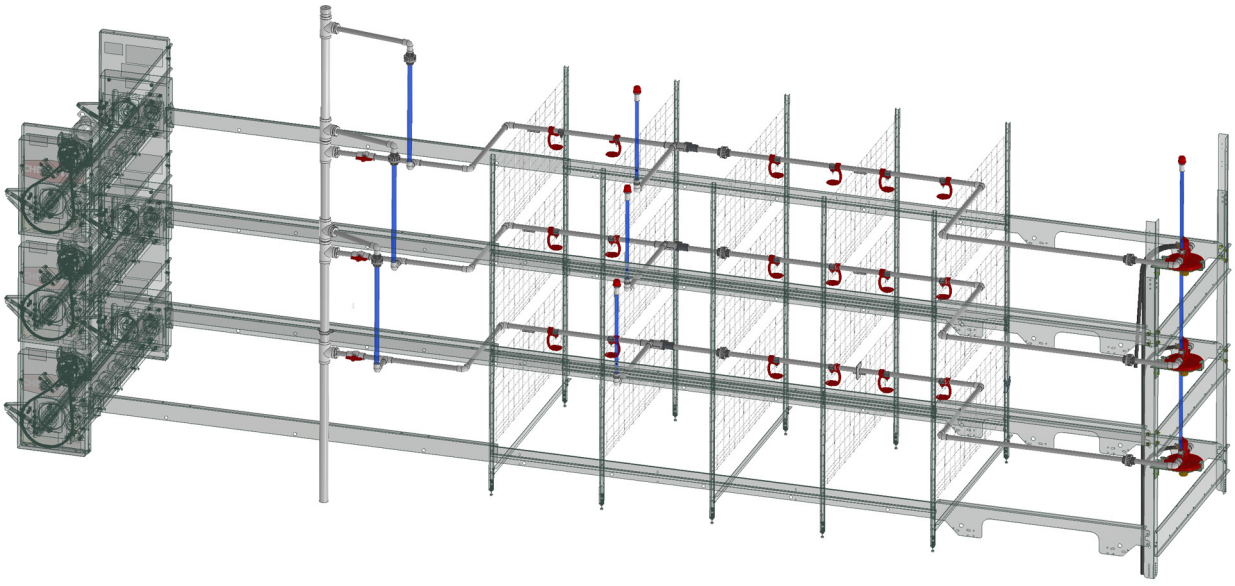
CHORE-TIME®

Modular Manure Belt Layer, Versa, & Versa Plus Watering

Operation and Instruction Manual



Operation and Instruction Manual

June 2021

MW2468B

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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.

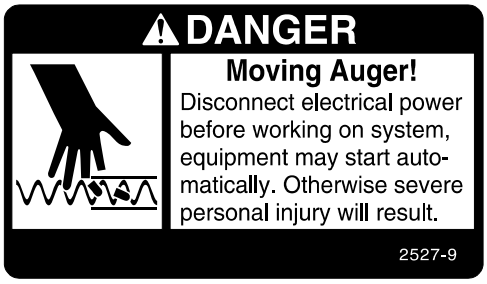
Keep safety signs in good condition. Replace missing or damaged safety signs.

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

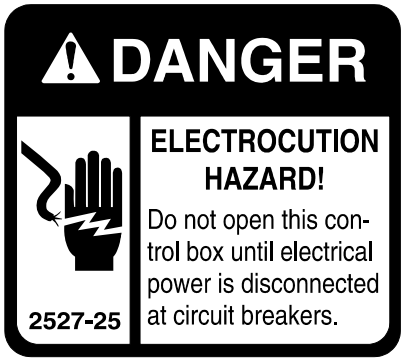
Disconnect electrical power before inspecting or servicing equipment unless maintenance instructions specifically state otherwise.

Ground all electrical equipment for safety.

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

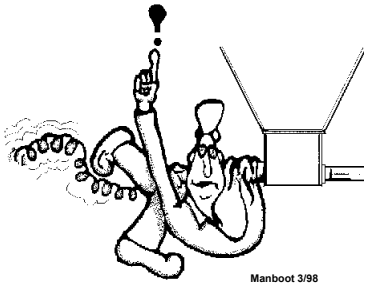
Ground all non-current carrying metal parts to guard against electrical shock.

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
- 5/16 Hex Bit or Nut Driver
- PVC Pipe Cutters
- Pop Rivet Tool
- Electric Drill and Drill Bits
- 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.**

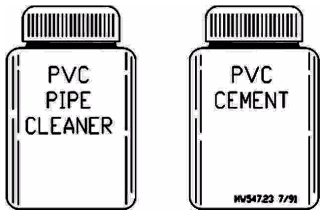


Figure 1.PVC Cement (Part No. 6303-4)

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.

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

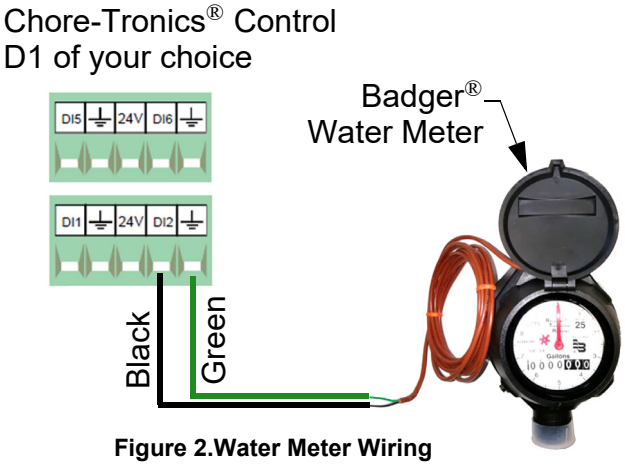


Figure 2.Water Meter Wiring

Mounting

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

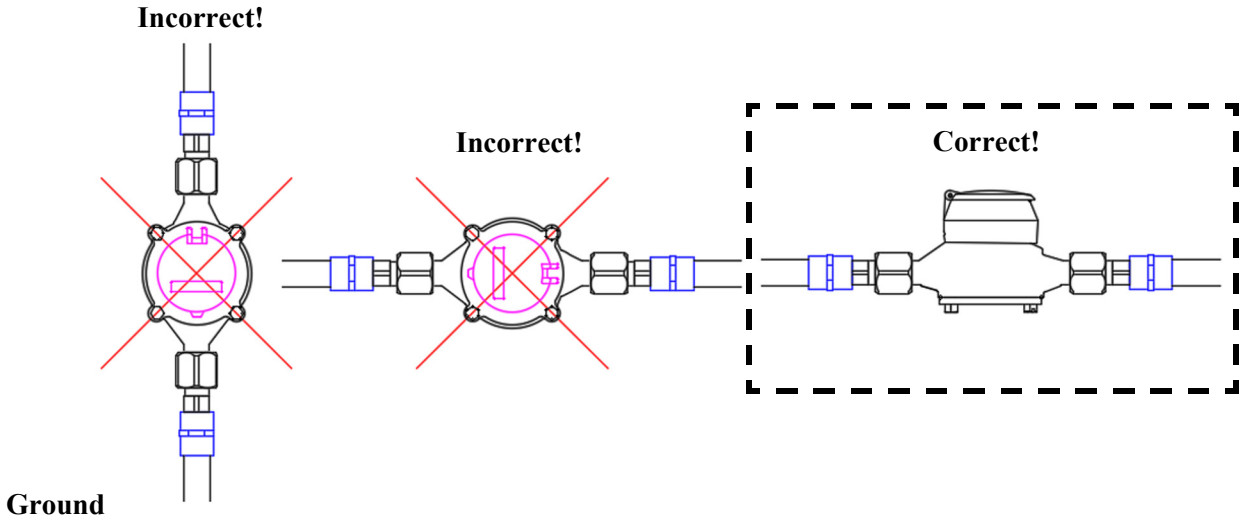


Figure 3.Water Meter Mounting

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 #1and #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.

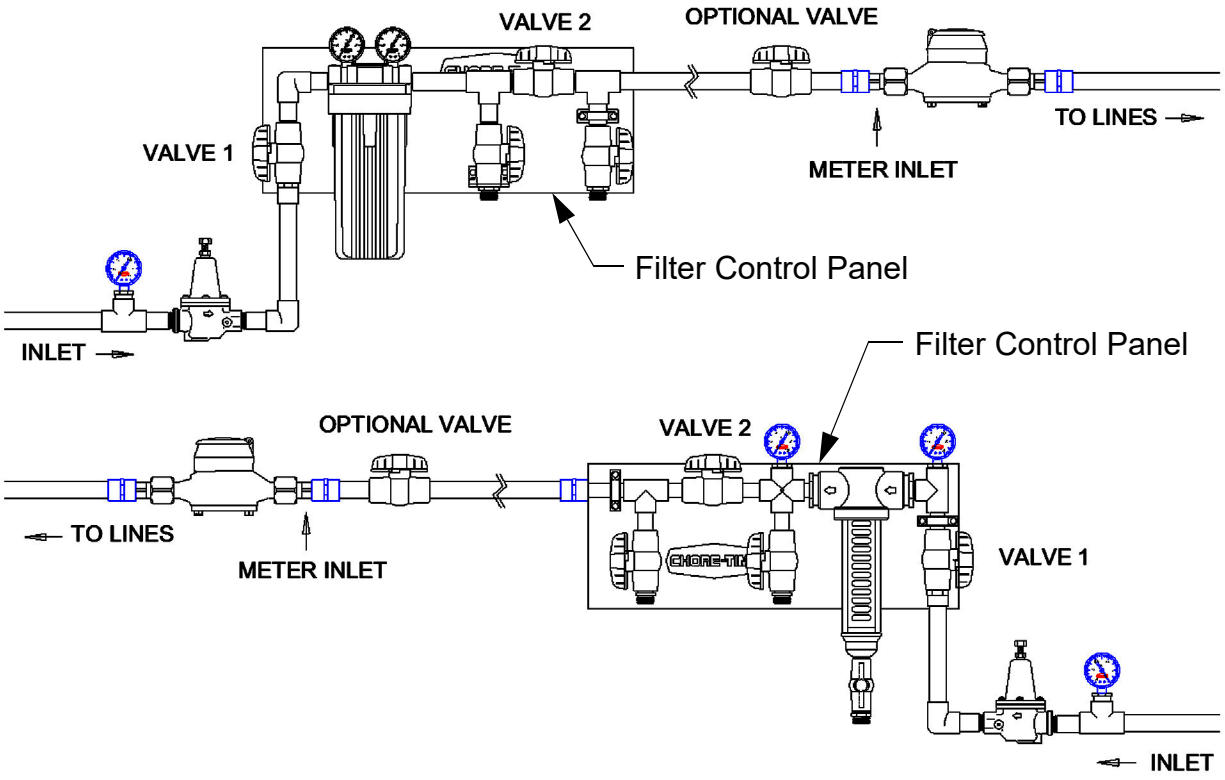


Figure 4.Water Meter Start Up

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.

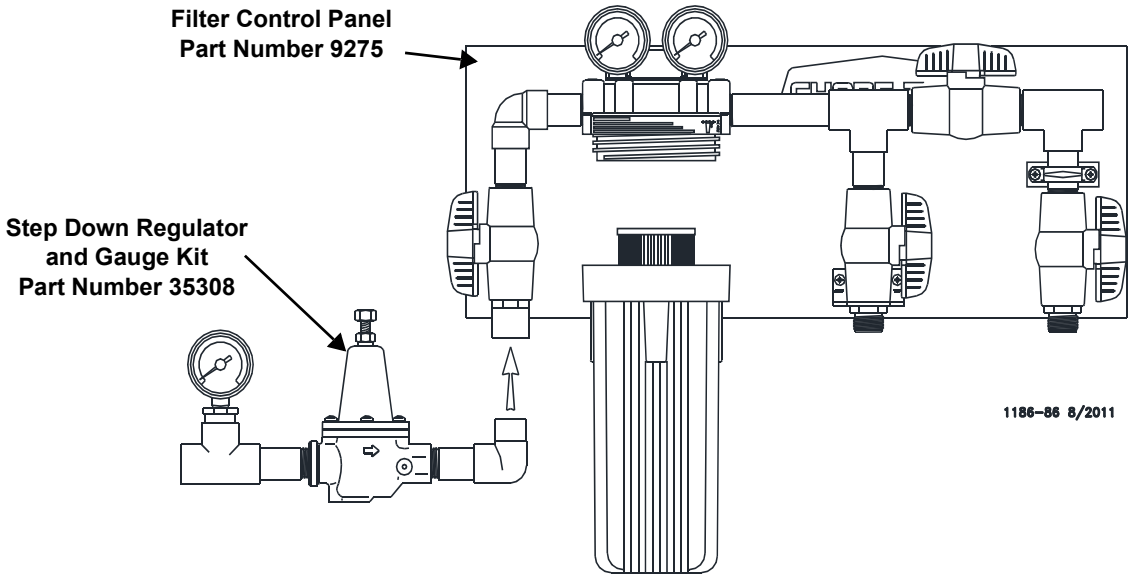


Figure 5. 9275 Control Panel

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.

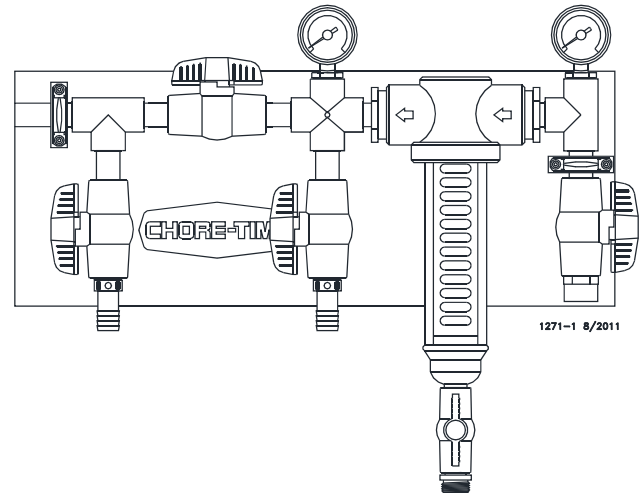
The low pressure version is designed to accommodate gravity flow systems with 5 - 10 p.s.i *[34.5 - 69.0 kPa]*. Do not exceed 15 p.s.i. *[103.4 kPa]* with this control panel, or damage will occur to the gauges.

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.

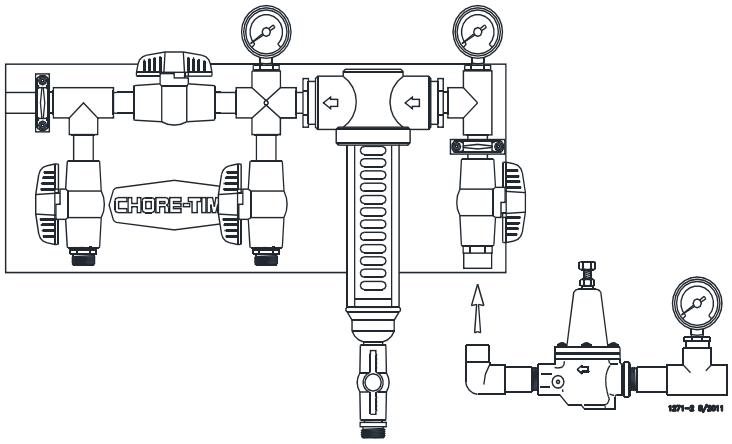
The filter control panel should be installed in a convenient location where incoming and outgoing water supply lines can be easily run. The control panel must be out of the reach of birds.

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 Locater Block Support. See **Figure 7. Figure 8.** and **Figure 9.**

Note: It is advised to attach the Locater 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 locater 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 Locater Block with 2nd Partition and install the Locater Block Supports **(48162-2) as shown**.

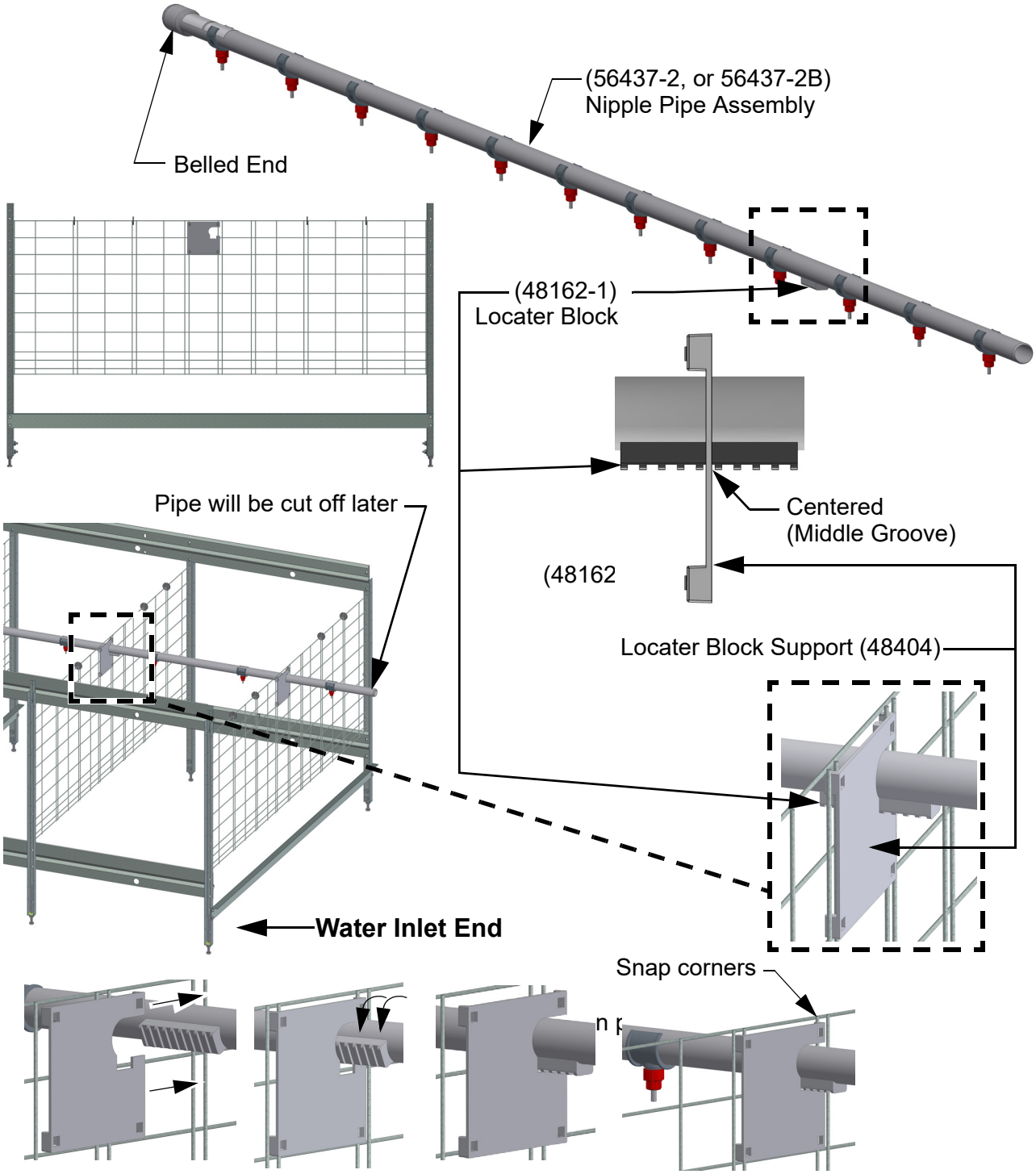


Figure 7.Starter Pipe (Ultra MMB Without Air)

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 locater 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 Locater Block with 2nd Partition and install the Locater Block Supports **(48404) as shown**.

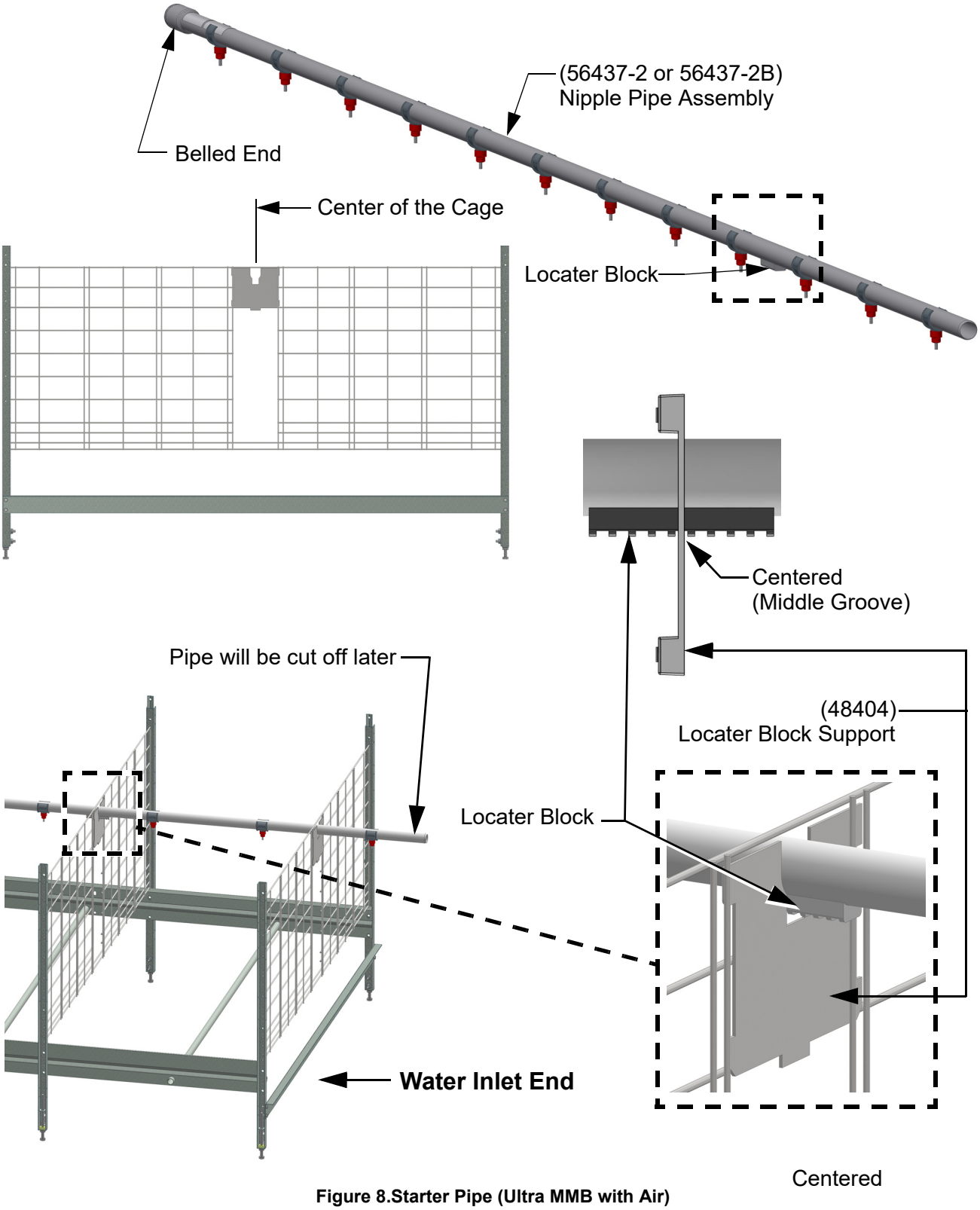


Figure 8.Starter Pipe (Ultra MMB with Air)

Starter Pipe (Versa Cage)

1. Start at the Water Inlet end of the system and Install a **(53983)** Versa Locater Block Support with **(4629)** Pop-Rivets **as shown**.
2. Insert a **(56437-2, or 2B)** Nipple Pipe Assembly (Orient as shown with locater block toward the water inlet end of the cage row) **as shown**.

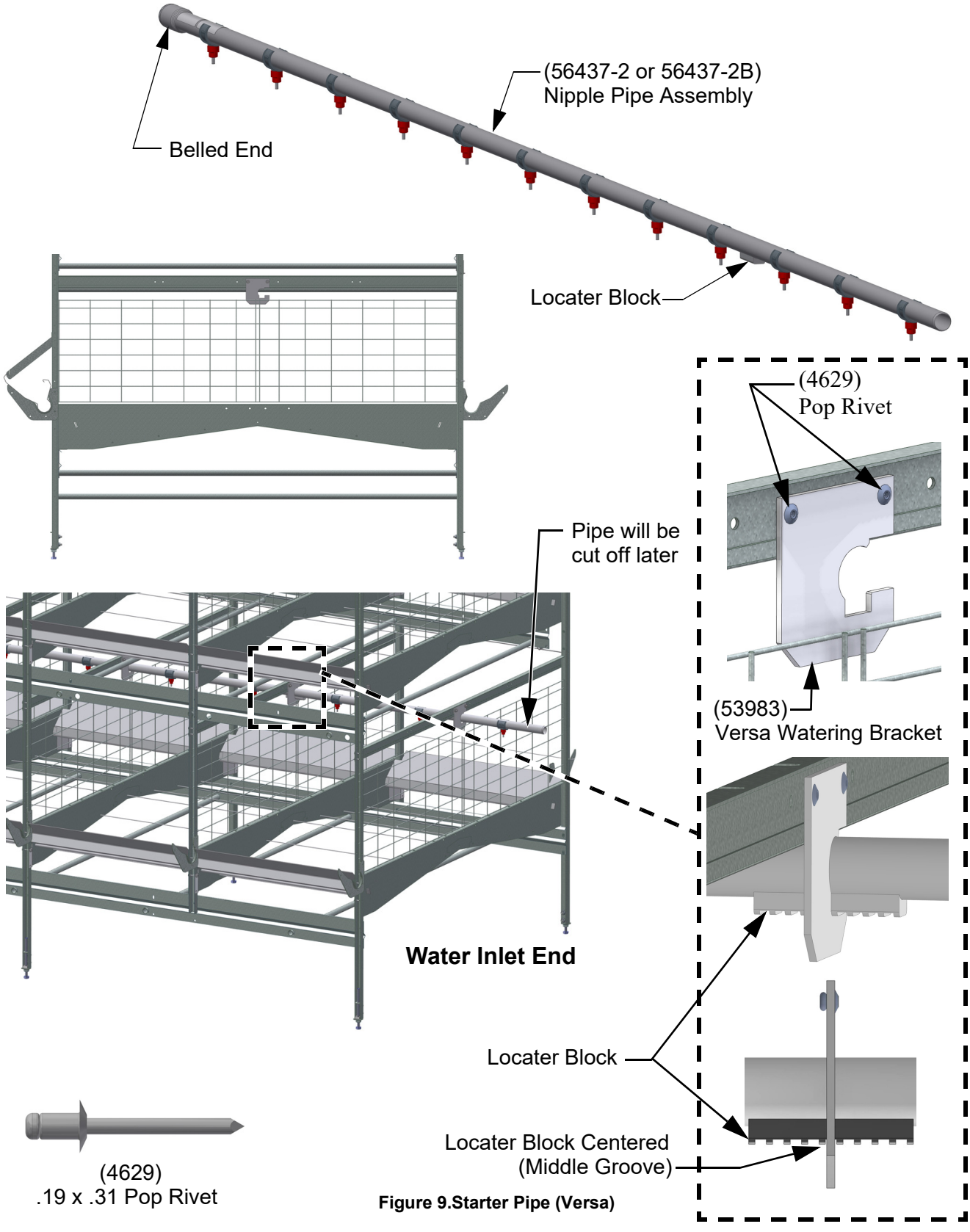


Figure 9.Starter Pipe (Versa)

Starter Pipe (Versa Plus Cage)

1. Start at the Water Inlet end of the system and Install two **(53983)** Versa Locater Block Supports with **(4629)** Pop-Rivets **as shown**.
2. Insert a **(56437-9B)** Nipple Pipe Assembly's (Orient as shown with locater block toward the water inlet end of the cage row) **as shown**.

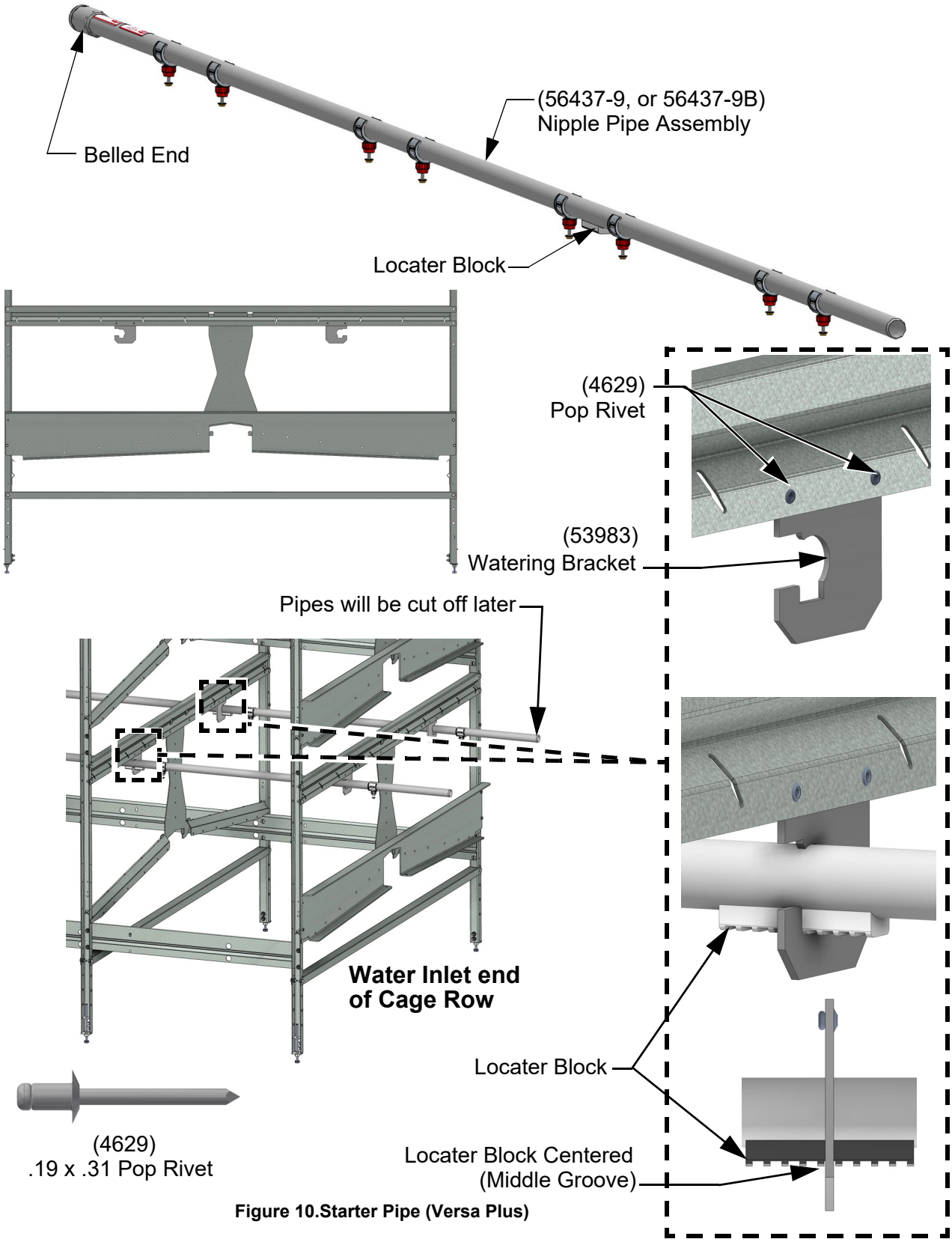


Figure 10.Starter Pipe (Versa Plus)

Nipple Pipe Assembly

1. Attach Nipple Pipe Assembly's together with **(29118)** O-Rings as shown. Apply Lube **(45911)** *sparingly* to Nipple Pipe Ends. Install Nipple Pipe until you reach the Mid-Line of the system. The center groove of the Locater 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.

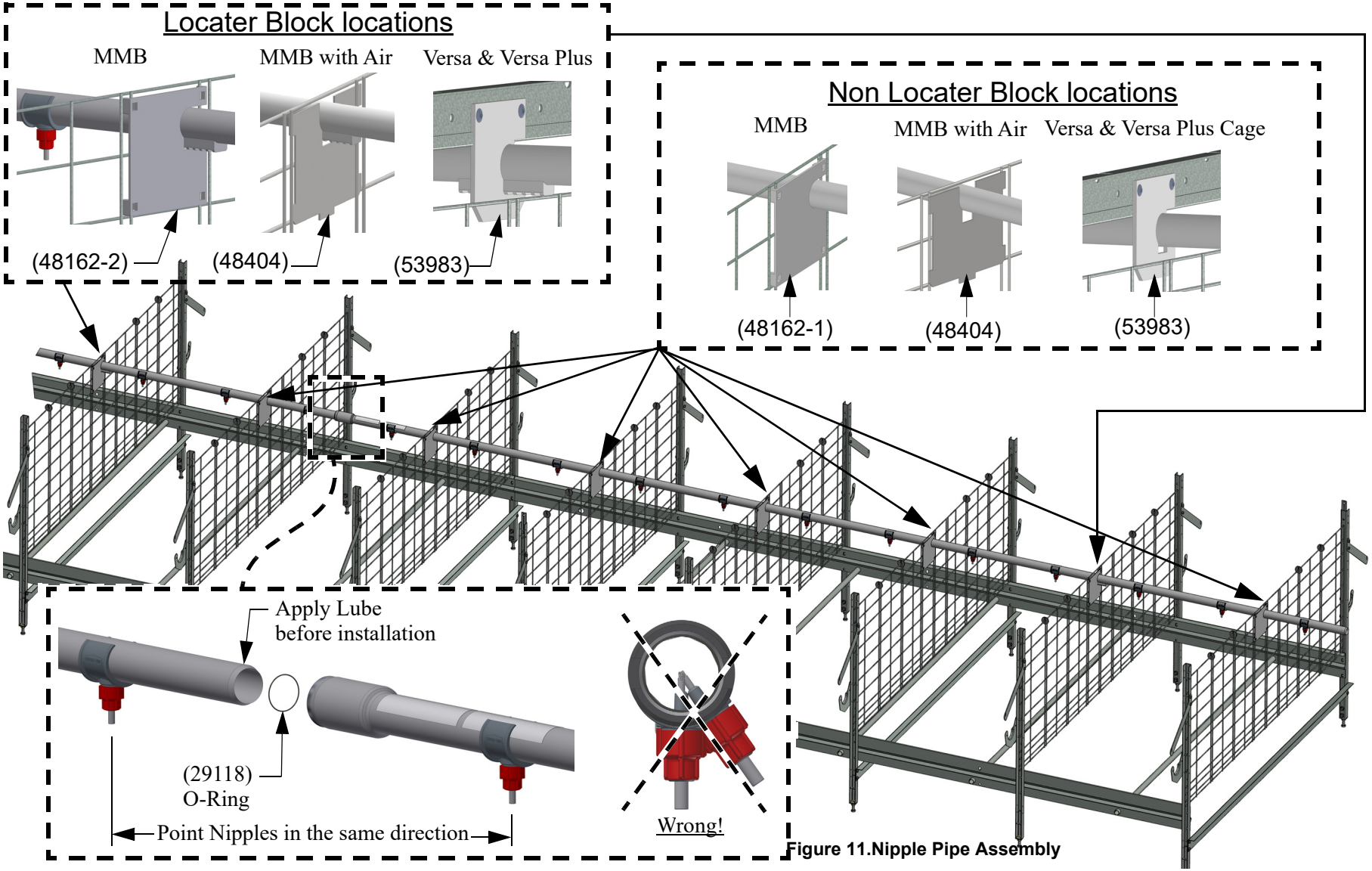


Figure 11.Nipple Pipe Assembly

Mid-Line Installation

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].

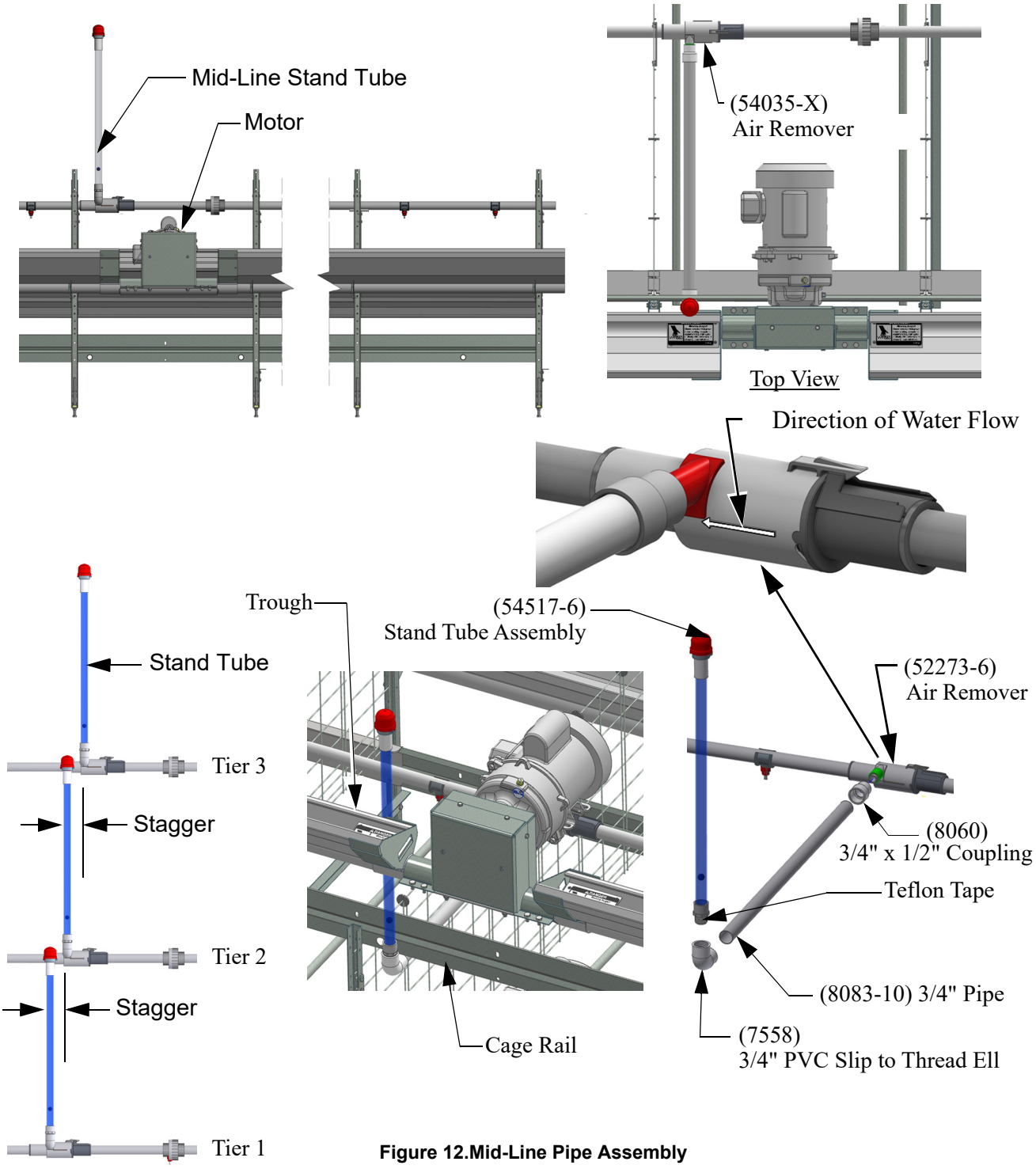


Figure 12.Mid-Line Pipe Assembly

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.

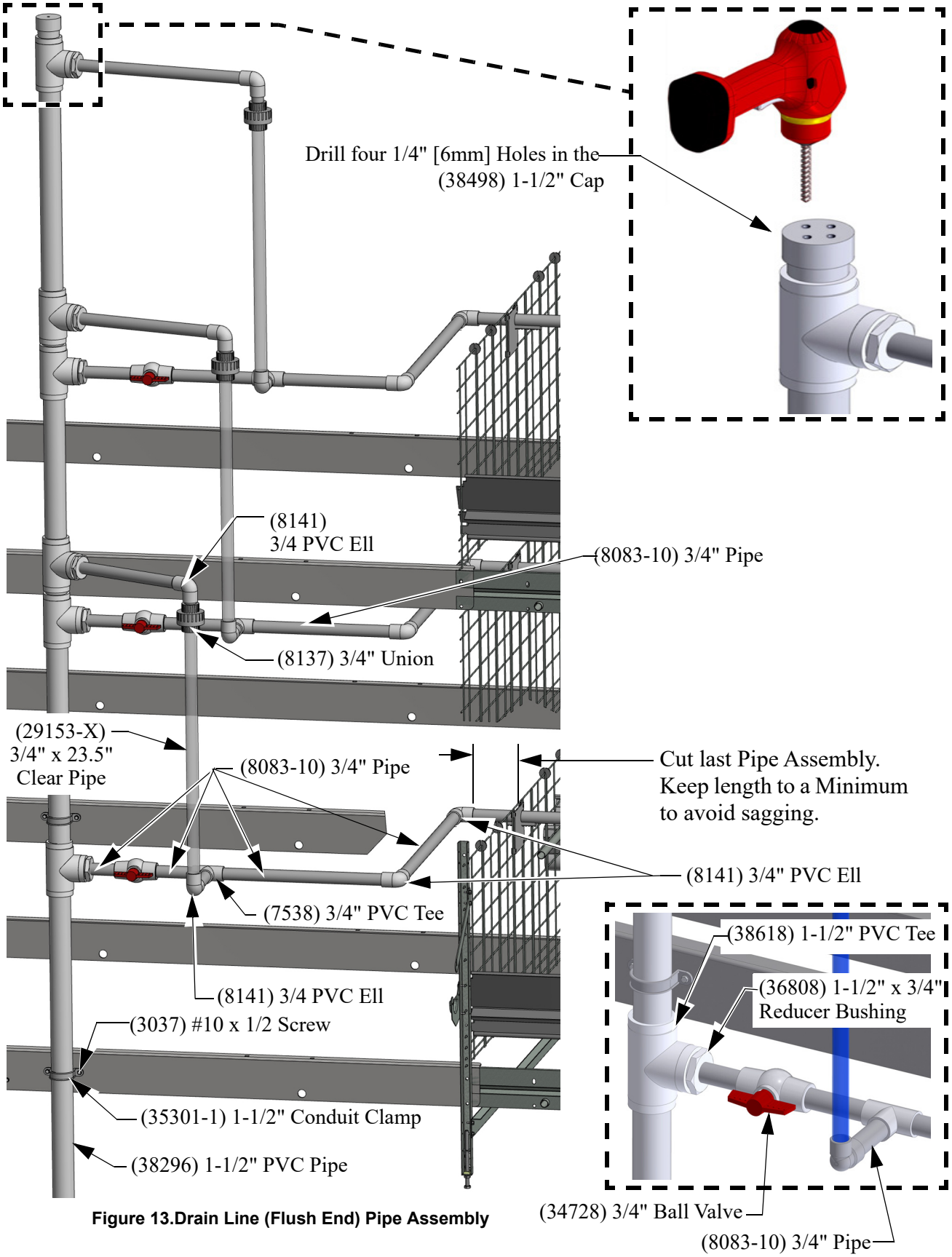


Figure 13.Drain Line (Flush End) Pipe Assembly

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.

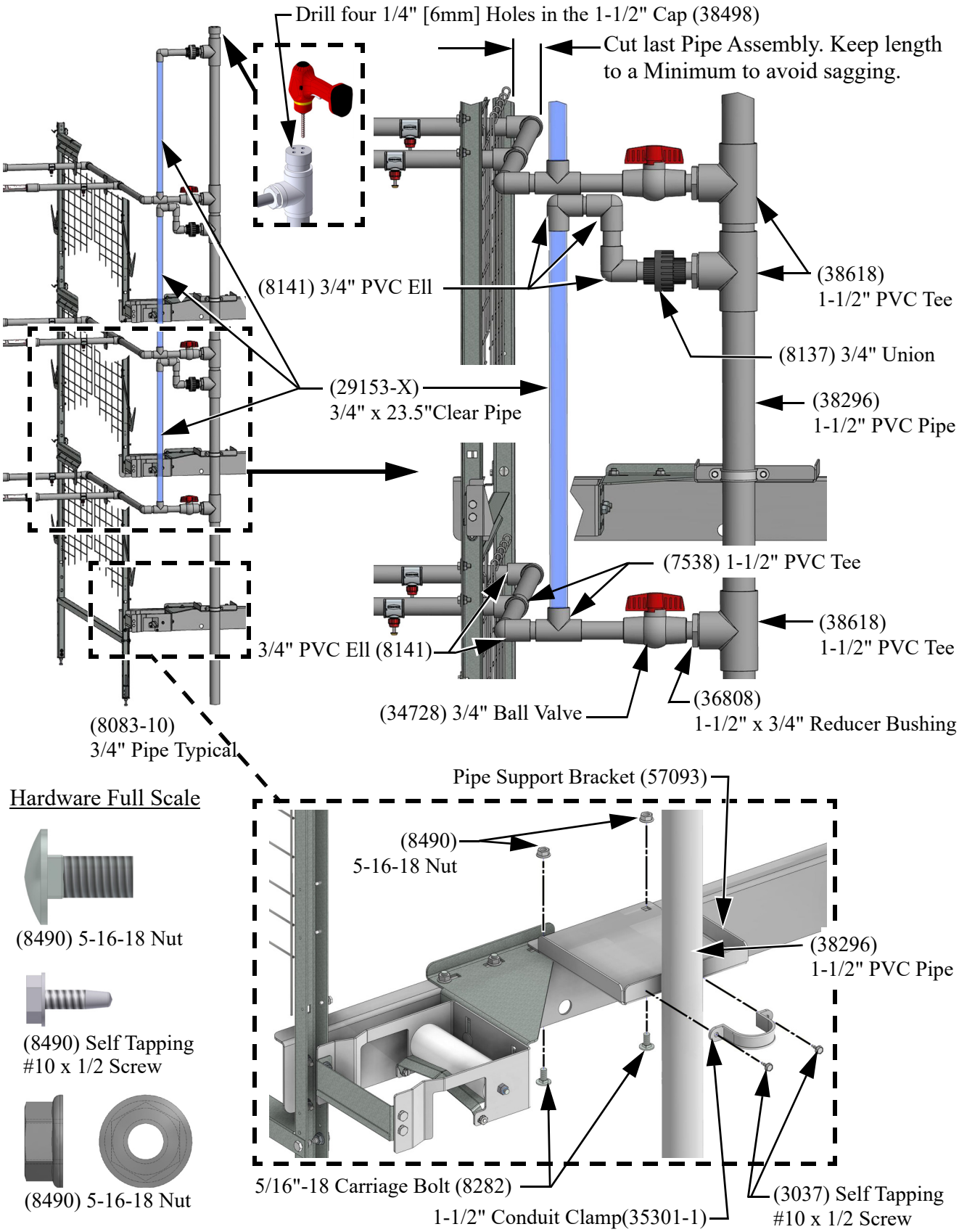


Figure 14.Drain Line (Flush End) Versa Plus

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 **(7551-1)** Car. Bolt and **(46460)** 1/4-20 Flange Nut to hold Regulator in place as shown.

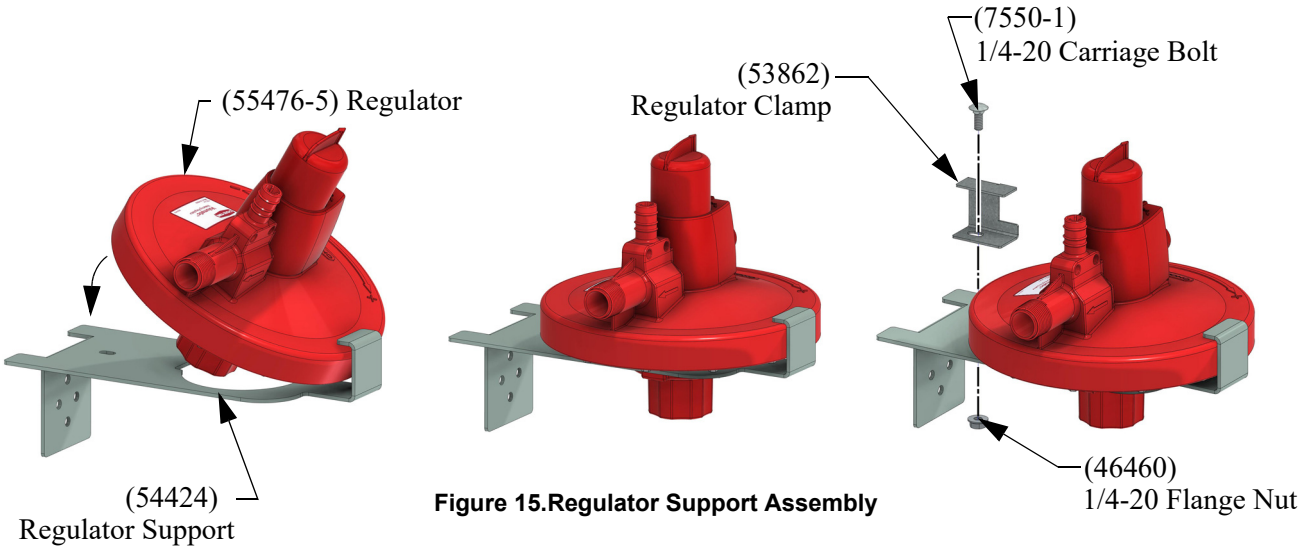


Figure 15.Regulator Support Assembly

Top Tier Regulator Mount

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

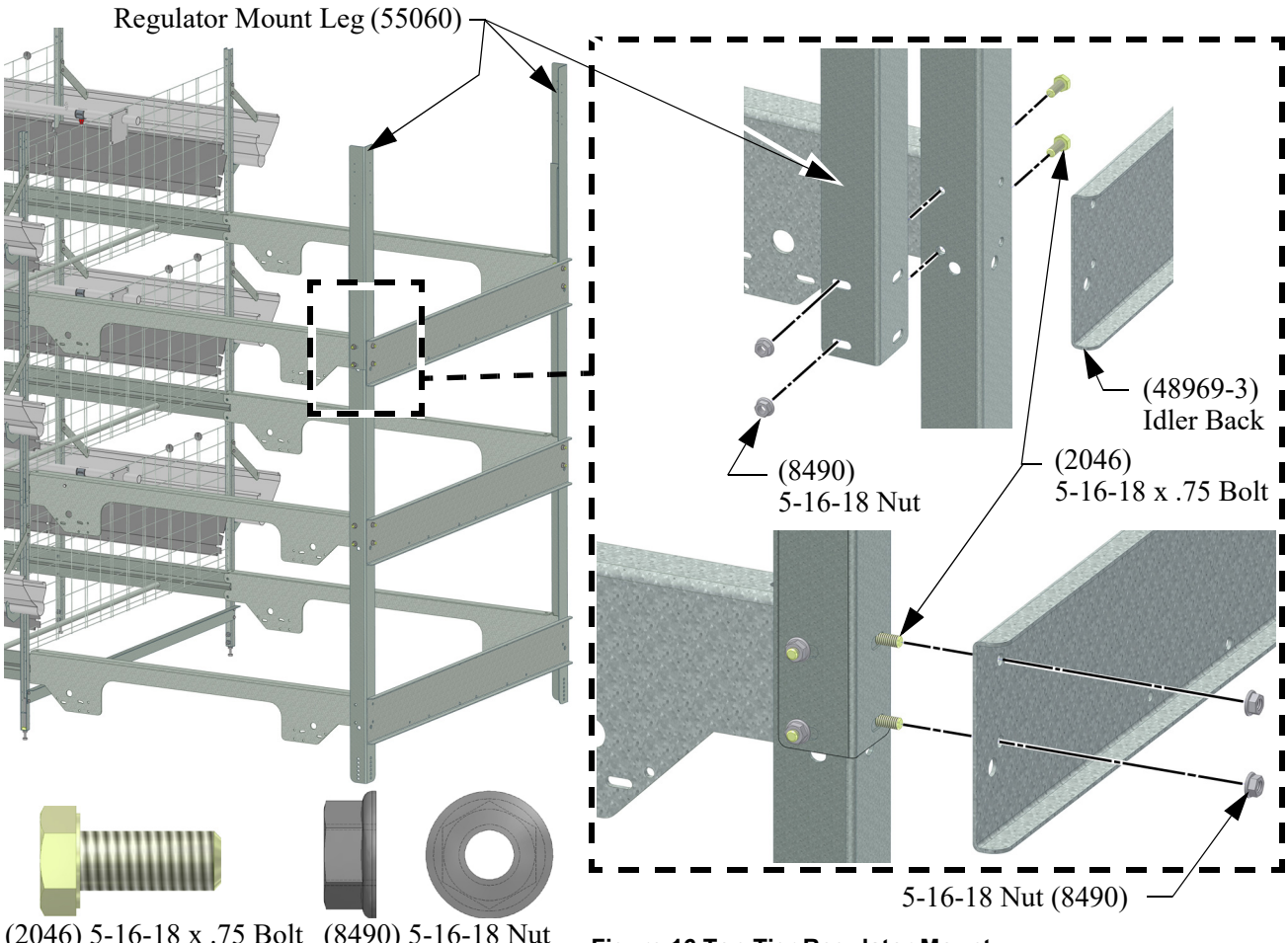


Figure 16.Top Tier Regulator Mount

Pipe Installation (Regulator End)

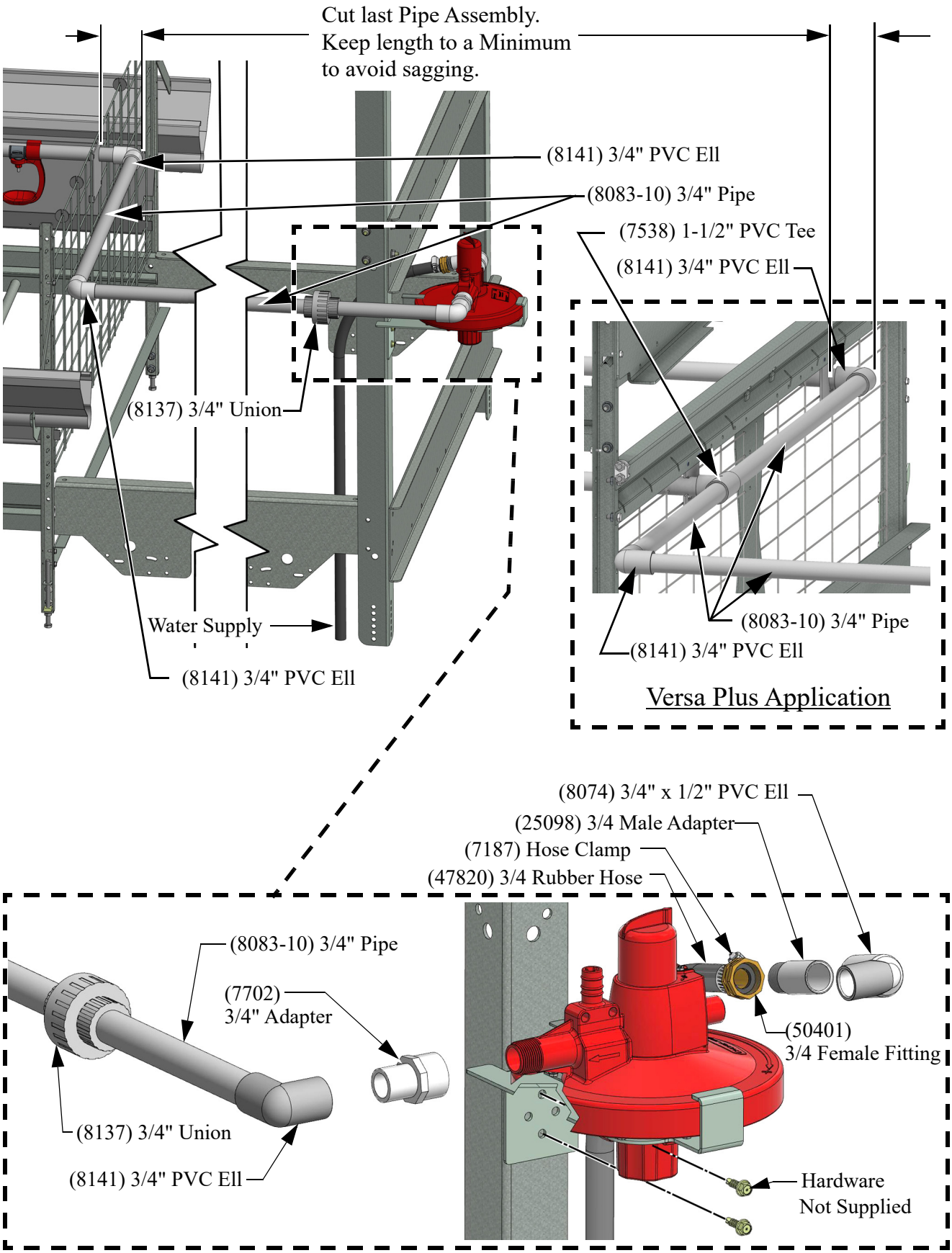


Figure 17.Supply Line (Regulator End) Assembly

Regulator Stand Tube Installation

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

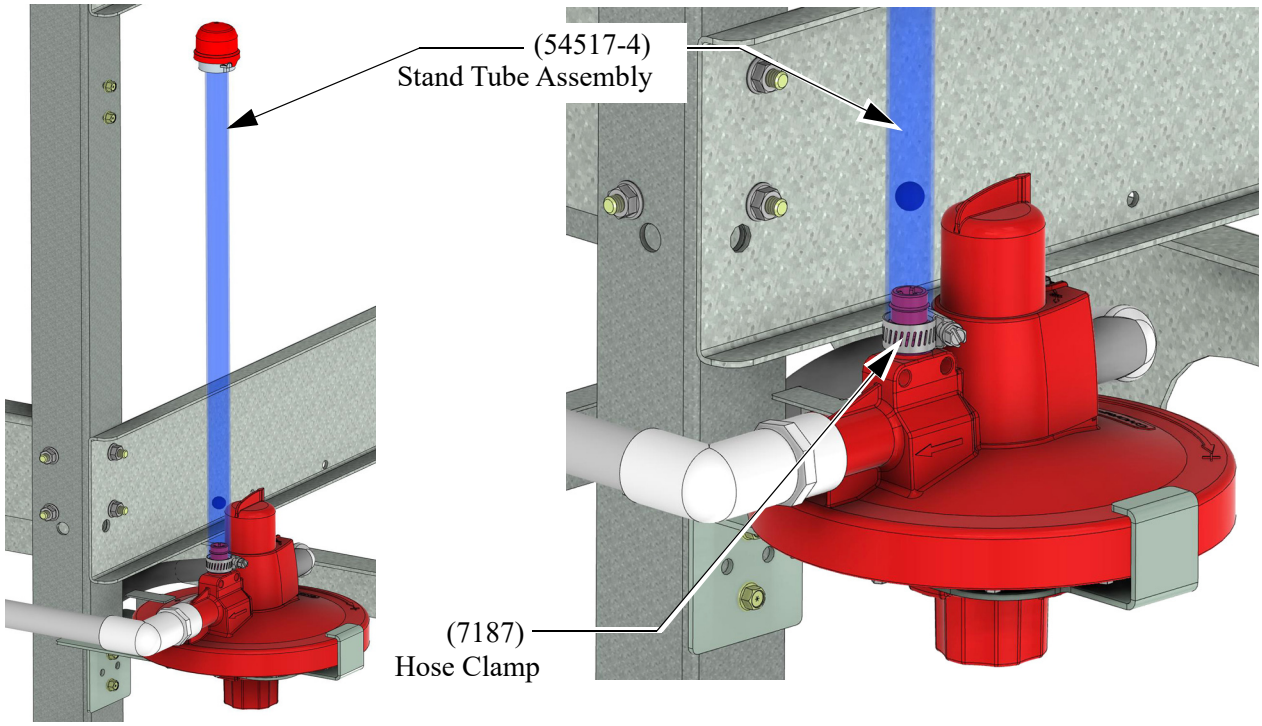


Figure 18.Regulator Stand Tube Installation

Catch Cup Installation

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

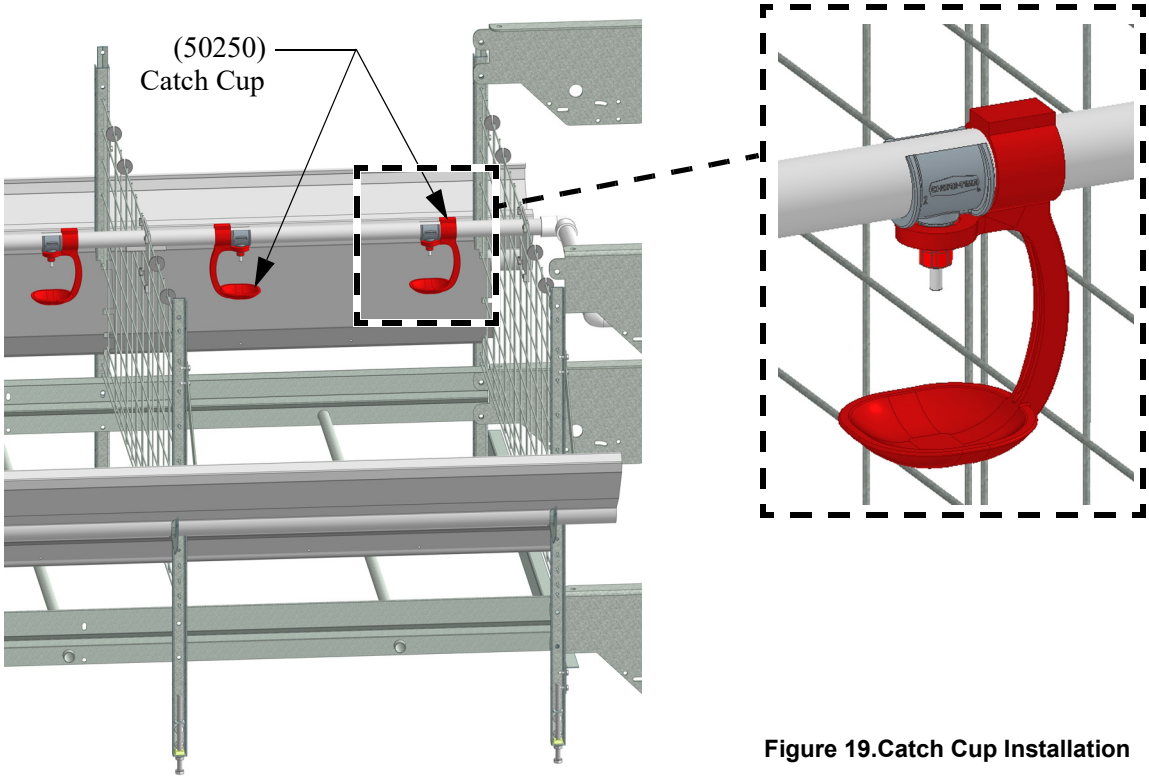


Figure 19.Catch Cup Installation

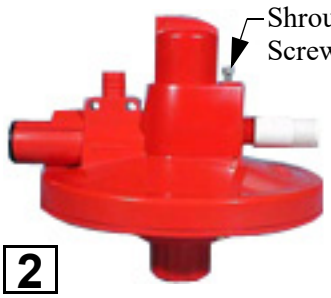
Maintenance

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 holding the shroud. Also remove the shroud, selector knob, quad ring, and inlet orifice.
3. Screw barrel all the way down.
4. Pry off seat and seat cup then remove from the regulator body.
5. Assemble new seat into seat cup. Seat face direction does not matter.
6. Use the Chore-Time seat installation tool to position the new seat assembly on top of the seat holder.
7. Press up on the seat holder and use the seat installation tool (48688) to push the new seat assembly onto the end of the seat holder until it snaps in place. Push only on the seat cup to prevent damage to the seat. Make sure the seat assembly is properly seated onto the seat holder.
8. Reassemble the regulator:
   - •Assemble quad ring on the housing shoulder. Turn the barrel up until it is flush with the top of the housing.The barrel **must be flush** with the top before replacing the selector knob or the regulator will not function properly.
   - •Replace the selector knob by lining up the wide tab in the barrel with the wide groove inside the selector knob.
   - •Make sure the o-ring is in place and reinstall the inlet into the regulator housing.
   - •Use Parker Hannifin Super o-lube **(45911)** to lube o-rings if needed.
   - •Replace the shroud and shroud screw.
   - •The regulator is now ready to be put back into service.


1



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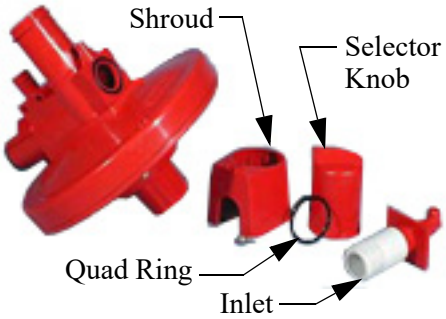

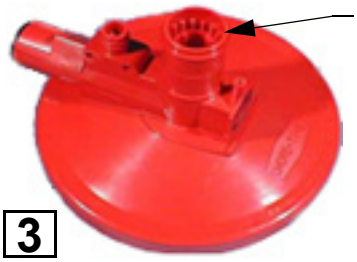

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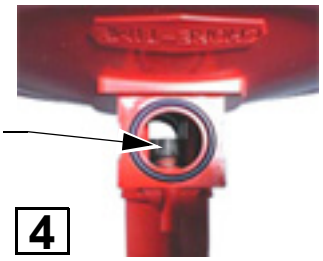

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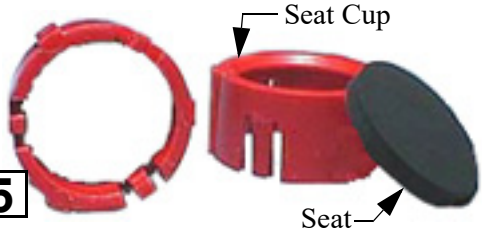

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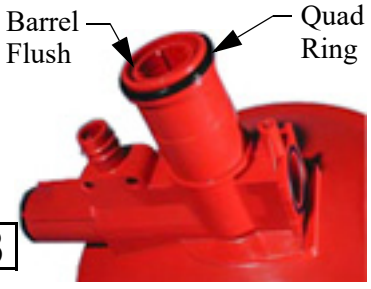

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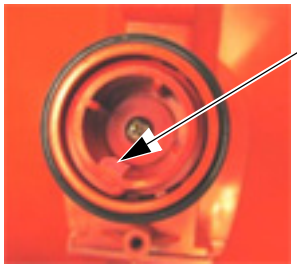
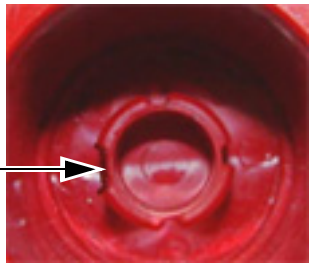
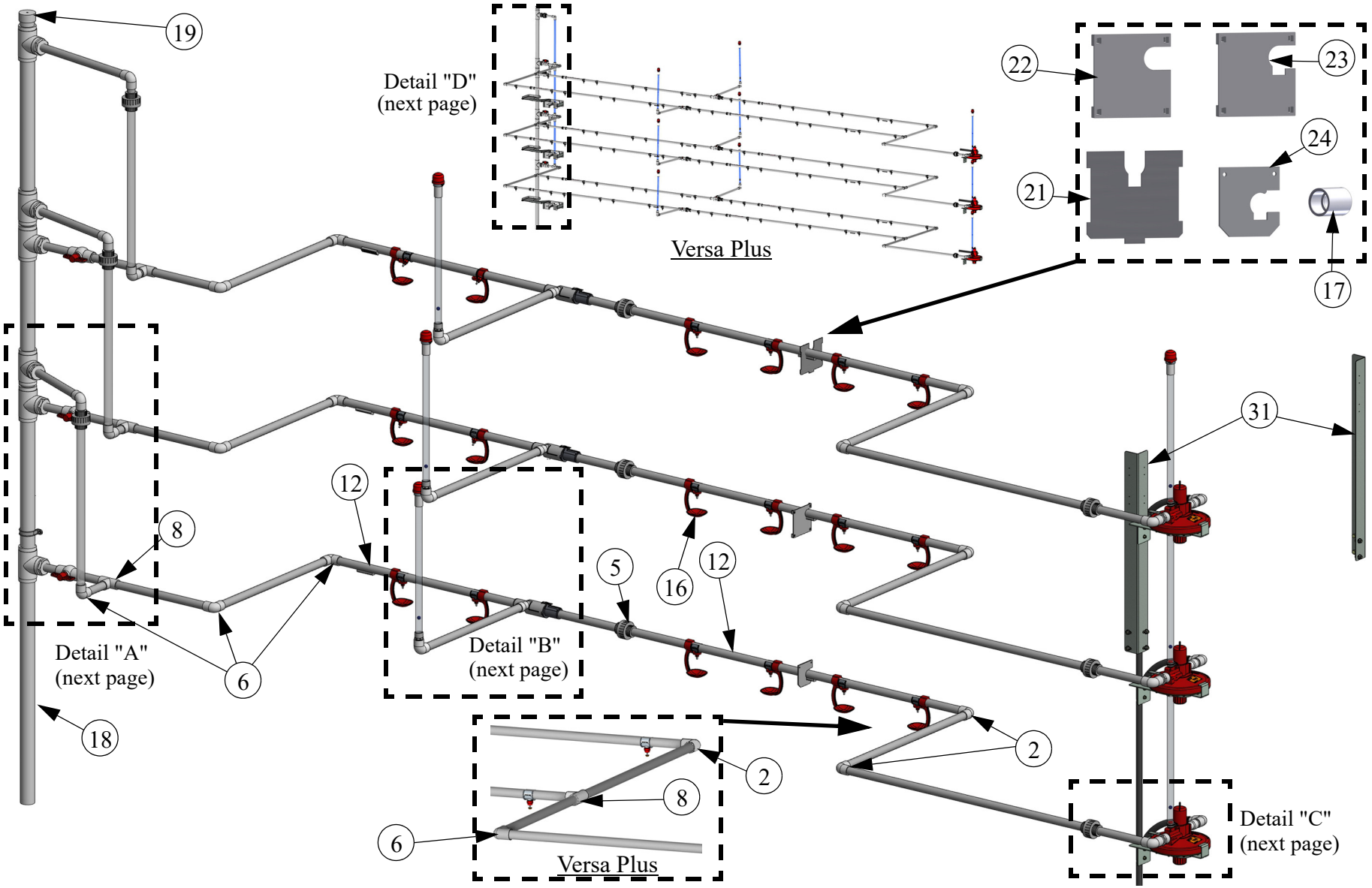
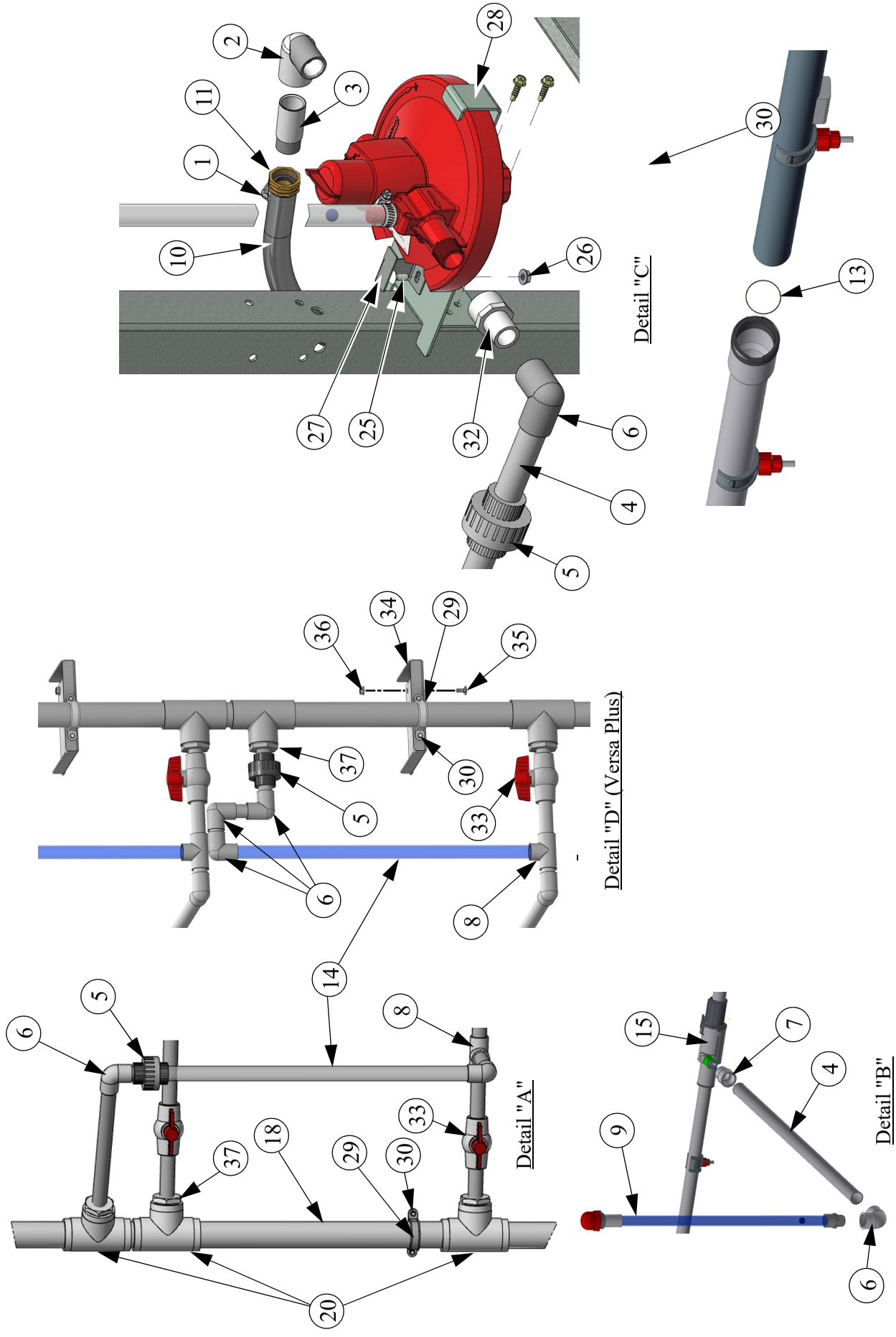




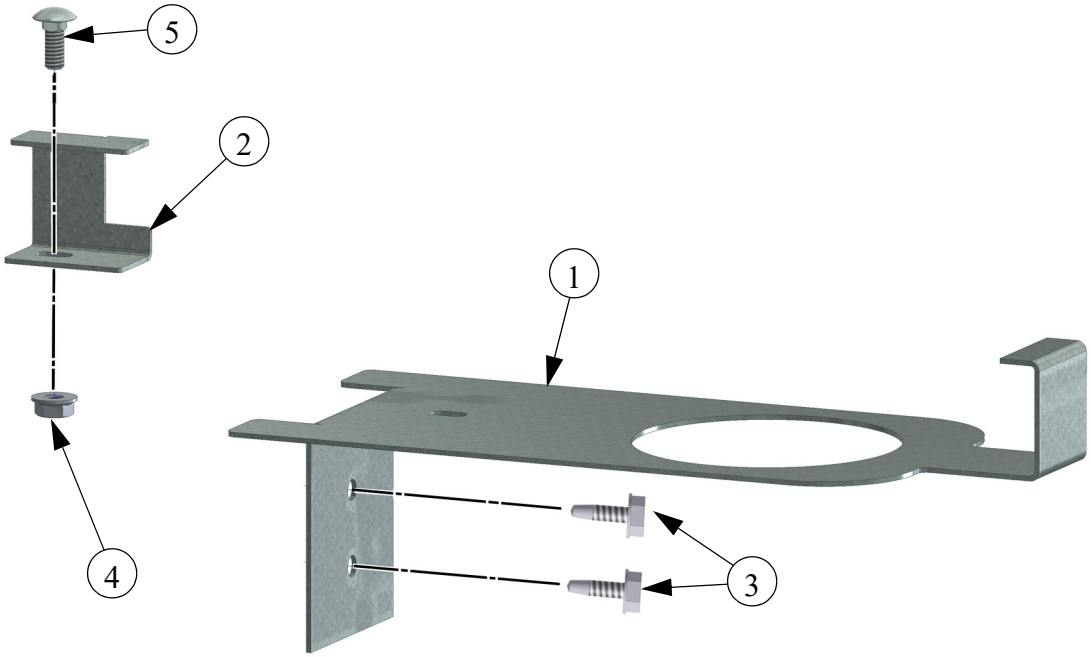
Part Numbers




Detail "C"
Detail "D" (Versa Plus)
Detail "A"
Detail "B"

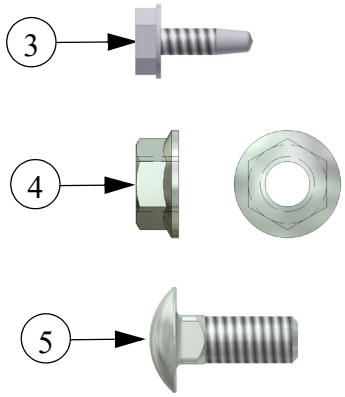
Water Line		
Item	**Description**	**Part No.**
1	Adj. Hose Clamp	7187
2	3/4" x 1/2" PVC Ell	8074
3	.75 Male Adapter Fitting	25098
4	3/4 x 10’ PVC SDR Pipe	8083-10
5	Union	8137
6	.75 PVC Ell	8141
7	.75 x .50 Reducer Coupling	8060
8	3/4 PVC SXSXS Tee	7538
9	Rigid Stand Tube with 3/4NPT Fitting	54517-6
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	49607-4 (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)

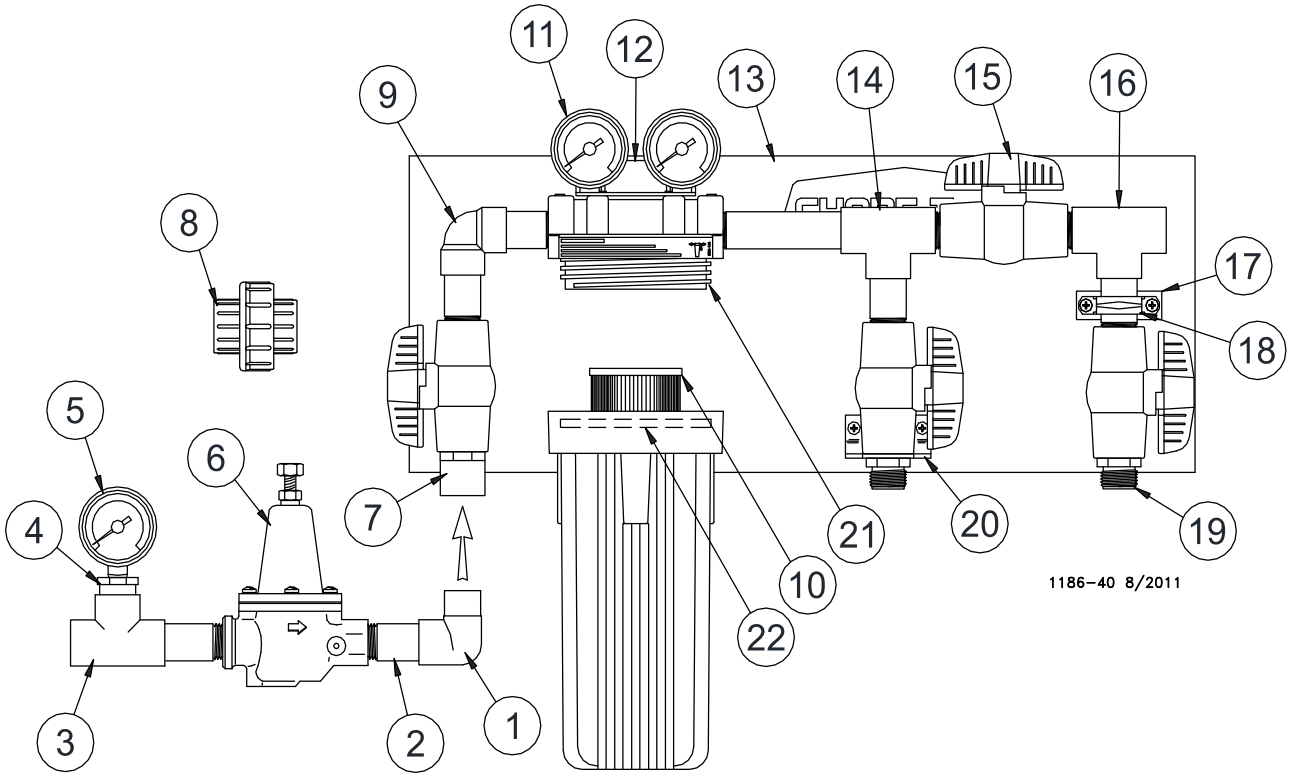


Water Regulator Kit		
Item	**Description**	**Part No.**
1	MMB BG Regulator Support	54424
2	MMB BG Regulator Clamp	53862
3	10-16 x.50 HXWH Screw	3037
4	1/4-20 Serrated Flange Nut	46460
5	1/4-20 x .50 Car. Bolt	7550-1

Hardware below is Full Scale



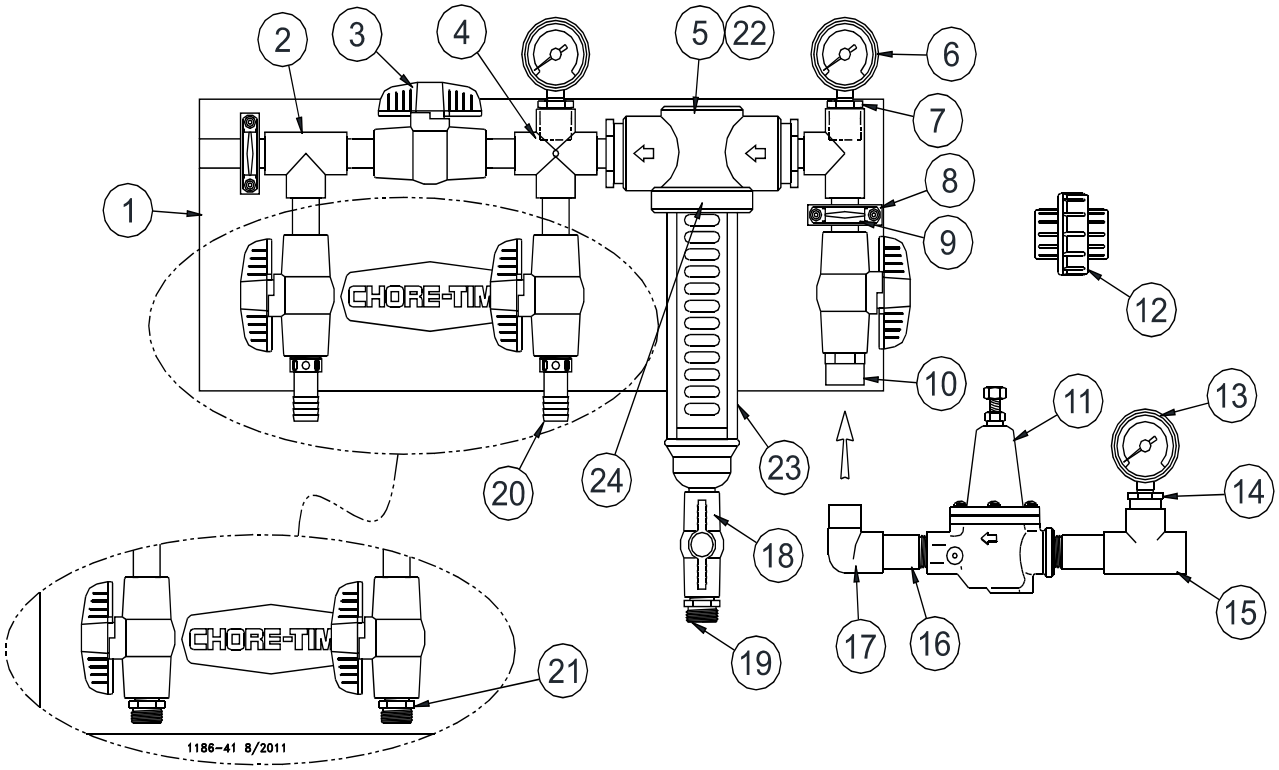
Filter Control Panel with Step Regulator (9275)



35308 Step Regulator & Gauge Module Kit		
Item	**Description**	**Part No.**
1	3/4" PVC Street Ell	30138
2	3/4" Threaded PVC Nipple	7531-1
3	3/4" PVC Tee	7538
4	3/4 x 1/4 Reducer Bushing	7789
5	High Press. Water Gauge	7191
6	Regulator	29951
8	Union	8137

9275 Filter Control Panel		
Item	**Description**	**Part No.**
7	3/4" PVC Male Adapter	34100
9	3/4" PVC Ell	8141
10	10 Micron Filter Cartridge (Optional)	13145
	20 Micron Filter Cartridge (Standard)	7723
11	High Press. Water Gauge	7191
12	Filter Mounting Bracket	35302
13	Mounting Board	35303
14	Filter Outlet Assembly	35304
15	3/4" Quarter Turn Valve	35781
16	Medicator Outlet Assembly	35305
17	Standoff Block	35300
18	Plastic Conduit Clamp	35301
19	3/4" Nylon Adapter	7543
20	Medicator Connector Brace	35307
21	Water Filter	35309
22	O-Ring	9191

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

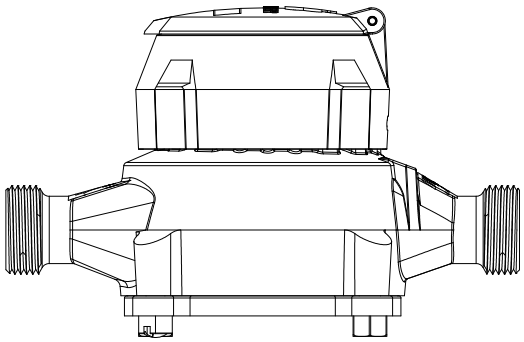


		36802-1	36802-2
Item	**Description**	**Part No**	**Part No**
1	Mounting Board	35303	35303
2	Meditator Outlet Assembly	36805	36805
3	3/4" Valve	35781	35781
4	3/4" Cross	7536	7536
5	Filter Inlet Assembly	36810	36810
6	Pressure Gauge	27722	7191
7	3/4" x 1/4" Reducer Bushing	7789	7789
8	Standoff Block	35300	35300
9	3/4" Plastic Conduit Clamp	35301	35301
10	3/4" PVC Male Adapter	9229	9229
18**	1/2" Ball Valve	34961	34961
19**	Nylon Adapter	29141	29141
20	3/4" Barb x 3/4" Pipe Adapter	27422	---
21	3/4" Male Adapter (Nylon)	---	7543
22	Flush able Filter	36806	36806
23**	Filter Cover	46993	46993
24	O-Ring Kit	36807	36807
**Included with Item 5.			

35308 Step Regulator & Gauge Module Kit

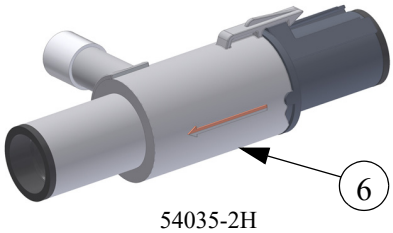
Item	Description	Part No
11	Step Regulator	29951
12	Union	8137
13	High Pressure Gauge	7191
14	3/4" x 1/4" Reducer Bushing	7789
15	3/4" PVC Tee (S x S x S)	7538
16	3/4" Threaded PVC Nipple	7531-1
17	3/4" PVC Street Ell	30138

Pulse Water Meter (54579)

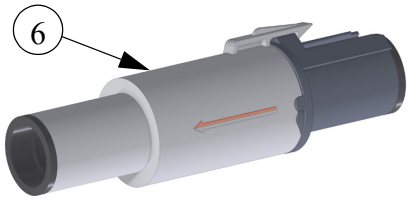


Part Number	Flow Range	Max. Operating Pressure
54579-GP	.25-25 GPM	150 PSI
54579-LP	.25-25 GPM	150 PSI

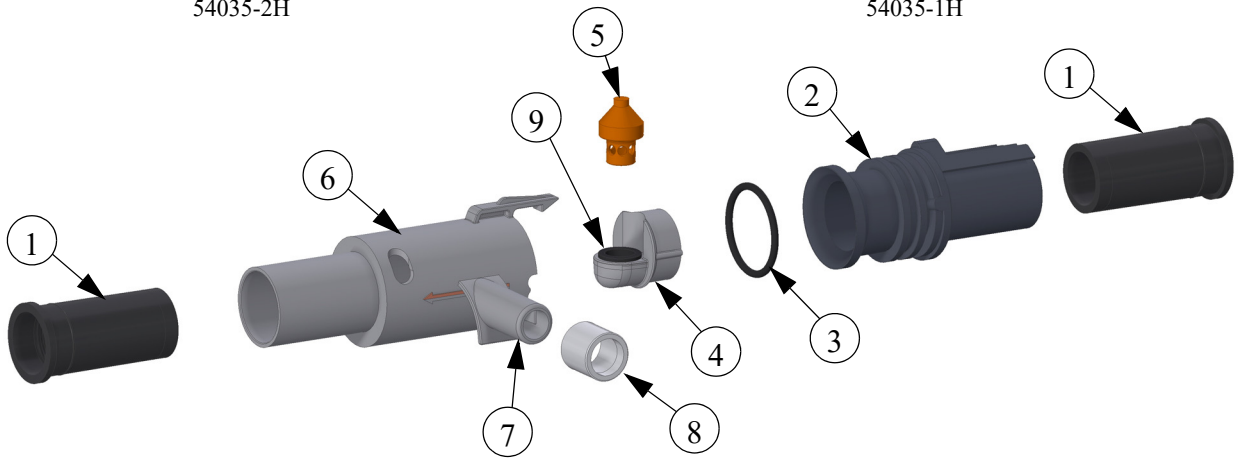
Slope Compensator (54035)



54035-2H



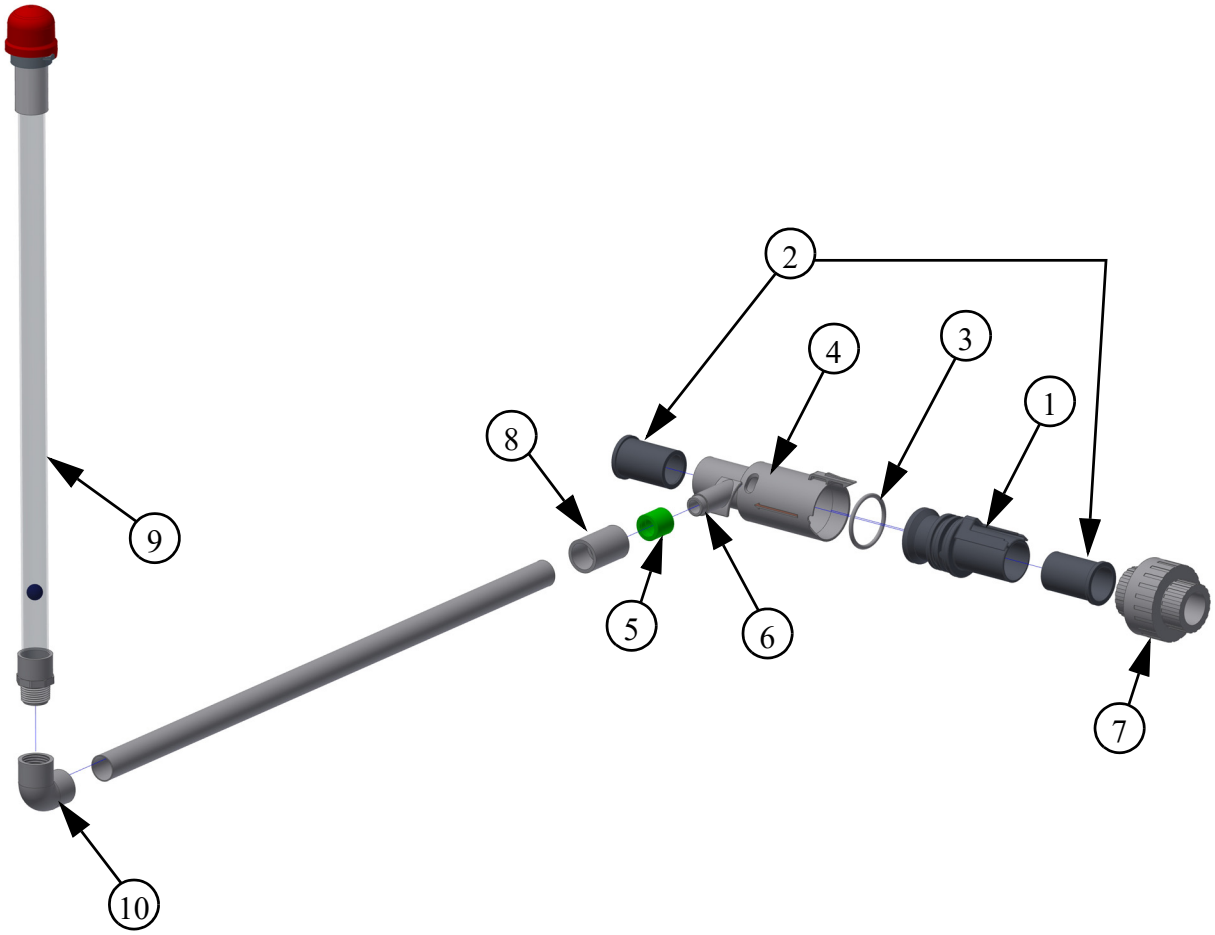
54035-1H



54035-3H

Item	Description	54035-1H High Dif. w/o Vent	54035-2H High Dif. w/ Right Vent	54035-3H High Dif. w/ Left Vent
		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
9	Slope Compensator Insert	53624	53624	53624

Mid Line Air Remover (52273) and Midline Components



		52273-6 Midline Air Remover w/left mach. vent	52273-7 Midline Air Remover w/right mach. vent
Item	**Description**	**Part No.**	
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

Midline Components		
Item	**Description**	**Part No.**
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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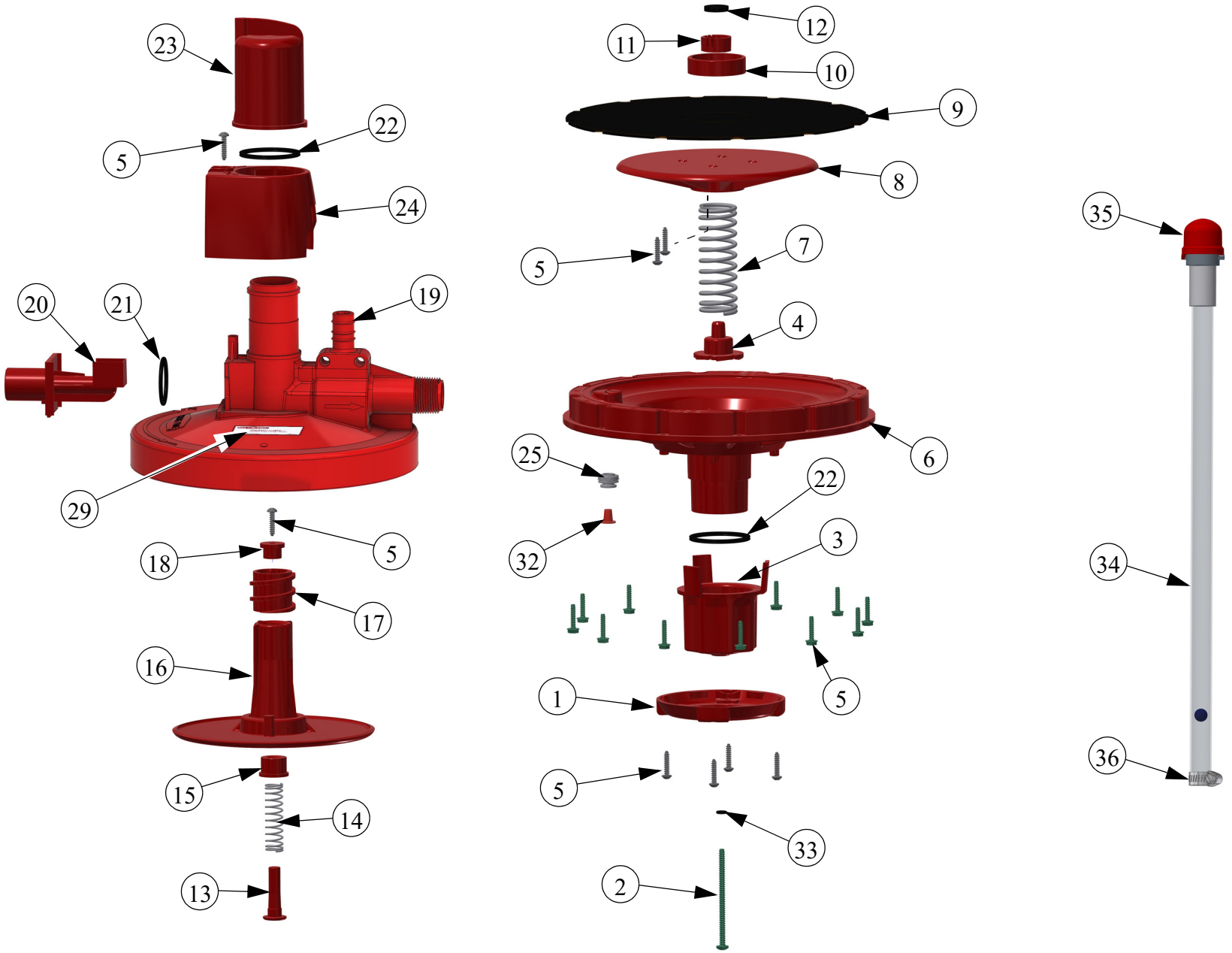
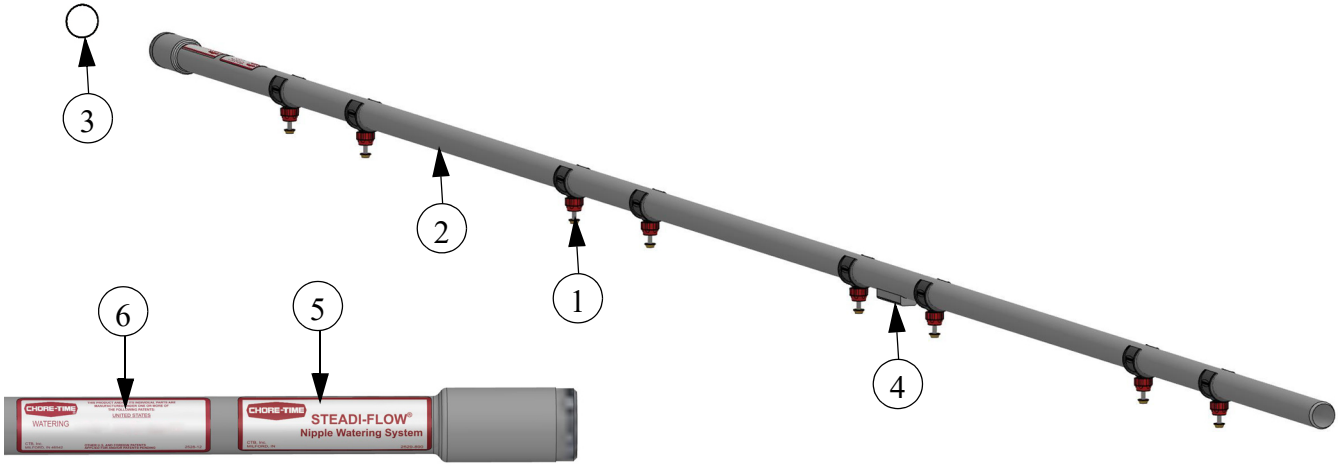
Regulator Assembly (55476-4, and 55476-5)



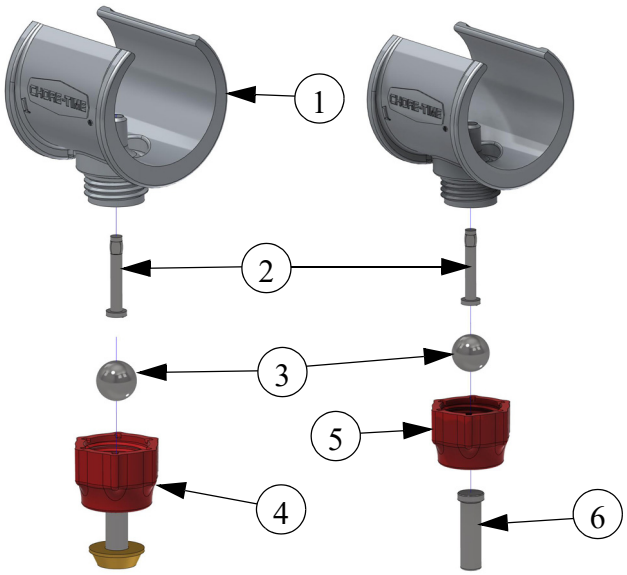
		Regulator Assembly	
		55476-4 NPT Standard Spring No Stand Tube	55476-5 NPT Outlet Standard Spring Rigid Stand Tube
Item	**Description**	**Part No.**	**Part No.**
1	Knob Retainer	55477	55477
2	#8-18 x 2-1/2" Screw	42387	42387
3	Adjustment Knob	55478	55478
4	Follower	42183	42183
5	#6 x .625 Screw	44946	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	50820
29	Volumatic Decal	2529-813	2529-813
32	Plug	54319	54319
33	-007 O-Ring	56172	56172
34	Stand Tube Assembly	--	54517-4
35	Breather Cap Assembly	--	54606
36	Hose Clamp	--	7187

Aviary Pipe Part Numbers



		Versa Aviary Pipe		MMB Aviary Pipe	
		56437-3B Versa Plus, 8-22" OC, 10' W/Button	56437-16B Versa Plus, 20" OC, 10' W/Button	56437-2 MMB, 12" OC, 12'	56437-2B MMB, 12" OC, 12' W/Button
Item	**Description**	**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	--	--
	STEADI-FLOW® Layer Saddle Assembly	--	--	56063-3	--
	STEADI-FLOW® Layer Saddle Assembly W/Button	--	--	--	56063-3B
2	.75 x 121.75 Pipe	29107-10	29107-10	--	--
	.75 x 145.75	--	--	29107-11	29107-11
3	Swage Coupling O-Ring Insert	46284-1	46284-1	46284-1	46284-1
4	Cage Nipple Line Locater Block	35706	35706	35706	35706
5	STEADI-FLOW Decal	2529-890	2529-890	2529-890	2529-890
6	Watering Patent Decal	2528-12	2528-12	2528-12	2528-12

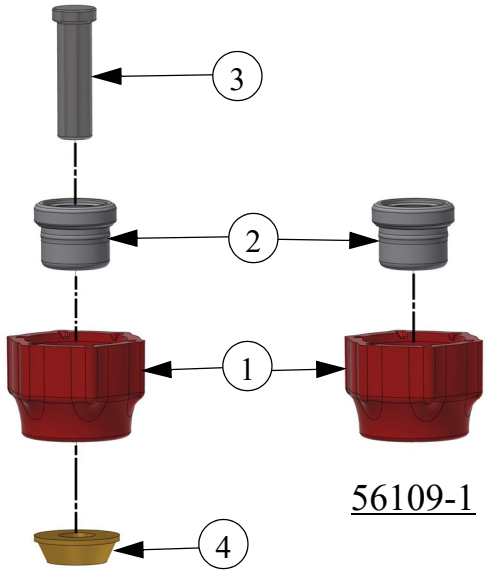
Saddle Assembly



56063-3B 56063-3

		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



56109-1

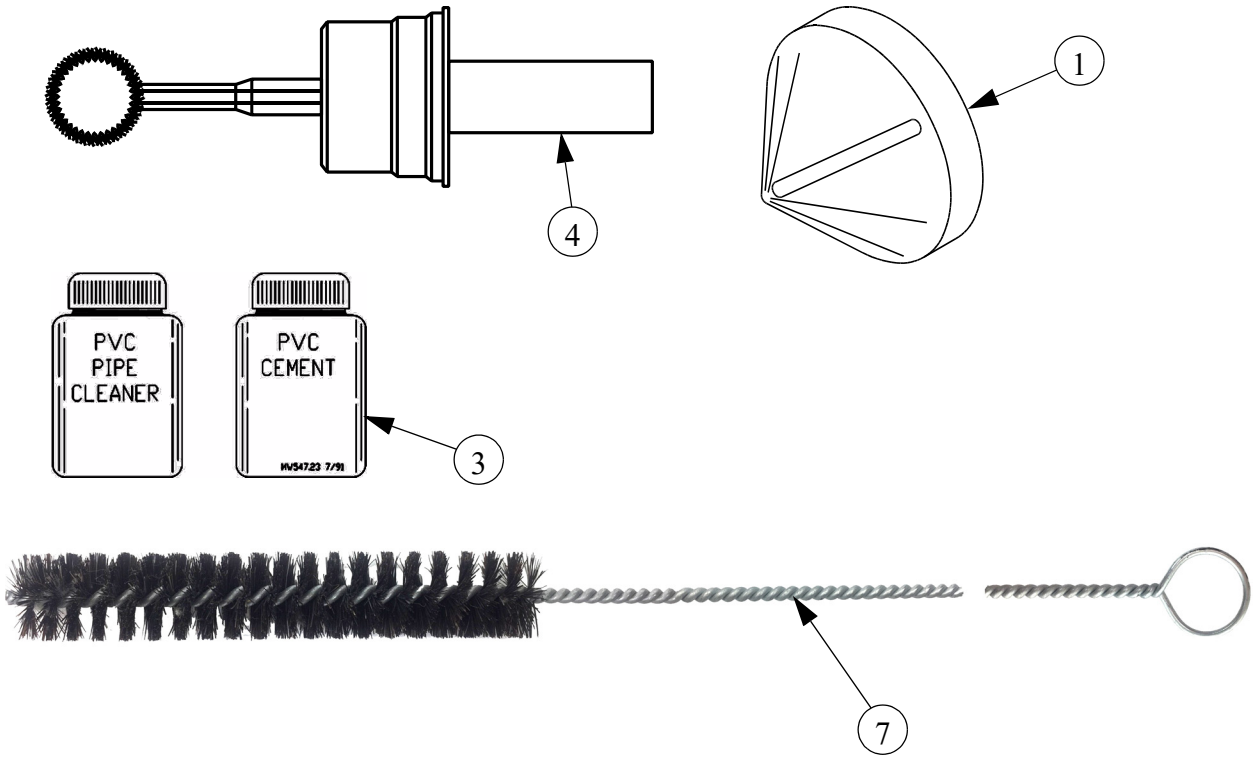
56109-1B

		Insert Cap Assembly	
		56109-1	56109-1B W/Button
Item	Description	Part No.	Part No.
1	STEADI-FLOW Cap	55808-1	50804-1
2	Lower Insert	55809	36725
	Lower Insert	55809-1	29117
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

Page No.	Description of Change	ECO
	Added Versa Plus Watering	34597
Various	Removed PDS Part Numbers	
Various	Changed 55750 to 56437 Nipple Pipe	
16	Added Water Flow Direction Arrow	
Various	New Style Regulator and Components	
30	Changed 9065 to 8060 Coupling	
34,35,36	Added Water Line Parts breakdown	
Various	Numerous other corrections	

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

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Email: choretime@choretime.com
Internet: www.choretime.com