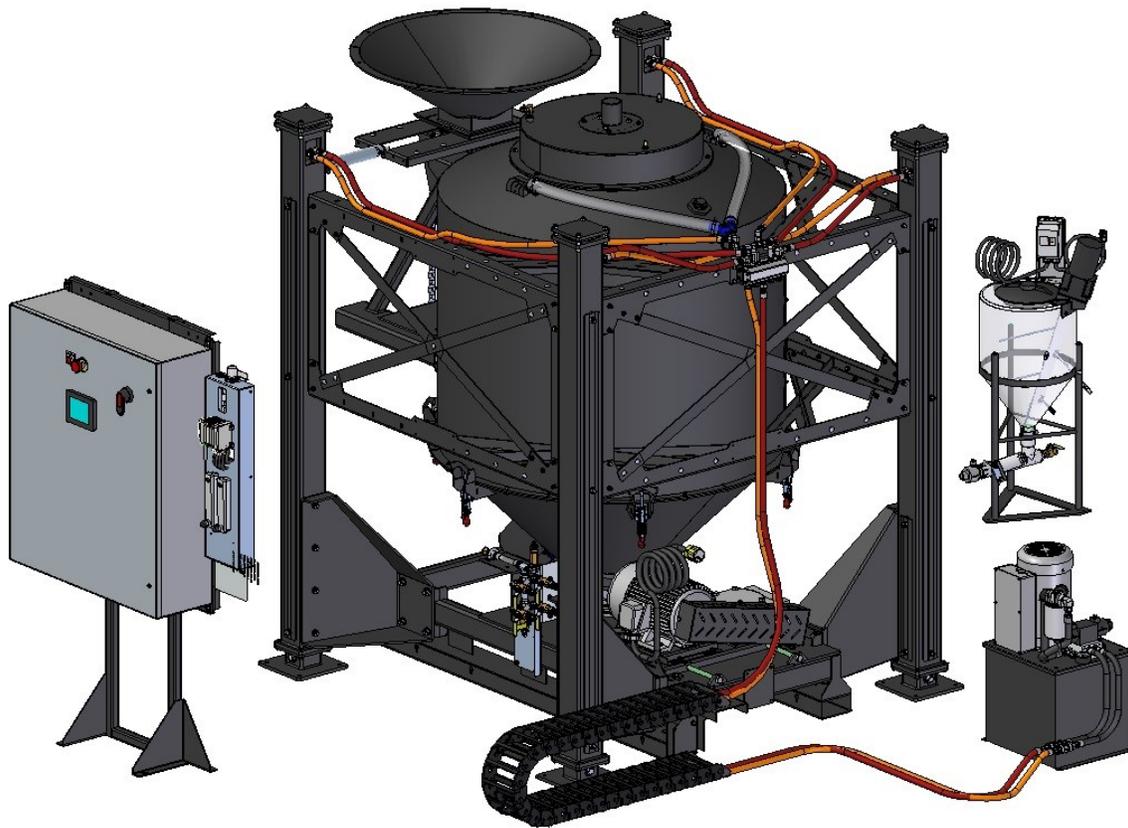


# U-BATCH™ TREATER

## EQUIPMENT REVISION :01B



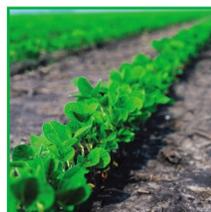
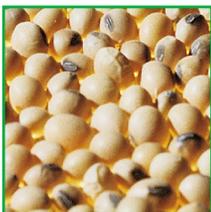
Software Release: U-Batch™ v2.2

## **PARTS MANUAL**

Document: MD-09-06-5015

Revision: A

Effective Date: 02-2020



# 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 U-Batch™ Treater. It does not hold USC, LLC liable for any accidents or injuries that may occur.

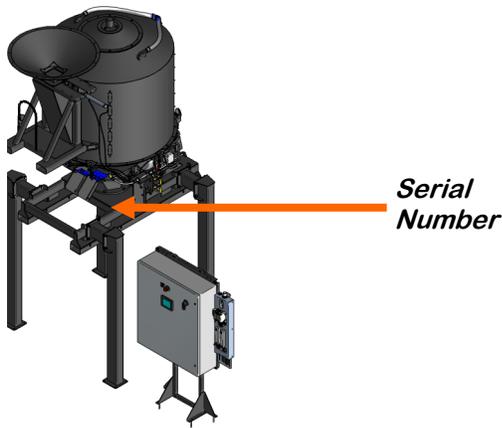
The technical information provided in this document is based on extensive testing under controlled conditions at the USC research and development facility.

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.

## 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 serialization label is located on the base frame near the discharge chute.



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

# TABLE OF CONTENTS

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## SECTION A SAFETY INSTRUCTIONS

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.

### 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.



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



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



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



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



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



**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.



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



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



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



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

**NOTICE**

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

## **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.”

## **EMERGENCY STOP**



There is an Emergency Stop push button on the U-Batch™ Treater which is located on the Main Control Panel. Actuators of emergency stop shall be colored RED. The background immediately around the device actuator shall be colored YELLOW. The actuator pushbutton operated device shall be of the palm or mushroom head type.

## **CONTROLLED STOP**

This is the stopping of machine motion by reducing the electrical command signal to 0 (zero) once the stop signal has been recognized. The operator initiates this stop by pressing the PAUSE button at the bottom of the main screen.

## **HAZARD REVIEW**

### **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.

### **Automatic Start Hazard**



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.

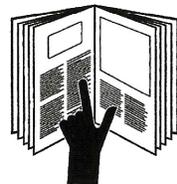
**YOU** are responsible for the **SAFE** operation and maintenance of your USC, LLC equipment . **YOU** must ensure that you and anyone else who is going to operate, maintain or work around the equipment be familiar with the operating and maintenance procedures and related **SAFETY** information contained 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 equipment

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 equipment .
2. Only trained persons shall operate the equipment . 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.



## U-BATCH™ TREATER

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. Electrocution 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.

### **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 your authorized dealer.

### **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.

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 your authorized dealer.



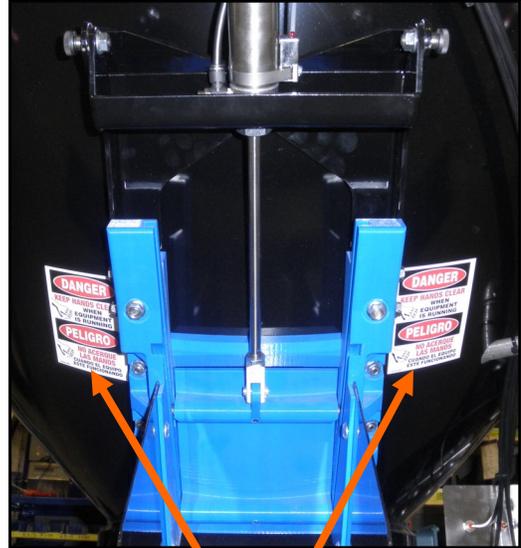
Part # 09-02-0002



U-BATCH™ TREATER



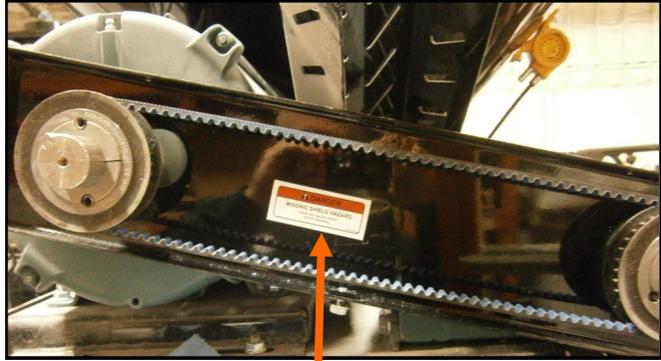
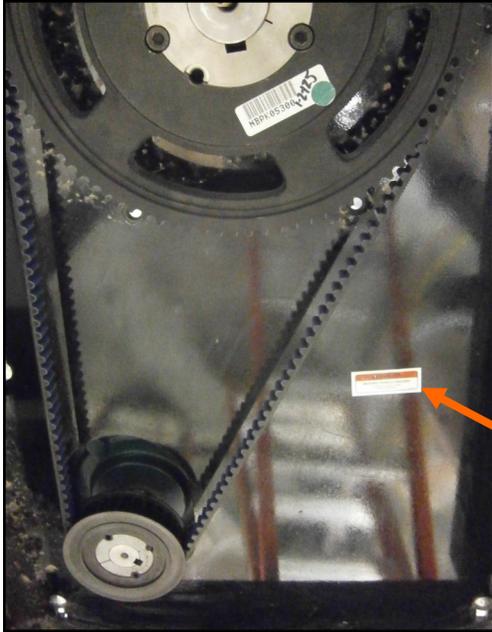
Part # 09-02-0003



Part # 09-02-0001



UBATCH™ TREATER



**⚠ DANGER**

**MISSING SHIELD HAZARD**  
Install and secure shield before operating.

09-02-0012

Part # 09-02-0012



**⚠ DANGER**

**ELECTROCUTION HAZARD**  
1. Turn machine OFF, shut down and lock out power source, unplug power cord and wait for all moving parts to stop before servicing or repairing electrical components.  
2. Keep electrical components in good repair.

09-02-0010

Part # 09-02-0010

**⚠ WARNING**

**ROTATING PART HAZARD**  
To prevent serious injury or death from rotating parts:

1. Place all controls in neutral or off, stop engine or motor, remove ignition key or disable power source and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
2. Install and secure all guards before operating.
3. Do not operate with rotating parts exposed.
4. Keep hands, feet, hair, and clothing away from rotating parts.

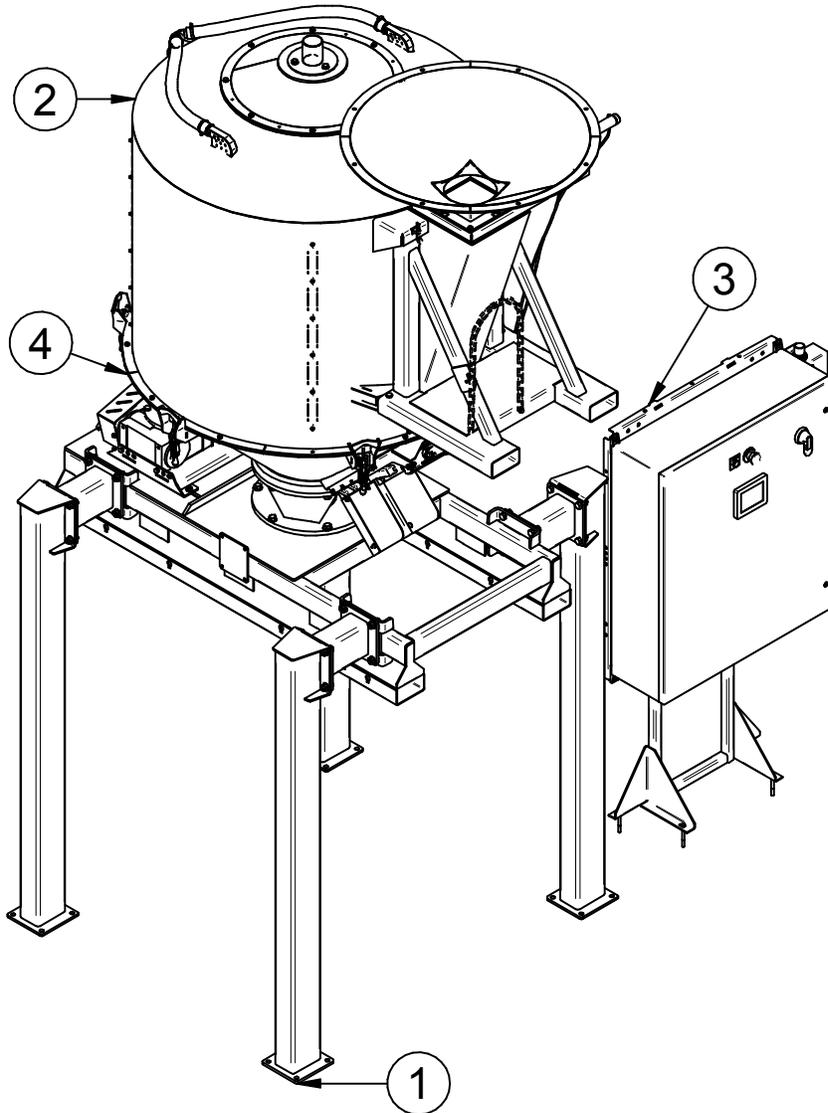
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Part # 09-02-0009

**MECHANICAL DRAWINGS** SECTION B

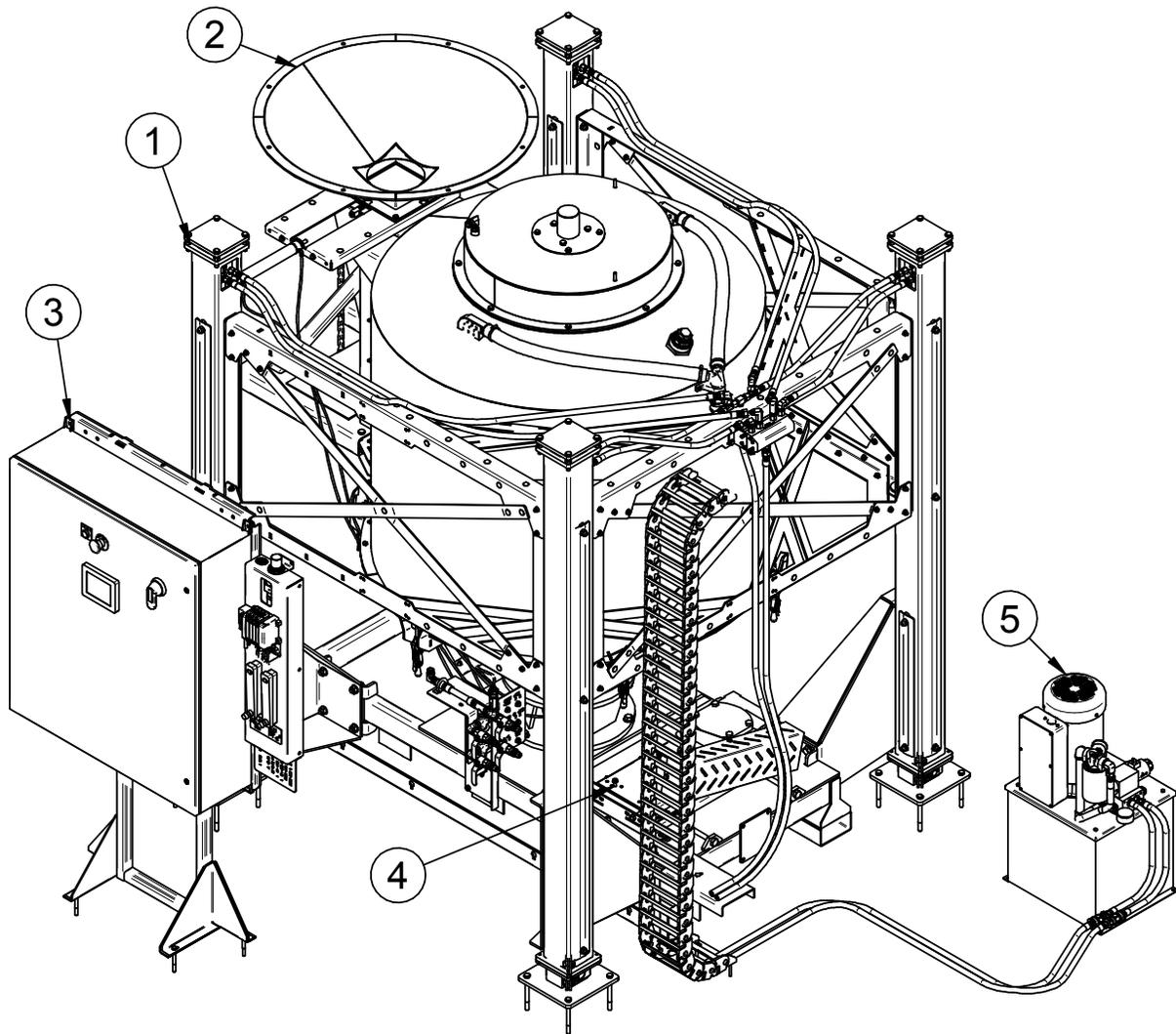
The following pages show the parts of the Batch Treater. Please have the serial number and part number ready when ordering parts.

**STANDARD ASSEMBLY**



PART #	BATCH TREATER WITH STATIONARY LEGS	
Item #	Description	See Page
1	ASSY LEGS BT FIXED	39
2	ASSY BASE BT68 BATCH COATER CS	16-38
3	CONTROL PANEL	10
4	MOTOR	15

U-BATCH™ TREATER  
HYDRAULIC LIFT ASSEMBLY

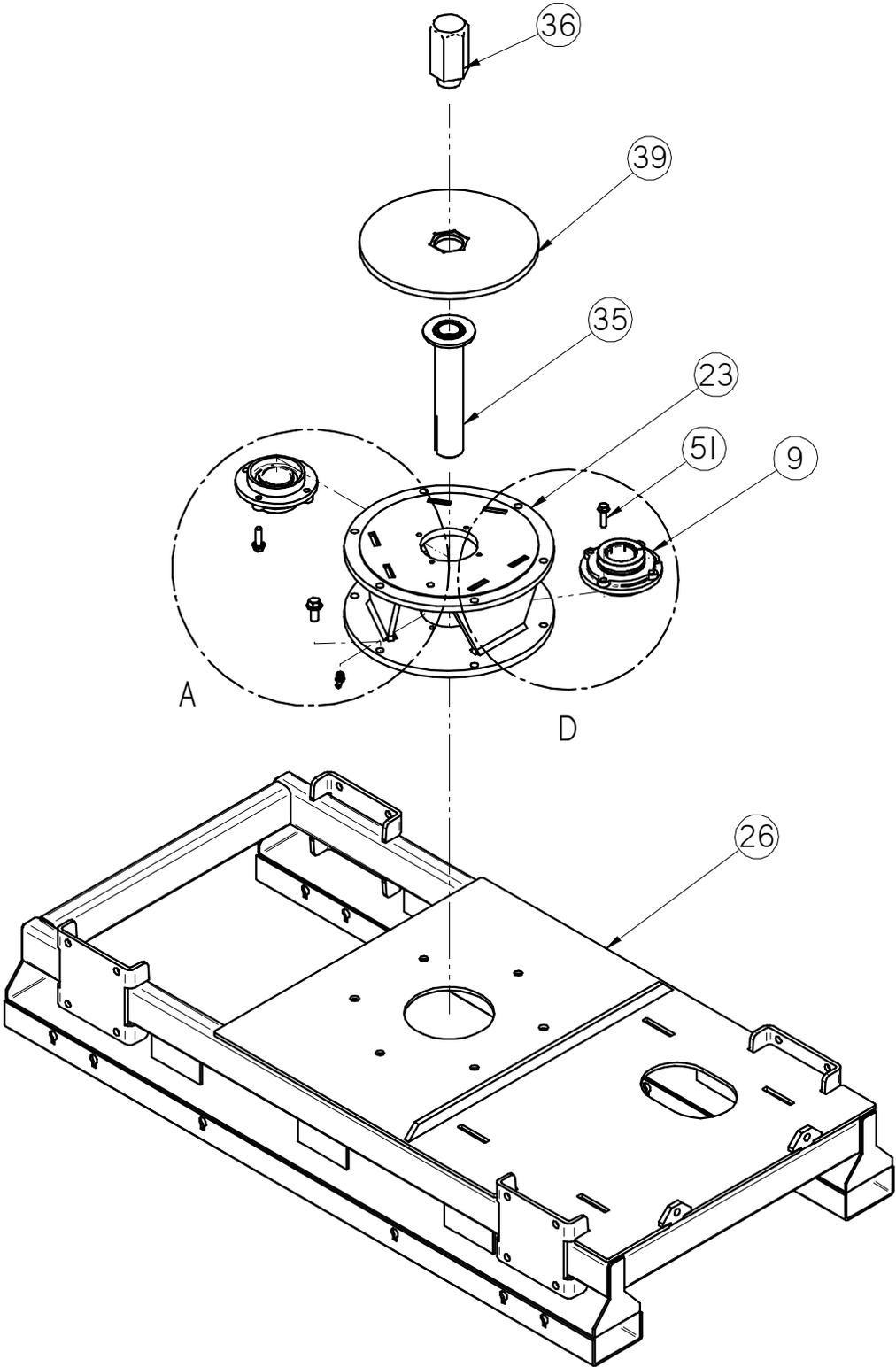


PART # BATCH TREATER WITH HYDRAULIC LEGS		
Item #	Description	See Page
1	ASSY LEGS BT HYD 66.0IN STROKE	40-46
2	ASSY BASE BT68 BATCH COATER CS	16-38
3	CONTROL PANEL	15
4	MOTOR	15
5	KIT HYDRAULIC POWER PACK	46

U-BATCH™ TREATER  
**CONTROL PANELS AND MOTORS**

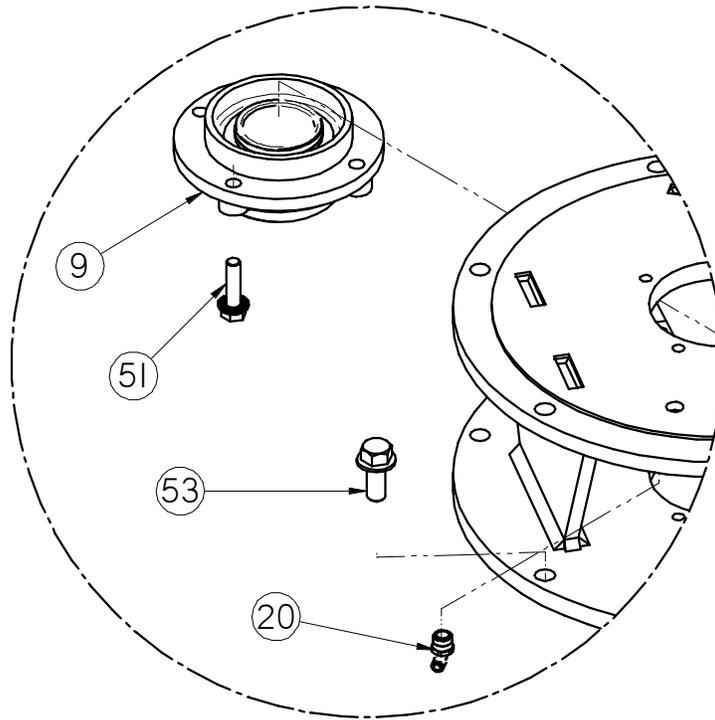
CONTROL PANELS		
VOLTAGE	PART #	DESCRIPTION
240V / 1PH	13-12-0145	CNTL PKG BATCH TREATER 230V 1PH
240V / 3PH	13-12-0155	CNTL PKG BATCH TREATER 230V 3PH
480V / 3PH	13-12-0149	CNTL PKG BATCH TREATER 480V 3PH
MOTORS		
VOLTAGE	PART #	DESCRIPTION
240V / 3PH	01-01-0152	MTR EE 10HP 1760RPM 215T TEFC 3PH
480V / 3PH	01-01-0152	MTR EE 10HP 1760RPM 215T TEFC 3PH

U-BATCH™ TREATER  
ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)

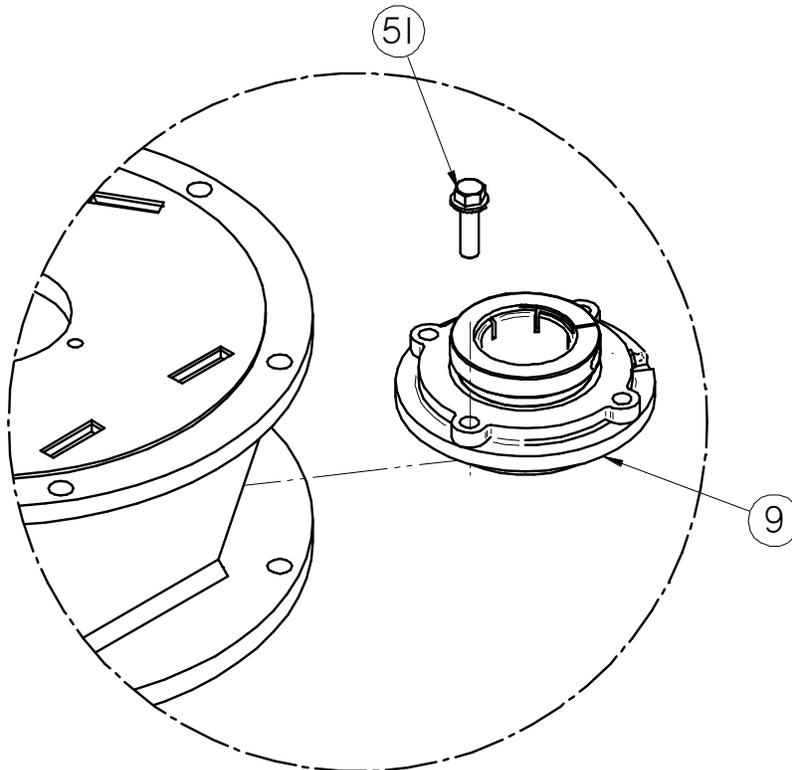


U-BATCH™ TREATER

ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)

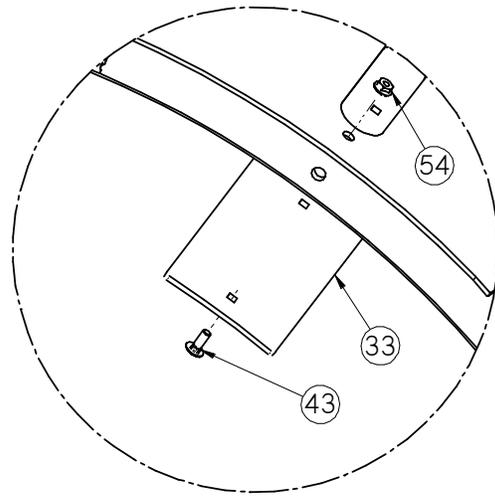
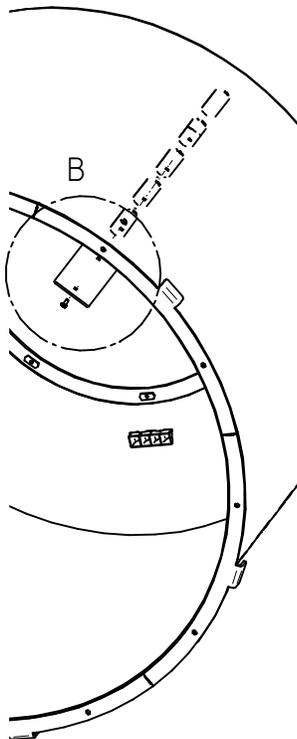
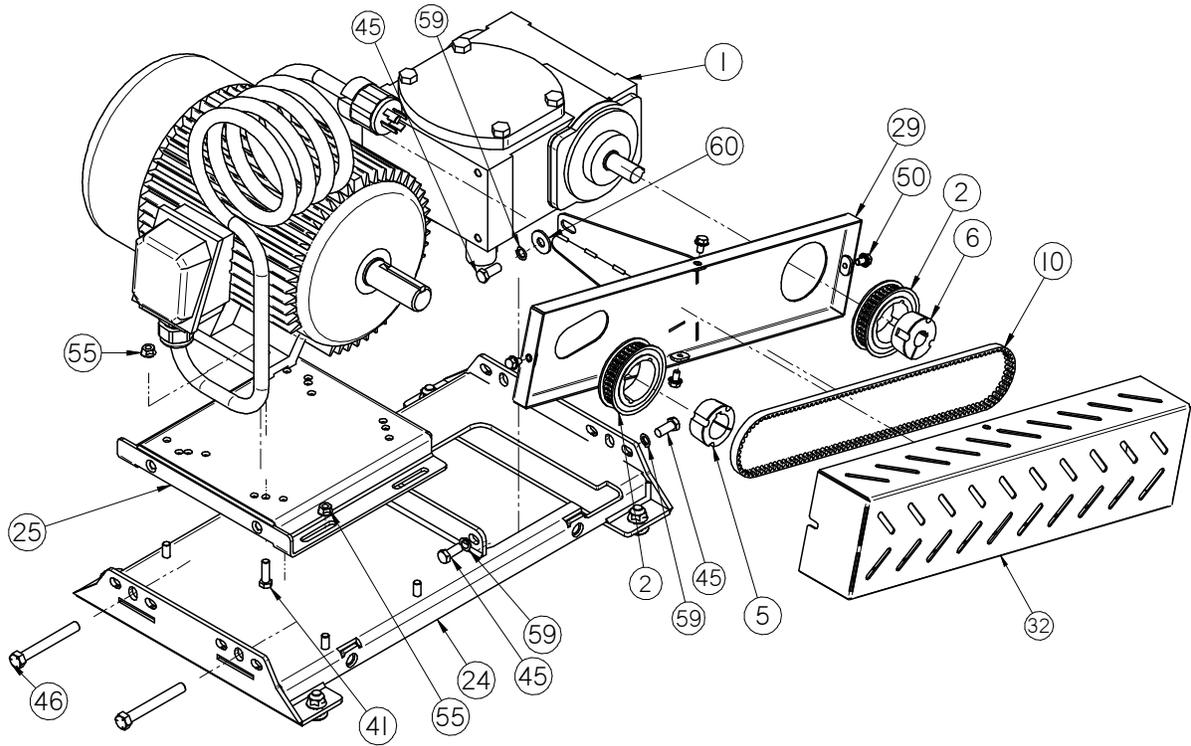


DETAIL A



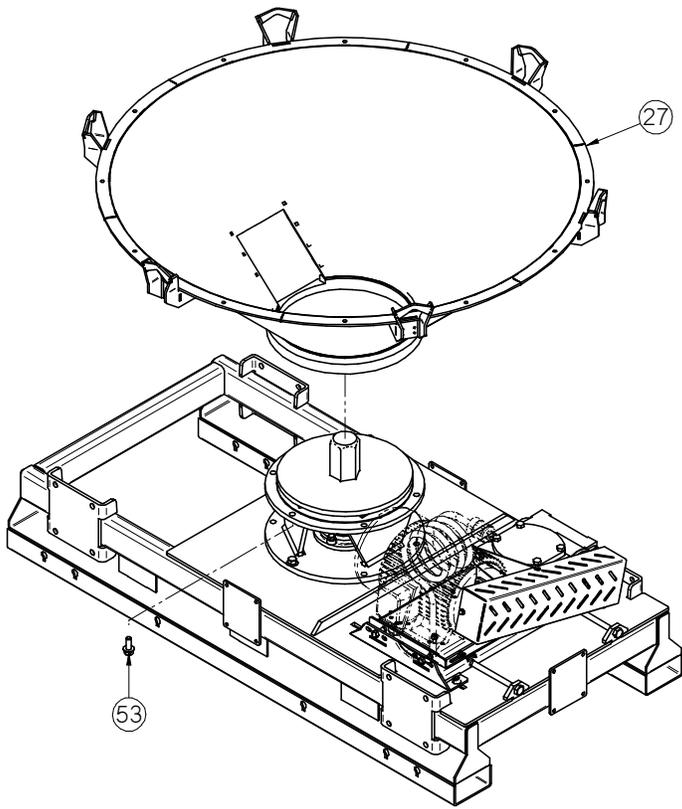
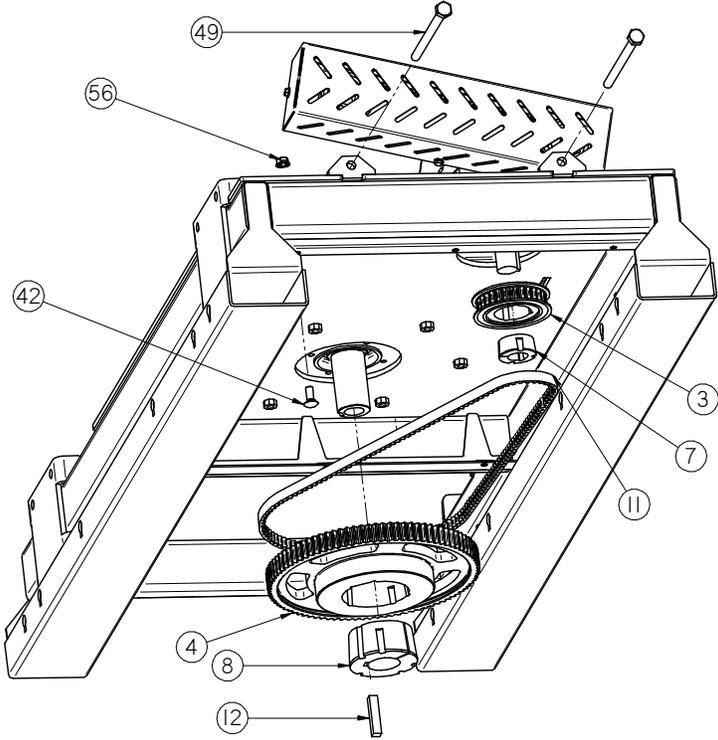
DETAIL D

U-BATCH™ TREATER  
ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)

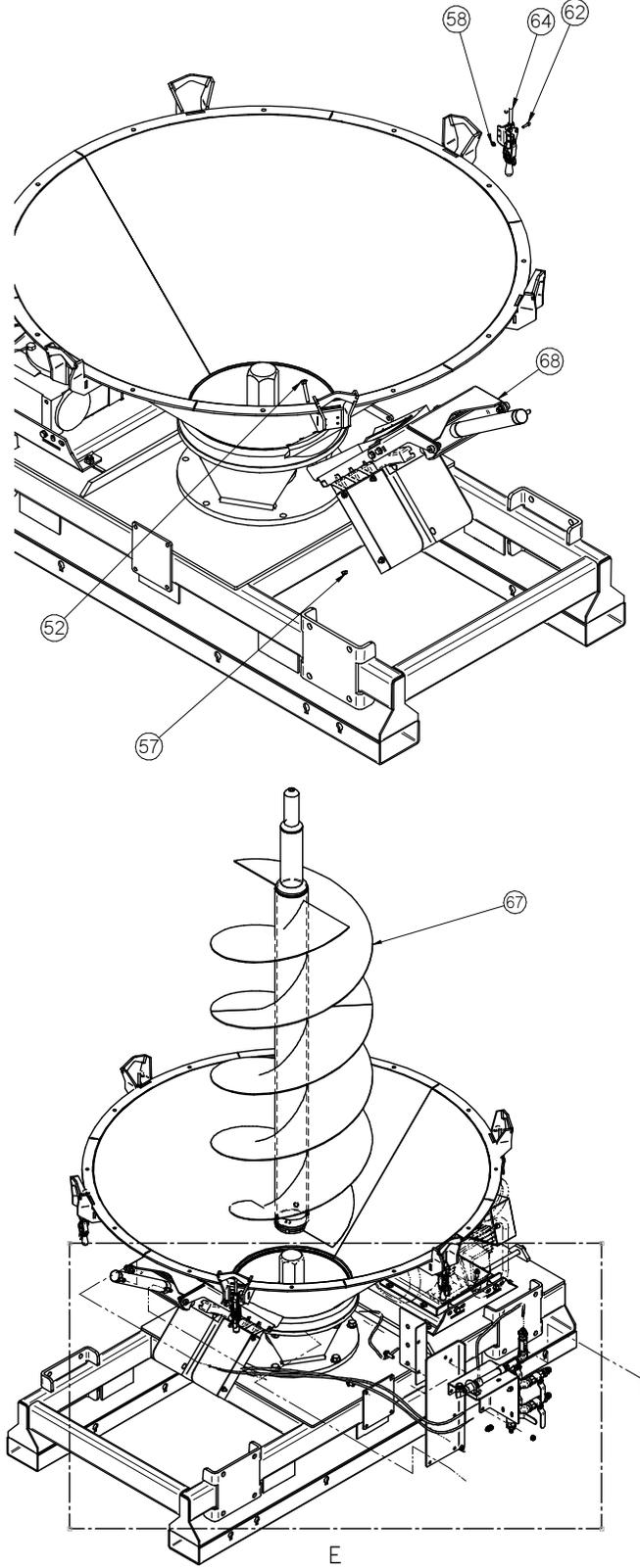


DETAIL B

U-BATCH™ TREATER  
ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)

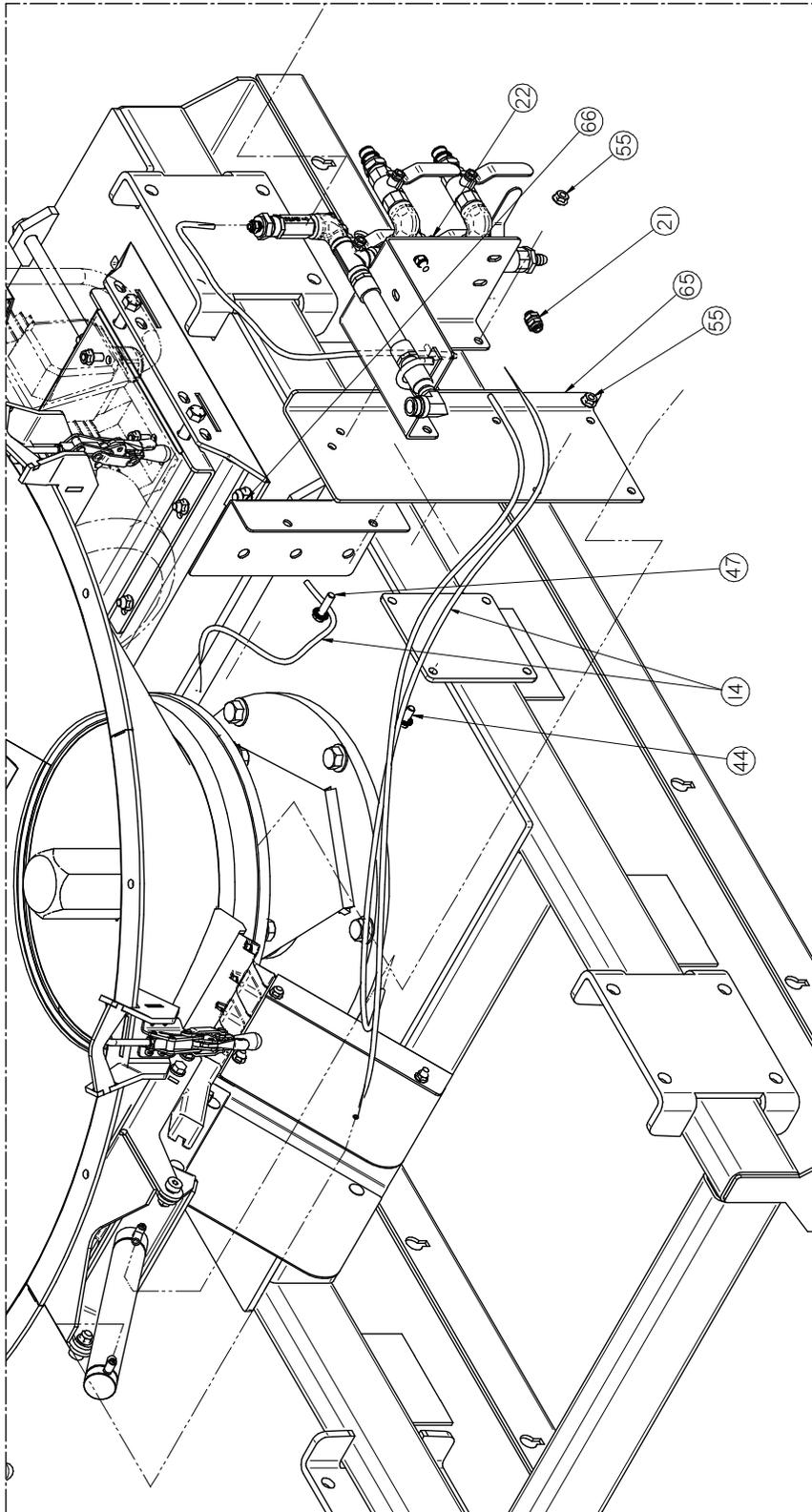


U-BATCH™ TREATER  
ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)



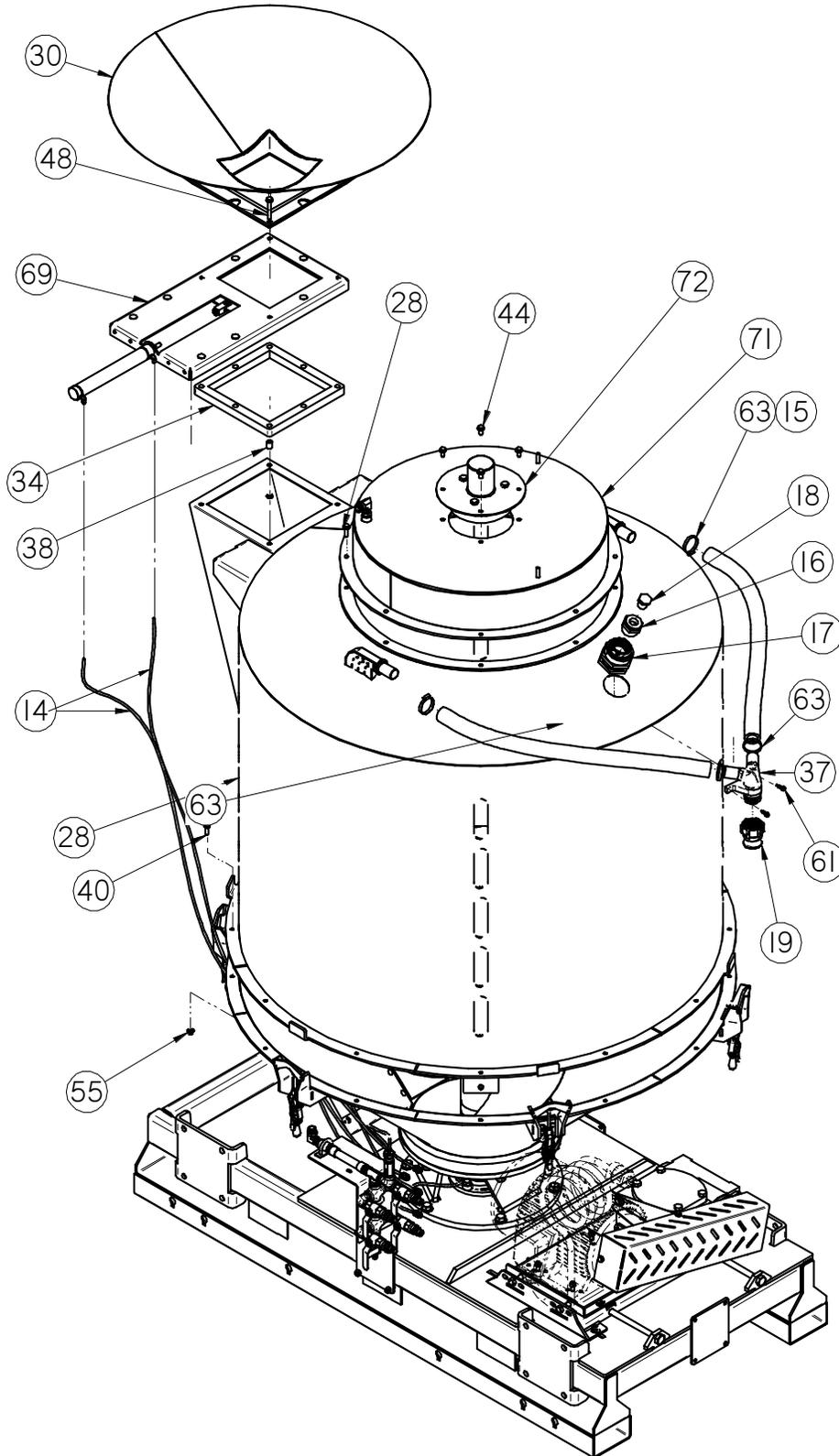
U-BATCH™ TREATER

ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)

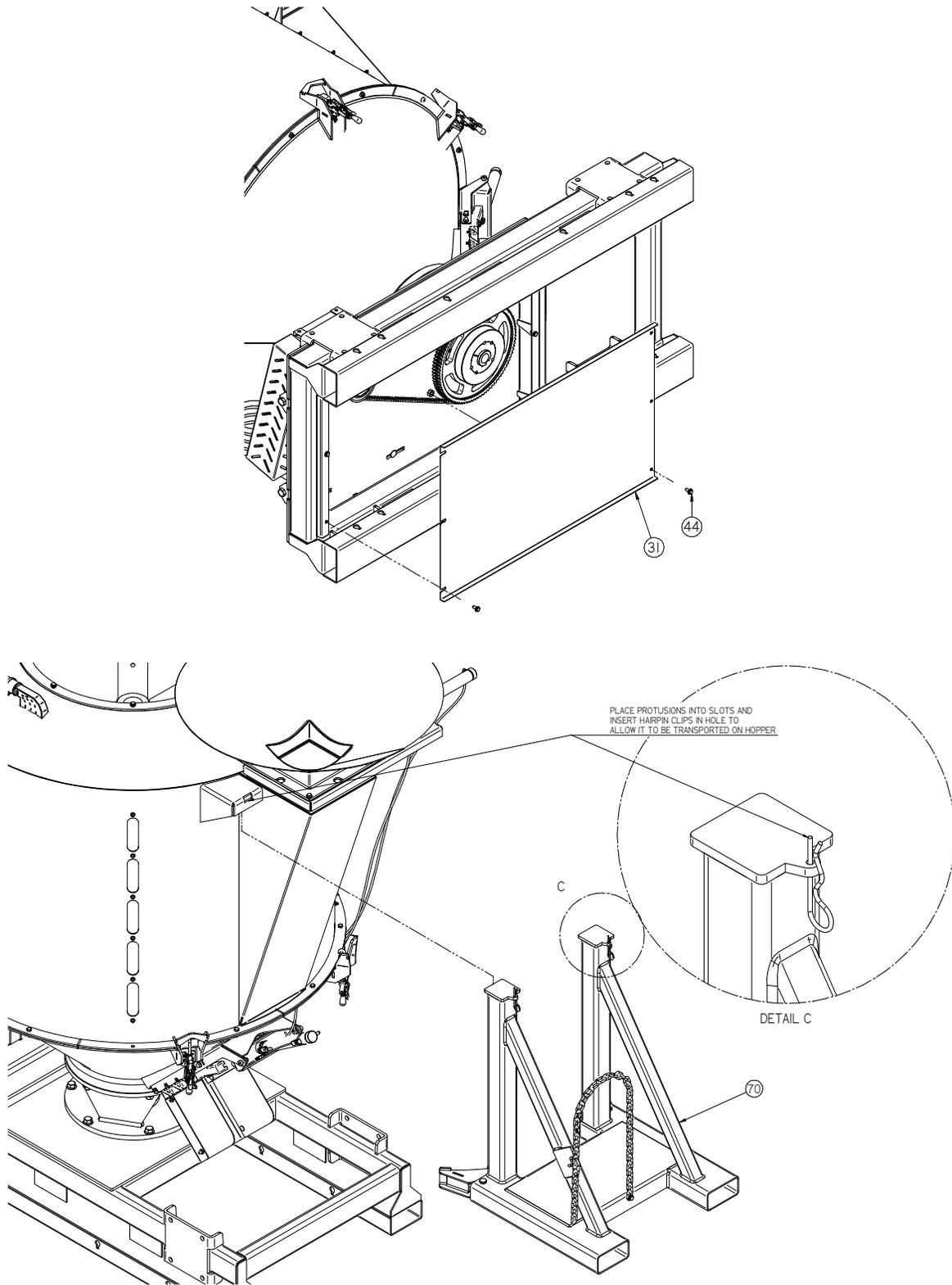


DETAIL E

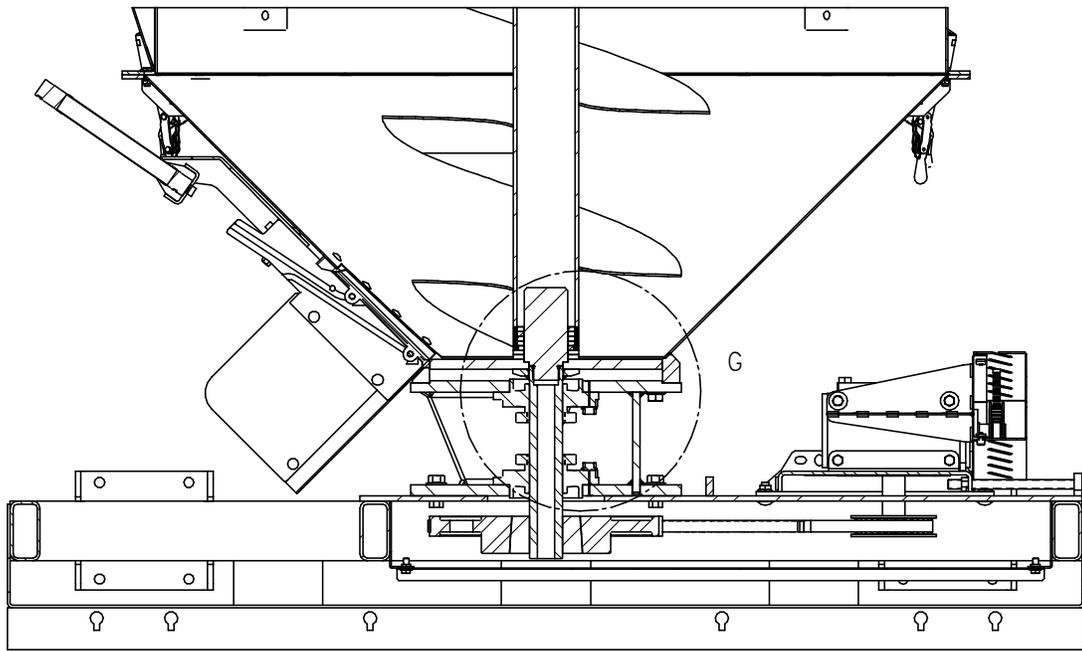
U-BATCH™ TREATER  
ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)



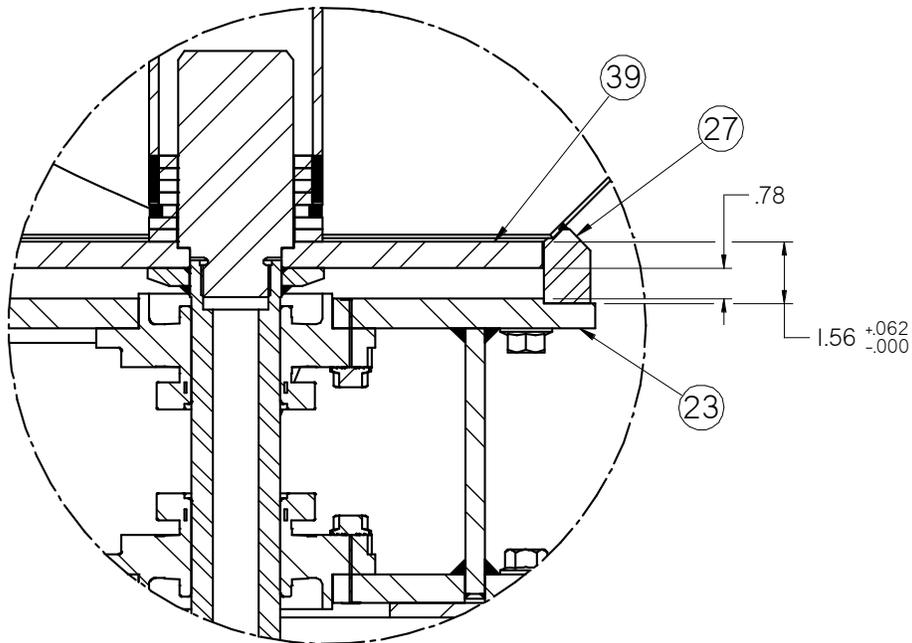
U-BATCH™ TREATER  
ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)



U-BATCH™ TREATER  
ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)



SECTION F-F



DETAIL G

U-BATCH™ TREATER

**ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)**

PART #		13-11-0035 REV C10		
Item #	Part #	Description	Qty	See Page
1	01-01-0218	GBOX RA 5:1 GR 1.50 OUT .875 IN	1	
2	01-02-0123	PLLY GBLT 8MX-34S-12 TL 1610	2	
3	01-02-0124	PLLY GBLT 14MX-30S-20 TL 2012	1	
4	01-02-0125	PLLY GBLT 14MX-90S-20 TL 3525	1	
5	01-02-0126	BUSH 1.375 BORE TYPE TL 1610	1	
6	01-02-0127	BUSH 0.875 BORE TYPE TL 1610	1	
7	01-02-0128	BUSH 1.500 BORE TYPE TL 2012	1	
8	01-02-0129	BUSH 2.437 BORE TYPE TL 3525	1	
9	01-03-0065	BRG FLG 2.4375ID 4BOLT 6IN PLTD	2	
10	01-04-0077	GBLT 8MGT-1120-12	1	
11	01-04-0078	GBLT 14MGT-2100-20	1	
12	01-10-0010	KEY .625 X 3.00 CS UNDERSIZE	1	
13	02-03-0034	TBG .625 OD POLYE COMP	7.417	
14	02-03-0051	TBG .250 OD NYL BLK	25	
15	02-03-0070	HOSE RNT 1.250 CLEAR	5.5	
16	02-04-0034	FTTG BUSH 1.50NPT X .750NPT PPE	1	
17	02-05-0107	FTTG 1.5 NPT DBL THD PVC BULKHEAD	1	
18	02-14-0021	FTTG PLUG HH .750 NPT PPE BLK	1	
19	02-15-0060	FTTG CPLG CAM LVR 1.5ML X 1.50FNPT	1	
20	02-16-0049	FTTG PUSH 90 DEG .25 OD X .375 NPT	1	
21	02-16-0059	FTTG PUSH BLKHD UNION .250 TUBE	6	
22	04-03-0289	ASSY STTC MXR & VLVS BATCH TRTR 90D	1	
23	05-03-1515	WDMT HSG BRG VC	1	
24	05-03-1569	WDMT FR GBOX DRV	1	
25	05-03-1570	WDMT FR MTR MNT	1	
26	05-03-1571	WDMT FR BASE 4 LEG VC	1	
27	05-03-1664	WDMT HOPP CONE SIDE DSCHG VC	1	
28	05-03-1665	WDMT HOPP 54IN TOP VC	1	
29	05-06-0113	GRD BACK GBOX DRV	1	
30	05-07-0864	WDMT CONE HOPP BT	1	
31	05-10-4349	PLT GRD AUGER DRV VC CS	1	
32	05-10-4350	PLT GRD GBOX DRV VC CS	1	
33	05-10-1148	CVR CLEAR VP 5 SLOT	4	
34	05-10-4441	SEAL FOAM 1IN BT INLET	1	
35	05-11-0462	SHAFT DRV AUGER BT68	1	
36	05-11-0463	SPUD HEX DRV BT68	1	

U-BATCH™ TREATER

**ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)**

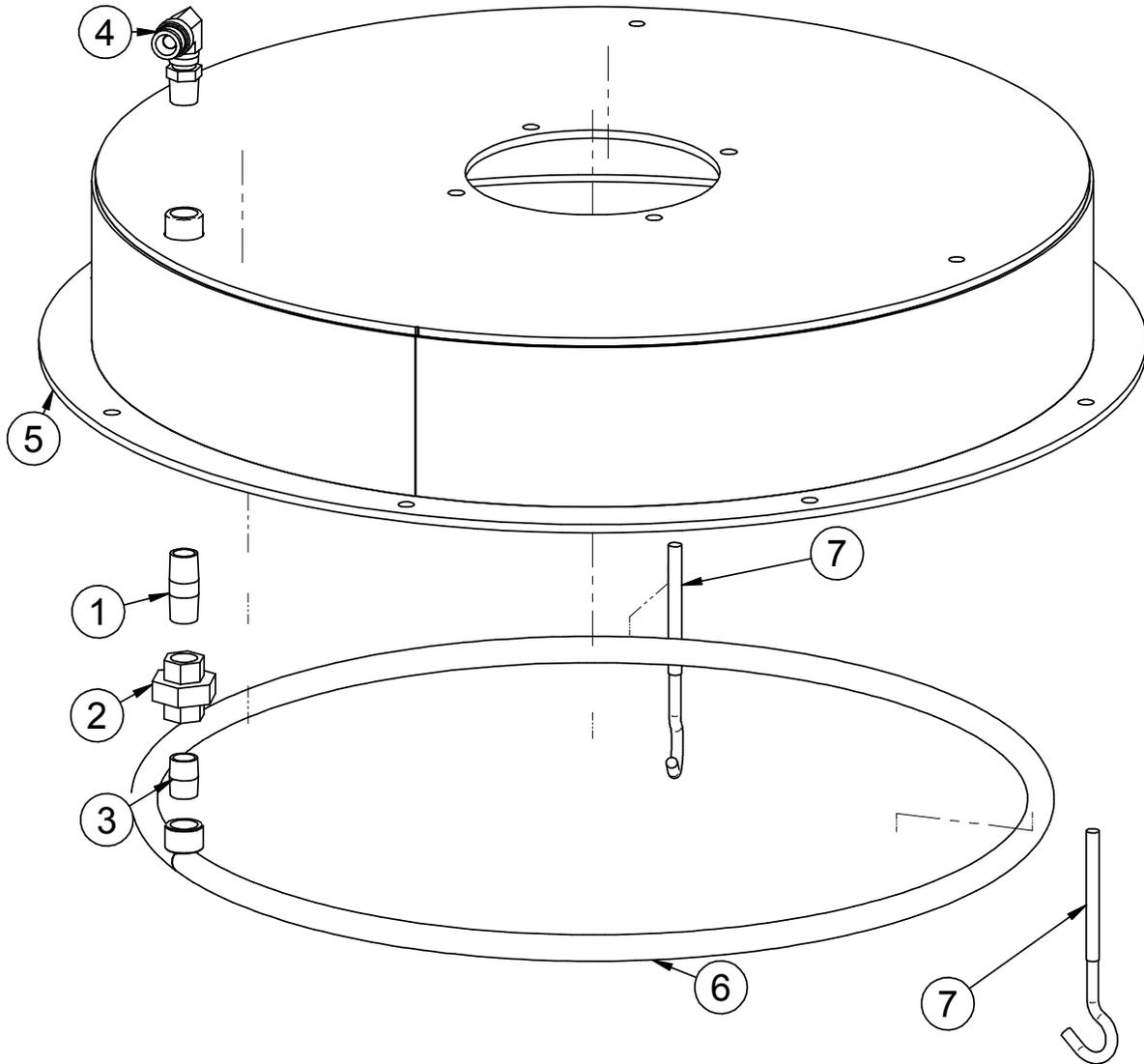
PART #		13-11-0035 REV C10		
Item #	Part #	Description	Qty	See Page
37	05-11-0466	TEE 90DEG 1.50NPT X 1.25 X 1.25 ABS	1	
38	05-11-0474	SPCR .625OD X .406ID X .812LG	4	
39	05-11-0513	PLT END BTM LIVE HLLW CS NO GROOVE	1	
40	06-01-0016	BOLT .375-16 X 1.00 ZP GR5	11	
41	06-01-0053	BOLT .375-16 X 1.25 ZP GR5	4	
42	06-01-0062	BOLT CRG .500-13 X 1.25 ZP GR5	4	
43	06-01-0122	BOLT CRG .250-20 X .750 ZP GR5	24	
44	06-01-0124	BOLT FLG .375-16 X .750 ZP GR5	14	
45	06-01-0132	BOLT .438-14 X 1.00 ZP GR5	6	
46	06-01-0138	BOLT FLG .3125-18 X .750 ZP GR5	1	
47	06-01-0157	BOLT .500-13 X 4.00 ZP GR5 FTH	2	
48	06-01-0189	BOLT FLG .375-16 X 1.250 ZP GR5	11	
49	06-01-0204	BOLT FLG .375-16 X 2.50 ZP GR5 FTH	4	
50	06-01-0249	BOLT .625-11 X 9.00 ZP GR5 FTH	2	
51	06-01-0261	BOLT FLG .3125-18 X .500 ZP GR5	4	
52	06-01-0271	BOLT FLG .500-13 X 1.750 ZP	8	
53	06-01-0289	BOLT CRG .313-18 X 2.25 ZP GR5	8	
54	06-01-0292	BOLT FLG .625-11 X 1.500 GR5 ZP	12	
55	06-03-0013	NUT LOCK FLG .250-20 ZP GR5	24	
56	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	27	
57	06-03-0015	NUT LOCK FLG .500-13 ZP GR5	4	
58	06-03-0019	NUT LOCK FLG .313-18 ZP GR5	8	
59	06-03-0031	NUT LOCK FLG M5-0.8 GR8.8	24	
60	06-04-0011	WSHR LOCK SPLT .438 ZP	6	
61	06-05-0020	WSHR FLAT .438 ZP	2	
62	06-06-0037	SCRW SDST .250-14 X 1.000 HH ZP	2	
63	06-06-0083	SCRW SH M5-0.8 X 20MM BO	24	
64	06-07-0019	CLMP HOSE 1.0 TO 2.0	4	
65	06-07-0041	CLMP DESTACO MILD STEEL 3051-R	6	
66	09-01-0042	ATWK LBL USC 11.50 X 3.00 PRO-CUT	1	
67	09-01-0043	ATWK LBL USC 22.00 X 5.75 PRO-CUT	2	
68	09-01-0210	LBL ATWK U-BATCH	1	
69	09-02-0001	ATWK LBL DANGER FINGERS	3	
70	09-02-0002	ATWK LBL DANGER GRD	1	
71	09-02-0010	ATWK LBL DANGER ELECTROCUTION	1	

U-BATCH™ TREATER

**ASSEMBLY BT68 BATCH TREATER BASE (13-11-0035 REV C10)**

PART #		13-11-0035 REV C10		
Item #	Part #	Description	Qty	See Page
72	09-02-0011	ATWK LBL WARNING MOVING PART	1	
73	09-02-0012	ATWK LBL DANGER MISSING SHIELD	2	
74	104AE2	PLT MNT STTC MIXER	1	
75	104AE7	PLT BT AIR BLKHD	1	
76	11-05-0031	AUGER WDMT RH DF 3.0IN DRV FLSH END	1	
77	12-04-0031	ASSY SLGT DSCHG 7IN BT 3DP	1	33
78	12-04-0038	ASSY SLD GATE BT INLET 8IN	1	30
79	13-05-0463	BT HOPP LIFT	1	37
80	13-05-0545	ASSY TOP CAP W LQ RG BATCH TRTR	1	28
81	13-05-0546	ASSY TOP CAP BRG BT	1	29

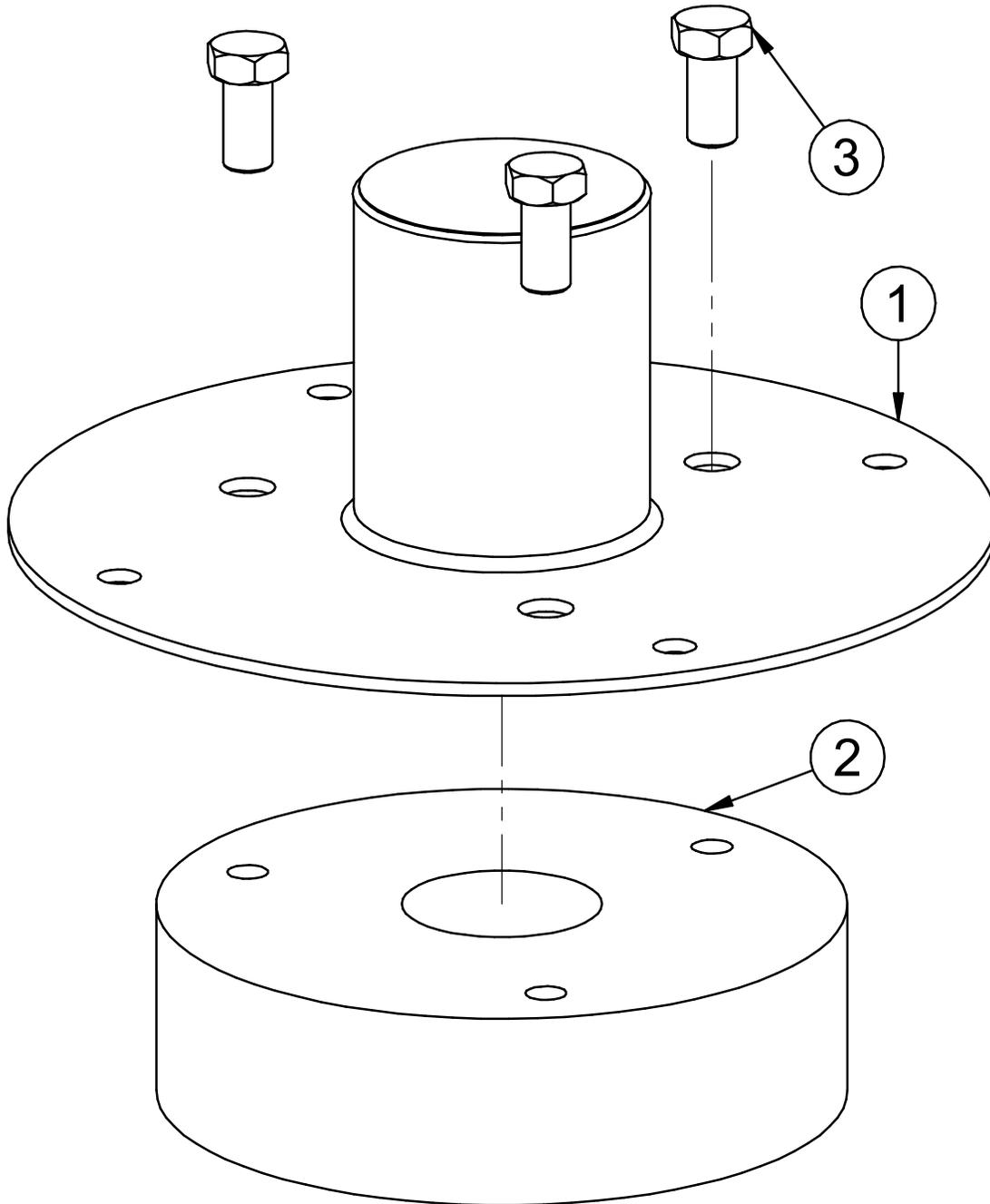
U-BATCH™ TREATER  
**ASSEMBLY TOP CAP BATCH TREATER (13-05-0545 REV A0)**



PART #		13-05-0545 REV A0	
Item #	Part #	Description	Qty
1	02-05-0132	FTTG UNION .50 150PSI SS	1
2	02-07-0007	FTTG NIP .500NPTX1.125 TBE SS CLOSE	1
3	02-07-0010	FTTG NIP .500 NPT X 2.00 TBE SS	1
4	02-16-0050	FTTG PUSH 90DEG .625ODX.500 NPT ML	1
5	05-06-0135	WDMT CVR BRG MNT AUGER TAIL	1
6	05-07-0886	WDMT LIQUID APLCTR BT68	1
7	06-01-0322	BOLT HOOK .375-16 X 7	2

U-BATCH™ TREATER

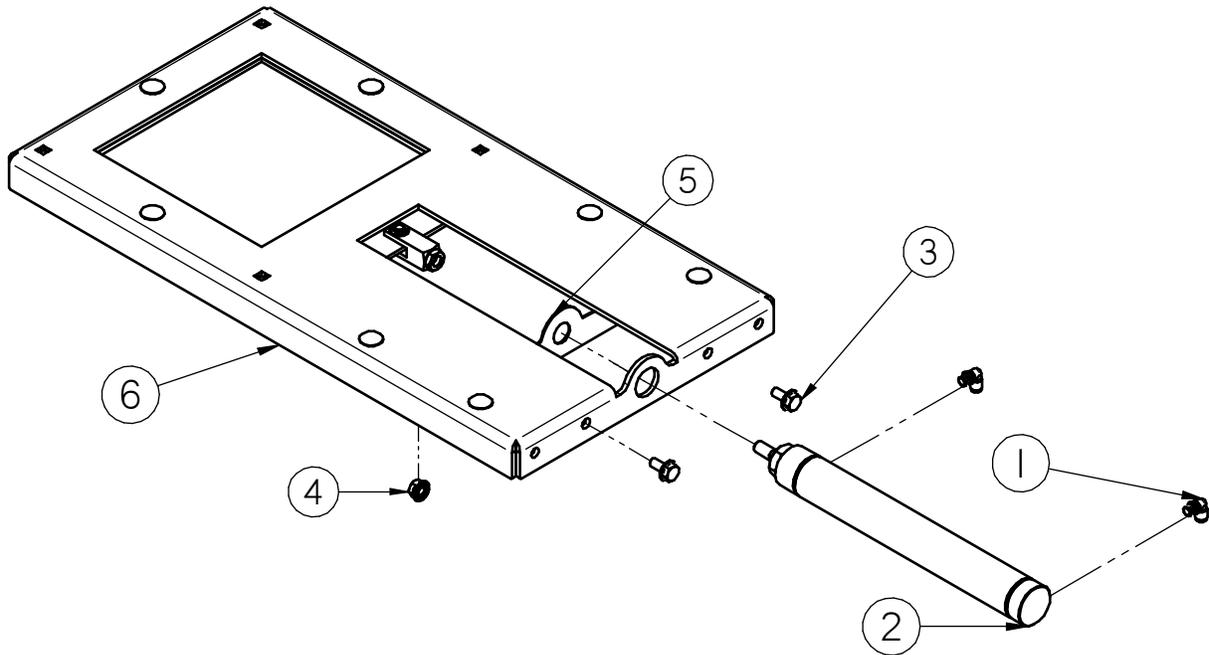
**ASSEMBLY TOP CAP BEARING BATCH TREATER (13-05-0546 REV A0)**



PART #		13-05-0546 REV A0	
Item #	Part #	Description	Qty
1	05-06-0136	GRD AUGER TAIL SHAFT	1
2	05-11-0452	BRG BLOCK TOP MNT UHMW VC	1
3	06-01-0069	BOLT .500-13 X 1.00 ZP GR5	3

U-BATCH™ TREATER

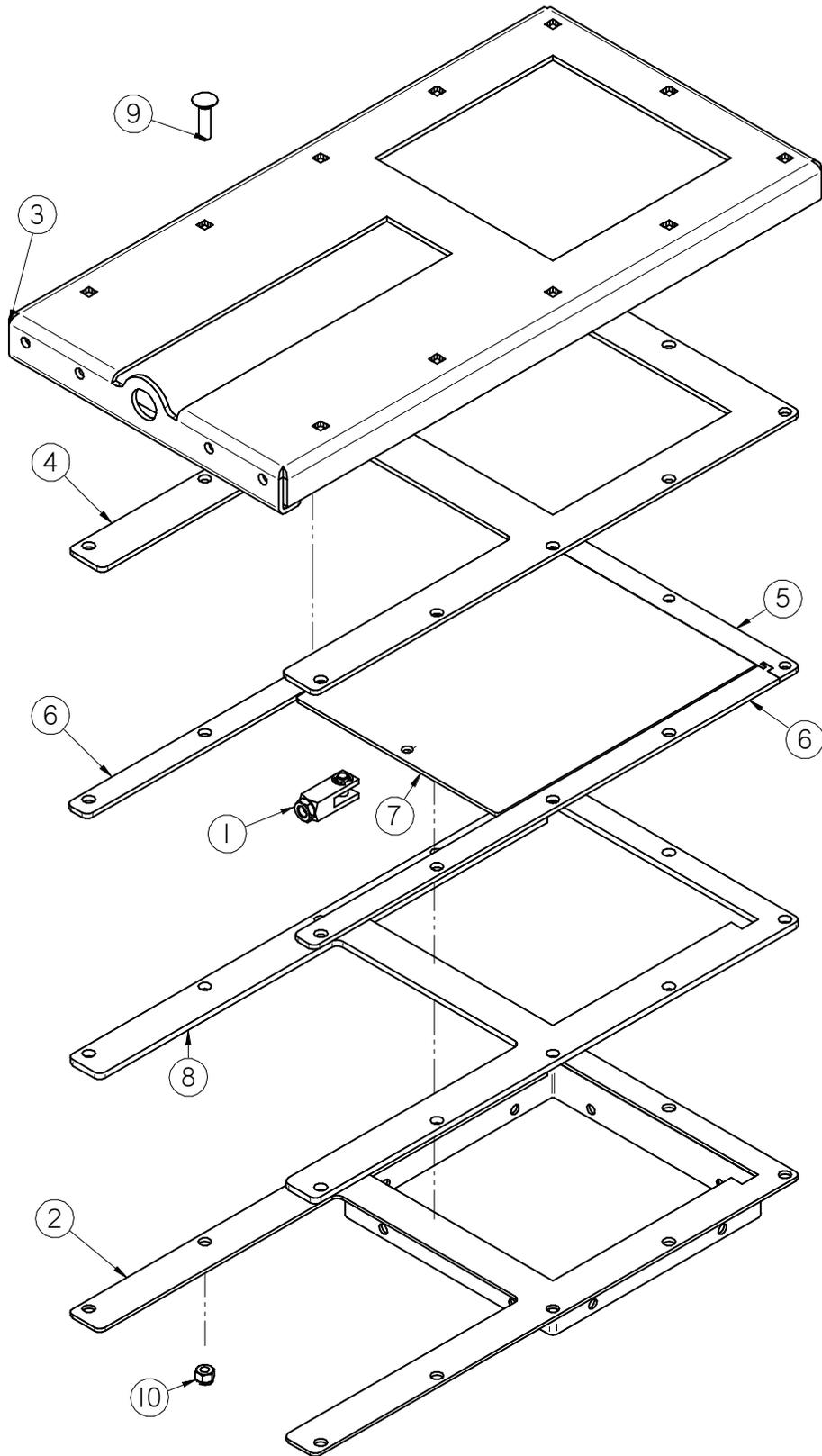
**ASSEMBLY SLIDE GATE INLET BATCH TREATER (12-04-0038 REV A1)**



PART #		12-04-0038 REV A1		
Item #	Part #	Description	Qty	See Page
1	02-16-0046	FTTG PUSH 90 DEG .250 OD X .125 NPT	2	
2	03-17-0067	CYL AIR 9"STROKE 1.5 IN BORE DBL	1	
3	06-01-0124	BOLT FLG .375-16 X .750 ZP GR5	2	
4	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	2	
5	10536A	SPCR BT INLET GATE CYL	1	
6	12-04-0033	SLGT 8.00 SQUARE BASE	1	31

U-BATCH™ TREATER

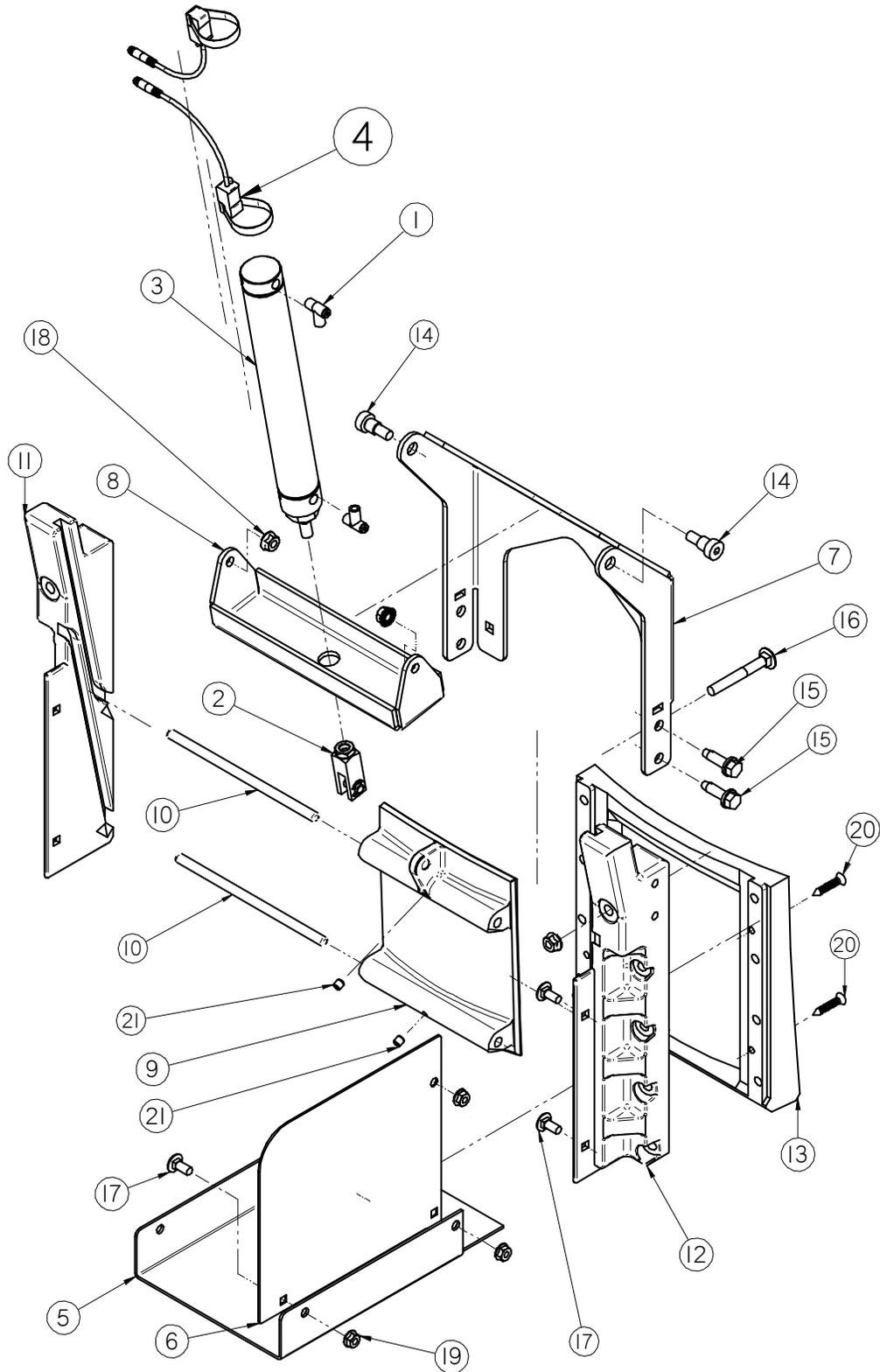
ASSEMBLY SLIDE GATE 8.000 SQUARE BASE (12-04-0033 REV A0)



**ASSEMBLY SLIDE GATE 8.000 SQUARE BASE (12-04-0033 REV A0)**

PART #		12-04-0033 REV A0	
Item #	Part #	Description	Qty
1	03-17-0046	CLEVIS ASSY BIMBA D-8311-A	1
2	05-07-0819	WDMT DSCHG 8.00IN SQ SLGT	1
3	05-10-4371	PLT SLGT BODY 8.00IN SQ	1
4	05-10-4372	PLT SLGT UHMW TOP 8.00IN SQ	1
5	05-10-4373	STOP UHMW SLGT 8.00IN SQ	1
6	05-10-4374	GUIDE UHMW SIDE SLGT 8.00IN SQ	2
7	05-10-4375	PLT SLGT 8.00IN SQ	1
8	05-10-4376	PLT UHMW LOWER SLGT 8.00IN SQ	1
9	06-01-0128	BOLT CRG .375-16 X 1.50 ZP GR5	7
10	06-03-0003	NUT NYL LOCK .375-16 ZP GR5	7

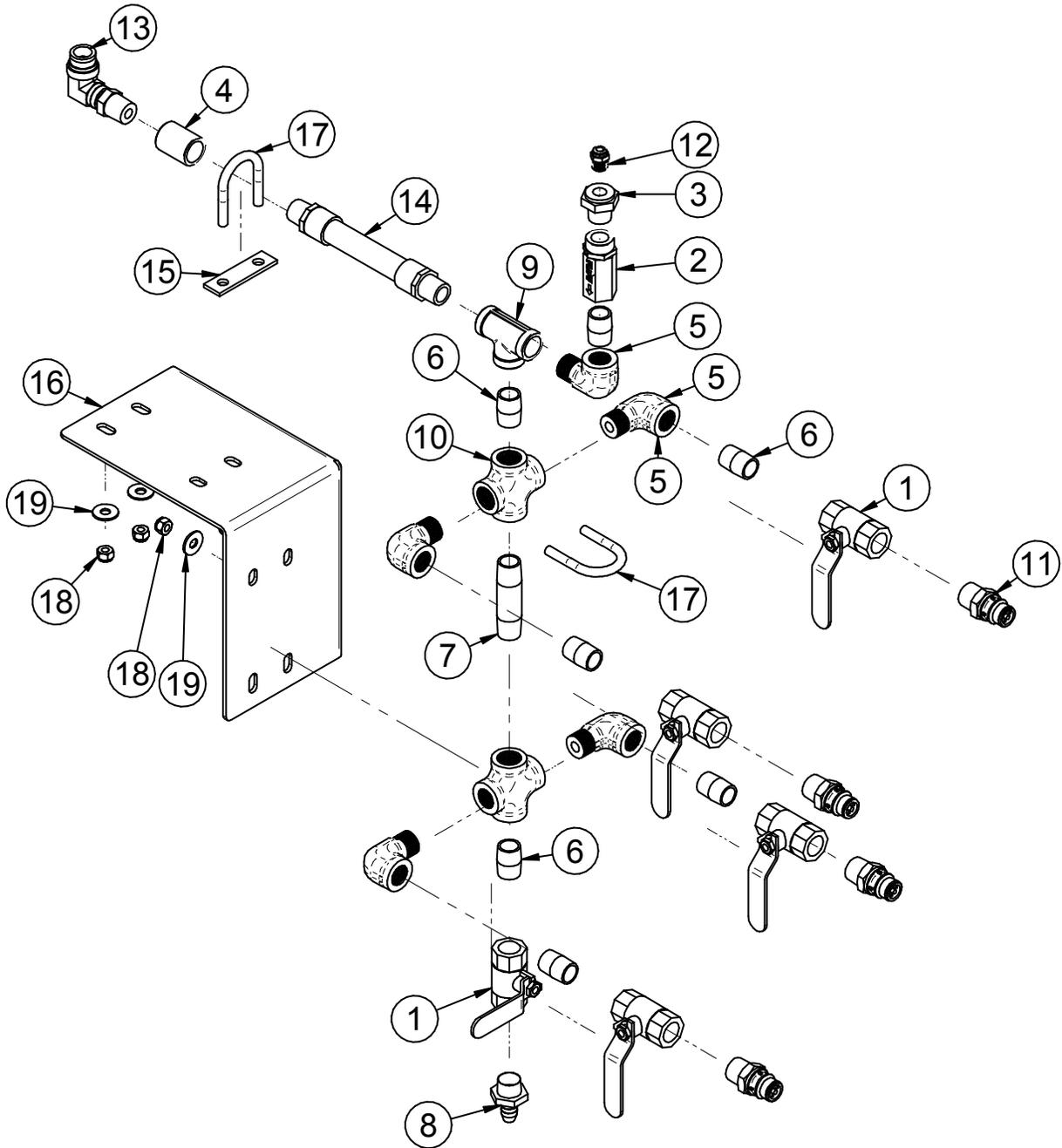
ASSEMBLY SLIDE GATE DISCHARGE 7IN (12-04-0031 REV B0)



**ASSEMBLY SLIDE GATE DISCHARGE 7IN (12-04-0031 REV B0)**

PART #		12-04-0031 REV B0	
Item #	Part #	Description	Qty
1	03-17-0039	BIMBA FQPS2 FLOW CONTROL	2
2	03-17-0046	CLEVIS ASSY BIMBA D-8311-A	1
3	03-17-0067	CYL AIR 9"STROKE 1.5 IN BORE DBL	1
4	03-17-0109	SW MAG REED MRS-.087-PBLQ-17	2
5	05-10-4306	PLT CHUTE DSCHG VC	1
6	05-10-04307	PLT CHUTE DSCHG SIDE VC	2
7	05-10-1353	PLT BRKT CYL BASE	1
8	05-10-4354	PLT MNT CYL SWIVEL	1
9	05-11-0432	GATE SLIDE DSCHG BT 3DP	1
10	05-11-0437	ROD GUIDE 7IN SLGT VC	2
11	05-11-0471	GUIDE GATE SLIDE LT 3DP	1
12	05-11-0472	GUIDE GATE SLIDE RT 3DP	1
13	05-11-0473	FLG TO CONE MNT SLGT BT 3DP	1
14	06-01-0056	BOLT SHLD .500SHX.375-16X.500 GR5	2
15	06-01-0118	BOLT STHRD .375-16 X 1.250 HH ZP	4
16	06-01-0146	BOLT CRG .375-16 X 3.00 SS	2
17	06-01-0171	BOLT CRG .313-18X.750ZP SHORT NECK	6
18	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	4
19	06-03-0019	NUT LOCK FLG .313-18 ZP GR5	6
20	06-06-0028	SCRW SPAX #14 X 1.50 FLHD ZP	4
21	06-06-0090	SCRW SCKT .312-18 X .312 CUP PNT	2

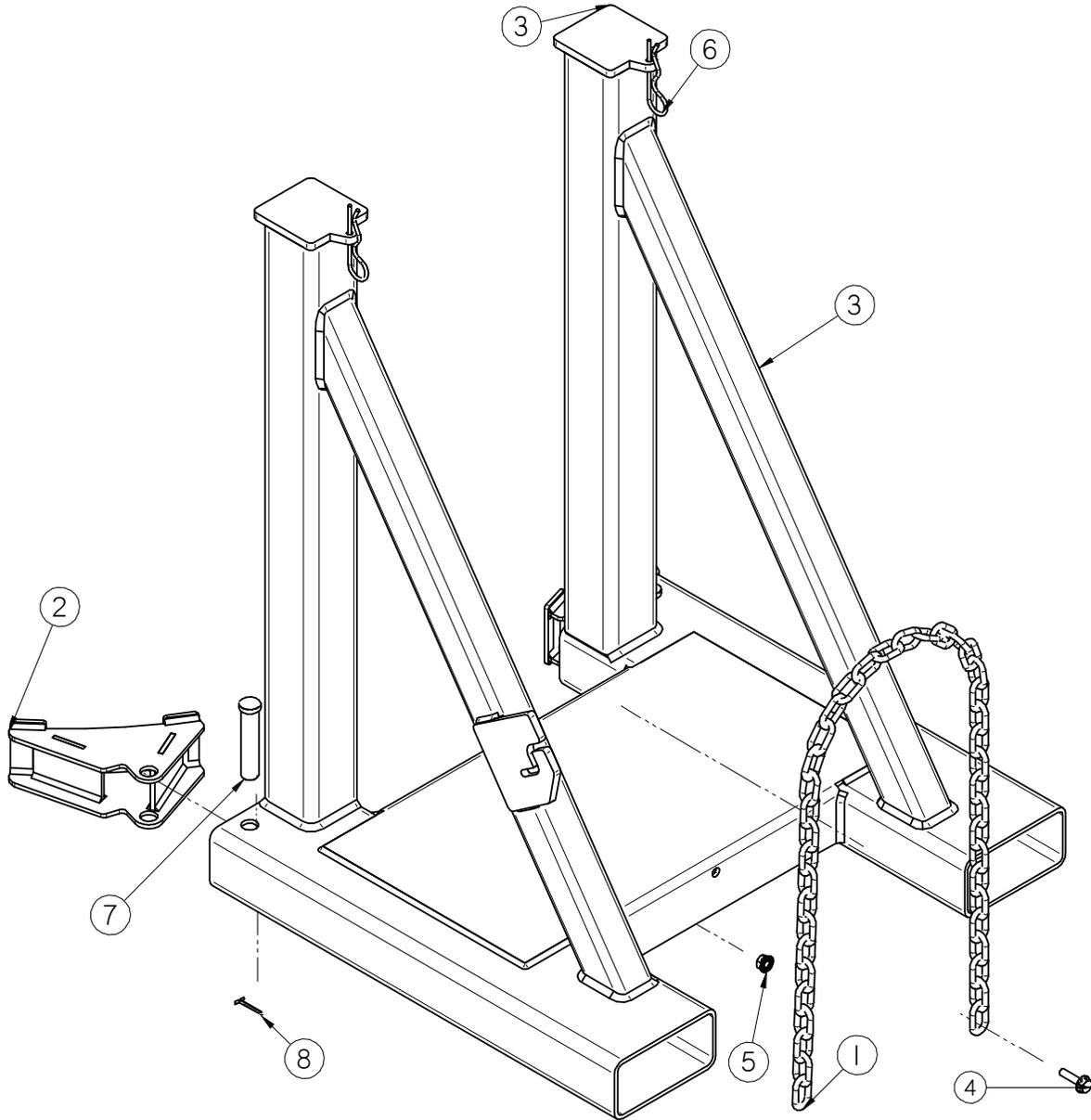
**ASSEMBLY STATIC MIXER & VALVES BATCH TREATER (04-03-0289 REV A1)**



**ASSEMBLY STATIC MIXER & VALVES BATCH TREATER (04-03-0289 REV A1)**

PART #		04-03-0289 REV A1	
Item #	Part #	Description	Qty
1	02-02-0006	VLV BALL .500 NPT 2WAY BRSS	5
2	02-02-0008	VLV CHK .500 NPT FM SS	1
3	02-04-0057	FTTG BUSH .500NPT X.250NPT SS	1
4	02-05-0005	FTTG CPLG .500 NPT FM SS	1
5	02-06-0020	FTTG 90 DEG STRT.500NPTX .500NPT SS	5
6	02-07-0007	FTTG NIP .500NPTX1.125 TBE SS CLOSE	7
7	02-07-0019	FTTG NIP .500 NPT X 3.00 TBE SS	1
8	02-08-0007	FTTG STGHT .500HB X .500NPT ML NYL	1
9	02-09-0003	FTTG TEE .500 NPT FM SS	1
10	02-11-0001	FTTG CROSS .500 NPT FM SS	2
11	02-15-0014	FTTG CPLG .500 NPT QCK DISC INSERT	4
12	02-16-0041	FTTG PUSH .250D X .250 NPT	1
13	02-16-0050	FTTG PUSH 90DEG .625ODX.500 NPT ML	1
14	04-03-0030	MXR IL PVC 6ELEMENT .500PIPE X 7.00	1
15	05-10-4277	SPCR STTC MXR MNT	1
16	05-10-4356	PLT STTC MIXER SUPP BATCH TRTR	1
17	06-01-0037	BOLT U .313-18 X 1.00 X .375 ZP GR5	2
18	06-03-0002	NUT NYL LOCK .313-18 ZP GR5	4
19	06-05-0003	WSHR FLAT .313 ZP	4

U-BATCH™ TREATER  
ASSEMBLY BATCH TREATER LIFT (13-05-0463 REV A0)



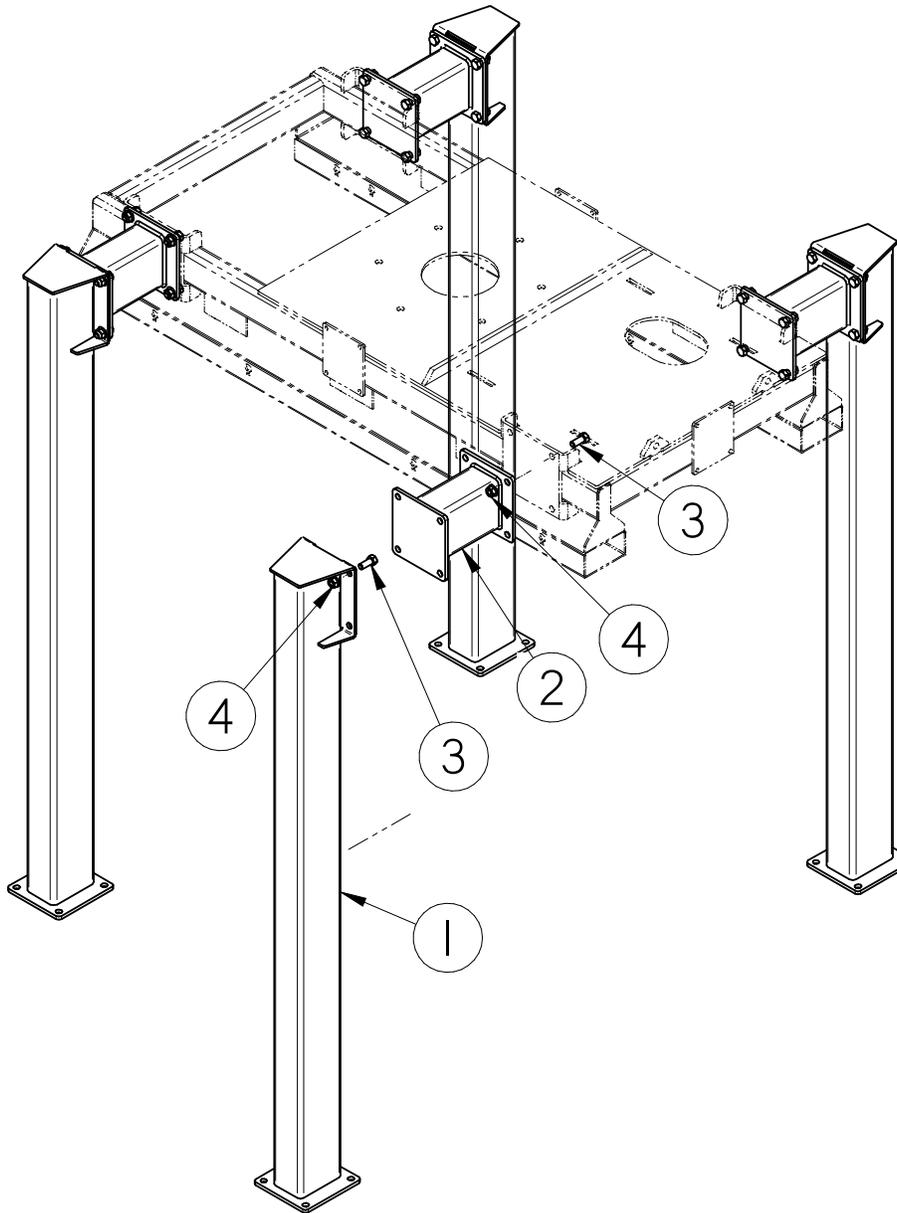
U-BATCH™ TREATER

**ASSEMBLY BATCH TREATER LIFT (13-05-0463 REV A0)**

PART #		13-05-0463 REV A0	
Item #	Part #	Description	Qty
1	01-04-0020	CHAIN PROOF COIL .250	8
2	05-07-0857	WDMT SWIVEL BT HOPP LIFT	2
3	05-08-0523	WDMT FR LIFTING REMV HOPP	1
4	06-01-0189	BOLT FLG .375-16 X 1.250 ZP GR5	1
5	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	1
6	06-09-0002	PIN CLIP HITCH 3.063 SIZE 9 ZP	2
7	06-09-0014	PIN CLVS .750 X 3.50 ZP	2
8	06-09-0087	PIN CTRR .125 X 1.50 ZP	2

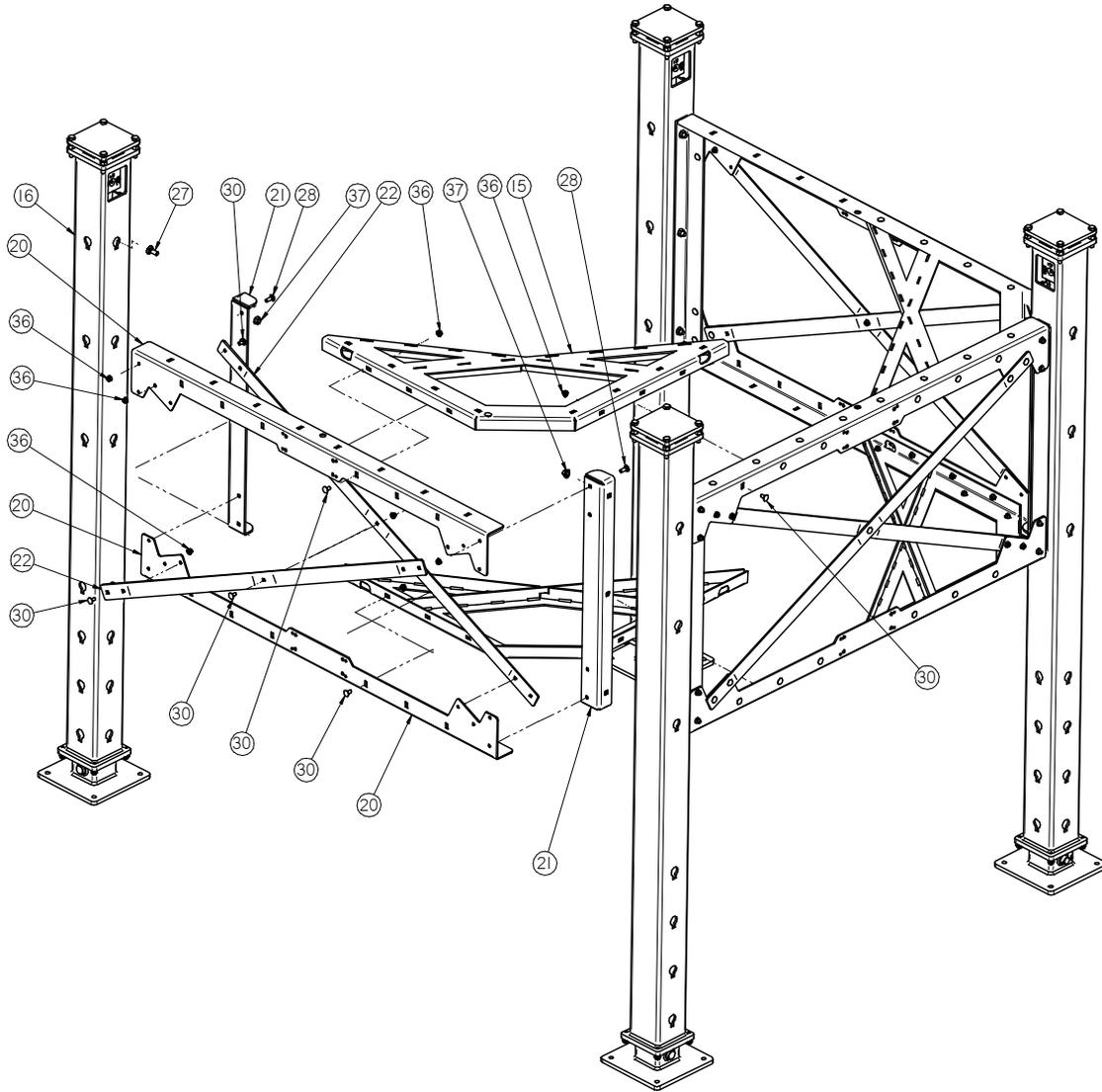
U-BATCH™ TREATER

**ASSEMBLY BATCH TREATER LEGS FIXED (05-05-0149 REV A0)**



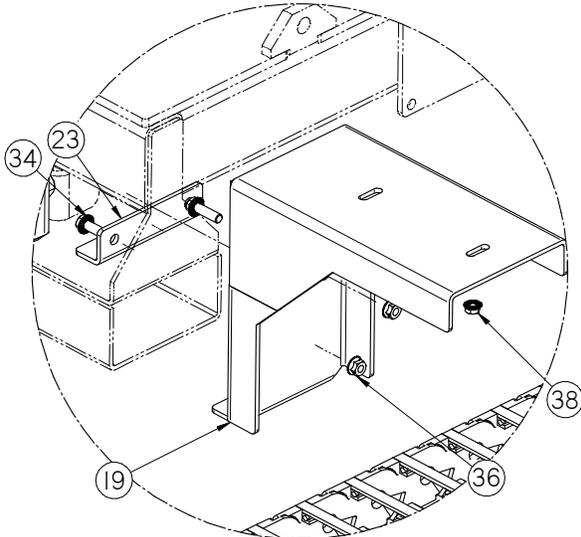
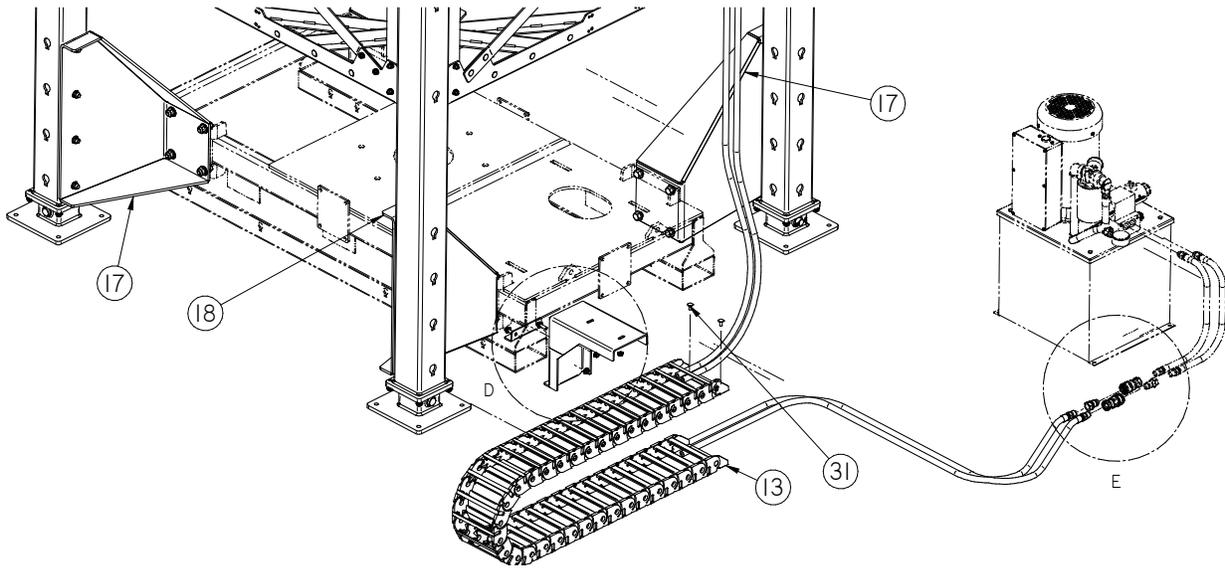
PART #		05-05-0149 REV A0	
Item #	Part #	Description	Qty
1	05-05-0122	WDMT LEG VERT VC PRO BOX	4
2	05-05-0123	WDMT LEG HORZ VC 10IN	4
3	06-01-0031	BOLT .625-11 X 1.50 ZP GR5	32
4	06-03-0029	NUT WHIZ LOCK FLG .625-11 GR5	32

U-BATCH™ TREATER  
ASSEMBLY BATCH TREATER LEGS HYDRAULIC (05-05-0145 REV B4)

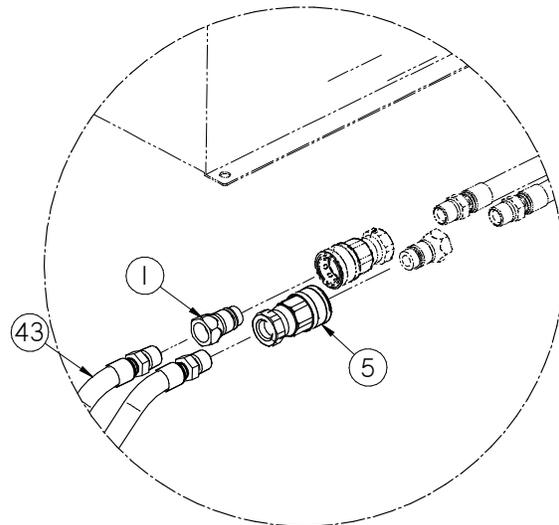


U-BATCH™ TREATER

ASSEMBLY BATCH TREATER LEGS HYDRAULIC (05-05-0145 REV B4)



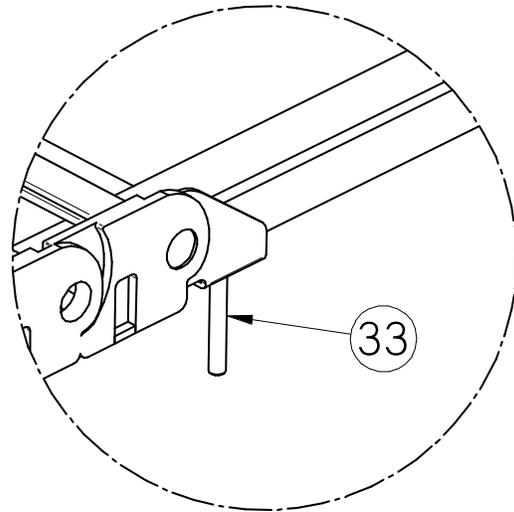
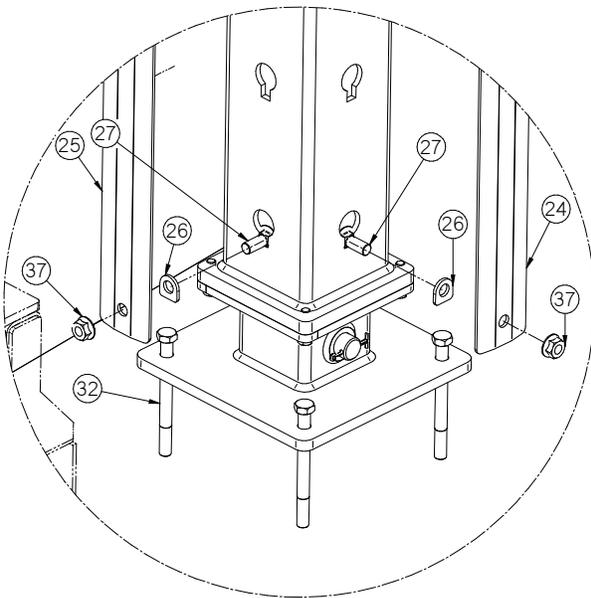
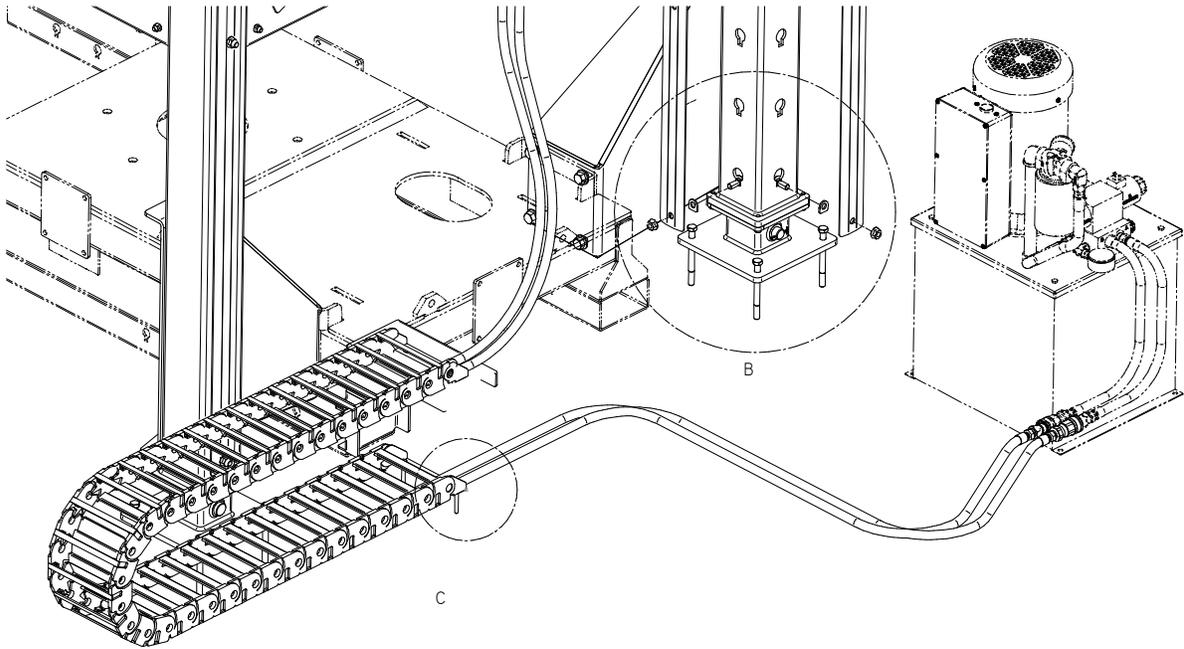
DETAIL D



DETAIL E

U-BATCH™ TREATER

ASSEMBLY BATCH TREATER LEGS HYDRAULIC (05-05-0145 REV B4)



**ASSEMBLY BATCH TREATER LEGS HYDRAULIC (05-05-0145 REV B4)**

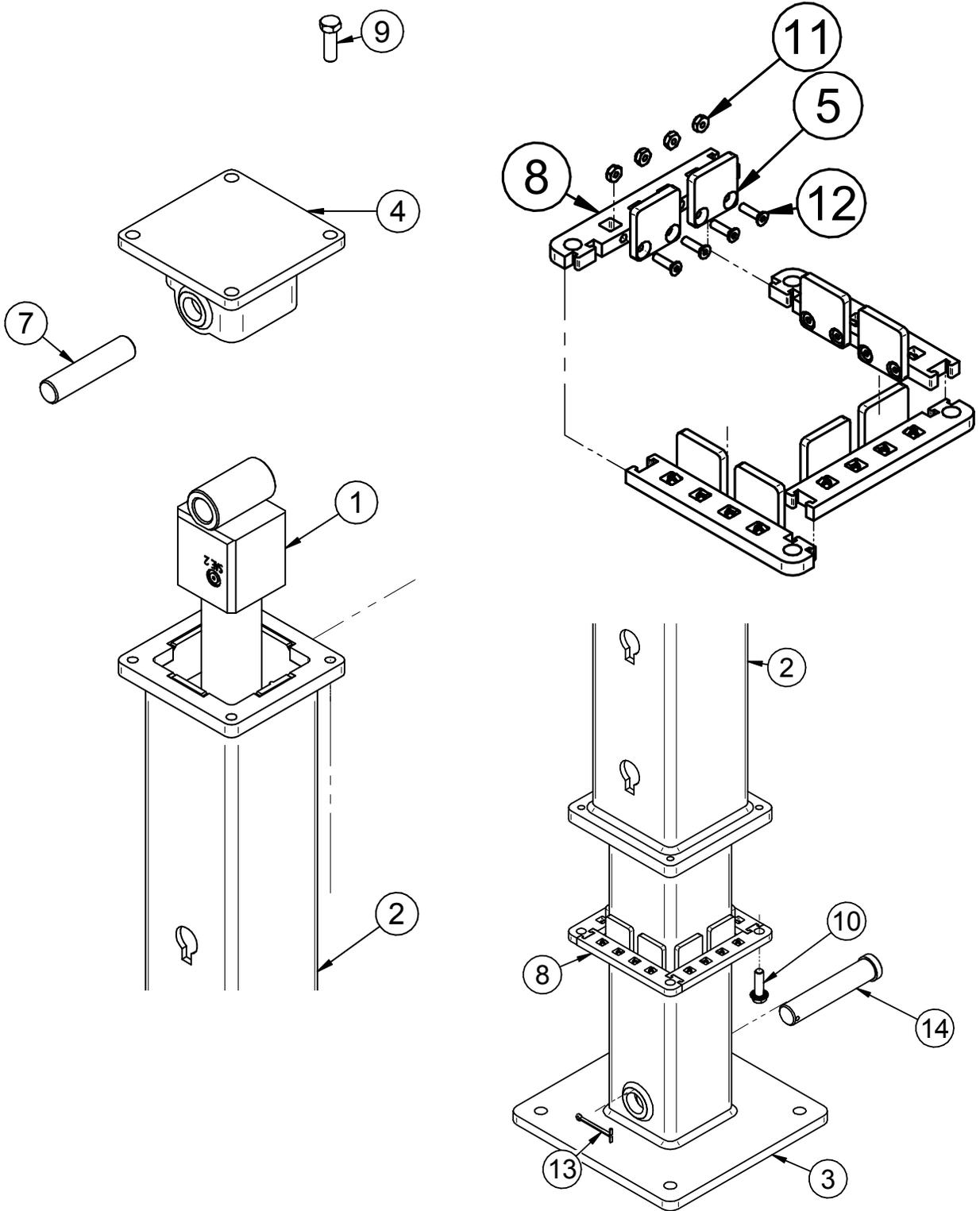
PART #		05-05-0145 REV B4		
Item #	Part #	Description	Qty	See Page
1	02-05-0067	FTTG HYD QCK .5 ML BODY X .500 FNPT	1	
2	02-05-0069	FTTG HYD STGHT 8MJ-8MOR	1	
3	02-05-0124	FTTG HYD STGHT 6MJ-6MOR	8	
4	02-05-0129	FTTG HYD STGHT 4MOR-6FOR	8	
5	02-05-0133	FTTG HYD QCK .5 FM BODY X .500 FNPT	1	
6	02-05-0137	FTTG HYD STGHT 6FOR-6MP	4	
7	02-05-0138	FTTG HYD STGHT 8FOR-8MP	1	
8	02-06-0059	FTTG HYD 90 DEG 8MJ-8FJX	2	
9	02-06-0065	FTTG HYD 90 DEG 8MJ-6MOR	2	
10	02-06-0099	FTTG HYD 90 DEG 8MJ-6MOR XX-LONG	2	
11	02-09-0029	FTTG HYD TEE 8MJ-8MJ-8MJ BLKHD	1	
12	02-09-0031	FTTG HYD TEE RUN 8MJ-8FJX-8MJ	2	
13	03-07-0154	CBL TRACK DYNATECT KL3-14-4-86.625	1	
14	03-17-0130	FD RTRY 4 SECT PPM2RV 7.0 MAX GPM	1	
15	05-03-1642	WDMT BRACE CORNER BT	4	
16	05-05-0138	ASSY LEG BT HYD 66.0IN STROKE	4	45
17	05-05-0143	WDMT MNT LEG BT HYD	2	
18	05-05-0144	WDMT MNT LEG BT HYD 2	2	
19	05-05-0158	MNT UPPER CBL TRACK HYD LEGS	1	
20	05-10-4439	STIFFENER LEGS BT HYD	6	
21	05-10-4455	BRKT ANGLE FORMED PLT CS	6	
22	05-10-4460	PLT GST STRAP	6	
23	05-10-4533	PLT CLMP 4IN HOLE CTR	1	
24	05-10-4534	CVR SAFETY LONG LEG HOLES	6	
25	05-10-4536	CVR SAFETY SHORT LEG HOLES	2	
26	05-10-4537	SPCR SAFETY CVR	22	
27	06-01-0062	BOLT CRG .500-13 X 1.25 ZP GR5	56	
28	06-01-0115	BOLT CRG .375-16 X 1.00 ZP GR5	24	
29	06-01-0124	BOLT FLG .375-16 X .750 ZP GR5	4	
30	06-01-0153	BOLT CRG .375-16X.750 ZP SHORT NECK	83	
31	06-01-0171	BOLT CRG .313-18X.750ZP SHORT NECK	2	
32	06-01-0179	BOLT .500-13 CONC ANCHOR ZP 5.500	16	
33	06-01-0180	BOLT .313 X 2.50 CONC ANCHOR ZP	2	
34	06-01-0189	BOLT FLG .375-16 X 1.250 ZP GR5	2	
35	06-01-0292	BOLT FLG .625-11 X 1.500 GR5 ZP	16	

U-BATCH™ TREATER

**ASSEMBLY BATCH TREATER LEGS HYDRAULIC (05-05-0145 REV B4)**

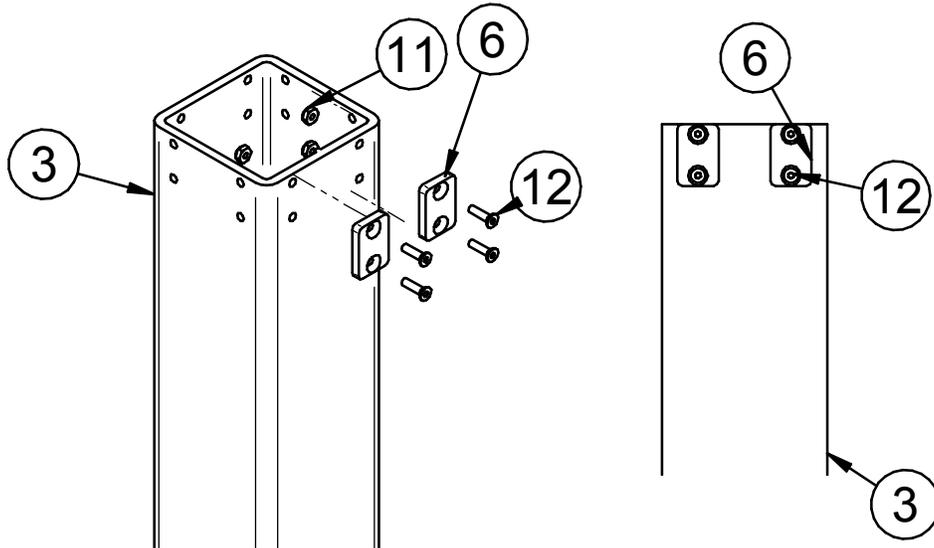
PART #		05-05-0145 REV B4		
Item #	Part #	Description	Qty	See Page
36	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	113	
37	06-03-0015	NUT LOCK FLG .500-13 ZP GR5	56	
38	06-03-0019	NUT LOCK FLG .313-18 ZP GR5	2	
39	06-03-0023	NUT LOCK -8 JIC BLKHD	1	
40	06-03-0029	NUT WHIZ LOCK FLG .625-11 GR5	16	
41	13-05-0536	HHA .375ID 086.6IN -08FJX -06FJX	4	
42	13-05-0537	HHA .375ID 032.0IN -08FJX -06FJX	4	
43	13-05-0538	HHA .375ID 192.0IN -08FJX -08MP	2	

ASSEMBLY BATCH TREATER LEG HYDRAULIC (05-05-0138 REV C1)



U-BATCH™ TREATER

**ASSEMBLY BATCH TREATER LEG HYDRAULIC (05-05-0138 REV C1)**



PART #		05-05-0145 REV B4	
Item #	Part #	Description	Qty
1	03-17-0116	CYL HYD WELD 66IN STROKE 2IN ID*	1
2	05-05-0140	WDMT OUTER LEG BT HYD 66.0IN STROKE	1
3	05-05-0141	WDMT INNER LEG BT HYD 66.0IN STROKE	1
4	05-05-0142	WDMT MNT CYL BASE BT HYD	1
5	05-10-4456	GUIDE UHMW LEG HYD BT	8
6	05-10-4541	GUIDE UHMW LEG HYD BT	8
7	05-11-0482	PIN 1.000 X 4.437 CS	1
8	05-11-0551	BRKT MNT TUBE GUIDES	4
9	06-01-0025	BOLT .500-13 X 1.50 ZP GR5	4
10	06-01-0189	BOLT FLG .375-16 X 1.250 ZP GR5	4
11	06-02-0043	NUT NYL LOCK 10-24 ZP	32
12	06-06-0103	SCRW MACH 10-24 X.75 FLHD SCKT BO	32
13	06-09-0023	PIN CTRR .188 X 2.00 ZP	1
14	06-09-0108	PIN CLVS 1.00 X 5.0 ZP	1

HYDRAULIC POWER PACK		
VOLTAGE	PART #	DESCRIPTION
240V / 1PH	01-01-0237	HYD PWR PKG 5HP 230V 1PH 6.7 GPM*
480V /240V / 3PH	01-01-0251	HYD PWR PKG 5HP 3PH 6.7 GPM*

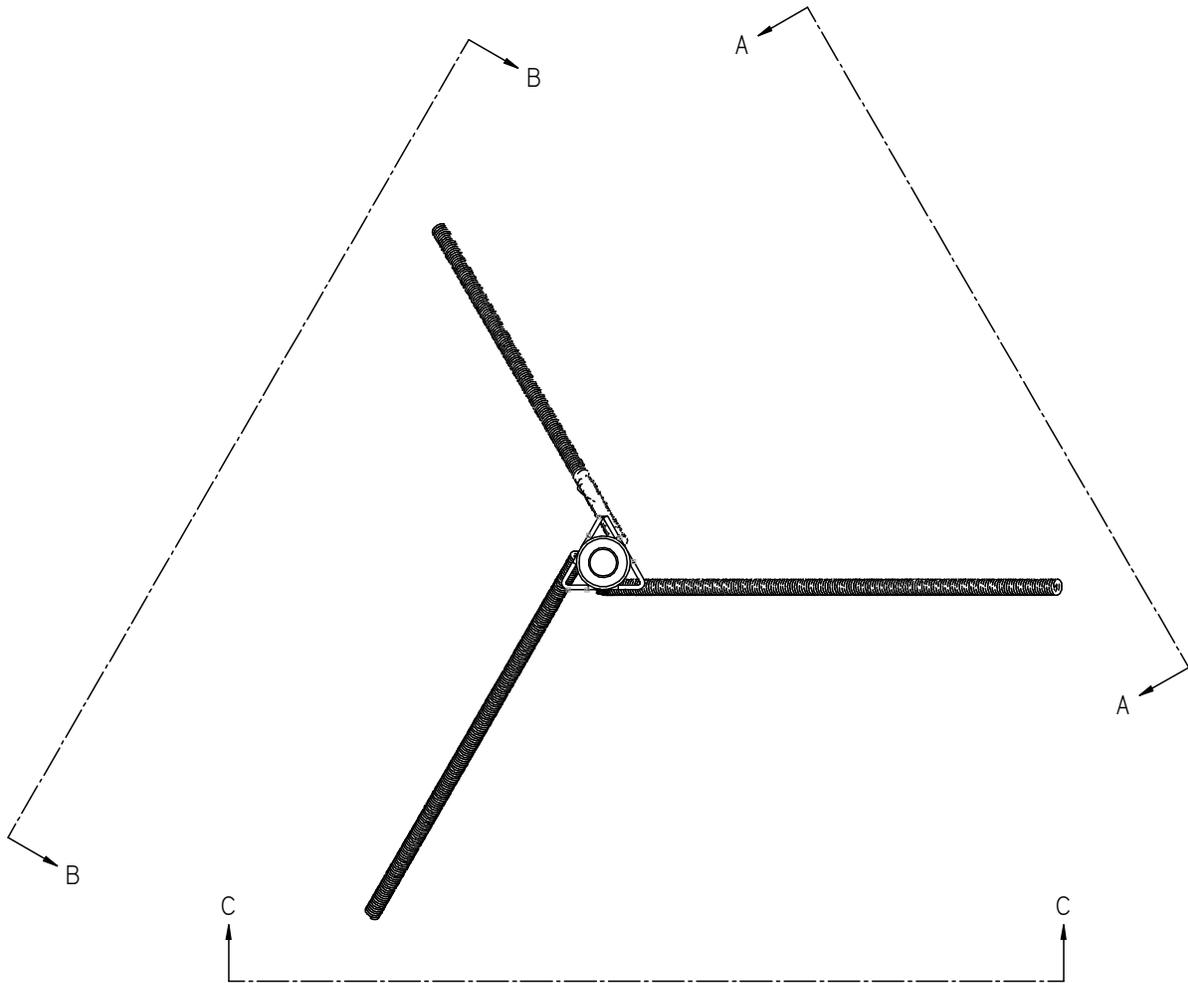


U-BATCH™ TREATER

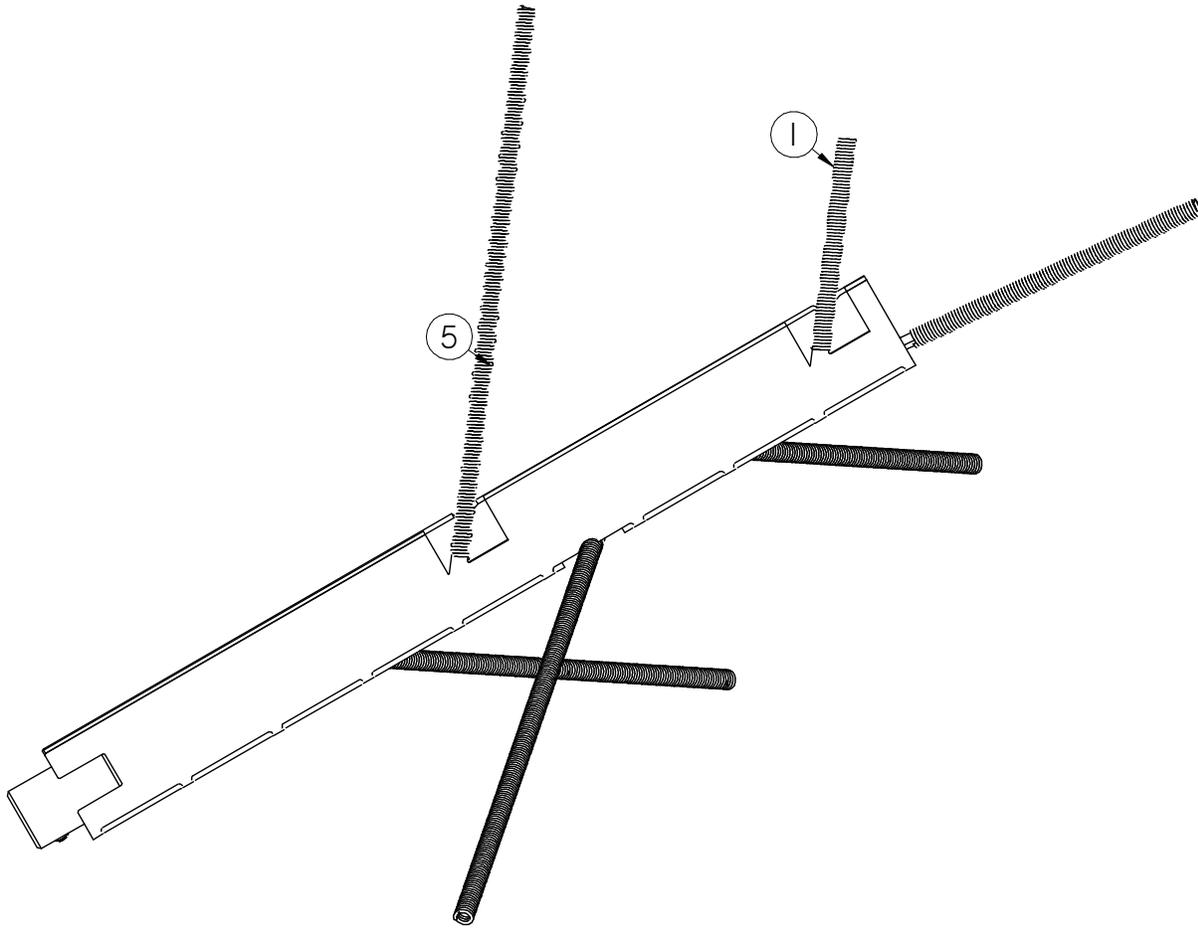
**OPTIONAL POWDER DELIVERY HOPPER (13-05-0500 REV A1)**

PART #		13-05-0500 REV A1		
Item #	Part #	Description	Qty	SEE PAGE
1	01-01-0182	MTR 1/15 HP 45RPM 1PH W/CNDT BOX	1	
2	02-03-0027	HOSE PVC 1.250 ID CLEAR LINE VAC	15	
3	02-08-0036	FTTG STGHT 1.25HB X 1.25NPT PP	1	
4	02-15-0050	FTTG CPLG CAM LVR 1.5FM X 1.25 FNPT	1	
5	03-08-0201	CONN RING TMNL 14-16AWG #6-10 STUD	1	
6	03-08-0268	CONN COMPACT TNML BLK 2-CON	1	
7	03-08-0270	CONN COMPACT TNML BLK 5-CON	2	
8	03-13-0030	KIT SW MNL MP .07 HP MIX MTR 1-1.6A	1	57
9	05-03-1578	WDMT FR GMTR MNT	1	
10	05-07-0811	CNVR AIR 1.25OD OUT 1.50 FNPT INLET	1	
11	05-08-0474	ASSY SHAFT AGITATION POWDER SS	1	49
12	05-10-4358	PLT BRKT CLMP U-BOLT	1	
13	06-01-0008	BOLT .250-20 X 1.25 ZP GR5	4	
14	06-01-0124	BOLT FLG .375-16 X .750 ZP GR5	1	
15	06-01-0215	SCRW MACH #14 X .750 SS PLASTITE	6	
16	06-01-0294	BOLT U .375-16 X 2.50 X 3.625 ZP	1	
17	06-02-0001	NUT FULL .250-20 ZP GR5	4	
18	06-03-0014	NUT LOCK FLG .375-16 ZP GR5	3	
19	06-07-0019	CLMP HOSE 1.0 TO 2.0	2	
20	07-02-0034	WDMT FR 7-10GAL CONE BTM TNK	1	
21	07-02-0035	TNK 10GAL 55 DEG 1.50 FNPT FD	1	

U-BATCH™ TREATER  
ASSEMBLY SHAFT AGITATION POWDER (05-08-0474 REV A0)

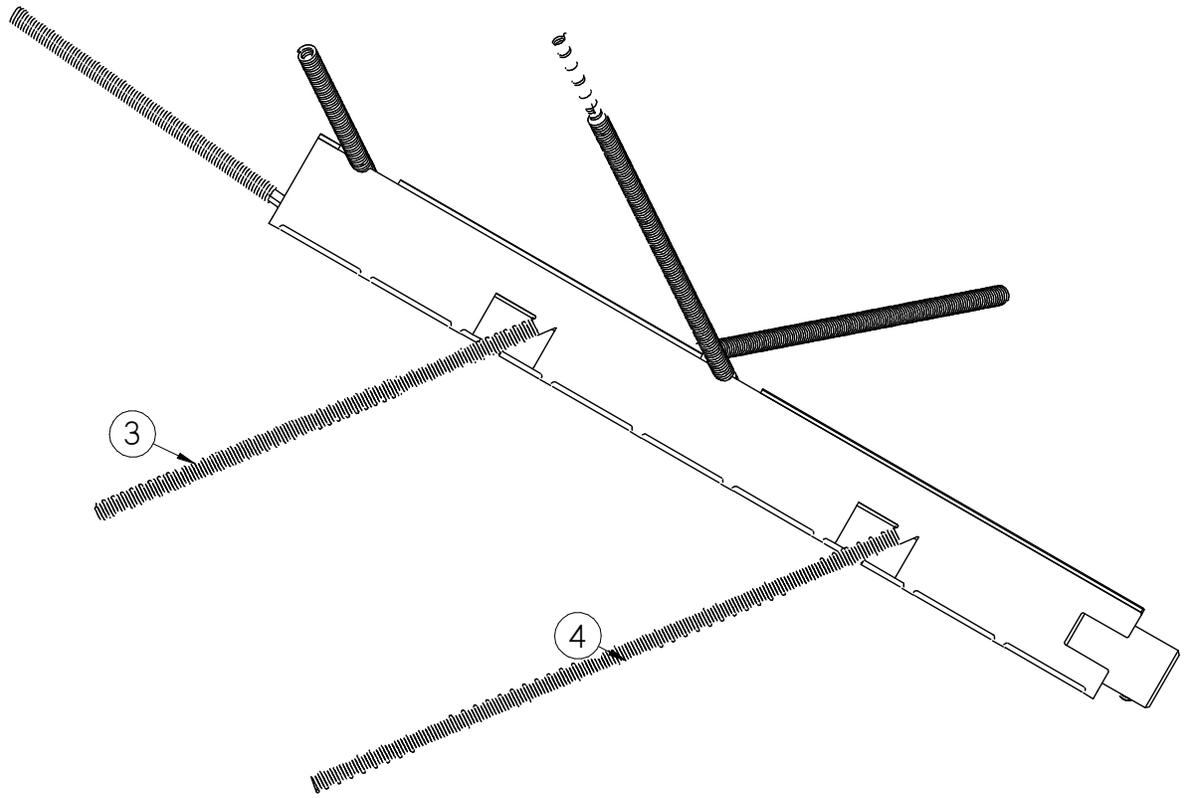


U-BATCH™ TREATER  
ASSEMBLY SHAFT AGITATION POWDER (05-08-0474 REV A0)



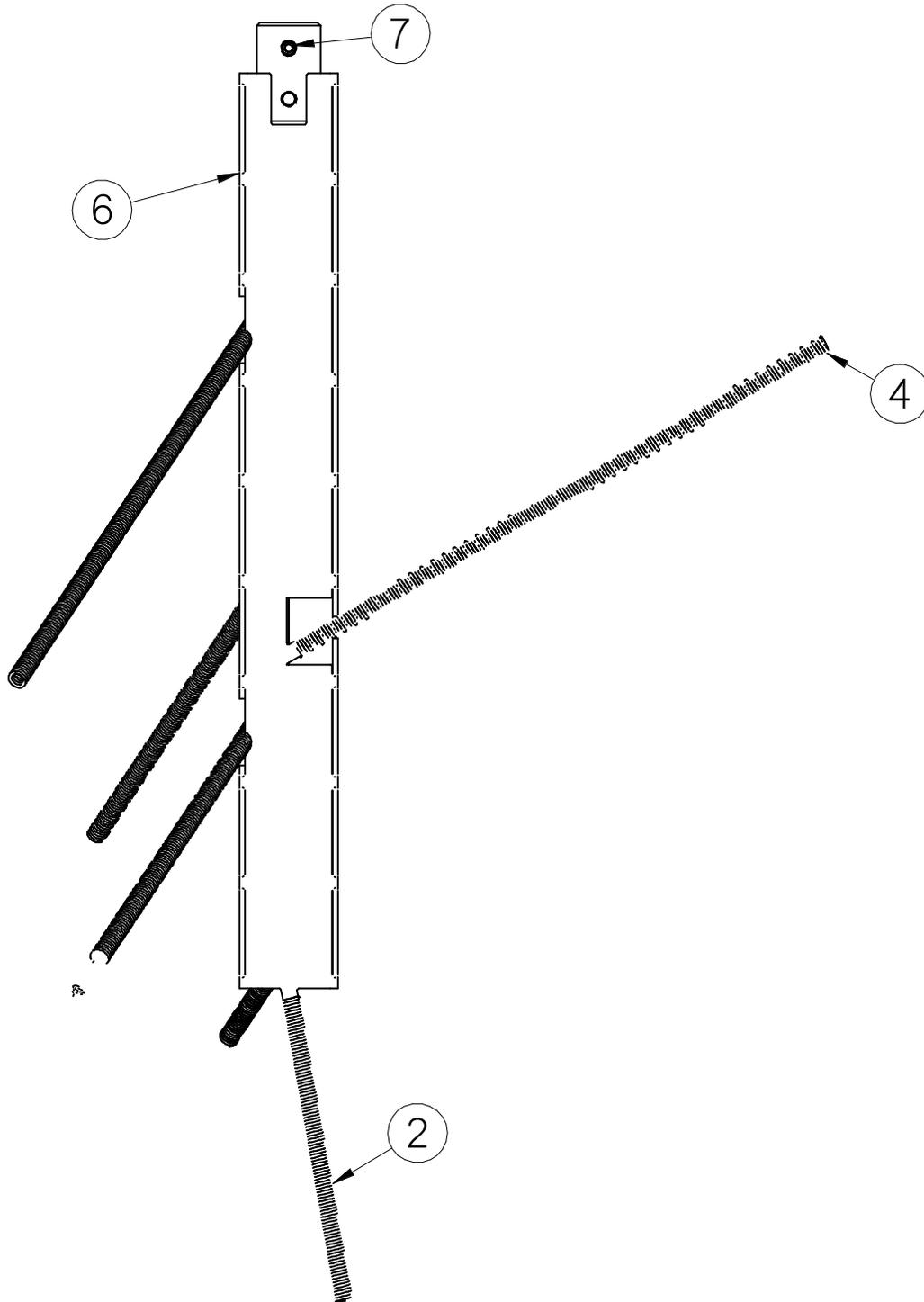
VIEW A-A

U-BATCH™ TREATER  
ASSEMBLY SHAFT AGITATION POWDER (05-08-0474 REV A0)



VIEW B-B

U-BATCH™ TREATER  
ASSEMBLY SHAFT AGITATION POWDER (05-08-0474 REV A0)

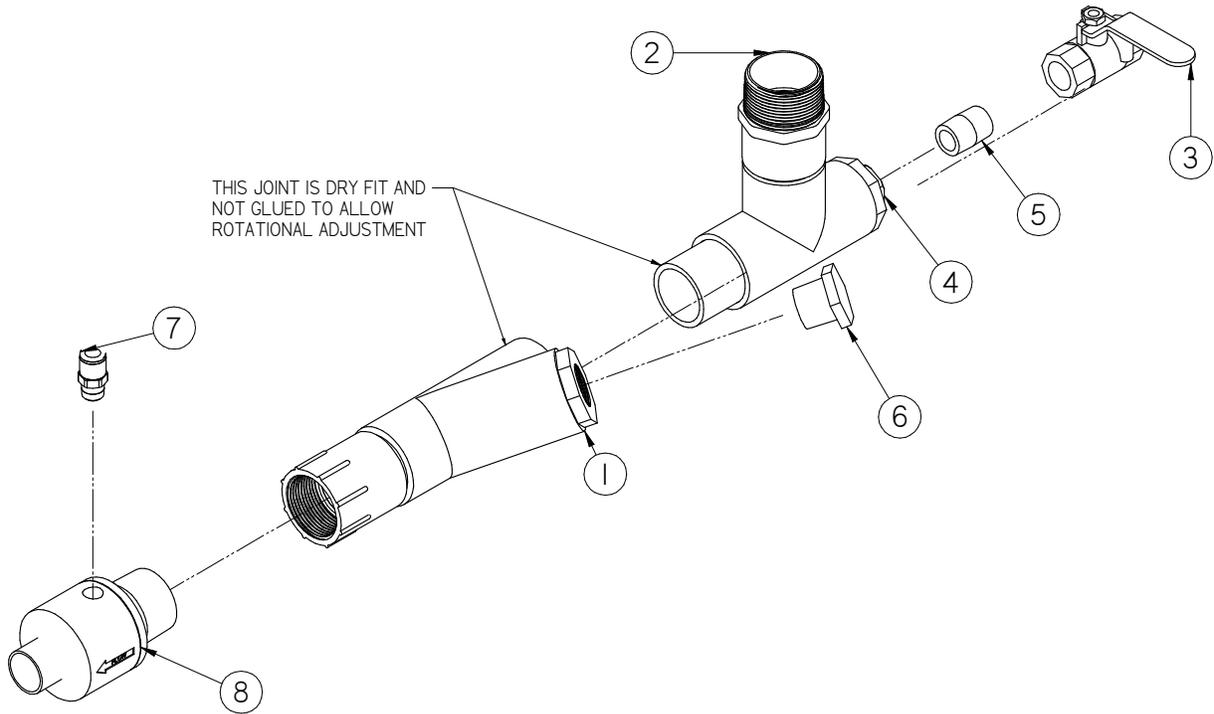


VIEW C-C

**ASSEMBLY SHAFT AGITATION POWDER (05-08-0474 REV A0)**

PART #		05-08-0474 REV A0	
Item #	Part #	Description	Qty
1	01-04-0079	SPG EXT .375OD .063 WIRE 4IN LG	1
2	01-04-0080	SPG EXT .375OD .063 WIRE 6IN LG	1
3	01-04-0081	SPG EXT .375OD .063 WIRE 9IN LG	1
4	01-04-0082	SPG EXT .375OD .063 WIRE 12IN LG	2
5	01-04-0083	SPG EXT .375OD .063 WIRE 10.5IN LG	1
6	05-08-0473	WDMT SHAFT AGITATION POWDER SS	1
7	06-06-0085	SETSCREW .312-18 X .375 SS CUP PNT	1

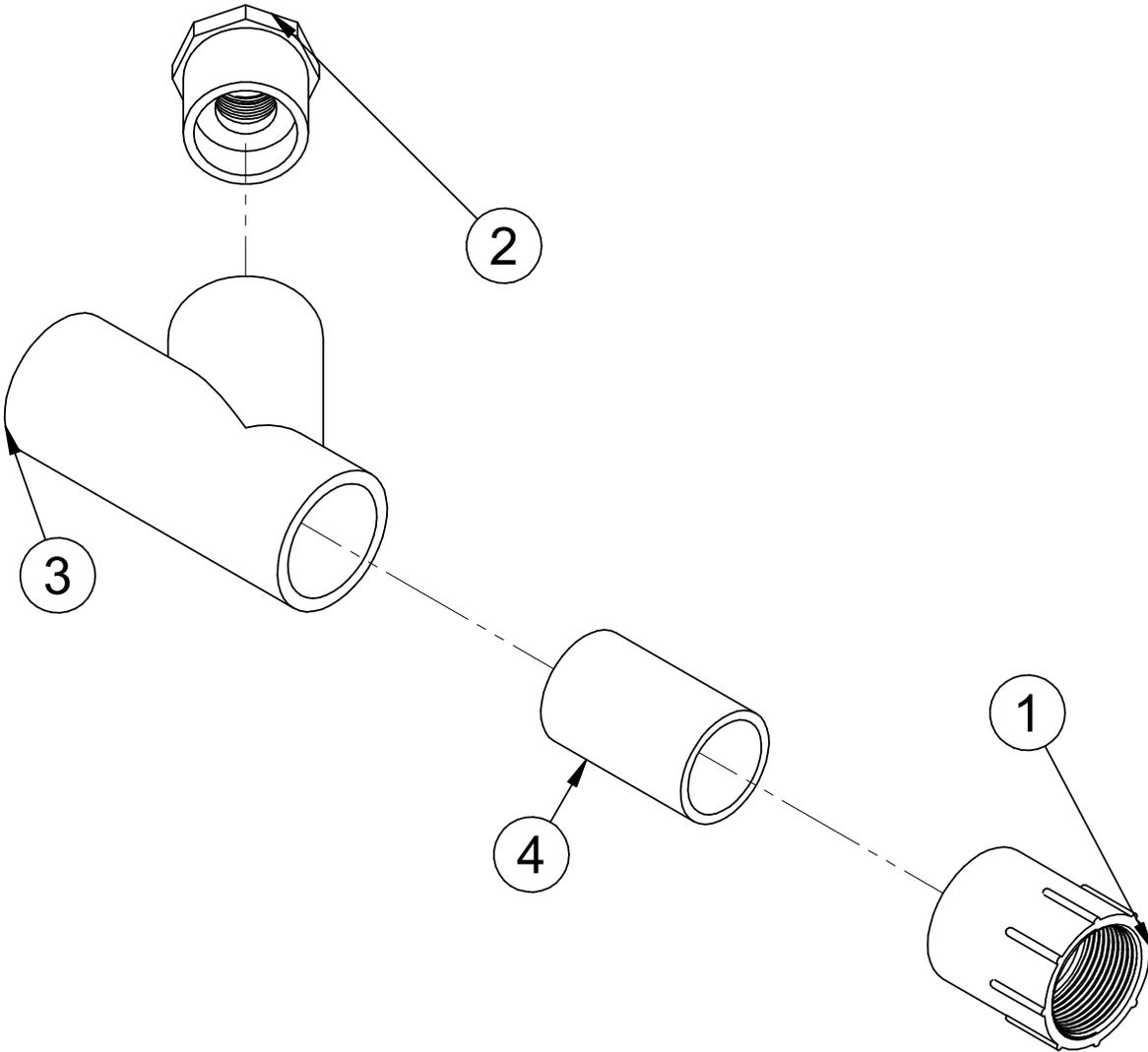
U-BATCH™ TREATER  
**ASSEMBLY CONVEYOR AIR (05-07-0811 REV B0)**



PART #		05-07-0811 REV B0		
Item #	Part #	Description	Qty	See Page
1		SUB -1	1	55
2		SUB-2	1	56
3	02-02-0025	VLV BALL .500 NPT 2WAY MNT HOLE SS	1	
4	02-04-0024	FTTG BUSH .750NPT X .500NPT CS	1	
5	02-07-0054	FTTG NIP .500 NPT X 1.125 TBE G-PVC	1	
6	02-14-0014	FTTG PLUG .750-14 NPT PLUG BP	1	
7	02-16-0015	FTTG PUSH .375OD X .250 NPT ML	1	
8	04-04-0015	LINE VAC 1.25 NPT IN 1.25 OD OUT	1	

SUB - AND SUB 2 ARE TO BE GLUED TOGETHER AT THE PLANT. SEE PAGES 54 & 55 FOR PARTS TO BE ORDERED FOR EACH.

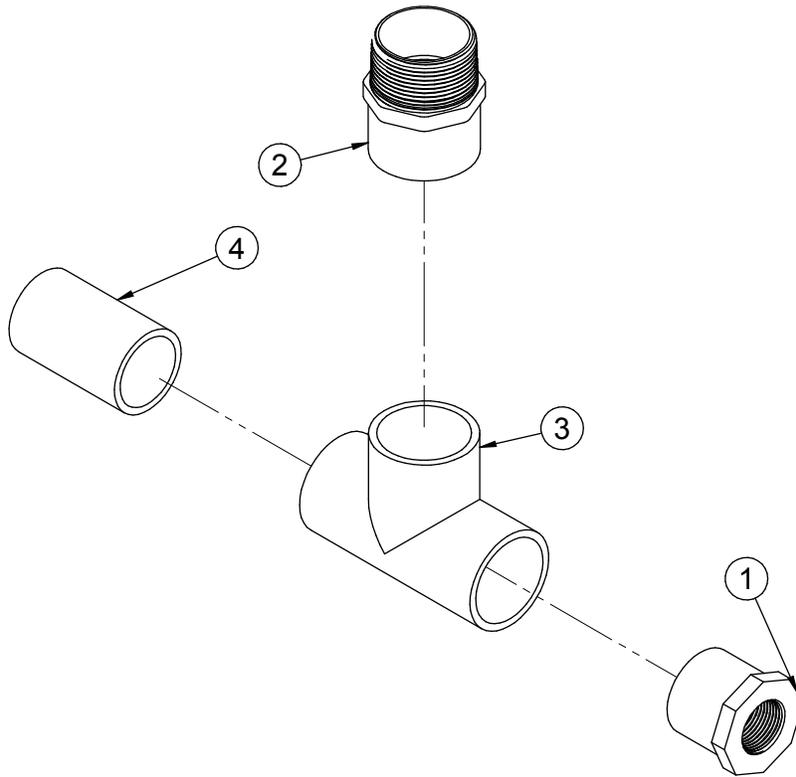
**SUB-ASSEMBLIES CONVEYOR AIR (05-07-0811 REV B0 SUB 1)**



PART #		05-07-0811 REV B0 SUB 1	
Item #	Part #	Description	Qty
1	02-04-0042	FTTG ADPT 1.25 SCKT X 1.25 FNPT PVC	1
2	02-04-0043	FTTG ADPT 1.25 SCKT X 0.75 FNPT PVC	1
3	02-10-0005	FTTG WYE 1.25 SCKT PVC	1
4	103F2D	NIPPLE 1.25 OD PVC	1
THESE PARTS ARE TO BE GLUED TOGETHER AT THE PLANT.			

U-BATCH™ TREATER

**SUB-ASSEMBLIES CONVEYOR AIR (05-07-0811 REV B0 SUB 2)**



PART #		05-07-0811 REV B0 SUB 2	
Item #	Part #	Description	Qty
1	02-04-0043	FTTG ADPT 1.25 SCKT X 0.75 FNPT PVC	1
2	02-04-0047	FTTG ADPT 1.25 SCKT X 1.50 MNPT PVC	1
3	02-09-0042	FTTG TEE 1.250 SCKT END SCH40 PVC	1
4	103F2C	NIPPLE 1.25 OD PVC	1
THESE PARTS ARE TO BE GLUED TOGETHER AT THE PLANT.			

U-BATCH™ TREATER

**KIT SWITCH MANUAL MIX PUMP (03-13-0030 REV A0)**

PART #		13-03-0030 REV A0	
Item #	Part #	Description	Qty
1	03-04-0089	MP ENCL PLAS TMQ GV2MC02	1
2	03-04-0129	MP MNL 1.0-1.6AMP 600V GV2ME06	1
3	03-07-0124	CORD POWER MOLDED 14/3 10FT	1
4	03-07-0146	CORD 3COND 14AWG STOOV 250FT ROLL	3.5
5	03-08-0308	NUT NYLOC .500 NPT 8464	1
6	03-08-0381	CONN CG HEYCO M3200 LTCG 1/2 NPT	3
7	06-03-0024	NUT LOCK 0.5 NPT FITTING	2

U-BATCH™ TREATER  
**INDEX BY PART NUMBER**

PART #	REVISION	DESCRIPTION	PAGE #
		TREATER WITH STATIONARY LEGS	13
		TREATER WITH HYDRAULIC LEGS	14
		CONTROL PANELS AND MOTORS	15
		HYDRAULIC POWER PACKS	46
03-13-0030	A0	KIT SW MNL MP .07 HP MIX MTR 1-1.6A	57
04-03-0289	A1	ASSY STTC MXR & VLVS BATCH TRTR 90D	35
05-05-0138	C1	ASSY LEG BT HYD 66.0IN STROKE	45
05-05-0145	B4	ASSY LEGS BT HYD 66.0IN STROKE	40
05-05-0149	A0	ASSY LEGS BT FIXED	39
05-07-0811	B0	CNVR AIR 1.25OD OUT 1.50 FNPT INLET	54
05-08-0474	A0	ASSY SHAFT AGITATION POWDER SS	47
12-04-0031	B0	ASSY SLGT DSCHG 7IN BT 3DP	33
12-04-0033	A0	SLGT 8.00 SQUARE BASE	31
12-04-0038	A1	ASSY SLD GATE BT INLET 8IN	30
13-05-0463	A0	BT HOPP LIFT	37
13-05-0500	A1	POWDER DELIVERY HOPPER 10 GAL	46
13-05-0545	A0	ASSY TOP CAP W LQ RG BATCH TRTR	28
13-05-0546	A0	ASSY TOP CAP BRG BT	29
13-11-0035	C10	ASSY BASE BT68 BATCH COATER CS	16

U-BATCH™ TREATER

**NOTES:**

**USC LIMITED WARRANTY****SECTION  
C**

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.

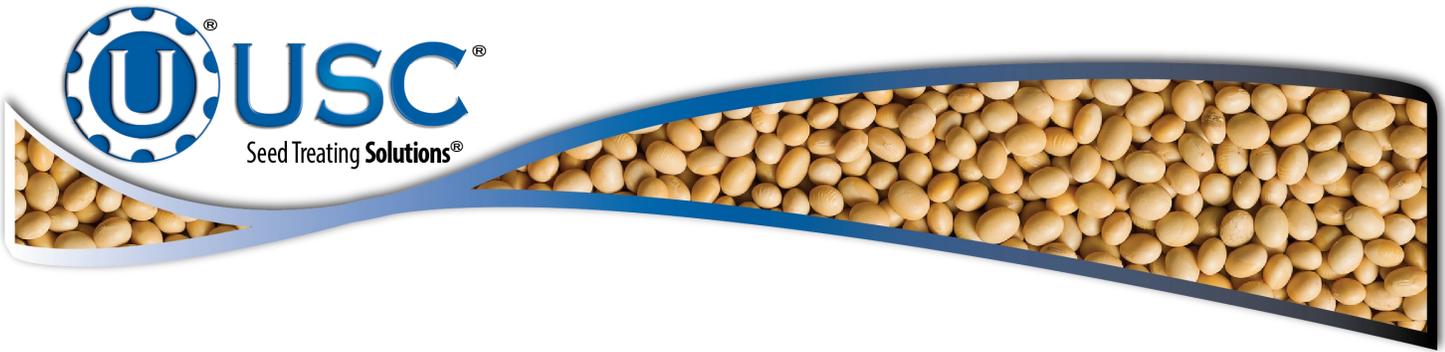
3. **Exclusive Obligation:** THIS WARRANTY IS EXCLUSIVE. The sole and exclusive obligation of Manufacturer shall be to repair or replace the defective Products in the manner and for the period provided above. Manufacturer shall not have any other obligation with respect to the Products or any part thereof, 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



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