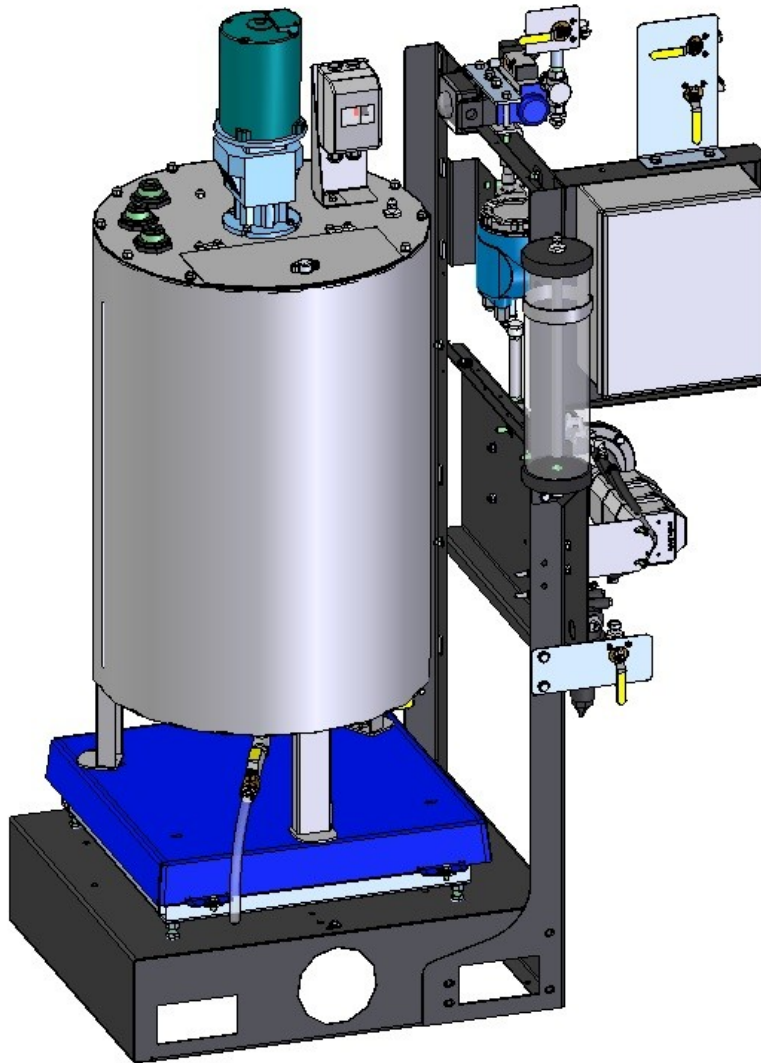


# PUMP STANDS

## Operators Manual



Document: TD-09-06-1048

Revision: C



## **INTRODUCTION**

Thank you for choosing USC, LLC for your equipment needs. We appreciate your business and will work diligently to ensure that you are satisfied with your choice.

### **OVERVIEW**

The purpose of this manual is to provide you with the basic information needed to operate and maintain the Pump Stands. It does not hold USC, LLC liable for any accidents or injuries that may occur.

The technical information provided in this document is based on extensive testing under controlled conditions at the USC research and development facility. This information is given without guarantee as the conditions of operation and storage of the equipment are beyond our control. Variables such as temperature, humidity, viscosity of chemical products and changes in seed size or variety may all effect the accuracy of application and seed coverage. Periodically check the equipment calibration while treating and make adjustments as required. This will insure the optimum seed coverage.

### **OPERATOR RESPONSIBILITIES**

As the purchaser/owner/operator of this equipment and control system, you have an obligation to install, operate, and maintain the equipment in a manner that minimizes the exposure of people in your care to any potential hazards inherent in using this equipment. It is critical that the owner of this equipment:

- Has a clear and documented understanding of the process this machine is being used in and of any resulting hazards or special requirements arising from this specific application.
- Allow only properly trained and instructed personnel to install, operate or service this equipment.
- Maintain a comprehensive safety program involving all who work with this machine and other associated process equipment.
- Establish clear areas of staff responsibility (e.g. operation, setup, sanitation, maintenance, and repairs).
- Provide all personnel with necessary safety equipment.
- Periodically inspect the equipment to insure that the doors, covers, guards, and safety devices are in place and functioning, that all safety instructions and warning labels are intact and legible, and that the equipment is in good working order.
- In addition to the operating instructions, observe and enforce the applicable legal and other binding regulations, national and local codes.

## PUMP STANDS

As the person with the most to gain or lose from working safely, it is important that you work responsibly and stay alert. By following a few simple rules, you can prevent an accident that could injure or kill you or a co-worker.

- Disconnect, lockout, and tagout electrical and all other energy sources before inspecting, cleaning, servicing, repairing, or any other activity that would expose you to the hazards of electrical shock.
- Do not operate, clean, or service this equipment until you have read and understood the contents of this manual. If you do not understand the information in this manual, bring it to the attention of your supervisor, or call USC at (785) 431-7900 for assistance.
- Any operator who is known or suspected to be under the influence of alcohol or drugs should not be allowed to operate the equipment.
- Understand and follow the safety practices required by your employer and this manual.
- **PAY ATTENTION** to what you and other personnel are doing and how these activities may affect your safety.
- **Failure to follow these instructions may result in serious personal injury or death.**

### RECEIVING YOUR EQUIPMENT

As soon as the equipment is received, it should be carefully inspected to make certain that it has sustained no damage during shipment and that all items listed on the packing list are accounted for. If there is any damage or shortages, the purchaser must immediately notify USC, LLC. Ownership passes to purchaser when the unit leaves the USC, LLC. premises. The purchaser is responsible for unloading and mounting all components of the equipment.

Document the serial number of the machine for future reference. The serial number is located on the frame to the left of the I/O Control Panel.



**SERIAL NUMBER:** \_\_\_\_\_

# TABLE OF CONTENTS

| <u>Section</u>   | <u>Contents</u>                                | <u>Page #</u> |
|------------------|--|---------------|
| <b>Section A</b> | <b>Safety Instructions.....</b>                | <b>5</b>      |
| <b>Section B</b> | <b>Installation .....</b>                      | <b>15</b>     |
| <b>Section C</b> | <b>Mechanical Operation.....</b>               | <b>21</b>     |
|                  | Mix Tank, Calibration Tube .....               | 21            |
|                  | Peristaltic Pump Heads & Pump Motor .....      | 22            |
|                  | Manual Pump Stand Valves .....                 | 23            |
|                  | Automated Pump Stand Valves .....              | 24            |
|                  | Flow Meters.....                               | 25            |
| <b>Section D</b> | <b>Electrical Operation .....</b>              | <b>26</b>     |
|                  | Manual Pump Stand Control Panel .....          | 27            |
|                  | Manual Pump Stand Pump Calibration .....       | 28            |
|                  | Manual Pump Stand Flow Meter Calibration ..... | 31            |
| <b>Section E</b> | <b>Troubleshooting.....</b>                    | <b>33</b>     |
| <b>Section F</b> | <b>Maintenance .....</b>                       | <b>34</b>     |
| <b>Section G</b> | <b>Storage.....</b>                            | <b>38</b>     |
| <b>Section H</b> | <b>Mechanical Drawings .....</b>               | <b>41</b>     |
| <b>Section I</b> | <b>Limited Warranty.....</b>                   | <b>127</b>    |

# SAFETY INSTRUCTIONS

## SECTION A

Every year accidents in the work place maim, kill and injure people. Although it may be impossible to prevent all accidents, with the right combination of training, operating practices, safety devices, and operator vigilance, the number of accidents can be significantly reduced. The purpose of this section is to educate equipment users about hazards, unsafe practices, and recommended hazard avoidance techniques.

If any of the required regularly scheduled maintenance is located above the reach of the operator, they should follow the companies normal safe practices of reaching that particular height, utilizing the companies specified equipment and following normal safety precautions.

When working with treatment chemicals, operators should always wear protective gloves, safety glasses, and follow the companies safety precautions in the case of any spillage or operator contamination.

### **SAFETY WORDS AND SYMBOLS**

It is very important that operators and maintenance personnel understand the words and symbols that are used to communicate safety information. Safety words, their meaning and format, have been standardized for U.S. manufacturers and published by the American National Standards Institute (ANSI). The European Community (E.C.) has adopted a different format based on the International Standards Organization (I.S.O.) and applicable machinery directives. Both formats are presented below. Graphic symbols are not standardized, but most manufacturers will use some variation of the ones seen in this manual.

### **MOTS ET SYMBOLES SÉCURITÉ**

Il est très important que les opérateurs et le personnel d'entretien à comprendre les mots et les symboles qui sont utilisés pour communiquer des informations de sécurité. Mots de sécurité, de leur signification et le format, ont été normalisés pour les fabricants américains et publié par l' American National Standards Institute ( ANSI ). La Communauté européenne (CE ) a adopté un format différent sur la base de l'Organisation internationale de normalisation ( ISO ) et des directives de machines applicables. Les deux formats sont présentés ci-dessous. Les symboles graphiques ne sont pas standardisés, mais la plupart des fabricants utilisent une variante de ceux observés dans ce manuel.

## PUMP STANDS



Indicates an imminently hazardous situation which, if not avoided, **will** result in death or serious injury.



Indique une situation extrêmement dangereuse qui, si pas évitée, entraînera la mort ou des blessures graves.



Indicates a potentially hazardous situation which, if not avoided, **could** result in death or serious injury.



Indique une situation potentiellement dangereuse qui, si pas évitée, pourrait entraîner la mort ou des blessures graves.



Indicates a potentially hazardous situation which, if not avoided, **may** result in minor or moderate injury and/or property damage.



Indique une situation potentiellement dangereuse qui, si pas évitée, peut entraîner des blessures mineures ou modérées et / ou des dommages.



Provides additional information that the operator needs to be aware of to avoid a potentially hazardous situation.



Fournit des informations supplémentaires que l'opérateur doit être conscient de d'éviter une situation potentiellement dangereuse.



Notice is used to notify people of important installation, operation or maintenance information which is not hazard related.



Avis est utilisé pour informer les gens des informations de maintenance qui ne est pas danger lié importante installation, l'exploitation ou.



**Mandatory Lockout Power Symbol.** Disconnect, lockout and tagout electrical and other energy sources before inspecting, cleaning or performing maintenance on this panel.

**Symbole de puissance verrouillage obligatoire.** Débranchez, de verrouillage et de déconsignation énergie électrique et d'autres sources avant d'inspecter, de nettoyage ou de la maintenance de ce panneau.



**International Safety Alert Symbol.** The exclamation point (!) surrounded by a yellow triangle indicates that an injury hazard exists. However, it does not indicate the seriousness of potential injury. The exclamation point (!) is also used with the DANGER, WARNING and CAUTION symbols so the potential injury is indicated.

**Sécurité Symbole International Alert .** Le point d'exclamation ( ! ) Entouré par un triangle jaune indique que un risque de blessure existe . Cependant, il ne indique pas la gravité des blessures potentielles. Le point d'exclamation ( ! ) Est également utilisé avec les symboles DANGER, AVERTISSEMENT et ATTENTION de sorte que le risque de blessure est indiqué.



**Electrocution Hazard Symbol.** This symbol indicates that an electrocution hazard exists. Serious injury or death could result from contacting high voltage.

**Symbole de danger d'électrocution .** Ce symbole indique qu'un danger d'électrocution existe. Des blessures graves ou la mort pourraient résulter de contact haute tension.



**International Electrocution Hazard.** This symbol indicates that an electrocution hazard exists. Serious injury or death could result from contacting high voltage.

**Danger d'électrocution international.** Ce symbole indique qu'un danger d'électrocution existe. Des blessures graves ou la mort pourraient résulter de contact haute tension.



**Mandatory Read Manual Action Symbol.** (I.S.O. format) This symbol instructs personnel to read the Operators Manual before servicing or operating the equipment.

**Obligatoire Lire Symbole d'action Manuel.** ( Format ISO )  
Ce symbole indique le personnel de lire le manuel de l'opérateur avant de réparer ou d'utiliser l'équipement.



**Mandatory Read Manual Action Symbol.** This symbol instructs personnel to read the Operators Manual before servicing or operating the equipment.

**Obligatoire Lire Symbole d'action Manuel .** Ce symbole indique le personnel de lire le manuel de l'opérateur avant de réparer ou d'utiliser l'équipement.

### **LOCKOUT / TAGOUT PROCEDURES**

Lockout/Tagout is the placement of a lock/tag on an energy isolating device in accordance with an established procedure. When taking equipment out of service to perform maintenance or repair work, always follow the lockout / tagout procedures as outlined in ANSI Z344.1 and/or OSHA Standard 1910.147. This standard “requires employers to establish a program and utilize procedures for affixing appropriate lockout devices or tagout devices to energy isolating devices and to otherwise disable machines or equipment to prevent unexpected energizing, start-up, or release of stored energy in order to prevent injury to employees.”



## LES PROCEDURES DE VERROUILLAGE / ETIQUETAGE

Verrouillage / étiquetage est le placement d'un verrouillage / tag sur un dispositif d'isolement de l'énergie conformément à une procédure établie. Lors de la prise hors service des équipements pour effectuer la maintenance ou de réparation, toujours suivre les procédures de verrouillage / débranchement comme indiqué dans la norme ANSI Z344.1 et / ou la norme OSHA 1910.147. Cette norme "oblige les employeurs à établir un programme et appliquer des procédures pour la fixation des dispositifs de verrouillage appropriés ou des dispositifs déconsignation à l'énergie dispositifs d'isolement et d' autre machines ou équipements désactiver pour éviter énergisant inattendu, start-up, ou la libération de l'énergie stockée dans le but de prévenir les blessures aux employés."

### HAZARD REVIEW

#### RISQUE EXAMEN

##### Electrocution Hazard



Electrocution accidents are most likely to occur during maintenance of the electrical system or when working on or near exposed high voltage wiring. This hazard does not exist when the electrical power has been disconnected, properly locked, and tagged out.

##### Risque d'électrocution

Les accidents d'électrocution sont les plus susceptibles de se produire lors de la maintenance du système électrique ou pour travailler sur ou à proximité du câblage haute tension exposé. Ne existe pas ce danger lorsque l'alimentation électrique a été déconnecté, bien verrouillé et étiquetés sur.

#### Automatic Start Hazard



**! WARNING**

This equipment may be controlled by an automated system and may start without warning. Failure to properly disconnect, lockout, and tagout all energy sources of remotely controlled equipment creates a very hazardous situation and could cause injury or even death. PLEASE STAY CLEAR AND BE ALERT.

##### Démarrer danger automatique

**! AVERTISSEMENT**

Cet équipement peut être contrôlé par un système automatisé et peut démarrer sans avertissement. Sources de l'équipement contrôlé à distance non débranché correctement, lock-out, et tous déconsignation énergie crée une situation très dangereuse et pourrait causer des blessures ou même la mort. Se IL VOUS PLAÎT rester à l'écart et d'être vigilant.

## PUMP STANDS

**YOU** are responsible for the **SAFE** operation and maintenance of your USC, LLC equipment . **YOU** must ensure that you and anyone else who is going to operate, maintain, or work around the treater be familiar with the operating and maintenance procedures and related **SAFETY** information contained in this manual. This manual will take you step-by-step through your working day and alert you to good safety practices that should be adhered to while operating the treater.

Remember, **YOU** are the key to safety. Good safety practices not only protect you, but also the people around you. Make these practices a working part of your safety program. Be certain that **EVERYONE** operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

- Equipment owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter per OSHA (Occupational Safety and Health Administration) regulation 1928.57.
- The most important safety device on this equipment is a **SAFE** operator. It is the operator's responsibility to read and understand **ALL** Safety and Operating instructions in the manual and to follow them. All accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
- Think SAFETY! Work SAFELY!

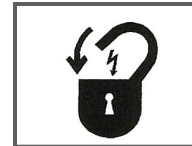
### GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety labels before operating, maintaining, adjusting or unplugging the seed treater .
2. Only trained persons shall operate the seed treater. An untrained operator is not qualified to operate the machine.
3. Have a first-aid kit available for use should the need arise, and know how to use it.



## PUMP STANDS

4. Provide a fire extinguisher for use in case of an accident. Store in a highly visible place.
5. Do not allow children, spectators or bystanders within hazard area of machine.
6. Wear appropriate protective gear. This includes but is not limited to:
  - A hard hat
  - Protective shoes with slip resistant soles
  - Protective goggles
  - Heavy gloves
  - Hearing protection
  - Respirator or filter mask
7. Place all controls in neutral or off, stop motor, and wait for all moving parts to stop. Then disable power source before servicing, adjusting, repairing, or unplugging.
8. Review safety related items annually with all personnel who will be operating or maintaining the Equipment.



### **OPERATING SAFETY:**

1. Read and understand the Operator's Manual and all safety labels before using.
2. Disconnect and disable electrical supply completely and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Clear the area of bystanders, especially children, before starting.
4. Be familiar with the machine hazard area. If anyone enters hazard area, shut down machine immediately. Clear the area before restarting.
5. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
6. Stay away from overhead obstructions and power lines during operation and transporting. Electrocutation can occur without direct contact.
7. Do not operate machine when any guards are removed.
8. Inspect welds and repair if needed.

### **PLACEMENT SAFETY**

1. Move only with the appropriate equipment
2. Stay away from overhead power lines when moving equipment. Electrocutation can occur without direct contact.
3. Be familiar with machine hazard area. If anyone enters hazard areas, shut down machine immediately. Clear the area before restarting.
4. Operate the equipment on level ground free of debris. Anchor the equipment to prevent tipping or upending.



Before placement of the equipment, be sure that ground is reasonably level. The equipment may topple or work improperly if the ground is too uneven, damaging the equipment and / or causing personal injury.



Avant de placement de l'équipement, assurez-vous que sol est relativement plat. L'équipement peut tomber ou mal fonctionner si le sol est trop inégale, endommager l'équipement et / ou causer des blessures.

### **MAINTENANCE SAFETY**

1. Review the operator's manual and all safety items before working with, maintaining or operating the equipment .
2. Place all controls in neutral or off, stop motors, disable power source, and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
3. Follow good shop practices:  
Keep service area clean and dry.  
Be sure electrical outlets and tools are properly grounded.  
Use adequate light for the job at hand.
4. Keep hands, feet, hair and clothing away from all moving and/or rotating parts.
5. Clear the area of bystanders, especially children, when carrying out any maintenance and repairs or making any adjustments.
6. Before resuming work, install and secure all guards when maintenance work is completed.
7. Keep safety labels clean. Replace any sign that is damaged or not clearly visible.



## **SAFETY LABELS**

1. Keep safety labels clean and legible at all times.
2. Replace safety labels that are missing or have become illegible.
3. Replaced parts that displayed a safety label should also display the current label.
4. Replacement safety labels are available. Contact USC at (785) 431-7900 .

### **How to Install Safety Labels:**

- Be sure that the installation area is clean and dry.
- Be sure temperature is above 50°F (10°C).
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the sign over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the sign in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of sign backing paper.



Located on the USC equipment you will find safety labels. Always be sure to read and follow all directions on the labels.



Situé sur l'équipement USC vous trouverez des étiquettes de sécurité. Veuillez à toujours lire et suivre toutes les instructions sur les étiquettes.



Guards provided with USC equipment are to remain in place during operation.



Gardes fournis avec des équipements USC doivent rester en place pendant le fonctionnement.

## PUMP STANDS

Think **SAFETY!** Work **SAFELY!**

REMEMBER—If Safety Labels have been damaged, removed, become illegible, or parts replaced without safety labels, new labels must be applied. New safety labels are available from USC at (785) 431-7900.



Part # 09-02-0001

# INSTALLATION

## SECTION B



**HIGH VOLTAGE** ~ Always disconnect the power source before working on or near the control panel or lead wires.



HAUTE TENSION ~ Toujours débrancher la source d'alimentation avant de travailler sur ou près du panneau de commande ou les câbles.



**HIGH VOLTAGE** ~ Use insulated tools when making adjustments while the controls are under power.



HAUTE TENSION ~ Utilisez des outils isolés lors des réglages, tandis que les commandes sont sous tension.



Permanent installation may require additional electrical cords, chemical tubing, and air lines, since each installation is unique.



Installation permanente peut exiger cordons électriques, des tubes supplémentaires chimique, et les conduites d'air, puisque chaque installation est.

USC equipment may operate within a Group II, Division 2, Class G hazardous area which contains seed dust. If so, the equipment must be certified for use in this area. To avoid the possibility of an explosion ignited by static electricity, all USC equipment should be grounded by attaching a bonding strip to the metal frame and securing that strip to the factory ground point.

If labeled accordingly, USC products are designed to comply with CSA 22.1 for use in a Class II, Division 2, Group G environment. When connecting the USC system power cord into a power supply, first determine if the supply is also within the hazardous area where the USC system is located. If so, we recommend that the power be hard wired into the source. Do not use a standard electrical plug for this purpose. For other acceptable methods of connecting to a power source, or any other additional miscellaneous equipment to the USC system within a hazardous location, please consult CSA 22.1, Section 18-200 and 18-274. Review the appropriate section and ensure compliance with one of the options given.

When connecting to USC equipment from a remote location, and the USC equipment is in a hazardous Class II, Group G environment, customers are advised to follow the requirements within CSA 22.2 no. 25. More details may also be found in CSA 22.1 18-252 (wiring methods). There are various options covered within this section for wiring in a Class II, Group G (dust) environment. Select the best method suited for your specific location.

## PUMP STANDS

équipements USC peut fonctionner dans un Groupe II, Division 2, Classe G zone dangereuse qui contient la poussière des semences. Si oui, l'équipement doit être certifié pour une utilisation dans ce domaine. Pour éviter la possibilité d'une explosion enflammé par l'électricité statique, tous les équipements USC doit être mis à la terre en attachant une bande de liaison à la structure métallique et la sécurisation cette bande au point de masse du fabricant.

Si étiquetés en conséquence, les produits USC sont conçus pour être conformes à la norme CSA 22.1 pour une utilisation dans une Classe II, Division 2, Groupe G environnement. Lors du raccordement du USC alimentation du système cordon dans une alimentation, d'abord déterminer si l'offre est également dans la zone dangereuse où se trouve le système USC. Si oui, nous recommandons que le pouvoir soit câblé dans la source. Ne pas utiliser une prise électrique standard à cet effet. Pour les autres méthodes acceptables de se connecter à une source d'alimentation, ou tout autre matériel divers supplémentaire au système USC dans un endroit dangereux, se il vous plaît consulter la norme CSA 22.1, Section 18-200 et 18-274. Consultez la section appropriée et assurer la conformité avec l'une des options proposées.

Lors de la connexion à l'équipement USC depuis un emplacement distant et l'équipement USC est dans une classe dangereuse II, Groupe G environnement, les clients sont invités à suivre les exigences dans CSA 22.2 no. 25. Plus de détails peuvent également être trouvés dans 22,1 CSA 18-252 ( Les méthodes de câblage). Il existe diverses options couvertes dans cette section pour le câblage dans une Classe II, Groupe G (poussière ) environnement. Sélectionnez la meilleure méthode adaptée pour votre emplacement spécifique.

### **PUMP STAND SET - UP**

The following steps outline the initial set-up of your Universal Pump Stand:

1. Clear the area of bystanders, especially small children, before moving.
2. Be sure there is enough clearance from overhead obstructions and power lines or other equipment to move the pump stand(s) into its working position.
3. Using a forklift, place the pump stand in the desired position on a level surface.

#### **NOTICE**

USC highly recommends that the pump stand be set up inside a building or any covered structure to protect the machine from weathering.

#### **AVIS**

USC recommande fortement que le support de pompe sera installée à l'intérieur d'un bâtiment ou d'une structure couverte pour protéger la machine des intempéries.

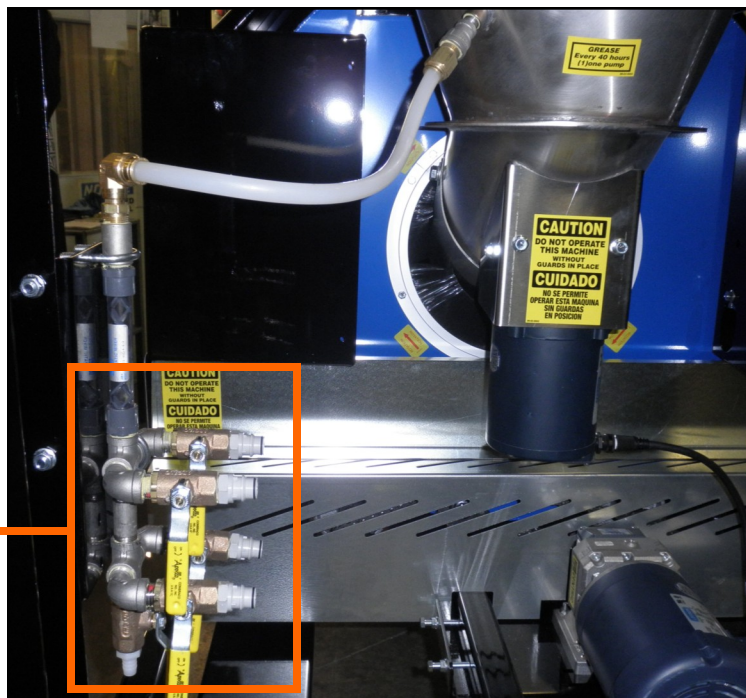


## PUMP STANDS

### PUMP STAND SET - UP

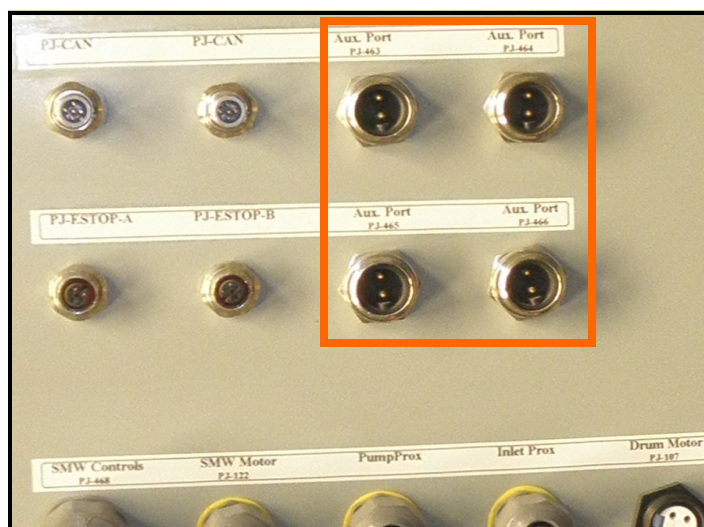
4. Inspect machine thoroughly for screws, bolts, fittings, etc. which may have come loose during shipping.
5. The pump stand(s) should be placed on level ground close to the seed treater.

6. Attach the chemical tubing from the pump stand(s) to the atomizer plumbing on the seed treater (right). Additional tubing can be added or removed to accommodate your set-up.



### MANUAL TREATER CONTROL PANEL

When connecting to a manual treater, attach the communication cable from the pump stand(s) control panel to the applicable port on the Treater Control Panel (below).



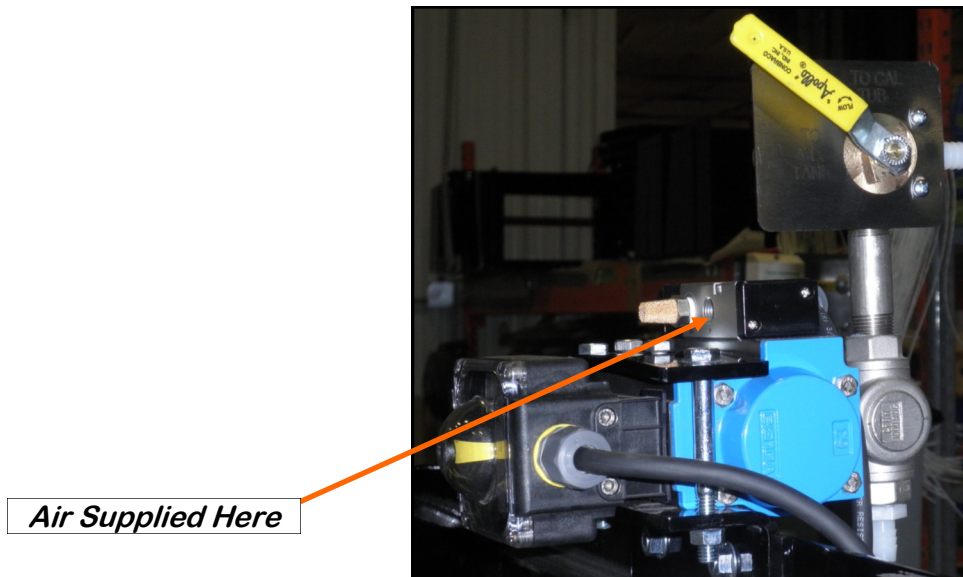
## PUMP STANDS

### AUTOMATED MAIN CONTROL PANEL

When connecting to a automated treater, attach the communication cable from the manual or automated pump stand(s) control panel to the applicable port on the Main Control Panel (top).



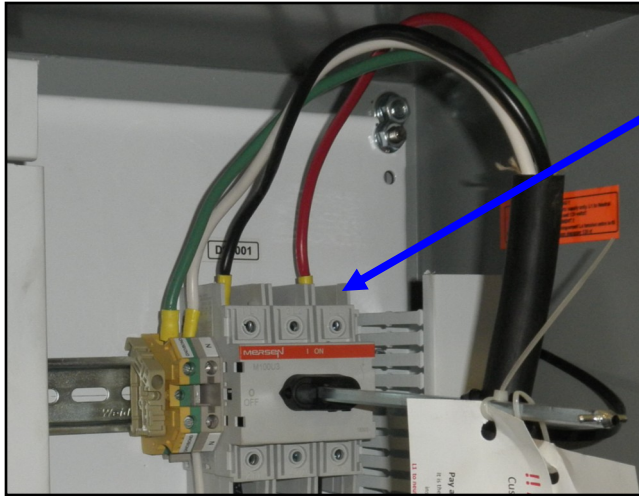
For automated pump stands, an air supply with an in-line customer supplied air dryer to protect the air system from contamination is required. Supply approximately 100 - 110 pounds of air pressure from the dryer to the port on the air actuated 3-way valve located on the pump stand frame behind the electric control panel.



PUMP STANDS

**LOSS-IN-WEIGHT 12 PUMP CONTROL PANEL**

Have a certified electrician provide power to the seed treating system. Provide convenient shutdown switches, comply with local electrical codes and ensure that the system is properly grounded and bonded.



*Incoming power connected to these terminals in the Treater Control Panel*

Connect the 8 pin connector on the cable coming from the scale to the appropriate connector on the bottom left side of the control panel (bottom, left). They are numbered 1 - 12. Make sure you plug in the cable from pump stand to the number you want to assign to each pump stand.

Connect the 3 pin connector on the cable coming from the pump motor to the appropriate connector on the bottom right side of the control panel (bottom, right). They are numbered 1 - 12. Make sure you plug in the cable for each pump stand to the same number you used for the scale cable for each pump stand.

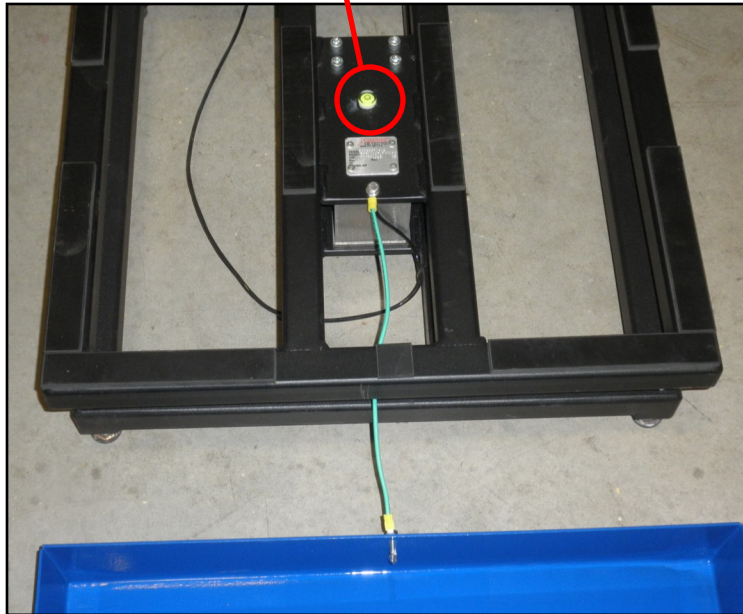
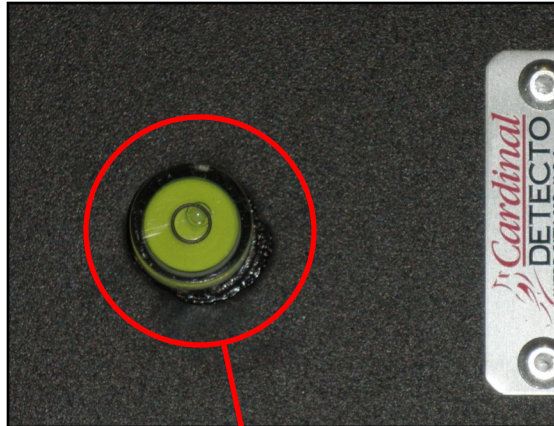
Plug the 50 foot Ethernet cable into the PJ\_ENET connector on the left side next to the scale connectors. Then plug the other end into any available Ethernet port on the main control panel.



## PUMP STANDS

### LOSS-IN-WEIGHT SCALE

When setting up a Loss In Weight pump stand, the scale must be balanced. Set the Cardinal scale on the floor in the location it will be operating from. The center of the scale has a leveling bubble on it. Use a 3/4" open end wrench to raise or lower the feet in the corners of the scale until the bubble is in the center ring. Lock down jam nuts on the feet for all four corners. The example shown below is not balanced.



The scale ground wire is shipped attached to the scale but not the cover. One side of the cover has a screw inserted. Set the cover on the balanced scale with that side on the same side as the ground wire. Remove the fastener, run it through the ground wire eyelet and re-attach it to the cover.

# MECHANICAL OPERATION

## SECTION C

### MIX TANKS

The pump stand includes a choice of 15, 30, 55 gallon poly or 30, 60 gallon stainless steel chemical mix tank. The chemical mix tank will have electric drive agitation that is turned on or off at the pump stand with a manual switch. The agitator should be running at all times when treatment is present in the tank to keep the chemical mixed and in a suspended state. The tank is equipped with a shut-off, drain plug, and drain valve located on the bottom. The top of the tank also includes 3 extra ports which the operator may use to direct fill into the tank.



### CALIBRATION TUBES

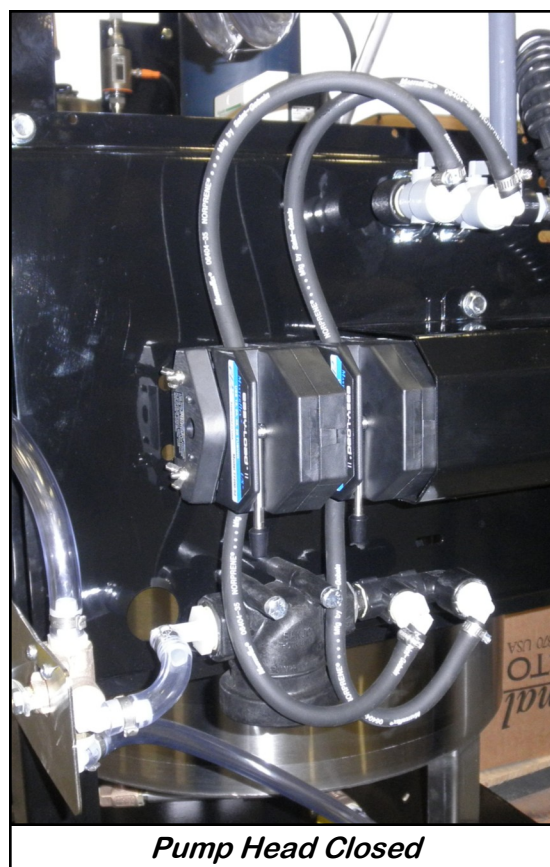
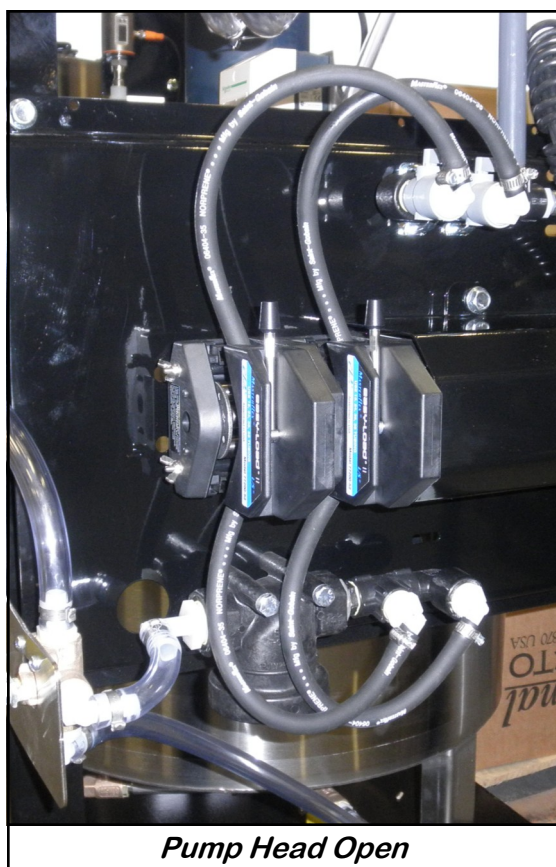
The pump stand may be equipped with an optional calibration tube which is used to check the liquid flow rate. The calibration tubes are available in 100 OZ and 340 OZ ounce sizes. The system valves direct liquid from different areas to keep all liquid contained. This creates a closed chemical system so that the operator may manually check the calibration of the chemical flow rate without handling any of the chemical.



## **PERISTALTIC PUMP HEADS AND MOTOR**

The pump stand utilizes a variable speed pump motor and special norprene pump tubing for liquid metering. The pump comes equipped with 1, 2 or 3 peristaltic pump heads. A Low Volume and High Volume configuration are also available. Liquid will only come into contact with the inside diameter of the pump tubing and not the pump. This allows for easy cleanup and less maintenance of the pump.

To open the pump head, lift the lever upward. Place the pump tubing inside the pump head so it fits inside the notches and above the rollers. Lower the lever back down to close the pump head, clamping the hose inside the head. Wear or fatiguing of the tubing within the pump head due to compression is normal. When tubing becomes worn or chemical rates begin to slow down, open the pump head and move the tubing to a different position. If the entire piece of tubing becomes worn, simply replace with a new section. When not using the pump stand for several days or when storing, open the pump head and remove the tubing to prevent any extra compression.



## PUMP STANDS

### PUMP STAND VALVES

**SEED TREATMENT SOURCE VALVE:** This valve controls where the pump is drawing liquid from. It allows liquid to be pulled from either the bottom of the mix tank or the calibration tube. This valve is only present when a Calibration tube is mounted on the pump stand.



*Drawing chemical from the bottom of the Mix Tank*



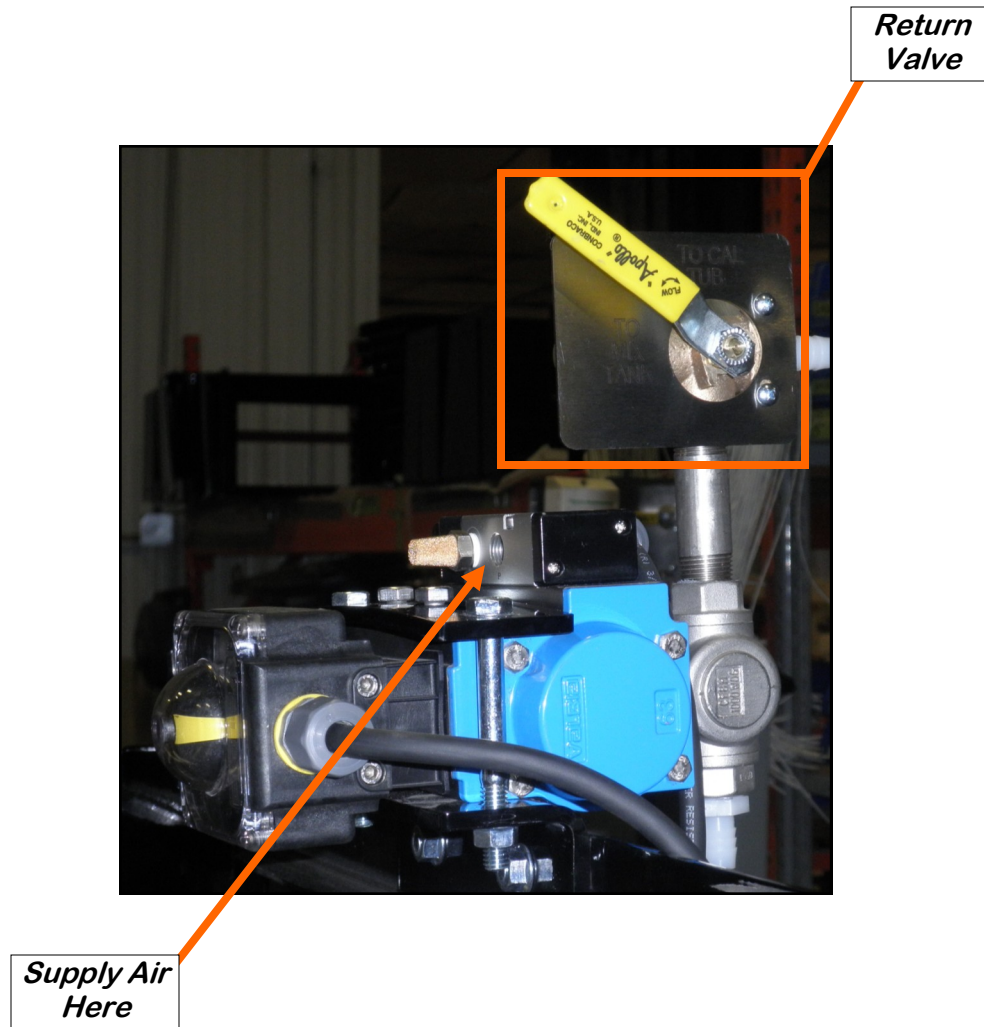
*Drawing chemical from the bottom of the Calibration Tube*

**MANUAL SEED TREATMENT RETURN VALVE:** The bottom valve directs the liquid to the top valve or to the seed treater. The top valve directs the liquid coming from the mix tank or calibration tube or back to the calibration tube or mix tank for re-circulation.



**PUMP STAND VALVES**

**AUTOMATED SEED TREATMENT RETURN VALVE:** This valve directs the liquid coming from the recirculation side of the Air Actuated 3-Way Valve to either fill the Calibration Tube or return to the Mix Tank.



**AIR ACTUATED 3-WAY VALVE:** This valve is controlled from the touch screen and will automatically actuate during normal operation. An internal spring holds the valve in the recirculation position so that when the valve is not actuated, the chemical will be directed to flow back to the Mix Tank. When the valve is actuated, the supplied air pressure will override the spring and move the valve to the PROCESS position. Chemical flow will then be directed towards the treater's atomizer chamber.



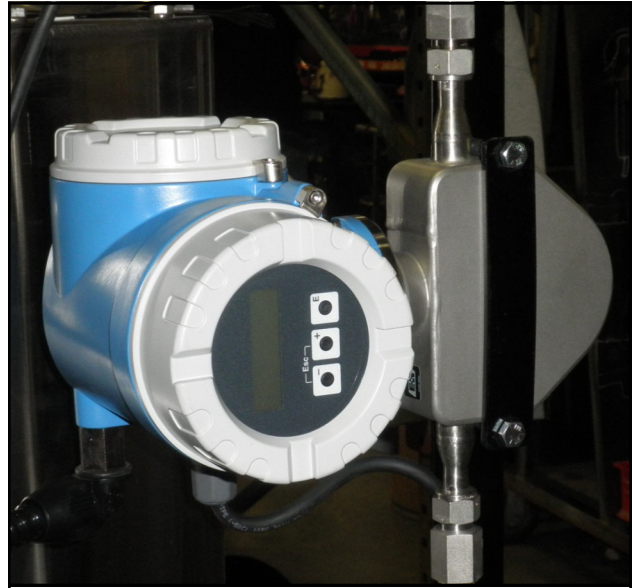
## PUMP STANDS

### FLOW METERS

The pump stand may be equipped with an optional volumetric or mass flow meter. A flow meter is used to perform real - time chemical flow adjustments and monitoring without the operator having to handle the chemical. The flow meter reading will be displayed on the HMI touch screen and can be set to read in oz / min or ml / min.



*Volumetric Flow Meter*



*Mass Flow Meter*

Proper calibration of the liquid system is critical to achieve a proper granular / chemical mixture. For information on pump calibration and flow meter calibration to determine liquid flow rate, see the appropriate U-Treat Automation manual.

Emptying the remaining liquid may be done by using the reverse function on the control panel. This will pump liquid back into the mix tank. Then drain the remaining liquid into a suitable container. Clean water should be pumped through the calibration tube and mix tank when finished.

#### **⚠ WARNING**

Always dispose of chemical or diluted chemical according to your local, state, and federal regulations.

#### **! AVERTISSEMENT**

Toujours disposer chimique ou diluée selon votre local, étatique et règlements fédéraux.

#### **NOTICE**

Only you, the operator, can determine the length of time required to completely rinse all chemical residue from the tank and plumbing system.

#### **AVIS**

Seulement vous, l'opérateur, permet de déterminer la longueur du temps nécessaire pour rincer complètement tous les résidus de produits chimiques du système de réservoir et la plomberie.

SECTION  
D**ELECTRICAL OPERATION**

**HIGH VOLTAGE** ~ Always disconnect the power source before working on or near the control panel or lead wires.



**HAUTE TENSION** ~ Toujours débrancher la source d'alimentation avant de travailler sur ou près du panneau de commande ou les câbles.



**HIGH VOLTAGE** ~ Use insulated tools when making adjustments while the controls are under power.



**HAUTE TENSION** ~ Utilisez des outils isolés lors des réglages, tandis que les commandes sont sous tension.



**AUTHORIZED PERSONNEL** only shall work on the control panel. Never allow anyone who has not read and familiarized themselves with the owner's manual to open or work on the control panels.



Seules personnes autorisées doivent travailler sur le panneau de commande. Ne jamais laisser quelqu'un qui n'a pas lu et se sont familiarisés avec le manuel d'ouvrir ou de travail du propriétaire sur les panneaux de contrôle.

This section provides a general overview and description of the operator controls for the pump stands.

For information on pump calibration, flow meter calibration and all other HMI screen functions, see the appropriate U-Treat Automation manual.

### **General Panel Descriptions**

The pump stand control panels are plug connected enclosures that are located on each pump stand frame. This panel connects the pump stand electrical components to the treater or automated main control panel. Each pump stand has two standard 110V plugs. One for the manual ON/OFF switch controlling the mix tank motor and one for the pump stand control panel.

**MANUAL PUMP STAND CONTROL PANEL**

**1. CHEMICAL PUMP SWITCH:** When this switch is turned to HAND, the chemical pump will run. When the switch is turned to AUTO, the chemical pump will only run when the main control panel H-O-A screen button is set to HAND or AUTO. The yellow, 2-Wire auxiliary cable must be connected to the auxiliary port on the treater control panel for this feature will work. When the PUMP / AUX CONTROL module on the touch screen is placed in HAND, the chemical pump will run at any time. When placed to AUTO, it will only run when the proximity switch located in the bottom of the seed treater supply hopper detects seed and the atomizer is running. The proximity switch determines when seed is present in the hopper. When the proximity switch no longer detects seed, a time delay defined on the touch screen will automatically shut off the chemical pump at a pre-determined amount of time after the hopper has emptied. The time delay allows all seed in the hopper to receive equal coverage.

**2. PUMP VOLTMETER / FLOW METER DISPLAY:** If the pump stand does not have a flow meter, the DC voltage the pump is receiving will be displayed. If pump stand is equipped with a flow meter, the current flow rate of the flow meter will be displayed. As the pumps speed is increased or decreased, these numbers will increase or decrease accordingly. Press the SEL button to switch between the rate and totalizer displays. Press the RST button to reset the totalizer display

**3. CHEMICAL PUMP DIRECTION:** This switch allows the operator to change the pump direction between forward and reverse. It has a safety feature that will not allow the operator to switch from forward to reverse or vice-versa without momentarily stopping and releasing the switch in the center position.

**4. LIQUID ADJ. DIAL:** This dial allows the operator to increase or decrease the speed of pump. The setting should be chosen in relation to the desired application rate for the treatment being applied to the seed.

**MANUAL PUMP STAND PUMP CALIBRATION**

The following steps illustrate how to calibrate the peristaltic pump motor. A stop watch will be needed in the calibration process.

1. Lock down the pump tubing on all peristaltic pump heads (see page 22).
2. Premix enough liquid for the amount of seed you will be treating and pour into the mix tank. It's always a good practice to mix up 20% extra slurry to help fill all the lines. Turn on the mix tank and allow liquid to mix.
3. Place the seed treatment source valve to the FROM MIX TANK position. Place the bottom return valve to TO CALIBRATE /TO MIX TANK position. Place the top return valve to TO MIX TANK . The return valves are located on top of the pump stand (right, top).
4. Turn the pump direction switch to FORWARD.
5. Turn the HAND / OFF / AUTO switch to the HAND position and set the pump LIQUID ADJ. dial (right, bottom) to about 500 or half speed. The liquid should begin re-circulating from the bottom of the mix tank, through the pump, and back into the top of the mix tank.
6. Allow pump to re-circulate liquid for approximately 15 minutes to ensure all air has been removed from the liquid lines. This will also help break-in the pump tubing, which is critical before checking pump calibration.
7. After you have allowed the liquid to re-circulate you are ready to calibrate the pump. Determine the number of ounces needed in one minute. You will need to know the seed flow rate from the seed treater.



**EXAMPLE:** The seed treatment slurry rate is 4 ounces per cwt.

$$\text{Seed Flow Rate} = 6.41 \text{ cwt/min.} \times 4 \text{ oz./cwt.} = 25.6 \text{ oz./min.}$$

25.6 oz. is the rate the pump should be pumping in one minute

**MANUAL PUMP STAND PUMP CALIBRATION**

8. Set the Liquid Adjustment Dial . You can use the chart on page 28 to find a starting point.

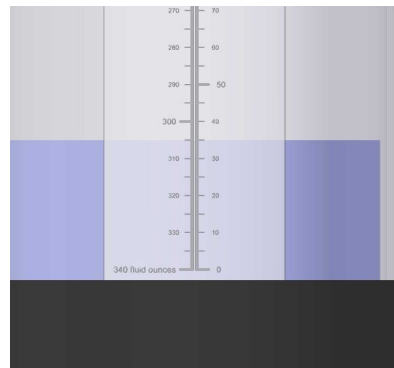
**EXAMPLE:** The ounces needed in one minute = 25.6 oz/min. Assume we are using a 6-600 Masterflex pump. An approximate starting point is 31.8 volts.

9. While the pump is still running, place the top return valve to the TO CALIBRATE position. Once the liquid in the calibration tube reaches zero press HAND or OFF to stop the pump, see figure 1 below.

10. Press the HAND button and start the stopwatch simultaneously. Stop the pump when the stopwatch reaches one minute. Note the total ounces of chemical that is in the calibration tube, see figure 2 below. This number should equal the number of ounces needed to flow through the pump in one minute. If the ounces needed per minute have not been met, re-adjust the pump speed up or down accordingly and repeat steps 9 and 10 until the liquid flow rate has been matched.



***Figure 1***  
***Liquid at 0 oz.***



***Figure 2***  
***Liquid at 35 oz.***  
***after 1 minute***

PUMP STANDS

**MANUAL PUMP STAND PUMP CALIBRATION**

Below are two charts that show the potential volts and oz / min at different dial settings.

**NOTICE**

All calibrations were done using water. These numbers were obtained using one peristaltic pump head. Numbers are not exact, only use these numbers as a starting point or for troubleshooting.

**AVIS**

Tous les étalonnages ont été effectués à l'aide de l'eau. Ces chiffres ont été obtenus en utilisant une tête de pompe péristaltique. Nombres ne sont pas exacte, seulement utilisent ces chiffres comme un point de départ ou de dépannage.

**Standard Data**

**6-600 RPM Motor and  
L / S Pump Head with  
Masterflex L / S 35 Pump Tubing**

| <u>Volts</u> | <u>OZ./Min.</u> |
|--------------|-----------------|
| 10.5         | 7.4             |
| 14.6         | 10.5            |
| 18.8         | 14.1            |
| 22.9         | 17.7            |
| 27.0         | 21.3            |
| 31.2         | 24.9            |
| 35.3         | 28.5            |
| 39.4         | 32.1            |
| 43.6         | 35.7            |
| 47.7         | 39.3            |
| 51.8         | 42.9            |
| 55.9         | 46.5            |
| 60.1         | 50.1            |
| 64.2         | 53.7            |
| 68.3         | 57.3            |
| 72.5         | 60.9            |
| 76.6         | 64.5            |
| 80.7         | 68.1            |
| 84.9         | 71.7            |
| 89.0         | 75.3            |

**Metric Data**

**6-600 RPM Motor and  
L/S Pump Head with  
Masterflex L / S 35 Pump Tubing**

| <u>Volts</u> | <u>ml./Min.</u> |
|--------------|-----------------|
| 10.5         | 219             |
| 14.6         | 302             |
| 18.8         | 417             |
| 22.9         | 524             |
| 27.0         | 630             |
| 31.2         | 737             |
| 35.3         | 843             |
| 39.4         | 950             |
| 43.6         | 1,056           |
| 47.7         | 1,162           |
| 51.8         | 1,268           |
| 55.9         | 1,375           |
| 60.1         | 1,482           |
| 64.2         | 1,588           |
| 68.3         | 1,695           |
| 72.5         | 1,800           |
| 76.6         | 1,908           |
| 80.7         | 2,014           |
| 84.9         | 2,121           |
| 89.0         | 2,227           |

**MANUAL PUMP STAND FLOW METER CALIBRATION**

You will need a stopwatch for this calibration.

1. Determine a desired flow rate

**EXAMPLE:** The seed treatment slurry rate is 5 ounces per cwt.

Seed Flow Rate = 10.8 cwt/min. x 5 oz./cwt. = 54 oz./min.

**54 oz. is the rate the pump should be pumping in one minute.**

2. Set the Liquid Flow Rate. Make sure the chemical is diverted back into the mix tank, then using the Liquid Adj. dial, increase or decrease the pump speed until the liquid flow rate has been matched.
3. Begin the calibration process by pumping chemical into the calibration tube or a measuring cup and using the stop watch to start timing once the liquid reaches the zero mark on the calibration tube.
4. Note the rate that the flow meter display on the pump stand is currently reading.

**EXAMPLE:** Flow meter reading = 54 Oz./min

5. After approximately one minute, simultaneously stop timing and shut down the flow of liquid to the calibration tube or measuring cup.
6. Note the total ounces of liquid in the calibration tube or measuring cup and the total amount of time that it took to fill the tube to that level in seconds. Divide those two numbers to find the ounces per second (Oz./Sec) of liquid application rate. Now multiply the ounces per second of liquid application rate by 60 to get the ounces per minute (Oz./Min) liquid application rate. This number is the actual amount of ounces per minute that the pump is currently pumping.

**EXAMPLE:** Total ounces of liquid in the calibration tube = 57 ounces.

Total amount of time to fill calibration tube = 62 seconds.

Oz./Sec liquid application rate = 57 ounces / 62 seconds = 0.9194

Oz./Min liquid application rate = 0.9194 x 60 seconds = 55.16

**The actual liquid application rate is 55.16 Oz./min**

**MANUAL PUMP STAND FLOW METER CALIBRATION**

7. Take the flow meter reading that was previously noted and divide it by the actual liquid application rate. This number will give you the calibration factor that the flow meter reading will need to be adjusted by.

**EXAMPLE:** Flow meter reading = 54 Oz./min  
Actual liquid application rate = 55.16 Oz./min  
Calibration factor =  $54 / 55.16 = 0.9790$

**The calibration factor is 0.9790**

8. In order to find the flow meter reading that is needed for accurate application of the liquid, you must now multiply the calibration factor by the desired application rate.

**EXAMPLE:** Calibration factor = 0.9790  
Desired flow rate = 54 Oz./min  
Flow meter reading for accurate application =  $0.9790 \times 54 = 52.87$

**52.87 Oz./min is the rate that the flow meter should read to ensure proper flow is being achieved.**

9. Now you can set the pump dial so that the flow meter will read the rate that is needed to ensure the accurate flow of liquid is being applied to the seed.



**TROUBLESHOOTING****SECTION  
E**

Below is a table describing the most frequent problems and solutions with the Manual Pump Stand. For further assistance, contact the USC Service department at (785) 431-7900.

| Problem  | Possible Cause   | Solution  |
|--|--|---|
| Pump is fluctuating.                               | <ol style="list-style-type: none"> <li>1. Restriction in tubing</li> <li>2. Filter is plugged or missing gasket.</li> <li>3. Hoses are worn out.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Flush tubing and check filter for any restrictions.</li> <li>2. Clean filter and check for gasket.</li> <li>3. Replace hoses.</li> </ol>  |
| Pump will not turn off in AUTO when seed runs out. | <ol style="list-style-type: none"> <li>1. Proximity switch is dirty.</li> <li>2. Proximity switch is set too sensitive.</li> </ol>   | <ol style="list-style-type: none"> <li>1. Clean proximity switch.</li> <li>2. Adjust the pump proximity switch sensitivity by turning adjustment screw counter-clockwise.</li> </ol>  |
| Pump will not turn on in AUTO.                     | <ol style="list-style-type: none"> <li>1. Proximity switch is not staying covered.</li> <li>2. Proximity switch is not sensitive enough.</li> <li>3. HMI screen not set to AUTO.</li> <li>4. Auxiliary cable not connected.</li> </ol> | <ol style="list-style-type: none"> <li>1. Make sure proximity switch is staying covered with seed.</li> <li>2. Adjust pump proximity switch sensitivity by turning the adjustment screw clockwise.</li> <li>3. Set HMI screen to AUTO.</li> <li>4. Attach Auxiliary cable from control panel to treater control panel.</li> </ol> |
| Mix Motor will not start                           | <ol style="list-style-type: none"> <li>1. Power cord not plugged in.</li> </ol>  | <ol style="list-style-type: none"> <li>1. Plug in power cord.</li> </ol>  |

SECTION  
F**MAINTENANCE**

Proper maintenance of the pump stand is critical for peak performance, reliability and accuracy of this system. The following is a guideline for the type of maintenance and servicing that should be performed on this unit. Your environment and uses may require additional maintenance and service beyond this list to assure a reliable and safe unit. The operator of this unit has ultimate responsibility to identify areas of concern and rectify them before they become a hazard or safety issue. There is no substitute for a trained, alert operator.



Do not put this unit into operation with any questionably maintained parts. Poor performance or a hazard may occur.



Ne pas mettre cet appareil en service avec des pièces douteuse entretenus. La mauvaise performance ou un danger peut survenir.



Do not use compressed air or water under pressure to clean any of the components of the USC equipment.



Ne pas utiliser d'air comprimé ou de l'eau sous pression pour nettoyer l'un des composants de l'équipement USC.

**MIX TANK**

- Check motor.
- Check motor for any play in the mix tank shaft.
- Check valves, fittings, and plug on bottom of tank for leaks.
- Check chemical line tubing for abnormal wear.
- Wipe down the motor casing with a damp cloth making sure to remove all dust that may have collected since the last maintenance date. Record the cleaning on the company required documents. If operating in a CSA 22.1, Class II, Division 2, Group G hazardous area, USC recommends this step be performed on a daily basis.
- Essuyez le carter moteur avec un chiffon humide en veillant à éliminer toutes les poussières qui peuvent avoir perçu depuis la dernière date de maintenance. Enregistrez le nettoyage sur la société les documents requis. Si opérant dans un CSA 22.1, Classe II, Division 2, Groupe G zone dangereuse, USC recommande cette étape être effectuée sur une base quotidienne.

**PUMP STANDS WITH STANDARD MIX TANKS**  
**PUMPS - PLUMBING - FLOW METER**

1. Check pump in forward and reverse.
2. Make sure pump heads open and close smoothly.
3. Inspect tubing for uneven wear. Replace pump tubing often to ensure high flow rates can be achieved.
4. Make certain the inside of the mix tank is completely drained of chemical. Use clean water to rinse out all chemical residue, then fill the tank with clean water.
5. Disconnect the discharge process lines from the treater static mixer assembly and direct them to a receptacle large enough to hold all of the water from the mix tank.
6. Pump clean water through all areas of the plumbing including the calibration tube and flow meter if applicable. Opening and closing the valves during this process helps to remove residue from the ball valves.
7. Remove and clean the filter.
8. Open all drain points, valves, and filter to let as much of the water drain as possible.
9. Disconnect power to the flow meter.
10. If your pump stand is equipped with a volumetric flow meter, remove it from the machine for additional cleaning.
  - A. Pre - Mix a solution of 90% water and 10% distilled white vinegar.

**NOTICE**

**Only use the vinegar and water solution mixed in these proportions to clean the flow meter. Use of any other cleaners, especially cleaners containing harsh chemicals may permanently damage the sensors and seals inside the flow meter.**

**AVIS**

**Utilisez uniquement la solution de vinaigre et d'eau mélangés dans ces proportions pour nettoyer le débitmètre. L'utilisation d'autres produits de nettoyage, en particulier les produits nettoyants contenant des produits chimiques agressifs peuvent endommager de façon permanente les capteurs et les phoques à l'intérieur du débitmètre.**

**PUMP STANDS WITH STANDARD MIX TANKS**  
**PUMPS - PLUMBING - FLOW METER**

- B. Use a size - matched circular brush with soft plastic bristles. Dip the brush in the solution and gently move it up and down in the measuring pipe to avoid damaging the measuring pipe and sensor electrodes.
- C. Re-repeat brushing with fresh fluid until measuring pipe is visually clean.
- D. Flush the flow meter inside and out with clean water to remove any of the cleaning solution residue.



- Wipe down the motor casing with a damp cloth making sure to remove all dust that may have collected since the last maintenance date. Record the cleaning on the company required documents. If operating in a CSA 22.1, Class II, Division 2, Group G hazardous area, USC recommends this step be performed on a daily basis.
- Essuyez le carter moteur avec un chiffon humide en veillant à éliminer toutes les poussières qui peuvent avoir perçu depuis la dernière date de maintenance. Enregistrez le nettoyage sur la société les documents requis. Si opérant dans un CSA 22.1, Classe II, Division 2, Groupe G zone dangereuse, USC recommande cette étape être effectuée sur une base quotidienne.

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**ELECTRICAL PANEL**

1. Check and tighten wire connections.
2. Check quick connects on bottom of control panel.
3. Check to see if starters and/or overloads are tripped.
4. Check to see if relays, timers and/or breakers are tripped.
5. Check quick connects on end of Auxiliary cord.
6. Check and tighten wire connections.
7. Check relay and fuse holder.
8. Check power cords for cuts or frays and ensure ground is present.

## PUMP STANDS

### **PUMP STANDS WITH CHEMICAL TOTES** **PUMPS - PLUMBING - LIW SCALES**

1. Run the pumps in reverse until all chemical has been drained from the process lines and the calibration tube back into the tote.
  2. Make sure pump heads open and close smoothly.
  3. Inspect tubing for uneven wear. Replace pump tubing often to ensure high flow rates can be achieved.
  4. Fill two five gallon buckets with clean water. Disconnect the return line from Micro Matic valve and place it in one of the buckets. Place the Micro Matic valve in the other bucket of water.
  5. Disconnect the discharge process lines from the treater static mixer assembly and direct them to a receptacle large enough to hold all of the water from the buckets.
  6. Pump clean water through all areas of the plumbing including the calibration tube. Opening and closing the valves during this process helps to remove residue from the ball valves.
  7. Remove and clean the filter.
  8. Open all drain points, valves, and filter to let as much of the water drain as possible.
- 
- Wipe down the motor casing with a damp cloth making sure to remove all dust that may have collected since the last maintenance date. Record the cleaning on the company required documents. If operating in a CSA 22.1, Class II, Division 2, Group G hazardous area, USC recommends this step be performed on a daily basis.
  - Essuyez le carter moteur avec un chiffon humide en veillant à éliminer toutes les poussières qui peuvent avoir perçu depuis la dernière date de maintenance. Enregistrez le nettoyage sur la société les documents requis. Si opérant dans un CSA 22.1, Classe II, Division 2, Groupe G zone dangereuse, USC recommande cette étape être effectuée sur une base quotidienne.

SECTION  
G**STORAGE**

Proper Storage of the the pump stand for long periods of time is critical to reduce the chance of rust, corrosion and fatigue of the equipment. This is especially true when storing the pump stand in below freezing temperatures.

The following is a guideline for the type of cleaning and maintenance that should be performed on this unit prior to storage. Your environment and uses may require additional cleaning and preparation to assure that when the equipment is returned to production, it performs in a safe, accurate and reliable manor.



A dust mask and protective rubber gloves shall be used when cleaning the machine.

**LIQUID SYSTEMS WITH STANDARD MIX TANKS**  
**PUMPS - PLUMBING - FLOW METERS**

1. Perform steps 1 through 7 on page 35 in the maintenance section to clean the chemical residue from each individual pumps stand in the system.

**NOTICE**

If the pump stand(s) will be exposed to possible freezing temperatures, the final flush of the system should be made with a non freezable liquid like recreational vehicle antifreeze.

**AVIS**

Si le stand (s) de la pompe sera exposé à des températures de congélation possibles, le rinçage final du système doit être faite avec un liquide non congelable comme antigél récréatif du véhicule.

2. Open all drain points, valves, and filter to let as much of the water drain as possible.
3. Release pump heads and remove tubing to prevent any unnecessary wear (see page 22).
4. If the pump stand is equipped with a volumetric flow meter, disconnect power and perform steps 10A through 10D in the maintenance section. If equipped with a mass flow meter, remove the flow meter from the pump stand and rinse with clean water.
5. Stand the flow meter upright allowing enough time for measuring pipe to air dry. After it is dry, cover both openings.

## PUMP STANDS

6. Store flow meters in a location with the following conditions:
    - Ambient temperature of 50 to 80 degrees Fahrenheit.
    - Protection from direct sunlight to avoid unacceptable high surface temperatures.
    - Where moisture does not collect in or on the flow meter. This will help prevent fungus or bacteria infestation which can damage the liner.
    - Store in a manner so that the inlet and outlet are as much in an up and down position as possible.
- 

### **PUMP STANDS WITH CHEMICAL TOTES** **PUMPS - PLUMBING - LIW SCALES**

1. Perform steps 1 through 7 on page 37 in the maintenance section to clean the chemical residue from each individual pumps stand in the system.

#### **NOTICE**

If the pump stand(s) will be exposed to possible freezing temperatures, the final flush of the system should be made with a non freezable liquid like recreational vehicle antifreeze.

#### **AVIS**

Si le stand (s) de la pompe sera exposé à des températures de congélation possibles, le rinçage final du système doit être faite avec un liquide non congelable comme antigel récréatif du véhicule.

2. Open all drain points, valves, and filter to let as much of the water drain as possible.
3. Release pump heads and remove tubing to prevent any unnecessary wear (see page 22).

PUMP STANDS

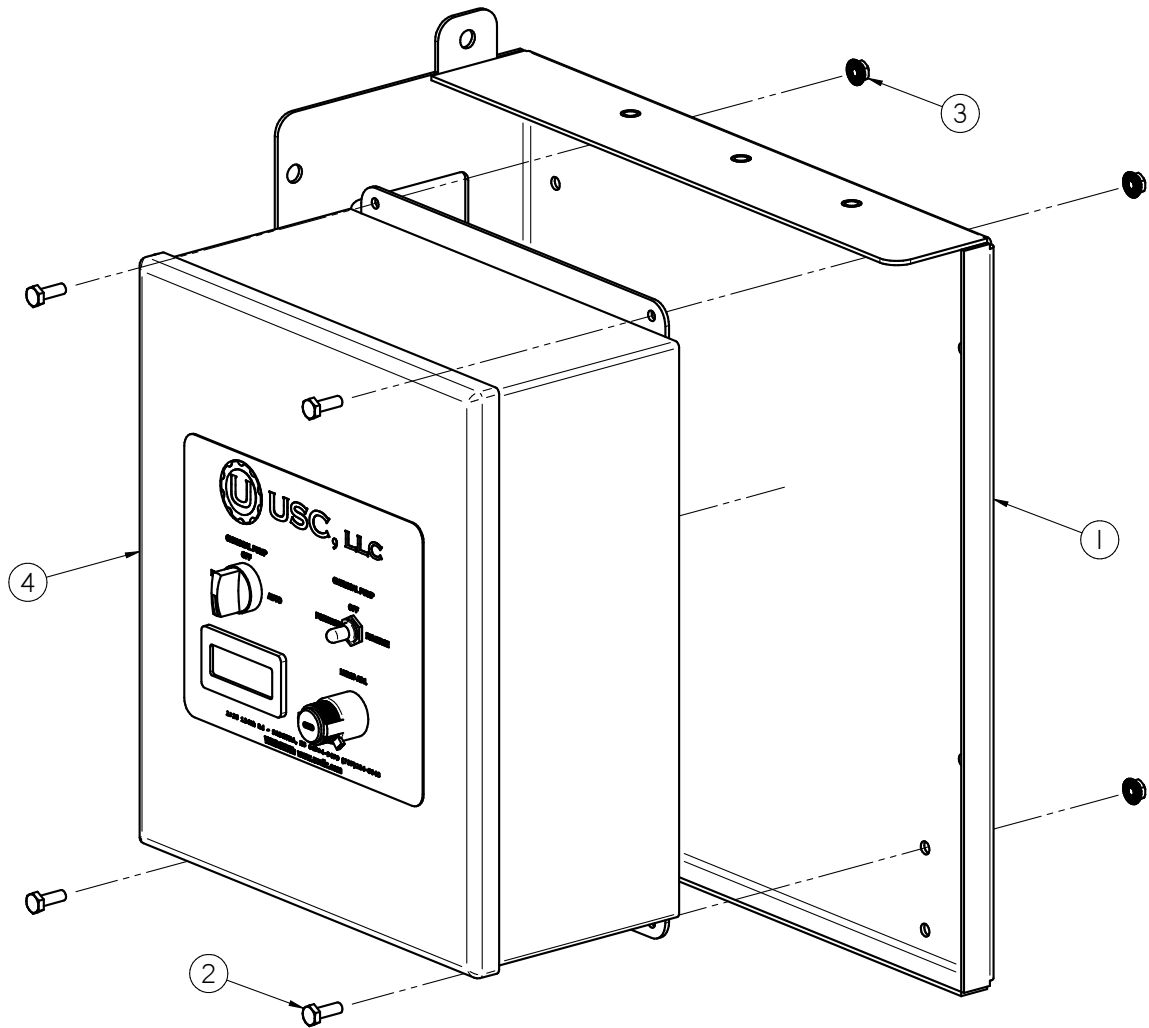
**NOTES:**



**MECHANICAL TABLE OF CONTENTS**

| <b><u>Contents</u></b>                   | <b><u>Page #</u></b> |
|--|----------------------|
| <b>Control Panels .....</b>              | <b>42</b>            |
| <b>Supply Tanks .....</b>                | <b>50</b>            |
| <b>Flow Meters .....</b>                 | <b>82</b>            |
| <b>Fluid Pumps .....</b>                 | <b>90</b>            |
| <b>Mounting Frames .....</b>             | <b>100</b>           |
| <b>Calibration Tubes .....</b>           | <b>102</b>           |
| <b>Tank &amp; Tote Scales .....</b>      | <b>106</b>           |
| <b>Tank &amp; Tote Connections .....</b> | <b>110</b>           |
| <b>Process Valves .....</b>              | <b>120</b>           |

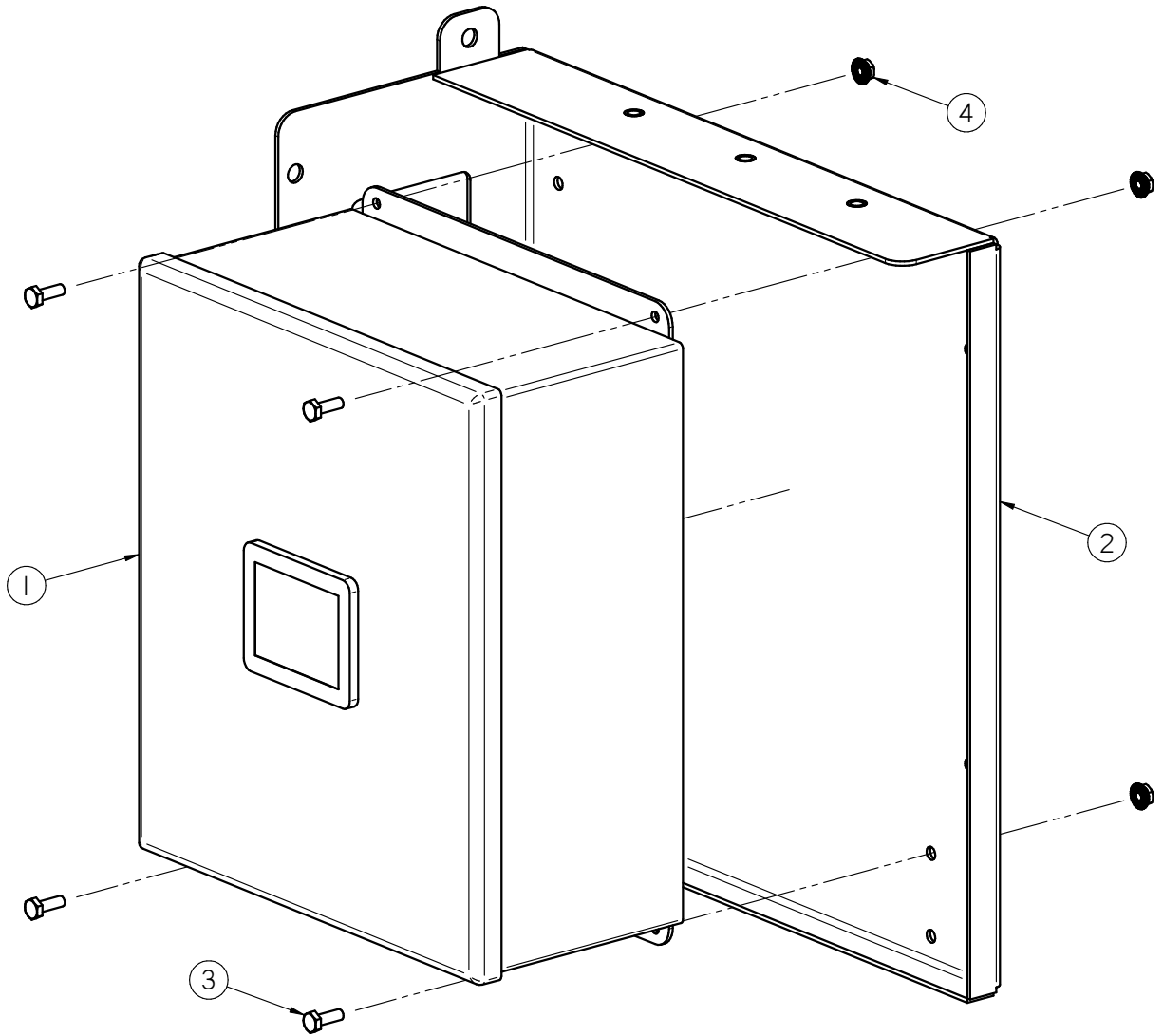
PUMP STANDS  
**MANUAL CONTROLS**



| Item # | Part #      | Description                       | Qty |
|--------|-------------|-----------------------------------|-----|
| 1      | 05-03-1064  | WDMT PANEL MNT PUMPSTD            | B   |
| 2      | 06-01-0006  | BOLT .250-20 X .750 ZP GR5        | A   |
| 3      | 06-03-0013  | NUT,LOCK, FLG .250-20 ZP SERRATED | A   |
| 4      | SEE TABLE 1 | MAN PS CNTL PNL                   | A   |

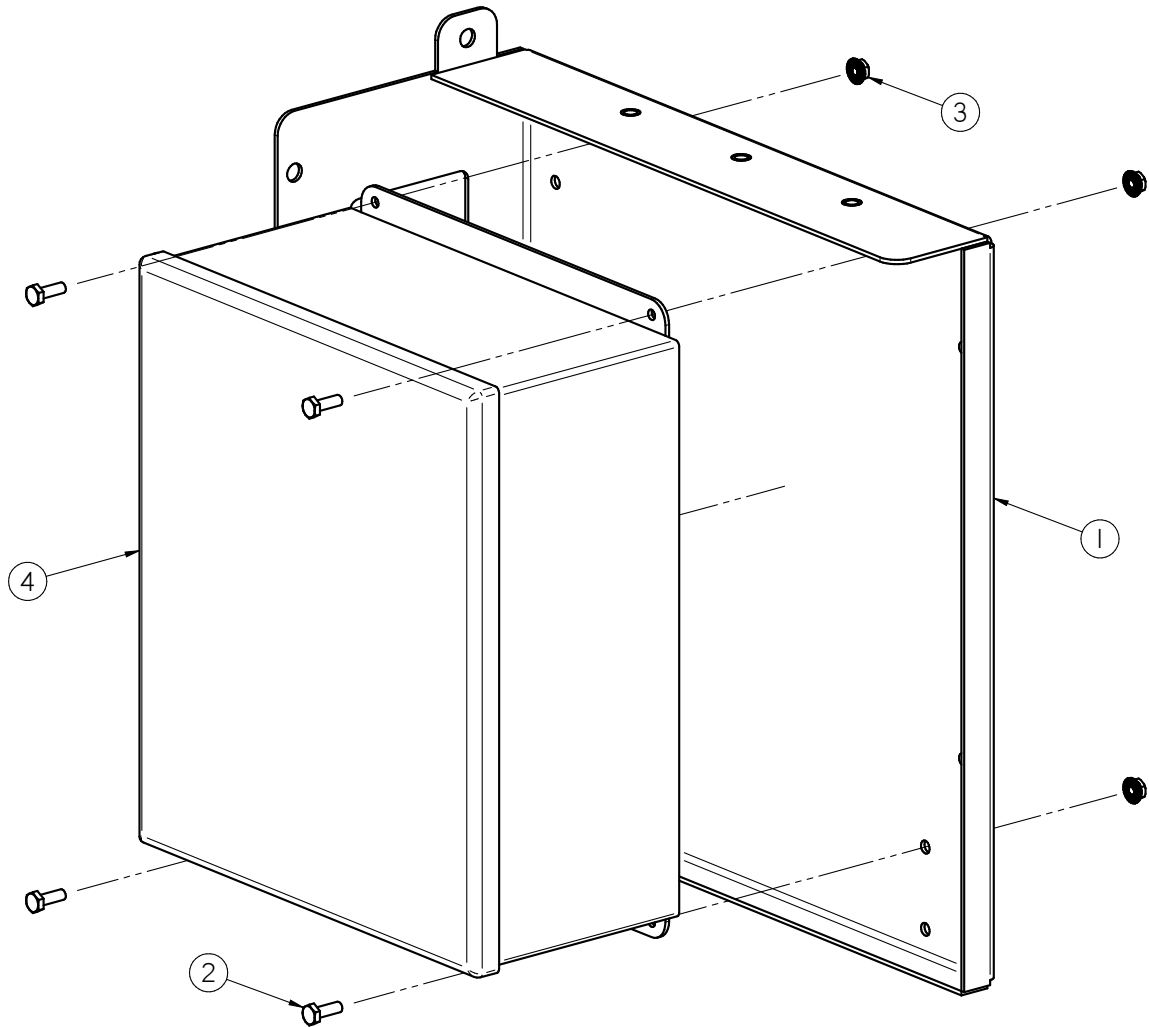
| TABLE 1    |                                  |
|------------|----------------------------------|
| Part #     | Description                      |
| 03-12-0488 | MAN PS CNTRL PNL WITH FLOW METER |
| 03-12-0489 | MAN PS CNTRL PNL NO FLOW METER   |

PUMP STANDS  
**SEMI - AUTOMATED 1 PUMP CONTROLS**



| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 03-12-0363 | SEMI-AUTO 1 PUMP CONTROL PANEL    | 1   |
| 2      | 05-03-1064 | WDMT PANEL MNT PUMPSTD            | 1   |
| 3      | 06-01-0006 | BOLT .250-20 X .750 ZP GR5        | 4   |
| 4      | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATED | 4   |

PUMP STANDS  
**AUTOMATED 1 PUMP CONTROLS**

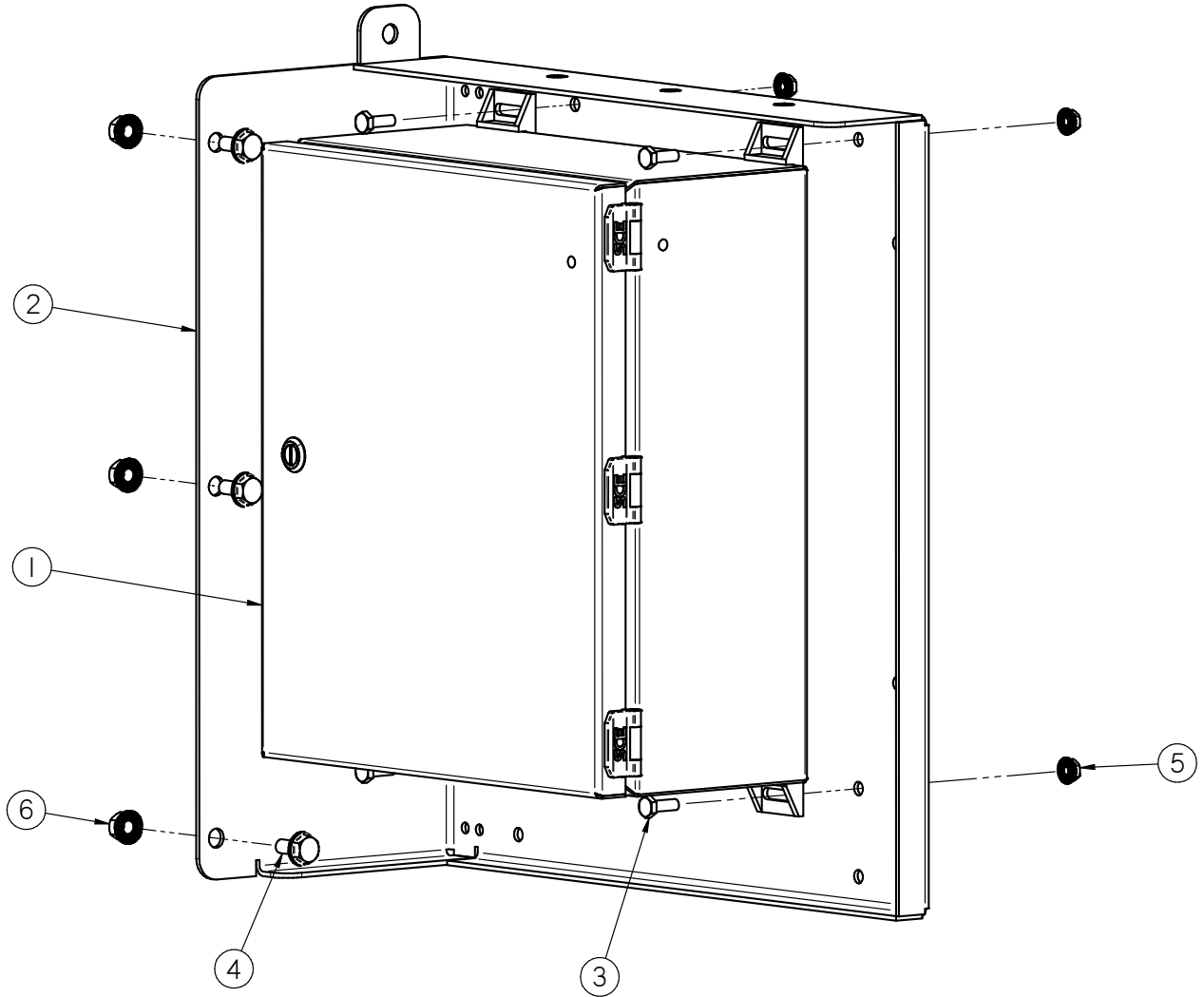


| Item # | Part #      | Description                       | Qty |
|--------|-------------|-----------------------------------|-----|
| 1      | 05-03-1064  | WDMT PANEL MNT PUMPSTD            | 1   |
| 2      | 06-01-0006  | BOLT .250-20 X .750 ZP GR5        | 4   |
| 3      | 06-03-0013  | NUT,LOCK, FLG .250-20 ZP SERRATED | 4   |
| 4      | SEE TABLE 1 | AUTO 1 PUMP CONTROL PANEL         | 1   |

| TABLE 1    |                               |
|------------|-------------------------------|
| Part #     | Description                   |
| 03-12-0365 | AUTO 1 PUMP CNTRL PNL - REV B |
| 03-12-0487 | AUTO 1 PUMP CNTRL PNL - REV A |

PUMP STANDS

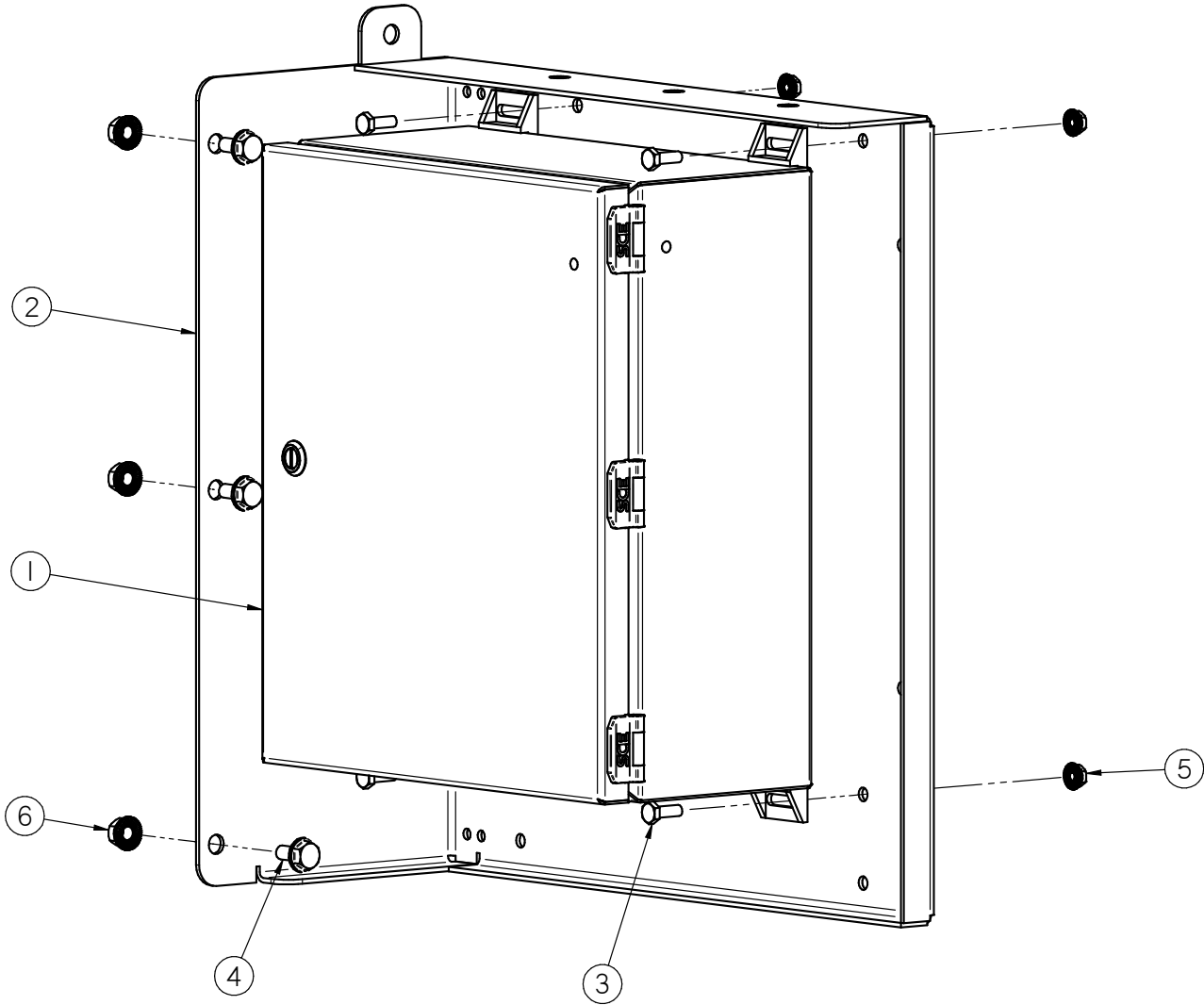
**V4 FLOWMETER 1 PUMP CONTROL PANEL (13-12-0160)**



| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 03-12-0532 | CONTROL PANEL 1 PUMP FM V4        | 1   |
| 2      | 05-03-1064 | WDMT PANEL MNT PUMPSTD            | 1   |
| 3      | 06-01-0006 | BOLT .250-20 X .750 ZP GR5        | 4   |
| 4      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5    | 3   |
| 5      | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATED | 4   |
| 6      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5       | 3   |

PUMP STANDS

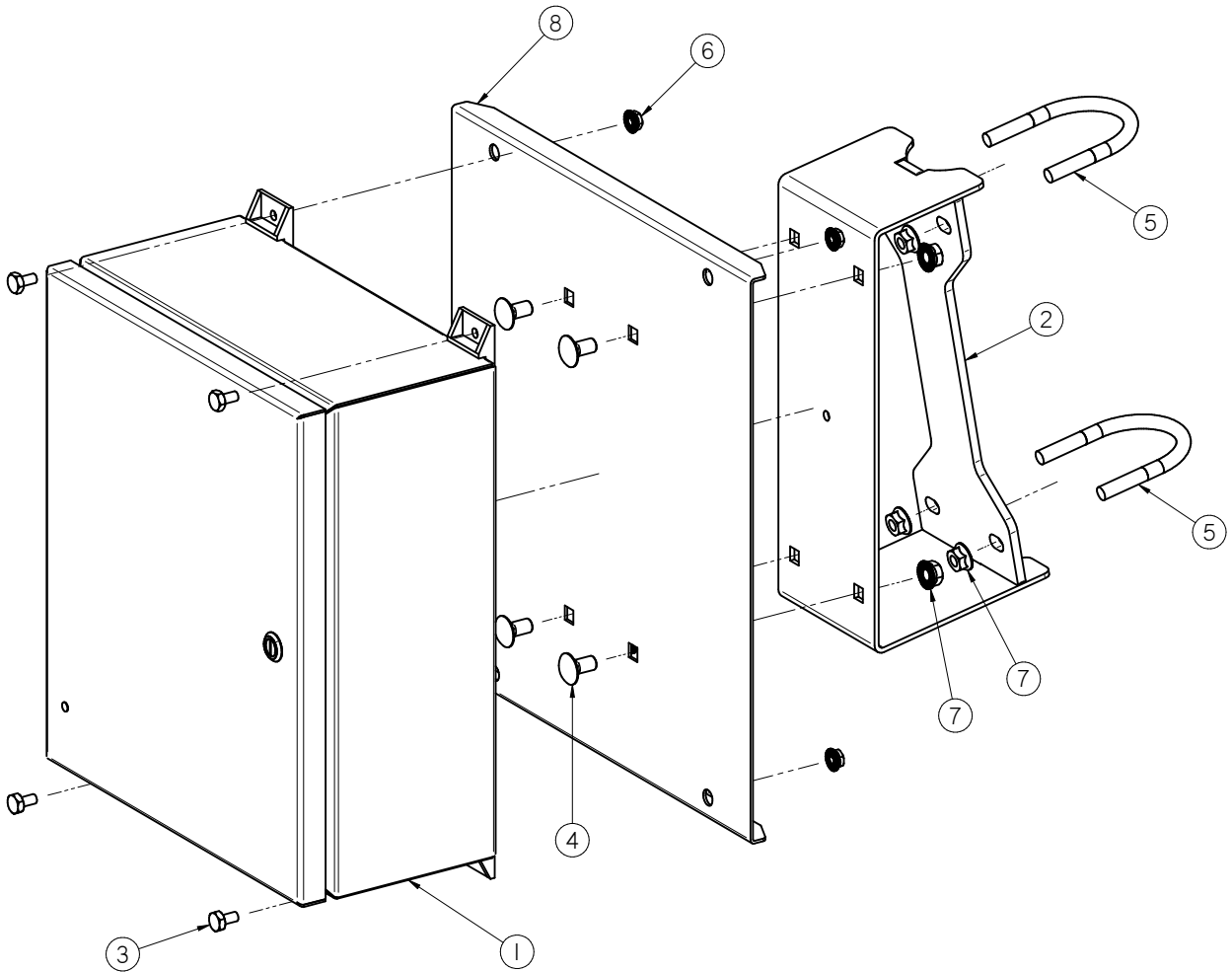
**V4 LOSS-IN-WEIGHT 1 PUMP CONTROL PANEL (13-12-0161)**



| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 03-12-0533 | CONTROL PANEL 1 PUMP LIW V4        | 1   |
| 2      | 05-03-1064 | WDMT PANEL MNT PUMPSTD             | 1   |
| 3      | 06-01-0006 | BOLT .250-20 X .750 ZP GR5         | 4   |
| 4      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5     | 3   |
| 5      | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATTED | 4   |
| 6      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5        | 3   |

PUMP STANDS

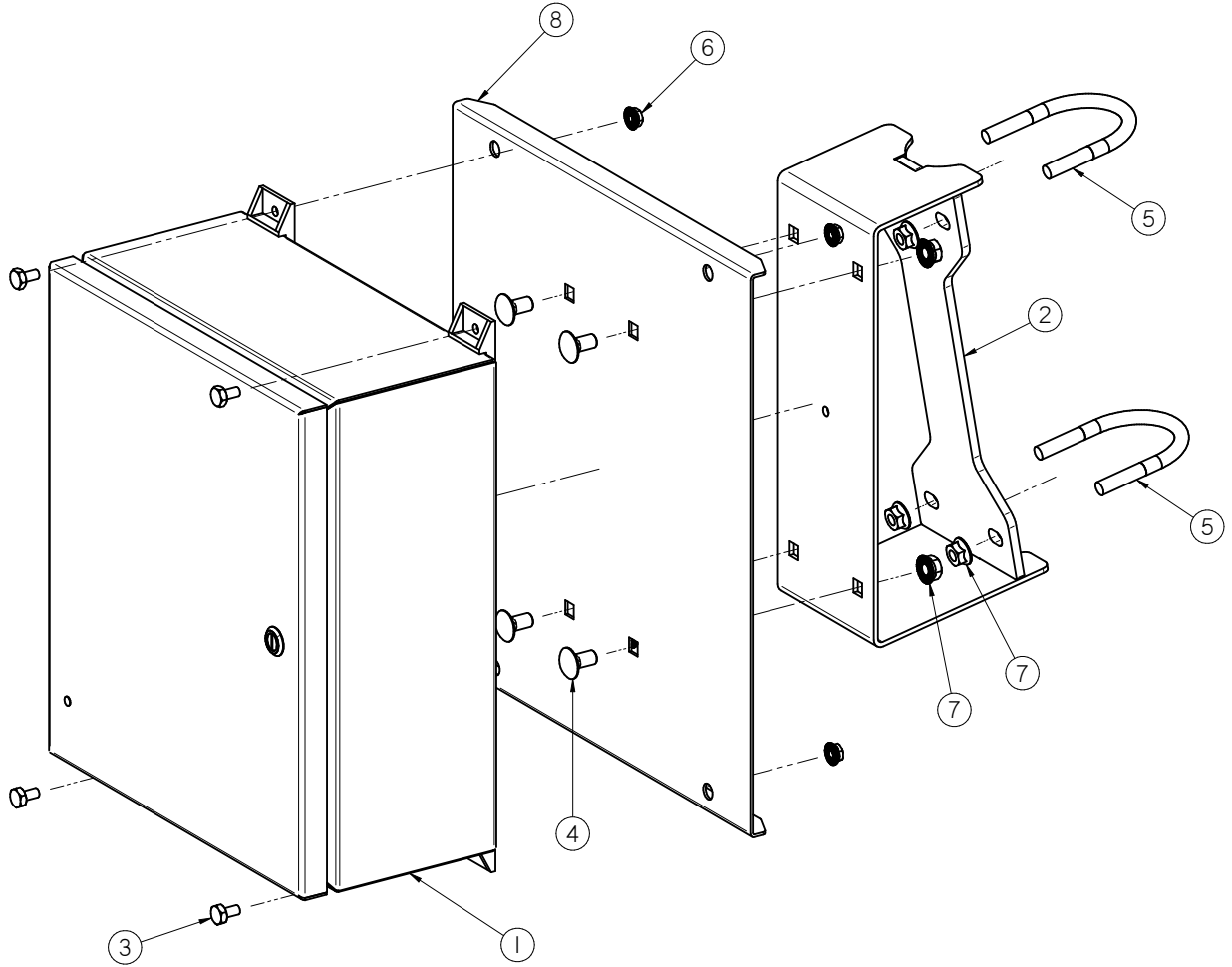
**LOSS-IN-WEIGHT 4 PUMP ADD ON CONTROL PANEL (13-12-0138)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 03-12-0459 | PNL CNTL LIW ADD-ON UA4PC 4 PUMP    | 1   |
| 2      | 05-03-1479 | WDMT PNL ADJ                        | 1   |
| 3      | 06-01-0082 | BOLT, .250-20 X .50 UNC 18-8 SS     | 4   |
| 4      | 06-01-0153 | BOLT CRG .375-16X.750 ZP SHORT NECK | 4   |
| 5      | 06-01-0287 | BOLT U .375-16 X 2.50 X 3.125 ZP    | 2   |
| 6      | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATTED  | 4   |
| 7      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 8   |
| 8      | 10423E     | PLT 4PUMP ADD ON PNL MNT            | 1   |

PUMP STANDS

**LOSS-IN-WEIGHT 2 PUMP ADD ON CONTROL PANEL (13-12-0140)**

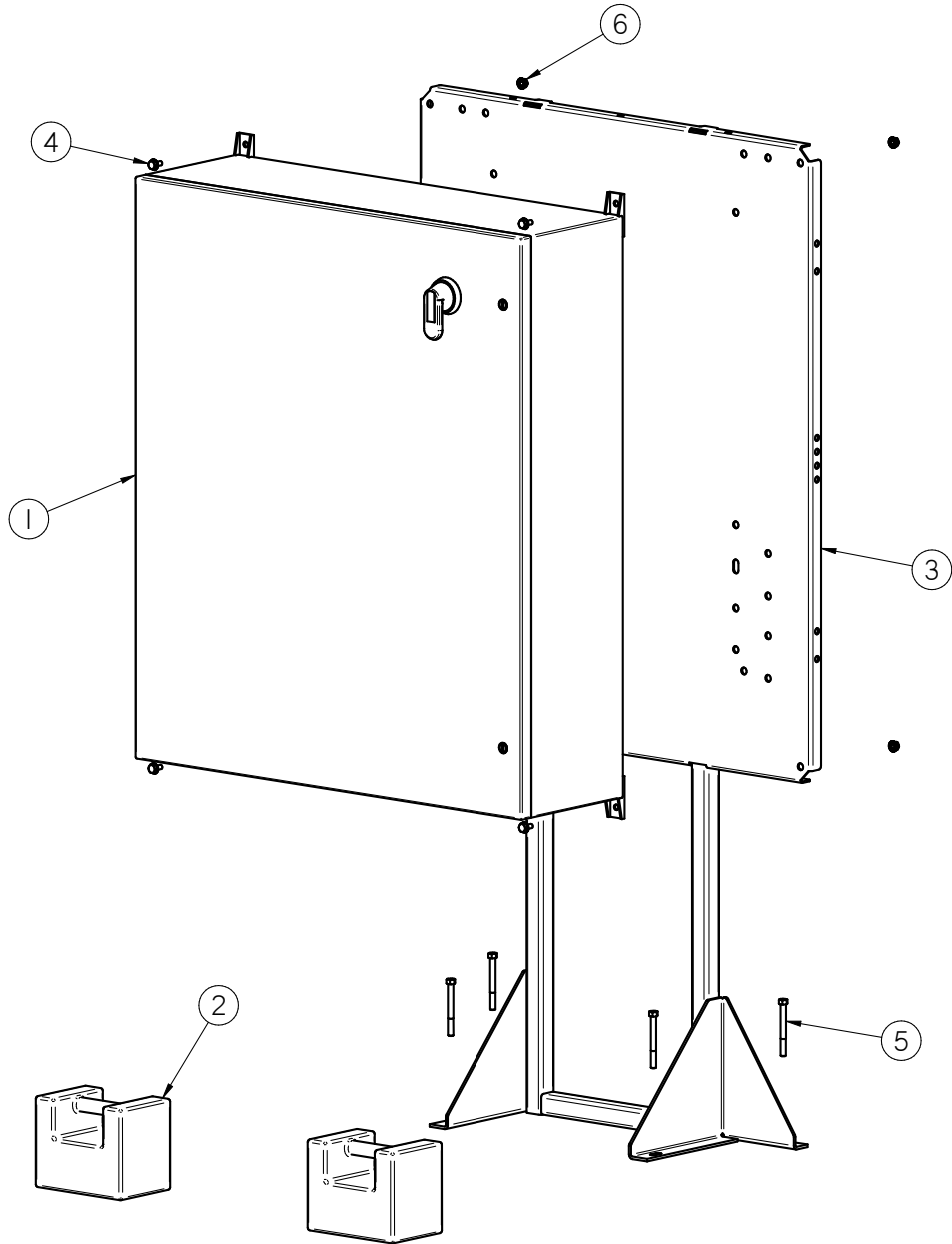


| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 03-12-0461 | PNL CNTL LIW ADD-ON UA4PC 2 PUMP    | 1   |
| 2      | 05-03-1479 | WDMT PNL ADJ                        | 1   |
| 3      | 06-01-0082 | BOLT, .250-20 X .50 UNC 18-8 SS     | 4   |
| 4      | 06-01-0153 | BOLT CRG .375-16X.750 ZP SHORT NECK | 4   |
| 5      | 06-01-0287 | BOLT U .375-16 X 2.50 X 3.125 ZP    | 2   |
| 6      | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATED   | 4   |
| 7      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 8   |
| 8      | 10423E     | PLT 4PUMP ADD ON PNL MNT            | 1   |



PUMP STANDS

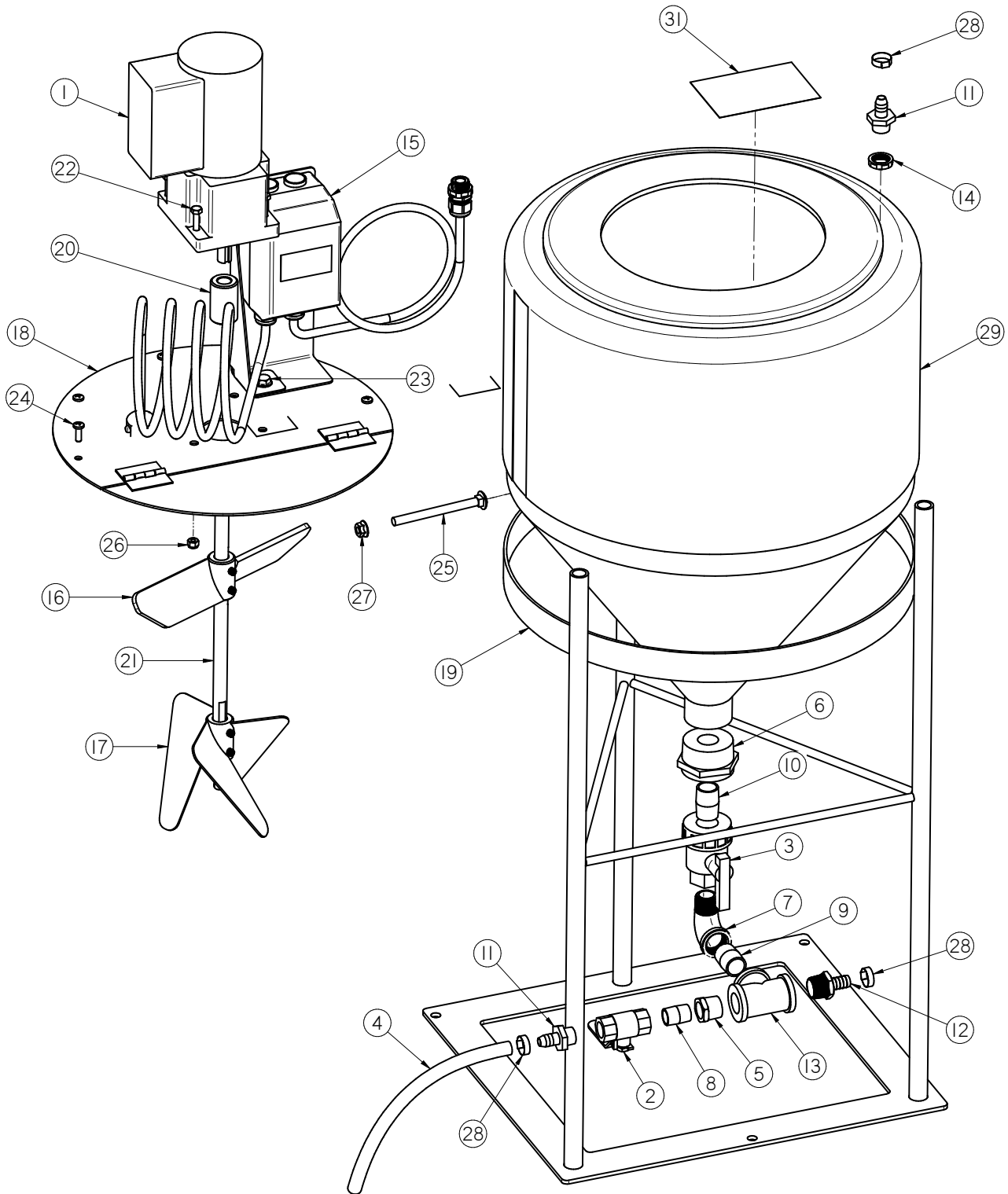
**LOSS-IN-WEIGHT 12 PUMP CONTROLLER PACKAGE (13-12-0152)**



| Item # | Part #     | Description                      | Qty |
|--------|------------|----------------------------------|-----|
| 1      | 03-12-0531 | CNTL PNL 12 LIW PUMPS            | 1   |
| 2      | 03-19-0084 | 50lb TEST WEIGHT                 | 2   |
| 3      | 05-03-1342 | WDMT MAIN CNTL PNL FR 36X42 ENCL | 1   |
| 4      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5   | 4   |
| 5      | 06-01-0220 | BOLT 3/8-16 CONC ANCHOR ZP 3.75  | 4   |
| 6      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5      | 4   |

PUMP STANDS

**15 GALLON POLY TANK WITH AGITATION ASSEMBLY (04-03-0245)**



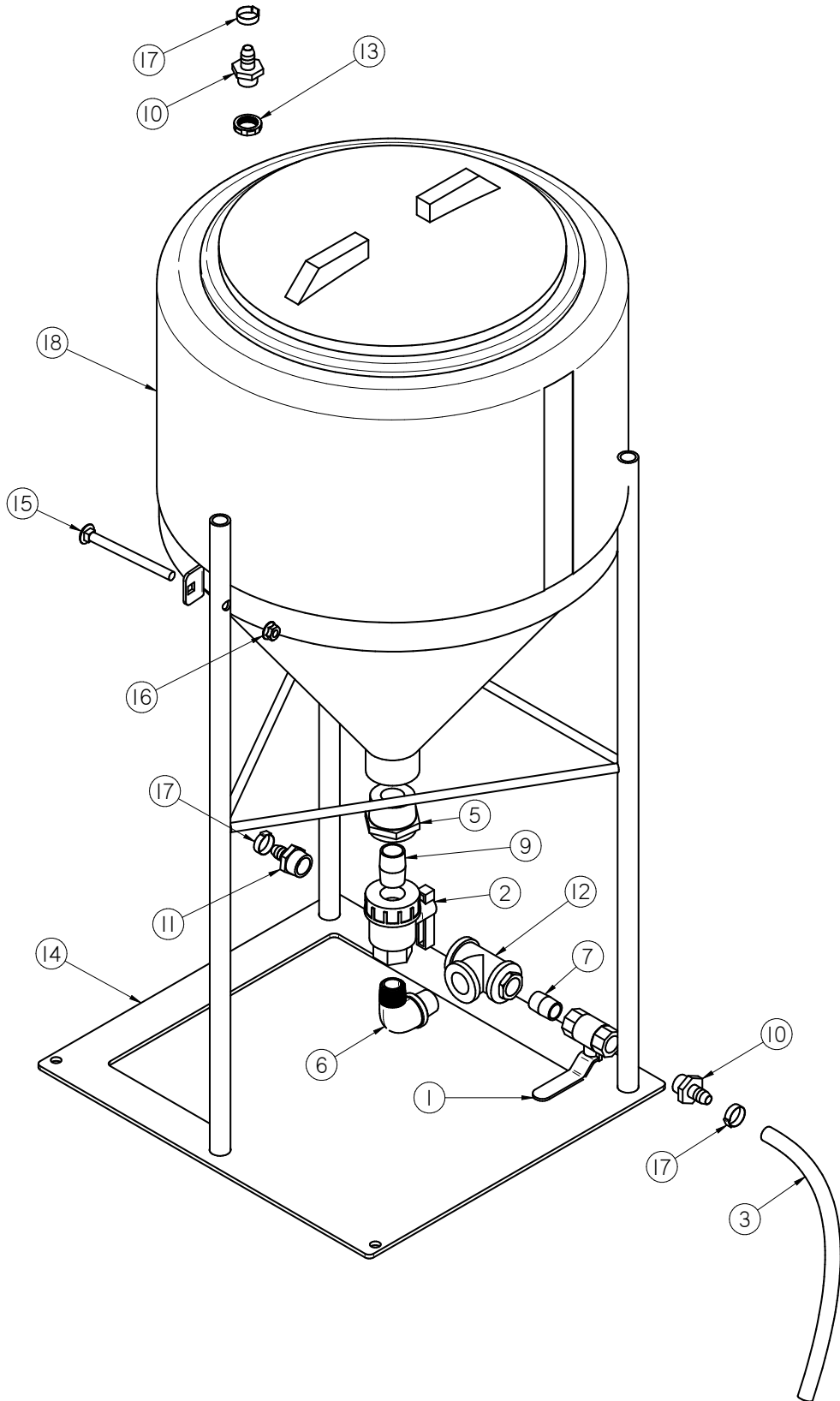
PUMP STANDS

**15 GALLON POLY TANK WITH AGITATION ASSEMBLY (04-03-0245)**

| Item # | Part #     | Description                            | Qty |
|--------|------------|--|-----|
| 1      | 01-01-0182 | MOTOR .16HP 9075 RPM 1PH               | 1   |
| 2      | 02-02-0006 | .500-14 NPT X 2-WAY VALVE              | 1   |
| 3      | 02-02-0056 | VLV BALL .750 NPT FM PLAS              | 1   |
| 4      | 02-03-0005 | DRAIN HOSE PUMP STAND .50              | 1   |
| 5      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS         | 1   |
| 6      | 02-04-0034 | FTTG BUSH 2.00NPT X .750NPT PPE        | 1   |
| 7      | 02-06-0068 | FTTG 90 DEG STRT .75NPT PPE BLK        | 1   |
| 8      | 02-07-0008 | FTTG NIP .500 NPT X 1.125 TBE BLK      | 1   |
| 9      | 02-07-0025 | FTTG NIP .750 NPT X 1.375 TBE SS       | 1   |
| 10     | 02-07-0070 | FTTG NIP .750 NPT X 1.50 TBE SS        | 1   |
| 11     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL     | 2   |
| 12     | 02-08-0021 | FTTG STGHT .500 HB X .750NPT WP        | 1   |
| 13     | 02-09-0008 | FTTG TEE .750 NPT FM SS                | 1   |
| 14     | 03-08-0308 | NUT NYLOC .500 NPT 8464                | 1   |
| 15     | 03-13-0030 | KIT SW MNL MP .07 HP MIX MTR 1-1.6A    | 1   |
| 16     | 05-03-1135 | WDMT STIR ARM 30GAL POLY               | 1   |
| 17     | 05-03-1136 | WDMT LOWER STIR ARM 30GAL POLY         | 1   |
| 18     | 05-03-1607 | WDMT POLY TNK LID                      | 1   |
| 19     | 05-03-1614 | WDMT 15 GAL TANK STAND                 | 1   |
| 20     | 05-11-0416 | CPLG SS .625 SS NO KWY                 | 1   |
| 21     | 05-11-0420 | ROD 15GAL DRV                          | 1   |
| 22     | 06-01-0008 | BOLT, .250-20 X 1 1/4" UNC ZP GRADE 5  | 4   |
| 23     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5         | 1   |
| 24     | 06-01-0215 | SCRW MACH #14 X .750 SS PLASTITE       | 5   |
| 25     | 06-01-0262 | BOLT CRG .375-16 X 4.50 FTH ZP GR5     | 1   |
| 26     | 06-03-0001 | NUT,LOCK, .250-20 ZP G5 NYLON INSERT   | 4   |
| 27     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5            | 2   |
| 28     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827          | 3   |
| 29     | 07-02-0038 | TANK, 15GAL FULL DRAIN 1.5 FNPT OUTLET | 1   |
| 30     | 09-01-0139 | ATWK LBL USC 11.50 X 3.00 PRO-CUT      | 1   |
| 31     | 09-02-0001 | ATWK LBL DANGER FINGERS                | 1   |

PUMP STANDS

**15 GALLON POLY TANK WITHOUT AGITATION ASSEMBLY (04-03-0246)**



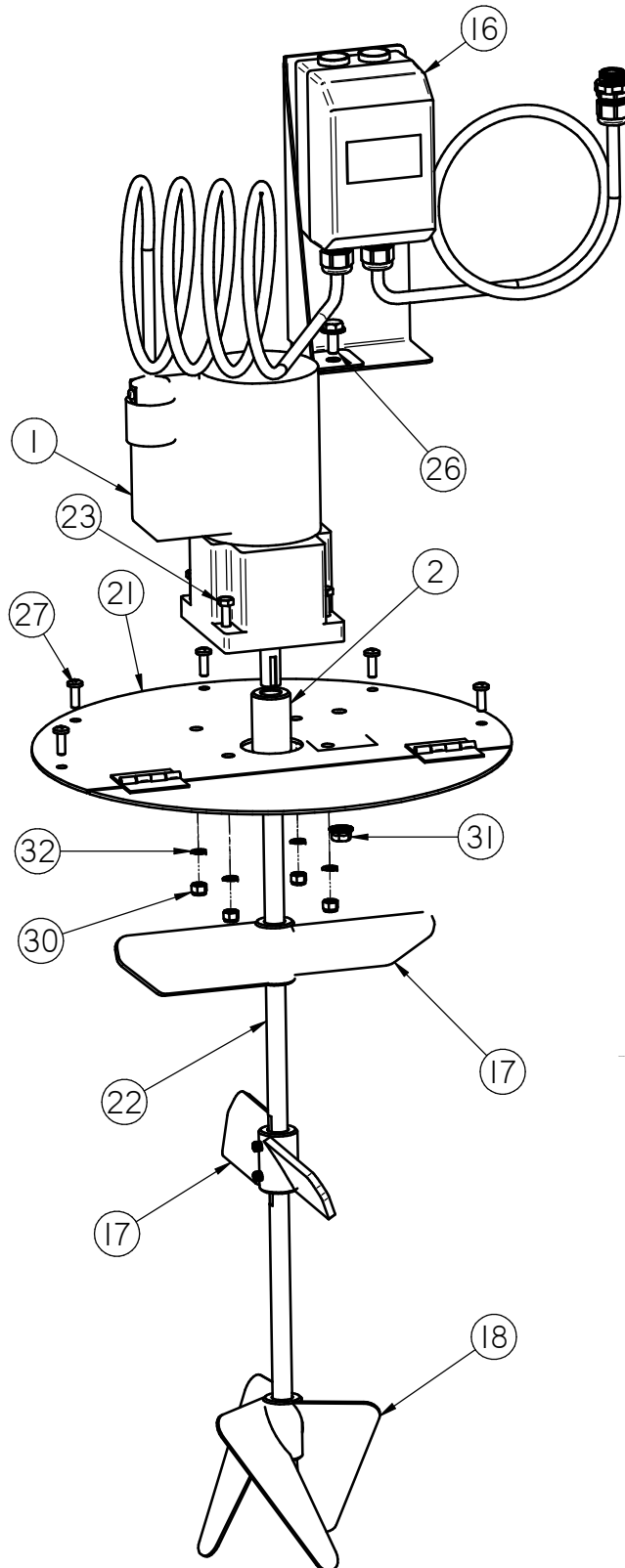
PUMP STANDS

**15 GALLON POLY TANK WITHOUT AGITATION ASSEMBLY (04-03-0246)**

| Item # | Part #     | Description                            | Qty |
|--------|------------|--|-----|
| 1      | 02-02-0006 | .500-14 NPT X 2-WAY VALVE              | 1   |
| 2      | 02-02-0056 | VLV BALL .750 NPT FM PLAS              | 1   |
| 3      | 02-03-0005 | DRAIN HOSE PUMP STAND .50              | 1   |
| 4      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS         | 1   |
| 5      | 02-04-0034 | FTTG BUSH 1.50NPT X .750NPT PPE        | 1   |
| 6      | 02-06-0068 | FTTG 90 DEG STRT .75NPT PPE BLK        | 1   |
| 7      | 02-07-0008 | FTTG NIP .500 NPT X 1.125 TBE BLK      | 1   |
| 8      | 02-07-0025 | FTTG NIP .750 NPT X 1.375 TBE SS       | 1   |
| 9      | 02-07-0070 | FTTG NIP .750 NPT X 1.50 TBE SS        | 1   |
| 10     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL     | 2   |
| 11     | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL      | 1   |
| 12     | 02-09-0008 | FTTG TEE .750 NPT FM SS                | 1   |
| 13     | 03-08-0308 | NUT NYLOC .500 NPT 8464                | 1   |
| 14     | 05-03-1614 | WDMT 15 GAL TANK STAND                 | 1   |
| 15     | 06-01-0262 | BOLT CRG .375-16 X 4.50 FTH ZP GR5     | 1   |
| 16     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5            | 1   |
| 17     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827          | 3   |
| 18     | 07-02-0038 | TANK, 15GAL FULL DRAIN 1.5 FNPT OUTLET | 1   |
| 19     | 09-01-0139 | ATWK LBL USC 11.50 X 3.00 PRO-CUT      | 1   |

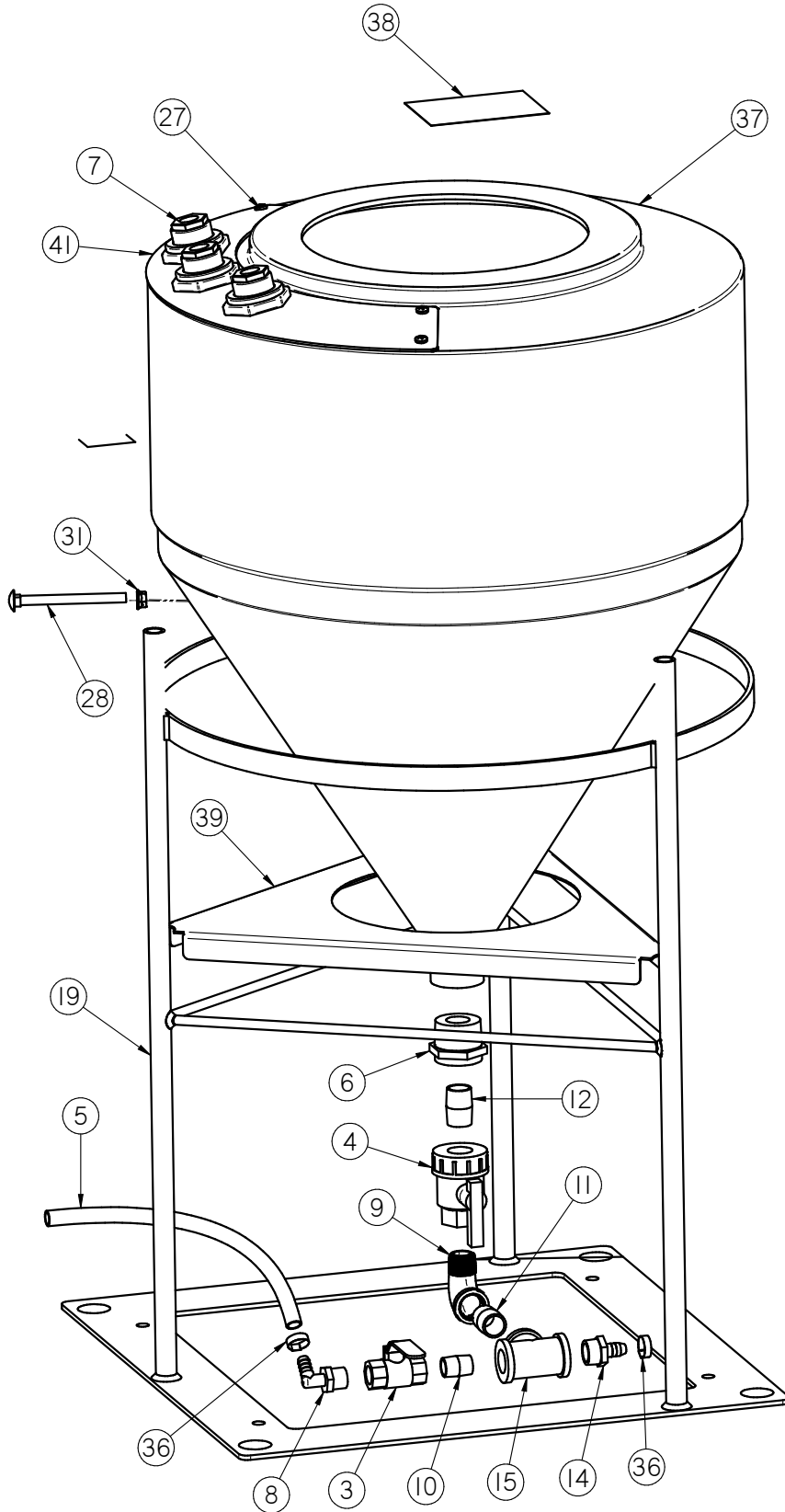
PUMP STANDS

**30 GALLON POLY TANK ASSEMBLY (04-03-0247)**



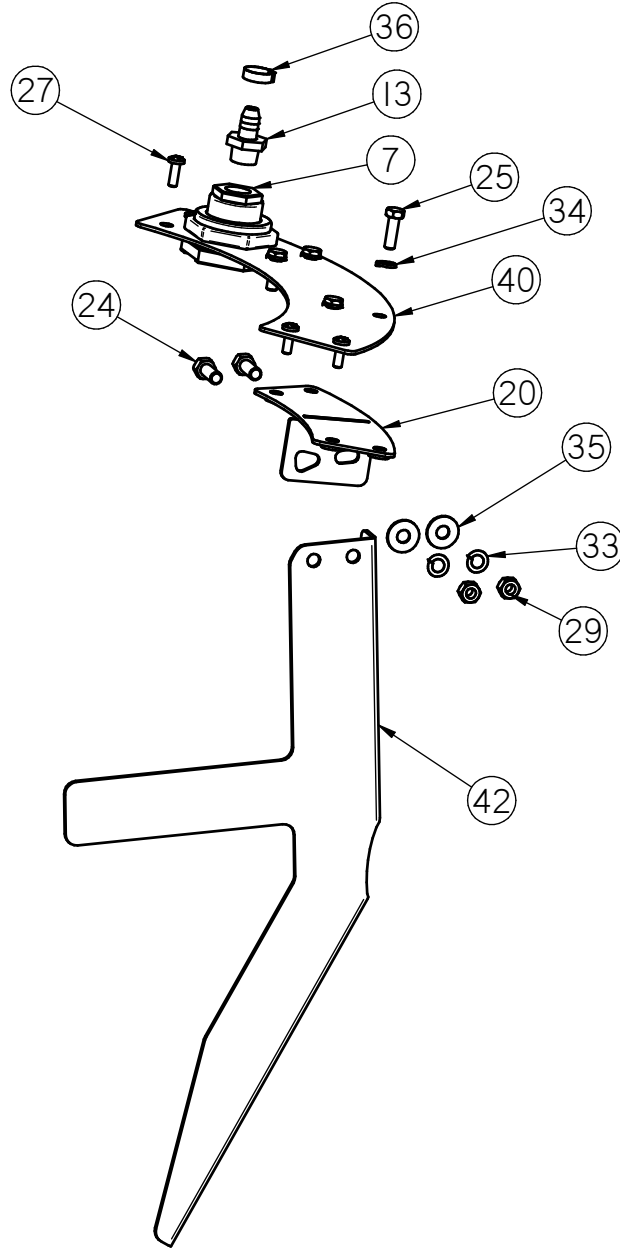
PUMP STANDS

**30 GALLON POLY TANK ASSEMBLY (04-03-0247)**



PUMP STANDS

**30 GALLON POLY TANK ASSEMBLY (04-03-0247)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 01-01-0182 | MOTOR .16HP 9075 RPM 1PH            | 1   |
| 2      | 01-07-0013 | CPLG SS .625 SS NO KWY W/ SETSCREWS | 1   |
| 3      | 02-02-0006 | .500-14 NPT X 2-WAY VALVE           | 1   |
| 4      | 02-02-0056 | VLV BALL .750 NPT FM PLAS           | 1   |
| 5      | 02-03-0005 | DRAIN HOSE PUMP STAND               | 1   |
| 6      | 02-04-0034 | FTTG BUSH 1.50NPT X .750NPT PPE     | 1   |
| 7      | 02-05-0028 | FTTG .500 NPT DBL THD PPE BLKHD     | 4   |



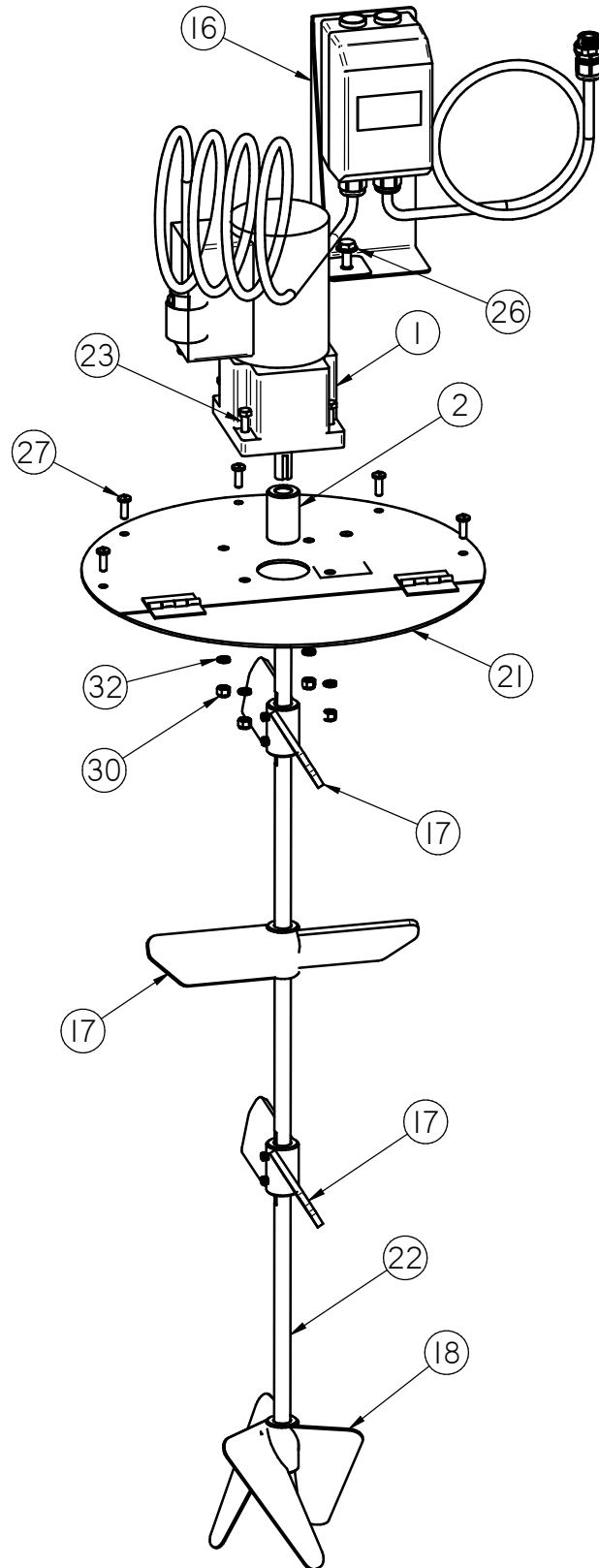
PUMP STANDS

**30 GALLON POLY TANK ASSEMBLY (04-03-0247)**

| Item # | Part #     | Description                           | Qty |
|--------|------------|---------------------------------------|-----|
| 8      | 02-06-0010 | FTTG 90 DEG .500HB X .500NPT ML NYL   | 1   |
| 9      | 02-06-0068 | FTTG 90 DEG STRT .75NPT PPE BLK       | 1   |
| 10     | 02-07-0008 | FTTG NIP .500 NPT X 1.125 TBE BLK     | 1   |
| 11     | 02-07-0025 | FTTG NIP .750 NPT X 1.375 TBE SS      | 1   |
| 12     | 02-07-0070 | FTTG NIP .750 NPT X 1.50 TBE SS       | 1   |
| 13     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL    | 1   |
| 14     | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL     | 1   |
| 15     | 02-09-0008 | FTTG TEE .750 NPT FM SS               | 1   |
| 16     | 03-13-0030 | KIT SW MNL MP .07 HP MIX MTR 1-1.6A   | 1   |
| 17     | 05-03-1135 | WDMT STIR ARM 30GAL POLY              | 2   |
| 18     | 05-03-1136 | WDMT LOWER STIR ARM 30GAL POLY        | 1   |
| 19     | 05-03-1298 | WDMT TANKSTD 30GAL PUMPSTD            | 1   |
| 20     | 05-03-1481 | WDMT ADJ BAFFLE MNT                   | 1   |
| 21     | 05-03-1607 | WDMT POLY TNK LID                     | 1   |
| 22     | 05-11-0357 | ROD 30GAL DRV                         | 1   |
| 23     | 06-01-0008 | BOLT, .250-20 X 1 1/4" UNC ZP GRADE 5 | 4   |
| 24     | 06-01-0017 | BOLT .375-16 X 1.00 SS 18-8           | 2   |
| 25     | 06-01-0083 | BOLT .313-18 X 1.00 SS 18-8           | 4   |
| 26     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5        | 1   |
| 27     | 06-01-0215 | SCRW MACH #14 X .750 SS PLASTITE      | 13  |
| 28     | 06-01-0262 | BOLT CRG .375-16 X 4.50 FTH ZP GR5    | 1   |
| 29     | 06-02-0010 | NUT FULL .375-16 SS 18-8              | 2   |
| 30     | 06-03-0001 | NUT,LOCK, .250-20 ZP G5 NYLON INSERT  | 4   |
| 31     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5           | 2   |
| 32     | 06-04-0001 | WSHR LOCK SPLT .250 ZP                | 4   |
| 33     | 06-04-0008 | WSHR LOCK SPLT .375 SS 18-8           | 2   |
| 34     | 06-04-0010 | WSHR LOCK SPLT .313 SS 18-8           | 4   |
| 35     | 06-05-0009 | WSHR FLAT .375 X .875OD SS 18-8       | 2   |
| 36     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827         | 3   |
| 37     | 07-02-0020 | TNK 30GAL CONE 1.5 FPT OUTLET FD      | 1   |
| 38     | 09-02-0001 | ATWK LBL DANGER FINGERS               | 1   |
| 39     | 1029BC     | BRKT TNK CRADLE 30GAL                 | 1   |
| 40     | 103055     | TANK MNT PLT 30GAL POLY               | 1   |
| 41     | 103056     | BULKHEAD MNT PLT POLY TANK            | 1   |
| 42     | 103670     | PLT ADJ BAFFLE 30GAL POLY             | 1   |

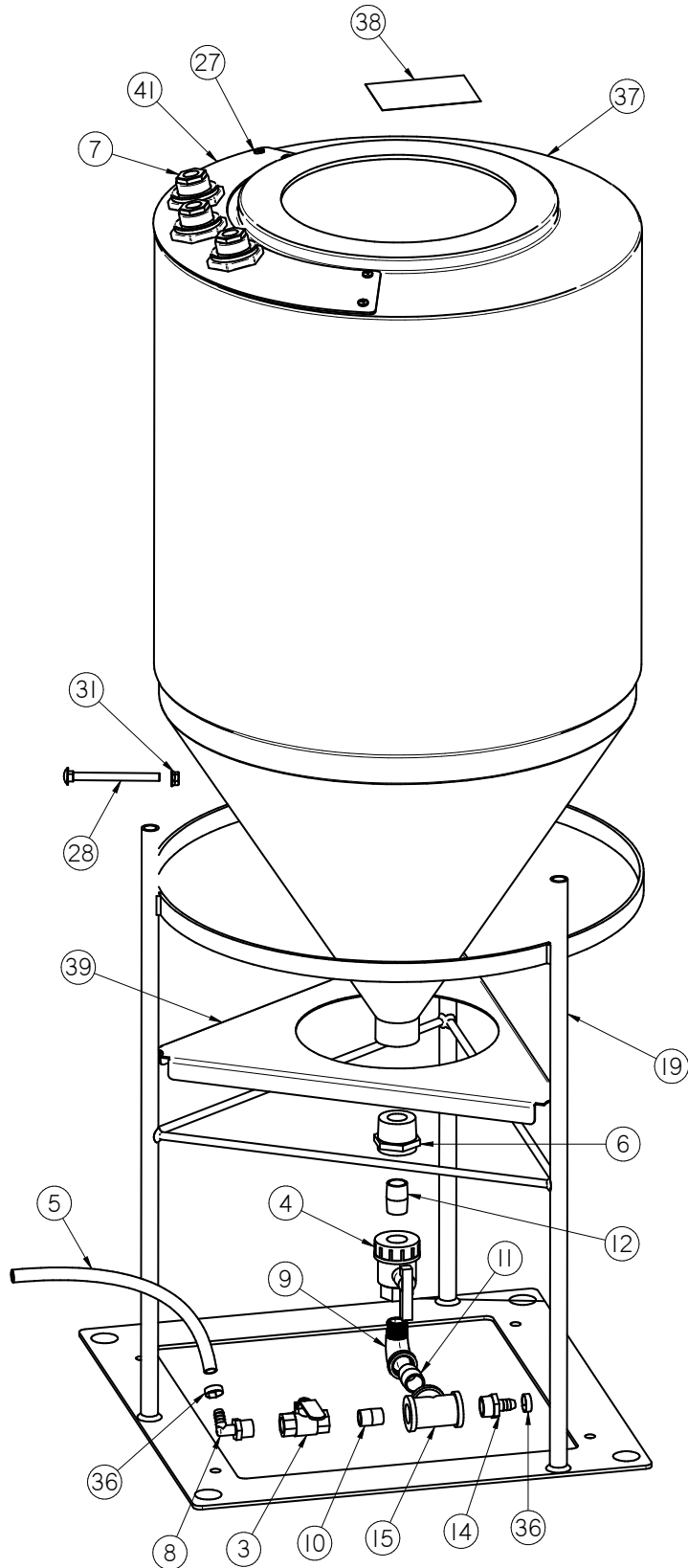
PUMP STANDS

**55 GALLON POLY TANK ASSEMBLY (04-03-0248)**



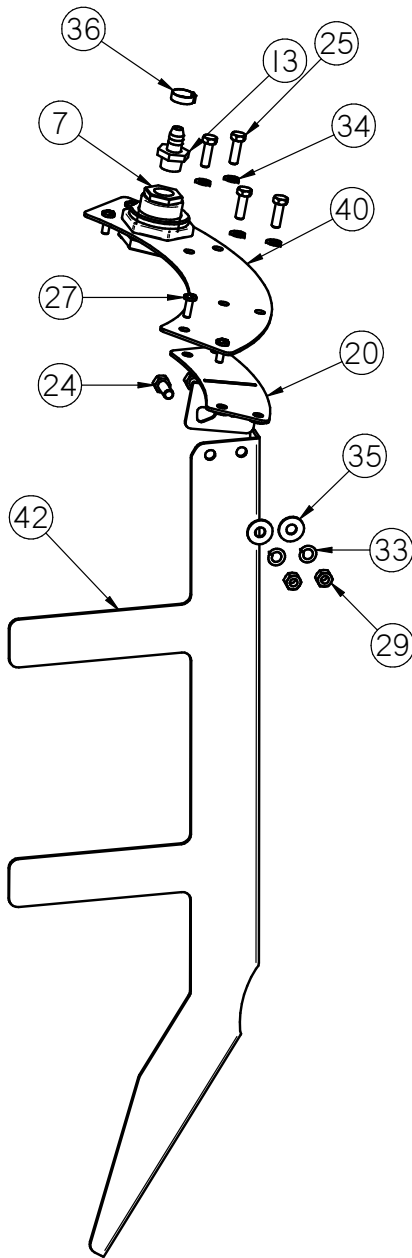
PUMP STANDS

**55 GALLON POLY TANK ASSEMBLY (04-03-0248)**



PUMP STANDS

**55 GALLON POLY TANK ASSEMBLY (04-03-0248)**



| Item # | Part #     | Description                          | Qty |
|--------|------------|--------------------------------------|-----|
| 1      | 01-01-0182 | MOTOR .16HP 9075 RPM 1PH             | 1   |
| 2      | 01-07-0013 | CPLG SS .625 SS NO KWHY W/ SETSCREWS | 1   |
| 3      | 02-02-0006 | .500-14 NPT X 2-WAY VALVE            | 1   |
| 4      | 02-02-0056 | VLV BALL .750 NPT FM PLAS            | 1   |
| 5      | 02-03-0005 | DRAIN HOSE PUMP STAND                | 1   |
| 6      | 02-04-0034 | FTTG BUSH 1.50NPT X .750NPT PPE      | 1   |
| 7      | 02-05-0028 | FTTG .500 NPT DBL THD PPE BLKHD      | 4   |

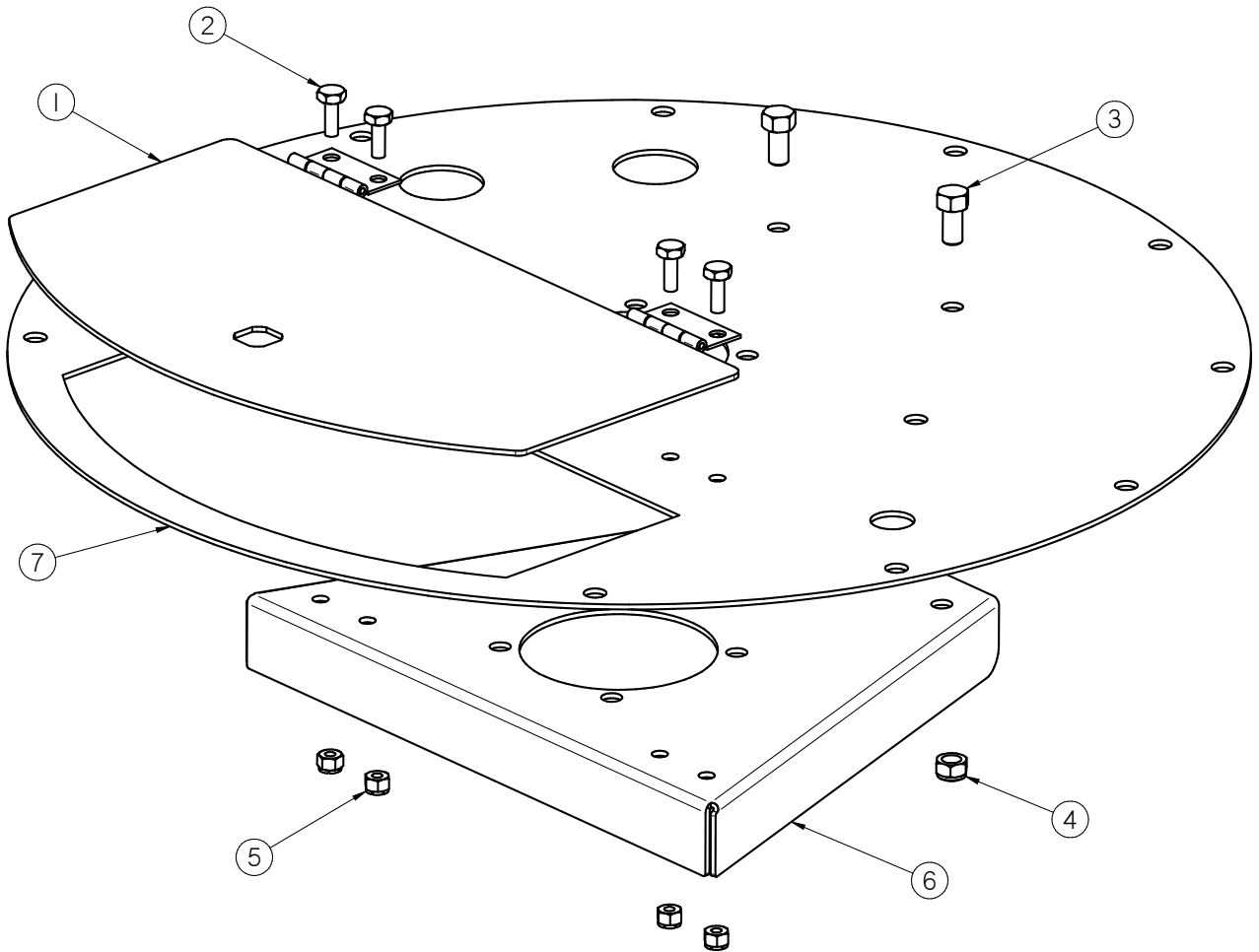
PUMP STANDS

**55 GALLON POLY TANK ASSEMBLY (04-03-0248)**

| Item # | Part #     | Description                           | Qty |
|--------|------------|---------------------------------------|-----|
| 8      | 02-06-0010 | FTTG 90 DEG .500HB X .500NPT ML NYL   | 1   |
| 9      | 02-06-0068 | FTTG 90 DEG STRT .75NPT PPE BLK       | 1   |
| 10     | 02-07-0008 | FTTG NIP .500 NPT X 1.125 TBE BLK     | 1   |
| 11     | 02-07-0025 | FTTG NIP .750 NPT X 1.375 TBE SS      | 1   |
| 12     | 02-07-0070 | FTTG NIP .750 NPT X 1.50 TBE SS       | 1   |
| 13     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL    | 1   |
| 14     | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL     | 1   |
| 15     | 02-09-0008 | FTTG TEE .750 NPT FM SS               | 1   |
| 16     | 03-13-0030 | KIT SW MNL MP .07 HP MIX MTR 1-1.6A   | 1   |
| 17     | 05-03-1135 | WDMT STIR ARM 30GAL POLY              | 3   |
| 18     | 05-03-1136 | WDMT LOWER STIR ARM 30GAL POLY        | 1   |
| 19     | 05-03-1298 | WDMT TANKSTD 30GAL PUMPSTD            | 1   |
| 20     | 05-03-1481 | WDMT ADJ BAFFLE MNT                   | 1   |
| 21     | 05-03-1607 | WDMT POLY TNK LID                     | 1   |
| 22     | 05-11-0361 | ROD 60GAL DRV                         | 1   |
| 23     | 06-01-0008 | BOLT, .250-20 X 1 1/4" UNC ZP GRADE 5 | 4   |
| 24     | 06-01-0017 | BOLT .375-16 X 1.00 SS 18-8           | 2   |
| 25     | 06-01-0083 | BOLT .313-18 X 1.00 SS 18-8           | 4   |
| 26     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5        | 1   |
| 27     | 06-01-0215 | SCRW MACH #14 X .750 SS PLASTITE      | 13  |
| 28     | 06-01-0262 | BOLT CRG .375-16 X 4.50 FTH ZP GR5    | 1   |
| 29     | 06-02-0010 | NUT FULL .375-16 SS 18-8              | 2   |
| 30     | 06-03-0001 | NUT,LOCK, .250-20 ZP G5 NYLON INSERT  | 4   |
| 31     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5           | 2   |
| 32     | 06-04-0001 | WSHR LOCK SPLT .250 ZP                | 4   |
| 33     | 06-04-0008 | WSHR LOCK SPLT .375 SS 18-8           | 2   |
| 34     | 06-04-0010 | WSHR LOCK SPLT .313 SS 18-8           | 4   |
| 35     | 06-05-0009 | WSHR FLAT .375 X .875OD SS 18-8       | 2   |
| 36     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827         | 3   |
| 37     | 07-02-0021 | TNK 60GAL CONE 1.5 FPT OUTLET FD      | 1   |
| 38     | 09-02-0001 | ATWK LBL DANGER FINGERS               | 1   |
| 39     | 1029BC     | BRKT TNK CRADLE 30GAL                 | 1   |
| 40     | 103055     | TANK MNT PLT 30GAL POLY               | 1   |
| 41     | 103056     | BULKHEAD MNT PLT POLY TANK            | 1   |
| 42     | 1036D1     | SIDE BAFFLE ADJ 60GAL POLY            | 1   |

PUMP STANDS

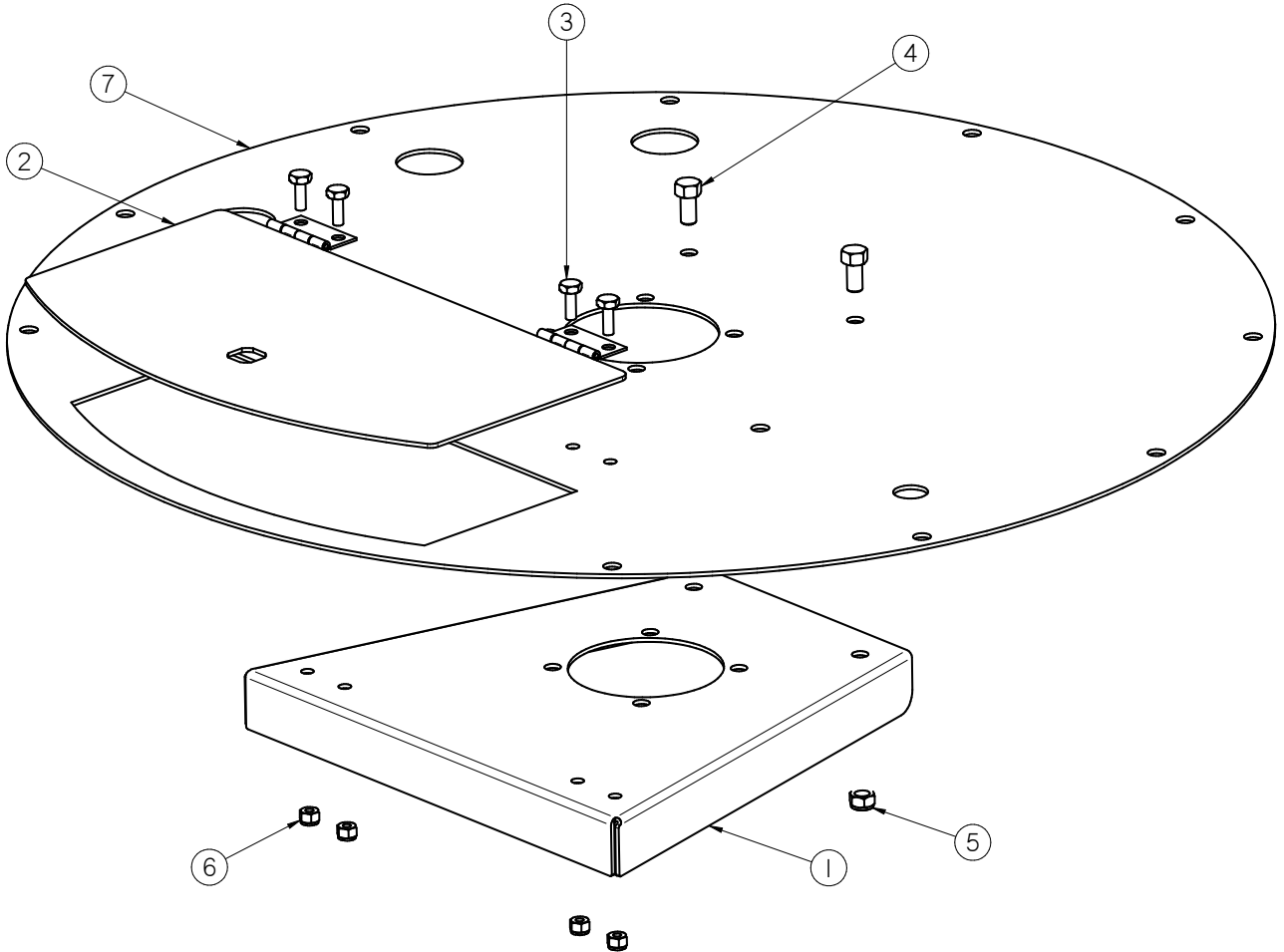
**30 - 60 GALLON STAINLESS STEEL TANK LID ASSEMBLY (05-03-1610)**



| Item # | Part #     | Description                           | Qty |
|--------|------------|---------------------------------------|-----|
| 1      | 05-03-1506 | WDMT SS CHEM TANK LID 30-60 GAL       | 1   |
| 2      | 06-01-0003 | BOLT, .250-20 X .750 UNC 18-8 SS      | 4   |
| 3      | 06-01-0042 | BOLT .375-16 X .750 SS 18-8           | 2   |
| 4      | 06-02-0024 | NUT NYL LOCK .375-16 SS               | 2   |
| 5      | 06-03-0007 | NUT,LOCK, .250-20 316 SS NYLON INSERT | 4   |
| 6      | 103751     | CHNNL TANK LID REINF.                 | 1   |
| 7      | 1043EF     | PLT CHEM TANK TOP                     | 1   |

PUMP STANDS

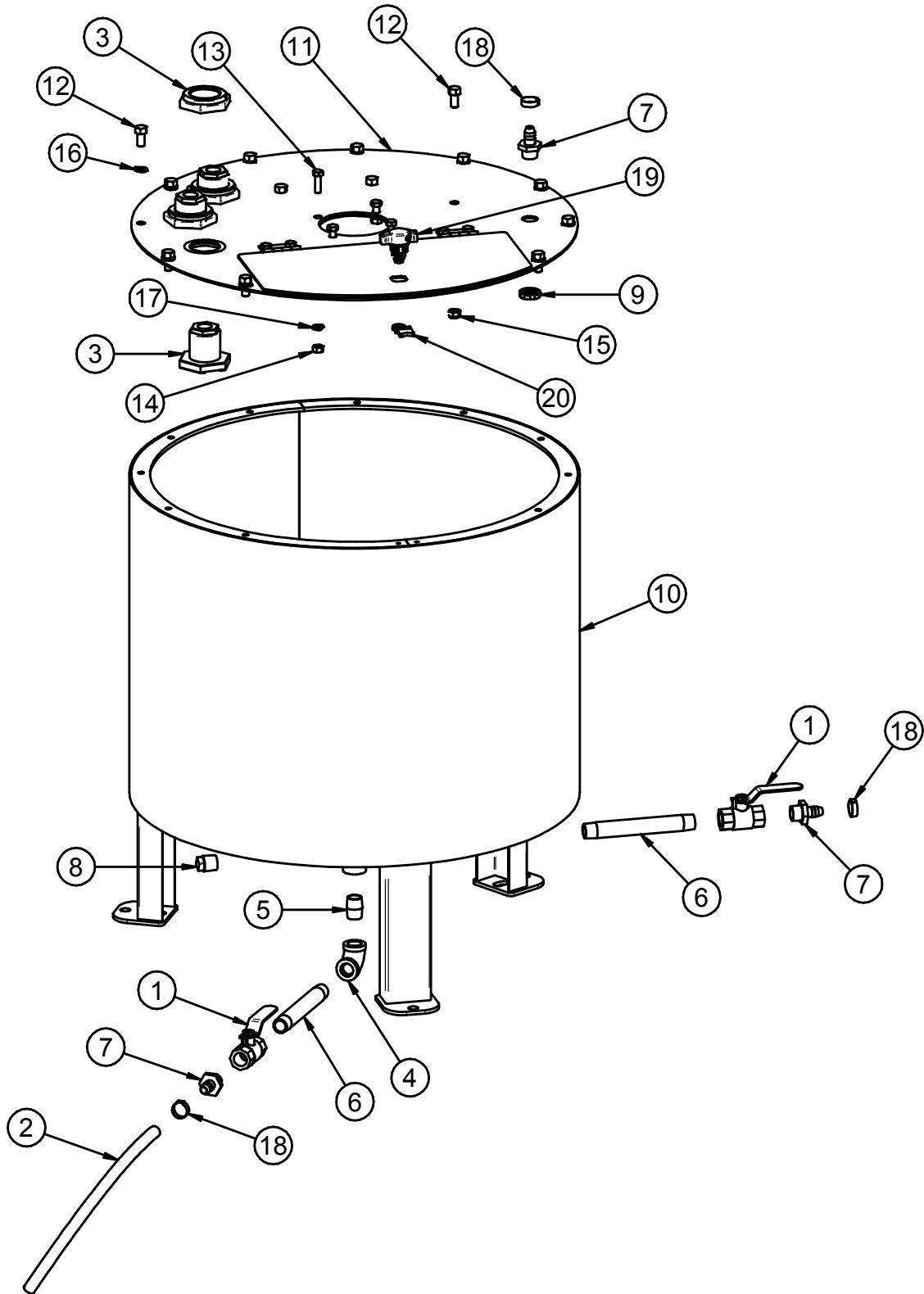
**100 GALLON STAINLESS STEEL TANK LID ASSEMBLY (05-03-1611)**



| Item # | Part #     | Description                           | Qty |
|--------|------------|---------------------------------------|-----|
| 1      | 103759     | CHNNL TANK LID REINF. 100GAL          | 1   |
| 2      | 05-03-1507 | WDMT SS CHEM TANK LID 100 GAL         | 1   |
| 3      | 06-01-0003 | BOLT, .250-20 X .750 UNC 18-8 SS      | 4   |
| 4      | 06-01-0042 | BOLT .375-16 X .750 SS 18-8           | 2   |
| 5      | 06-02-0024 | NUT NYL LOCK .375-16 SS               | 2   |
| 6      | 06-03-0007 | NUT,LOCK, .250-20 316 SS NYLON INSERT | 4   |
| 7      | 1043F3     | CHEMTANK. 100-GAL TOP                 | 1   |

PUMP STANDS

**30 GALLON STAINLESS STEEL BASE TANK ASSEMBLY (04-03-0270)**





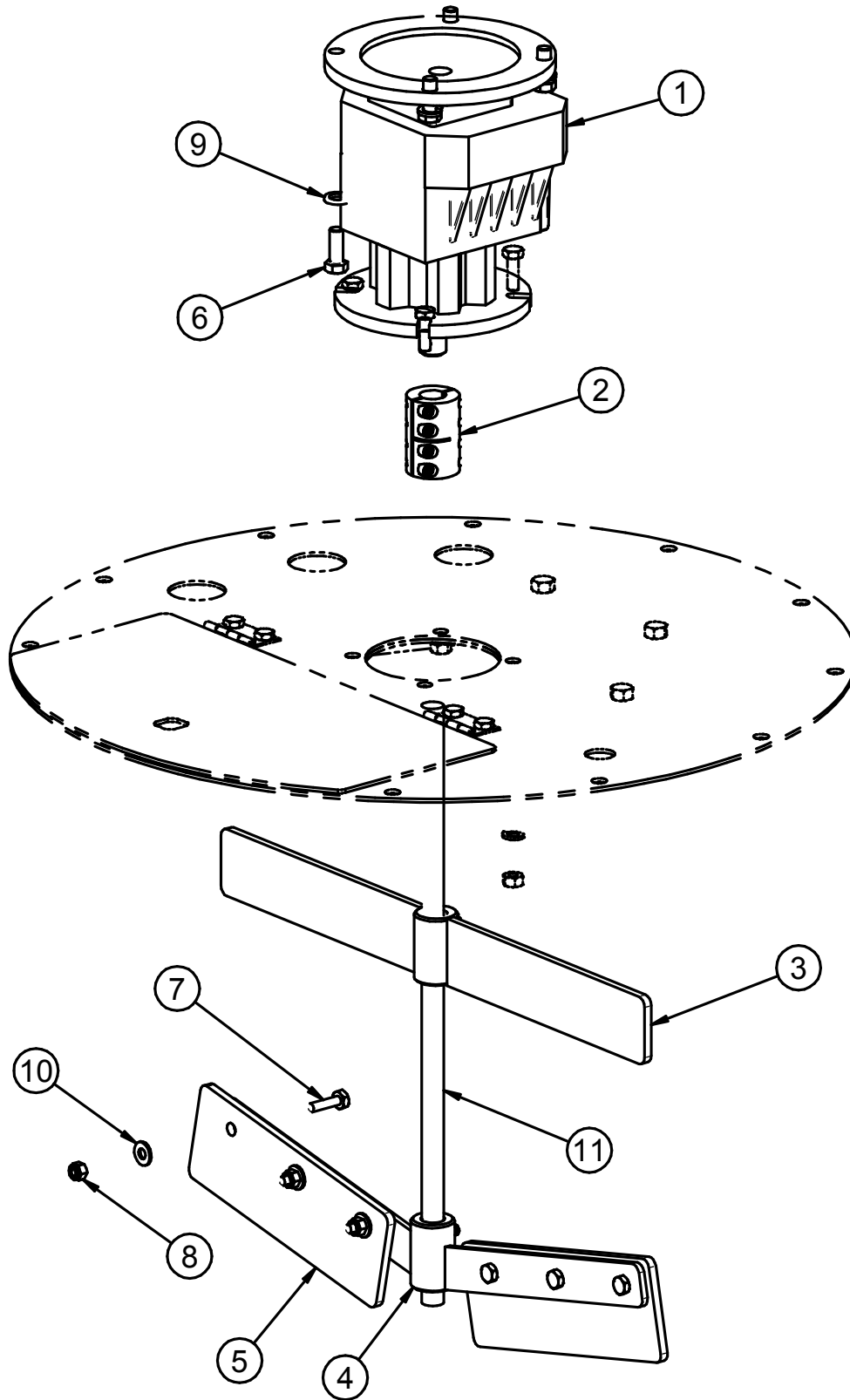
PUMP STANDS

**30 GALLON STAINLESS STEEL BASE TANK ASSEMBLY (04-03-0270)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0006 | VLV BALL .500 NPT 2WAY BRSS         | 2   |
| 2      | 02-03-0005 | DRAIN HOSE PUMP STAND               | 1   |
| 3      | 02-05-0028 | FTTG .500 NPT DBL THD PPE BLKHD     | 3   |
| 4      | 02-06-0012 | FTTG 90 DEG .500NPT FM SS           | 1   |
| 5      | 02-07-0007 | FTTG NIP .500NPTX1.125 TBE SS CLOSE | 1   |
| 6      | 02-07-0015 | FTTG NIP .500 NPT X 6.00 TBE SS     | 2   |
| 7      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 3   |
| 8      | 02-14-0001 | FTTG PLUG SQHD .500 NPT SS          | 1   |
| 9      | 03-08-0308 | NUT NYLOC .500 NPT 8464             | 1   |
| 10     | 05-03-1384 | WDMT BASE 30GAL TANK                | 1   |
| 11     | 05-03-1610 | ASSY SS TANK LID 30-60 GAL          | 1   |
| 12     | 06-01-0042 | BOLT .375-16 X .750 SS 18-8         | 11  |
| 13     | 06-01-0083 | BOLT .313-18 X 1.00 SS 18-8         | 4   |
| 14     | 06-02-0017 | NUT FULL .313-18 SS 18-8            | 4   |
| 15     | 06-02-0024 | NUT NYL LOCK .375-16 SS             | 1   |
| 16     | 06-04-0008 | WSHR LOCK SPLT .375 SS 18-8         | 10  |
| 17     | 06-04-0010 | WSHR LOCK SPLT .313 SS 18-8         | 4   |
| 18     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 3   |
| 19     | 06-09-0075 | KNOB WING LATCH                     | 1   |
| 20     | 06-09-0076 | KNOB WING CAM                       | 1   |
| 21     | 09-01-0003 | ATWK LBL MADE IN USA YEL 2.50X2.50  | 1   |
| 22     | 09-01-0043 | ATWL LBL USC, LLC 6" X 19" PRO-CUT  | 1   |
| 23     | 09-02-0001 | ATWK LBL DANGER FINGERS             | 1   |

PUMP STANDS

**30 GALLON STAINLESS STEEL AGITATION ASSEMBLY (04-03-0273)**



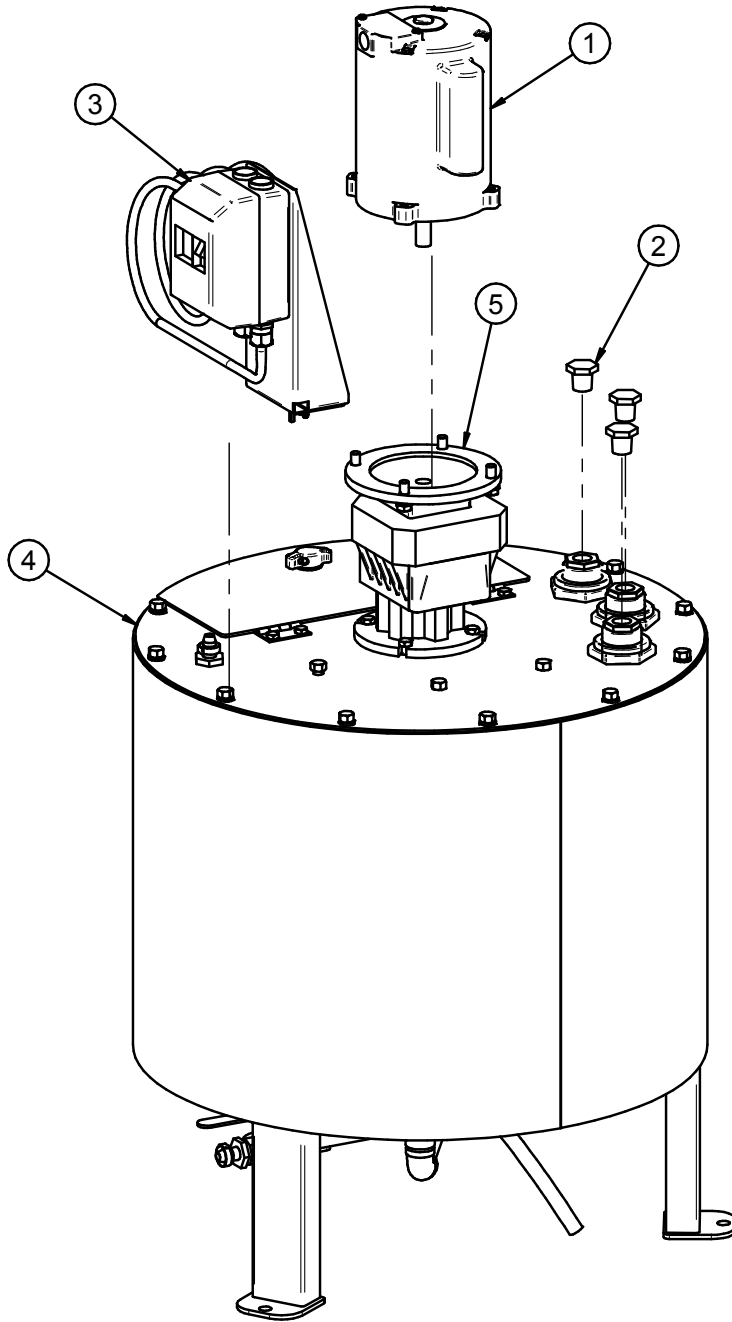
PUMP STANDS

**30 GALLON STAINLESS STEEL AGITATION ASSEMBLY (04-03-0273)**

| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0039 | GBOX IL 61.8:1 56C OTP 56C INP    | 1   |
| 2      | 01-07-0015 | CPLG CLPN .625 X .750 X 1.50OD SS | 1   |
| 3      | 05-03-0069 | WDMT 50GAL MIDDLE STIR ARM        | 1   |
| 4      | 05-03-0070 | WDMT 50GAL LOWER STIR ARM         | 1   |
| 5      | 05-10-0878 | PDL 50GAL WIPER                   | 2   |
| 6      | 06-01-0016 | BOLT .375-16 X 1.00 ZP GR5        | 4   |
| 7      | 06-01-0051 | BOLT, .250-20 X 1.00 UNC 316 SS   | 6   |
| 8      | 06-03-0007 | NUT NYL LOCK .250-20 SS 18-8      | 6   |
| 9      | 06-04-0003 | WSHR LOCK SPLT .375 ZP            | 4   |
| 10     | 06-05-0002 | WSHR FLAT .250 X .625OD SS 18-8   | 6   |
| 11     | 102EAC     | ROD 30GAL DRV                     | 1   |

PUMP STANDS

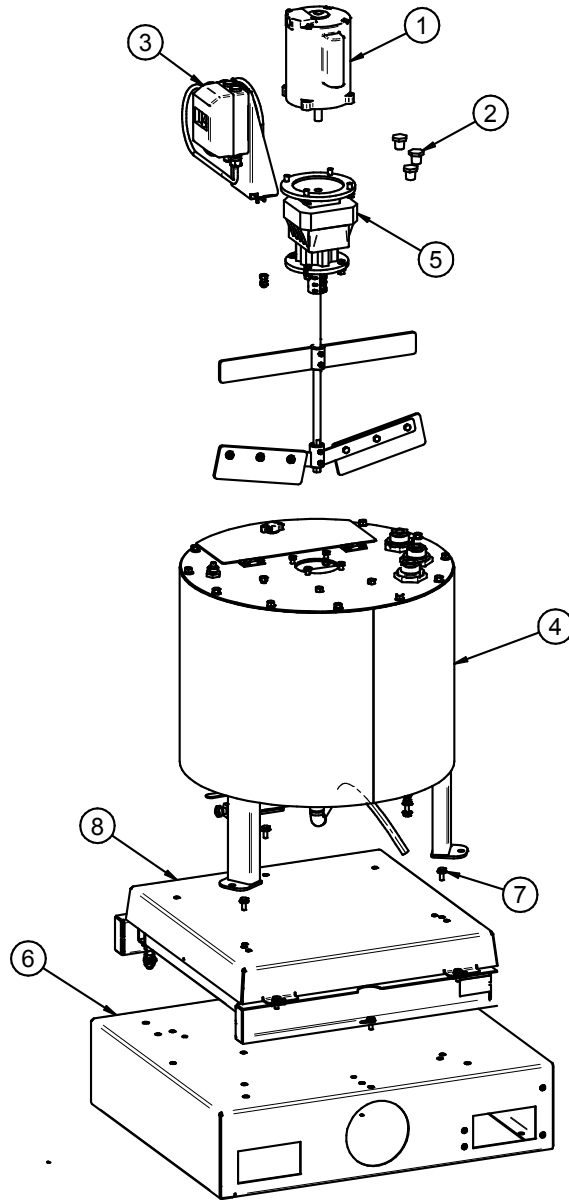
**30 GALLON STAINLESS STEEL TANK ASSEMBLY (04-03-0249)**



| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0104 | MTR .33HP 1725RPM 56C 1PH TENV    | 1   |
| 2      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK*    | 3   |
| 3      | 03-13-0027 | KIT SW MNL MP .33 HP MTR CHEM TNK | 1   |
| 4      | 04-03-0270 | ASSY MIX TANK BASE SS 30GAL       | 1   |
| 5      | 04-03-0273 | ASSY AGT 30SS                     | 1   |

PUMP STANDS

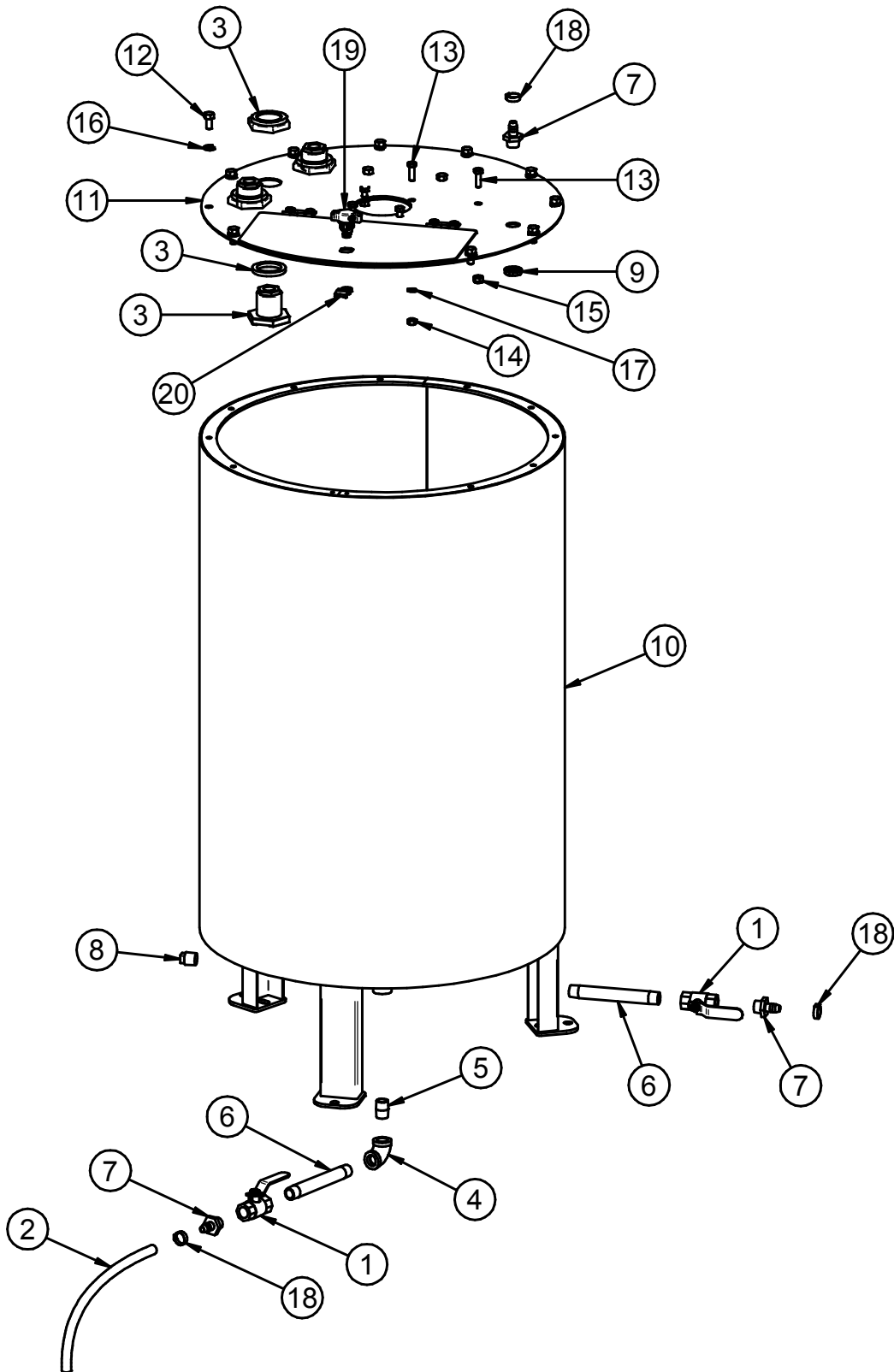
**30 GALLON STAINLESS STEEL TANK WITH SCALE ASSEMBLY (04-03-0287)**



| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0104 | MTR .33HP 1725RPM 56C 1PH TENV    | 1   |
| 2      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK*    | 3   |
| 3      | 03-13-0027 | KIT SW MNL MP .33 HP MTR CHEM TNK | 1   |
| 4      | 04-03-0270 | ASSY MIX TANK BASE SS 30GAL       | 1   |
| 5      | 04-03-0273 | ASSY AGT 30SS                     | 1   |
| 6      | 05-03-1053 | WDMT SMALL PUMPSTAND BASE BOX     | 1   |
| 7      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5    | 3   |
| 8      | 13-05-0439 | ASSY SCL KIT BOX MNT PMPSTD       | 1   |

PUMP STANDS

**60 GALLON STAINLESS STEEL BASE TANK ASSEMBLY (04-03-0271)**



PUMP STANDS

**60 GALLON STAINLESS STEEL BASE TANK ASSEMBLY (04-03-0271)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0006 | VLV BALL .500 NPT 2WAY BRSS         | 2   |
| 2      | 02-03-0005 | DRAIN HOSE PUMP STAND               | 1   |
| 3      | 02-05-0028 | FTTG .500 NPT DBL THD PPE BLKHD     | 3   |
| 4      | 02-06-0012 | FTTG 90 DEG .500NPT FM SS           | 1   |
| 5      | 02-07-0007 | FTTG NIP .500NPTX1.125 TBE SS CLOSE | 1   |
| 6      | 02-07-0015 | FTTG NIP .500 NPT X 6.00 TBE SS     | 2   |
| 7      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 3   |
| 8      | 02-14-0001 | FTTG PLUG SQHD .500 NPT SS          | 1   |
| 9      | 03-08-0308 | NUT NYLOC .500 NPT 8464             | 1   |
| 10     | 05-03-1078 | WDMT BASE 60GAL TANK                | 1   |
| 11     | 05-03-1610 | ASSY SS TANK LID 30-60 GAL          | 1   |
| 12     | 06-01-0042 | BOLT .375-16 X .750 SS 18-8         | 11  |
| 13     | 06-01-0083 | BOLT .313-18 X 1.00 SS 18-8         | 5   |
| 14     | 06-02-0017 | NUT FULL .313-18 SS 18-8            | 4   |
| 15     | 06-02-0024 | NUT NYL LOCK .375-16 SS             | 1   |
| 16     | 06-04-0008 | WSHR LOCK SPLT .375 SS 18-8         | 11  |
| 17     | 06-04-0010 | WSHR LOCK SPLT .313 SS 18-8         | 4   |
| 18     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 3   |
| 19     | 06-09-0075 | KNOB WING LATCH                     | 1   |
| 20     | 06-09-0076 | KNOB WING CAM                       | 1   |
| 21     | 09-01-0003 | ATWK LBL MADE IN USA YEL 2.50X2.50  | 1   |
| 22     | 09-01-0043 | ATWL LBL USC, LLC 6" X 19" PRO-CUT  | 1   |
| 23     | 09-02-0001 | ATWK LBL DANGER FINGERS             | 1   |





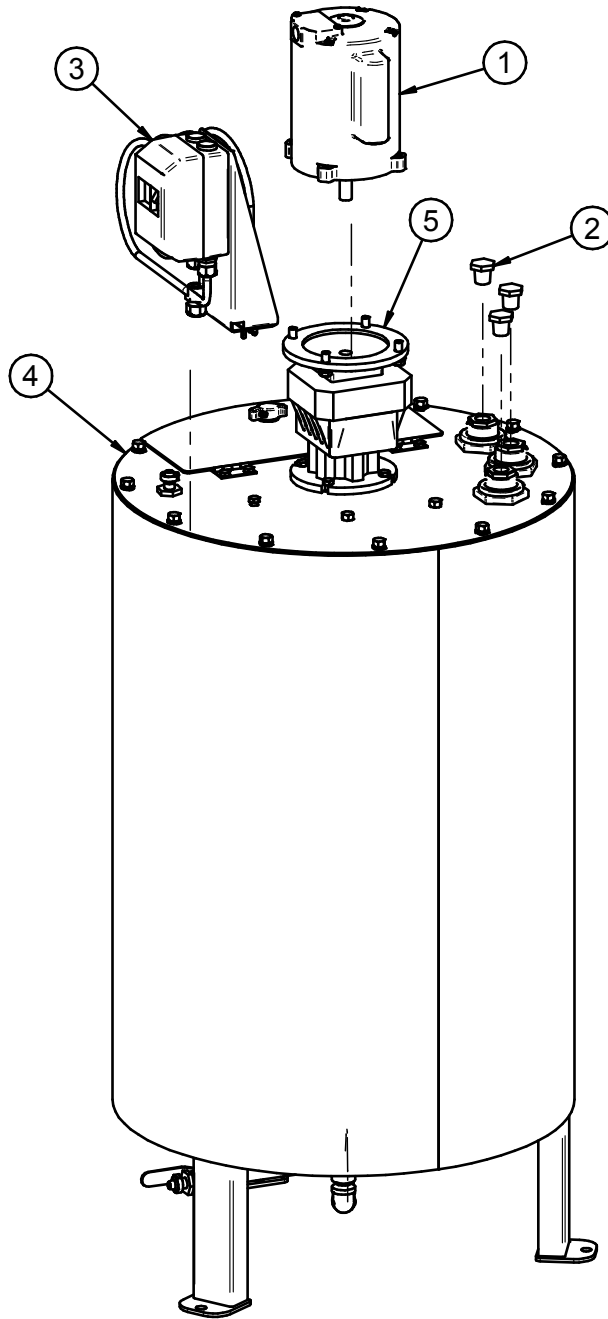
PUMP STANDS

**60 GALLON STAINLESS STEEL AGITATION ASSEMBLY (04-03-0275)**

| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0039 | GBOX IL 61.8:1 56C OTP 56C INP    | 1   |
| 2      | 01-07-0015 | CPLG CLPN .625 X .750 X 1.50OD SS | 1   |
| 3      | 05-03-0069 | WDMT 50GAL MIDDLE STIR ARM        | 3   |
| 4      | 05-03-0070 | WDMT 50GAL LOWER STIR ARM         | 1   |
| 5      | 05-10-0878 | PDL 50GAL WIPER                   | 2   |
| 6      | 05-11-0341 | ROD 60GAL DRV                     | 1   |
| 7      | 06-01-0016 | BOLT .375-16 X 1.00 ZP GR5        | 4   |
| 8      | 06-01-0051 | BOLT, .250-20 X 1.00 UNC 316 SS   | 6   |
| 9      | 06-03-0007 | NUT NYL LOCK .250-20 SS 18-8      | 6   |
| 10     | 06-04-0003 | WSHR LOCK SPLT .375 ZP            | 4   |
| 11     | 06-05-0002 | WSHR FLAT .250 X .625OD SS 18-8   | 6   |

PUMP STANDS

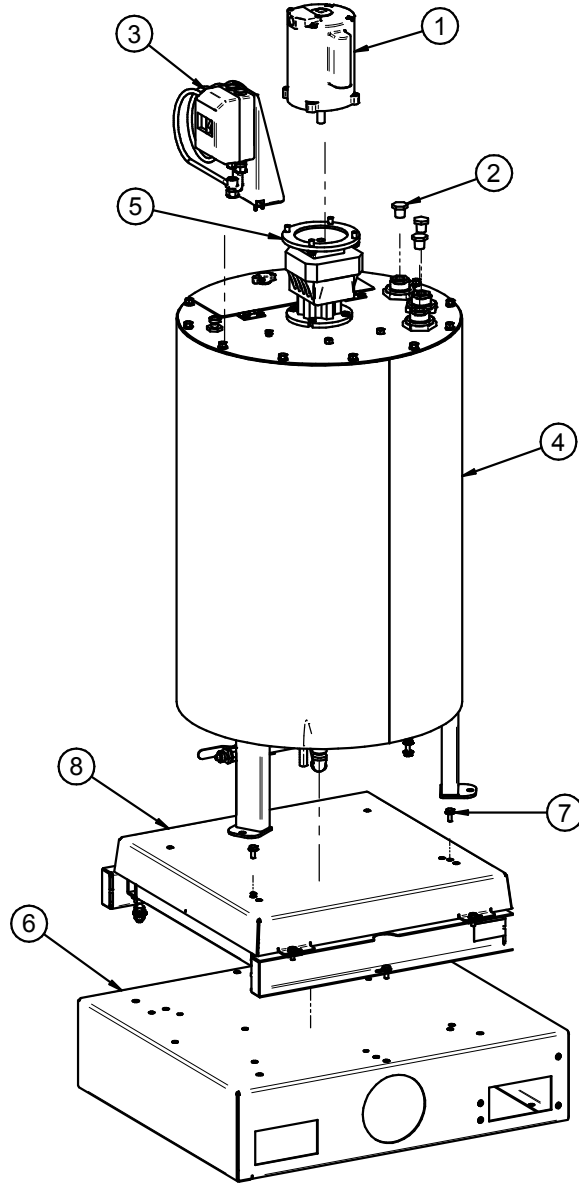
**60 GALLON STAINLESS STEEL TANK ASSEMBLY (04-03-0250)**



| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0104 | MTR .33HP 1725RPM 56C 1PH TENV    | 1   |
| 2      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK*    | 3   |
| 3      | 03-13-0027 | KIT SW MNL MP .33 HP MTR CHEM TNK | 1   |
| 4      | 04-03-0271 | ASSY MIX TANK BASE SS 60GAL       | 1   |
| 5      | 04-03-0275 | ASSY AGT 60SS                     | 1   |

PUMP STANDS

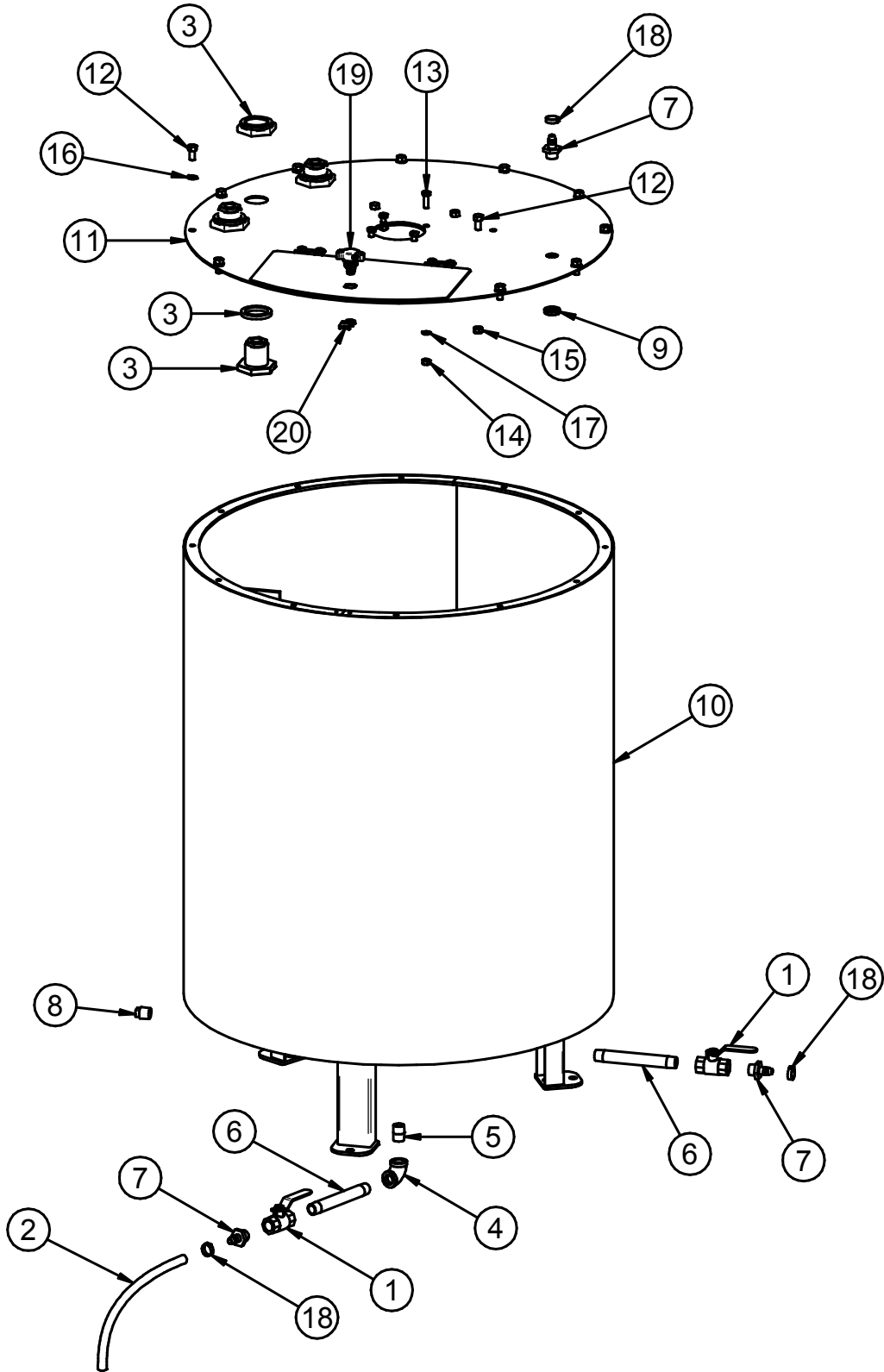
**60 GALLON STAINLESS STEEL TANK WITH SCALE ASSEMBLY (04-03-0288)**



| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0104 | MTR .33HP 1725RPM 56C 1PH TENV    | 1   |
| 2      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK*    | 3   |
| 3      | 03-13-0027 | KIT SW MNL MP .33 HP MTR CHEM TNK | 1   |
| 4      | 04-03-0271 | ASSY MIX TANK BASE SS 60GAL       | 1   |
| 5      | 04-03-0275 | ASSY AGT 60SS                     | 1   |
| 6      | 05-03-1053 | WDMT SMALL PUMPSTAND BASE BOX     | 1   |
| 7      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5    | 3   |
| 8      | 13-05-0439 | ASSY SCL KIT BOX MNT PMPSTD       | 1   |

PUMP STANDS

**100 GALLON STAINLESS STEEL BASE TANK ASSEMBLY (04-03-0272)**



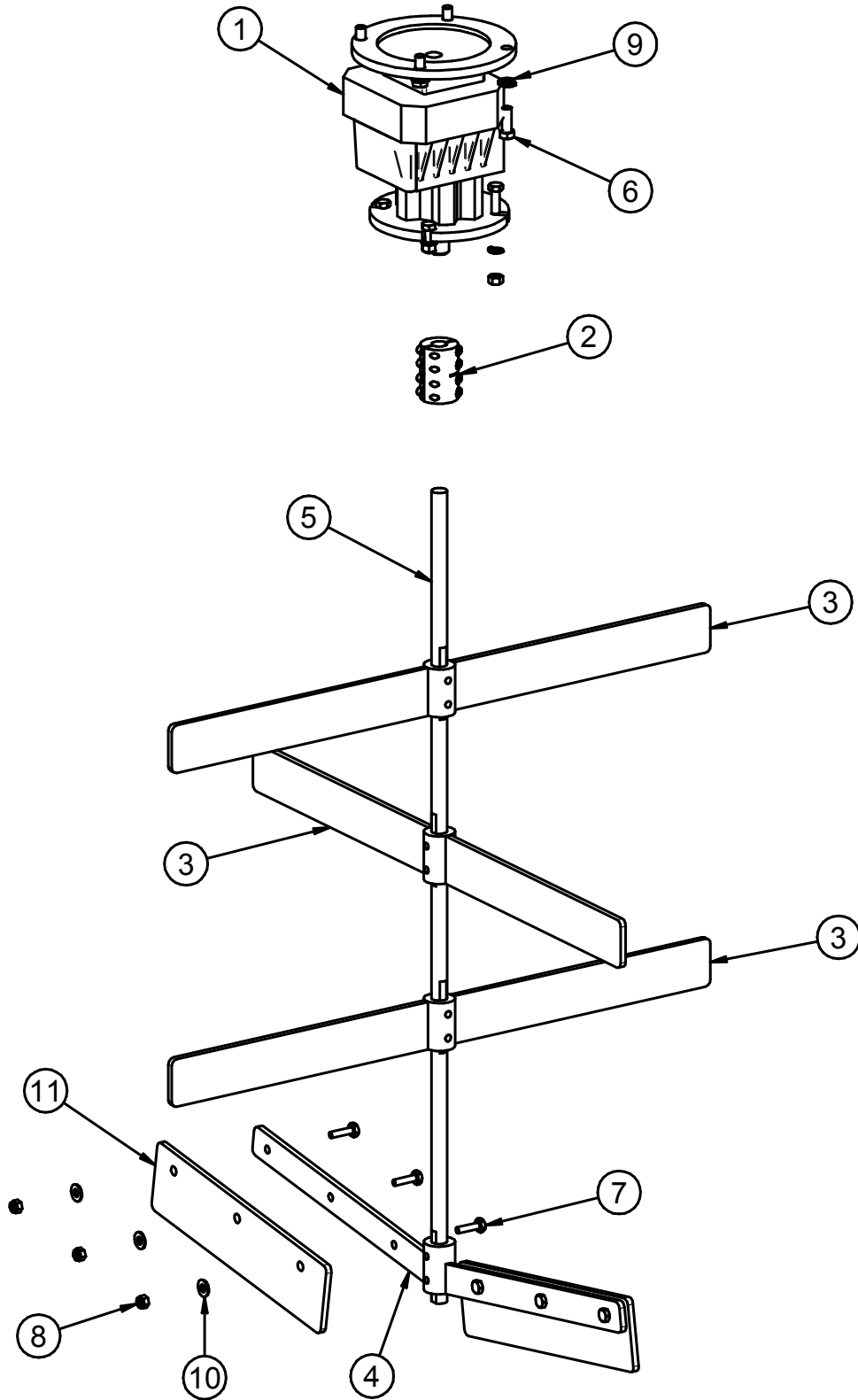
PUMP STANDS

**100 GALLON STAINLESS STEEL BASE TANK ASSEMBLY (04-03-0272)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0006 | VLV BALL .500 NPT 2WAY BRSS         | 2   |
| 2      | 02-03-0005 | DRAIN HOSE PUMP STAND               | 1   |
| 3      | 02-05-0028 | FTTG .500 NPT DBL THD PPE BLKHD     | 3   |
| 4      | 02-06-0012 | FTTG 90 DEG .500NPT FM SS           | 1   |
| 5      | 02-07-0007 | FTTG NIP .500NPTX1.125 TBE SS CLOSE | 1   |
| 6      | 02-07-0015 | FTTG NIP .500 NPT X 6.00 TBE SS     | 2   |
| 7      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 3   |
| 8      | 02-14-0001 | FTTG PLUG SQHD .500 NPT SS          | 1   |
| 9      | 03-08-0308 | NUT NYLOC .500 NPT 8464             | 1   |
| 10     | 05-03-1244 | WDMT BASE 100GAL TANK               | 1   |
| 11     | 05-03-1611 | ASSY SS TANK LID 100 GAL            | 1   |
| 12     | 06-01-0042 | BOLT .375-16 X .750 SS 18-8         | 11  |
| 13     | 06-01-0083 | BOLT .313-18 X 1.00 SS 18-8         | 4   |
| 14     | 06-02-0017 | NUT FULL .313-18 SS 18-8            | 4   |
| 15     | 06-02-0024 | NUT NYL LOCK .375-16 SS             | 1   |
| 16     | 06-04-0008 | WSHR LOCK SPLT .375 SS 18-8         | 10  |
| 17     | 06-04-0010 | WSHR LOCK SPLT .313 SS 18-8         | 4   |
| 18     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 3   |
| 19     | 06-09-0075 | KNOB WING LATCH                     | 1   |
| 20     | 06-09-0076 | KNOB WING CAM                       | 1   |
| 21     | 09-01-0003 | ATWK LBL MADE IN USA YEL 2.50X2.50  | 1   |
| 22     | 09-01-0043 | ATWL LBL USC, LLC 6" X 19" PRO-CUT  | 1   |
| 23     | 09-02-0001 | ATWK LBL DANGER FINGERS             | 1   |

PUMP STANDS

**100 GALLON STAINLESS STEEL AGITATION ASSEMBLY (04-03-0277)**



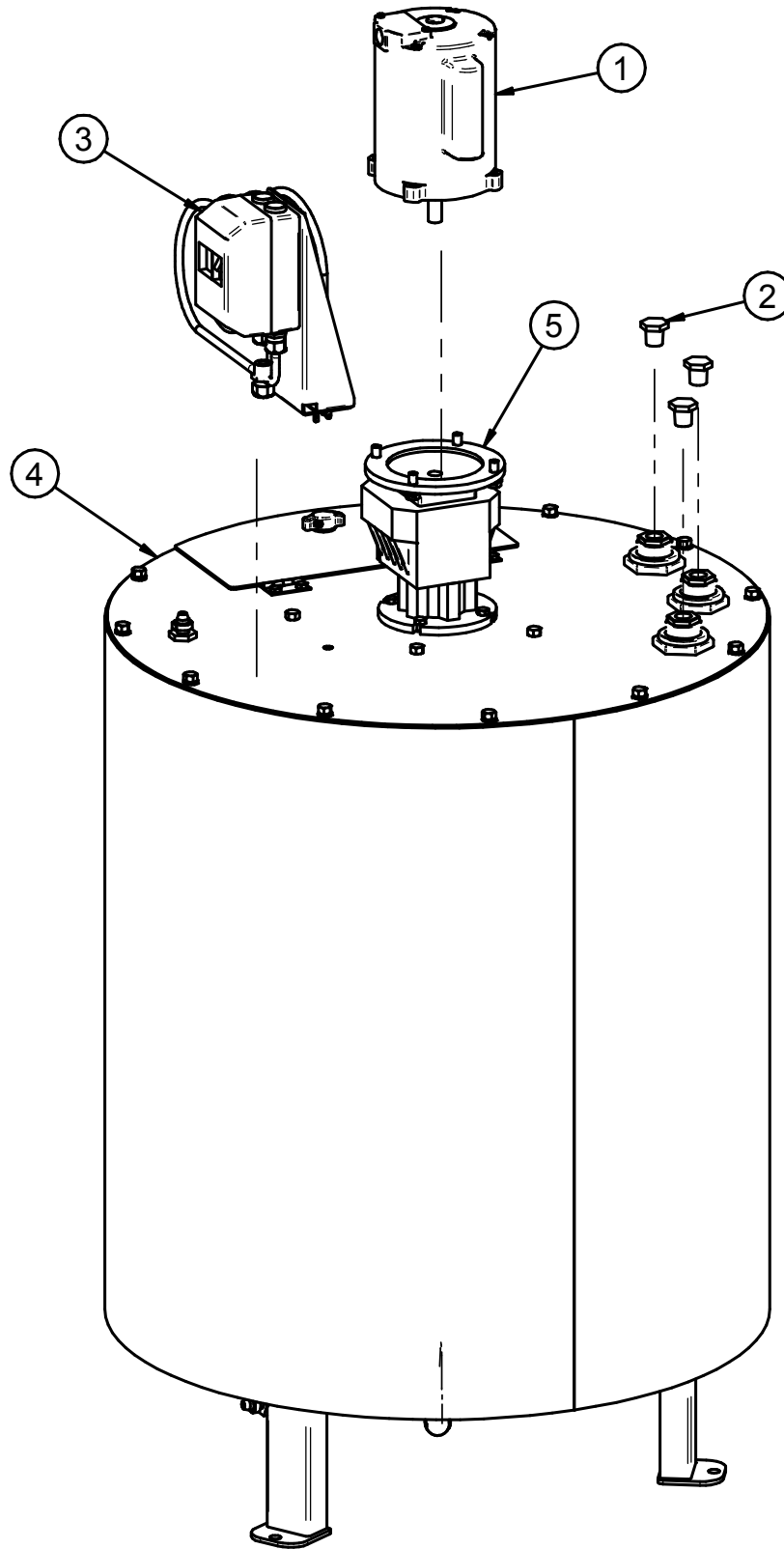
PUMP STANDS

**100 GALLON STAINLESS STEEL AGITATION ASSEMBLY (04-03-0277)**

| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0039 | GBOX IL 61.8:1 56C OTP 56C INP    | 1   |
| 2      | 01-07-0015 | CPLG CLPN .625 X .750 X 1.50OD SS | 1   |
| 3      | 05-03-1246 | WDMT 100GAL MIDDLE STIR ARM       | 3   |
| 4      | 05-03-1247 | WDMT 100GAL LOWER STIR ARM        | 1   |
| 5      | 05-11-0341 | ROD 60GAL DRV                     | 1   |
| 6      | 06-01-0016 | BOLT .375-16 X 1.00 ZP GR5        | 4   |
| 7      | 06-01-0051 | BOLT, .250-20 X 1.00 UNC 316 SS   | 6   |
| 8      | 06-03-0007 | NUT NYL LOCK .250-20 SS 18-8      | 6   |
| 9      | 06-04-0003 | WSHR LOCK SPLT .375 ZP            | 4   |
| 10     | 06-05-0002 | WSHR FLAT .250 X .625OD SS 18-8   | 6   |
| 11     | 102818     | PDL 100 GAL WIPER                 | 2   |

PUMP STANDS

**100 GALLON STAINLESS STEEL TANK ASSEMBLY (04-03-0251)**





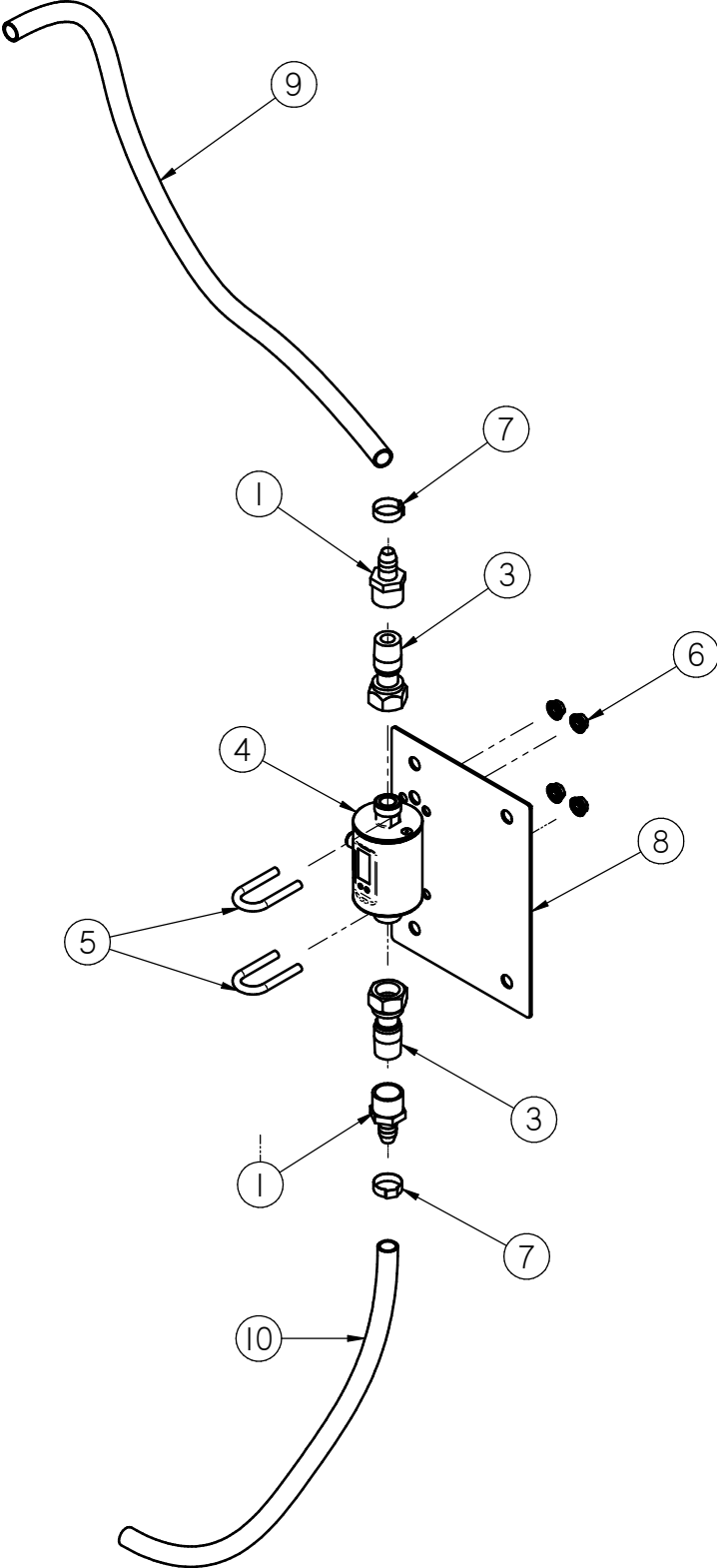
PUMP STANDS

**100 GALLON STAINLESS STEEL TANK ASSEMBLY (04-03-0251)**

| Item # | Part #     | Description                       | Qty |
|--------|------------|-----------------------------------|-----|
| 1      | 01-01-0104 | MTR .33HP 1725RPM 56C 1PH TENV    | 1   |
| 2      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK*    | 3   |
| 3      | 03-13-0027 | KIT SW MNL MP .33 HP MTR CHEM TNK | 1   |
| 4      | 04-03-0272 | ASSY MIX TANK BASE SS 100GAL      | 1   |
| 5      | 04-03-0277 | ASSY AGT 100SS                    | 1   |

PUMP STANDS

**SM6001 - VOLUMETRIC FLOW METER ASSEMBLY (05-03-1068)**



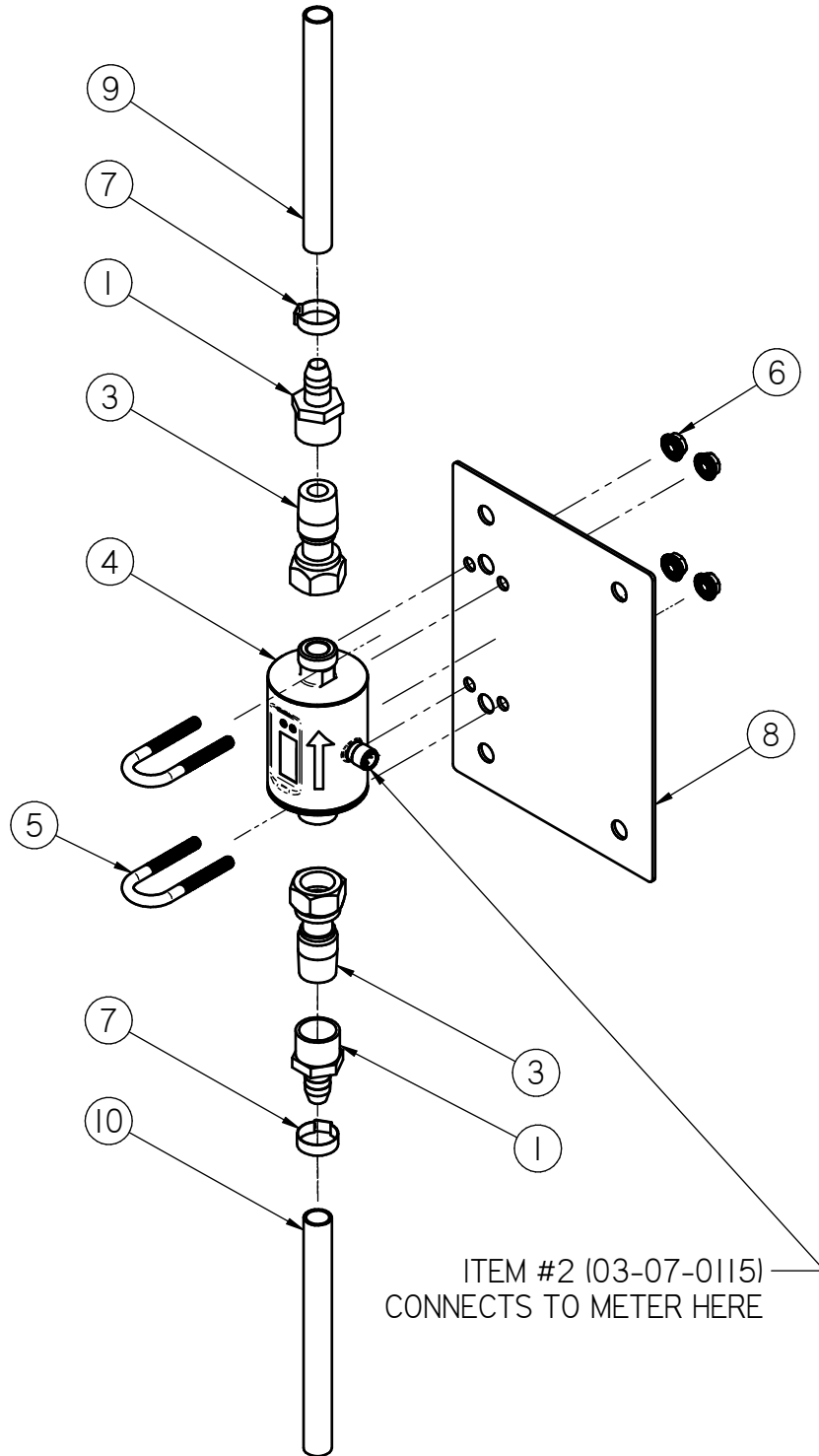
PUMP STANDS

**SM6001 - VOLUMETRIC FLOW METER ASSEMBLY (05-03-1068)**

| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 02-08-0026 | FTTG STGHT .500HB X .500NPT FM NYL | 2   |
| 2      | 03-07-0115 | CORD MOLDED M12 IFM EVC001         | 1   |
| 3      | 03-18-0020 | FTTG ADPTR G1/2 TO 1/2NPT ML IFM   | 2   |
| 4      | 03-18-0026 | FLMT IFM EFECTOR SM6001 NO NEG FLO | 1   |
| 5      | 06-01-0199 | BOLT U .250-20 X 0.75 X 2.25 ZP    | 2   |
| 6      | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATED  | 4   |
| 7      | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827      | 2   |
| 8      | 1029CF     | BRKT MNT                           | 1   |
| 9      | 102A3B     | TUBE FLOWMETER TO AUTO VLV         | 1   |
| 10     | 102A3C     | TUBE MANIFOLD TO FLOWMETER         | 1   |

PUMP STANDS

**SM6000 - IFM VOLUMETRIC FLOW METER ASSEMBLY (05-03-1181)**



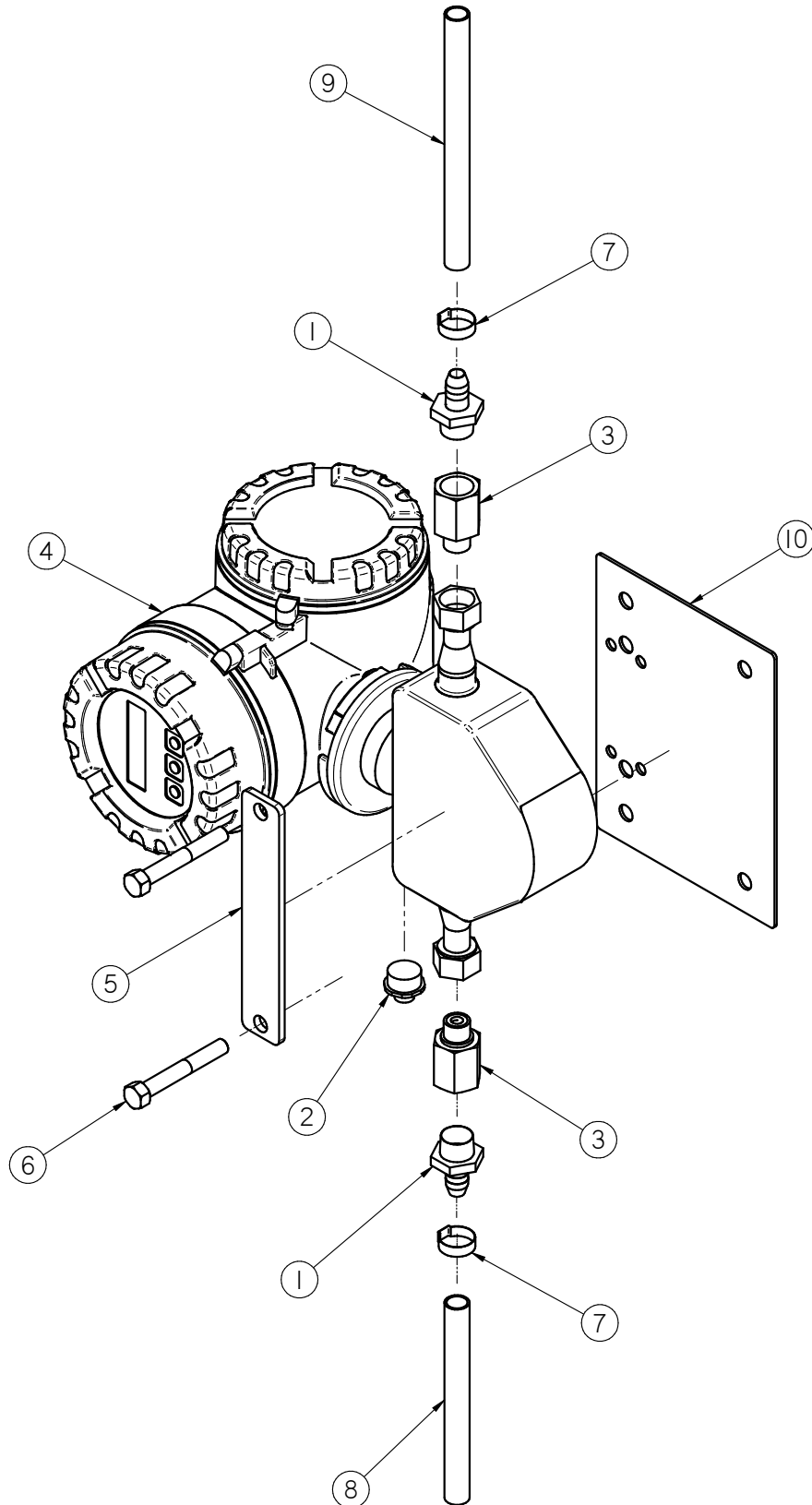
PUMP STANDS

**SM6000 - IFM VOLUMETRIC FLOW METER ASSEMBLY (05-03-1181)**

| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 02-08-0026 | FTTG STGHT .500HB X .500NPT FM NYL | 2   |
| 2      | 03-07-0115 | CORD MOLDED M12 IFM EVC001         | 1   |
| 3      | 03-18-0020 | FTTG ADPTR G1/2 TO 1/2NPT ML IFM   | 2   |
| 4      | 03-18-0025 | FLMT IFM EFECTOR SM6000 NO NEG FLO | 1   |
| 5      | 06-01-0199 | BOLT U .250-20 X 0.75 X 2.25 ZP    | 2   |
| 6      | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATED  | 4   |
| 7      | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827      | 2   |
| 8      | 1029CF     | BRKT MNT                           | 1   |
| 9      | 102A3B     | VOL FLMT TO CNTLS                  | 1   |
| 10     | 102A3C     | VOL FLMT TO PUMPS                  | 1   |

PUMP STANDS

**24V MASS FLOW METER ASSEMBLY (05-03-1536)**



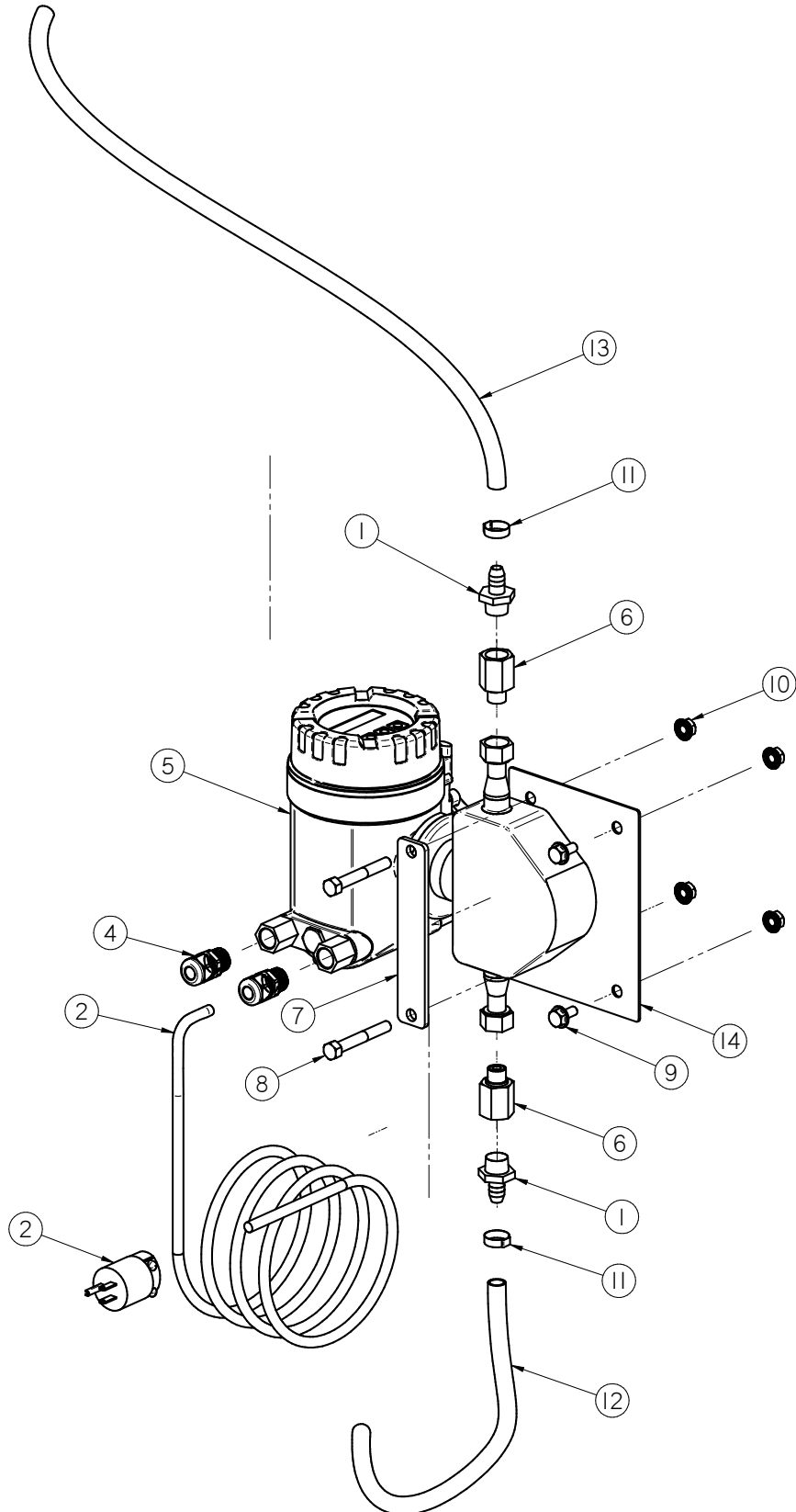
PUMP STANDS

**24V MASS FLOW METER ASSEMBLY (05-03-1536)**

| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL | 2   |
| 2      | 03-06-0109 | CONN TRCK FS 4.4-0.6/14.5/NPT      | 1   |
| 3      | 03-18-0021 | FTTG ADPTR 1/2" VC0 X 1/2" FPT E+H | 2   |
| 4      | 03-18-0030 | FLMT PROMASS 80E08 DN8 3/8IN 24VDC | 1   |
| 5      | 05-10-3413 | BRACKET FLMT CLAMP E&H 83E         | 1   |
| 6      | 06-01-0116 | BOLT .375-16 X 2.75 ZP GR5         | 2   |
| 7      | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827      | 2   |
| 8      | 1022AE     | MASS FLMT TO PUMPS                 | 1   |
| 9      | 102342     | MASS FLMT TO CNTLS                 | 1   |
| 10     | 1029CF     | BRKT MNT                           | 1   |

PUMP STANDS

**115V MASS FLOW METER ASSEMBLY (05-03-1620)**





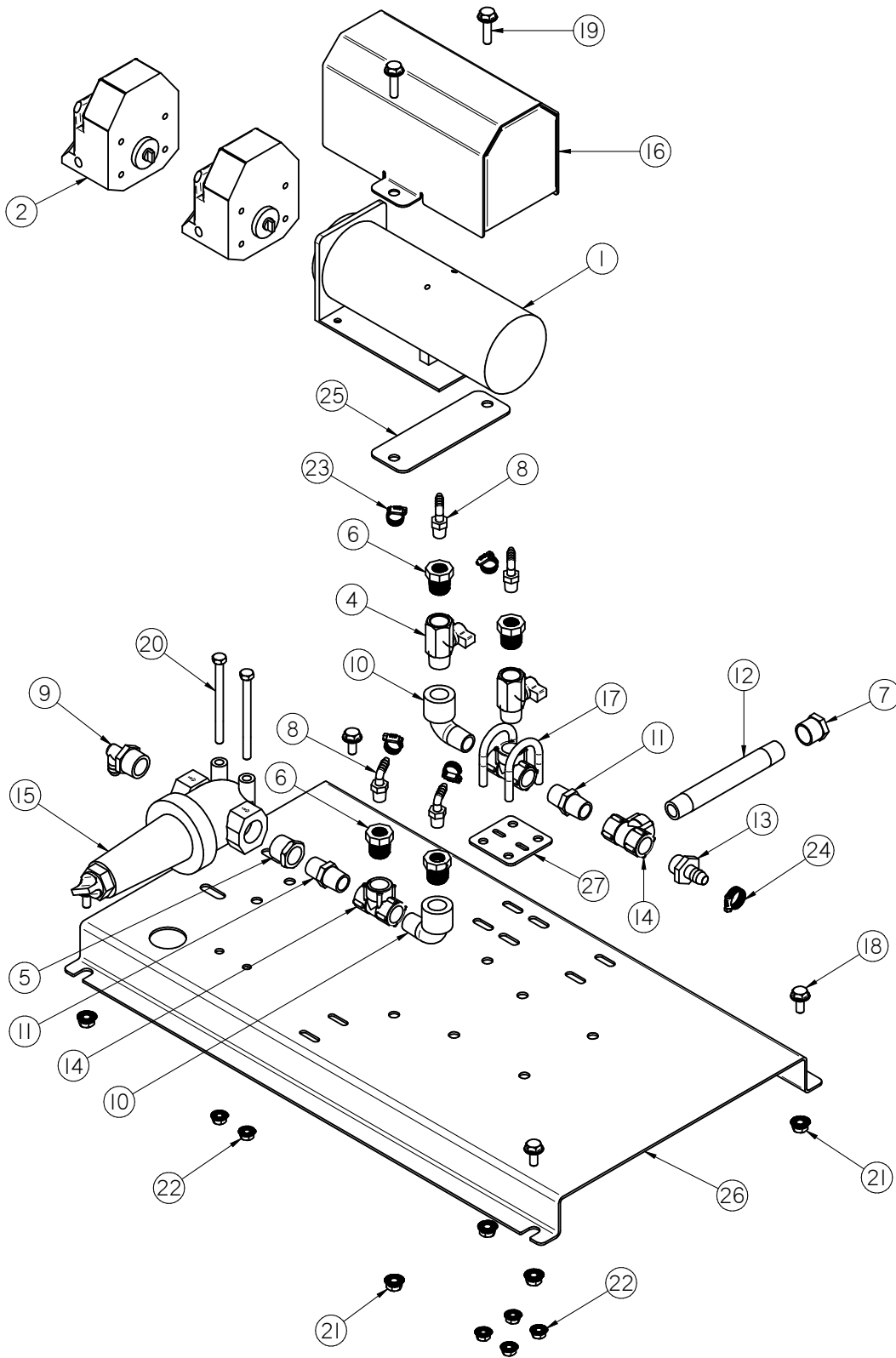
PUMP STANDS

**115V MASS FLOW METER ASSEMBLY (05-03-1620)**

| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL | 2   |
| 2      | 03-07-0124 | CORD POWER MOLDED 14/3 10FT        | 1   |
| 3      | 03-08-0215 | CONN TRCK RS 4.5T-4                | 1   |
| 4      | 03-08-0299 | CONN CG 0.5NPT .170-.450 3232LTF   | 2   |
| 5      | 03-18-0019 | FLMT PROMASS 80E08 DN8 3/8IN       | 1   |
| 6      | 03-18-0021 | FTTG ADPTR 1/2" VC0 X 1/2" FPT E+H | 2   |
| 7      | 05-10-3413 | BRACKET FLMT CLAMP E&H 83E         | 1   |
| 8      | 06-01-0116 | BOLT .375-16 X 2.75 ZP GR5         | 2   |
| 9      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5     | 2   |
| 10     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5        | 4   |
| 11     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827      | 2   |
| 12     | 1022AE     | TUBE MANIFOLD TO FLOWMETER         | 1   |
| 13     | 102342     | TUBE FLOWMETER TO SOLENOID VALVE   | 1   |
| 14     | 1029CF     | BRKT MNT                           | 1   |

PUMP STANDS

**LOW VOLUME PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0210)**



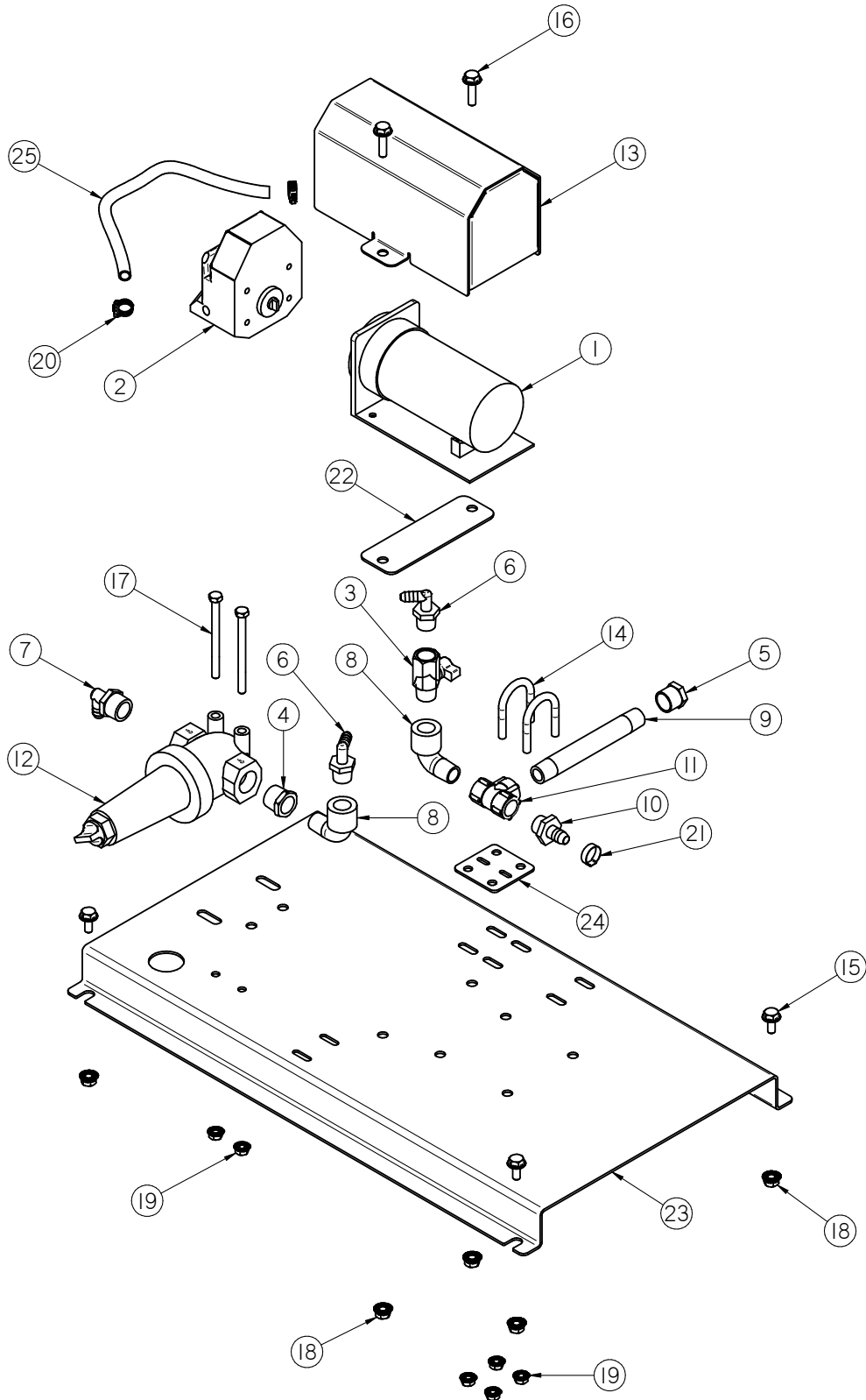
PUMP STANDS

**LOW VOLUME PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0210)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 01-01-0207 | MOTOR MASTERFLEX 1-100 RPM 90VDC    | 1   |
| 2      | 02-01-0005 | PUMP HEAD PRST MF LS 115V 600RPM    | 2   |
| 3      | 02-01-0013 | PUMP DUAL MF HARDWARE SS - LS HEAD  | 2   |
| 4      | 02-02-0127 | VLV BALL 2WAY .5 FNPT X .5 MNPT     | 2   |
| 5      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS      | 1   |
| 6      | 02-04-0044 | FTTG BUSH .50NPT X .25NPT PVC       | 4   |
| 7      | 02-05-0086 | FTTG END CAP .500 NPT BP            | 1   |
| 8      | 02-06-0002 | FTTG 90 DEG .250HB X .250NPT ML NYL | 4   |
| 9      | 02-06-0011 | FTTG 90 DEG .500HB X .750NPT ML NYL | 1   |
| 10     | 02-06-0017 | FTTG 90 DEG STRT .500NPT PPE BLK    | 2   |
| 11     | 02-07-0009 | FTTG NIP .500 NPT X 1.75 TBE BP     | 2   |
| 12     | 02-07-0060 | FTTG NIP .500 NPT X 6.00 TBE PVC    | 1   |
| 13     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 1   |
| 14     | 02-09-0005 | FTTG TEE .500 NPT PPE               | 3   |
| 15     | 02-12-0011 | FLTR TEE PPE .750 NPT 16 MESH BANJO | 1   |
| 16     | 05-06-0101 | WDMT PUMP MTR COVER                 | 1   |
| 17     | 06-01-0037 | BOLT U .313-18 X 1.38 X 2.188 ZP    | 2   |
| 18     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 4   |
| 19     | 06-01-0189 | BOLT FLG .375-16 X 1.250 ZP GR5     | 2   |
| 20     | 06-01-0248 | BOLT, .3125-18 UNC ZP G5; 4.00" LG  | 2   |
| 21     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 6   |
| 22     | 06-03-0019 | NUT LOCK FLG .3125-18 ZP GR5        | 6   |
| 23     | 06-07-0005 | CLMP HOSE .219 TO .625 X .313W ZP   | 4   |
| 24     | 06-07-0006 | CLMP HOSE .500 TO .906 X .313W ZP   | 1   |
| 25     | 102276     | BRKT PUMP MOUNT PUMPSTD             | 1   |
| 26     | 1043BE     | BRKT PUMP ALL HEADS PUMPSTD         | 1   |
| 27     | 105970     | PLT TEE LOCATOR                     | 1   |
| 28     | 13-05-0453 | HOSE MF .250 NPRN BLK - LS24 28IN   | 5   |

PUMP STANDS

**1 PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0211)**



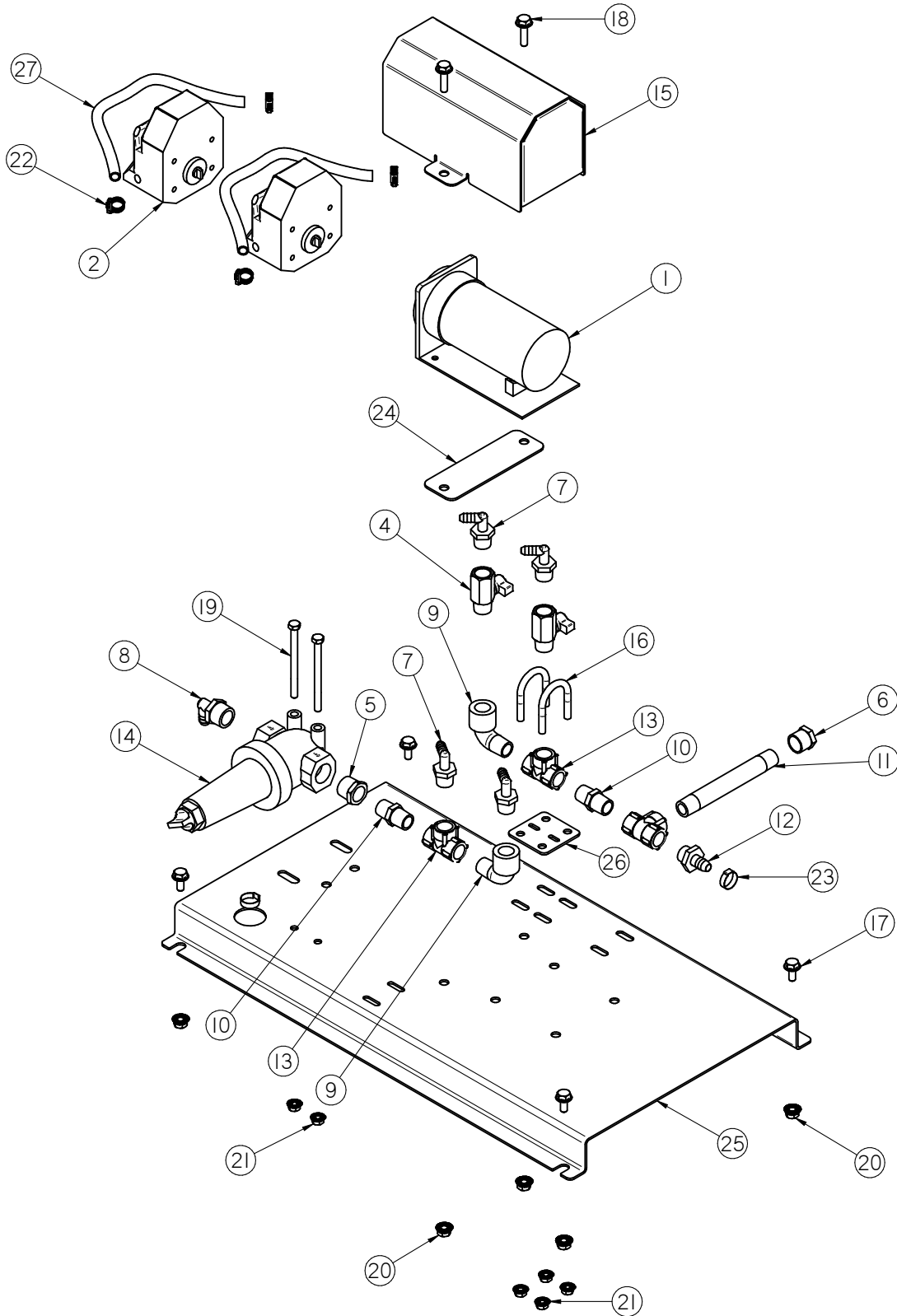
PUMP STANDS

**1 PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0211)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 01-01-0010 | MTR .1HP 6-600RPM 90VDC             | 1   |
| 2      | 02-01-0005 | PUMP HEAD PRST MF LS 115V 600RPM    | 1   |
| 3      | 02-02-0127 | VLV BALL 2WAY .5 FNPT X .5 MNPT     | 1   |
| 4      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS      | 1   |
| 5      | 02-05-0086 | FTTG END CAP .500 NPT BP            | 1   |
| 6      | 02-06-0006 | FTTG 90 DEG .375HB X .500NPT ML NYL | 2   |
| 7      | 02-06-0011 | FTTG 90 DEG .500HB X .750NPT ML NYL | 1   |
| 8      | 02-06-0017 | FTTG 90 DEG STRT .500NPT PPE BLK    | 2   |
| 9      | 02-07-0060 | FTTG NIP .500 NPT X 6.00 TBE PVC    | 1   |
| 10     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 1   |
| 11     | 02-09-0005 | FTTG TEE .500 NPT PPE               | 1   |
| 12     | 02-12-0011 | FLTR TEE PPE .750 NPT 16 MESH BANJO | 1   |
| 13     | 05-06-0101 | WDMT PUMP MTR COVER                 | 1   |
| 14     | 06-01-0037 | BOLT U .313-18 X 1.38 X 2.188 ZP    | 2   |
| 15     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 4   |
| 16     | 06-01-0189 | BOLT FLG .375-16 X 1.250 ZP GR5     | 2   |
| 17     | 06-01-0248 | BOLT, .3125-18 UNC ZP G5; 4.00" LG  | 2   |
| 18     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 6   |
| 19     | 06-03-0019 | NUT LOCK FLG .3125-18 ZP GR5        | 6   |
| 20     | 06-07-0005 | CLMP HOSE .219 TO .625 X .313W ZP   | 2   |
| 21     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 1   |
| 22     | 102276     | BRKT PUMP MOUNT PUMPSTD             | 1   |
| 23     | 1043BE     | BRKT PUMP ALL HEADS PUMPSTD         | 1   |
| 24     | 105970     | PLT TEE LOCATOR                     | 1   |
| 25     | 13-05-0224 | HOSE MF .375 NPRN BLK - LS35 .31 ID | 3   |

PUMP STANDS

**2 PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0212)**



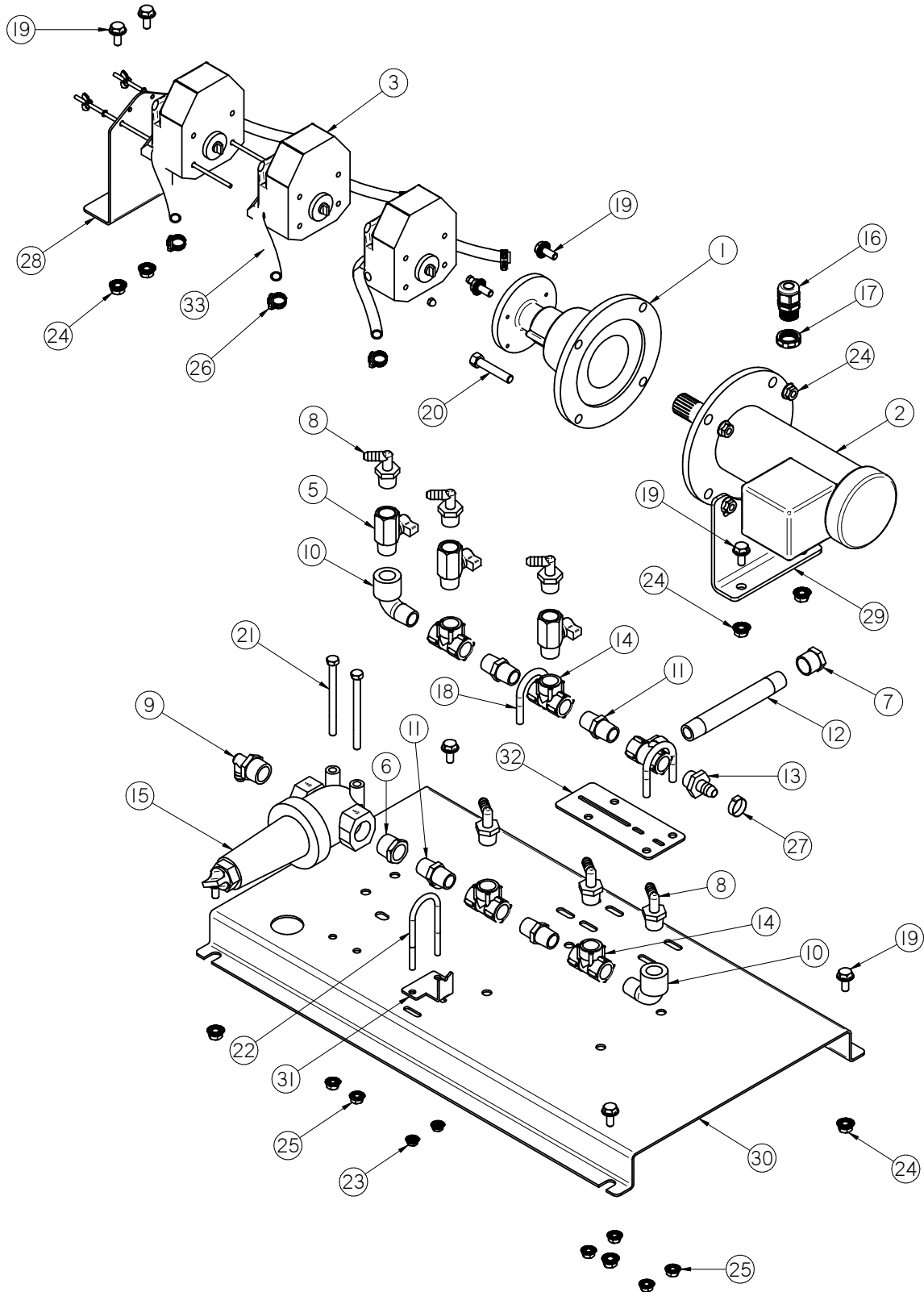
PUMP STANDS

**2 PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0212)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 01-01-0010 | MTR .1HP 6-600RPM 90VDC             | 1   |
| 2      | 02-01-0005 | PUMP HEAD PRST MF LS 115V 600RPM    | 2   |
| 3      | 02-01-0013 | PUMP DUAL MF HARDWARE SS - LS HEAD  | 1   |
| 4      | 02-02-0127 | VLV BALL 2WAY .5 FNPT X .5 MNPT     | 2   |
| 5      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS      | 1   |
| 6      | 02-05-0086 | FTTG END CAP .500 NPT BP            | 1   |
| 7      | 02-06-0006 | FTTG 90 DEG .375HB X .500NPT ML NYL | 4   |
| 8      | 02-06-0011 | FTTG 90 DEG .500HB X .750NPT ML NYL | 1   |
| 9      | 02-06-0017 | FTTG 90 DEG STRT .500NPT PPE BLK    | 2   |
| 10     | 02-07-0009 | FTTG NIP .500 NPT X 1.75 TBE BP     | 2   |
| 11     | 02-07-0060 | FTTG NIP .500 NPT X 6.00 TBE PVC    | 1   |
| 12     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 1   |
| 13     | 02-09-0005 | FTTG TEE .500 NPT PPE               | 3   |
| 14     | 02-12-0011 | FLTR TEE PPE .750 NPT 16 MESH BANJO | 1   |
| 15     | 05-06-0101 | WDMT PUMP MTR COVER                 | 1   |
| 16     | 06-01-0037 | BOLT U .313-18 X 1.38 X 2.188 ZP    | 2   |
| 17     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 4   |
| 18     | 06-01-0189 | BOLT FLG .375-16 X 1.250 ZP GR5     | 2   |
| 19     | 06-01-0248 | BOLT, .3125-18 UNC ZP G5; 4.00" LG  | 2   |
| 20     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 6   |
| 21     | 06-03-0019 | NUT LOCK FLG .3125-18 ZP GR5        | 6   |
| 22     | 06-07-0005 | CLMP HOSE .219 TO .625 X .313W ZP   | 4   |
| 23     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 2   |
| 24     | 102276     | BRKT PUMP MOUNT PUMPSTD             | 1   |
| 25     | 1043BE     | BRKT PUMP ALL HEADS PUMPSTD         | 1   |
| 26     | 105970     | PLT TEE LOCATOR                     | 1   |
| 27     | 13-05-0224 | HOSE MF .375 NPRN BLK - LS35 .31 ID | 6   |

PUMP STANDS

**3 PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0213)**





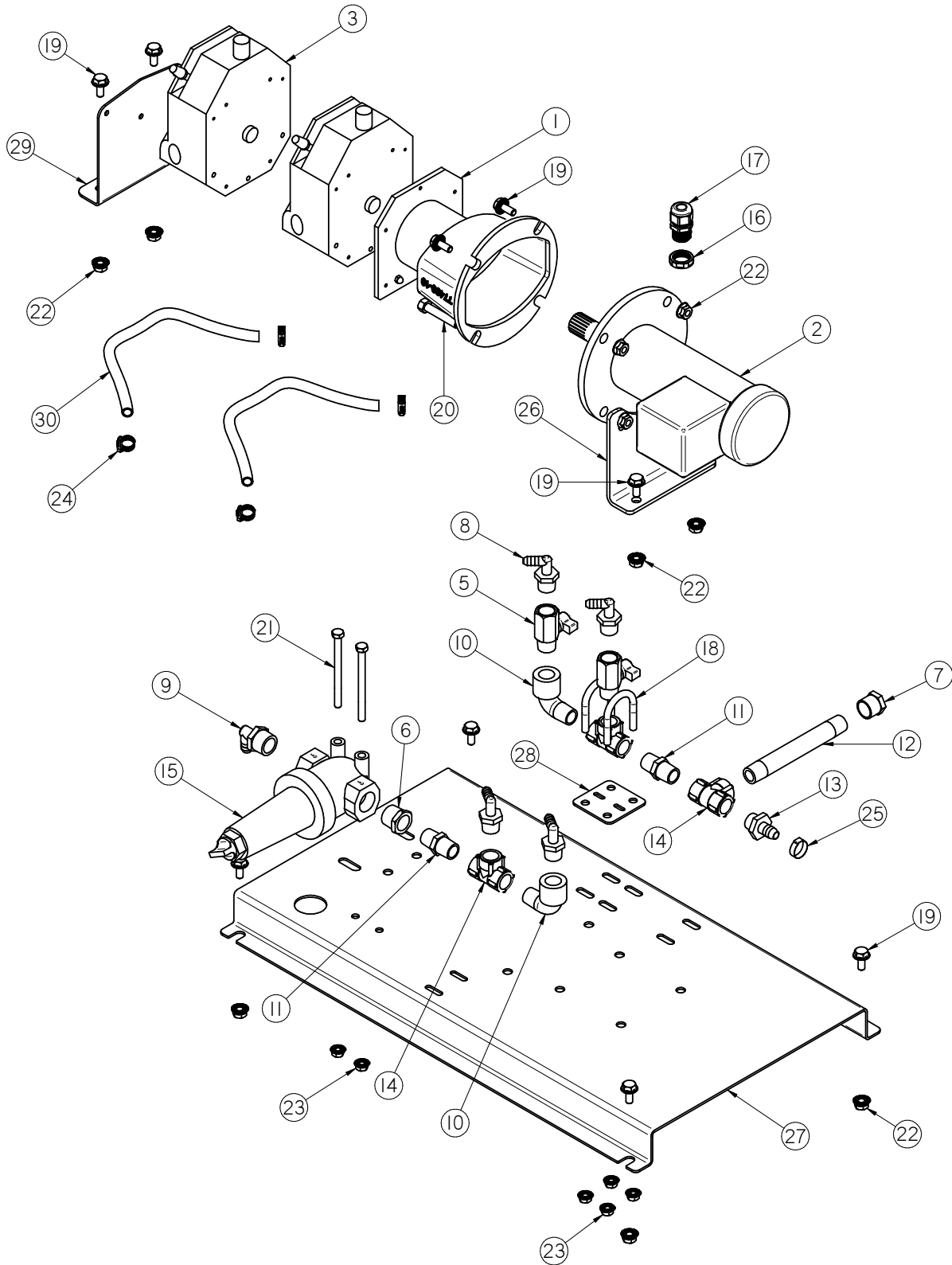
PUMP STANDS

**3 PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0213)**

| Item # | Part #     | Description                           | Qty |
|--------|------------|---------------------------------------|-----|
| 1      | 01-01-0066 | SPEED REDUCER, 3.7 TO 1               | 1   |
| 2      | 01-01-0160 | MTR .25HP 2500 RPM 34 90VDC           | 1   |
| 3      | 02-01-0005 | PUMP HEAD PRST MF LS 115V 600RPM      | 3   |
| 4      | 02-01-0033 | PUMP 3 MF HARDWARE SS - LS HEAD       | 1   |
| 5      | 02-02-0127 | VLV BALL 2WAY .5 FNPT X .5 MNPT       | 3   |
| 6      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS        | 1   |
| 7      | 02-05-0086 | FTTG END CAP .500 NPT BP              | 1   |
| 8      | 02-06-0006 | FTTG 90 DEG .375HB X .500NPT ML NYL   | 6   |
| 9      | 02-06-0011 | FTTG 90 DEG .500HB X .750NPT ML NYL   | 1   |
| 10     | 02-06-0017 | FTTG 90 DEG STRT .500NPT PPE BLK      | 2   |
| 11     | 02-07-0009 | FTTG NIP .500 NPT X 1.75 TBE BP       | 4   |
| 12     | 02-07-0060 | FTTG NIP .500 NPT X 6.00 TBE PVC      | 1   |
| 13     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL    | 1   |
| 14     | 02-09-0005 | FTTG TEE .500 NPT PPE                 | 5   |
| 15     | 02-12-0011 | FLTR TEE PPE .750 NPT 16 MESH BANJO   | 1   |
| 16     | 03-08-0299 | CONN CG 0.5NPT .170-.450 3232LTF      | 1   |
| 17     | 03-08-0308 | NUT NYLOC .500 NPT 8464               | 1   |
| 18     | 06-01-0037 | BOLT U .313-18 X 1.38 X 2.188 ZP      | 2   |
| 19     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5        | 10  |
| 20     | 06-01-0137 | BOLT .375-16 X 2.00 ZP GR5 FTH        | 2   |
| 21     | 06-01-0248 | BOLT, .3125-18 UNC ZP G5; 4.00" LG    | 2   |
| 22     | 06-01-0298 | U BOLT 1/4-20 1-3/8 INSIDE 2-7/16" LG | 1   |
| 23     | 06-03-0013 | NUT,LOCK, FLG .250-20 ZP SERRATED     | 2   |
| 24     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5           | 12  |
| 25     | 06-03-0019 | NUT LOCK FLG .3125-18 ZP GR5          | 6   |
| 26     | 06-07-0005 | CLMP HOSE .219 TO .625 X .313W ZP     | 6   |
| 27     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827         | 1   |
| 28     | 102213     | BRKT 3PUMPHEAD MNT PUMPSTD            | 1   |
| 29     | 102214     | BRKT 3HEAD MOTOR MNT PUMPSTD          | 1   |
| 30     | 1043BE     | BRKT PUMP ALL HEADS PUMPSTD           | 1   |
| 31     | 1043C1     | BRKT SUPP MNFD                        | 1   |
| 32     | 105971     | PLT TEE LOCATOR 3-HD                  | 1   |
| 33     | 13-05-0224 | HOSE MF .375 NPRN BLK - LS35 .31 ID   | 9   |

PUMP STANDS

**HIGH VOLUME PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0214)**



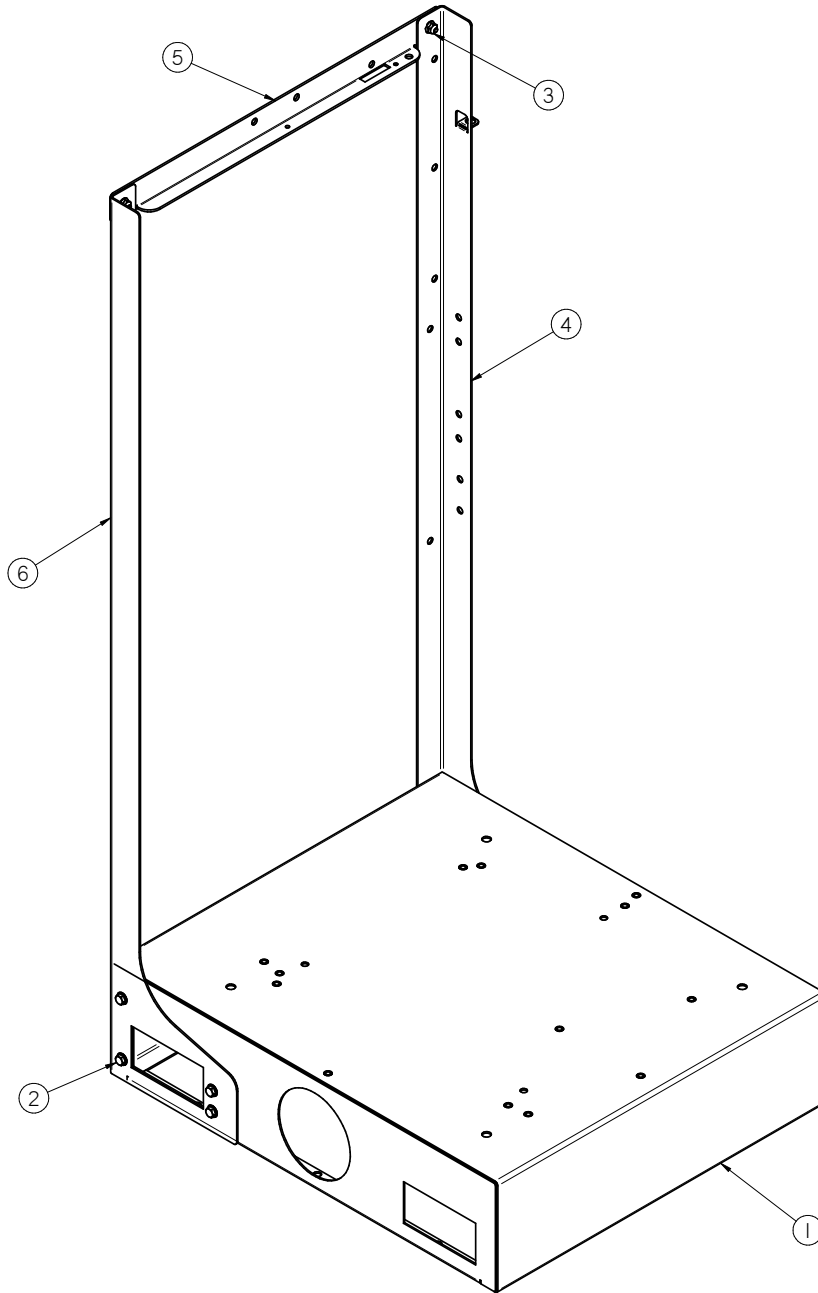
PUMP STANDS

**HIGH VOLUME PERISTALTIC PUMP HEAD & MOTOR ASSEMBLY (13-04-0214)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 01-01-0016 | GBOX 56C FR 4.8:1 GR                | 1   |
| 2      | 01-01-0160 | MTR .25HP 2500 RPM 34 90VDC         | 1   |
| 3      | 02-01-0004 | PUMP HEAD PRST MF IP 200RPM         | 2   |
| 4      | 02-01-0026 | PUMP DUAL MF IP HARDWARE SS         | 1   |
| 5      | 02-02-0127 | VLV BALL 2WAY .5 FNPT X .5 MNPT     | 2   |
| 6      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS      | 1   |
| 7      | 02-05-0086 | FTTG END CAP .500 NPT BP            | 1   |
| 8      | 02-06-0006 | FTTG 90 DEG .375HB X .500NPT ML NYL | 4   |
| 9      | 02-06-0011 | FTTG 90 DEG .500HB X .750NPT ML NYL | 1   |
| 10     | 02-06-0017 | FTTG 90 DEG STRT .500NPT PPE BLK    | 2   |
| 11     | 02-07-0009 | FTTG NIP .500 NPT X 1.75 TBE BP     | 2   |
| 12     | 02-07-0060 | FTTG NIP .500 NPT X 6.00 TBE PVC    | 1   |
| 13     | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 1   |
| 14     | 02-09-0005 | FTTG TEE .500 NPT PPE               | 3   |
| 15     | 02-12-0011 | FLTR TEE PPE .750 NPT 16 MESH BANJO | 1   |
| 16     | 03-08-0308 | NUT NYLOC .500 NPT 8464             | 1   |
| 17     | 03-08-0381 | CONN CG HEYCO M3200 LTCG 1/2 NPT    | 1   |
| 18     | 06-01-0037 | BOLT U .313-18 X 1.38 X 2.188 ZP    | 2   |
| 19     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 10  |
| 20     | 06-01-0137 | BOLT .375-16 X 2.00 ZP GR5 FTH      | 2   |
| 21     | 06-01-0248 | BOLT, .3125-18 UNC ZP G5; 4.00" LG  | 2   |
| 22     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 12  |
| 23     | 06-03-0019 | NUT LOCK FLG .3125-18 ZP GR5        | 6   |
| 24     | 06-07-0005 | CLMP HOSE .219 TO .625 X .313W ZP   | 4   |
| 25     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 1   |
| 26     | 102214     | BRKT 3HEAD MOTOR MNT PUMPSTD        | 1   |
| 27     | 1043BE     | BRKT PUMP ALL HEADS PUMPSTD         | 1   |
| 28     | 105970     | PLT TEE LOCATOR                     | 1   |
| 29     | 105979     | BRKT HV PUMPHEAD MNT PUMPSTD        | 1   |
| 30     | 13-05-0454 | HOSE MF .375 NPRN BLK - IP73        | 5   |

PUMP STANDS

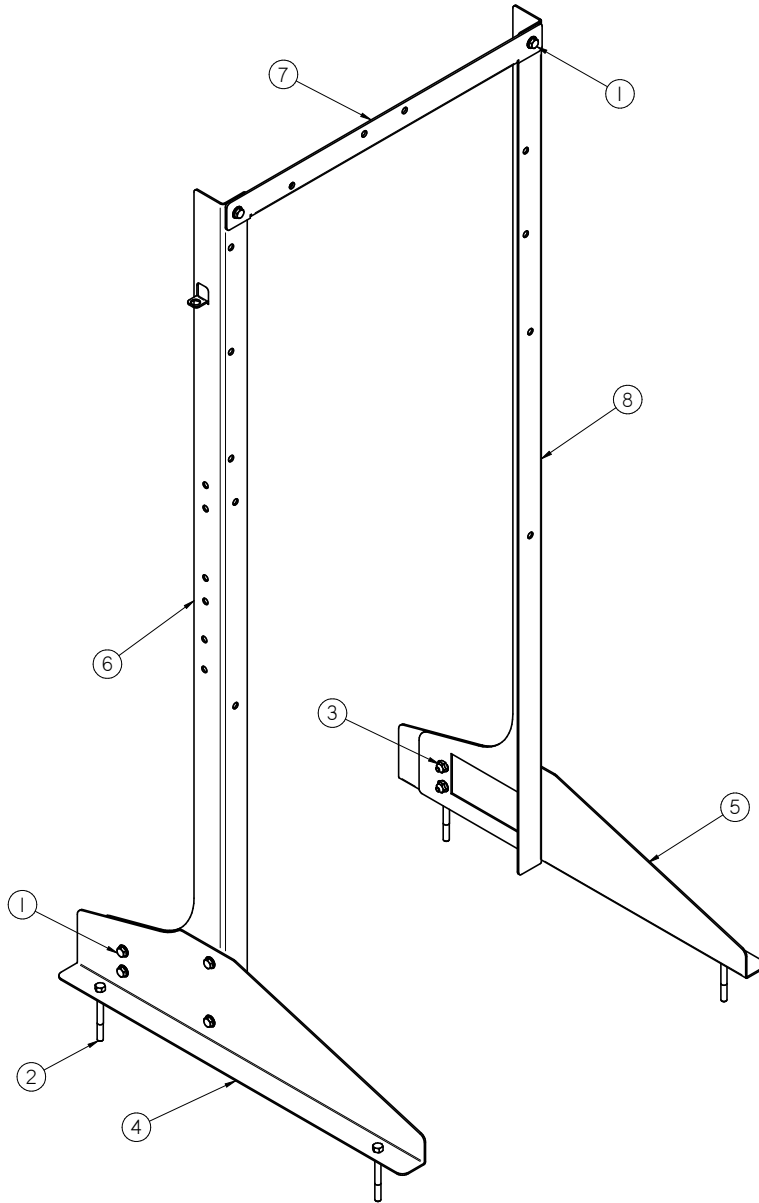
**BOX MOUNT FRAME ASSEMBLY (13-05-0445)**



| Item # | Part #     | Description                    | Qty |
|--------|------------|--------------------------------|-----|
| 1      | 05-03-1053 | WDMT SMALL PUMPSTAND BASE BOX  | 1   |
| 2      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5 | 10  |
| 3      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5    | 2   |
| 4      | 1043DA     | PLT PUMPSTAND LH UPRIGHT       | 1   |
| 5      | 1043E0     | PLT XBEAM SUPP VLV PUMPSTD     | 1   |
| 6      | 104426     | PLT PUMPSTAND RH UPRIGHT       | 1   |

PUMP STANDS

**FLOOR MOUNT FRAME ASSEMBLY (13-05-0446)**



| Item # | Part #     | Description                     | Qty |
|--------|------------|---------------------------------|-----|
| 1      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5  | 10  |
| 2      | 06-01-0220 | BOLT 3/8-16 CONC ANCHOR ZP 3.75 | 4   |
| 3      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5     | 10  |
| 4      | 1043D0     | PLT FOOT PAD FLR MNT BASE LH    | 1   |
| 5      | 1043D1     | PLT FOOT PAD FLR MNT BASE RH    | 1   |
| 6      | 1043DA     | PLT PUMPSTAND LH UPRIGHT        | 1   |
| 7      | 1043E0     | PLT XBEAM SUPP VLV PUMPSTD      | 1   |
| 8      | 104426     | PLT PUMPSTAND RH UPRIGHT        | 1   |



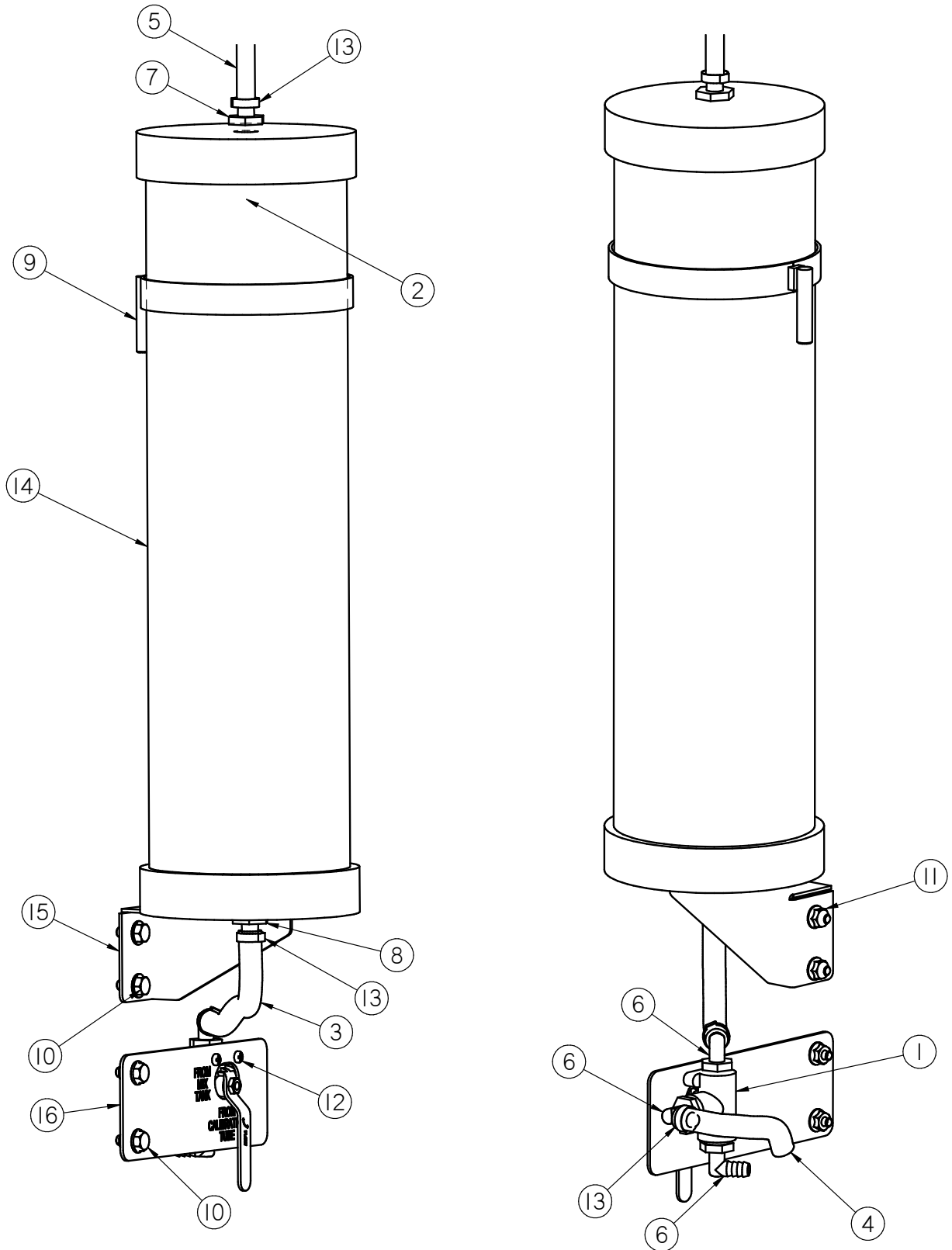
PUMP STANDS

**100 OZ CALIBRATION TUBE ASSEMBLY (13-04-0215)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0007 | VLV BALL .500 NPT 3WAY BRSS         | 1   |
| 2      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 3      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 4      | 02-03-0005 | .50 RNT TUBE                        | 1   |
| 5      | 02-06-0010 | FTTG 90 DEG .500HB X .500NPT ML NYL | 2   |
| 6      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 1   |
| 7      | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL   | 1   |
| 8      | 03-08-0192 | CONN CG ZINC 0.75NPT .375-.750      | 1   |
| 9      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 4   |
| 10     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 4   |
| 11     | 06-06-0008 | SCRW MACH 10-24 X .250 PHLP PHD ZP  | 2   |
| 12     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 3   |
| 13     | 07-02-0033 | CYL CALB LOOSE TOP 3000ML           | 1   |
| 14     | 09-03-0015 | CAL TUBE LABEL 3000 ML              | 1   |
| 15     | 1043AC     | WDMT CAL TUBE BRKT 100 OZ           | 1   |
| 16     | 1043D7     | PLT LABEL SOURCE PUMPSTD            | 1   |
| 17     | 1043DB     | PLT CAL TUBE MNT BRKT 100 OZ        | 1   |

PUMP STANDS

**340 OZ CALIBRATION TUBE ASSEMBLY (13-04-0216)**





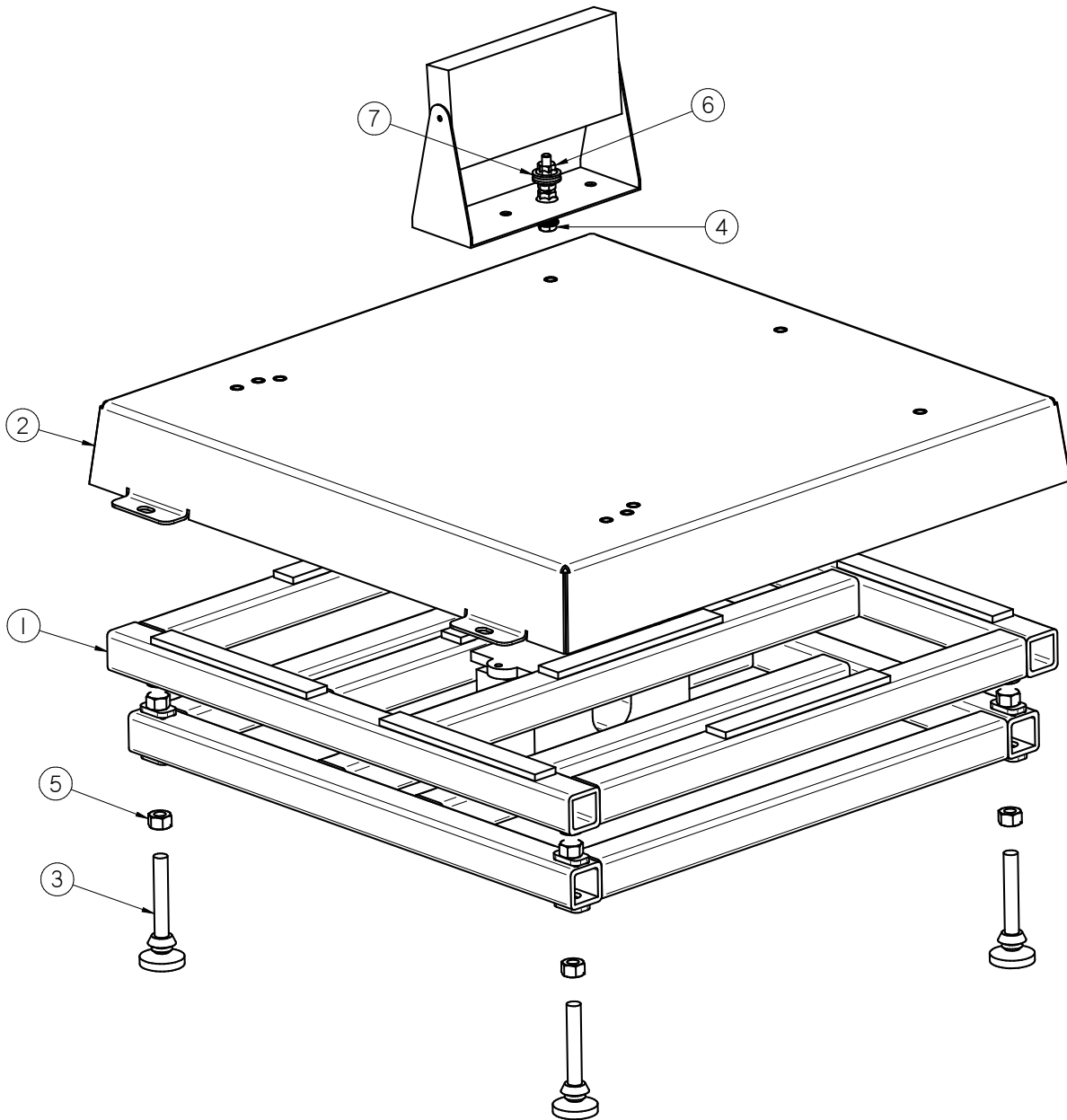
PUMP STANDS

**340 OZ CALIBRATION TUBE ASSEMBLY (13-04-0216)**

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0007 | VLV BALL .500 NPT 3WAY BRSS         | 1   |
| 2      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 3      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 4      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 5      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 6      | 02-06-0010 | FTTG 90 DEG .500HB X .500NPT ML NYL | 3   |
| 7      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 2   |
| 8      | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL   | 1   |
| 9      | 05-08-0006 | WDMT,INOC.BRK,SM                    | 1   |
| 10     | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 4   |
| 11     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 4   |
| 12     | 06-06-0008 | SCRW MACH 10-24 X .250 PHLP PHD ZP  | 2   |
| 13     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 5   |
| 14     | 07-02-0006 | CALIBRATION TUBE,10K ML - 2005      | 1   |
| 15     | 1043D6     | BRKT CAL TUBE MNT 340 OZ            | 1   |
| 16     | 1043D7     | PLT LABEL SOURCE PUMPSTD            | 1   |

PUMP STANDS

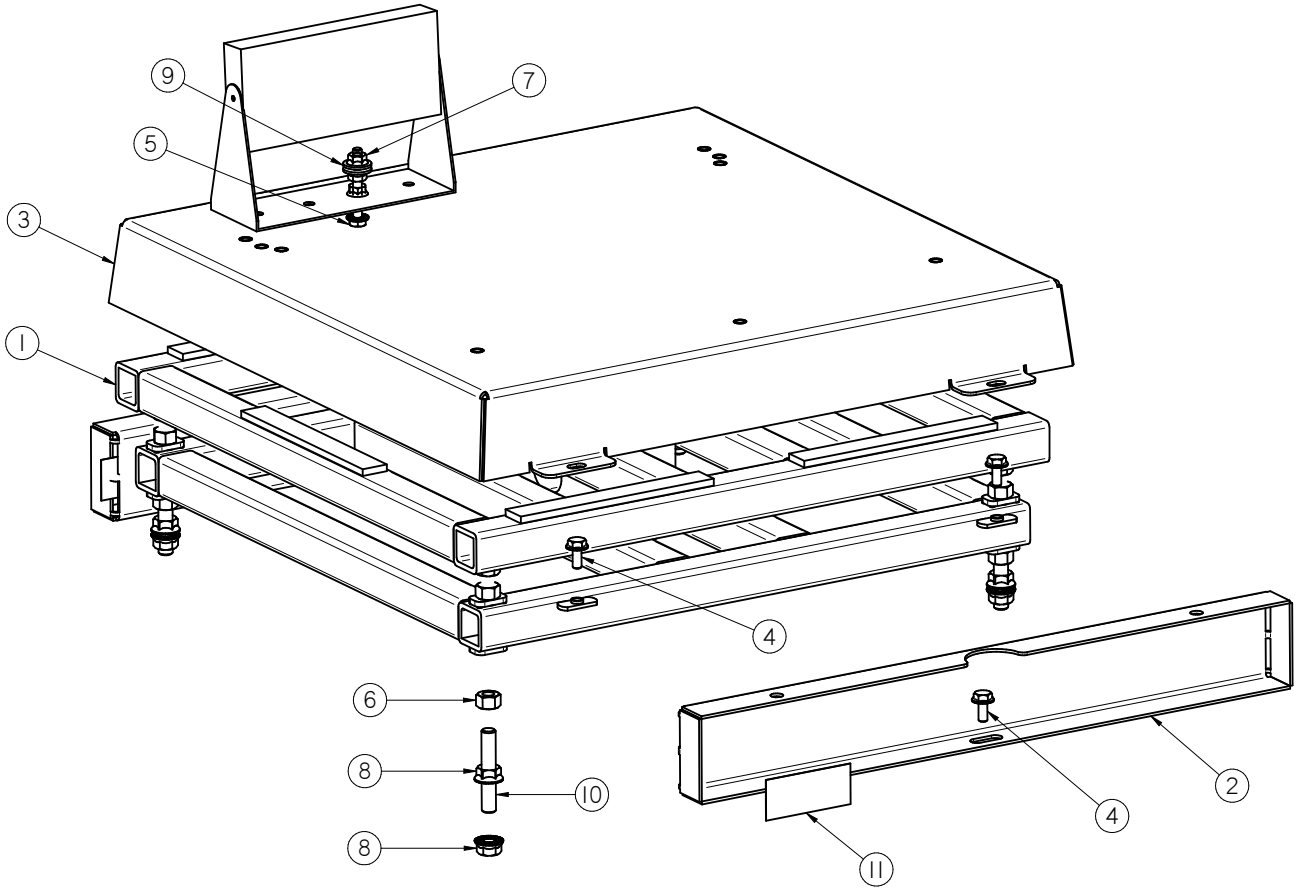
**FLOOR MOUNT SCALE WITH INDICATOR ASSEMBLY (13-05-0438)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 03-19-0055 | SCL CARDINAL EB-1024 24 X 24 X 1000 | 1   |
| 2      | 05-03-1073 | WDMT SCALE LID PUMPSTD              | 1   |
| 3      | 06-01-0176 | LEVELING MNT CUSHION .500-13 200LB  | 4   |
| 4      | 06-01-0204 | BOLT FLG .375-16 X 2.50 ZP GR5 FTH  | 1   |
| 5      | 06-02-0004 | NUT FULL .500-13 ZP GR5             | 4   |
| 6      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 3   |
| 7      | 06-05-0004 | WSHR FLAT .375 ZP                   | 2   |

PUMP STANDS

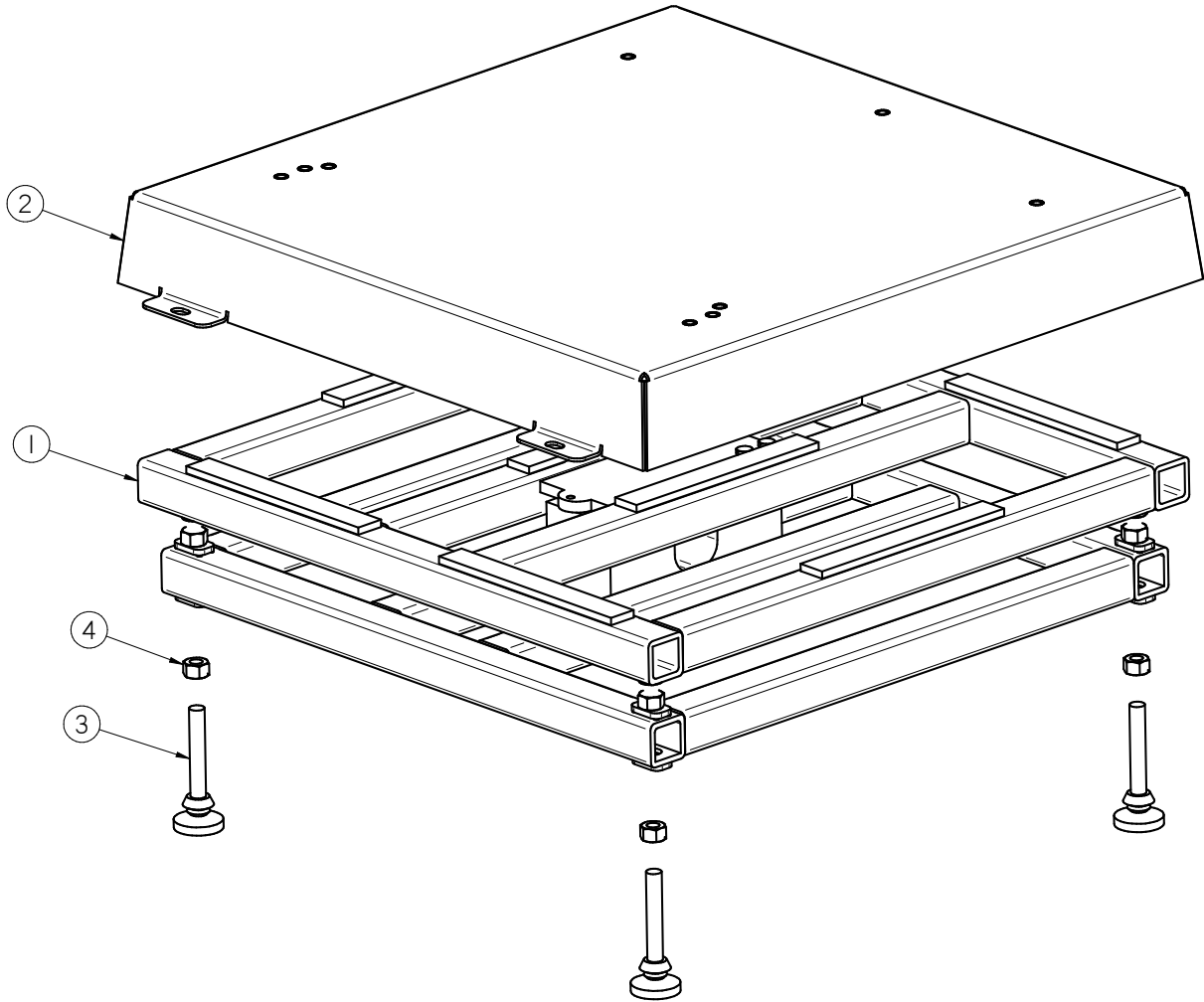
**BOX MOUNT SCALE WITH INDICATOR ASSEMBLY (13-05-0439)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 03-19-0055 | SCL CARDINAL EB-1024 24 X 24 X 1000 | 1   |
| 2      | 05-03-1072 | ASSY SPACER PUMPSTD                 | 1   |
| 3      | 05-03-1073 | WDMT SCALE LID PUMPSTD              | 1   |
| 4      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 6   |
| 5      | 06-01-0204 | BOLT FLG .375-16 X 2.50 ZP GR5 FTH  | 1   |
| 6      | 06-02-0004 | NUT FULL .500-13 ZP GR5             | 4   |
| 7      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 3   |
| 8      | 06-03-0015 | NUT LOCK FLG .500-13 ZP GR5         | 8   |
| 9      | 06-05-0004 | WSHR FLAT .375 ZP                   | 2   |
| 10     | 06-14-0018 | STUD .500-13 ZP X 3.00              | 4   |
| 11     | 09-02-0020 | LBL ATWRK ATT SCALE BRKT            | 2   |

PUMP STANDS

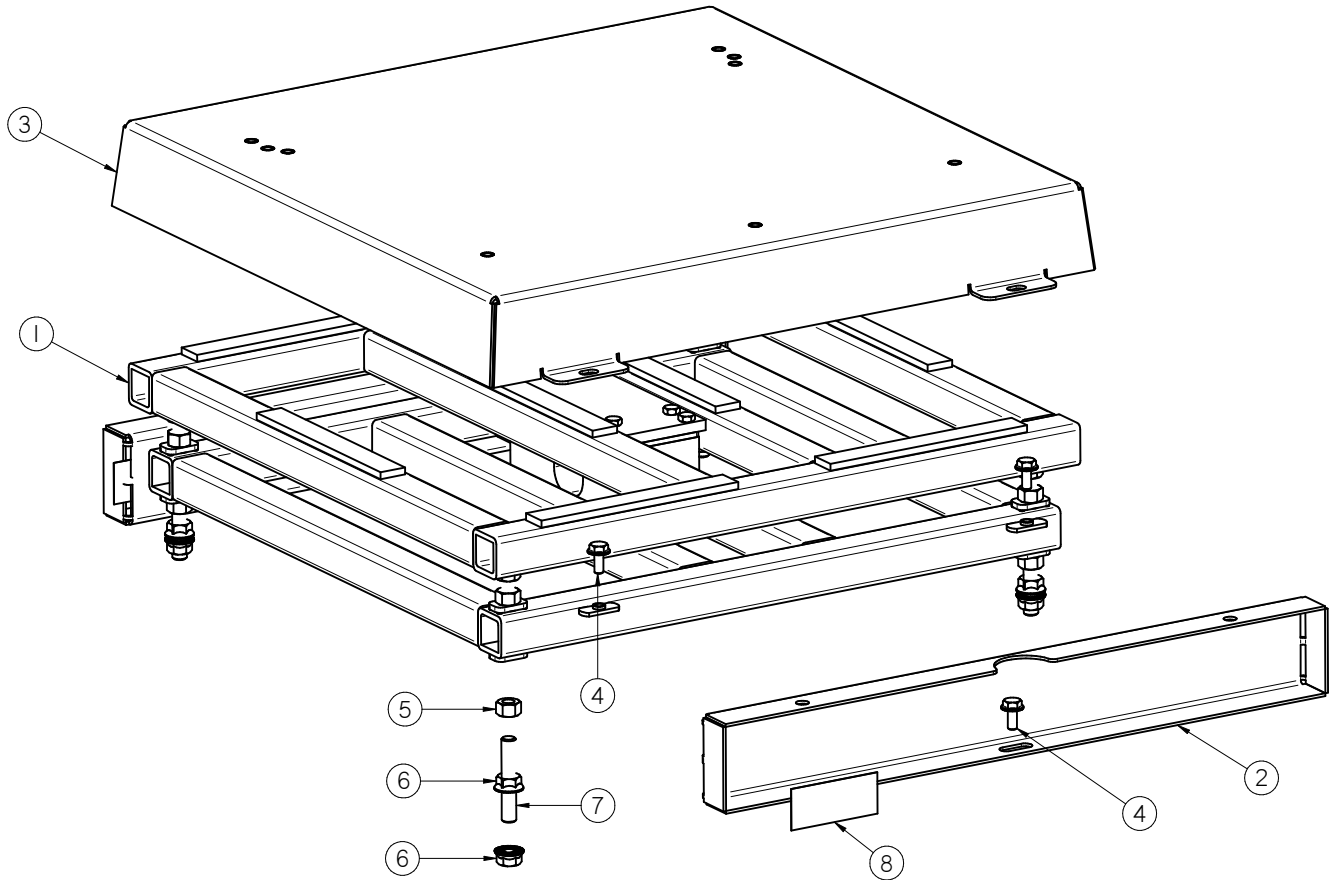
**LOSS-IN-WEIGHT FLOOR MOUNT SCALE ASSEMBLY (13-05-0436)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 03-19-0083 | SCL CARDINAL EB-1024 24 X 24 X 1500 | 1   |
| 2      | 05-03-1073 | WDMT SCALE LID PUMPSTD              | 1   |
| 3      | 06-01-0176 | LEVELING MNT CUSHION .500-13 200LB  | 4   |
| 4      | 06-02-0004 | NUT FULL .500-13 ZP GR5             | 4   |

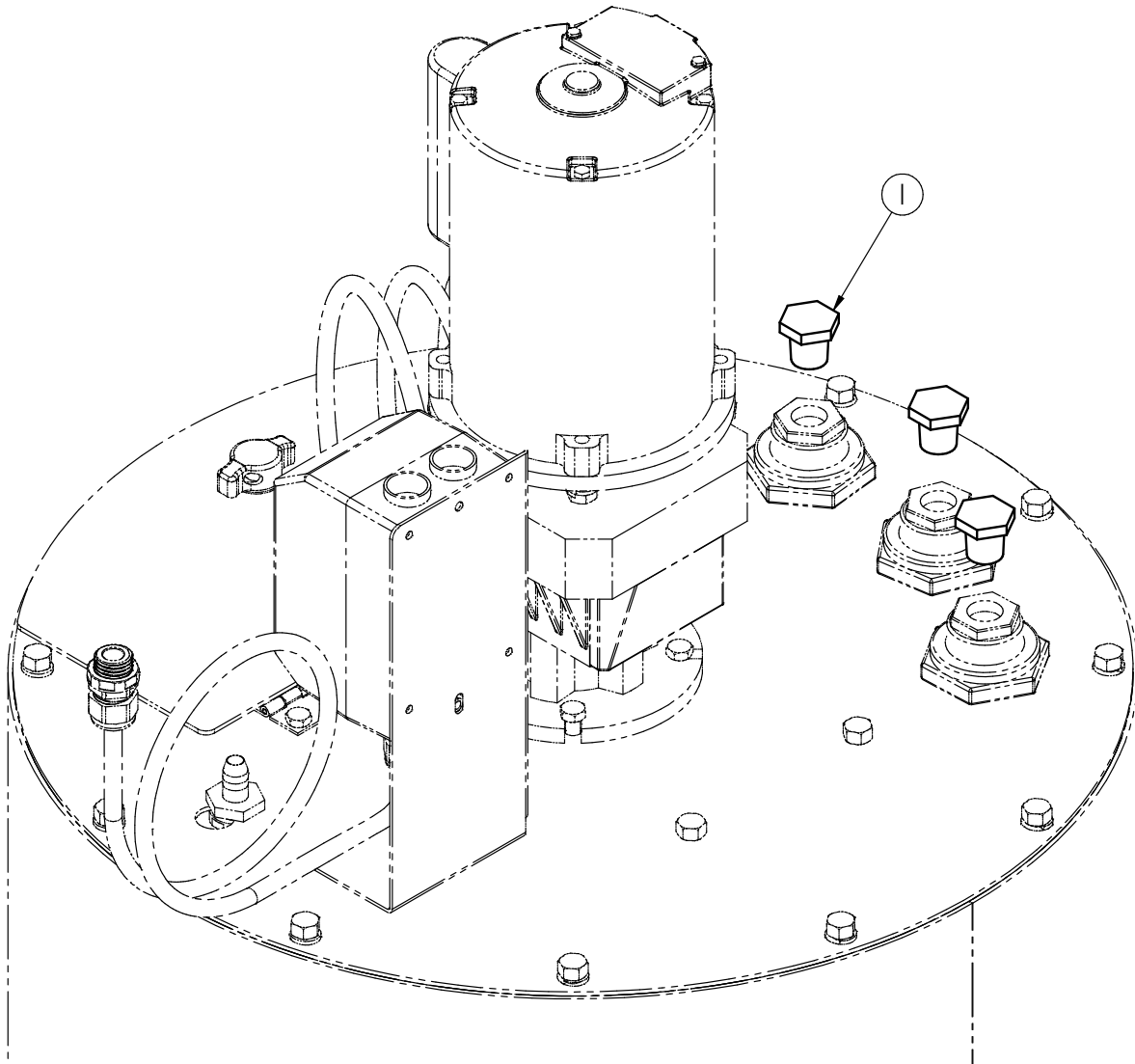
PUMP STANDS

**LOSS-IN-WEIGHT BOX MOUNT SCALE ASSEMBLY (13-05-0437)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 03-19-0083 | SCL CARDINAL EB-1024 24 X 24 X 1500 | 1   |
| 2      | 05-03-1072 | ASSY SPACER PUMPSTD                 | 1   |
| 3      | 05-03-1073 | WDMT SCALE LID PUMPSTD              | 1   |
| 4      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 6   |
| 5      | 06-02-0004 | NUT FULL .500-13 ZP GR5             | 4   |
| 6      | 06-03-0015 | NUT LOCK FLG .500-13 ZP GR5         | 8   |
| 7      | 06-14-0018 | STUD .500-13 ZP X 3.00              | 4   |
| 8      | 09-02-0020 | LBL ATWRK ATT SCALE BRKT            | 2   |

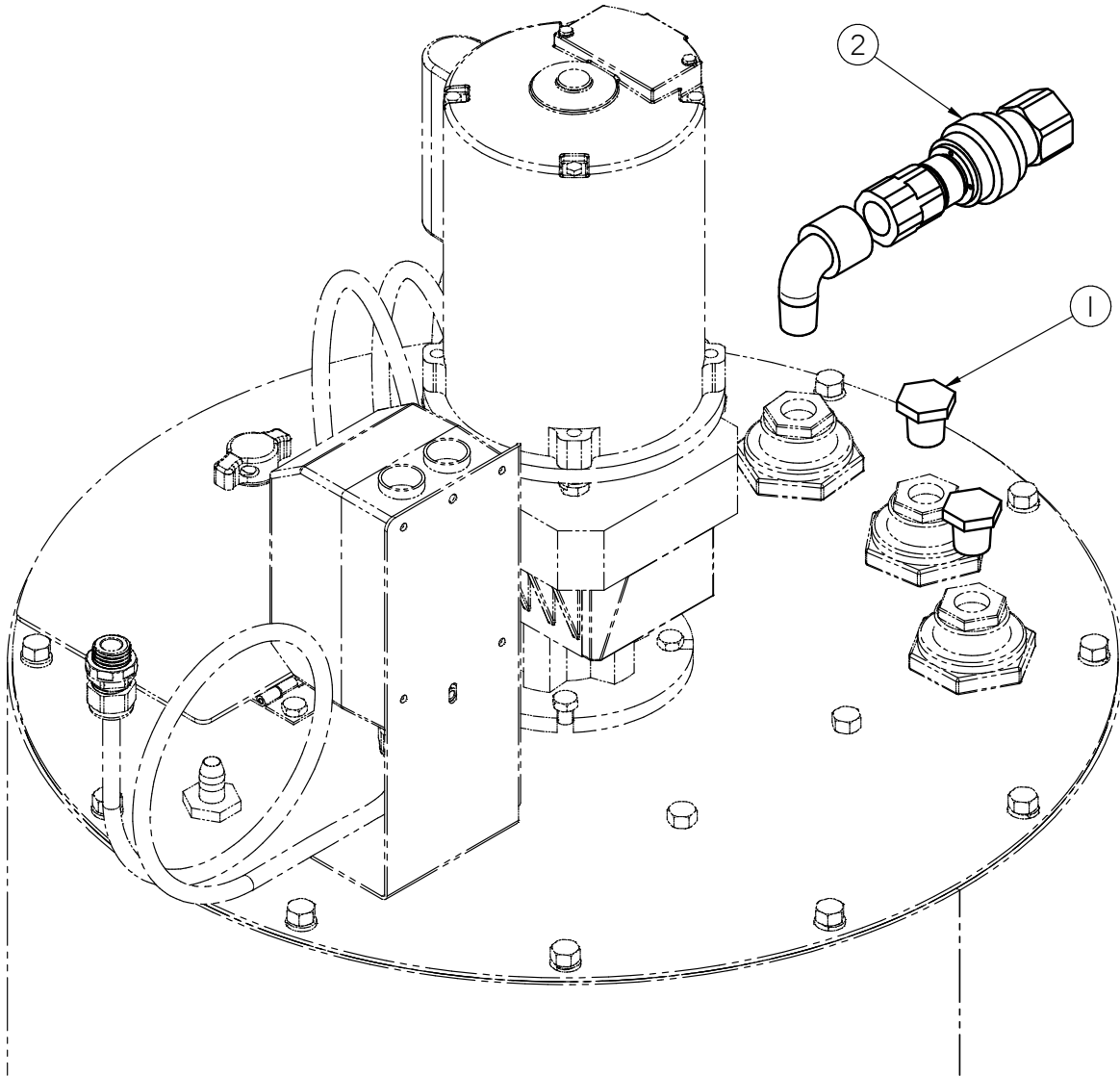
PUMP STANDS  
**NO FITTINGS KIT (13-05-0449)**



| Item # | Part #     | Description                   | Qty |
|--------|------------|-------------------------------|-----|
| 1      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK | 3   |

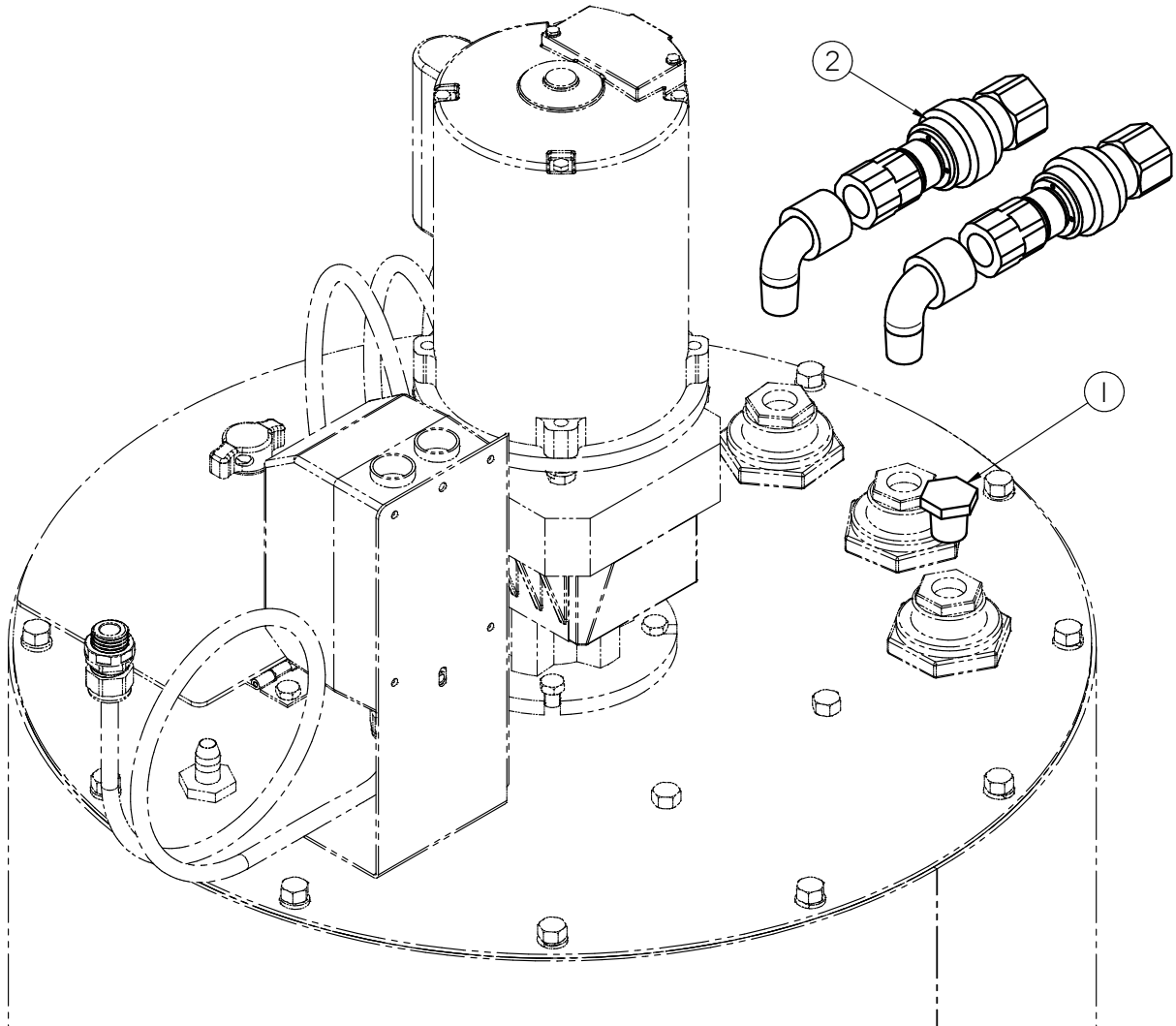
PUMP STANDS

**1 DRY LOCK FITTING KIT (13-05-0450)**



| Item # | Part #     | Description                    | Qty |
|--------|------------|--------------------------------|-----|
| 1      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK* | 2   |
| 2      | 13-10-0017 | KIT FTTG CHEM TNK .5NPT PARKER | 1   |

PUMP STANDS  
**2 DRY LOCK FITTING KIT (13-05-0451)**

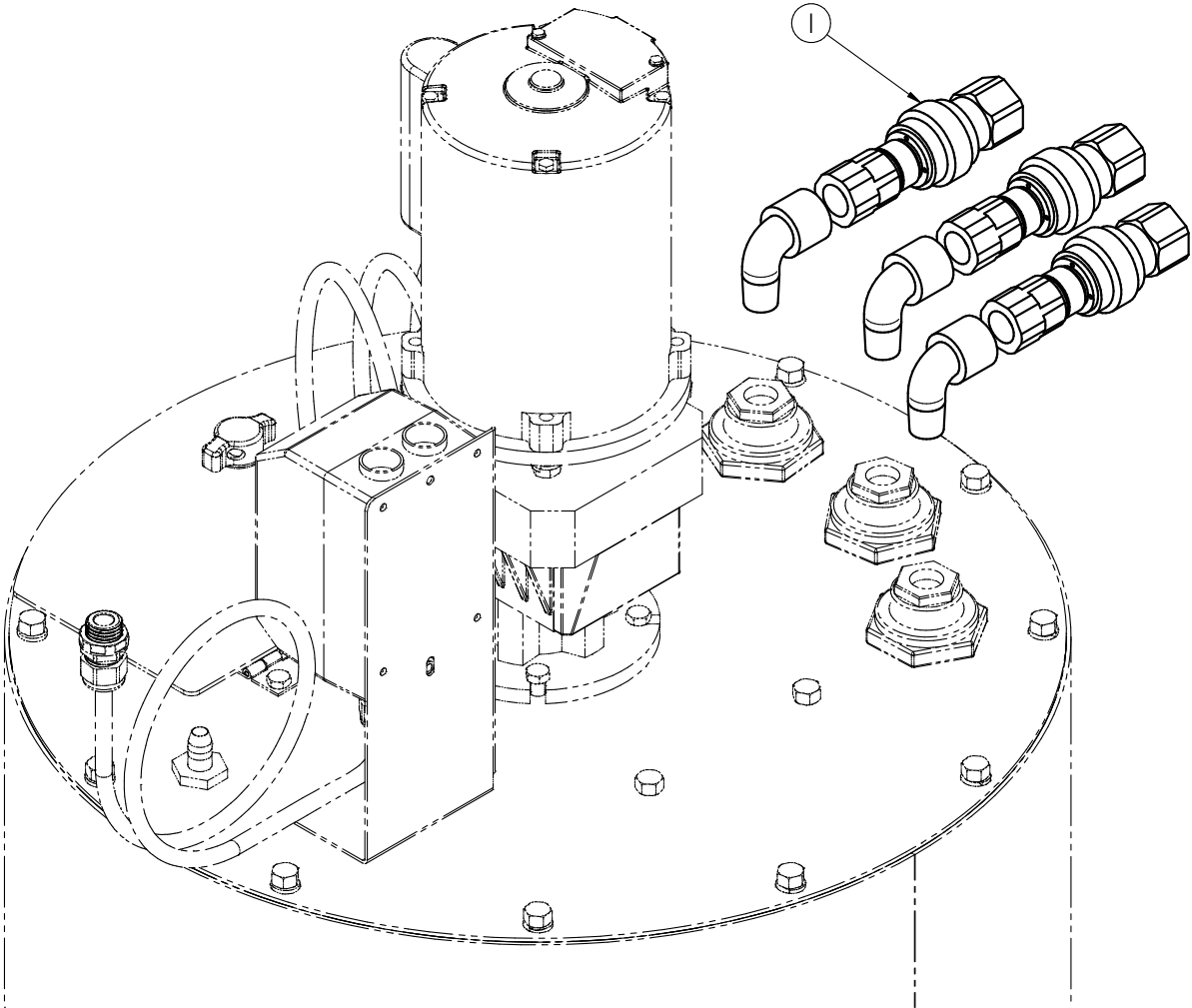


| Item # | Part #     | Description                    | Qty |
|--------|------------|--------------------------------|-----|
| 1      | 02-14-0002 | FTTG PLUG HH .500 NPT PPE BLK* | 1   |
| 2      | 13-10-0017 | KIT FTTG CHEM TNK .5NPT PARKER | 2   |



PUMP STANDS

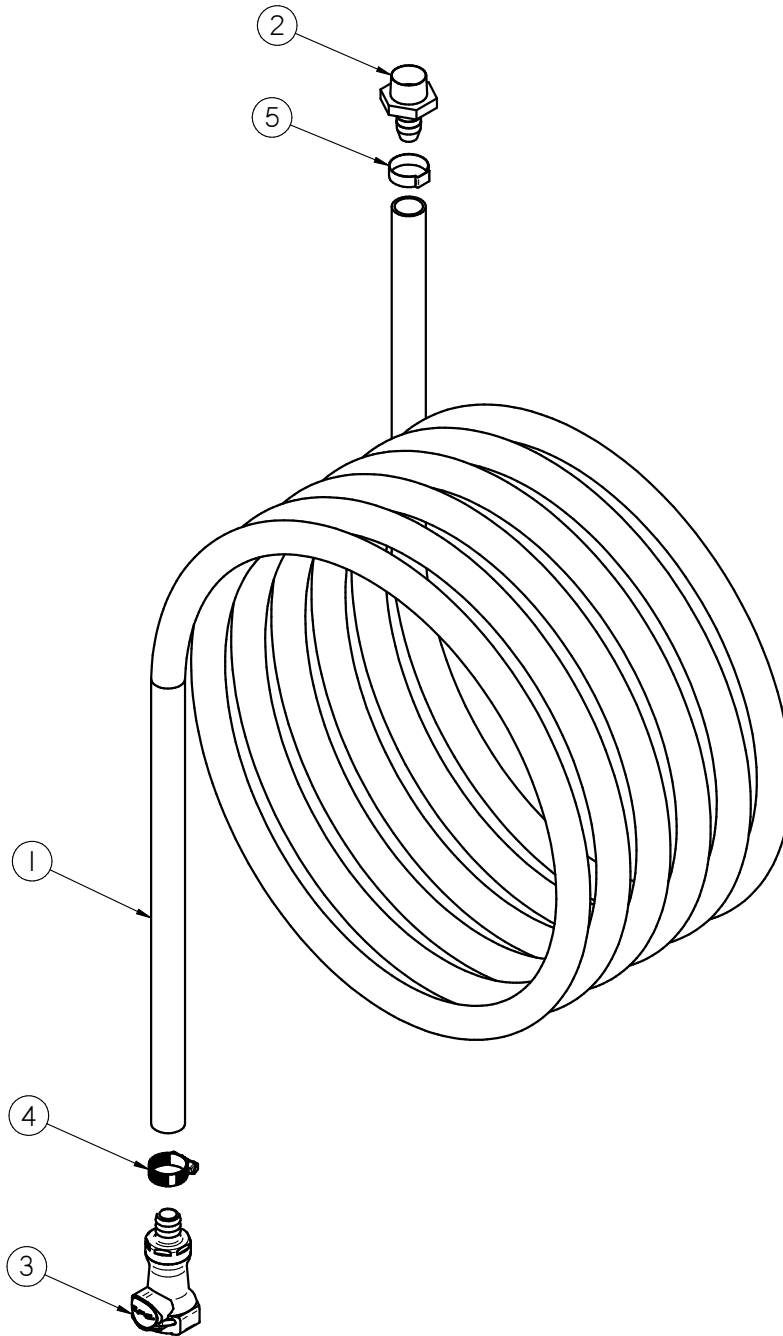
**3 DRY LOCK FITTING KIT (13-05-0452)**



| Item # | Part #     | Description                    | Qty |
|--------|------------|--------------------------------|-----|
| 1      | 13-10-0017 | KIT FTTG CHEM TNK .5NPT PARKER | 3   |

PUMP STANDS

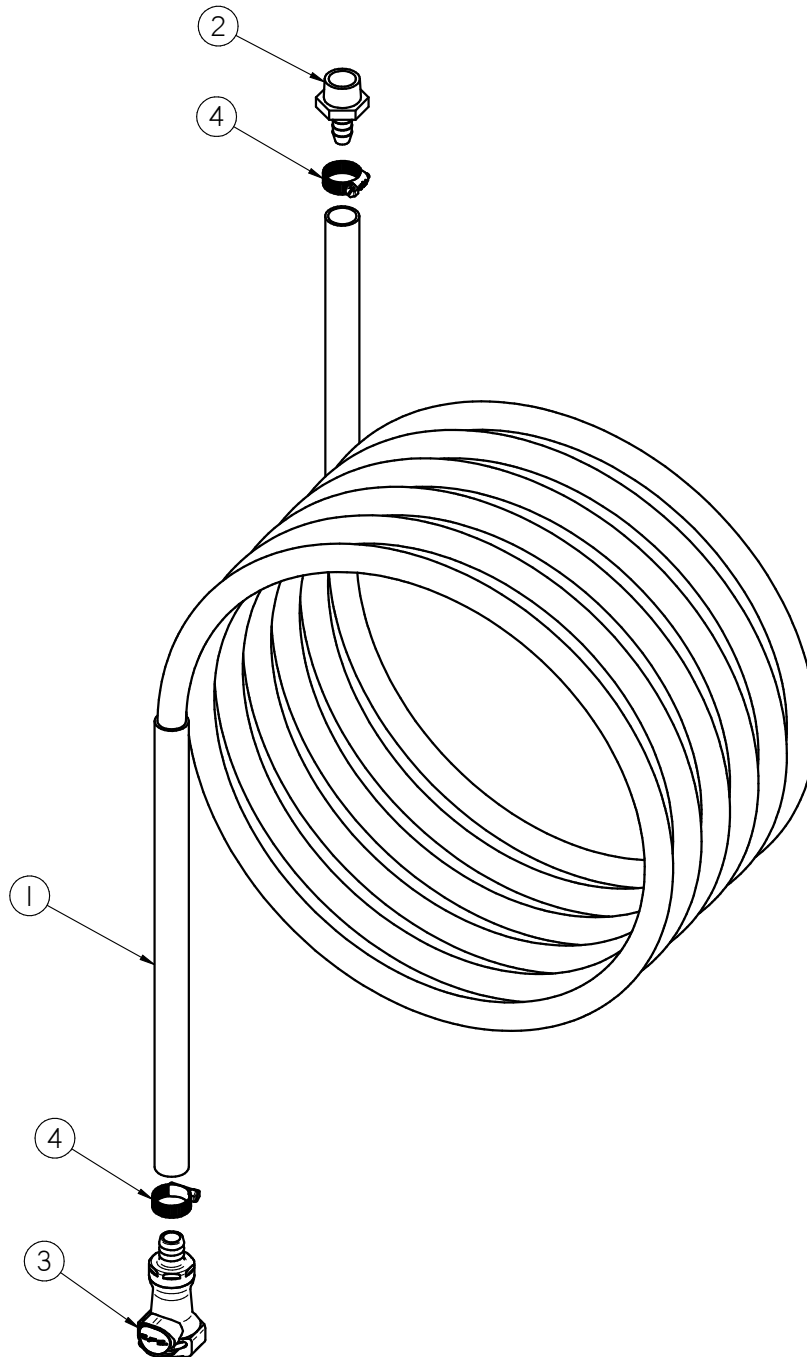
**.50 INCH TREATER HOSE ASSEMBLY (13-04-0220)**



| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 02-03-0005 | TUBE .50 RNT                       | 1   |
| 2      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL | 1   |
| 3      | 02-15-0013 | FTTG CPLG .500 HB QCK DISC BODY    | 1   |
| 4      | 06-07-0006 | CLMP HOSE .500 TO .906 X .313W ZP  | 1   |
| 5      | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827      | 1   |

PUMP STANDS

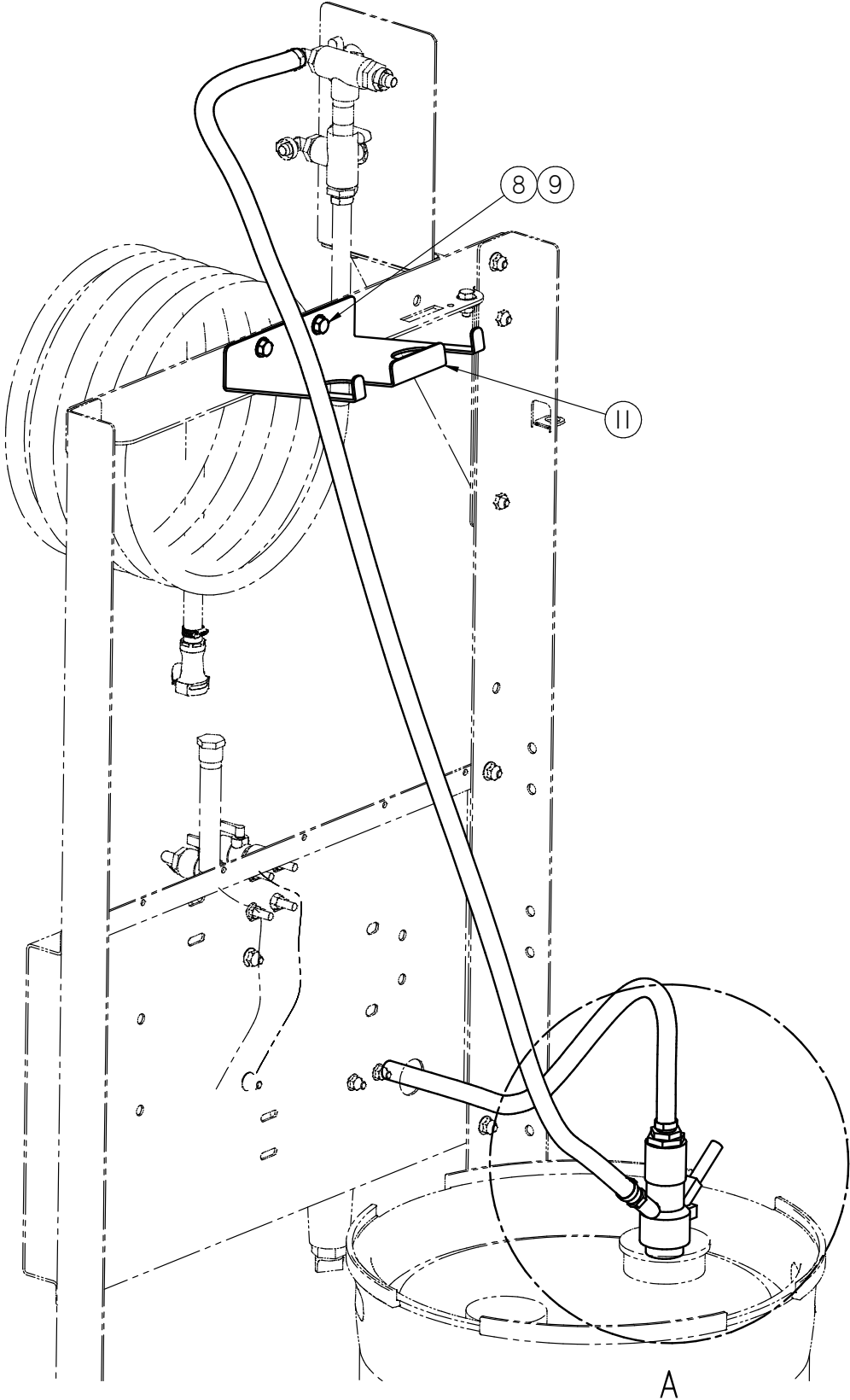
**.375 INCH TREATER HOSE ASSEMBLY (13-04-0221)**



| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 02-03-0004 | TUBE .375 RNT                      | 1   |
| 2      | 02-08-0005 | FTTG STGHT .375HB X .500NPT ML NYL | 1   |
| 3      | 02-15-0025 | FTTG CPLG .375 HB QCK DISC BODY    | 1   |
| 4      | 06-07-0006 | CLMP HOSE .500 TO .906 X .313W ZP  | 2   |

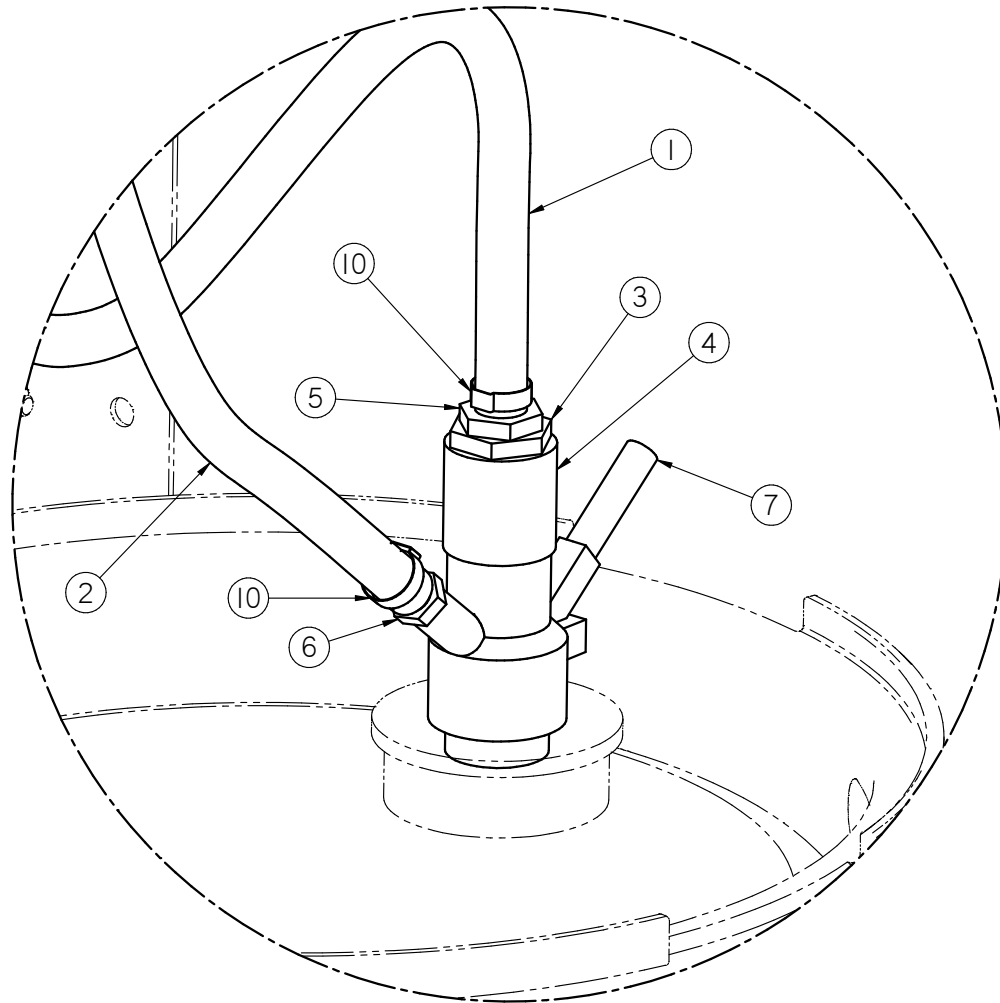
PUMP STANDS

**1 PORT TOTE CONNECTION ASSEMBLY (04-03-0253)**



PUMP STANDS

**1 PORT TOTE CONNECTION ASSEMBLY (04-03-0253)**

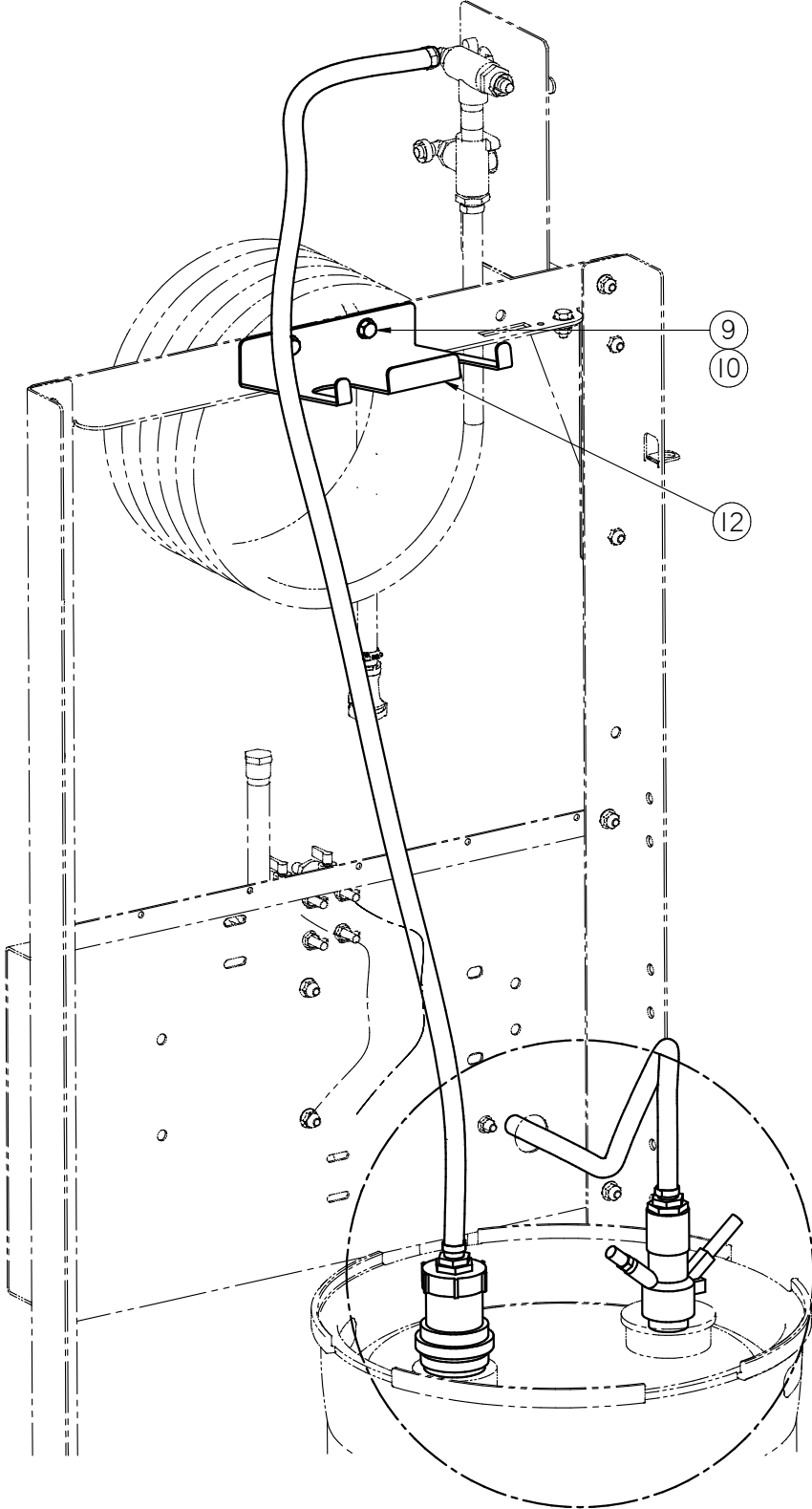


DETAIL A

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 2      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 3      | 02-04-0007 | FTTG BUSH 1.00NPT x .750NPT PPE     | 1   |
| 4      | 02-05-0026 | FTTG CPLG 1.00 NPT FM 150PSI SS     | 1   |
| 5      | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL   | 1   |
| 6      | 02-08-0015 | FTTG STGHT .500HB X .250NPT ML NYL  | 1   |
| 7      | 02-15-0045 | FTTG CPLG DRM FILL HD SS MICROMATIC | 1   |
| 8      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 2   |
| 9      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 2   |
| 10     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 2   |
| 11     | 102DB2     | HOSE HNGR UTOTE                     | 1   |

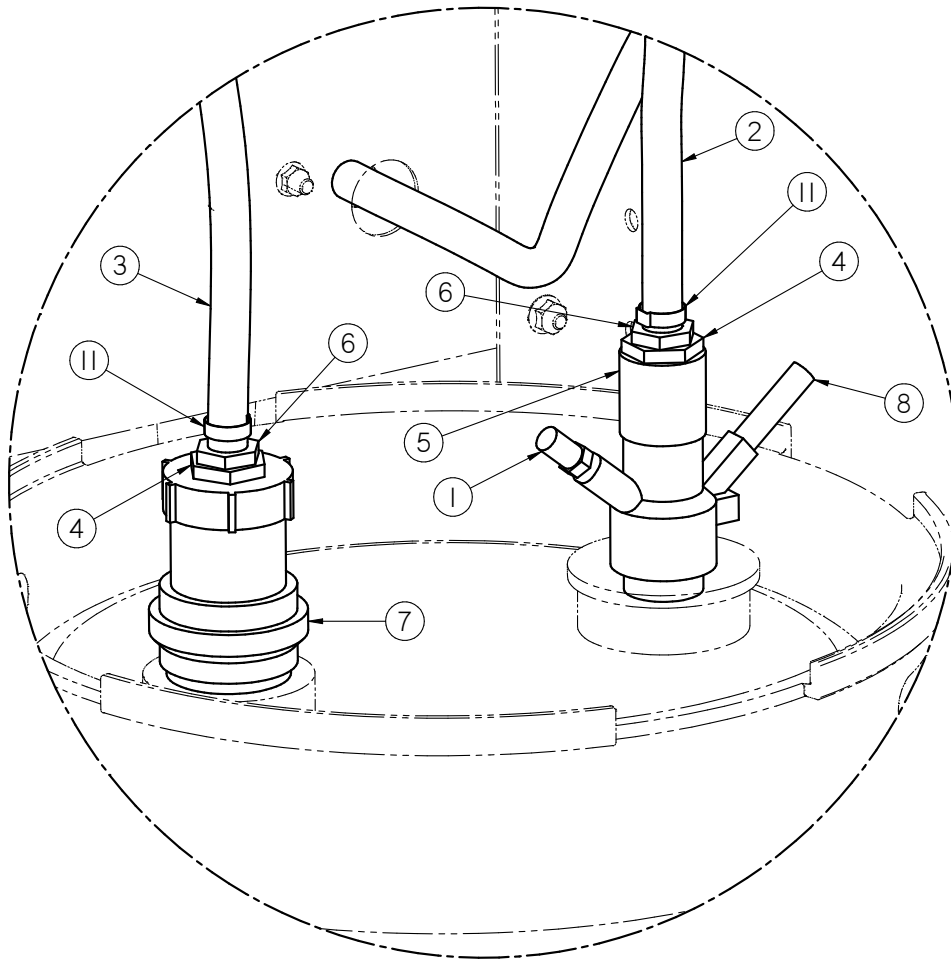
PUMP STANDS

**2 PORT TOTE CONNECTION ASSEMBLY (04-03-0252)**



PUMP STANDS

**2 PORT TOTE CONNECTION ASSEMBLY (04-03-0252)**

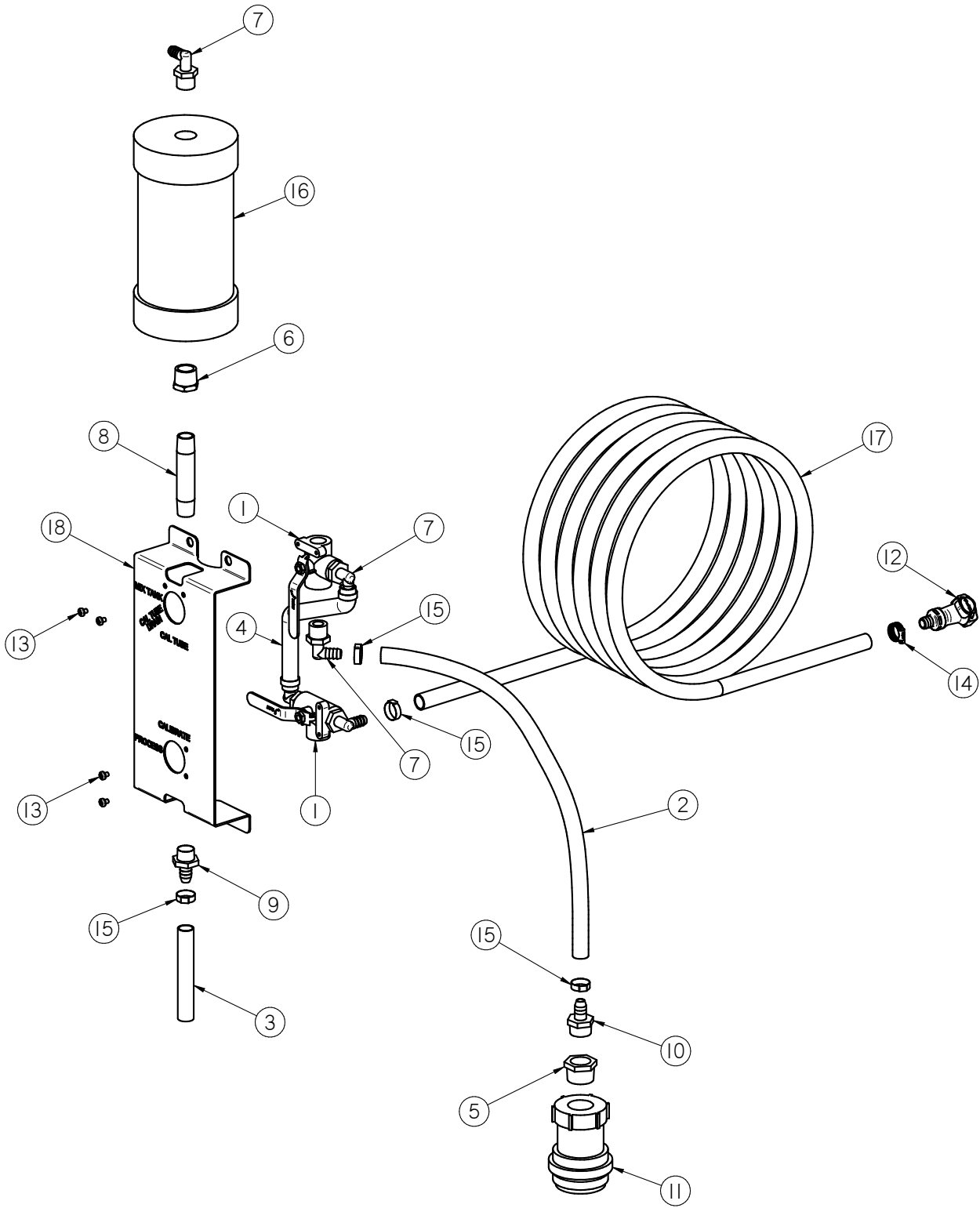


DETAIL A

| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0050 | FLTR EXHAUST BRZ .250 NPT ML        | 1   |
| 2      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 3      | 02-03-0005 | .5 RNT TUBE                         | 1   |
| 4      | 02-04-0007 | FTTG BUSH 1.00NPT x .750NPT PPE     | 2   |
| 5      | 02-05-0026 | FTTG CPLG 1.00 NPT FM 150PSI SS     | 1   |
| 6      | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL   | 2   |
| 7      | 02-15-0005 | FTTG CPLG 1.00 NPT FM PARKER POLY   | 1   |
| 8      | 02-15-0045 | FTTG CPLG DRM FILL HD SS MICROMATIC | 1   |
| 9      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 2   |
| 10     | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5         | 2   |
| 11     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 2   |
| 12     | 102DB2     | HOSE HNGR UTOTE                     | 1   |

PUMP STANDS

**TOTE UNIVERSAL VALVE ASSEMBLY (13-05-0364)**





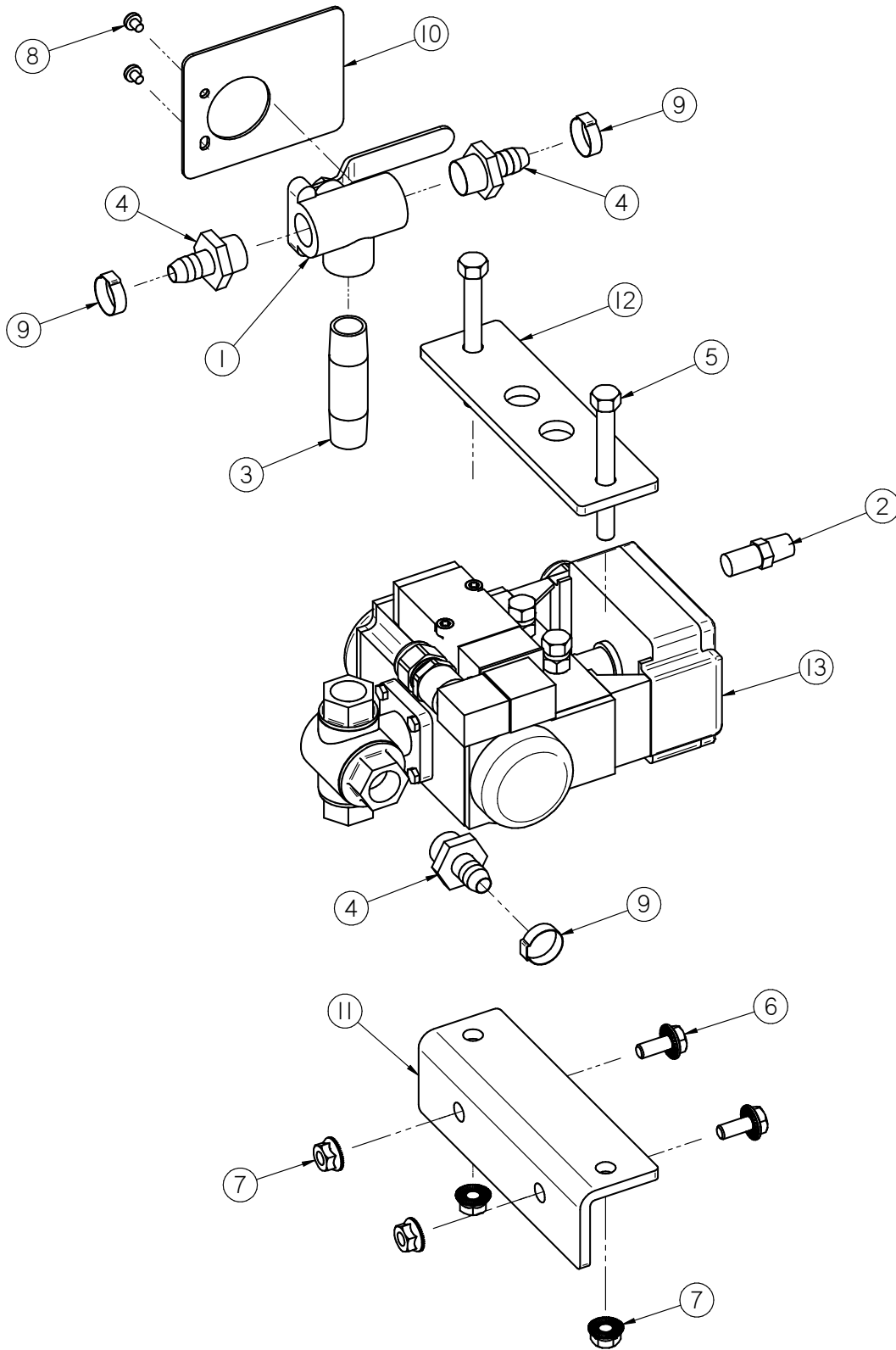
PUMP STANDS

**TOTE UNIVERSAL VALVE ASSEMBLY (13-05-0364)**

| Item # | Part #     | Description                          | Qty |
|--------|------------|--------------------------------------|-----|
| 1      | 02-02-0007 | VLV BALL .500 NPT 3WAY BRSS          | 2   |
| 2      | 02-03-0005 | TBG .50 RNT                          | 1   |
| 3      | 02-03-0005 | TBG .50 RNT                          | 1   |
| 4      | 02-03-0005 | TBG .50 RNT                          | 1   |
| 5      | 02-04-0007 | FTTG BUSH 1.00NPT x .750NPT PPE      | 1   |
| 6      | 02-04-0008 | FTTG BUSH .750NPT X .500NPT SS       | 1   |
| 7      | 02-06-0010 | FTTG 90 DEG .500HB X .500NPT ML NYL  | 5   |
| 8      | 02-07-0013 | FTTG NIP .500 NPT X 4.00 TBE SS      | 1   |
| 9      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL   | 1   |
| 10     | 02-08-0008 | FTTG STGHT .500HB X .75NPT ML NYL    | 1   |
| 11     | 02-15-0005 | FTTG CPLG 1.00 NPT FM PARKER POLY    | 1   |
| 12     | 02-15-0013 | FTTG CPLG .500 HB QCK DISC BODY      | 1   |
| 13     | 06-06-0008 | SCRW MACH 10-24 X .250 PHLP PHD ZP   | 4   |
| 14     | 06-07-0006 | CLMP HOSE .500 TO .906 X .313W ZP    | 1   |
| 15     | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827        | 6   |
| 16     | 07-02-0018 | CYL CALB LOOSE TOP 1300ML W/OZ LABEL | 1   |
| 17     | 102A89     | TUBE                                 | 1   |
| 18     | 103D03     | VLV MNT UNIV TOTE                    | 1   |

PUMP STANDS

**AUTOMATIC PUMP STAND VALVE CONTROL ASSEMBLY (13-04-0219)**



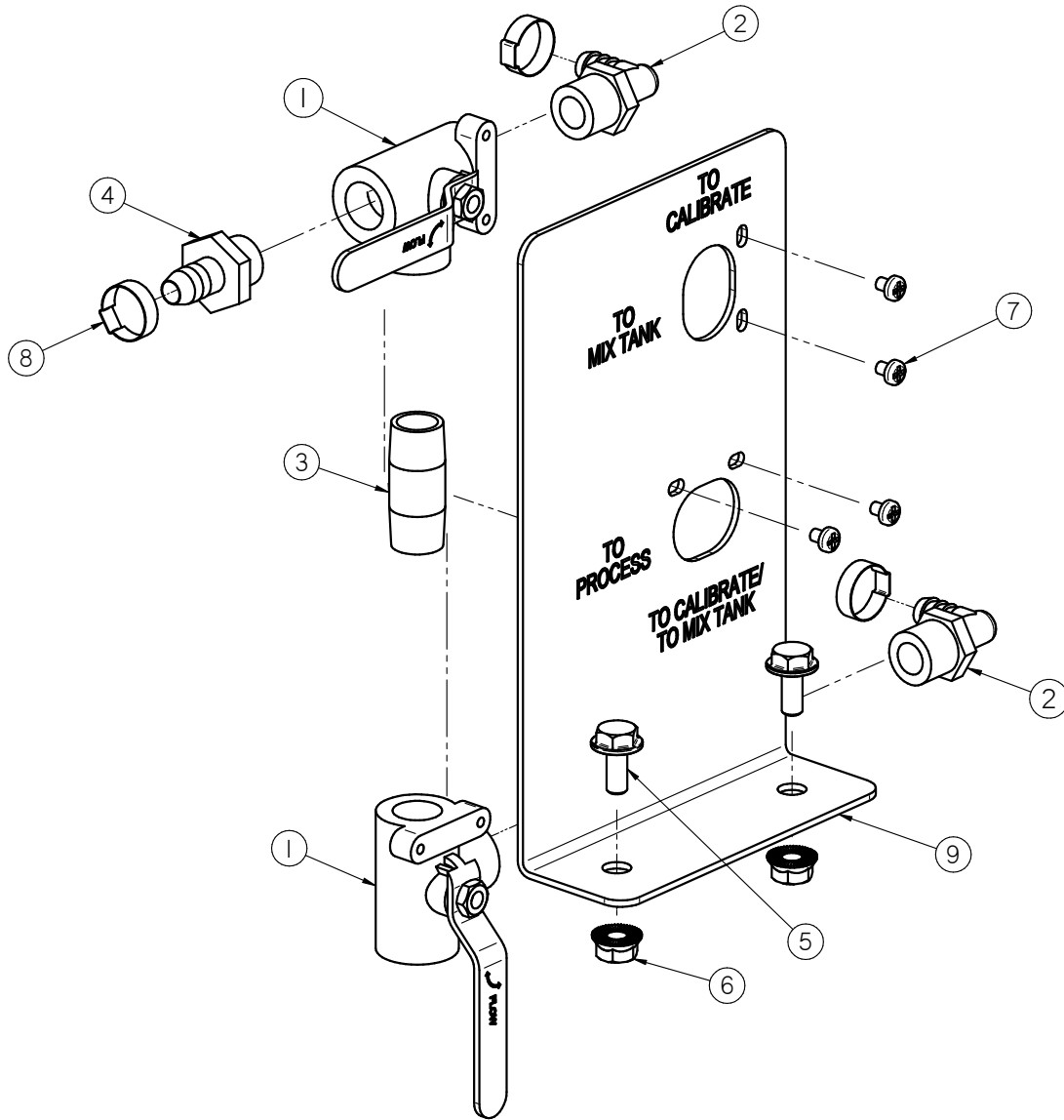
PUMP STANDS

**AUTOMATIC PUMP STAND VALVE CONTROL ASSEMBLY (13-04-0219)**

| Item # | Part #     | Description                        | Qty |
|--------|------------|------------------------------------|-----|
| 1      | 02-02-0007 | VLV BALL .500 NPT 3WAY BRSS        | 1   |
| 2      | 02-02-0050 | FLTR EXHAUST BRZ .250 NPT ML       | 1   |
| 3      | 02-07-0019 | FTTG NIP .500 NPT X 3.00 TBE SS    | 1   |
| 4      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL | 3   |
| 5      | 06-01-0022 | BOLT .375-16 X 3.50 ZP GR5         | 2   |
| 6      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5     | 2   |
| 7      | 06-03-0014 | NUT LOCK FLG .375-16 ZP GR5        | 4   |
| 8      | 06-06-0008 | SCRW MACH 10-24 X .250 PHLP PHD ZP | 2   |
| 9      | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827      | 3   |
| 10     | 102231     | PLT SOL VLV LABEL PUMPSTD          | 1   |
| 11     | 1029EA     | BRKT MNT CLMP                      | 1   |
| 12     | 1029EB     | PLT CLMP                           | 1   |
| 13     | 13-04-0247 | ASSY AUTO CONTROL PUMPSTAND        | 1   |

PUMP STANDS

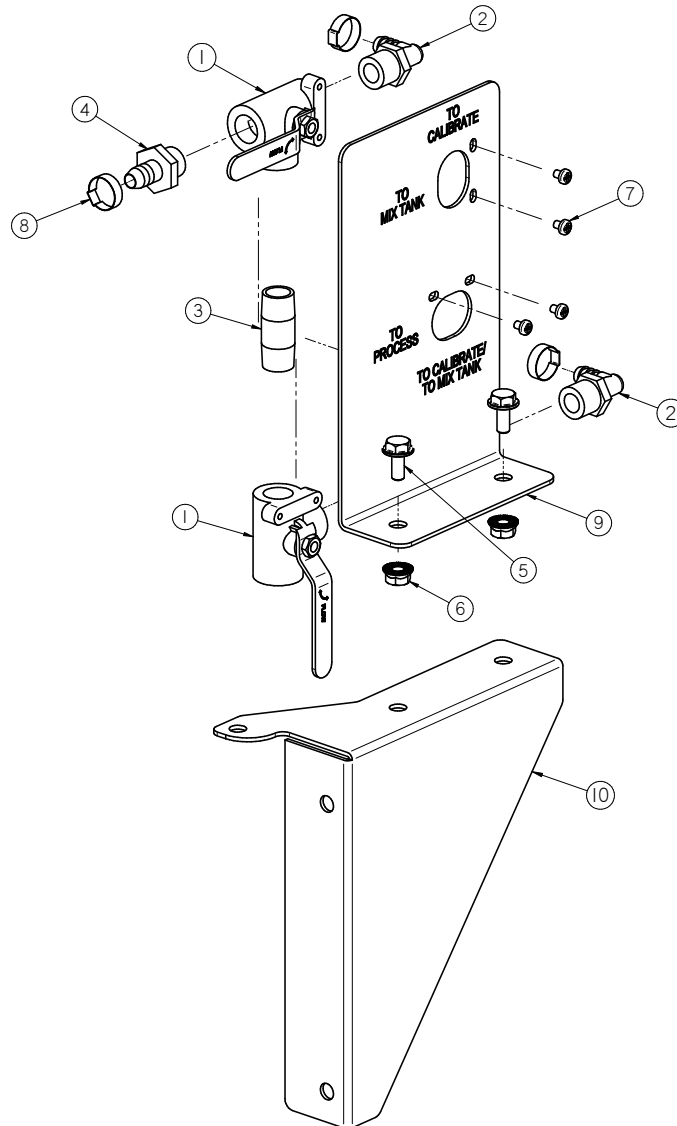
**MANUAL PUMP STAND VALVE CONTROLS ASSEMBLY (13-04-0217)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0007 | VLV BALL .500 NPT 3WAY BRSS         | 2   |
| 2      | 02-06-0010 | FTTG 90 DEG .500HB X .500NPT ML NYL | 2   |
| 3      | 02-07-0010 | FTTG NIP .500 NPT X 2.00 TBE SS     | 1   |
| 4      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 1   |
| 5      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 2   |
| 6      | 06-03-0033 | NUT LOCK FLG .375-16 GR8            | 2   |
| 7      | 06-06-0008 | SCRW MACH 10-24 X .250 PHLP PHD ZP  | 4   |
| 8      | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 3   |
| 9      | 10221C     | BRKT MAN ASSY VLV                   | 1   |

PUMP STANDS

**MANUAL PUMP STAND VALVE CONTROLS - NO PANEL ASSEMBLY (13-04-0218)**



| Item # | Part #     | Description                         | Qty |
|--------|------------|-------------------------------------|-----|
| 1      | 02-02-0007 | VLV BALL .500 NPT 3WAY BRSS         | 2   |
| 2      | 02-06-0010 | FTTG 90 DEG .500HB X .500NPT ML NYL | 2   |
| 3      | 02-07-0010 | FTTG NIP .500 NPT X 2.00 TBE SS     | 1   |
| 4      | 02-08-0007 | FTTG STGHT .500HB X .500NPT ML NYL  | 1   |
| 5      | 06-01-0124 | BOLT FLG .375-16 X .750 ZP GR5      | 2   |
| 6      | 06-03-0033 | NUT LOCK FLG .375-16 GR8            | 2   |
| 7      | 06-06-0008 | SCRW MACH 10-24 X .250 PHLP PHD ZP  | 4   |
| 8      | 06-07-0029 | HOSE CLAMP ONE EAR, .716-.827       | 3   |
| 9      | 10221C     | BRKT MAN ASSY VLV                   | 1   |
| 10     | 1043E1     | BRKT MNL CNTRL                      | 1   |

PUMP STANDS

**NOTES:**

# USC LIMITED WARRANTY

## SECTION I

USC, LLC, (Manufacturer) warrants its seed treating equipment as follows:

1. **Limited Warranty:** Manufacturer warrants that the Products sold hereunder will be free from defects in material and workmanship for a period of 18 months from date of shipment. If the Products do not conform to this Limited Warranty during the warranty period, Buyer shall notify Manufacturer in writing of the claimed defects and demonstrate to Manufacturer satisfaction that said defects are covered by this Limited Warranty. If the defects are properly reported to Manufacturer within the warranty period, and the defects are of such type and nature as to be covered by this warranty, Manufacturer shall, at its expense, furnish replacement Products or, at Manufacturer's option, replacement parts for the defective products. Shipping and installation of the replacement Products or replacement parts shall be at the Buyer's expense.

2. **Other Limits:** THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Manufacturer does not warrant against damages or defects arising from improper installation (where installation is by persons other than Manufacturer), against defects in products or components not manufactured by Manufacturer, or against damages resulting from such non-Manufacturer made products or components. Manufacturer passes on to the Buyer the warranty it received (if any) from the maker of such non-Manufacturer made products or components. This warranty also does not apply to Products upon which repairs and / or modifications have been effected or attempted by persons other than pursuant to written authorization by Manufacturer. This includes any welding on equipment which could damage electrical components. Manufacturer does not warrant against casualties or damages resulting from misuse and / or abuse of Products, improper storage or handling, acts of nature, effects of weather, including effects of weather due to outside storage, accidents, or damages incurred during transportation by common carrier.

3. **Exclusive Obligation:** THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of Manufacturer shall be to repair or replace the defective Products in the manner and for the period provided above. Manufacturer shall not have any other obligation with respect to the Products or any part thereof, whether based on contract, tort, strict liability or otherwise. Under no circumstances, whether based on this Limited Warranty or otherwise, shall Manufacturer be liable for lost profits, lost revenue, lost sales (whether direct or indirect damages), incidental, special, punitive, indirect or consequential damages.

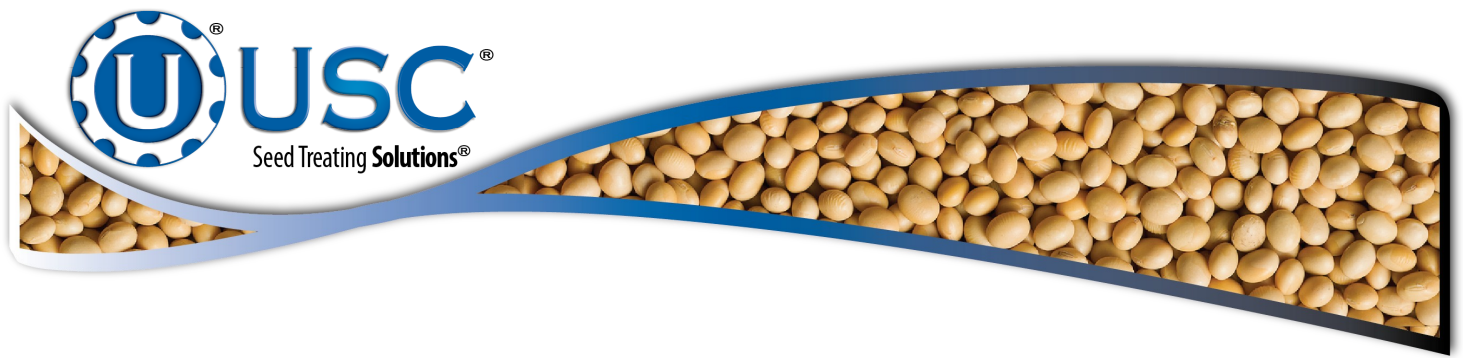
4. **Other Statements:** Manufacturer's employees or representatives' oral or other written statements do not constitute warranties, shall not be relied upon by Buyer, and are not a part of the contract for sale or this limited warranty.

5. **Return Policy:** Approval is required prior to returning goods to Manufacturer. A restocking fee will apply.

6. **Entire Obligation:** This Limited Warranty states the entire obligation of Manufacturer with respect to the Products. If any part of this Limited Warranty is determined to be void or illegal, the remainder shall remain in full force and effect.

US / Canada Non-Exclusive 2016





**USC, LLC**

2320 124th road

Sabetha, KS 66534

PHONE: (785) 431-7900

FAX: (785) 431-7950

EMAIL: [sales-team@uscllc.com](mailto:sales-team@uscllc.com)

WEB: [www.uscllc.com](http://www.uscllc.com)

