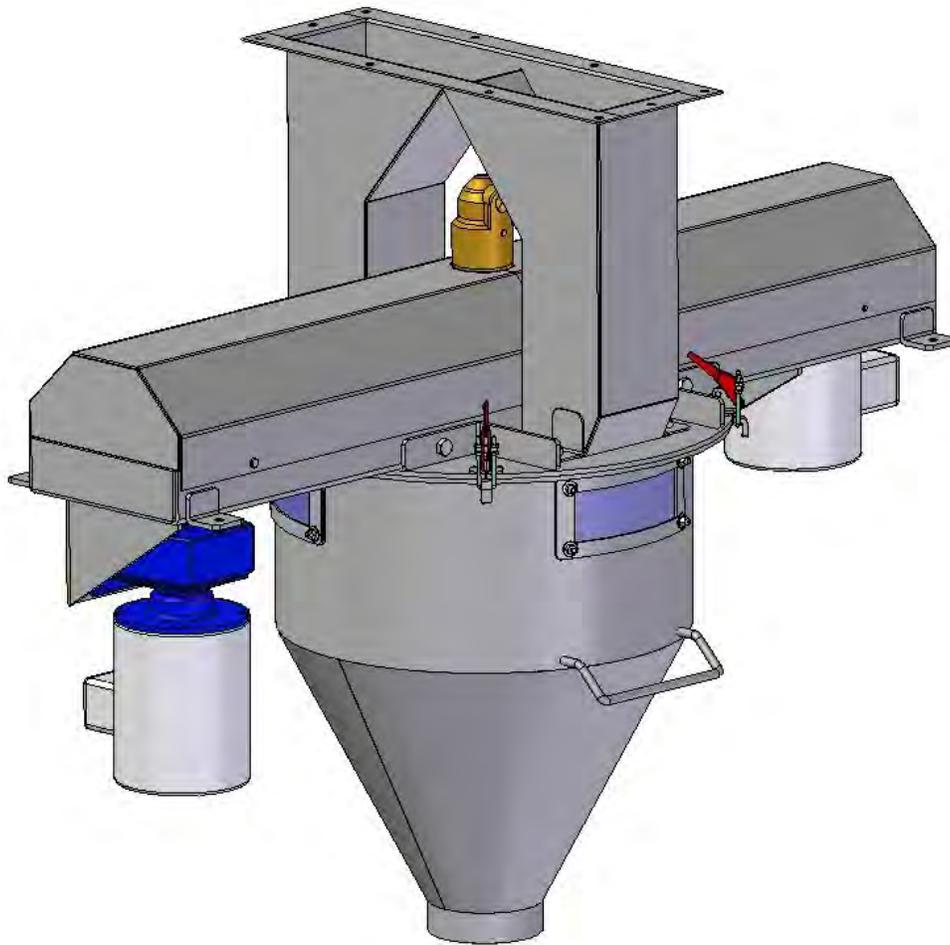


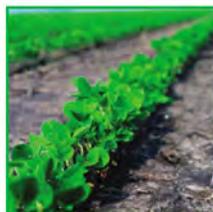
**NEBULIZER**  
**20 IN DIA / 30 IN DIA**

Operators Manual



**Document: TD-09-06-1031**

**Revision: B**



## **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 Nebulizer . It does not hold USC, LLC liable for any accidents or injuries that may occur.

### **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.

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.

## NEBULIZER

- 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 from the machine for future reference.

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

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# 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.

### 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 tagout 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.”

## **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.

## NEBULIZER

**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!

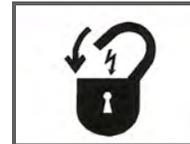
### GENERAL SAFETY

1. Read and understand the operator's manual and all safety signs 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.



## NEBULIZER

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 signs 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.

## NEBULIZER

### **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 signs clean. Replace any sign that is damaged or not clearly visible.



# INSTALLATION

## SECTION B



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



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

### NOTICE

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

### SET-UP

The following steps outline the initial set-up of your USC Nebulizer :

1. Clear the area of bystanders before installing.
2. Inspect Nebulizer thoroughly for screws, bolts, fittings, etc. which may have come loose during shipping.
3. Be sure there is enough clearance from overhead obstructions and power lines or other equipment to move the machine into its working position.
4. Using a forklift, place the Nebulizer in the desired position on the equipment it is being mounted to.
5. Attach the Nebulizer to the equipment with customer supplied hardware.
6. Have a certified electrician wire the two motors to the appropriate switch or control panel.

**SECTION  
C****MAINTENANCE**

Proper maintenance of the Nebulizer 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.

**DRIVE ASSEMBLY**

- Check for unusual vibration or sound when the Nebulizer is running.
- Check for leaks coming from the rotary union and supply line fittings.
- Remove the covers and check for any play in the motor drive shafts.
- Check the top of the bearing assembly for any leaking grease. The bearings are sealed units. Any leakage or play in the bearing shaft would indicate a bearing failure. If necessary, remove bearing and disk assembly and replace the bearings.
- Clean any dust or dirt with compressed air and a clean cloth.
- Check the drive belts for excessive wear. Replace if necessary.
- Check the drive belt tension using the methods described on page 13 and if necessary, adjust them accordingly.

**ATOMIZER AND NEBULIZER CHAMBER**

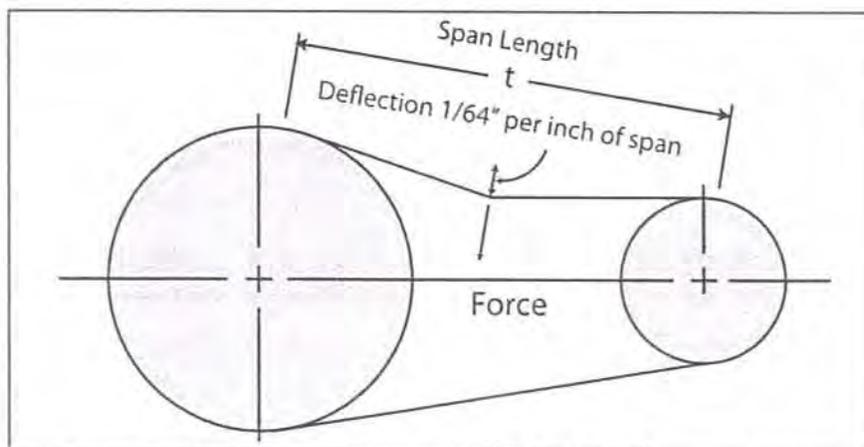
- Pump clean water through supply lines, rotary union and atomizer.
- Unlatch and swing open the Nebulizer housing.
- Unscrew the Atomizer and disassemble. Clean each of the four pieces individually.
- Check the bottom of the bearing assembly for any leaking grease. The bearings are sealed units. Any leakage or play in the bearing shaft would indicate a bearing failure. If necessary, remove bearing and disk assembly and replace the bearings.
- Clean any build-up from the inside of the housing.
- Reinstall the Atomizer head and make sure it turns freely, close and re-latch the housing .
- Clean any dirt or build-up on the outside of the housing.

**BELT TENSIONING SPECIFICATION****SECTION  
D****Synchronous Belts**

High torque, Standard and Metric synchronous belts should be installed to fit pulleys snugly, neither too tight nor too loose. The belts positive grip eliminates the need for high initial tension. When a belt is installed with a snug but not overly tight fit, longer belt life, less bearing wear and more quiet operation will result. Overtight belts may cause early failure and should be avoided. With high torque a loose belt may “jump teeth” upon startup. If this occurs, the tension should be increased gradually until satisfactory operation is achieved.

To properly tension a synchronous belt, place belt on pulleys and adjust take up until the belt teeth mesh securely with the pulley grooves. Measure belt span “T”. Then tighten belt so it deflects 1/64-inch for every inch of belt span when a force as specified in the table below is applied to the top of the belt. For belts wider than two inches, a metal or wooden strip 3/4 to 1 inch wide should be placed across the belt between it and the tester to prevent distortion.

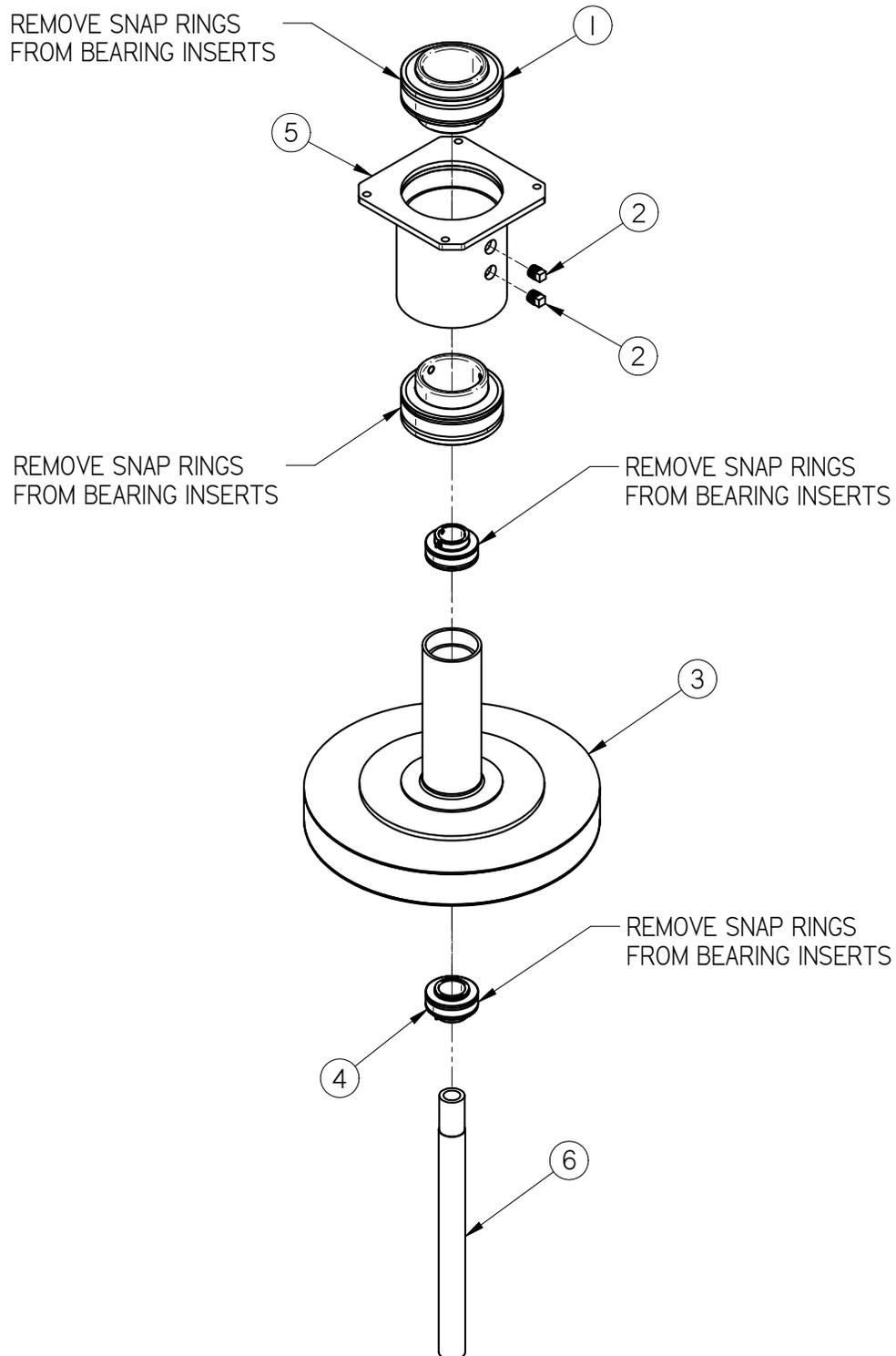
The following range of deflection forces are normally adequate for drive installation. Actual installation tension required depends on peak loads, system rigidity, number of teeth in mesh, etc.



MEASURE THE SPAN LENGTH "T"  
AS SHOWN IN THE SKETCH ABOVE.

BELT PITCH	BELT WIDTH	DEFLECTION FORCE
L (3/8 Inch)	1/2 Inch	7 Oz
	3/4 Inch	11 Oz
	1 Inch	1 Lb
H (1/2 Inch)	3/4 Inch	2 Lbs
	1 Inch	2-1/2 Lbs
	1-1/2 Inch	4 Lbs

**20 INCH DISK ASSEMBLY (05-07-0094)**



NEBULIZER

**20 INCH DISK ASSEMBLY (05-07-0094)**

Item #	Part #	Description	Qty
1	01-03-0022	3.188 BEARING INSERT VER-251	2
2	02-14-0006	FTTG PLUG SQHD .375 NPT SS	2
3	05-07-0093	WDMT DISK 20 IN NEBULIZER	1
4	05-07-0831	BRG BALL 1.438 NBLZR W STGHT ZERK	2
5	05-11-0009	HSG BRG 30IN NEBULIZER	1
6	05-11-0011	ATMZR DRV SHAFT 30IN NEBULIZER	1



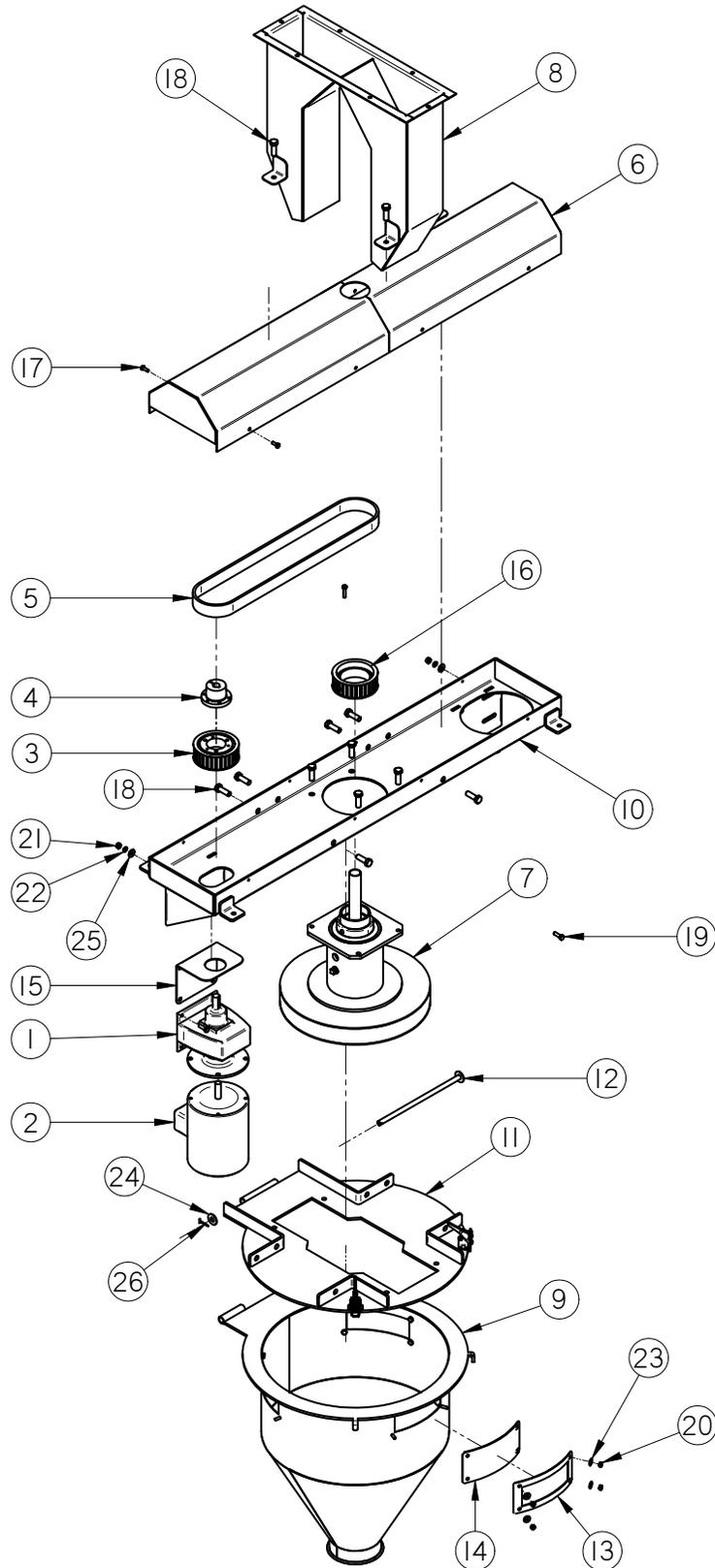
## NEBULIZER

**20 INCH NEBULIZER ASSEMBLY (13-01-0061)**

Item #	Part #	Description	Qty
1	01-01-0029	CBN 3012 S B3 18 U 56C	2
2	01-01-0030	MOTOR .5HP 56C 3PH 1725 RPM TENV	1
3	01-01-0064	MOTOR .5HP 56C 1725RPM 3PH TENV	1
4	01-02-0019	BUSHING SH .625	1
5	01-02-0020	BUSHING SH 1.4375	1
6	01-02-0025	TIMING SPRKT 28T L050 H	2
7	01-02-0057	PLLY GBLT 30T H 1.5 SD	1
8	01-02-0059	BUSH SD QD .750 BORE KWY	1
9	01-04-0027	ATOMIZER DRIVE BELT 540L050	1
10	01-04-0032	DISC DRIVE BELT 570 H 150	1
11	02-02-0032	1.0-14x.750NPT DEUBLIN ROTARY UNION	1
12	05-06-0015	WDMT GRD DRIVE NEB	2
13	05-07-0094	ASSY BRG HSG & DISK 20IN NEBULIZER	1
14	05-07-0095	WDMT CHUTE 20 IN NEBULIZER	1
15	05-07-0096	HSG 20 IN NEBULIZER	1
16	05-07-0097	WDMT NBLZR DRV-SUPP TRAY	1
17	05-07-0098	WDMT 20 IN TOP RING	1
18	05-07-0100	WDMT HINGE PIN IN NEB	1
19	05-10-1176	CVR VP	3
20	05-10-1177	PLXG 8.7 X 4.0 X 10.0 R	3
21	05-10-1193	GRD DRV FINGER NEBULIZER	2
22	05-11-0012	SPUD ATMZR DRV NEBULIZER	1
23	05-11-0013	NEBULIZER ATOMIZER HEAD TOP DISK	1
24	05-11-0014	PLT ATMZR CAP	1
25	05-11-0086	30T TIMING BELT PULLEY 3.188 BORE	1
26	06-01-0006	BOLT .250-20 X .750 ZP GR5	8
27	06-01-0041	BOLT, .500-13 UNC 316 SS - 1 1/2"	14
28	06-01-0083	BOLT .313-18 X 1.00 SS 18-8	12
29	06-02-0001	NUT FULL .250-20 ZP GR5	12
30	06-02-0017	NUT FULL .313-18 SS 18-8	12
31	06-04-0010	WSHR LOCK SPLT .313 SS 18-8	12
32	06-05-0001	WASHER, FLAT .250	12
33	06-05-0008	WASHER, .500 FLAT 18-8 SS	1
34	06-05-0011	WASHER, .3125 FLAT 18-8 SS	12
35	06-09-0018	.125 X 1.50 ZP COTTER PIN	1
36	13-05-0032	PERFORATED SCREEN,COTTON	1

NEBULIZER

**20 INCH NEBULIZER ASSEMBLY - DRY (13-01-0070)**



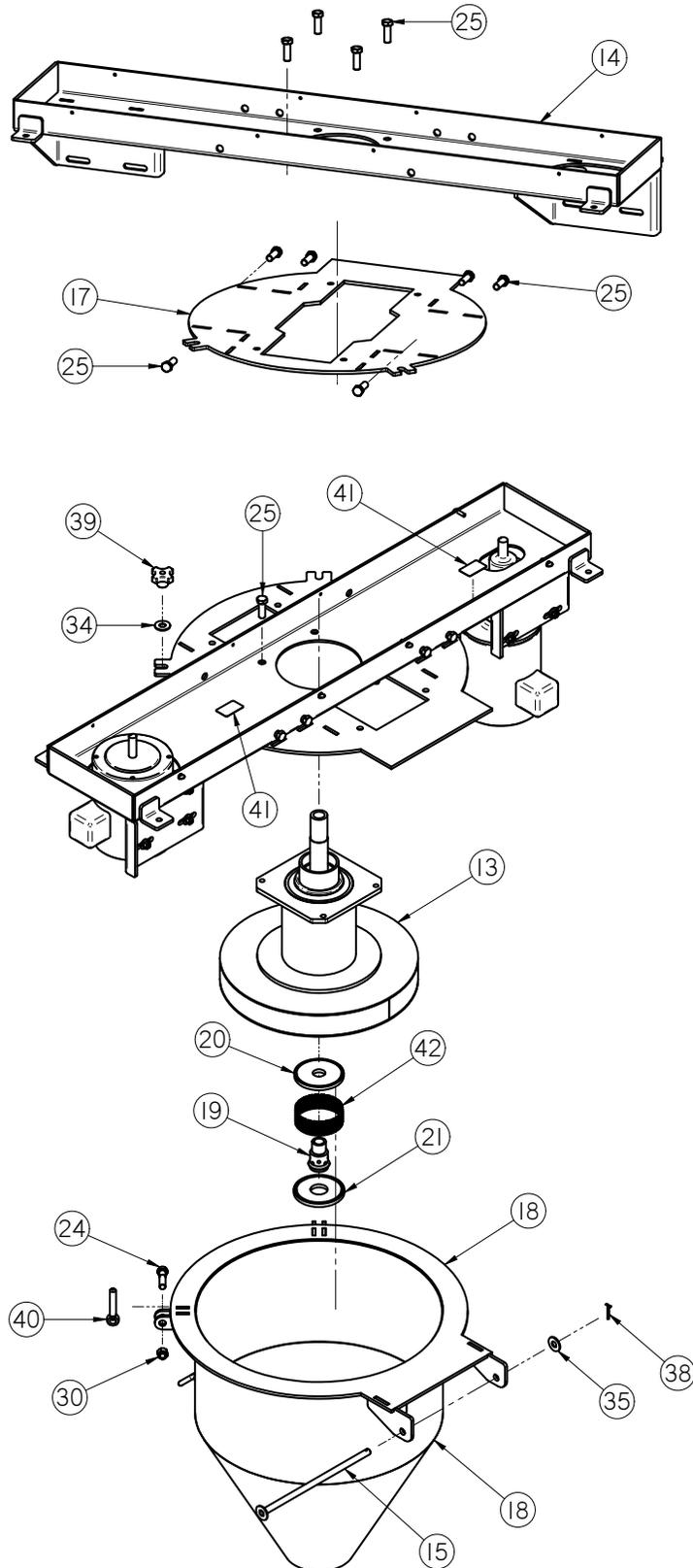
## NEBULIZER

**20 INCH NEBULIZER ASSEMBLY - DRY (13-01-0070)**

Item #	Part #	Description	Qty
1	01-01-0029	CBN 3012 S B3 18 U 56C	1
2	01-01-0064	MOTOR .5HP 56C 1725RPM 3PH TENV	1
3	01-02-0057	PLLY GBLT 30T H 1.5 SD	1
4	01-02-0059	BUSH SD QD .750 BORE KWY	1
5	01-04-0032	DISC DRIVE BELT 570 H 150	1
6	05-06-0015	WDMT GRD DRIVE NEB	2
7	05-07-0094	ASSY BRG HSG & DISK 20IN NEBULIZER	1
8	05-07-0095	WDMT CHUTE 20 IN NEBULIZER	1
9	05-07-0096	HSG 20 IN NEBULIZER	1
10	05-07-0097	WDMT NBLZR DRV-SUPP TRAY	1
11	05-07-0098	WDMT 20 IN TOP RING	1
12	05-07-0100	WDMT HINGE PIN IN NEB	1
13	05-10-1176	CVR VP	3
14	05-10-1177	PLXG 8.7 X 4.0 X 10.0 R	3
15	05-10-1193	GRD DRV FINGER NEBULIZER	1
16	05-11-0086	30T TIMING BELT PULLEY 3.188 BORE	1
17	06-01-0006	BOLT .250-20 X .750 ZP GR5	8
18	06-01-0041	BOLT, .500-13 UNC 316 SS - 1 1/2"	14
19	06-01-0083	BOLT .313-18 X 1.00 SS 18-8	5
20	06-02-0001	NUT FULL .250-20 ZP GR5	12
21	06-02-0017	NUT FULL .313-18 SS 18-8	5
22	06-04-0010	WSHR LOCK SPLT .313 SS 18-8	5
23	06-05-0001	WASHER, FLAT .250	12
24	06-05-0008	WASHER, .500 FLAT 18-8 SS	1
25	06-05-0011	WASHER, .3125 FLAT 18-8 SS	5
26	06-09-0018	.125 X 1.50 ZP COTTER PIN	1

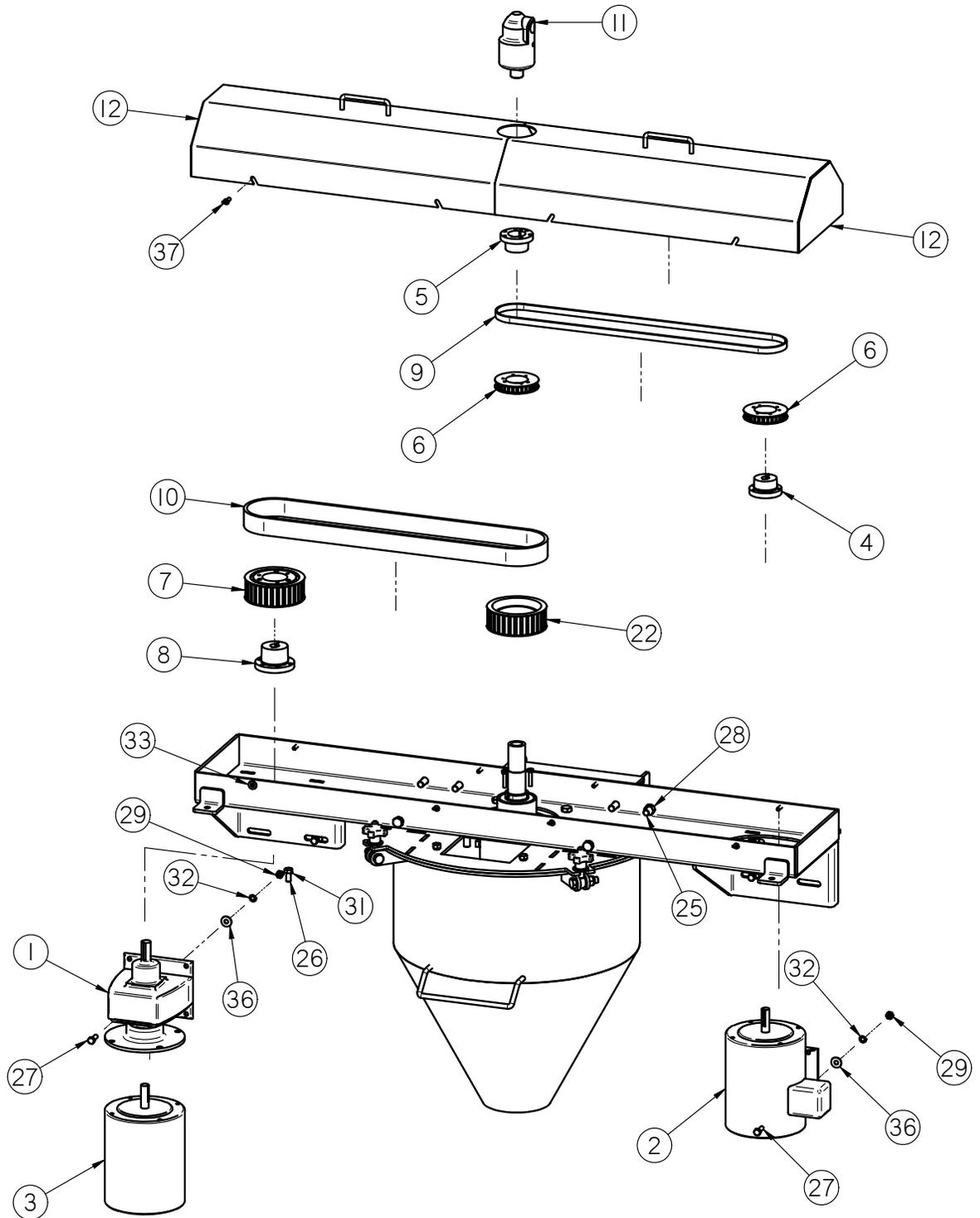
NEBULIZER

**20 INCH NEBULIZER ASSEMBLY (13-01-0291)**



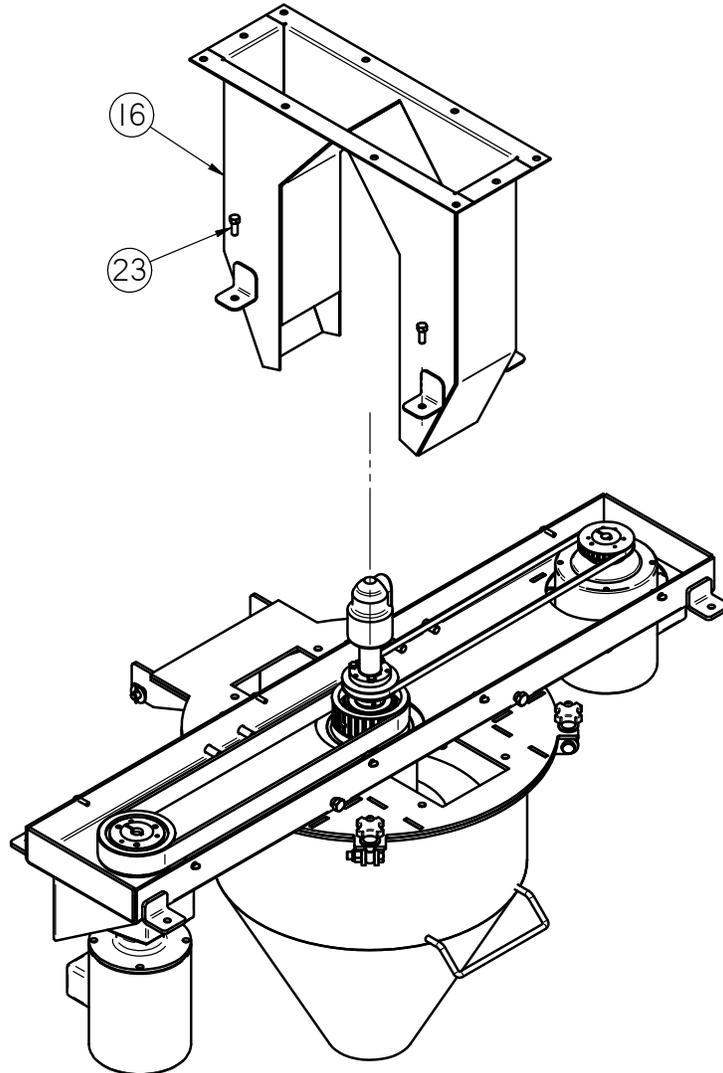
NEBULIZER

**20 INCH NEBULIZER ASSEMBLY (13-01-0291)**



NEBULIZER

**20 INCH NEBULIZER ASSEMBLY (13-01-0291)**



Item #	Part #	Description	Qty
1	01-01-0029	CBN 3012 S B3 18 U 56C	1
2	01-01-0030	MOTOR .5HP 56C 3PH 1725 RPM TENV	1
3	01-01-0064	MOTOR .5HP 56C 1725RPM 3PH TENV	1
4	01-02-0019	BUSHING SH .625	1
5	01-02-0020	BUSHING SH 1.4375	1
6	01-02-0025	TIMING SPRKT 28T L050 H	2
7	01-02-0057	PLLY GBLT 30T H 1.5 SD	1
8	01-02-0059	BUSH SD QD .750 BORE KWY	1
9	01-04-0027	ATOMIZER DRIVE BELT 540L050	1
10	01-04-0032	DISC DRIVE BELT 570 H 150	1

## NEBULIZER

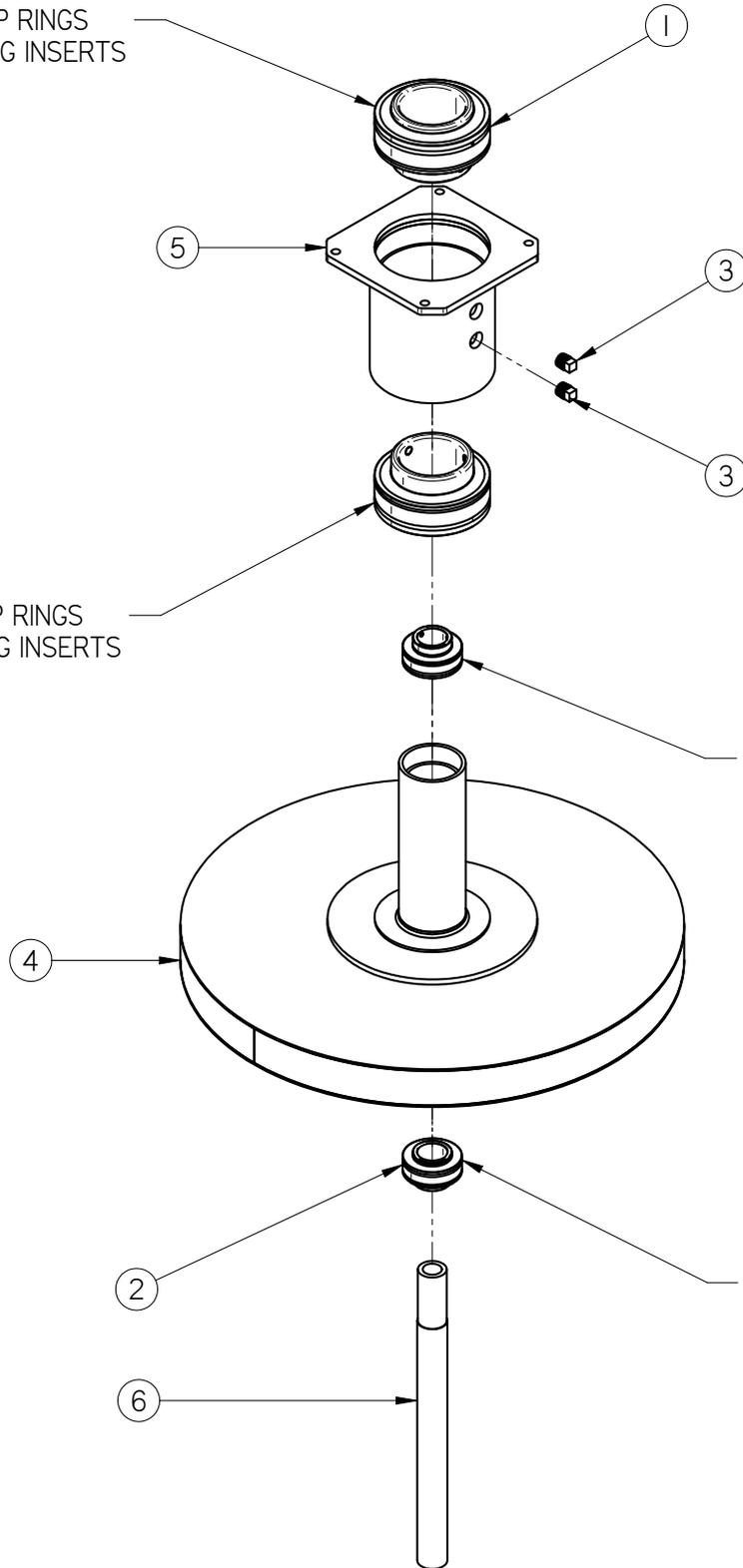
**20 INCH NEBULIZER ASSEMBLY (13-01-0291)**

Item #	Part #	Description	Qty
11	02-02-0032	1.0-14x.750NPT DEUBLIN ROTARY UNION	1
12	05-06-0120	ASSY GRD DRV 20IN NBLZR	2
13	05-07-0094	ASSY BRG HSG & DISK 20IN NEBULIZER	1
14	05-07-0097	WDMT NBLZR DRV-SUPP TRAY	1
15	05-07-0100	WDMT HINGE PIN IN NEB	1
16	05-07-0636	WDMT PROD CHUTE 20 IN NEBULIZER	1
17	05-07-0814	WDMT 20 IN TOP RING	1
18	05-07-0825	WDMT HSG 20 IN NBLZR NO WINDOW FG	1
19	05-11-0012	SPUD ATMZR DRV NEBULIZER	1
20	05-11-0013	NEBULIZER ATOMIZER HEAD TOP DISK	1
21	05-11-0014	PLT ATMZR CAP	1
22	05-11-0086	30T TIMING BELT PULLEY 3.188 BORE	1
23	06-01-0017	BOLT .375-16 X 1.00 SS 18-8	4
24	06-01-0027	BOLT .500-13 X 2.00 ZP GR5	2
25	06-01-0041	BOLT, .500-13 UNC 316 SS - 1 1/2"	10
26	06-01-0042	BOLT .375-16 X .750 SS 18-8	4
27	06-01-0083	BOLT .313-18 X 1.00 SS 18-8	8
28	06-02-0009	NUT, .500-13 UNC 18-8 SS	6
29	06-02-0017	NUT FULL .313-18 SS 18-8	8
30	06-03-0004	NUT NYL LOCK .500-13 ZP GR5	2
31	06-04-0008	WSHR LOCK SPLT .375 SS 18-8	4
32	06-04-0010	WSHR LOCK SPLT .313 SS 18-8	8
33	06-05-0002	WSHR FLAT .250 X .625OD SS 18-8	8
34	06-05-0005	WSHR FLAT .500 ZP	2
35	06-05-0008	WASHER, .500 FLAT 18-8 SS	1
36	06-05-0011	WASHER, .3125 FLAT 18-8 SS	8
37	06-06-0092	SCRW THMB .250-20X0.75 ZP	8
38	06-09-0018	PIN CTR .125 X 1.50 SS	1
39	06-09-0106	KNOB 4PRONG .500-13 THRU	2
40	06-12-0019	REND .500-13 RH SOLID	2
41	09-02-0013	ATWK LBL ROTATION ARROW	2
42	13-05-0032	PERFORATED SCREEN,COTTON	1

NEBULIZER

**30 INCH DISK ASSEMBLY (05-07-0054)**

REMOVE SNAP RINGS FROM BEARING INSERTS



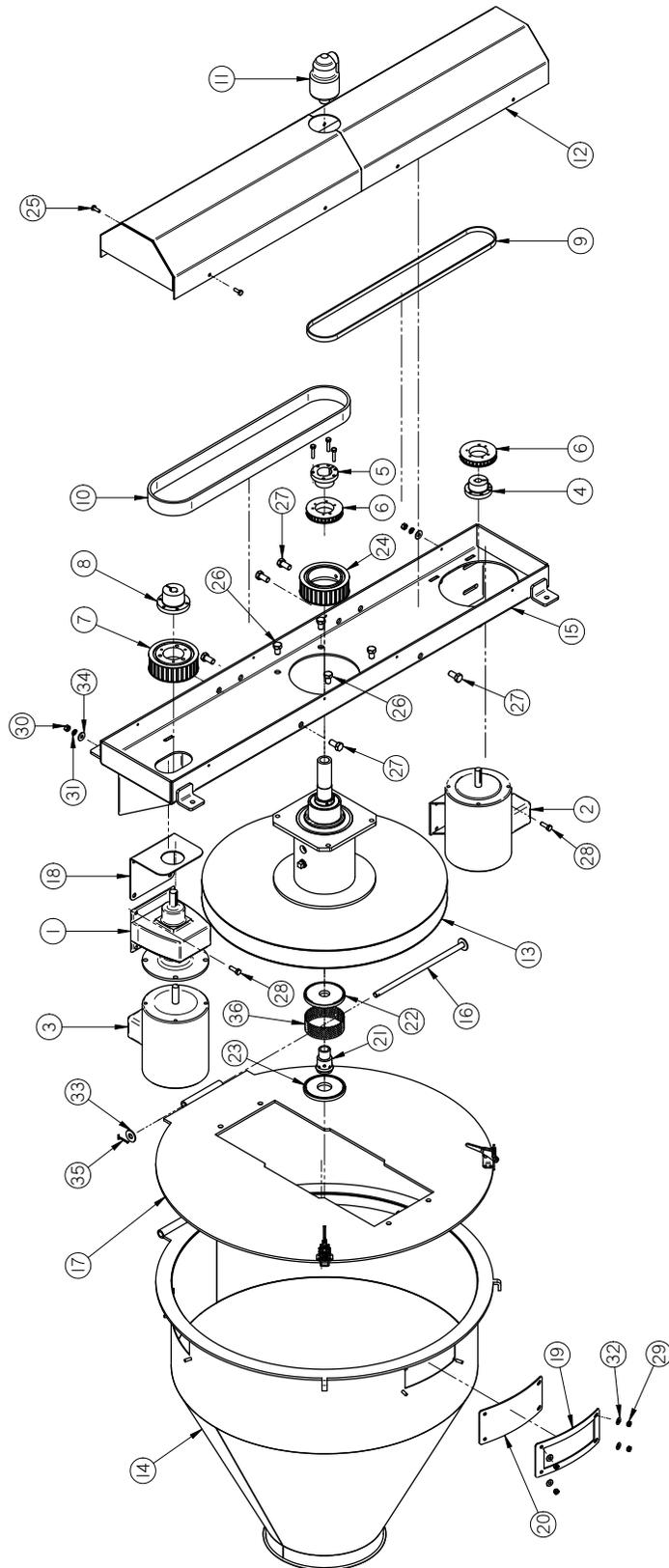
NEBULIZER

**30 INCH DISK ASSEMBLY (05-07-0054)**

Item #	Part #	Description	Qty
1	01-03-0022	3.188 BEARING INSERT VER-251	2
2	01-03-0024	BRG BALL 1.438 BORE 2-STSC ERX-23RL	2
3	02-14-0006	PLUG 3/8" NPT SS SQ HEAD	2
4	05-07-0055	WDMT DISK 30 IN NEBULIZER	1
5	05-11-0009	HSG BRG 30IN NEBULIZER	1
6	05-11-0011	ATMZR DRV SHAFT 30IN NEBULIZER	1

NEBULIZER

**30 INCH NEBULIZER ASSEMBLY (13-01-0059)**



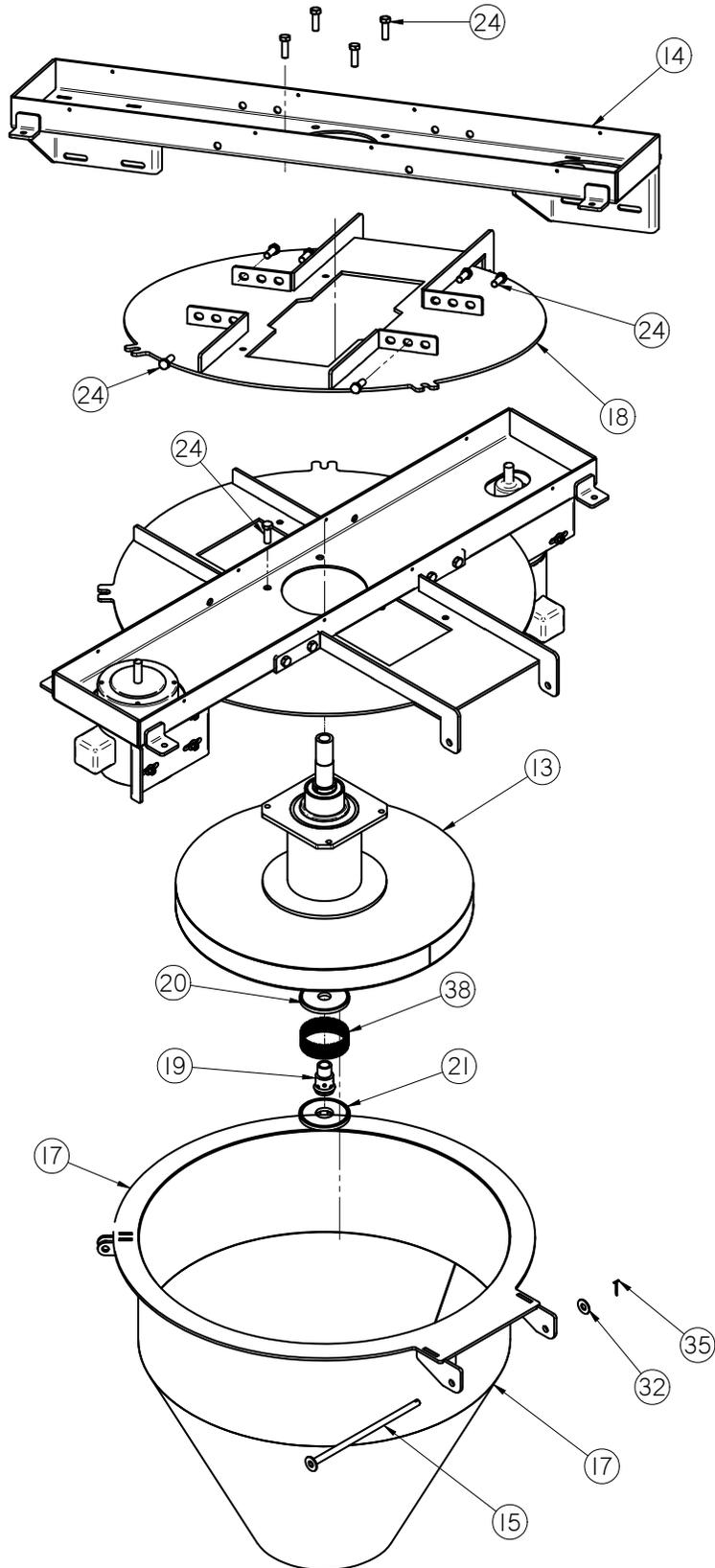
## NEBULIZER

**30 INCH NEBULIZER ASSEMBLY (13-01-0059)**

Item #	Part #	Description	Qty
1	01-01-0029	CBN 3012 S B3 18 U 56C	1
2	01-01-0030	MOTOR .5HP 56C 3PH 1725 RPM TENV	1
3	01-01-0064	MOTOR .5HP 56C 1725RPM 3PH TENV	1
4	01-02-0019	BUSHING SH .625	1
5	01-02-0020	BUSHING SH 1.4375	1
6	01-02-0025	TIMING SPRKT 28T L050 H	2
7	01-02-0057	PLLY GBLT 30T H 1.5 SD	1
8	01-02-0059	BUSH SD QD .750 BORE KWY	1
9	01-04-0027	ATOMIZER DRIVE BELT 540L050	1
10	01-04-0032	DISC DRIVE BELT 570 H 150	1
11	02-02-0032	1.0-14x.750NPT DEUBLIN ROTARY UNION	1
12	05-06-0015	WDMT GRD DRIVE NEB	2
13	05-07-0054B	ASSY BRG HSG & DISK 30IN NEBULIZER	1
14	05-07-0059B	HSG 30 IN NEBULIZER	1
15	05-07-0097	WDMT NBLZR DRV-SUPP TRAY	1
16	05-07-0100	WDMT HINGE PIN IN NEB	1
17	05-07-0102	WDMT 30 IN TOP RING	1
18	05-10-1193	GRD DRV FINGER NEBULIZER	1
19	05-10-1203	CVR VP 30IN	3
20	05-10-1205	PLXG CVR	3
21	05-11-0012	SPUD ATMZR DRV NEBULIZER	1
22	05-11-0013	NEBULIZER ATOMIZER HEAD TOP DISK	1
23	05-11-0014	PLT ATMZR CAP	1
24	05-11-0086	30T TIMING BELT PULLEY 3.188 BORE	1
25	06-01-0006	BOLT .250-20 X .750 ZP GR5	8
26	06-01-0024	BOLT .500-13 X .750 ZP GR5	4
27	06-01-0040	BOLT, .500-13 UNC 316 SS - 1" LG	6
28	06-01-0083	BOLT .313-18 X 1.00 SS 18-8	8
29	06-02-0012	NUT, .250-20 UNC 18-8SS	12
30	06-02-0017	NUT FULL .313-18 SS 18-8	8
31	06-04-0010	WSHR LOCK SPLT .313 SS 18-8	8
32	06-05-0002	WSHR FLAT .250 X .625OD SS 18-8	10
33	06-05-0008	WASHER, .500 FLAT 18-8 SS	1
34	06-05-0011	WASHER, .3125 FLAT 18-8 SS	8
35	06-09-0018	.125 X 1.50 ZP COTTER PIN	1
36	13-05-0031	PERFORATED SCREEN,STD.	1

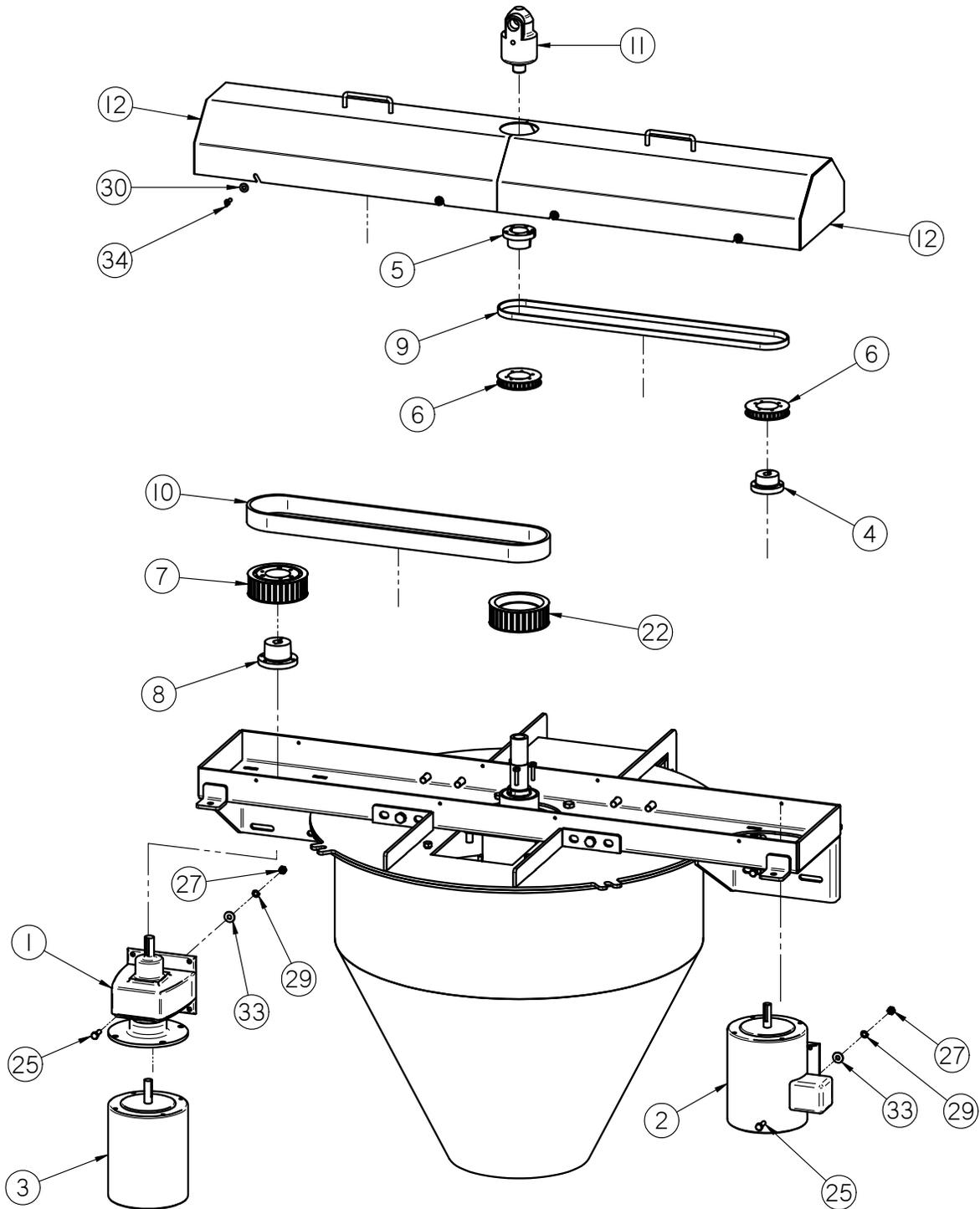
NEBULIZER

**30 INCH NEBULIZER ASSEMBLY (13-01-0292)**



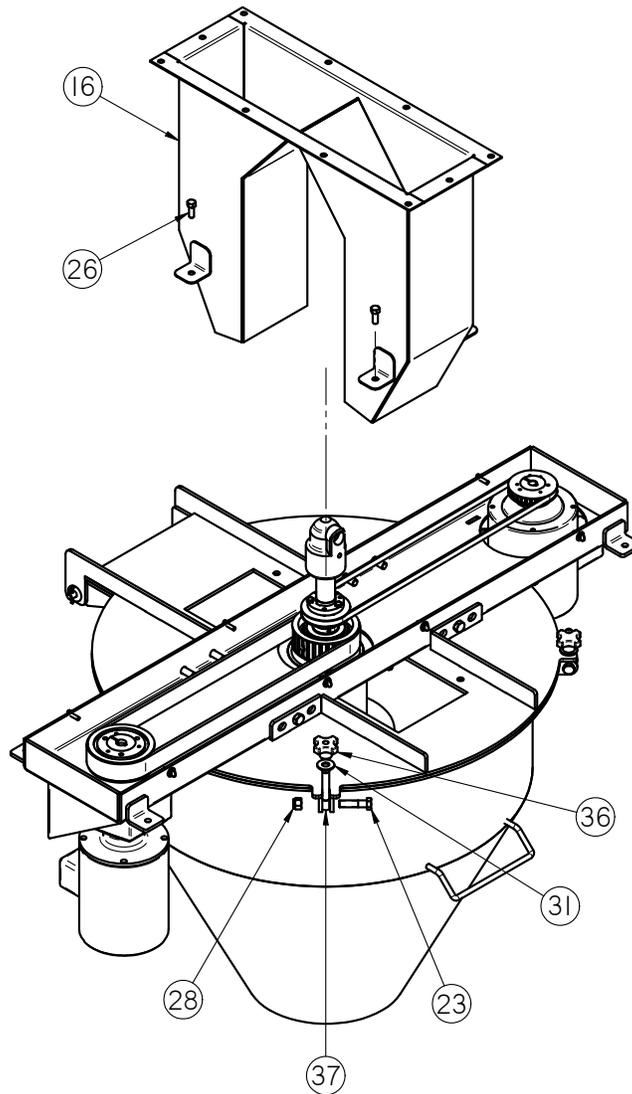
NEBULIZER

**30 INCH NEBULIZER ASSEMBLY (13-01-0292)**



NEBULIZER

**30 INCH NEBULIZER ASSEMBLY (13-01-0292)**



Item #	Part #	Description	Qty
1	01-01-0029	CBN 3012 S B3 18 U 56C	1
2	01-01-0030	MOTOR .5HP 56C 3PH 1725 RPM TENV	1
3	01-01-0064	MOTOR .5HP 56C 1725RPM 3PH TENV	1
4	01-02-0019	BUSHING SH .625	1
5	01-02-0020	BUSHING SH 1.4375	1
6	01-02-0025	TIMING SPRKT 28T L050 H	2
7	01-02-0057	PLLY GBLT 30T H 1.5 SD	1
8	01-02-0059	BUSH SD QD .750 BORE KWY	1
9	01-04-0027	ATOMIZER DRIVE BELT 540L050	1
10	01-04-0032	DISC DRIVE BELT 570 H 150	1

## NEBULIZER

**30 INCH NEBULIZER ASSEMBLY (13-01-0292)**

Item #	Part #	Description	Qty
11	02-02-0032	1.0-14x.750NPT DEUBLIN ROTARY UNION	1
12	05-06-0120	ASSY GRD DRV 20IN NBLZR	2
13	05-07-0054	ASSY BRG HSG & DISK 30IN NEBULIZER	1
14	05-07-0097	WDMT NBLZR DRV-SUPP TRAY	1
15	05-07-0100	WDMT HINGE PIN IN NEB	1
16	05-07-0648	WDMT PROD CHUTE 30 IN NBLZR	1
17	05-07-0841	WDMT HSG 30 IN NBLZR NO BTM RG FG	1
18	05-07-0843	WDMT 30IN TOP RING	1
19	05-11-0012	SPUD ATMZR DRV NEBULIZER	1
20	05-11-0013	NEBULIZER ATOMIZER HEAD TOP DISK	1
21	05-11-0014	PLT ATMZR CAP	1
22	05-11-0086	30T TIMING BELT PULLEY 3.188 BORE	1
23	06-01-0027	BOLT .500-13 X 2.00 ZP GR5	2
24	06-01-0041	BOLT, .500-13 UNC 316 SS - 1 1/2"	10
25	06-01-0083	BOLT .313-18 X 1.00 SS 18-8	8
26	06-01-0017	BOLT, .375-16 X 1" UNC 316 SS	4
27	06-02-0017	NUT FULL .313-18 SS 18-8	8
28	06-03-0004	NUT NYL LOCK .500-13 ZP GR5	2
29	06-04-0010	WSHR LOCK SPLT .313 SS 18-8	8
30	06-05-0002	WSHR FLAT .250 X .625OD SS 18-8	8
31	06-05-0005	WSHR FLAT .500 ZP	2
32	06-05-0008	WASHER, .500 FLAT 18-8 SS	1
33	06-05-0011	WASHER, .3125 FLAT 18-8 SS	8
34	06-06-0092	SCRW THMB .250-20X0.75 ZP	8
35	06-09-0018	PIN CTR .125 X 1.50 SS	1
36	06-09-0106	KNOB 4PRONG .500-13 THRU	2
37	06-12-0019	REND .500-13 RH SOLID	2
38	13-05-0032	PERFORATED SCREEN,COTTON	1

NEBULIZER

**NOTES:**

# USC LIMITED WARRANTY

## SECTION F

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.

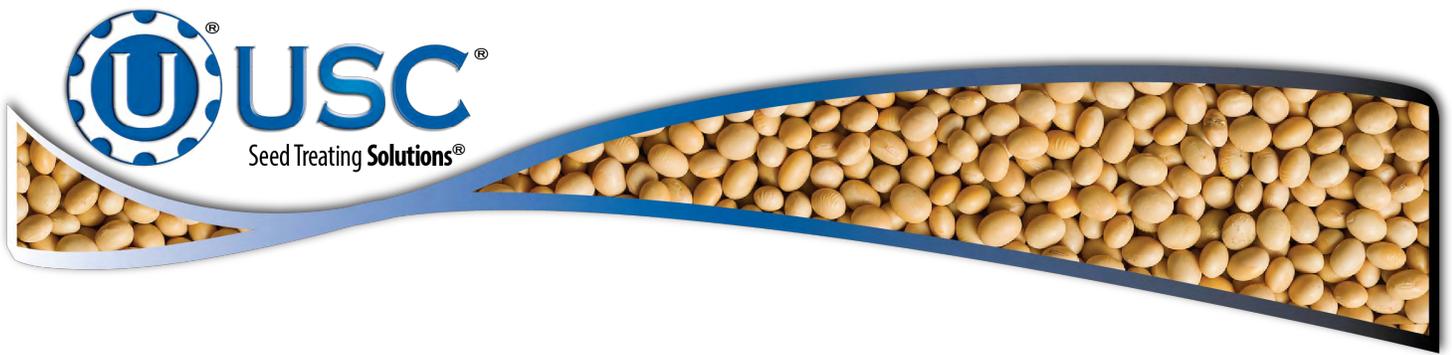
4. **Other Statements:** Manufacturer's employees or representatives' oral or other written statements do not constitute warranties, shall not be relied upon by Buyer, and are not a part of the contract for sale or this limited warranty.

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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