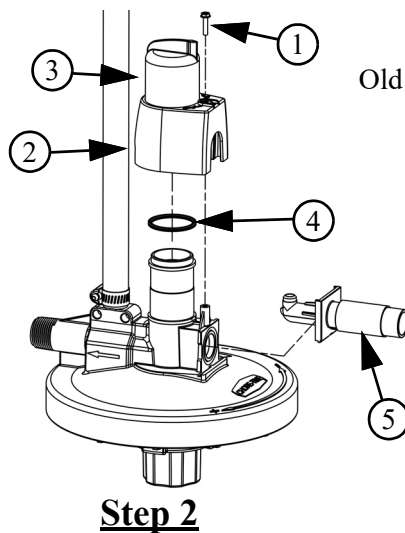
Figure 19.Catch Cup Installation

## Maintenance

### Regulator Seat Replacement

Follow the procedures below to replace the Regulator seat.

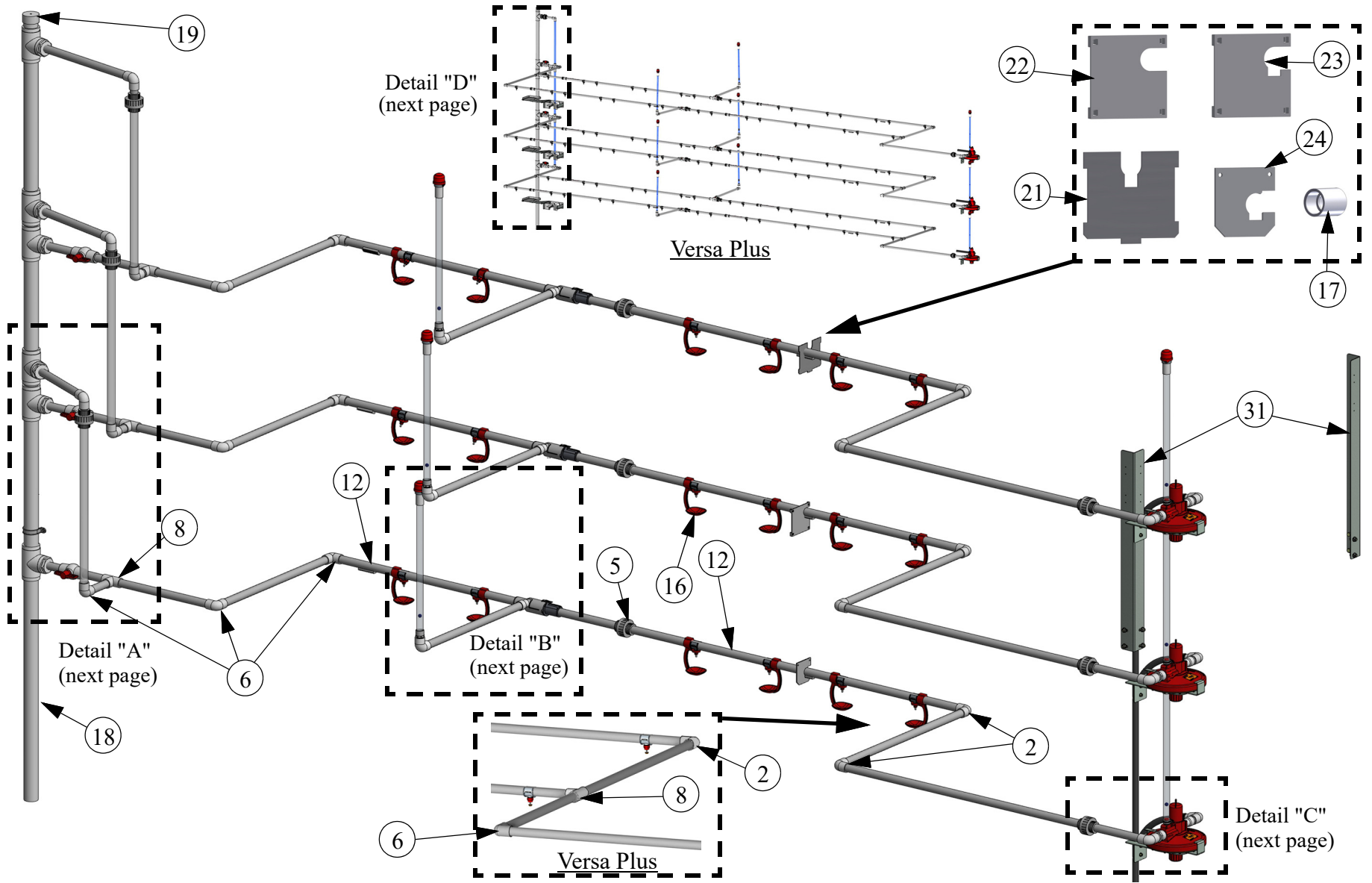
1. Shut off water to the Regulator and remove it from the nipple line.
2. Remove the screw (**Item 1**) holding the Shroud (**Item 2**). Remove the Shroud, Selector Knob (**Item 3**), Quad Ring (**Item 4**), and Inlet Orifice (**Item 5**).
3. Turn the Barrel (**Item 6**) Clockwise to see more of the Seat Cup and old Seat.
4. Pry off the old Seat and Seat Cup and discard.
5. Insert the new Seat (**Item 7**) in the new Seat Cup (**Item 8**). Seat face direction does not matter.
6. Turn the Barrel Counter-Clockwise to move the Seat Cup out of the way. Orient the Regulator **as shown**. Put the new Seat Cup in the Seat installation tool (**Item 9**) and insert it into the Regulator until it is lined up with the Seat Holder.
7. Rotate the Regulator 90° while keeping the Installation Tool and Seat Cup in place and Snap the new Seat Cup onto the Seat Holder. Make sure the seat assembly is properly seated onto the seat holder.



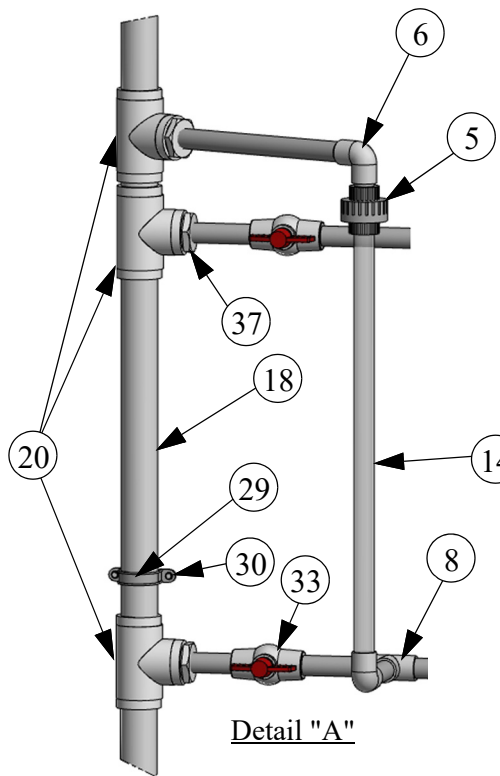
Item	Description	Part Number
1	Screw	--
2	Shroud	--
3	Selector knob	--
4	Quad Ring	--
5	Inlet Orifice	--

Item	Description	Part Number
6	Barrel	--
7	New Seat	48225
8	New Seat Cup	48199
9	Seat Installation Tool	48688

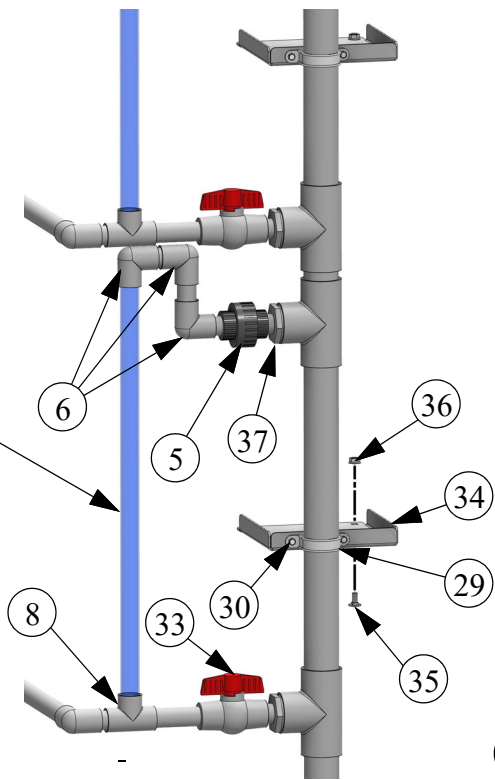
# Part Numbers



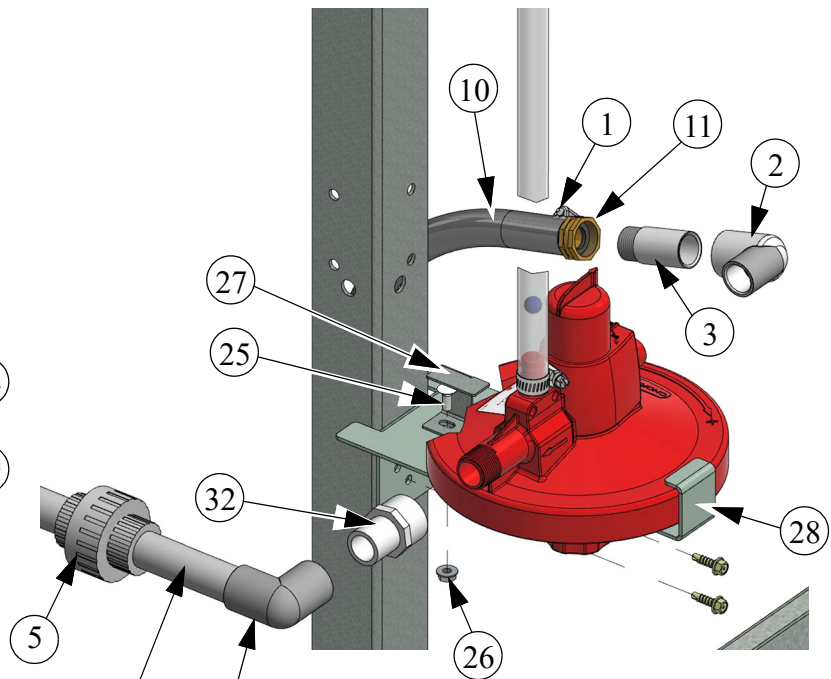




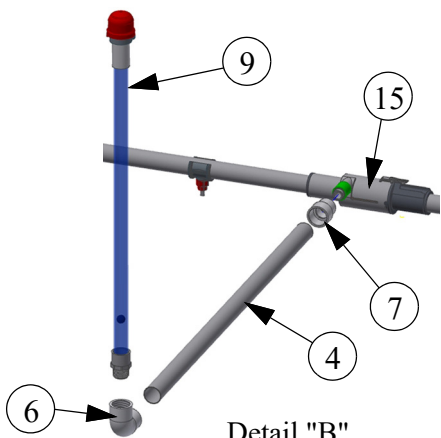
Detail "A"



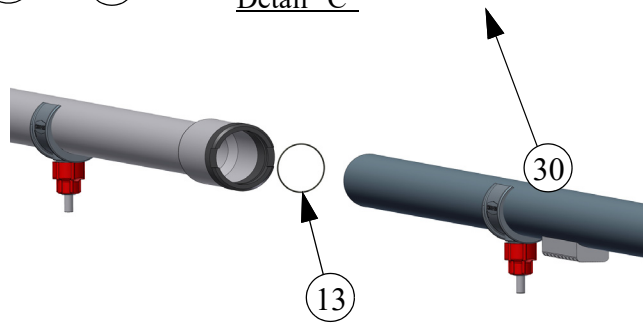
Detail "D" (Versa Plus)



Detail "C"

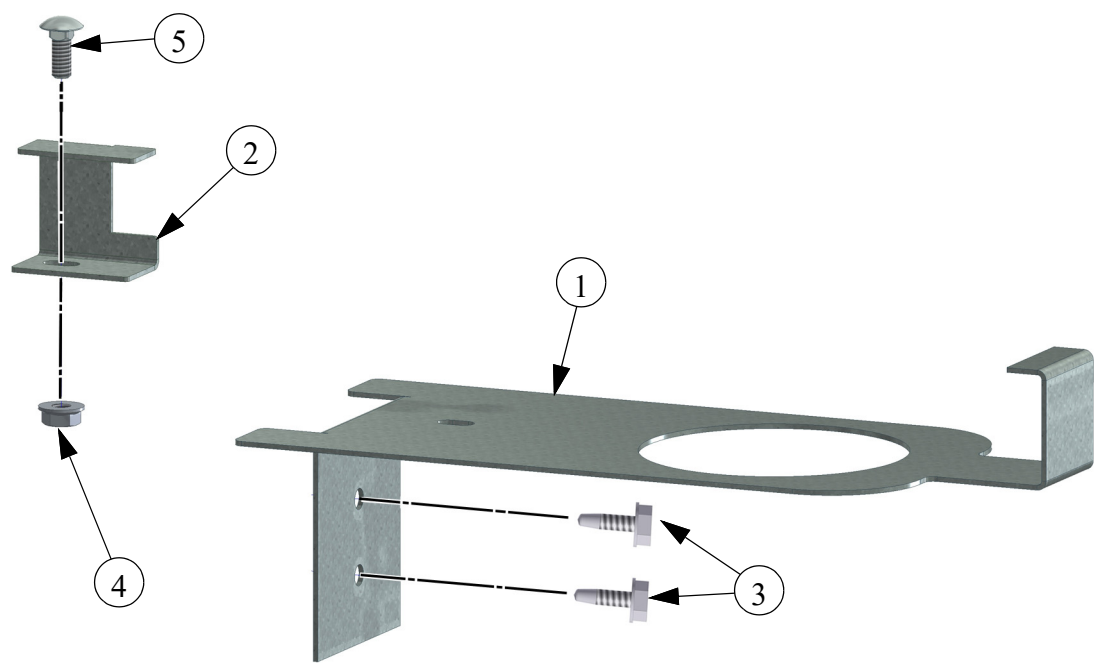


Detail "B"



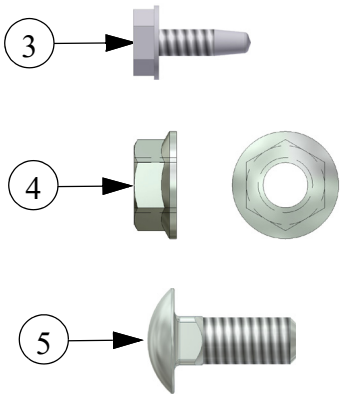
Water Line		
Item	Description	Part No.
1	Adj. Hose Clamp	7187
2	3/4" x 1/2" PVC Ell	8074
3	.75 Male Adapter Fitting	25098
4	3/4 x 10' PVC SDR Pipe	8083-10
5	Union	8137
6	.75 PVC Ell	8141
7	.75 x .50 Reducer Coupling	8060
8	3/4 PVC SXSXS Tee	7538
9	Rigid Stand Tube with 3/4NPT Fitting	54517-6
10	3/4" I.D. Rubber Hose (50') [15.24m]	47820-50
	3/4" I.D. Rubber Hose (100') [30.48m]	47820-100
	3/4" I.D. Rubber Hose (200') [60.96m]	47820-200
11	3/4" Swivel Fitting	50401
12	12' STEADI-FLOW Pipe Assembly	56437-2
	12' STEADI-FLOW Pipe Assembly w/Buttons	56437-2B
13	O-Ring	29118
14	3/4" x 24" PVC Clear Pipe	29153-4
15	Hi Dif Slope Compensator w/o Vent	54035-1H
	Hi Dif Slope Compensator w/ Right Mach.Vent	54035-2H
	Mid Line Air Remover w/Left Mach. Vent	52273-6 (Shown)
16	Catch Cup	50250
17	3/4" PVC S x S Coupling	7775
18	1.5x10ft Pvc Sch40 Pipe	38296
19	1.5 PVC Cap	38498
20	1.5 PVC Tee	38618
21	Nipple Pipe Support (w/air)	48404
22	Nipple Pipe Support (Non Loc. Block No Drip Trough)	48162-1
23	Nipple Pipe Support (Block Loc. No Drip Trough)	48162-2
24	Versa Watering Bracket	53983
25*	1/4-20 x .5 Bolt	7550-1
26*	1/4-20 Flange Nut	46460
27*	MMB BG Regulator Support Clamp	53862
28*	Extended MMB Regulator Support	54424
29	1-1/2" Plastic Conduit Clamp	35301-1
30*	5/16 Self Tapping Screw	3037
31	Regulator Mount Idler Leg	55060
32	3/4" Threaded FTG Adapter	7702
33	3/4" Ball Valve	34728
34	Pipe Support Bracket	57093
35	5/16-18 x .626 Carriage Bolt	8282
36	5/16-18 Flange Nut	8490
37	1-1/2" x 3/4" Reducer Bushing	36808
*Parts included in Water Regulator Kit part no. 54536-1		

Water Regulator Kit (54536-1)

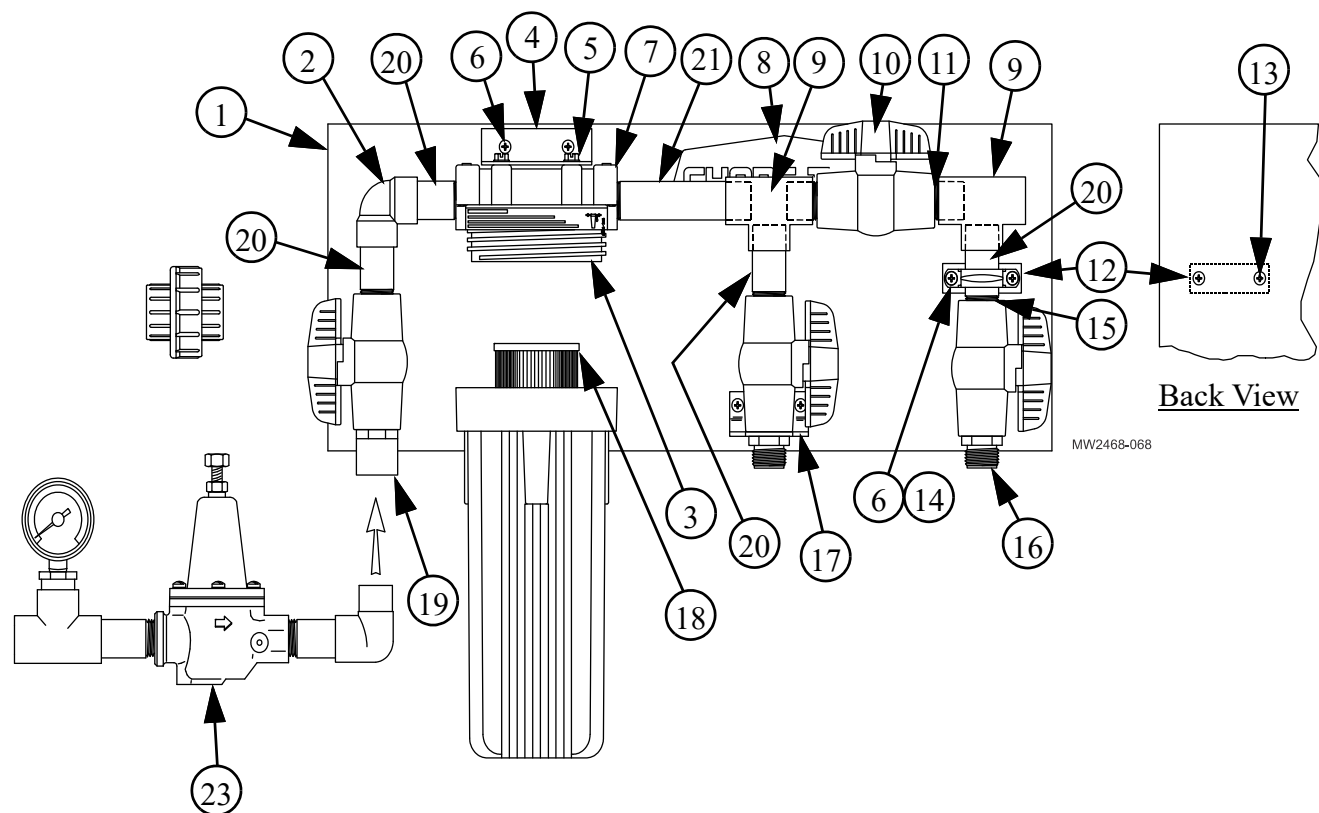


Water Regulator Kit		
Item	Description	Part No.
1	MMB BG Regulator Support	54424
2	MMB BG Regulator Clamp	53862
3	10-16 x.50 HXWH Screw	3037
4	1/4-20 Serrated Flange Nut	46460
5	1/4-20 x .50 Car. Bolt	7550-1

Hardware below is Full Scale



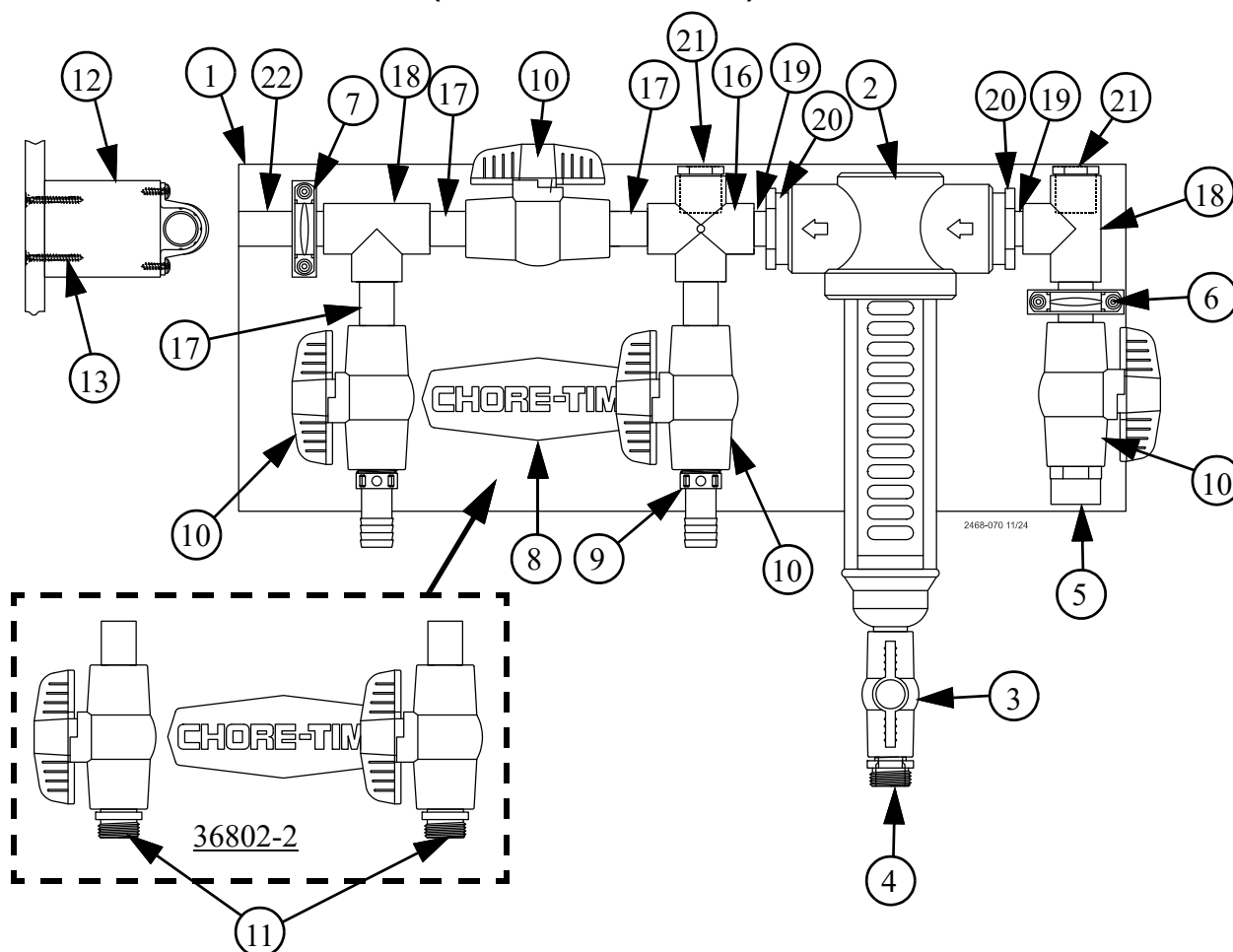
## Filter Control Panel (9275)



Item	Description	Part No.
1	Mounting Board	35303
2	3/4" PVC Ell	8141
3	Filter Change Decal	2526-346
4	3/4" PVC Street Ell	30138
5	1/4-14 Sheet Metal Screw	35425
6	#10-13 Ph. Panhead Screw	35423
7	Water Filter	35309
8	Chore-Time Decal	2525-4
9	3/4" PVC Tee	7538
10	3/4" Quarter Turn Valve	35781
11	3/4" x 1.44 Threaded PVC Nipple	7531-5
12	Standoff Block	35300
13	#10-13 x 1.50 Phil Screw	35424
14	Plastic Conduit Clamp	35301
16	3/4" Nylon Adapter	7543
17	Medicator Connector Brace	35307
18	10 Micron Filter Cartridge (Optional)	13145
	20 Micron Filter Cartridge (Standard)	7723
19	3/4 PVC Male Adapter	9229
20	3/4" x 2.50 Thd. PVC Nipple	7531-9
21	3/4" Threaded PVC Nipple	7531-1
22*	3/4" Threaded Adapter	7702
23*	Water Pressure Gauge	7191
*Included in package but not Assembled		

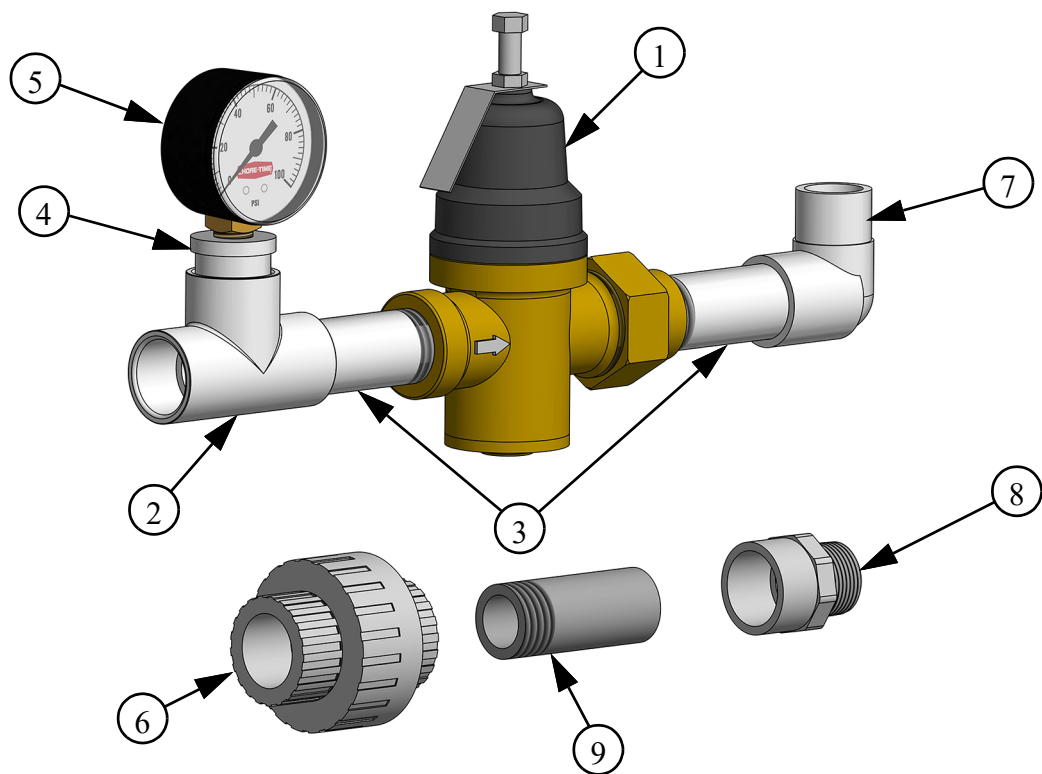


## Flush able Filter Control Panel (36802-1 and 36802-2)



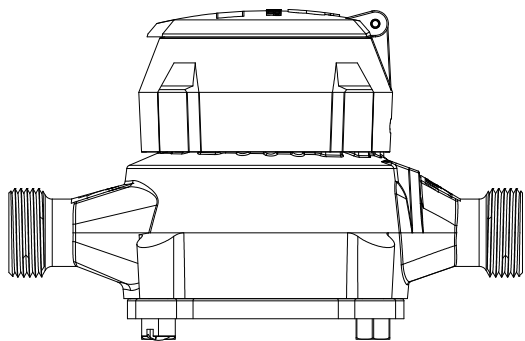
		36802-1	36802-2
Item	Description	Part No	Part No
1	Mounting Board	35303	35303
2	Flush able Filter	36806	36806
3	1/2" Ball Valve	34961	34961
4	Nylon Adapter	29141	29141
5	3/4" PVC Male Adapter	9229	9229
6	#10-13 Ph. Panhead Screw	35423	35423
7	3/4" Plastic Conduit Clamp	35301	35301
8	Chore-Time Decal	2525-4	2525-4
9	3/4 Barb to 3/4 Pipe Adapter	29422	--
10	3/4" Valve	35781	35781
11	3/4 Male NHT x 3/4 Male NPT Adapter	--	7543
12	Standoff Block	35300	35300
13	#10-13 x 1.50 Phil Screw	35424	35424
16	3/4" Cross	7536	7536
17	3/4 Threaded PVC Nipple	7531-9	7531-9
18	3/4 PVC Tee	7538	7538
19	.75 x 1.75 PVC Pipe	9205-18	9205-18
20	1-1/2 x 3/4 PVC Reducer Bushing	36808	36808
21	3/4" x 1/4" Reducer Bushing	7789	7789
22	3/4 x 3.00 PVC Pipe	9205-4	9205-4

Step Regulator (35308)



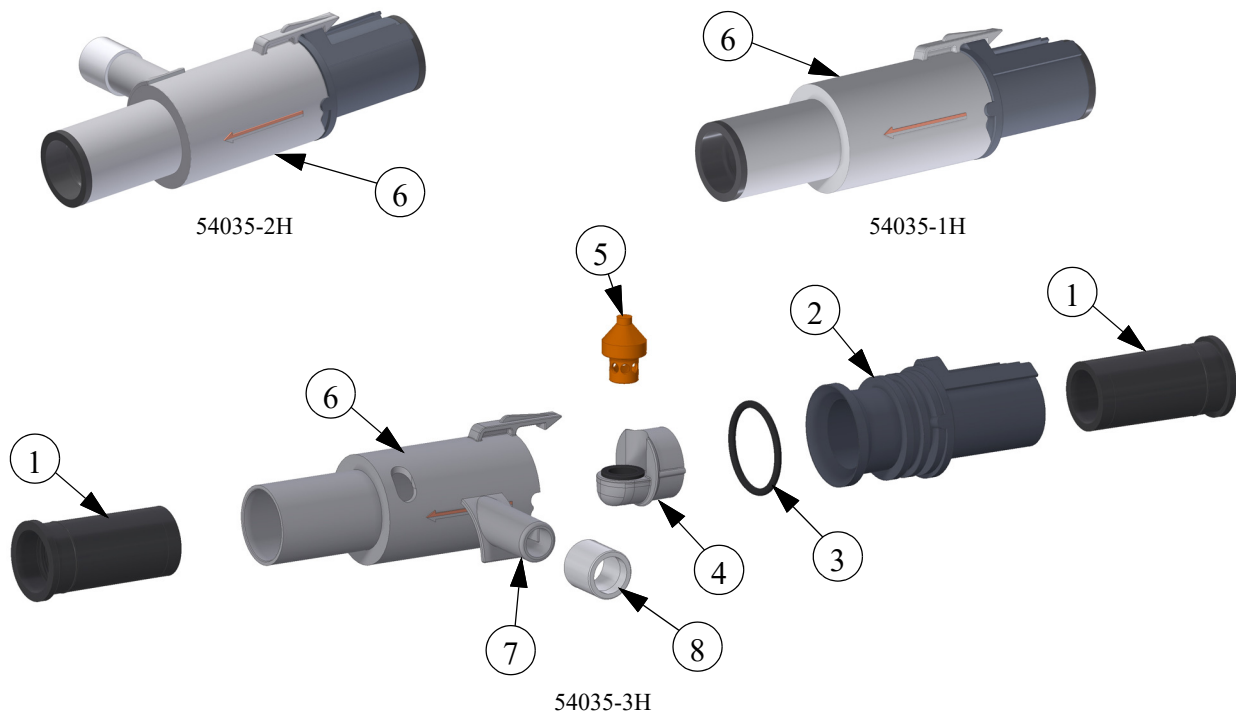
Item	Description	Part No.
1	Regulator	29951
2	3/4 PVC Tee	7538
3	3/4 Threaded Nipple	7531-1
4	3/4 x 1/4 Reducer Bushing	7789
5	Water Pressure Gauge	7191
6	3/4 PVC Union	8137
7	3/4 PVC Street Ell	30138
8	3/4 PVC Male Adapter	34100
9	3/4 Threaded PVC Nipple	7531-9

Pulse Water Meter (54579)



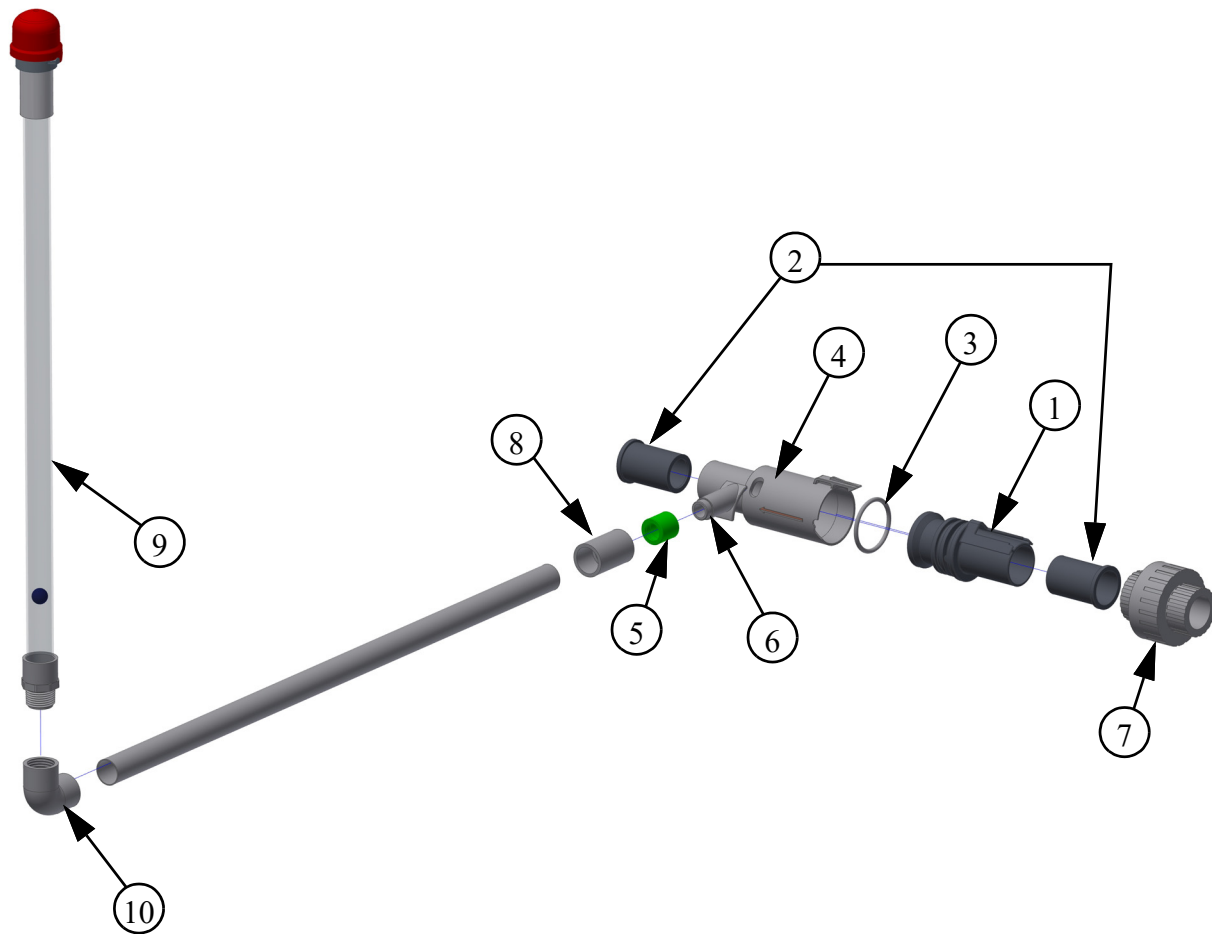
Part Number	Flow Range	Max. Operating Pressure
54579-GP	.25-25 GPM	150 PSI
54579-LP	.25-25 GPM	150 PSI

## Slope Compensator (54035)



		54035-1H High Dif. w/o Vent	54035-2H High Dif. w/ Right Vent	54035-3H High Dif. w/ Left Vent
Item	Description	Part No.		
1	Half Liner	36501	36501	36501
2	Inlet Compensator	46464	46464	46464
3	O-Ring	44015	44015	44015
4	Slope Compensator Holder	53625	53625	53625
5	Plunger	46451	46451	46451
6	Outlet Compensator	36505-3	36505-6	36505-5
7	Compensator Vent Port	--	37557	37557
8	CTWR Bushing	--	42391	42391

## Mid Line Air Remover (52273) and Midline Components

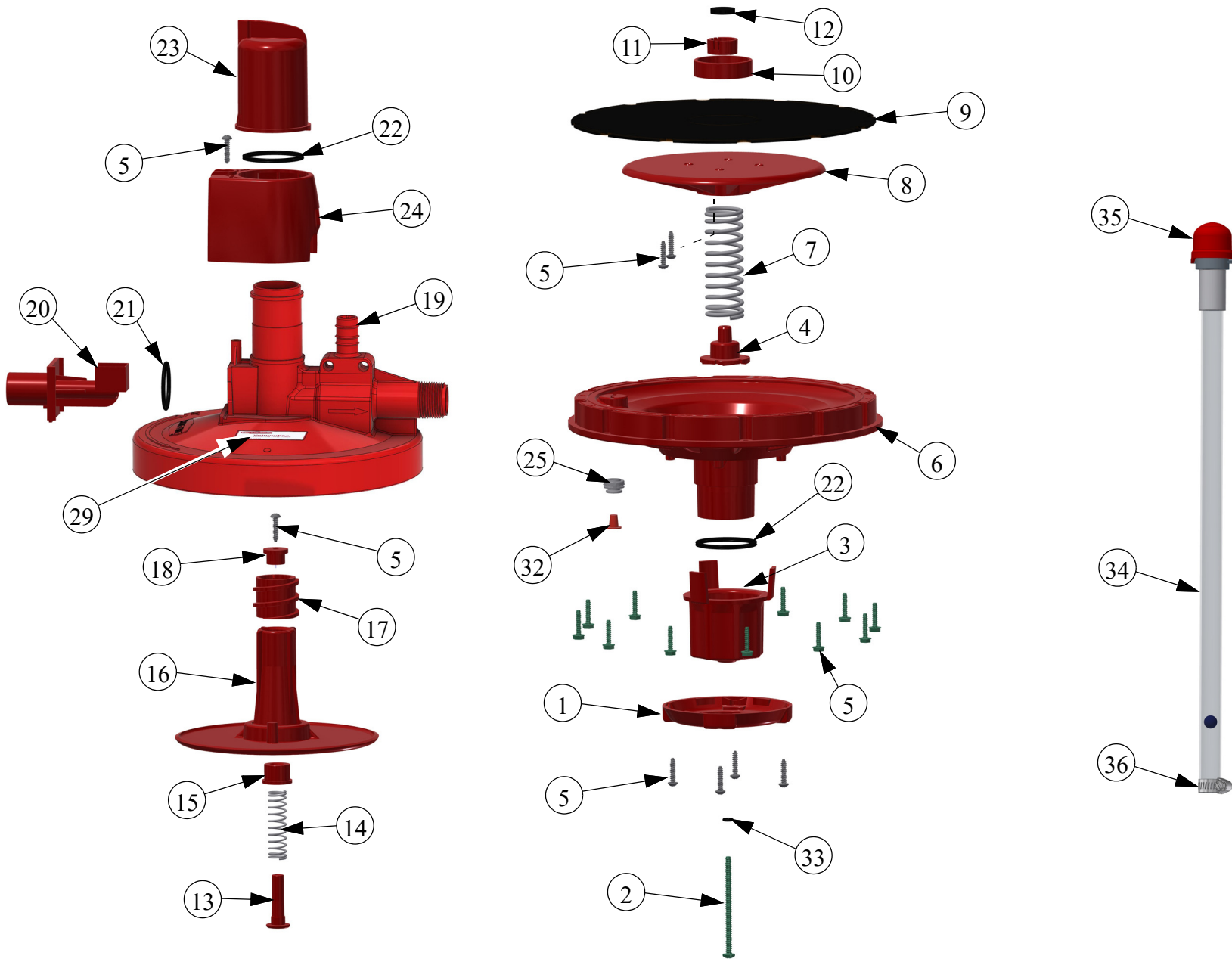


		<b>52273-6 Midline Air Remover w/left mach. vent</b>	<b>52273-7 Midline Air Remover w/right mach. vent</b>
<b>Item</b>	<b>Description</b>	<b>Part No.</b>	
1	Inlet Compensator	46464	46464
2	Half Liner	36501	36501
3	O-Ring	44015	44015
4	Outlet Compensator	36505-5	36505-6
5	CTWR Bushing	42391	42391
6	Compensator Vent Port	37557	37557

<b>Midline Components</b>		
<b>Item</b>	<b>Description</b>	<b>Part No.</b>
7	3/4 PVC Union	8137
8	3/4 x 1/2 Coupling	8060
9	Rigid Stand Tube w/adapter	54517-6
10	3/4 PVC Ell	7558

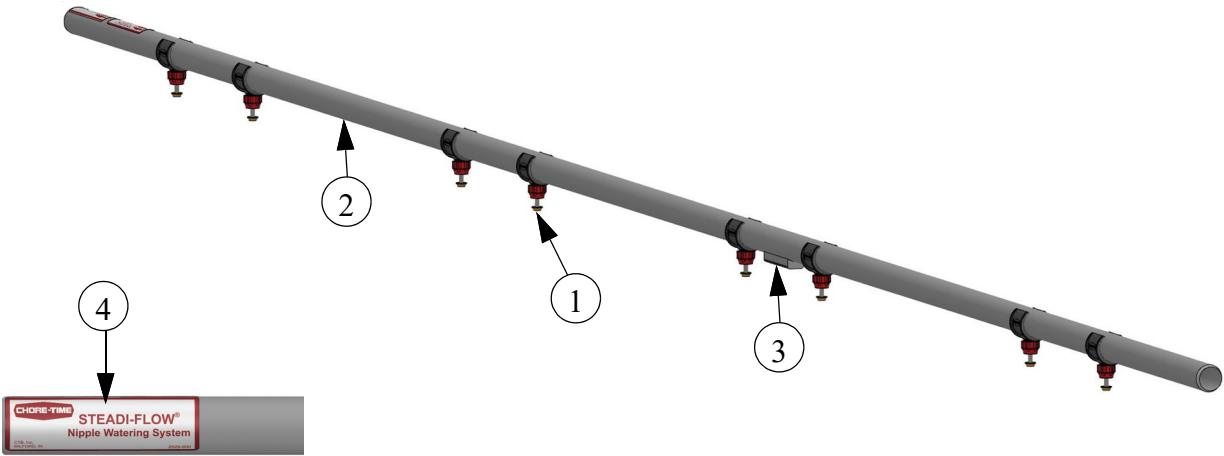
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## Regulator Assembly (55476-4, and 55476-5)



		<b>Regulator Assembly</b>	
		<b>55476-4 NPT Standard Spring No Stand Tube</b>	<b>55476-5 NPT Outlet Standard Spring Rigid Stand Tube</b>
<b>Item</b>	<b>Description</b>	<b>Part No.</b>	<b>Part No.</b>
1	Knob Retainer	55477	55477
2	#8-18 x 2-1/2" Screw	42387	42387
3	Adjustment Knob	55478	55478
4	Follower	42183	42183
5	#6 x .625 Screw	44946	44946
6	Bottom Regulator Half	55479	55479
7	.78 x 2.8" Spring	42393	42393
8	Diaphragm Plate	42177	42177
9	Diaphragm	42181	42181
10	Diaphragm Center Support	42186	42186
11	Seat Cup	48199	48199
12	Seat	48225	48225
13	Seat Holder	42189	42189
14	.375 ID x 1.75" Spring	42392	42392
15	Seat Holder Sleeve	42187	42187
16	Top Diaphragm Plate	42182	42182
17	Barrel	42172	42172
18	Seat Holder Cap	42176	42176
19	Top Half Regulator	57065-1	57065-1
20	Inlet Orifice	42190	42190
21	O-Ring	29118	29118
22	O-Ring	42389	42389
23	Selector Knob	42178	42178
24	Shroud	42390	42390
25	1/8-27 NPT x 1/4 Tube Conn.	50820-1	50820-1
29	Volumatic Decal	2529-813	2529-813
32	Plug	57285	57285
33	-007 O-Ring	56172	56172
34	Stand Tube Assembly	--	54517-4
35*	Breather Cap Assembly	--	54606
36*	Hose Clamp	--	7187
*Included in Item 34 Stand Tube Assembly			

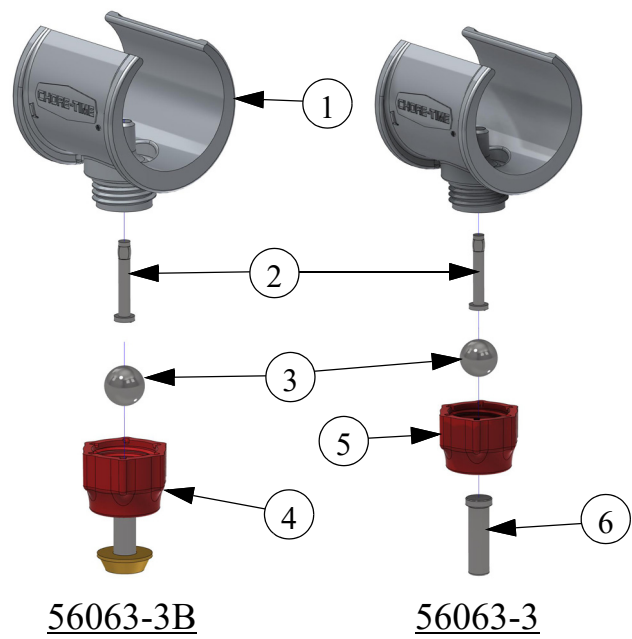
Aviary Pipe Part Numbers



Item	Description	Versa Aviary Pipe		MMB Aviary Pipe	
		57294-3B Versa Plus, 8-22" OC, 10' W/Button	57294-16B Versa Plus, 20" OC, 10' W/Button	57294-2 MMB, 12" OC, 12'	57294-2B MMB, 12" OC, 12' W/Button
		Part No.	Part No.	Part No.	Part No.
1	STEADI-FLOW® Layer Saddle Assembly	--	--	56063-3	--
	STEADI-FLOW® Layer Saddle Assembly W/Button	56063-3B	56063-3B	--	56063-3B
2	.75 x 119.75 Pipe	29107-21	29107-21	--	--
	.75 x 143.75 Pipe	--	--	29107-22	29107-22
3	Cage Nipple Line Locater Block	35706	35706	35706	35706
4	STEADI-FLOW Decal	2529-890	2529-890	2529-890	2529-890

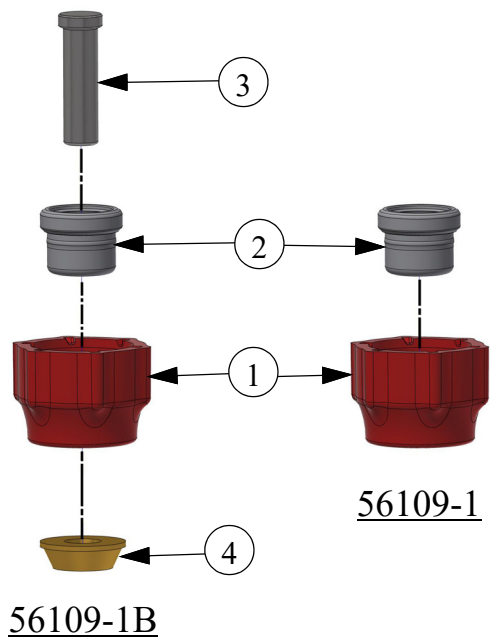


Saddle Assembly



STEADI-FLOW® Saddle Assembly			
		56063-3 L Pin	56063-3B L Pin W/Button
Item	Description	Part No.	Part No.
1	Nipple Cage Saddle	50804-1	50804-1
2	Flow Control Pin	36725	36725
3	SS CT-Nipple Ball	29117	29117
4*	Insert Cap Assembly	56109-1	--
5*	Insert Cap Assembly	--	56109-1B
6	C-T Nipple Stem	29119	--
*See Insert Cap Assembly below			

Insert Cap Assembly

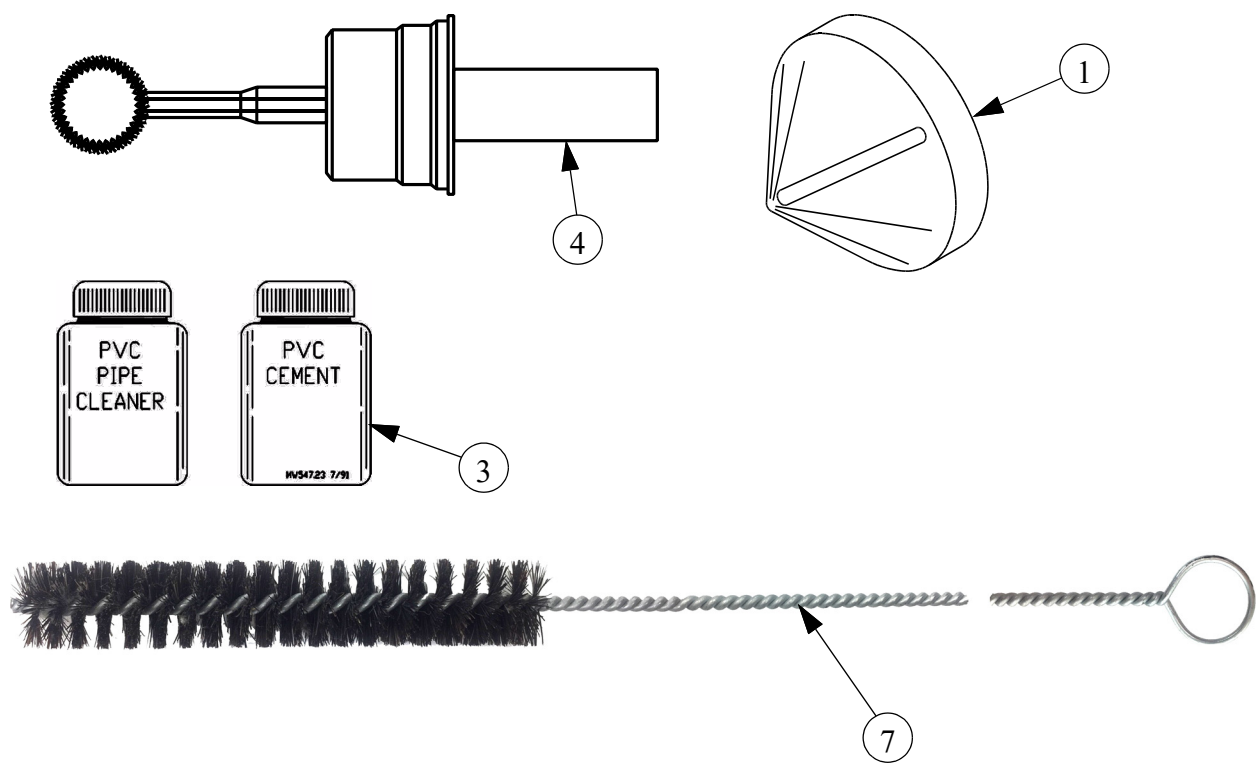


		Insert Cap Assembly	
		56109-1	56109-1B W/Button
Item	Description	Part No.	Part No.
1	STEADI-FLOW Cap	55808-1	55808-1
2	Lower Insert	55809	55809
3	C-T Nipple Stem	--	29119
4	Button Trigger	--	29563

CT3 PDS Control

Refer to the Chore-Time PDS Control Manual (MW2467) for Part Numbers.

Misc. Components List



Item	Description	Part No.
1	De-burring Tool	38514
2	Teflon Tape (Not Shown)	9954-1
3	PVC Cement	6303-4
4	Adj Plastic Glue Dauber	38513
5	Layer Watering Operator Kit (Not Shown)	50991-2
6	Lubricant (Not Shown)	45911
7	Pipe Brush	29465



**Made to work.**

**Built to last.®**

### **Revisions to this Manual**

<b>Page No.</b>	<b>Description of Change</b>	<b>ECO</b>
	Many needed Updates through-out	40158
Various	Changed 56437 to 57294	
Various	Updated to new non-belled pipe	
23	Updated Regulator Seat Replacement	
26	Changed 49607-4 to 52273-6	
28	Obsoleted 35304	
29	Obsoleted 36805	
35	Changed 54319 to 57285	
36	Changed 56437-X to 57294-X, and 29107-10 to 29107-21 on 57294-16B Pipe	

**Contact your nearby Chore-Time distributor or representative for additional parts and information.**

CTB, Inc.  
PO Box 2000  
Milford, Indiana 46542-2000 USA  
Phone (574) 658-4101 Fax (877) 730-8825  
Email: [choretime@choretime.com](mailto:choretime@choretime.com)  
Internet: [www.choretime.com](http://www.choretime.com)