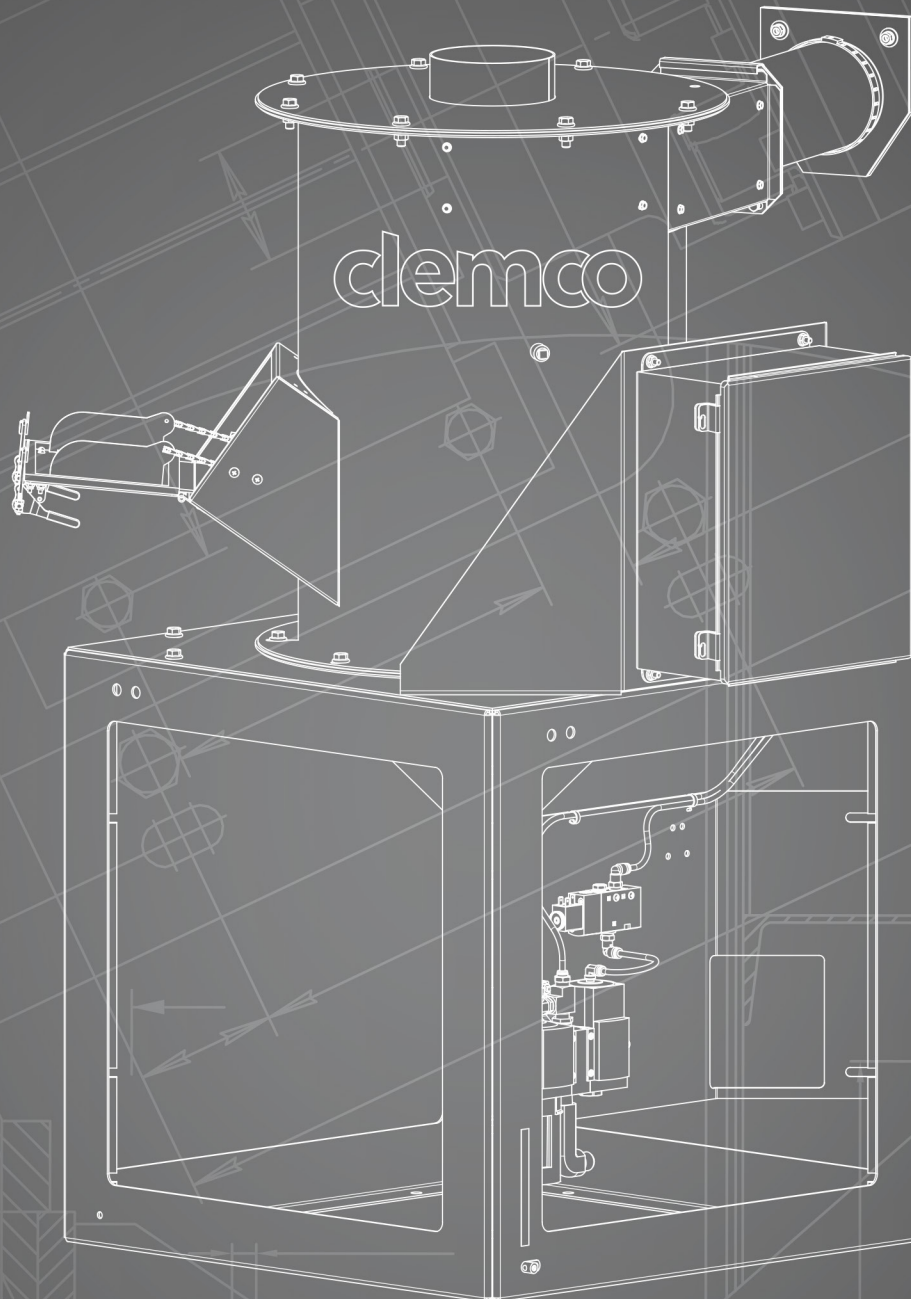


COMPONENT MANUAL



CM 32560

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Suction Reclaim

Industrial Cabinet Series Blast Systems

Date of Issue: 05/26 | Rev. Ø

NOTICE

Notice to purchasers and users of our products and this informational material

Clemco proudly provides products for the abrasive blast industry and is confident that industry professionals will use their knowledge and expertise for the safe and efficient use of these products.

The products described in this material and the information relating to these products are intended for knowledgeable, experienced users. It is the responsibility of the user to insure that proper training of operators has been performed and a safe work environment is provided.

No representation is intended or made as to: the suitability of the products described here for any purpose or application, or to the efficiency, production rate, or useful life of these products. All estimates regarding production rates or finishes are the responsibility of the user and must be derived solely from the user's experience and expertise, not from information contained in this material.

It is possible that the products described in this material may be combined with other products by the user for purposes determined solely by the user. No representations are intended or made as to the suitability of, or engineering balance of, or compliance with regulations or standard practice of any such combination of products or components the user may employ.

This equipment is only one component of a cabinet blasting operation. Other products, such as air compressors, air filters and receivers, abrasives, equipment for ventilating, dehumidifying, or other equipment, even if offered by Clemco, may have been manufactured or supplied by others. The information Clemco provides is intended to support the products Clemco manufactures. Users must contact each manufacturer and supplier of products used in the blast operation for warnings, information, training, and instruction relating to the proper and safe use of their equipment.

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One Cablecar Drive • Washington MO 63090 • Phone: 636.239.4300
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Safety Alerts Key



This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

NOTICE

Notice indicates information that is considered important, but not hazard-related, if not avoided, could result in property damage.

CAUTION

Caution indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

WARNING

DANGER

Warning and Danger, indicates a hazardous situation that, if not avoided, will result in death or serious injury.

1.0 | Introduction

1.1 | Scope of Manual

1.1.1 | These instructions cover maintenance, optional accessories, and replacement parts for the following Series® Suction Reclaim Modules:

- 300cfm Suction Module with Standard Controls
- 600cfm Suction Module with Standard Controls
- 900cfm Suction Module with Standard Controls

1.1.2 | The instructions contain important information required for safe operation of the equipment. Before using this equipment, all personnel associated with the equipment's operation must read this entire manual, and all accessory manuals to become familiar with their operation, parts and terminology.

1.2 | General Description

1.2.1 | The Reclaim Module provides efficient cleaning of the media for reuse. Efficiency rates are influenced by media type, media size, and airflow across the reclaim. All Suction Reclaim modules consist of five major components.

1. Reclaim
2. Stand
3. Air Prep Unit
4. Suction Sump & Metering Valve
5. Control Panel

1.3 | Nozzle Options

1.3.1 | Unless otherwise specified at the time of purchase, the cabinet is provided with a No. 5 (5/16" orifice) ceramic nozzle and No. 5 (5/32" orifice) air jet. Optional, more durable tungsten carbide and boron carbide nozzle are available and are shown in Section 9: Optional Accessories and in Section 9 BNP Gun and Feed Assembly. Use boron carbide nozzles when blasting with aggressive media.

1.4 | Reclaimer Options

1.6.1 Replaceable rubber reclaimer liners: Rubber liners are available for 600 cfm reclaimers. Liners are not available for the 300 cfm reclaimer. The liners prolong service life of the reclaimer and should be installed when using silicon carbide, aluminum oxide, or other aggressive media.

2.0 | Installation – See Start Up Guide

3.0 | Field Installed Accessories

3.1 | U-Tube Manometer

Measures reclaimer static pressure

The optional manometer kit is listed in Section 9.

3.1.1 | The manometer measures static pressure. Consistent static pressure is necessary for precise media separation, as the reclaimer's efficiency is achieved by a centrifugal balance of air flow, particle weight, and size. Reclaimer static pressure is set by adjusting the outlet damper. Refer to Section 5 for manometer instructions.

4.0 | Operation – See Start Up Guide

5.0 | Adjustments

5.1 | Air Jet Adjustment – Figure 1

5.1.1 | Thread the air jet 4-1/2 to 5 full turns into the gun body. Doing so leaves 3-1/2 to 4 threads exposed past the lock nut. Tighten the lock nut to maintain the setting. Refer to Section 9 for optional adjusting tool, which correctly positions the jet. Instructions are provided with the tool.

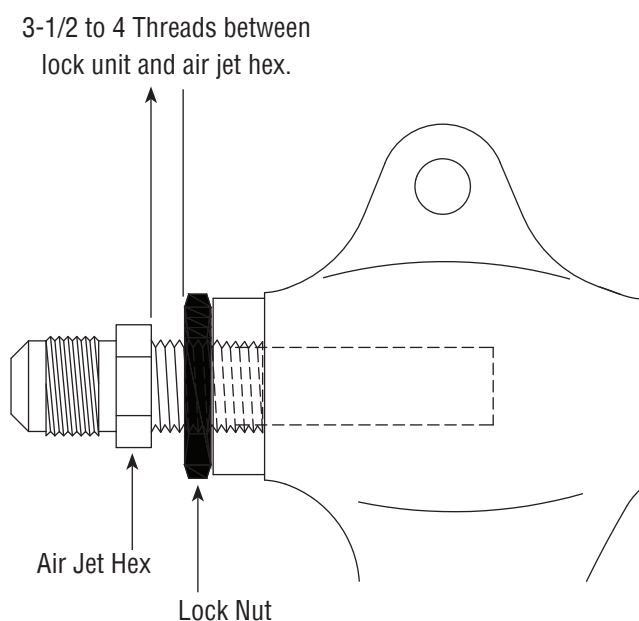


FIGURE 1

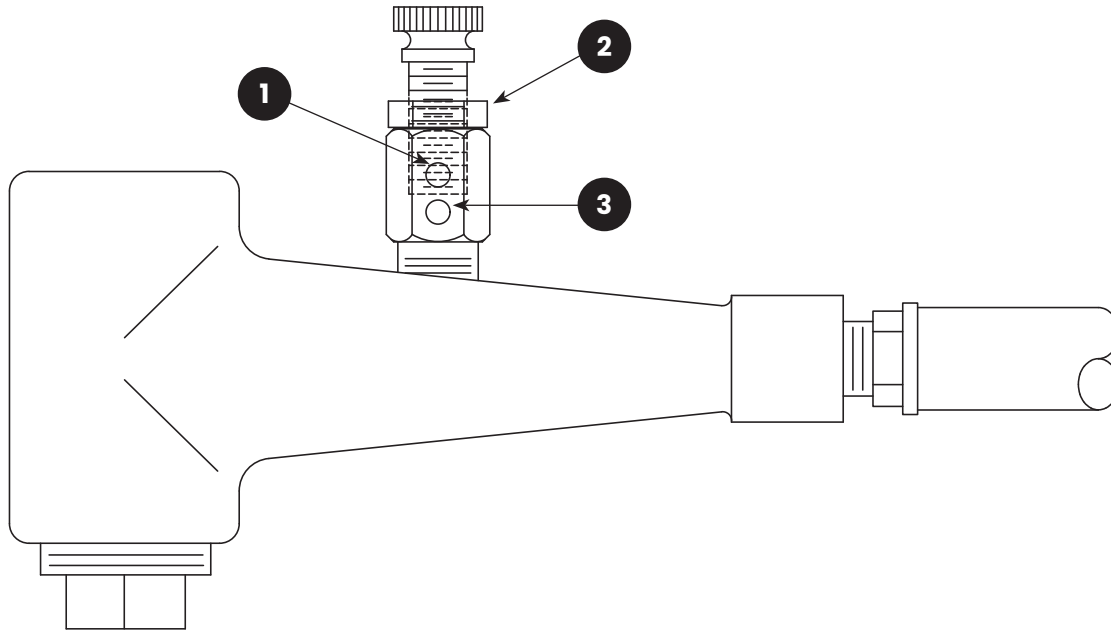


FIGURE 2: (1) Upper Holes Fully Closed; (2) Locking Nut; (3) Lower Holes Fully Open

5.2 | Media-Air Mixture – Figure 2

5.2.1 | Check the media stream for correct media-air mixture; media flow should be smooth and appear as a light mist coming from the nozzle.

5.2.2 | If media does not flow smoothly, loosen the locking nut, and adjust the metering screw until the upper holes in the metering stem are closed off and the lower holes are fully open, as shown in **Figure 2**. This adjustment is a starting point.

5.2.3 | If pulsation occurs in the media hose, either media is damp and caked, or not enough air is entering the media stream. While blasting, loosen the lock nut and slowly turn the adjusting screw out (counterclockwise when viewed from the top) until the media flows smoothly. Tighten the lock nut finger-tight to maintain the setting.

5.2.4 | If media flow is too light, decrease air in the mixture by turning the metering screw in (clockwise when viewed from the top) covering more of the holes so less air enters the media hose. Tighten the lock nut finger-tight to maintain the setting.

5.3 | Reclaimer Static Pressure (outlet damper)

5.3.1 | Static pressure settings vary with size of the reclaimer, and the size, weight, and type of media.

5.3.2 | Adjust static pressure by opening or closing the outlet damper located on the dust collector, refer to dust collector manual.

- If the damper is not opened far enough, the reclaimer will not remove fines, resulting in dusty media and poor visibility, or will not convey media, causing media buildup in the hose between the cabinet hopper and power module.
- If the damper is opened too far, it may cause carryover (usable media carried into the dust collector) and result in excessive media consumption.
- Open only as far as necessary to obtain a balance of maximum dust removal without media carryover.

5.3.3 | A manometer (flexible u-tube) or differential-pressure gauge is useful for adjusting and monitoring static pressure. The following are static pressure starting points for given media. Static pressure may need to be lower with finer media, higher with coarser media. If a manometer is not available, begin with the dust collector damper about half open.

• Glass Bead No. 6 and 7	3-1/2" – 4"
• Glass Bead No. 8 to 12	3" – 3-1/2"
• Aluminum oxide 60-Mesh to 80-Mesh	4" – 5"
• Aluminum oxide 80-Mesh to 180-Mesh	3" – 4"
• Steel shot S-110 to S-70	6" – 7"
• Steel grit 80-mesh to 120-Mesh	6" – 7"

5.3.4 | To adjust the damper, refer to the dust collector manual.

5.3.5 | As dust accumulates on the outer surface of the cartridge, static pressure drops requiring one of more of the following:

- Increase pulse pressure, refer to the dust collector manual.
- Decrease pulse timing, refer to the dust collector manual.
- Open the damper to bring static pressure to optimum setting, refer to the dust collector manual.

5.4 | Optional U-Tube Manometer

NOTE: These instructions show several methods of taking static pressure readings (negative pressure) on reclaimers by using a flexible-tube manometer. Use the method best suited for the application. The instructions explain the processes for taking periodic readings and show how to permanently install the manometer for taking frequent readings. Taking readings at different locations could produce slightly different readings. The readings are reference points, so readings should be taken using the same method each time they are taken.

5.4.1 | Refer to instructions packed with the manometer for preparing and operating the manometer.

5.4.2 | Connect one end of the 3/16" ID tubing to one of the tubing connectors (elbow) at the top of the manometer by pushing it over the barbed adaptor.

5.4.3 | Open both manometer valves (elbows), per the instructions with the manometer.

5.4.4 | Magnets on the manometer hold it in position on the reclaimer body or dust-collector body. The manometer must be vertical, so the fluid is level on both sides.

5.4.5 | Adjust the slide rule to align the zero with the fluid level. Refer to **Figure 4**.

5.4.6 | Needle placement: **Figure 3** shows the manometer setup for taking both periodic and frequent static pressure readings.

5.4.6.1 | To take occasional readings: Leave the needle protector on the needle and insert the needle into the unused end of the tubing. The ends of the tubing must fit tight on the manometer and needle; leaks will give inaccurate readings.

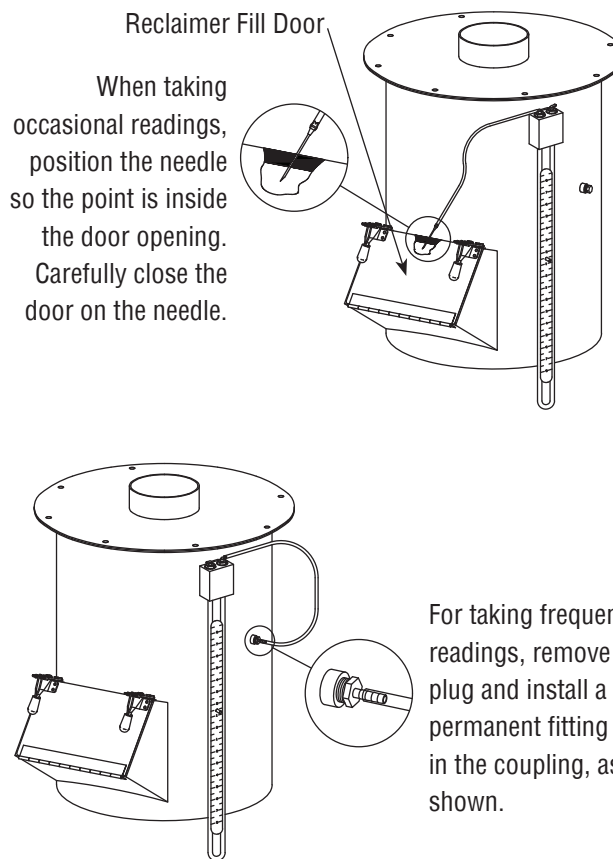


FIGURE 3

Open the reclaimer fill door, remove the needle protector, and place the needle so the point is inside the door opening. Carefully close the door on the needle. The side of the needle will embed into the rubber door gasket, creating an airtight seal.

5.4.6.2 | Taking frequent readings using a permanent fitting: A permanent fitting may be installed in the reclaimer wall, as shown in **Figure 3**, for taking frequent static pressure readings. Permanent fittings must accommodate the 3/16" ID tubing and have a means of being capped when the manometer tube is removed. Capping the fitting will prevent leaks that alter the reclaimer's separation efficiency. Air drawn into the reclaimer will cause carryover of good media to the dust collector.

5.4.7 | Open cabinet doors and turn the exhauster ON. The negative (static) pressure will move fluid in the tube.

NOTE: Readings must be taken with the cabinet doors open and with the exhauster running.

5.4.8 | To find the static pressure, add the number of inches the fluid travels up one column to the inches the fluid travels down the other column. Refer to the example in **Figure 4**.

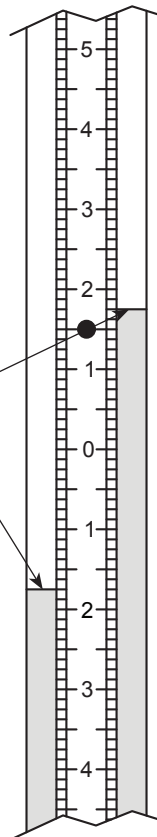
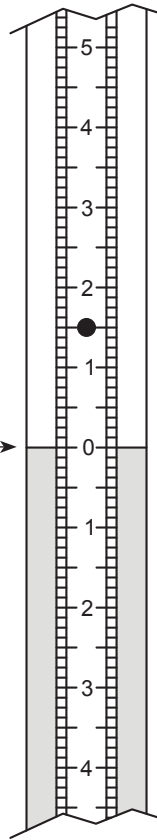
The manometer must be vertical when taking pressure readings.

With the exhauster off, slide the rule to align the zero with the fluid level.

To obtain the pressure reading: with exhauster on, add the number of inches the fluid travels up the column to the inches the fluid travels down the other column. The total is the static pressure reading.

Some may find it easier to read the column by starting the exhauster and slide the zero on the rule even with either the high or the low column, the static pressure is how far the fluid travels up or down the other column.

In the example shown, fluid traveled up the right column 1-3/4", and down the left column 1-3/4". Static pressure is determined by adding the columns together. In the example, the static pressure is 3-1/2".



5.4.9 | After taking the readings, replace the needle protector. Close the manometer valves and store the manometer in the original container in a clean area. **NOTE:** If the manometer installation is permanent, the manometer may remain on the reclaimer body after the valves are closed.

6.0 | Preventative Maintenance

! WARNING

Failure to wear an approved respirator and personal protection when servicing dust-laden areas of the cabinet and dust collector, as well as when emptying the container, could result in lung disease, serious skin or eye irritation, or other health issues. Toxicity and health risk vary with type of media and dust generated by blasting. The respirator must be approved for the type of dust generated. Identify all material being removed by blasting and obtain a safety data sheet (SDS) for the blast media.

To avoid unscheduled downtime and to improve safety, establish an inspection schedule. Inspect all parts subjected to media contact, including the gun and nozzle, media hose, flex hose, wear plate, and all items covered in this section. Adjust frequency of inspections as needed, based on the following:

- Usage: Cabinets often used require more maintenance and inspections than those occasionally used.
- Type of media: Aggressive media wears parts faster than nonaggressive media.
- Condition of parts being blasted: Heavily contaminated parts require more maintenance to the cabinet's media recovery system.
- Friability of media: Media that rapidly breaks down require more maintenance to the cabinet's media recovery system and dust collector.

6.1 | Daily Inspection and Maintenance Before Blasting with the Air OFF

6.1.1 | Check media level: Check media level in reclaimer and refill as necessary.

FIGURE 4

6.1.2 | Inspect reclaimer debris screen and door gasket: Check reclaimer debris screen for debris. The screen is accessible through the reclaimer door. With the exhauster OFF, remove the screen and empty it daily or when loading media. Empty the screen more often if part blasted causes excessive debris. Do not operate the machine without the screen in place; oversized byproduct from blasting could plug the nozzle. While the door is open, inspect the door gasket for wear or damage. Replace the gasket at the first sign of wear.

6.1.3 | Drain compressed-air filter: The reclaim module is equipped with a manual-drain air filter. Drain the filter at least once a day, and more often if water is present. Moist air inhibits the flow of media. Drain the air line and receiver tank regularly. If the filter does not remove enough moisture to keep media dry and flowing, it may be necessary to install an air dryer or after-cooler in the compressed-air supply line.

6.2 | Weekly Inspection and Maintenance Before Blasting with Air OFF

6.2.3 | Inspect BNP® gun assembly: Inspect internal parts of the BNP gun for wear. Inspection and replacement of the air jet cover before it wears through will prolong the life of the jet. Replace parts as needed.

6.2.4 | Inspect media hose: Inspect media hose for thin spots by pinching it every 6 to 12 inches. Replace the hose when it becomes soft.

6.3 | Weekly Inspection During Blasting – Have Someone do the Following:

6.3.1 | Inspect flex hoses: Inspect flex hoses for leaks and wear.

6.4 | Monthly Inspection and Maintenance

6.4.1 | Reclaimer wear plate and liners: Remove the flex hose from the reclaimer inlet and use a light to inspect the reclaimer wear plate or optional rubber reclaimer liners for wear. If the rubber is worn through to the backing metal, replace the wear plate or rubber liners, as necessary.

7.0 | Service Maintenance

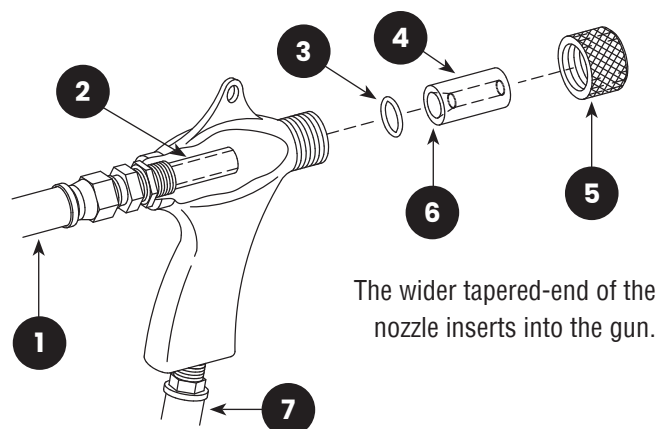


FIGURE 5: (1) Air Hose; (2) Air Jet Cover; (3) O-Ring; (4) Nozzle; (5) Nozzle Holding Nut; (6) Wide End; (7) Media Hose

! WARNING

Prior to doing any maintenance or opening the dust collector, the employer must meet required OSHA standards, including but not limited to 29 CFR 1910 for:

- Appropriate Respirator
- Protective Clothing
- Toxic and Hazardous Substances
- Fall Protection Lockout and Tagout
- Lockout and Tagout

All dust is hazardous to breath; toxicity and health risk vary with type of dust generated by blasting. Prolonged exposure to any dust can result in serious lung disease and death. Short-term exposure to toxic materials, such as lead dust or dust from other heavy metals and corrosives, can cause serious injury or death. Identify all material that is being removed by blasting and obtain a Safety Data Sheet (SDS) for the blast media. Waste dust in the collector can cause serious injury or death through inhalation, absorption, or ingestion. The employer shall meet all OSHA requirements, including but not limited to those for confined space, combustible dust, fall protection, hazard communication, and lockout and tagout procedure for electrical and pneumatic supply.

7.1 | BNP® Gun Assembly – Figure 5

7.1.1 | Replace the nozzle when its orifice diameter has worn 1/16" larger than its original size or when suction diminishes noticeably. To change the nozzle, unscrew the holding nut

from the gun end, and pull the nozzle from the gun. Inspect the nozzle O-ring and replace if worn or damaged. Insert a new O-ring and nozzle, placing the tapered end toward the jet. Screw the holding nut onto the gun.

7.2 | Replacing Reclaimer Wear Plate

! WARNING

To access wear-plate mounting screws, the reclaimer must be removed from the power module. Pulsar reclaimers weigh about 100 lbs. When removing and installing the reclaimer, it must be adequately supported and secured to appropriate lift equipment. Failure to secure and use proper lift device can result in injury.

7.2.1 | 300 cfm reclaimer with welded-on, non-removable top.
– **Figure 6**

Installation Notes: Make sure a inlet pipe gasket is available to replace a compressed or damaged gaskets on the reclaimer inlet.

7.2.1.1 | Remove the flex hose from the reclaimer inlet.

7.2.1.2 | Remove the reclaimer inlet-pipe adaptor, adaptor

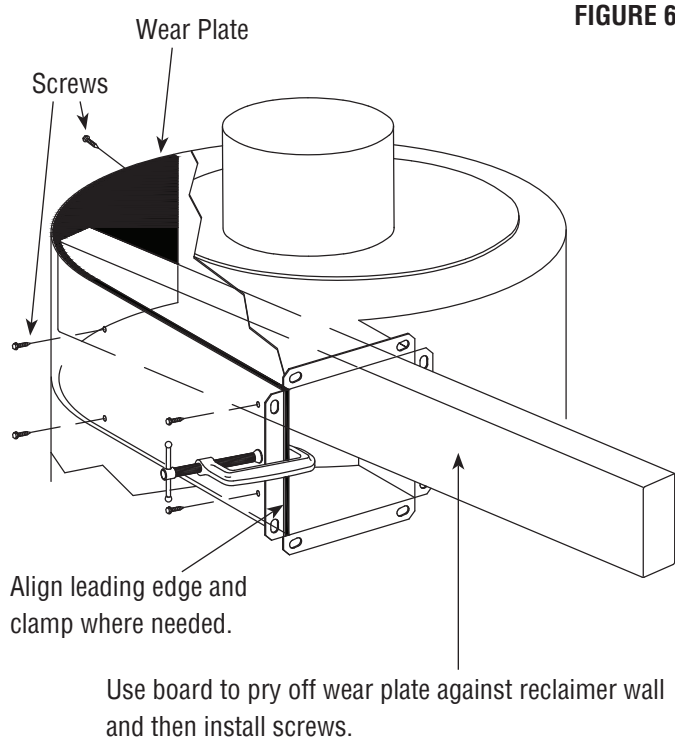


FIGURE 6

gasket, and old wear plate. The wear plate is held in place by screws attached from the outside of the reclaimer. Remove the screws and pull out the wear plate through the reclaimer inlet.

7.2.1.3 | Remove remnants of old caulk that will prevent the new wear plate from seating against the reclaimer wall and top.

7.2.1.4 | Angle the new wear plate into the reclaimer inlet and position it so the straight end is flush with the inlet. Use locking pliers, clamps, or other means to hold the wear plate in position, making sure the leading edge of the wear plate is aligned with the reclaimer inlet and that the top edge is even with the top of the reclaimer.

7.2.1.5 | Install the front two sheet metal screws through the old screw holes to secure.

7.2.1.6 | Use a board or similar object as leverage to pry the wear plate against the inner wall of the reclaimer, as shown in **Figure 6**.

7.2.1.7 | New self-drilling sheet metal screws are provided with the wear plate; while forcing the wear plate against the reclaimer wall, install the screws through the remaining screw holes to secure. Rearrange the pry board as needed to press the wear plate against the reclaimer wall when installing screws.

7.2.1.8 | To avoid rapid wear, apply RTV caulk to fill gaps at the seams on the top, bottom, and leading edge of the wear plate.

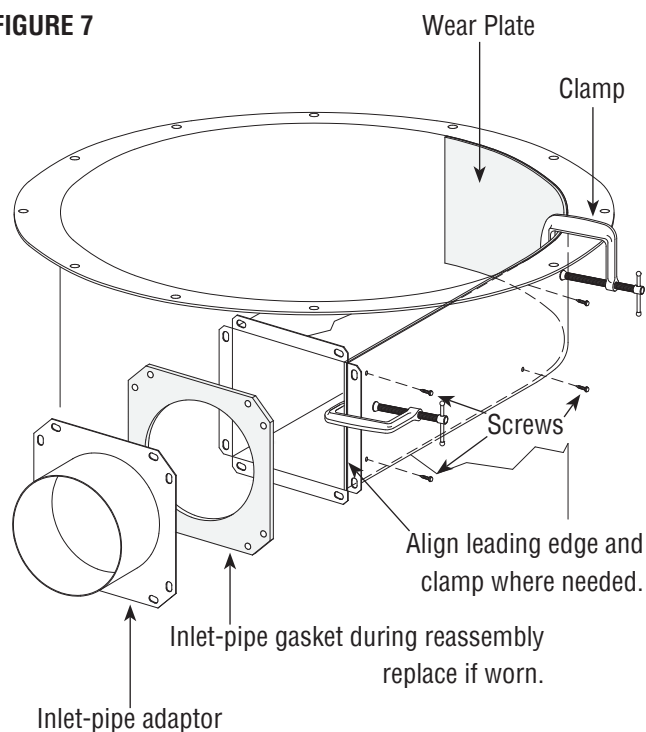
7.2.1.9 | Use a new inlet gasket and reattach the inlet-pipe adaptor.

7.2.1.10 | Connect the flex hose to the inlet pipe adaptor.

7.2.1.14 | Allow time for the caulking to cure before putting the reclaimer into service.

7.2.2 | 600cfm reclaimer with bolt-on removable – Figure 7

Installation Notes: The wear plate may be replaced by using the method described in Section 7.1.1, or from the top as explained in this section. If the top is removed, make sure at least 6 feet of 13089 - 2" adhesive-backed gasket and 11779 inlet pipe gasket are available to replace compressed or damaged gaskets on the reclaimer's upper flange and inlet pipe.

FIGURE 7


7.2.2.1 | Remove the flex hose from the reclaimer inlet.

7.2.2.2 | Unbolt the reclaimer top and remove the top

7.2.2.3 | Remove the reclaimer inlet-pipe adaptor, adaptor gasket, and old wear plate. The wear plate is held in place by screws attached from the outside of the reclaimer. Remove the screws and pull out the wear plate through the top.

7.2.2.4 | Remove remnants of old caulk from the reclaimer wall or top, that will prevent the new wear plate from seating against them.

7.2.2.5 | Angle the new wear plate into the reclaimer inlet and position it so the straight end is flush with the inlet. Use locking pliers, clamps or other means where needed to pry the wear plate against the side of the inlet and inner wall. Make sure the leading edge of the wear plate is aligned with the reclaimer inlet and that the top edge is even with the top of the reclaimer.

7.2.2.6 | New self-drilling sheet metal screws are provided with the wear plate, match drill through each old screw hole into the wear plate to secure. Rearrange the clamp(s) as needed to press the wear plate against the reclaimer wall when installing screws.

7.2.2.8 | Replace the upper flange gasket and reattach the reclaimer top.

7.2.2.9 | To avoid rapid wear, apply RTV caulk to fill gaps at the seams on the top, bottom, and leading edge of the wear plate.

7.2.2.10 | Use a new inlet gasket and reattach the inlet-pipe adaptor.

7.2.2.11 | Allow time for the caulking to cure before putting the reclaimer into service.

7.3 | Replacing or Field Installing Optional Rubber Reclaimer Liners

Not available for 300 cfm reclaimers. The reclaimer must be designed to accept liners and have a removable top, as shown in **Figure 8**.

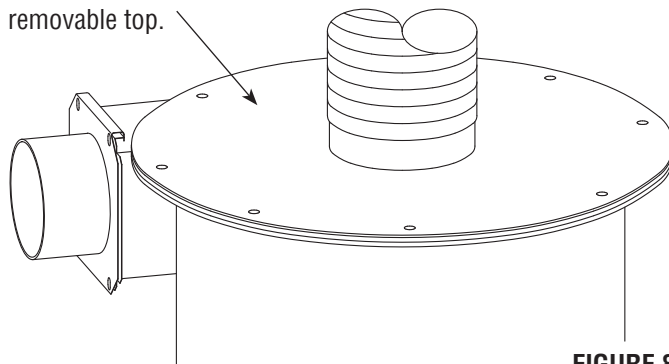
! WARNING

To replace or install liners, the reclaimer must be removed from the power module. Lined Pulsar-VI reclaimers weigh approximately 160 lbs. When removing and installing the reclaimer, it must be adequately supported and secured to appropriate lift equipment. Failure to secure and use proper lift device can result in injury.

Installation Notes: Make sure that at least 12 feet of 13089 - 2" adhesive-backed gasket is available to replace compressed or damaged gasket on the reclaimer upper and lower flanges.

The inner cone and cone ring are glued in place. Make sure a multi-purpose contact adhesive, such as 3M® no. 10 neoprene contact adhesive or equal, is available.

Removable top to accept liners, the reclaimers must have a bolt-on removable top.


FIGURE 8

7.3.1 | Remove the flex hoses from the reclaimer inlet and outlet.

7.3.2 | Make a note of the reclaimer's alignment; the reclaimer door is facing the power modules open side. The reclaimer must be reinstalled facing in the same direction.

7.3.3 | Remove the four fasteners securing the reclaimer bottom flange to the support plate. Mark each of the four lower-flange bolt holes for future reference.

7.3.4 | Remove the reclaimer from the stand.

7.3.6 | Set the reclaimer top-side-up on a clean, flat, and level surface.

7.3.7 | Remove the reclaimer inlet-pipe adaptor.

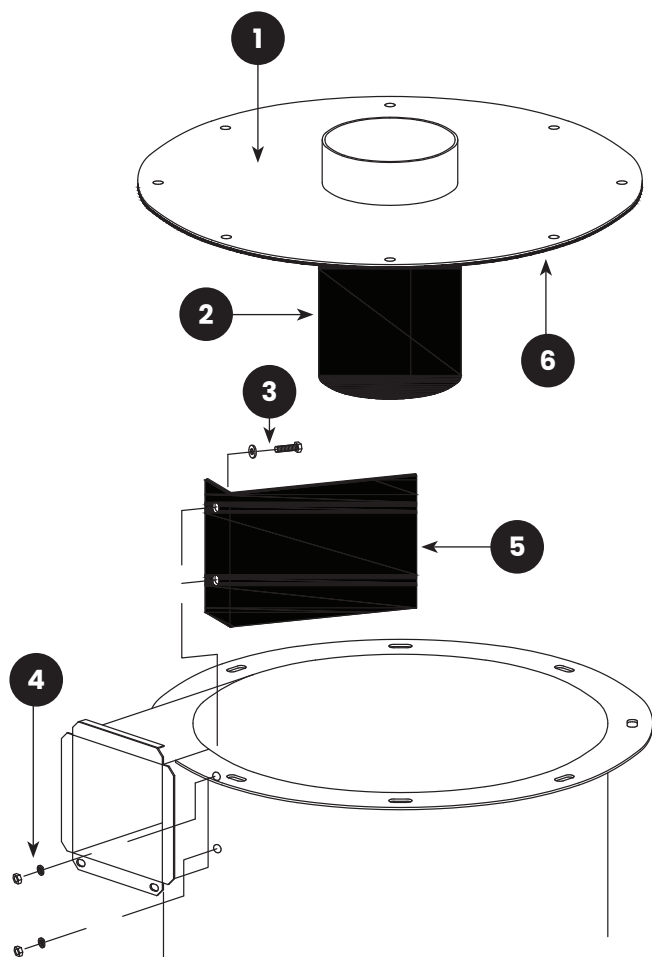


FIGURE 9: (1) Reclaimer Top; (2) Cylinder Liner; (3) Baffle Bolts and Flat Washers; (4) Baffle Nuts and Lock Washers; (5) Lined Baffle; (6) Top Liner

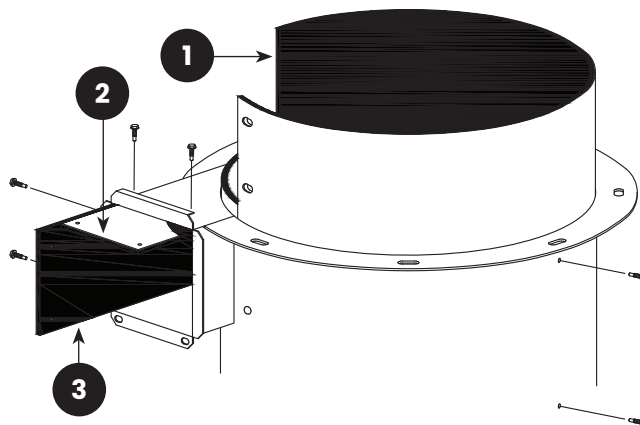


FIGURE 10: (1) Wall Liner; (2) Inlet-Top Liner; (3) Inlet-Side Liner

7.3.8 | Remove the bolts and nuts, securing the reclaimer top, and then remove the top (and top liner and cylinder liner if the reclaimer is currently lined), as shown in **Figure 9**.

7.3.9 | To remove the top liner and cylinder liner, grind the tack welds from the bottom of the cylinder liner that secure the liner to the tube, and then slide the cylinder liner and top liner off the inner tube.

7.3.10 | Remove the nuts and washers located along the right side of the inlet and remove the lined baffle through the top of the reclaimer, as shown in **Figure 9**.

7.3.11 | Remove the screws holding the inlet-side liner and inlet-top liner and remove both liners from the reclaimer inlet, as shown in **Figure 10**.

7.3.12 | The wall liner is held in place with self-drill/tap screws; from the outside of the reclaimer, remove the screws and lift the wall liner from the top of the reclaimer.

7.3.13 | The cone liner and cone-ring liner, shown in **Figure 11**, are glued onto the inner cone. Pull off the liners to remove them.

7.3.14 | Remove all old caulking and adhesive from the weldment.

Installation Note: The numbers in parentheses (-) shown in **Figure 12** and in the following applicable paragraphs show the recommended order of installation. When installing the liners, make sure that seams are aligned. The final assembly

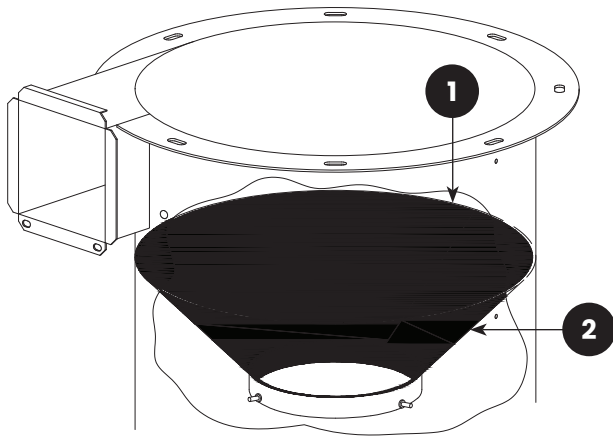


FIGURE 11: (1) Cone Liner; (2) Cone-Ring Liner

must be smooth and free of protrusions, edges, and gaps. Any edges will disrupt the air flow, causing wear, and affect the reclaimer's media cleaning efficiency.

7.3.15 | (1st) Place the cone-ring liner on the inside of the cone-ring; check fit and trim if needed. Refer to the instructions provided with the adhesive: some adhesives require it to be applied to both contact surfaces. Apply a multi-purpose contact adhesive, such as 3M® no. 10 neoprene contact adhesive or equal, to the fabric side of the liner and install the liner. Smooth out the liner to eliminate air pockets.

7.3.18 | (2nd) Place the cone liner in the cone with the fabric side down, and check the fit and trim if necessary. Apply contact adhesive to the fabric side of the liner and install the cone liner. Smooth out the liner to eliminate air pockets.

7.3.19 | (3rd) Place the inlet-side liner (metal side toward the side wall) against the side of the inlet housing; center the side-liner and align the front edge of the liner with the front of the housing. Temporarily clamp the sideliner in place.

7.3.20 | (4th) Align the wall liner cutout with the reclaimer inlet housing and lower the liner into the reclaimer. Temporarily insert the baffle bolts through the liner and reclaimer holes to position that side of the wall liner. Clamp the wall liner in place, while adjusting it to make sure it is flush with the top of the reclaimer body and that the inlet-side liner is aligned with the side-liner cutout. Reposition the inlet-side liner as needed.

While pushing or clamping the liner against the weldment, secure the wall liner with self-drill/tap screws at each existing hole location. **NOTE:** To field install a new, first-time wall liner,

use self-drill/tap screws to secure it at the seam and an inch or two from the top and bottom at each quadrant.

7.3.21 | (5th) Remove the temporary baffle bolts and install the lined baffle by inserting bolts and flat washers from the inside of the reclaimer and attach lock washers and nuts from the outside, leaving the baffle slightly loose.

! NOTICE

All seams between each liner must be sealed, and all seams between the liners and reclaimer weldment must be sealed. Voids will cause premature wear.

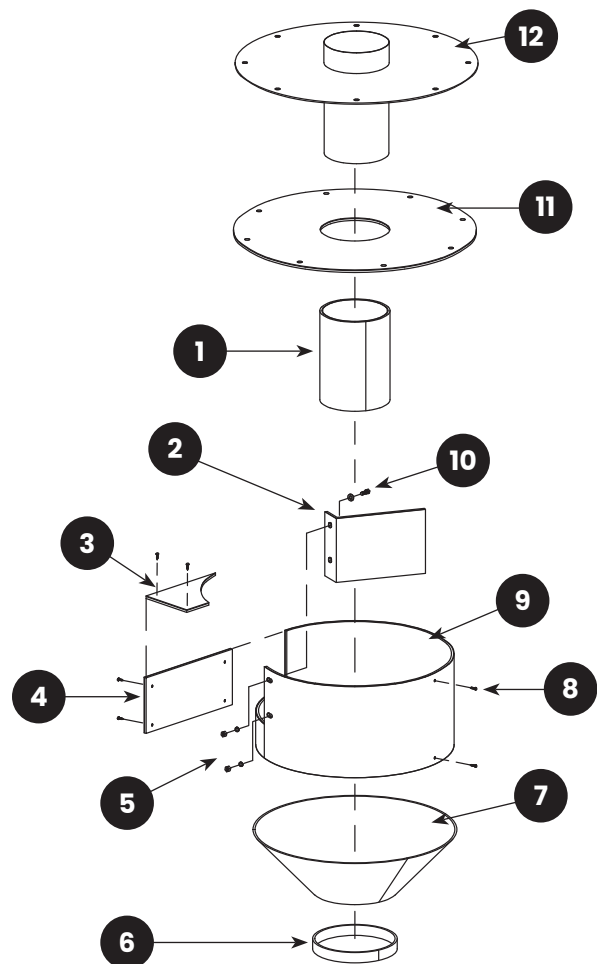


FIGURE 12: (1) Cylinder Liner (9th); (2) Lined Baffle (5th) Bolts Enter From Inside; (3) Inlet-Top Liner (7th); (4) Inlet-Side Liner (3rd, 6th); (5) Baffle Lock Washers and Nuts; (6) Cone-Ring (1st); (7) Cone Liner (2nd); (8) Self-Drill/Tap Screws; (9) Wall Liner (4th); (10) Baffle Bolts and Flat Washers; (11) Top Liner (8th); (12) Reclaimer Top and Inner Tube (10th)

7.3.23 | (6th) Use self-drilling screws to secure the inlet-side liner to the side of the inlet housing. **NOTE:** To field install new, first-time inlet-side liners, use self-drilling screws at each liner corner to secure. Remove the clamps after the liner is secured.

7.3.24 | (7th) Align the front edge of the inlet-top liner to the front of the inlet housing and use self-drilling screws to secure. **NOTE:** To field install new, first-time inlet-top liners, after clamping the liners, use self-drilling screws at each liner corner to secure. Remove the clamps after the liner is secured.

7.3.25 | (8th) Slide the top liner onto the inner tube and align the holes in the liner with those in the top. Note that the holes around the inlet are spaced differently from the others. Temporarily install a couple of bolts to keep it in alignment.

7.3.26 | (9th) Place the cylinder liner over the inner tube. Make sure the liner is tight against the top liner and use worm clamps to temporarily clamp the liner to the tube. Tack weld the bottom of the cylinder liner to the inner tube in three or four places. Remove the clamps when the cylinder liner is secured.

7.3.27 | Apply caulking to the seam on the cylinder liner and between the cylinder liner and top liner.

7.3.28 | Apply caulking around the top edge of the wall liner and top inner edge on the inlet housing.

7.3.29 | (10th) Align the reclaimers top assembly over the top of the reclaimers and lower it into place to match the mating holes in the flange, being careful not to smear the caulking. Secure the top bolts and baffle bolts.

7.3.30 | Working through the reclaimers inlet, wipe the caulking seal smooth. Re-caulk any voids.

7.3.31 | Working through the reclaimers inlet, apply silicone caulking to seal seams around the inlet-side liner, inlet-top liner, and reclaimers weldment. Wipe the caulking smooth.

7.3.32 | If the lower flange gasket is worn, compressed, or otherwise damaged, clean old gasket material from the flange and install new 2" strip gasket to the reclaimers or hopper flange.

7.3.33 | Reattach the inlet-pipe adaptor, replacing the gasket if worn, compressed, or otherwise damaged.

7.3.34 | Reinstall the reclaimers and connect the flex hoses.

7.3.35 | Allow time for the caulking to cure before putting the reclaimers in service

7.4 | Removing or Replacing Reclaimers Inlet Baffle In 600cfm Reclaimers with Bolt-On Tops – Figure 13

300 cfm reclaimers baffle cannot be removed. When using lightweight media such as agricultural media or very fine media (180 and finer), good media may be carried over to the dust collector. To prevent lightweight-media carryover, the inlet baffle of the reclaimers can be removed. Review the following process before beginning to make sure all parts are available:

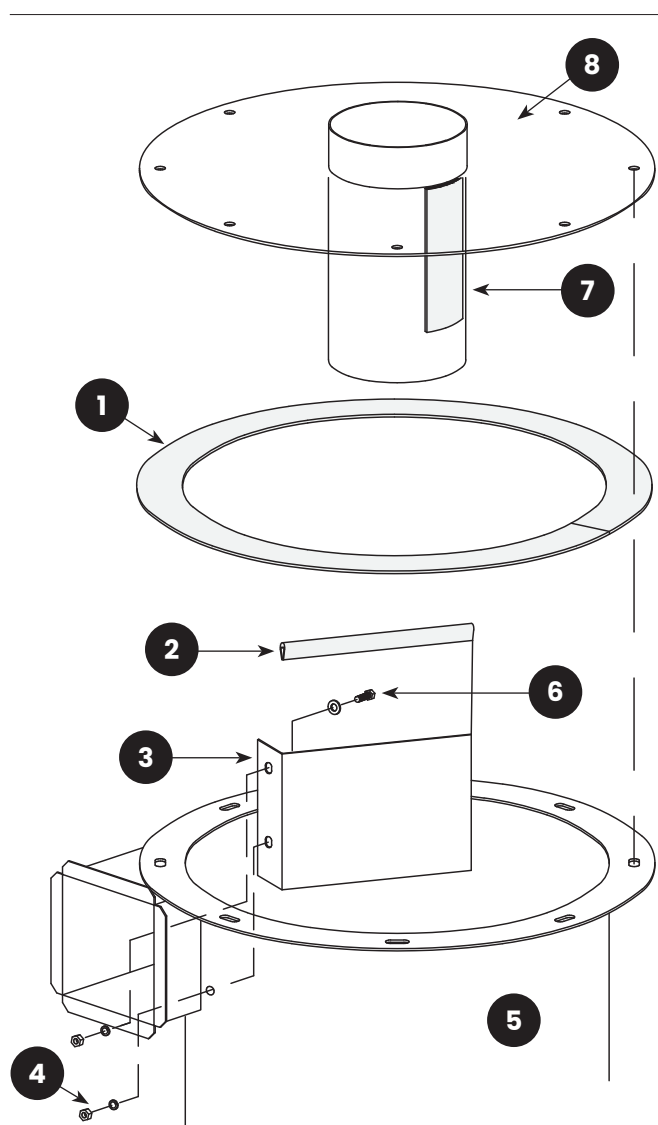


FIGURE 13: (1) 2" Strip Gasket; (2) U-Channel; (3) Baffle; (4) Baffle Nuts and Lock Washers; (5) Reclaimers Body; (6) Baffle Bolts and Flat Washers; (7) 2" Strip Gasket; (8) Reclaimers Top and Inner Tube. Style may vary.

Installation Notes: Make sure at least six feet of 13089 - 2" adhesive-backed gasket is available to replace compressed or damaged gasket on the reclaimer upper flange.

7.4.1 | Remove the flex hose from the reclaimer top.

7.4.2 | Remove the fasteners securing the reclaimer top and remove the top.

7.4.3 | Remove the two bolts securing the baffle to the side of the reclaimer inlet and remove the baffle through the top.

7.4.4 | Remove all caulking residue.

7.4.5 | If removing (not replacing) the baffle, remove the strip gasket from the inner tube and install the baffle bolts and reclaimer top. If replacing the baffle, skip to Paragraph 7.4.6.

7.4.6 | When replacing the baffle, make sure the strip gasket on the inner tube is in good condition and install the new baffle

in reverse order. Apply silicone caulk to the seam (opposite side of the mounting bolts) between the baffle and reclaimer body. Wipe the caulk smooth.

7.4.7 | Inspect the strip gasket on the reclaimer upper flange; replace it if damaged or compressed.

7.4.8 | Install the reclaimer top and allow the caulking to cure before putting the reclaimer into service.

8.0 | Troubleshooting



9.0 | ACCESSORIES & REPLACEMENT PARTS

9.1 | Optional Accessories (field installed)

WARNING

Turntable capacities are based on concentric loading. Use solid fixturing to hold heavy parts in place. Do not remove lift equipment until the part is adequately supported to prevent movement. Moving or rotating heavy, unsupported, or off-centered parts may cause them to shift or topple, and cause severe injury.

Rubber hopper-liner set, black

- for 300cfm special order
- for 600cfm 23499

Boron carbide nozzle

- No. 5 11935
- No. 6 11936
- No. 7 11937
- No. 8 12894

Wide-spray nozzle

- Tungsten carbide, No. 6 11947

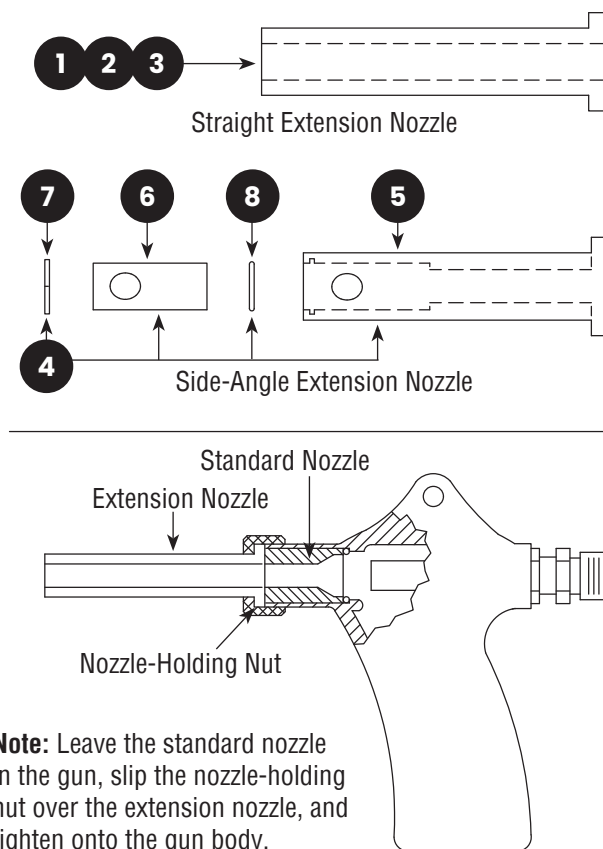
- Boron carbide
- No. 6 11934
- No. 8 11944

NOTE: Wide-spray nozzles require the following accessories:

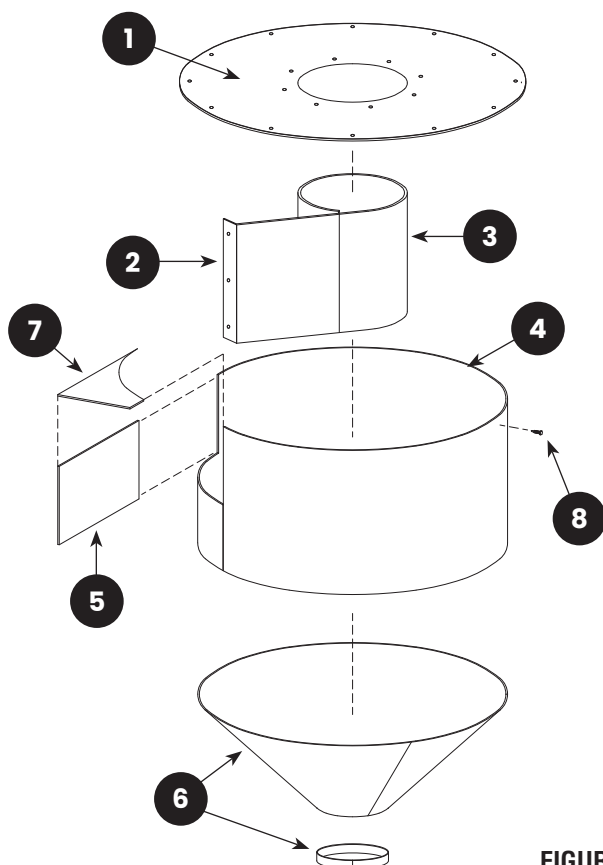
- Nozzle nut, wide-spray 11916
- Retaining ring, wide-spray 12038
- Nozzle guard, wide-spray 12295
- Time delay door locks, for both doors 24163
- HEPA filter assembly, Pulsar top mount 22807
- Tumble basket, 2-gallon 12227
- Manometer kit, flexible U-tube) 12528
- Lock pins (pkg of 25) for twist-on hose couplings 11203
- Safety cable, for 1/2" to 1-1/4" OD hose 15012
- Anti-fatigue floor-mat, 2 ft x 3 ft for front of cab. 24744
- Window cover lens, pack of 5 06190

Optional Extension Nozzles – Figure 14

1. 3" Straight extension nozzle
 - No. 5, 5/16" orifice 11921
 - No. 6, 3/8" orifice 11922
2. 6" Straight extension nozzle
 - No. 5, 5/16" orifice 11927
 - No. 6, 3/8" orifice 11928
3. 9" Straight extension nozzle
 - No. 5, 5/16" orifice 11924
 - No. 6, 3/8" orifice 11925
4. Side-angle extension nozzle assemblies with No. 5 orifice, includes 5, 6, 7, and 8
 - 4" long assembly 21311
 - 6" long assembly 12374
 - 9" long assembly 12373
5. Casing, side-angle extension nozzle
 - 4" long casing 11943
 - 6" long casing 11940
 - 9" long casing 11939
6. Tip, side-angle extension 12173
7. Snap ring, side-angle extension 12040
8. O-ring, side-angle extension 08977


FIGURE 14
Reclaimer Liners, 600 cfm only – Figure 15

- (-) Rubber liner sets, 600 cfm 29541
1. Top liner 29535
2. Baffle, lined 29531
3. Inner cylinder 29530
4. Wall liner 29533
5. Inlet-side liner 29532
6. Cone liner 29707
7. Inlet-top liner 29536
8. Screw, 10-16 x 3/4" self-drill/tap 12722


FIGURE 15

9.2 | Metering Valve – Figure 16

(-) Metering valve assembly, BNP	12417
1. Metering stem assembly, items 1, 2, & 3	23889
2. Stem, metering adjusting	23097
3. Screw, adjusting	23098
4. Nut, adjusting stem lock	23099
5. Body, metering valve	11532
6. Fitting, hose, 3/8" NPT x 1/2" barb	06369
7. Plug, metering valve	12011

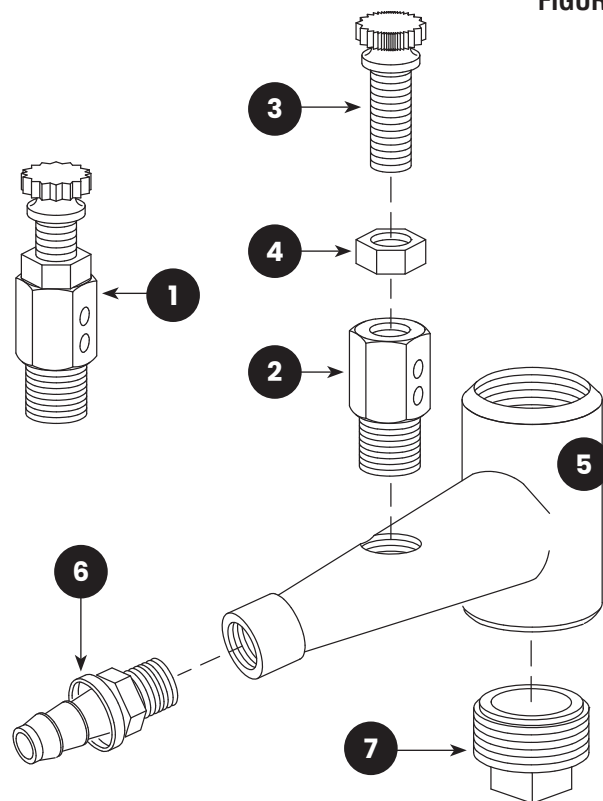


FIGURE 16

9.3 | Reclaim Module Replacement Parts – Figure 17

1. Reclaimers	
• 300cfm	Section 9.5
• 600cfm	Section 9.6
• 900cfm	Section 9.7
2. Control Panel	
• 300cfm, 115/3/60	33050
• 600cfm, 115/3/60	33214
• 600cfm, 230/3/60	33211
• 600cfm, 460/3/60	33204
• 900cfm, 230/3/60	33212
• 900cfm, 460/3/60	33213
3. Air Prep Unit	32567
4. Blast Solenoid	32550
5. 1/4" Push-to-Connect Bulkhead	30320
6. Panel, Reclaim Stand	32547

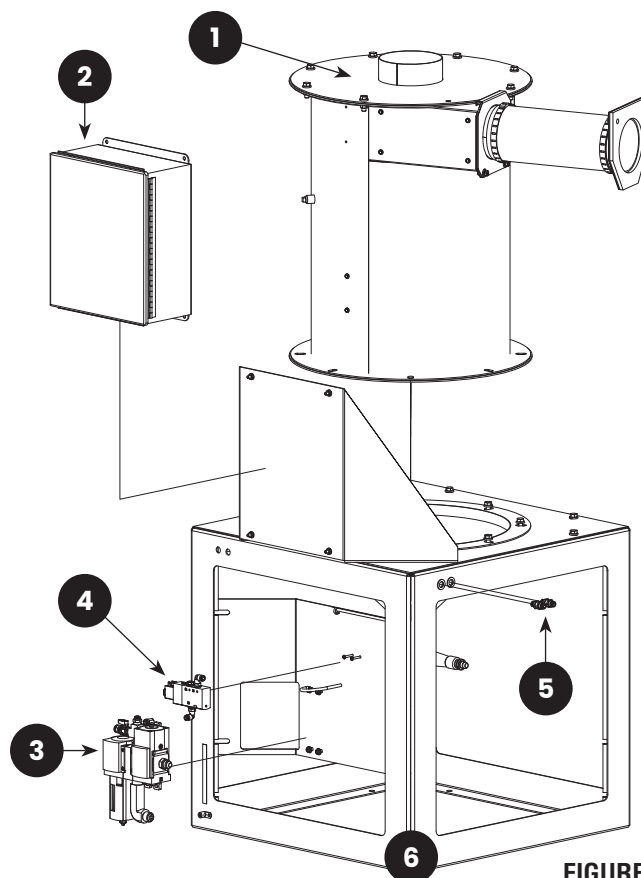


FIGURE 17

9.4 | BNP® Gun and Feed Assembly – Figure 18

(-) BNP Gun assemblies less nozzle, includes items 1 (brass) through 7

• No. 4 Gun	12301
• No. 5 Gun	12302
• No. 6 Gun	12303
• No. 7 Gun	12304
• No. 8 Gun	12305
1. Nut, nozzle holding	
• Standard, knurled brass	11914
• Urethane covered, ...	11574
2. O-ring	08975
3. Gun body	11802
4. Lock nut, air jet	11913
5. Rubber sleeve	12097
6. Air jet assembly w/ Item 5	
• No. 4	12342
• No. 5	12343
• No. 6	12344
• No. 7	12345
• No. 8	12346
7. Fitting, hose, 3/8" NPT x 1/2" barb	06369
8. Hose end, 1/2" barb x 1/2" fem. swivel	15002
9. Nozzle, ceramic	

• No. 5, green tip	11930
• No. 6, blue tip	11931
• No. 7, red tip	11932
Nozzle, boron carbide	
• No. 5	11935
• No. 6	11936
• No. 7	11937
• No. 8	12894
Nozzle, tungsten carbide	
• No. 5	13118
• No. 7	12882
• No. 8	11942
10. Hose, 1/2" air, 10 ft required	12472
11. Hose, media, clear, 10 ft required	12476
12. Wide-spray nozzle	
• Tungsten carbide, No. 6 11947	
• Boron carbide	
• No. 6	11934
• No. 8	11944
13. Wide-spray nozzle nut	
• Knurled brass	11916
• Urethane covered	12906
14. Wide-spray retaining ring	12038
15. Wide-spray nozzle guard	12295
16. Adjusting tool, correctly positions air jet	19041

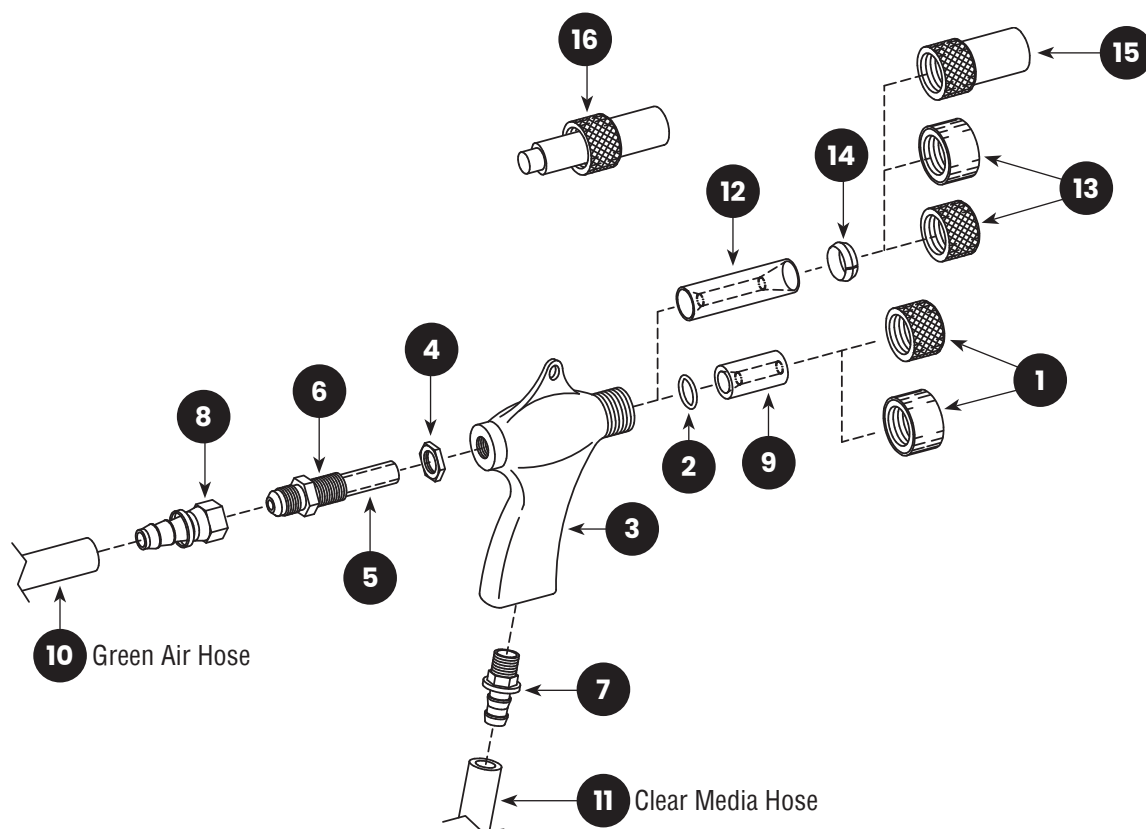
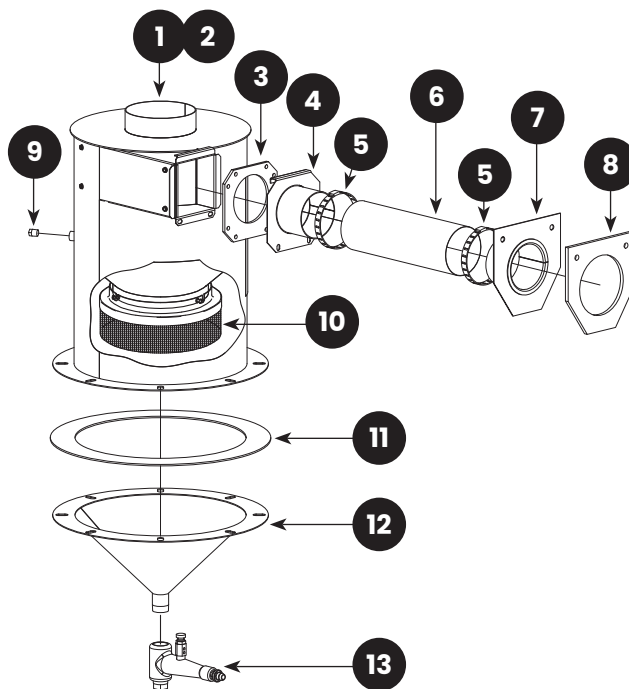


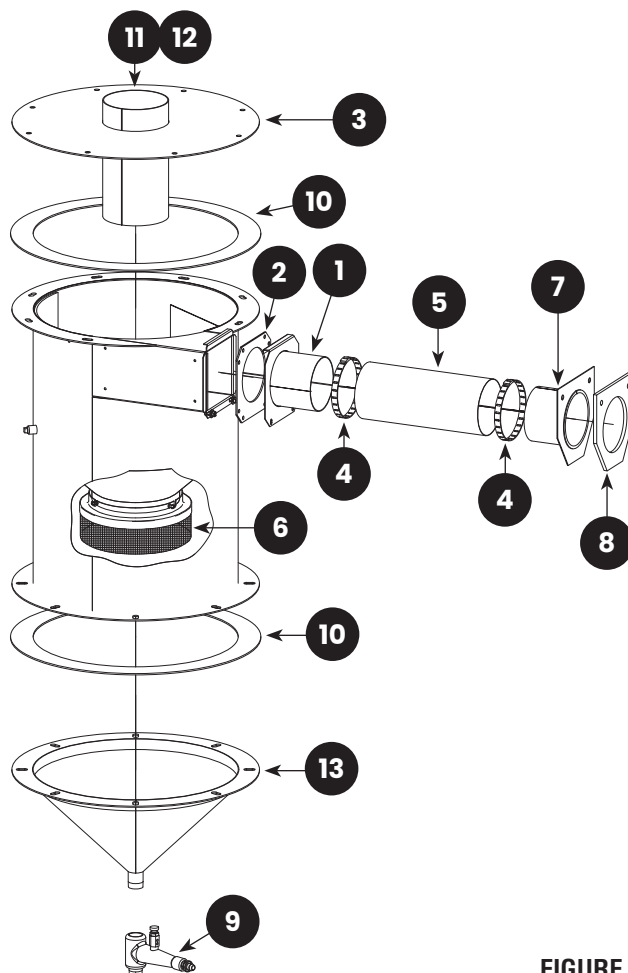
FIGURE 18

9.5 | Reclaimer, 300 CFM – Figure 19

1. Clamp, 6" hose	00750
2. Hose, 6" Unlined, 10 feet required	12452
3. Gasket, inlet pipe, 4" - 300 cfm	11746
4. Inlet-pipe adaptor, 4" - 300 cfm	30180
5. Clamp, 4" hose	11577
6. Hose, 4" Light Lined, 10 feet required	12466
7. Sump Pipe	23294
8. Gasket, Sump Pipe	23259
9. Plug, 1/4-NPT pipe	01950
10. Debris screen, 8-mesh	21265
11. Gasket, 1/8" x 2" adhesive-backed, per foot, 4-feet required	13089
12. Metering Sump	33062
13. Metering valve	12417

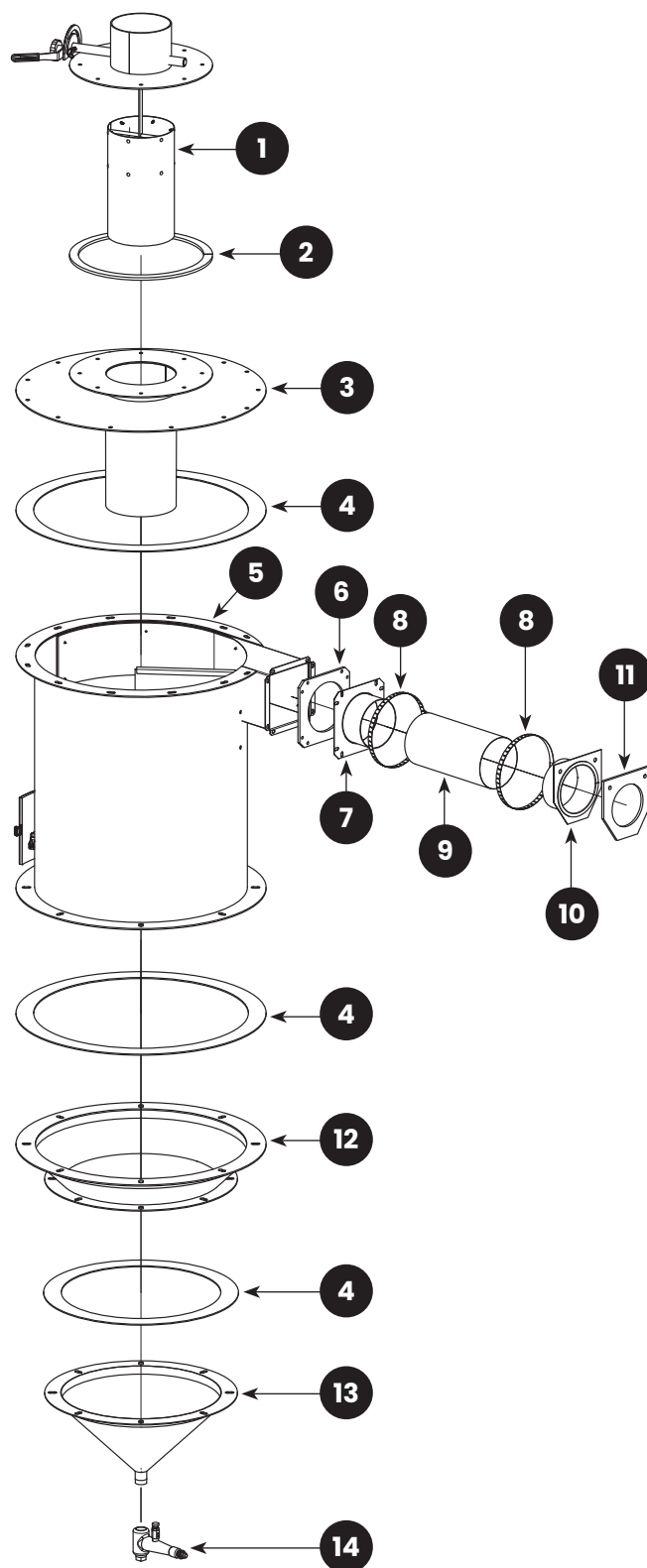

FIGURE 19
9.6 | Reclaimer, 600 CFM Modular - Figure 20

1. Inlet-pipe adaptor	
• 5" for standard 600 cfm	29397
• *4" for 600 cfm w/steel media	12350
2. Gasket, inlet-pipe adaptor	
• 5", standard, all modular models	11779
• *5" rubber-lined recl. prior to 09/2018	29631
3. Top plate, 600 cfm modular, w/6" pipe	29538
4. Clamp, 5" hose	11578
5. Hose, 5in Light Lined, 10ft	12467
6. Debris screen, 8-mesh	21265
7. Sump Pipe	23296
8. Gasket, Sump Pipe	23259
9. Metering valve	12417
10. Gasket, adhesive-backed 1/8" x 2," per foot	
• 6 feet required at each location	13089
11. Clamp, 6" hose	00750
12. Hose, 6" unlined flex, 10 ft required	12452
13. Hopper, for Pulsar VI	21650
14. Plug, 1/4-NPT pipe	01950


FIGURE 20

9.7 | Reclaimer, 900 CFM Modular - Figure 21

1. Adjustable Vortex Weldment	23046
2. 5/16x1.00 Gasket, 4ft required	00187
3. Top Plate Weldment	23040
4. 1/8X2.00 Gasket, 8 ft required	13089
5. 900 Reclaim Body Weldment	33219
6. Gasket, 900 Reclaim Inlet	11759
7. 6in Inlet Weldment, 900 Reclaim	12357
• 5" for 900 cfm w/steel media	14411
8. Hose Clamp	11576
9. 6in Light Lined Flexhose, 10ft required	12468
10. Sump Pipe Weldment	
• 6" for standard 900 cfm	23297
• 5" for 900 cfm w/steel media	23296
11. Gasket, Sump Pipe	
• 5", standard, all modular models	23259
12. Reclaim Sump Adaptor Weldment	33221
13. Hopper Weldment	21650
14. Metering Valve	12417


FIGURE 21

clemco

S U C T I O N R E C L A I M

CM 32560



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One Cablecar Drive • Washington MO 63090 • Phone: 636.239.4300
customerservice@clemcoindustries.com • www.clemcoindustries.com
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