# AEROLYTE Pressure Cabinets Models PRN 6060-A and 7070A G2 O. M. 27789

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# 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.

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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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#### 1.0 INTRODUCTION

## 1.1 Scope of Manual

- **1.1.1** These instructions cover set-up, operation, maintenance, troubleshooting, optional accessories, and replacement parts for Aerolyte 6060A and 707A G2 pressure dry stripping (non-aggressive media blasting) pressure cabinets. The instructions cover the operation of all pull-thru reclaimer and the installation of the dust collector. The following supplemental manual is provided for the RPH dust collector.
  - RPH Dust collectors, manual stock no. ...... 21449
- **1.1.2** The instructions contain important information required for safe operation of the cabinet. Before using this equipment, all personnel associated with the blast cabinet operation must read this entire manual, and all accessory manuals to become familiar with the operation, parts and terminology.

## 1.2 Safety Alerts

**1.2.1** Clemco uses safety alert signal words, based on ANSI Z535.4-2011, to alert the user of a potentially hazardous situation that may be encountered while operating this equipment. ANSI's definitions of the signal words are as follows:



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.

## **A** CAUTION

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

## **A** WARNING

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

## **A** DANGER

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

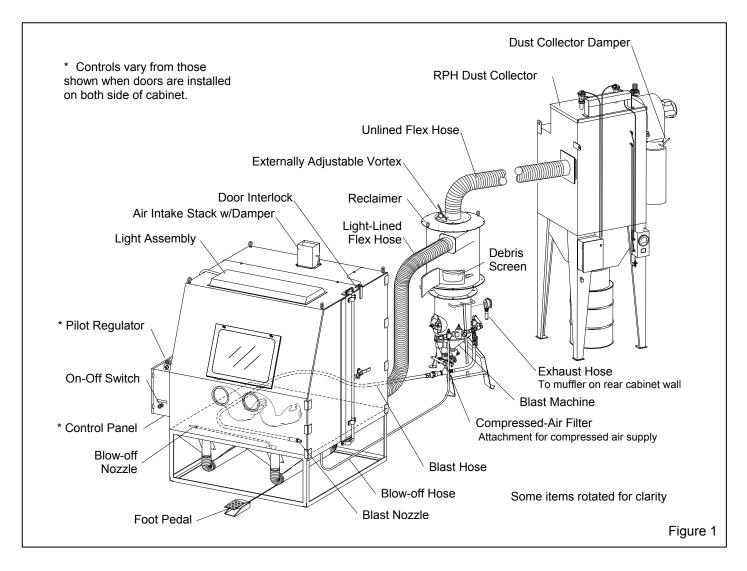
## 1.3 General Description

- **1.3.1** Aerolyte pressure cabinets enclose the blasting environment to provide efficient blasting while maintaining a clean surrounding work area. Production rates are influenced by size of nozzle, compressor output, working pressure, type and size of media, angle and distance of the nozzle from the blast surface. Aerolyte pressure cabinets consist of four major components:
  - 1. Cabinet Enclosure
  - 2. Reclaimer
  - 3. Blast Machine
  - 4. Dust Collector

Refer to Figure 1 for a typical arrangement and callout of components. The overall height of the RPH-2 is approximately 10-feet, 4-inches, and increases to 12-ft when the top access door is open.

## 1.4 Theory of Operation

1.4.1 Once the components are correctly setup and turned on, the cabinet is ready for operation by actuation of the foot pedal. Fully depressing the foot pedal pressurizes the blast machine, causing the media to be propelled through the blast hose and out the nozzle. After striking the object being blasted, the blast media, fines, dust, and by-products generated by blasting, fall through the mesh worktable into the cabinet hoppers. These particles are then drawn into the reclaimer for separation. Lightweight dust and fines remain airborne and are drawn out to the dust collector. Heavier reusable media fall through the screen into the reclaimer hopper for reuse. The dust collector traps dust and fines and discharges clean air. When the foot pedal is released, blasting stops, the blast machine depressurizes, and stored media refills the machine.



#### 1.5 Blast Machine and Remote Controls

**1.5.1** Clemco blast machines (pressure vessels) are certified to conform to the ASME (American Society of Mechanical Engineers) Boiler and Pressure Vessel Code, Section VIII, Division 1. It is the owner's responsibility to maintain the integrity of the vessel in accordance with the requirements of state regulations. Regulations may include regular inspection and hydrostatic testing as described in National Board inspection code and jurisdictional regulations and /or Laws.

## **A** WARNING

Welding, grinding, or drilling on the blast machine could weaken the vessel. Compressed air pressure could cause a weakened blast machine to rupture, resulting in death or serious injury. Welding, grinding, or drilling on the vessel, without a National Board R stamp, voids the Clemco ASME certification.

- **1.5.2** All welding repairs to the vessel must be performed by certified welders at shops holding a National Board R Stamp. Welding performed by any welder not properly qualified per the ASME code voids the Clemco ASME certification.
- **1.5.3** Do not exceed the maximum working pressure rating (PSI) of the blast machine. The maximum pressure rating is stamped into ASME nameplate which is welded to the side of the vessel.

## **A** WARNING

Excessive compressed air pressure could cause a blast machine to rupture. To prevent serious injury or death, do not exceed the rated pressure of the blast machine.

**1.5.4** OSHA does not require pressure relief valves on blast machines when air compressors supplying air to the blast machines are built to ASME<sup>(1)</sup> code and comply with OSHA<sup>(2)</sup> regulations. OSHA regulation

1910.169 refers to the ASME code when describing the necessity of pressure relief valves on compressed air equipment. **DO NOT** operate blast machines with air compressors that are not equipped with properly-functioning pressure relief valves.

- (1) American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section VIII, Division 1,
- (2) Occupational Safety and Health Administration, 29 CFR 1910, 169.
- **1.5.5** The piping on the blast machine does include a relief valve that set to vent at 65 psi. Its only purpose is to serve as an audible signal that pressure is above normal pressure settings for non-aggressive media and delicate substrates.
- **1.5.6** When the cabinet is setup, the blast machine is ready to blast by actuating the foot pedal. Pressing the foot pedal opens the normally closed main inlet regulator, and closes the normally open outlet valve. The incoming air pressurizes the blast machine, and blasting begins. When pressure on the foot pedal is released, the blast machine depressurizes, and blasting stops.

## 1.6 Nozzle Options

1.6.1 Unless otherwise specified at time of order, cabinets are shipped with a 5/16" orifice, silicon carbide lined, short venturi nozzle. Optional 1/4" or 3/8" orifice nozzles are also available. 1/4" nozzles should be used only when the air supply is limited. Low nozzle velocity and non-aggressive media make 1/4" nozzles ineffective except for loose adhering coatings and low production dry stripping tasks. The chart in Figure 2 shows cfm consumption when nozzles are new. Large nozzles (3/8" and in some cases larger), should be limited to tough stripping jobs. High nozzle velocity and high pressure will cause rapid media breakdown.

COMPRESSED AIR CONSUMPTION *(cf	im)	١
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Nozzle	AIR PRESSURE (psi)					
Orifice	20	25	30	35	40	45
1/4"	25	29	32	36	40	43
5/16"	41	47	53	59	65	71
3/8"	57	66	75	83	92	100

<sup>\*</sup> Figures are approximate and for reference only, and may vary for different working conditions. Several variables, including media flow and nozzle wear affect cfm consumption.

Figure 2

## 1.7 Dust Collector Options

- **1.7.1 RPH Dust Collector:** The RPH-2 is the standard dust collector unless another collector is specified at the time the order is placed. Refer to RPH dust collector manual number 21449.
- **1.7.2 HEPA** (high-efficiency particulate air) Filter: HEPA after-filters provide additional filtration and must be used with a reverse-pulse cartridge collectors when removing lead coatings or <u>any</u> other toxic materials. HEPA filters are listed under Optional Accessories in Section 9.1.

## 1.8 Blasting Media

**1.8.1** Aerolyte Dry Stripping Cabinets are designed to utilize plastic media and other lightweight non aggressive reusable media specifically manufactured for dry stripping. The usable media size range depends on the nozzle orifice size and reclaimer cleaning rate. Several factors affecting the reclaimer cleaning rate include: reclaimer size, air pressure, media/air mixture, media breakdown, contamination of parts being cleaned, and humidity.

## 1.9 Compressed Air Requirements

**1.9.1** The size of the compressor required to operate the cabinet depends on the size of the nozzle and stripping pressure. See the air consumption table in Figure 2. Unless specified otherwise, cabinets are supplied with a 5/16" orifice nozzle. The table in Figure 2 shows air consumption of nozzles when new; it does not show the recommended compressor size. When the nozzles are worn, they will consume 70% to 80% more air. Consult with a compressor supplier for a suggested compressor size based on the air consumption.

NOTE: A separate air line is required for the optional reverse-pulse dust collector.

1.9.2 The air filter at the blast machine inlet, removes condensed water from compressed air. The filter automatically drains when moisture fills the bowl to a certain level. Its use is especially important in areas of high humidity, or when fine-mesh media are used. Moisture causes media to clump and prevents free flow through the metering valve. If the filter does not remove enough moisture to keep media dry and flowing, it may be necessary to install an air dryer or aftercooler in the air supply line.

## 1.10 Electrical Requirements

All wiring external to the cabinet is provided by the user to comply with local electrical codes.

- **1.10.1** Electrical requirements depend on the size and phase of the dust collector exhauster motor. NOTE: Full load amps (FLA) shown below are for the motor only; the lights draw less than one amp. Standard cabinets are supplied as follows:
- 900 cfm reclaimer: 2 HP, 208/230/460V, 3-PH, 60 HZ Supplied with 230-volt control panel unless 460-volt is specified at the time the order is placed. FLA 208/5.5, 230/5.6, 460/2.8.
- **1.10.2** A control panel and starter are provided with 230-volt controls unless 460-volt is specified on the order. Power from the user's disconnect has to be wired to it. Additional wiring information is in Section 2.11. A wiring schematic is enclosed in the control panel.

#### 2.0 INSTALLATION

#### 2.1 General Installation Notes

**2.1.1** To avoid damage to the light assembly and air intake stack, they are shipped inside the cabinet. Install the light assembly and intake stack on the outside top of the cabinet (ref Figure 1), using the adhesive-backed gasket and fasteners provided. Install the light conduit and wiring to the control panel, and wire it per the wiring schematic packed in the panel. Refer to Section 2.11.

## **A** WARNING

Use an approved ladder or lift and fall protection when installing or servicing the light assembly or air intake stack. Do not climb on top of the cabinet. The cabinet top will not support body weight and could cause injury.

- **2.1.2** The cabinet must be placed on a flat level surface. If the surface is not flat, the cabinet could flex, causing the door alignment to shift. If the floor is not level, shim the leg(s) as required to align the doors.
- **2.1.3** Use the eyebolts on the four top corners to lift and maneuver the cabinet. **Do not lift the cabinet from the hopper or lower frame.**

## **NOTICE**

Do not use a forklift to lift the cabinet from the hoppers or lower frame. The cabinet hopper is not designed to support the weight of the cabinet. The lower frame is designed to support distributed weight. Using a forklift on the hoppers or frame may cause damage.

- **2.1.4** Refer to Figure 1 for the general arrangement and Figure 4 for the control line schematic. Select a location where compressed air and electrical service are available. The cabinet location must comply with OSHA and local safety codes. Allow for full access to all doors and service areas and for efficient handling of large parts. Provide enough clearance in front of the dust collector to remove the dust drawer without tipping. Ideally, locate the blast machine directly behind the cabinet with the blast hose connection toward the cabinet. The reclaimer may be rotated on the blast machine to make hose connections with as few bends as possible. Determine the best location for all components and position them before making compressed air connections, electrical connections, and attaching flex hose.
- **2.1.5** Refer to the dust collector owner's manual to set up the dust collector and prepare it for operation.

#### 2.2 Assemble Blast Machine and Reclaimer

- **2.2.1** Apply adhesive-backed strip gasket to the top of the flange on the blast machine. Punch out an opening at each bolt hole.
- **2.2.2** If the optional storage segment is used, place it on the blast machine. The access door should be on the bottom, and rotated to allow access. Bolt into place. Apply adhesive-backed gasket to the top flange as described in Section 2.2.1
- 2.2.3 Use a lift to raise the reclaimer over the blast machine assembly, and lower it in place. Attach with fasteners provided. Note: Optional 1200 cfm and larger reclaimers are mounted on legs. Slide the blast machine under the reclaimer and bolt flanges together.

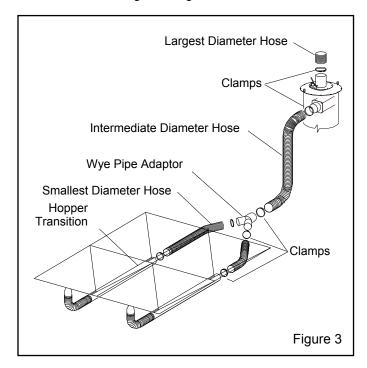
## **A** WARNING

Do not work under the reclaimer while it is hanging from the lifting device. Severe injury or death could occur if the reclaimer is released before it is secured to the blast machine.

## 2.3 Support the Blast Machine

**2.3.1** Use chain, cable, or other means to temporarily support the blast machine and reclaimer during final assembly.

# **2.4 Connect Conveying Hose, Figure 3** Refer to Page 31, Figure 35 for hose sizes



- **2.4.1** Connect the two smallest diameter flexible conveying hoses between the cabinet hopper transitions and wye pipe adaptor. It is easier to slip the hose over the adaptor and to create a tighter seal if the first two or three inches of wire are removed from the inside of the hose. Use care not to damage the hose. NOTE: The hose wire helps dissipate static electricity in the conveying hose, and also helps ground each segment. In order for the hose wire to dissipate static electricity, the wire must touch the metal of each segment. Clamp the flex hose securely with worm clamps provided.
- **2.4.2** Connect the intermediate diameter flex hose between the wye pipe and reclaimer inlet adaptor. Clamp the flex hose securely with worm clamps provided.
- **2.4.3** The largest diameter hose attaches to the reclaimer outlet, which will be connected later.

#### 2.5 Connect Blow-Off Hose

**2.5.1** Attach the 1/2" blow-off hose coming from the front right cabinet hopper to the compatible fitting on the blast machine piping, between the air filter and regulator. Refer to the schematic in Figure 4.

#### 2.6 Connect Blast Hose

## **A** WARNING

Hose disconnection while under pressure could cause serious injury. Use safety lock-pins and safety cables on all coupling connections to help prevent hose couplings from accidental disconnection while under pressure. Lock-pins and safety cables are listed under Optional Accessories in Section 9.1.

**2.6.1** Connect the blast hose from the lower left side of the rear cabinet wall to the coupling at the bottom of the blast machine. Be sure coupling gaskets are in place and couplings are secured with safety lock-pins.

## 2.7 Attach Blast Machine Exhaust Hose

**2.7.1** Screw the male end of the exhaust hose into the 1" coupling located on the lower left side of the rear cabinet wall. Connect the female swivel end to the male adaptor on the blast machine outlet valve.

## 2.8 Connect Urethane Control Tubing

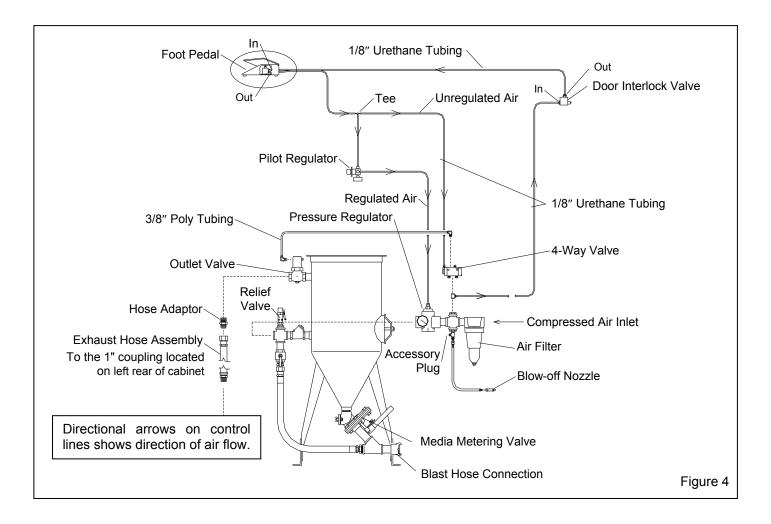
**2.8.1** Uncoil the 1/8" urethane control tubing, from under the cabinet. The end of each tubing is numbered 1, 2, 3 or 4. Connect the tubing to the adaptor with the corresponding number on the pressure regulator, piping, and 4-way air valve. Refer to the schematic in Figure 4 to confirm the connections.

## 2.9 Connect Compressed Air Supply Line(s)

## **A** WARNING

Failure to observe the following before connecting the equipment to the compressed air source could cause serious injury or death from the sudden release of compressed air.

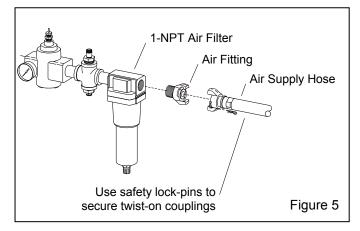
- Lockout and tagout the compressed air supply.
- · Bleed the compressed air supply line.



**2.9.1** Apply thread sealant to the male threads of an air fitting that is compatible with the air supply hose fitting, as noted in Section 2.9.2, and install it onto the 1-NPT air filter located at the blast machine inlet, as shown in Figure 5. Note that the style of connection shown in Figure 5 is for reference only.

## **A** WARNING

If twist-on type air hose couplings are used, they must be secured by safety pins or wires to prevent accidental disconnection while under pressure. Hose disconnection while under pressure could cause serious injury.



**2.9.2** Install an isolation valve at the air source to enable depressurization for service, and connect a 1" ID or larger air line from the air source to the air filter on the blast machine. A smaller diameter hose may reduce blasting efficiency.

# **A** WARNING

To avoid the risk of injury from compressed air, install an isolation valve and bleed-off valve where the air supply is tapped into the compressed air system. This enables depressurization of the compressed-air lines before performing maintenance.

**2.9.3** Refer to the dust collector owner's manual and connect a compressed-air line to the pulse manifold.

## 2.10 Ground Cabinet

**2.10.1** To prevent static electricity build up, attach an external grounded wire from an earth ground to the grounding lug on the left rear of the cabinet.

#### 2.11 Connect Electrical Service

## **A** WARNING

Shorting electrical components could result in serious electrical shocks, or equipment damage. Electrical power must be locked out and tagged out before performing any electrical work. All electrical work or any work done inside a control panel or junction box must be performed by a qualified electrician, and comply with applicable codes.

All wiring external to the cabinet is provided by the user to comply with local electrical codes.

## 2.11.1 Three-Phase Wiring

NOTE: a wiring schematic is packed inside the cabinet's control panel. After wiring is completed, keep a copy of the schematic with the manual for future reference and for electrical replacement parts.

- **2.11.1.1** Refer to the wiring schematic stowed inside the control panel mounted on the cabinet and wire from the users disconnect to the panel and from the panel to the dust collector motor, per instruction on the motor dataplate
- **2.11.1.2** Check the amperage on initial start up; if the motor draws excessive amperage, gradually close the dust collector damper, located on the exhauster outlet on RPH dust collectors, until the amperage is within the specifications shown on the motor plate.

#### 2.11.2 Check Motor Rotation

**2.11.2.1** After wiring is completed, observe the warning that follows and check the motor rotation. To check rotation, turn the On-Off switch ON and quickly turn it OFF, causing the motor to rotate slowly. Look through the slots in the motor fan housing where rotation of the fan can easily be observed. Proper rotation is indicated by the arrow on the exhauster housing; the fan should rotate toward the exhauster outlet. If it rotates in reverse, change the wires as noted on the motor plate to reverse rotation.

## **A** WARNING

Do not look into the exhauster outlet while the paddle wheel is turning. Injury to the eye or face could occur from objects being ejected from the exhauster.

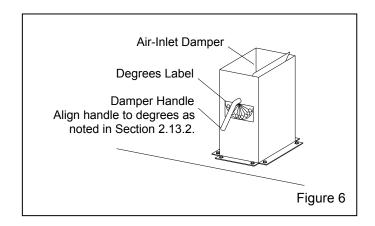
#### 2.12 Anchor Blast Machine

**2.12.1** Anchor holes are located in the blast machine leg pads. When all the components are in their permanent position, remove the temporary supports and anchor through the holes to secure the machine to the floor.

## 2.13 Cabinet Air-Inlet Damper, Refer to Figure 6

- **2.13.1** The air-inlet damper is located on the top of the cabinet and must be set to match the cabinet dimensions and reclaimer size. The air-damper was preset prior to shipment; confirm the initial setting as noted below.
- **2.13.2** The label on the damper show the settings in degrees. The initial setting should align the handle as noted below.

900 reclaimer......align handles to 30 degrees 1200 reclaimer.....align handles to 0 degree (full open) 1800 reclaimer.....align handles to 0 degree (full open)



**2.13.3** Loosen the lock nuts and position the damper. When correctly positioned, tighten the lock nuts to maintain the setting. Refer to Section 5.6 for adjustment procedure.

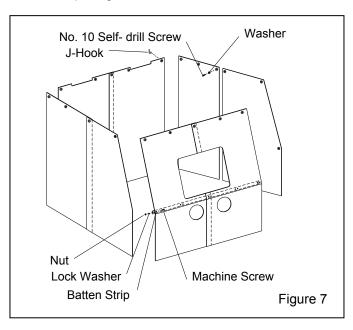
## 2.14 Final Assembly

- **2.14.1** Insert a section of 3/8 tubing into the automatic drain at the bottom of the compressed-air filter and place the other end into a pail. When the filter automatically drains, the water will drain into the pail.
- **2.14.2** Position the foot pedal on the floor at the front of the cabinet.
- **2.14.3** A package of five window cover lenses is supplied with the cabinet. Install a cover lens per Section 7.2. When the cover lens becomes pitted or frosted, replace it.

## 3.0 FIELD INSTALLED ACCESSORIES

## 3.1 Curtain Installation, Figure 7

**3.1.1** Match the curtains to the corresponding wall and door as shown in Figure 7. Hook the curtains to the J-Hooks welded along the top of the front, back, and side walls. Cut openings for the hoses on the lower left rear wall.



**3.1.2** Using protectors against the curtains and outer doors, clamp the door curtains in place. The upper edges of the door curtains should be even with the outer edges of the sound proofing panel. Insert a #10 self-drilling screw with an 11/16" OD flat washer through the

grommet holes. Use a screw gun with a 5/16" socket to attach the door curtains.

**3.1.3** For front walls, place the batten strip over the curtain, and clamp it in position on the front slope above the break as shown in Figure 7. Match drill .187" (3/16") diameter holes through the rubber and cabinet front at each batten hole. To install the batten insert #10-24 x 1" round head machine screws through the cabinet front, curtain and batten. Install lock washers and nuts from inside the cabinet and tighten securely.

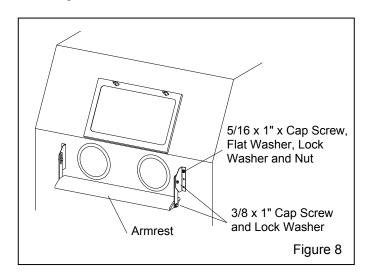
## 3.2 Manometer

The optional manometer kit is listed in Section 9.1.

**3.2.1** 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. The manometer measures static pressure. Reclaimer static pressure is set by adjusting the outlet damper; refer to Section 5.3 to adjust static pressure. Refer to Section 5.7 for manometer instructions.

#### 3.3 Armrest

- **3.3.1** Assemble the armrest and mounting brackets as shown in Figure 8.
- **3.3.2** Position the assembly so the armrest is about even with the bottom of the arm-port opening. Mark one hole location on the front of the cabinet at each mounting bracket.

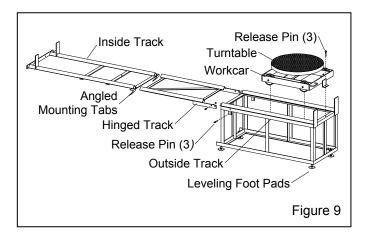


**3.3.3** Drill a 3/8" hole at both locations and mount the armrest using 5/16 cap screw, washers and nuts. Install the bolts from inside the cabinet to protect the threads from abrasion, should the armrest need to be removed at a later date.

- **3.3.4** Match drill the remaining four bracket holes and install the remaining fasteners.
- **3.3.5** Loosen the fasteners on the slotted bracket and raise or lower the armrest to a comfortable position.

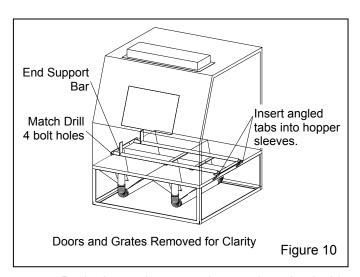
## 3.4 Track and Turntable Assembly

**3.4.1** These instructions cover field installation of the 2000 lb. capacity track and work cart with turntable. If the track was ordered with the cabinet, it is partially assembled at the factory. Disregard the instructions that do not apply. Refer to Figure 9 for arrangement of the major components.



## 3.4.2 Install inside track, refer to Figure 10

**3.4.2.1** Lay the inside track on the cabinet hoppers and above the grate as shown in Figure 10.

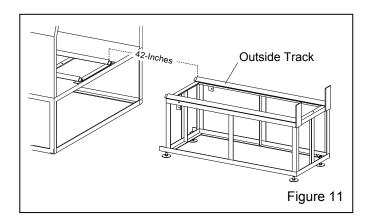


**3.4.2.2** Push the end support bar against the inside cabinet wall, opposite the door, and insert the angled tabs on the door end of the track into the two sleeves on the hopper as shown.

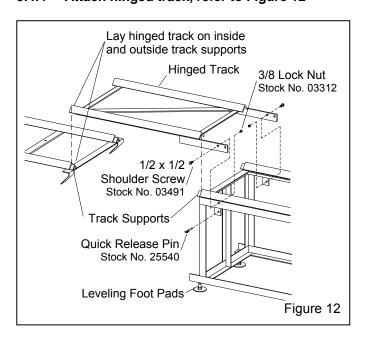
- **3.4.2.3** Make sure the weight of the track is evenly distributed over the hoppers and match drill through the cabinet wall, at the four hole locations in the end support bar for 3/8 fasteners. If necessary, mark the hole locations and remove the track for drilling.
- **3.4.2.4** Secure the inside track to the cabinet with four 3/8-NC cap screw, flat washers, lock washers, and nuts provided.

## 3.4.3 Position outside track, refer to Figure 11

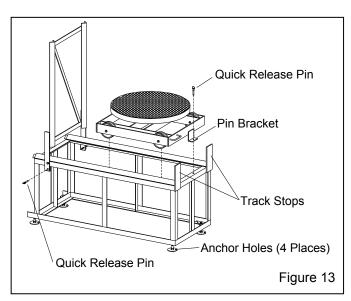
**3.4.3.1** Place the outside track so it is in-line with the inside track. Space the track so the top rails (not the smaller support rails) on the hinged end are approximately 42-inches from the top rails on the inside track.



## 3.4.4 Attach hinged track, refer to Figure 12



- **3.4.4.1** With the door open, place the hinged track on the inside and outside track supports, as shown in Figure 12. Maneuver the outside track as needed to align the hinge track bolt holes with the outside track bolt holes, while making sure hinge track is fully resting (with no gaps) on the track supports.
- **3.4.4.2** Install 1/2" shoulder screws through both hinged track pivot-bars and into the holes in the outside track. Secure with 3/8 lock nuts.
- **3.4.4.3** Raise or lower the four adjustable foot pads on the outside track as needed to level it to the hinged track and inside track.
- **3.4.4.4** The quick release pin holds the hinge track when in the raised position, as shown in Figure 12.
- 3.4.5 Turntable work cart and hinge track operations, refer to Figure 13
- **3.4.5.1** Set the workcar on the outside track; the grooves in the wheels are designed to ride on the top of the track rails.
- **3.4.5.2** For shipping purposes, some field installed or replacement turntables may not be installed in the workcar. If shipped separately, slide the turntable shaft through the rubber bearing protector, bearing collar and bearing. When the turntable shaft is fully seated in the bearing, use a hex key to tighten the collar on the shaft.



**3.4.5.3** Move the workcar toward the track stops until the hole in the pin bracket is aligned with the hole in the outside track cross brace. Insert the release pin through both holes to prevent the workcar from moving. Note: A similar hole is in one of the inside track cross braces.

Inserting the pin through the workcar and inside track hole prevents the workcar from moving when inside the cabinet.

- **3.4.5.4** When certain the tracks are aligned, level, and the workcar moves smoothly on all tracks, anchor the outside track to the floor through the holes in the foot pads.
- **3.4.5.5** Raise the hinged track until the locking hole in the pivot-bars is aligned with the hole in the bracket on the bottom side of the outside hinge. Install a quick release pin on both sides of the track to hold it vertical.

## **A** WARNING

Always insert pins in both sides of the hinged track to lock it upright, when it is lifted vertical. The track could fall if left unlocked and cause severe injury.

## 4.0 OPERATION

- 4.1 Media Loading and Unloading
- **4.1.1 Media Capacity:** Media capacity is approximately 2,0 cubic feet. The machine is full when media reaches the level of the pop-up valve.
- **4.1.2 Media Loading:** With the exhauster OFF, add clean dry media by pouring it into the reclaimer hopper through the reclaimer door. **Do not pour media directly into the cabinet hopper, as over filling may occur.** Overfilling will result in media carryover to the dust collector and possible blockage in the conveying hose. Refill only after all media has been recovered from the cabinet.
- Media Unloading: To empty the cabinet and blast machine of media, turn the exhauster ON blow-off the cabinet interior and run the exhauster until all media is recovered from the cabinet. Reduce pressure to 40 psi. Place an empty container, such as a bucket, on the cabinet grate. Remove nozzle and nozzle washer, close the door, close the choke valve (Item 1, Figure 33) and press the foot pedal. Direct media flow into the container. Empty the container when full or before it is too heavy to handle, and repeat the process until the machine is empty. Return the choke valve to the full open position. Clean the nozzle holder threads and inspect the threads on the nozzle and nozzle holder before reinstalling the nozzle washer and nozzle. If complete purging of media is required, use a vacuum to clean media residue in cabinet hopper and blast machine head.

## 4.2 Loading and Unloading Parts

## **A** WARNING

Use solid fixturing to hold heavy parts in place. Do not remove lift equipment until the part is adequately supported to prevent movement. Moving heavy, unsupported parts may cause them to shift or topple, resulting in severe injury. This is especially important with the use of turntables and turntables with tracks.

- **4.2.1** Load and unload through the door.
- **4.2.2** Parts must be free of oil, water, grease, or other contaminants that will clump media or clog filters.
- **4.2.3** When blasting small parts or objects having small pieces that could become dislodged and fall off, place an appropriately-sized screen over the grate (or under the grate when frequently blasting small parts) to prevent parts from falling into the hopper.
- **4.2.4** Close door; the door interlock system will prevent blasting if door is open.

## 4.3 Blasting Operation

## **A** CAUTION

- Always close cabinet, reclaimer and dust collector doors before blasting. Keep all doors closed during blasting.
- Always use blast gloves.
- Avoid pointing the blast nozzle toward the view window.
- Use the blow-off nozzle to blow media off parts before opening doors.
- After blasting, keep doors closed and exhauster running until the cabinet is clear of all airborne dust.
- Stop blasting immediately if dust leaks are detected.
- **4.3.1** Slowly open the air valve on the air supply hose to the blast machine Check for air leaks on the initial start up and periodically thereafter.
- **4.3.2** Turn ON the lights and exhauster. The push-button switch located on the control panel performs both functions. Pull the button to start the exhauster.
- 4.3.3 Load parts.

- **4.3.4** Close door; the door interlock system will prevent blasting if the door is open.
- **4.3.5** Insert hands into gloves.
- **4.3.6** To blast, hold the nozzle holder or hose just behind the nozzle holder, point the nozzle toward the object to be blasted, and apply pressure to the foot pedal. Blasting will begin almost immediately.

## **WARNING**

Shut down the cabinet immediately if dust leaks from the dust collector or cabinet. Make sure dust collector filters are correctly seated and not worn or damaged. Prolonged breathing of any dust could result in serious lung disease or death. Short term ingestion of toxic dust such as lead, poses an immediate danger to health. Toxicity and health risk vary with dust generated by blasting. Identify all material to be removed by blasting, and obtain a safety data sheet (SDS) for the media.

**4.3.7** Adjust the pilot pressure regulator to the required blasting pressure, per Section 5.1. The regulator is located on the left side of the cabinet. NOTE: Pressure registers on the gauge only while blasting.

NOTE: When blasting parts off the grate, use a solid conductive back rest to support the part. Without this assist, especially with longer blasting operations, the operator will tire easily from resisting blast pressure, and static electricity could build up in the ungrounded part and cause static shocks. Whenever possible avoid holding small parts that require blasting into the glove.

**4.3.8** If an object should fall through the grate, stop blasting immediately and retrieve it.

## 4.4 Stop Blasting

- **4.4.1** To stop blasting, remove pressure from the foot pedal. The blast machine will depressurize each time the foot pedal is released.
- **4.4.2** The blast machine refills with media stored in the reclaimer each time the foot pedal is released. Refilling takes approximately 15 seconds.
- **4.4.3** Use the blow-off nozzle to blow media off cleaned parts. Allow the exhauster to clear the cabinet of airborne dust before opening the door.

- **4.4.4** Keep doors closed and exhauster running until the cabinet is clear of all airborne dust.
- **4.4.5** Unload parts, shut off the air supply valve, and switch OFF the lights and exhauster.

## 4.5 Blasting Technique

**4.5.1** Blasting technique is similar to spray painting technique. Smooth continuous strokes are most effective. The distance from the part affects size of blast pattern. Under normal conditions, hold the nozzle approximately 6" from the surface of the part.

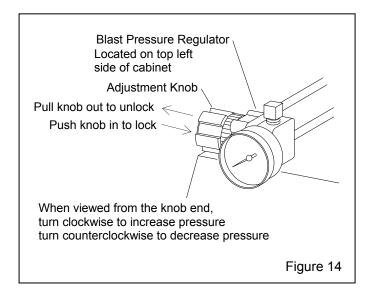
## 5.0 ADJUSTMENTS

## 5.1 Blasting Pressure

## **NOTICE**

The relief valve on the blast machine piping is set to vent at 65 psi. It serves as an audible signal that pressure is above normal pressure settings for non-aggressive media and delicate substrates.

- **5.1.1** The pilot pressure regulator, located on the left side of the cabinet, enables the user to adjust the blasting pressure to suit the application. The suitable pressure for most purposes is around 80 psi. Lower pressures may be required on delicate substrates, and will reduce media breakdown. Higher pressure may be required for difficult blasting jobs on durable substrates, but will increase media break down. Optimal production can only be achieved when pressure is carefully monitored.
- **5.1.2** Pressure registers on the gauge only while blasting. While holding the nozzle securely, adjust air pressure at the pilot regulator, located on the left side of the cabinet.
- **5.1.3** To adjust pressure, unlock the knob by pulling it out as shown in Figure 14, and turn it clockwise to increase pressure or counter-clockwise to decrease pressure. Once operating pressure is set, push in on the knob to lock it and maintain the setting.
- **5.1.4** If the application requires blasting below 40 psi, first pressurize the blast machine at 40 psi, and then turn the pressure to the required setting before blasting the part. If the initial pressure is below 40 psi, the pop-up valve may not seal.



## 5.2 Media Metering Valve

NOTE: The following instructions explain the adjustment of handle-type FSV metering valve. Knob-type valves are adjusted by turning the knob clockwise for less media, or counterclockwise for more media. Separate manuals are provided with optional valves.

- **5.2.1** Media flow is adjusted at the metering valve located at the bottom of the blast machine.
- **5.2.2** Begin adjustments with the metering valve closed. Closed. The FSV metering valve is closed when the handle is turned to either side of center until it hits the stops.
- **5.2.3** While the operator is blasting, the machine tender increases media flow by moving the handle toward center, no more than 1/4" at a time, allowing time for the flow to stabilize before readjusting.
- **5.2.4** Optimum media flow depends on the type and size of media and blasting pressure, and can best be determined by experience. Use as little media as possible while maintaining the maximum cleaning rate. The air/ media mixture should be mainly air. As a rule, the stream of media coming out of the nozzle should barely discolor the air when seen against a contrasting background.
- **5.2.5** Once the correct flow is attained, loosen the wing nut on the gauge unit and move the handle bolt spacer against the metering handle. This allows the handle to be moved (opened or closed) and returned to the same setting.

# 5.3 Reclaimer Static Pressure (dust collector outlet damper)

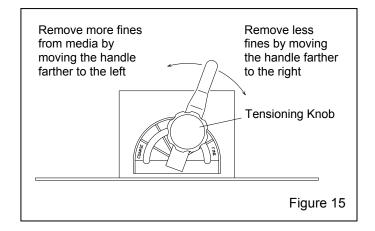
- **5.3.1** Constant static-pressure balance is necessary for precise media separation. Correct static-pressure varies with the size of reclaimer and the size, weight and type of media.
- **5.3.2** Adjust static-pressure by opening (handle inline with air flow) or closing (handle perpendicular to air flow) the damper. The damper is located on the outlet of the reverse-pulse collector. If the damper is not opened enough far, the poor visibility, and possible media blockage in the reclaimer will not remove fines, resulting in dusty media, conveying hose. 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 achieve dust removal without media carryover.
- **5.3.3** A manometer is useful when adjusting or monitoring static-pressure. The optional manometer kit is listed under Optional Accessories in Section 9.1. Refer to Section 5.7 for operation. The static pressure starting point for plastic media should be 2-1/2" to 3". Run the media through several blast cycles allowing the reclaimer to function with these settings. Inspect the media in the reclaimer and fines in the dust collector as noted in Paragraph 5.3.2. Continue adjusting static-pressure until optimum media cleaning without carryover is attained.
- **5.3.4** If the damper has been adjusted and carryover or excessive dust in the media continues, the adjustable vortex cylinder may help by fine-tuning media separation.

## 5.4 Externally-Adjustable Vortex Cylinder

The vortex cylinder fine-tunes media separation. Before adjusting the cylinder, adjust the damper on the dust collector to increase or decrease static pressure per Section 5.3. Once the damper is adjusted, adjust the cylinder.

- **5.4.1** The vortex cylinder is located atop the reclaimer where the flex hose connects. Adjustments are made by loosening the handle's tensioning knob and moving the handle to achieve the correct setting. When the correct setting is established, tighten the locking knob to prevent movement. Start with the lever slightly to the right (about one o'clock as shown in Figure 15) of the vertical position.
- **5.4.2 To Remove More Fines:** (Too much dust in media) Raise the cylinder by moving the lever left toward "COARSE", in 1/4" increments at the indicator plate. Allow the media to go through several blast cycles before determining if further adjustment is needed.

**5.4.3 To Remove Less Fines:** (Excessive usable media is carried to the dust collector) Lower the vortex cylinder by moving the lever right toward "FINE", in 1/4" increments at the indicator plate. NOTE: If the cylinder is lowered too far, the reclaimer will again begin to allow usable media to be carried over, and cause abnormally high static pressure.



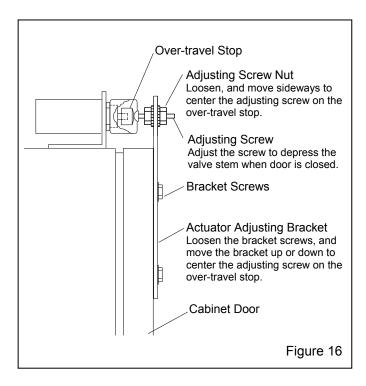
## 5.5 Door Interlocks, Figure 16

## **WARNING**

Never attempt to override the interlock system. Doing so could result in injury from unexpected blasting.

- **5.5.1** The door interlocks disable the blasting control circuit when either door is open. To enable blasting, the door interlock switch must be engaged when the doors are closed. The interlocks are set at the factory and do not normally require field adjustment unless parts are replaced. When adjustment is required, proceed as follows.
- **5.5.2** Close cabinet doors.
- **5.5.3** Loosen the actuator bracket screws and adjusting screw nut. Move the actuator bracket up or down, and the screw sideways, to center the screw on the over-travel stop. Tighten the bracket screws.
- **5.5.4** Turn the adjusting screw in or out as required to engage the switch without applying excessive pressure on it. Tighten the adjusting screw nuts.
- **5.5.5** Test the operation with the doors open and then again closed. Point the nozzle away from the door during the tests, and open the door only enough to disengage the interlock switch. The interlocks should stop the blasting when the doors are opened, and permit blasting when the doors are closed. NOTE: Negative

pressure inside the cabinet may cause the doors to flex inward. Tests should be performed with the exhauster running.



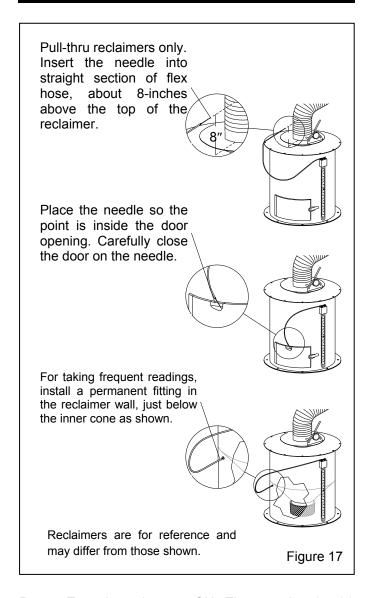
# 5.6 Cabinet Air-Inlet Damper (cabinet static pressure)

- 5.6.1 Once the inlet is initially set per Section 2.13, it seldom requires readjustment. The initial setting produces approximately .5" to .75" of static pressure in the cabinet enclosure. Do not confuse cabinet static pressure with reclaimer static pressure which is controlled by the dust collector damper, as noted in Section 5.3. Reclaimer pressure must be set before cabinet pressure.
- **5.6.2** Using a manometer (as noted in Section 5.7 and listed in Section 9.1) is the most accurate method of monitoring and adjusting cabinet pressure. Following the instructions packed with the manometer, start the exhauster and insert the needle into a glove, and adjust pressure using the inlet damper. Open the damper farther to decrease static pressure or close it farther to increase pressure.
- **5.6.3** If a manometer is not available, use the gloves as an indicator. With the exhauster running, the gloves should be inflated, but not elevated off the grate.

## 5.7 Optional Manometer

NOTE: These instructions show several methods of taking static pressure readings (negative pressure) on cabinet reclaimers using a flexible tube manometer. Use the method best suited for the application. The instruction explains the processes for taking periodic readings and shows how to permanently install the manometer for taking frequent readings. Permanent fittings should be installed when rigid ducting is used, or when the manometer installation is permanent. Use silicone sealer or other sealant to seal around the fitting to prevent leaks. The fitting should be capable of being capped when the manometer tube is removed. Capping the fitting will prevent leaks that alter the reclaimer's separation efficiency. The readings are reference points so it doesn't matter where the readings are taken as long as they are always taken at the same location. Taking readings at different locations could produce different results. Static pressure readings at the door are generally 0.5" to 1" lower than those taken above the reclaimer.

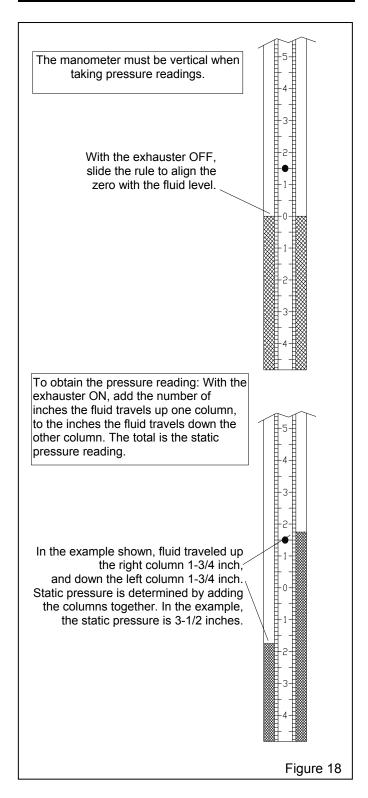
- **5.7.1** Refer to directions packed with the manometer for preparation and operating instructions for the manometer.
- **5.7.2** Connect one end of the 3/16" ID tubing to one of the tubing connectors (elbow) at the top of the manometer, by pushing it over the barbed adaptor.
- **5.7.3** Leave the needle protector on the needle and insert the needle into the other end of the tubing. The ends of the tubing must fit tight on the manometer and needle; leaks will give inaccurate readings.
- **5.7.4** Open both manometer valves (elbows) per the instructions provided with the manometer.
- **5.7.5** Magnets on the manometer hold it in position on the reclaimer body. The manometer must be vertically-plumb so the fluid is level on both sides.
- **5.7.6** Adjust the slide rule to align the zero with the fluid level. Refer to Figure 18.
- **5.7.7** Needle placement: Ref. Figure 17.
- **5.7.7.1 Taking readings in the flex hose:** Remove the needle protector, and insert the needle into the flex hose approximately 8" from the top of the reclaimer.
- **5.7.7.2 Taking readings at the reclaimer door:** 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, creating an airtight seal.



**5.7.8** 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.

- **5.7.9** 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 18.
- **5.7.10** After the readings are taken, 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 PREVENTIVE MAINTENANCE

NOTE: To avoid unscheduled downtime, establish an inspection schedule. Inspect all parts subjected to media contact, including; nozzle, media hose, flex hose, in addition to all items covered in this section. Adjust frequency of inspections as needed based on usage, type of media, and condition of parts being blasted.

## 6.1 Daily

- **6.1.1** Check media level in reclaimer and refill as necessary.
- **6.1.2** 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.
- **6.1.3** Empty the compressed-air filter drain pail at least once a day, and more often if needed. 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 aftercooler in the compressed-air supply line.
- **6.1.4** Refer to the dust collector owner's manual and empty dust containers. Adjust intervals based on filling rate.
- **6.1.5** Refer to the dust collector owner's manual and drain the pulse manifold at the end of each shift.

## 6.2 Weekly

- **6.2.1** Make sure that couplings are secure and lock pins and safety cables are in place.
- **6.2.2** Check coupling gaskets, couplings, and nozzle holders for leaks and wear. Replace as necessary.
- **6.2.3** Inspect nozzle for wear. Replace when orifice diameter is worn 1/16" larger than original size. Replace the nozzle washer when worn.
- **6.2.4** While blasting have someone inspect all external piping, hoses, valves, and couplings for air leaks. If leaks are found repair immediately.

- **6.2.5** While blasting have someone check the blast machine for air leaks. If leaks are found around the popup valve, inspection door, or pipe fittings at the bottom of the cone, stop blasting immediately and repair or replace worn parts. If leaks are not identified and corrected, abrasive erosion could cause irreparable damage to the blast machine.
- **6.2.6** Inspect the blast hose for wear and thin spots by pinching it every 6 to 12 inches. Soft spots mean the hose is worn. The first sign of wear is usually along the outside radius where the hose bend just behind the nozzle holder. Replace the hose as soon as soft spots are noted. **Couplings will not safely grip worn hose, and may detach under pressure.**
- **6.2.7** Inspect gloves for wear. The first sign of deterioration may be excessive static shocks. Replace as needed per Section 7.1.
- **6.2.8** Inspect flex hoses for wear.
- **6.2.9** Inspect view window cover lens, Replace as needed per Section 7.2.
- **6.2.10** During operation, inspect cabinet door seals for media leaks.

## 6.3 Monthly

- **6.3.1** Inspect reclaimer wear plate for wear. Replace as necessary per section 7.9.
- **6.3.2** Inspect reclaimer door gasket for wear or damage.

## 6.4 Dust Collector

Reverse-pulse dust collectors are covered in a separate manual. Refer to Section 1.1.1.

#### 7.0 SERVICE MAINTENANCE

## **A** WARNING

Failure to wear approved respirators and eye protection when servicing dust-laden areas of the cabinet and dust collector and when emptying the dust collector could result in serious eye irritation and lung disease or death. Toxicity and health risk vary with type of media and dust generated by blasting. Identify all material to be removed by blasting, and obtain a safety data sheet (SDS) for the blast media.

#### 7.1 Gloves

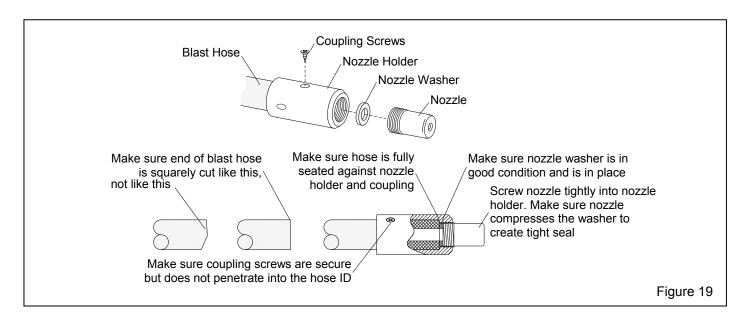
- **7.1.1** Special static-dissipating gloves are provided for operator comfort. It will be necessary to change gloves periodically as they wear. The first sign of deterioration may be excessive static shocks.
- **7.1.2 Band-clamp type:** Band-clamp type gloves are held in place by metal band-clamps on the inside of the cabinet. To replace, loosen the clamps with a screwdriver, replace the gloves, and tighten the clamps.
- **7.1.3** Quick-Change type, clampless installation: Quick-change gloves are held in place using spring rings sewn into to the attachment end of the glove. To install, insert the glove into the arm port, so one spring is on the inside of the port and the other is on the outside, sandwiching the arm port between both spring rings.

## 7.2 View Window Cover Lens

- **7.2.1** Rapid frosting of the view window can be avoided by directing ricocheting media away from the window, and by installing a cover lens on the inside surface of the window. Using cover lenses prolongs the life of the view window.
- **7.2.2** The best way to install a cover lens is to remove the window from the cabinet. If, for some reason, it is not practical to remove the window, the lens may be applied with the window glass in place.
- **7.2.3** To install a cover lens, carefully remove the adhesive backing making sure the adhesive remains on the lens, and apply the lens to the clean, dry, inner surface of the view window. When the cover lens becomes pitted or frosted, replace it.

## 7.3 Blast Hose and Nozzle, Refer to Figure 19

- **7.3.1** When replacing blast hose make sure the hose is square cut and that it is fully inserted into the nozzle holder and coupling until it seats tightly against the shoulder in the holder and coupling. Make sure correctly sized screws are used to secure the nozzle holder and blast hose coupling. Screws should not penetrate the inside of the blast hose.
- **7.3.2** Replace the nozzle when its inside diameter has increased by 1/16", or sooner if pressure diminishes noticeably. Make sure the nozzle washer is in good condition and in place before screwing the nozzle into the nozzle holder. Make sure the nozzle is screwed tightly into the nozzle holder; if nozzle is not tight against the nozzle washer, thread erosion will occur and nozzle will fuse to nozzle holder.



## 7.4 View Window Replacement

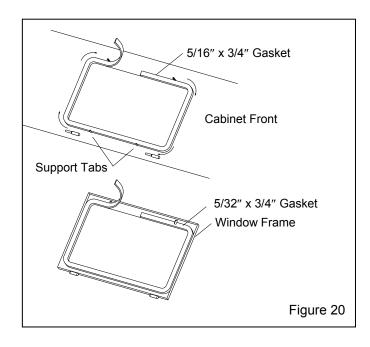
## **A** WARNING

Do not use plate glass for replacement view windows. Plate glass shatters on impact and could cause severe injury. Use only genuine replacement parts.

- **7.4.1** Remove the two window frame nuts located on the upper edge of the window frame, and swing the window frame open. NOTE: If the frame is to remain open, for cleaning or other reasons, remove it per Section 7.6.
- **7.4.2** Remove the old window.
- **7.4.3** Inspect the window frame gaskets, on both the window frame and on the cabinet. If either gasket is damaged, replace it per section 7.5.
- **7.4.4** Install view window cover lens per Section 7.2.
- **7.4.5** Set the new window (cover lens down) squarely over the window opening, making sure that all edges of the window are centered and overlapping the window gasket, and that the window is resting on the window support tabs.
- **7.4.6** Swing the window frame into place and tighten the frame nuts.

## 7.5 Window Gasket Replacement, Figure 20

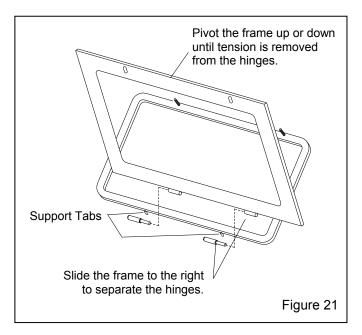
- **7.5.1** Inspect the gaskets when changing the view window. Replace the window frame gasket and cabinet window opening gasket at the first sign of media leakage around the view window, or if gaskets are worn or otherwise damaged.
- **7.5.2** Remove the window and window frame per Section 7.6.
- **7.5.3** Remove all the old gasket material and clean the surfaces of the cabinet and window frame.
- **7.5.4** Peel a short section of adhesive backing from the 5/16"-thick strip gasket, and adhere the gasket to the center of the top edge of the window opening as shown in Figure 20. Peel additional backing as needed, and work the strip around the radius of each corner, pressing it firmly to bond. Trim the gasket to fit and compress the ends to seal.



- **7.5.5** Using 5/32"-thick strip gasket, repeat the process on the underside of the window frame.
- **7.5.6** Trim around the window frame bolts slots, as needed.

## 7.6 Window Frame Removal, Figure 21

**7.6.1** Remove the two window frame nuts located on the upper edge of the window frame, and swing the window frame open.



**7.6.2** Remove the window to prevent breakage.

- **7.6.3** Pivot the window frame up or down until tension is off the frame hinges.
- **7.6.4** To remove, slide the frame to the right. The hinges separate as shown in Figure 21.
- **7.6.5** Replace the frame in reverse order. Align the top bolt holes with the bolts; slide the frame as necessary.
- **7.6.6** Set the window squarely over the window opening, making sure that all edges of the window are centered and overlapping the window gasket, and that the window is resting on the window support tabs.
- **7.6.7** Swing the window frame into place and tighten the frame nuts.

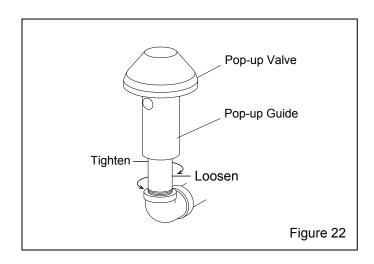
## 7.7 Pop-up Valve Replacement

- **7.7.1** Empty the machine of media as described in Section 4.1.3.
- **7.7.2** Depressurize the blast machine, and lockout and tagout the compressed air supply.

## **A** WARNING

Failure to observe the following procedure before performing any maintenance could cause serious injury or death from the sudden release of compressed air.

- Depressurize the media chamber
- Lockout and tagout the compressed air supply.
- Bleed the air supply line to the media chamber.
- **7.7.3** To gain access to the pop-up valve, remove the inspection door assembly.
- **7.7.4** Use a short pipe wrench to unscrew the pop-up valve guide as shown in Figure 22, by turning it counterclockwise. Remove the pop-up valve and guide from the machine.
- **7.7.5** Slide the new pop-up valve over the guide, and then screw the valve guide (with the pop-up valve on it) into position inside the machine. Tighten the guide wrench-snug, but not wrench-tight. Over-tightening the guide will make it difficult to remove next time the pop-up valve needs replacement.



**7.7.6** Put a new gasket on the inspection door, then bolt the door onto the machine.

## 7.8 Pop-up Valve Seat Replacement

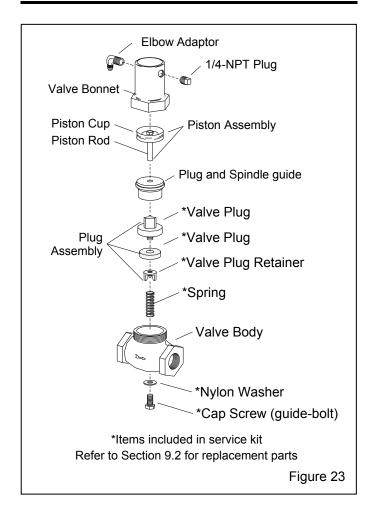
- **7.8.1** The easiest method to replace the rubber popup seat is through the reclaimer access door. If for any reason replacement cannot be made through the reclaimer, observe the warning in Section 7.7, and empty the machine and bleed the air supply line. Remove the inspection door assembly and work through the opening.
- **7.8.2** Remove the old seat by using a finger, screwdriver, or similar object, to work the seat out of the retainer groove.
- **7.8.3** Push the new seat all the way through the port and then fit it into the groove. For the last few inches, pull up on the seat and allow it to "pop" into position.

## 7.9 Reclaimer Wear-Plate Replacement

- **7.9.1** Remove the reclaimer inlet adaptor and old wear plate. The wear plate is held in place with screws attached from the outside of the reclaimer; remove the screws and pull out the wear plate from the reclaimer inlet.
- **7.9.2** Angle the new wear plate into reclaimer inlet until it is in position with the straight end at the reclaimer inlet. Using a board or similar object for leverage, pry the wear plate against the inner wall of the reclaimer. While forcing the wear plate against the reclaimer wall, install sheet metal screws through the old screw holes to secure. Caulk seems between the wear plate and reclaimer to prevent rapid wear in those areas.

## 7.10 TLR Piston Outlet Valve, Figure 23

- **7.10.1** All service on the outlet valve must be done with the air OFF and the air supply locked-out and tagged-out. It is not necessary to remove the valve from the blast machine.
- **7.10.2** Remove the control hose from the valve bonnet's elbow adaptor. Note: The elbow adaptor and plug do not need to be removed unless they need to be replaced.
- **7.10.3** Use a large wrench to loosen the bonnet from the valve body, until it can be removed by hand.
- **7.10.4** To remove the bonnet, lift it straight up until the piston rod clears the spindle guide.
- **7.10.5** Remove the spindle, plug assembly, and spring from the valve body.
- **7.10.6** Remove the piston from the bonnet by pulling the piston rod.
- **7.10.7** Inspect all parts for wear and damage as follows:
- Inspect the valve plug washer, valve plug, and plug retainer for damage. Replace all damaged parts.
   When reassembling the valve plug assembly, tighten the retainer enough to compress the washer, but not so tight to cause it to bulge.
- Examine the body casting for wear. If the body or the machined seat is worn, replace the body.
- Examine the spring guide-bolt and nylon washer. If either is worn, replace both.
- The spring is approximately 1-5/8" long; if it is abrasive worn, rusty, or compressed, replace it.
- The piston cup should fit snugly against the bonnet's cylinder wall. If it does not, replace the piston assembly.
- The piston rod should be free of deep abrasion and move freely in the spindle guide's bore. If it is badly abraded, drags in the bore, or is loose in the bore, replace the piston assembly.
- **7.10.8** Lubricate the cylinder wall and piston cup with lightweight machine oil or tool oil.
- **7.10.9** Install the piston into the bonnet's cylinder. Cocking the piston so it enters the bonnet at a slight angle, and rotating it while applying pressure makes assembly easier. Do not push the piston fully into the bonnet; the rod should be even with the opening.
- **7.10.10** Place the spring over the guide-bolt, and place the plug assembly (retainer down) on the spring.



- **7.10.11** Place the spindle in the body. The large opening faces down, and fits over the plug fins. The spindle shoulder will not rest on the valve body due to the force of the spring.
- **7.10.12** To assemble the bonnet to the valve body, first insert the piston rod into the spindle guide hole. While keeping the bonnet, spindle, and body aligned, screw the bonnet onto the body. If all parts are correctly aligned, the body will screw on hand-tight until it is seated. **NOTE:** If the bonnet does not screw on hand tight, do not force it; recheck alignment and repeat assembly.
- **7.10.13** After the bonnet is fully seated on the body, tighten the assembly with a wrench.
- **7.10.14** Attach the control hose to the fitting on the bonnet.

## 7.11 Reverse-Pulse Dust Collector

Reverse-pulse dust collectors are covered in a separate manual.

#### 8.0 TROUBLESHOOTING

## **A** WARNING

To avoid serious injury, observe the following when troubleshooting.

- Turn OFF the air, and lockout and tagout the air supply.
- When checking the controls requires air, always enlist the aid of another person to:
  - · Hold the nozzle securely.
  - Operate the foot pedal.
- Never bypass the foot pedal or wedge it in the operating position.
- Never override the door interlock system.

## 8.1 Poor visibility

- **8.1.1** Dirty filter cartridges. Refer to the reverse-pulse dust collector manual to adjust pulse pressure and pulse sequence.
- **8.1.2** Exhauster motor not operating. Check voltage to motor and motor wiring.
- **8.1.3** Check rotation of exhauster motor; the motor should rotate as indicated by the arrow on the housing. If it does not rotate in the proper direction, **lockout and tagout electrical power** and switch the motor leads as shown on the motor plate. Refer to Section 2.11.
- **8.1.4** Using friable media that rapidly breaks down or using media that is too fine or worn out.
- **8.1.5** Outlet damper closed too far restricting air movement through the cabinet. Adjust static pressure per Section 5.3.
- **8.1.6** Cabinet air-Inlet damper closed too far restricting air movement in the cabinet. Adjust damper per Section 2.13 and 5.6.
- **8.1.7** Reclaimer door open.
- **8.1.8** Hole worn in flex hose between cabinet hopper and reclaimer inlet or between the reclaimer and dust collector. Replace hose and route it with as few bends as possible to prevent wear.
- **8.1.9** Obstruction in flex hose between the cabinet hopper and reclaimer inlet.
- **8.1.10** Nozzle worn. Replace the nozzle when its orifice diameter has increased by 1/16".

## 8.2 Abnormally high media consumption

- **8.2.1** Fill door on reclaimer open or worn door gasket. Air entering the reclaimer around the door will cause media carry-over to the dust collector. DO NOT operate unless all doors are closed.
- **8.2.2** Dust collector damper open too far. Adjust static pressure per Section 5.3.
- **8.2.3** Media may be too fine or worn-out.
- **8.2.4** Using friable media that rapidly breaks down.
- **8.2.5** Blast pressure too high for the media, causing media to break down.
- **8.2.6** Hole worn in reclaimer or leak in reclaimer seams. Check entire reclaimer for negative-pressure leaks.
- **8.2.7** Metering valve requires adjustment. Adjust media flow per Section 5.2.
- **8.2.8** Externally-adjustable vortex cylinder requires adjustment, refer to Section 5.4.

## 8.3 Reduction in blast cleaning rate

- **8.3.1** Low media level. Check media level and refill if low.
- **8.3.2** Media/air mixture out of adjustment. Adjust metering valve per Section 5.2.
- **8.3.3** Reduced air pressure. This may be caused by a malfunctioning regulator, a dirty filter element in air filter, partially closed air valve, leaking air line, or other air tools in use.
- **8.3.4** Blockage in nozzle. Blockage may occur as a result of a missing debris screen.
- **8.3.5** Moist media. Frequent bridging or blockage in the area of the metering valve can be caused by moisture. See Section 8.5.
- **8.3.6** Air leaking through the outlet valve, reducing blast pressure and control pressure to media metering valve. Inspect outlet valve for leaks.

## 8.4 Plugged nozzle

**8.4.1** A damaged or missing reclaimer screen will allow large particles to pass and block the nozzle. Inspect screen and replace or re-install as necessary.

## 8.5 Media bridging

- **8.5.1** Frequent bridging or blockage in the media metering valve can be caused by damp media. Media becomes damp by blasting parts that are slightly oily, from moisture in the compressed-air line, or from absorption from ambient air.
- **8.5.2** To avoid contaminating media from the workpiece, all parts put into the cabinet should be clean and dry. If parts are oily or greasy, degrease and dry them prior to blasting.
- **8.5.3** Moist compressed air may be due to a faulty compressor that overheats, or pumps oil or moisture into the air line, too long an air line permitting moisture to condense on the inside, and from high humidity. Drain the air filter and receiver tank regularly. Ongoing problems with moist air may require the installation of an air dryer or aftercooler in the air supply line.
- **8.5.4** Absorption. Some media types tend to absorb moisture from the air, especially fine-mesh media in areas of high humidity. Empty the media and store it in an airtight container when cabinet is not in use.
- **8.5.5** A vibrator mounted either on the blast machine leg or on a bolt on the media metering valve may help to prevent bridging of fine-mesh media. NOTE: To avoid the possibility of compressing media, a vibrator should be setup to start only when the foot pedal is pressed.

# 8.6 Neither media nor air comes out the nozzle when foot pedal is pressed

- **8.6.1** Depressurize the blast machine, and check the nozzle to see if it is plugged. See Section 8.4.
- **8.6.2** Make sure the blast machine pressurizes when the foot pedal is pressed. If it does not pressurize, refer to Section 8.7.
- **8.6.3** Make sure the media metering valve and the choke valve are open.

## 8.7 Blast machine does not pressurize

- **8.7.1** Make sure the air compressor is operating and air supply valves are open.
- **8.7.2** Make sure the pressure regulator is not set too low of OFF. Minimum pressure is 40 psi. See Section 5.1.
- **8.7.3** Door interlocks not engaging. Check door interlock adjustment per Section 5.5.

- **8.7.4** Inadequate air supply. Refer to the table in Figure 2.
- **8.7.5** Inspect pop-up valve and seat for wear and alignment.
- **8.7.6** Blocked or leaking control line. Check all fittings and urethane tubing for blockage or leaks.
- **8.7.7** Foot pedal valve malfunction. Check foot pedal for alignment, and inlet and outlet lines for pressure.
- **8.7.8** Make sure the lines are not reversed on the foot pedal or pilot regulator. Refer to the schematic in Figure  $^{4}$
- **8.7.9** Check the 4-way valve per Paragraphs 8.11.5 and 8.11.6.
- **8.7.10** Inspect the check valve for obstruction or broken flap.

# 8.8 Blast machine does not depressurize or depressurizes too slowly

- **8.8.1** Check for blockage in the 4-way valve mufflers.
- **8.8.2** Make sure the 3-way valve in the foot pedal exhausts air when the pedal is released. If it does not exhaust, check the inbound air line for blockage, if no blockage, replace the valve.
- **8.8.3** Check the outlet muffler that is located inside the cabinet, for blockage.
- **8.8.4** Check 4-way air valve for jamming per Paragraphs 8.11.5 and 8.11.6.
- **8.8.5** Check for blockage in the screen in the optional abrasive trap.

## 8.9 Heavy media flow

- **8.9.1** Make sure the choke valve is open.
- **8.9.2** Media metering valve open too far. Adjust per Section 5.2. If adjusting the media valve does not regulate media flow, empty the machine, depressurize the machine, and inspect the internal parts of the valve for wear.
- **8.10 Media surge:** A small amount of surge is normal at start-up.
- **8.10.1** Heavy media flow. Adjust per Section 5.2

- **8.10.2** Empty the blast machine, depressurize the blast machine, and inspect the internal parts of the metering valve for wear.
- 8.11 Air only (no media) comes out the nozzle
- **8.11.1** Make sure the machine contains media.
- **8.11.2** Make sure the media metering valve is not closed. Adjust media flow per Section 5.2.
- **8.11.3** Make sure the media metering valve opens when foot pedal is pressed. Refer to the metering valve owner's manual.
- **8.11.4** Check for minor blockage in the media metering valve by fully opening the metering valve, and closing the choke valve. Activate the foot pedal to blow out obstructions. If this procedure fails, depressurize the machine, open the metering valve clean out cap and check for foreign objects.
- **8.11.5** Check the muffler on the 4-way air valve. Air should exhaust from the muffler when the foot pedal is pressed. If air does not exhaust, remove the muffler and try again. If air exhausts now, the muffler is blocked. If air still does not exhaust, the 4-way valve may be faulty, refer to Paragraph 8.11.6 to check the 4-way valve.
- **8.11.6** Check the 4-way valve as follows: Depressurize the air supply line. Remove the tubing leading to either the media metering valve or outlet valve. Pressurize the air supply line. No air should exhaust from the tube adaptor. Press the foot pedal, air should start exhausting at the adaptor, and stop when pressure on the pedal is released. If it does not operate accordingly, the 4-way valve is faulty or air supply is insufficient.
- **8.11.7** Metering valve requires service. Refer to the media metering valve manual
- 8.12 Media buildup in cabinet hopper, does not convey to reclaimer
- **NOTE:** Do not pour media directly into the cabinet hopper, as overfilling may occur. Overfilling will result in media carryover to the dust collector and possible blockage in the conveying hose.
- **8.12.1** Exhauster motor rotating backwards. The motor should rotate as indicated by the arrow on the exhauster housing. If it does not rotate in the proper direction, **lockout** and **tagout** electrical power and switch the motor leads as shown on the motor plate. Refer to the system's wiring schematic. Refer to Sections 2.11.2.

- **8.12.2** Dust collector damper closed too far restricting air movement through cabinet. Adjust static pressure per Section 5.3.
- **8.12.3** Dust collector filter cartridge(s) clogged. Refer to the dust collector owner's manual.
- **8.12.4** Hole worn in flex hose between cabinet hopper and reclaimer inlet or between the reclaimer outlet and dust collector inlet. Replace hoses and route them with as few bends as possible to prevent wear.
- **8.12.5** Reclaimer door open. DO NOT operate unless door is closed.
- **8.12.6** Obstruction in flex hose. Remove hoses and check for blockage.

#### 8.13 Static shocks

- **8.13.1** Cabinet and/or operator not grounded. Media blasting creates static electricity. The cabinet must be earth-grounded to prevent static build-up. Refer to Sections 2.4.1 and 2.10. If shocks persist, the operator may be building up static. Attach a small ground wire, such as a wrist strap, from the operator to the cabinet.
- **8.13.2** Gloves wearing thin. Inspect gloves and replace them as needed.
- **8.13.3** Avoid holding parts off the grate. Static will build-up in the part if not dissipated through the metal cabinet.

## 8.14 Dust leaking from cabinet

**8.14.1** Refer to Section 8.12.

## 8.15 Dust leaking from dust collector

**8.15.1** Damaged or loose filters. Inspect filters, replace as needed. Refer to the dust collector owner's manual to service reverse-pulse dust collectors.

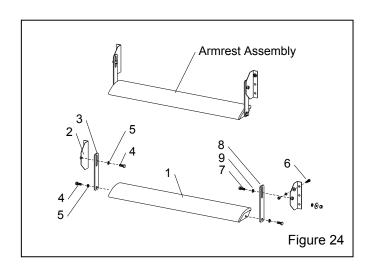
## 9.0 ACCESSORIES AND REPLACEMENT PARTS

## 9.1 Optional Accessories

Description	Stock No.
Time-delay door lock assembly	15012
Armrest assembly	12528
Noise-reduction arm port covers, pair Lock pins (pkg of 25) for twist-on hose coupl Anti-fatigue floor-mat, for front of cabinet	ings 11203
Rubber curtain set, black for 6060A	27769
for 7070ARubber curtain set, white	
for 6060Afor 7070A	
HEPA Filter, for use with reverse-pulse dust of 900 cfm free standing floor mount	23626
Storage segment, 16": Fits between reclaimer and blast machine. Provides nearly 2 cubic feet of additional media storage	у
Supa hose, 3/4" ID x 25 feet, uncoupled NOTE: Supa hose requires the use of contr nozzle holder and nozzle.	
Nozzle holder w/contr. thread, for 3/4" Supa h Coupling, for 3/4" Supa hose	11395
Nozzle, short venturi for use with 3/4" ID Sup TYP-3, 3/16" orifice TYP-4, 1/4" orifice TYP-5, 5/16" orifice	23501 23502

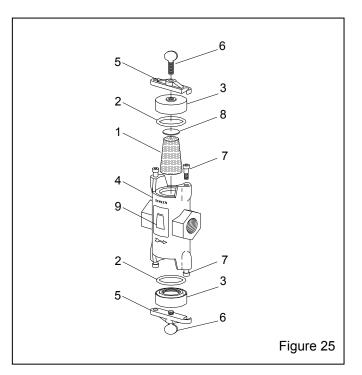
## Armrest, Figure 24

ltem	Description	Stock No.
(-)	Armrest assembly for one station	24900
1.	Armrest, replacement	24899
2.	Bracket, armrest cabinet, each	24896
3.	Support bar, adjustable, each	24895
4.	Cap screw, 3/8-NC x 1"	03252
5.	Washer, 3/8 lock	03318
6.	Cap screw, 5/16-NC x 1"	03152
7.	Nut, 5/16-NC hex	03211
8.	Washer, 5/16 flat	03216
9.	Washer, 5/16 lock	03217



## **Abrasive Trap, Figure 25, Optional**

Item	Description	Stock No.
(-)	Abrasive trap, complete	02011
1.	Screen	02012
2.	O-Ring	02013
3.	Cap	02014
4.	Body	02015
5.	Lock bar	02016
6.	Screw, 3/8" x 1" thumb	03289
7.	Shoulder screw, 3/8" x 3/8"	03291
8.	Gasket, screen	02434
9.	Decal	02129
(-)	Service kit (items 1, 2, 8 and 9)	01925



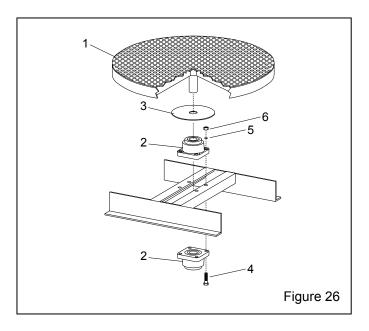
## **Turntables and Turntables with Tracks**

## **A** 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.

## Fixed-base Turntable with Bearing, 500 lb. Capacity, Figure 26

Item	Description	Stock No.
(-)	30" diameter	14138
(-)	40" diameter	24042
(-)	48" diameter, for 7070A only	13845
1.	Turntable, replacement	
	30" diameter 500 lb. capacity	21390
	40" diameter 500 lb. capacity	23879
	48" diameter 500 lb. capacity	21400
2.	Bearing, 1-1/2" bore (48" table require	es 2) 11517
3.	Protector, bearing	13479
4.	Bolt, 1/2-NC	
	2" long for 30" and 40" turntable	03456
	2-1/2" long for 48" turntable	03457
5.	Lock-washer, 1/2"	03516
6.	Nut, 1/2-NC hex	03511



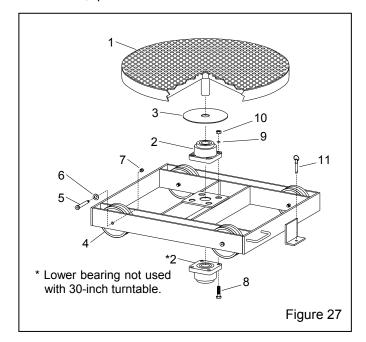
## **Turntable with Workcar and Track**

2000 lb. capacity turntable mounted on workcar with 9 ft. (nominal) track extension

30" diameter for 6060A	25550
48" diameter for 6060A.	27055
48" diameter for 7070A	25555

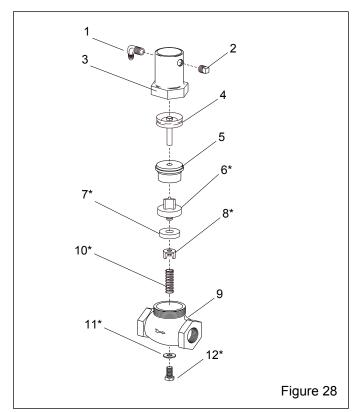
## Turntable with Workcar, 2000 Capacity, Figure 27

Description Stock No.
Turntable, replacement 30" diameter for 6060A and 7070A 27727
48" diameter for 6060A and 7070A 27728
Bearing, 1-1/2" bore, 1 req'd for 30" table
2 required with 48" table 11517
Protector, bearing 13479
Wheel, 6" V groove 12220
Bolt, 1/2" shoulder 13477
Washer, 1/2" flat 03515
Nut, 3/8 lock 03312
Bolt, 1/2-NC
2" long for 30" turntable 03456
2-1/2" long for 48" turntable 03457
Washer, 1/2" lock 03516
Nut, 1/2-NC hex
Pin, quick release25540



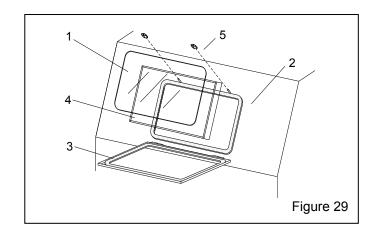
## 9.2 1" Piston Outlet Valve, Figure 28

Item	Description	Stock No.
(-)	1" Piston outlet valve, complete	01967
1.	Adaptor elbow, 1/4" NPT x 3/8" tube Not included with replacement valve	11685
2.	Plug, 1/4" NPT	
3.	Bonnet	
4.	Piston and rod assembly	01976
5.	Plug and spindle guide	
6.*	Valve plug, (1)	01972
7.*	Washer, valve plug, (2)	01969
8.*	Retainer, valve plug washer, (1)	01986
9.	Valve body	01968
10.*	Spring, 7/16" x 1-5/8" long (1)	01974
11.*	Nylon washer	01979
12.*	Cap screw, 3/8-NC x 3/4"	03251
(-)	Service kit, includes items marked *,	
	quantities are shown in ( )	01928



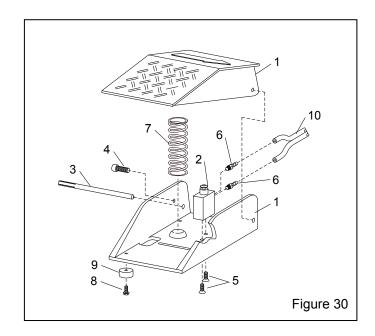
## 9.3 View Window Assembly, Figure 29

ltem	Description	Stock No.
1.	Window glass, 20" x 30" laminated	12213
2.	Gasket, 5/16" x 3/4", applied to cabine	et
	per foot, 9 feet required	00189
3.	Gasket, 5/32" x 3/4", applied to windo	W
	Frame, per foot, 9 feet required	00192
4.	Cover lens, 20" x 30", pkg. of 5	23232
5.	Nut, plastic, window frame, 2 required	l 23035

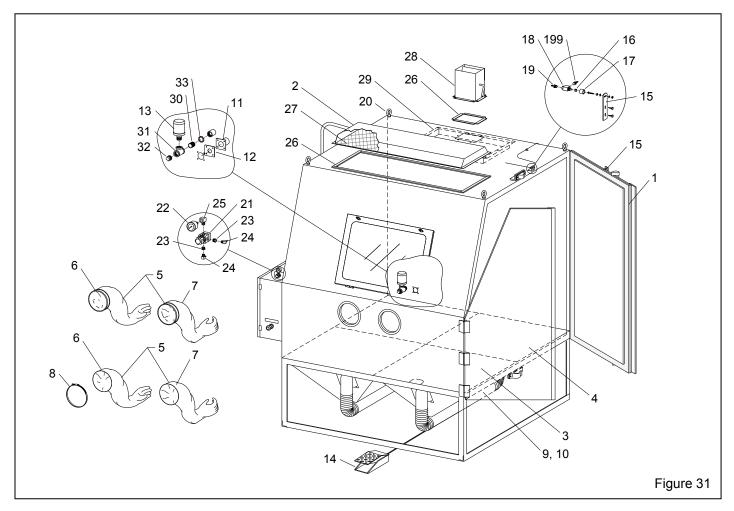


## 9.4 Foot Pedal Assembly, Figure 30

Item	Description	Stock No.
(-)	Foot pedal assembly,	
	less tubing	20483
	with tubing, 14 feet Item 10	20195
1.	Foot pedal casting set, top and base	28379
2.	Valve, 10-32, 3 way n/c	20026
3.	Drive pin, grooved	20109
4.	Screw, sh 1/4 NF x 3/4"	03086
5.	Screw, 10-32 x 1/2" fh	19571
6.	Adaptor, 10-32 thrd. x 1/8 barb	11731
7.	Spring, 1-1/4" x 3-1/2"	20121
8.	Screw, 8-32 x 3/8" thread cutting	11389
9.	Bumper, rubber (feet)	21522
10.	Tubing, 1/8" ID twin, specify ft. require	d 19577

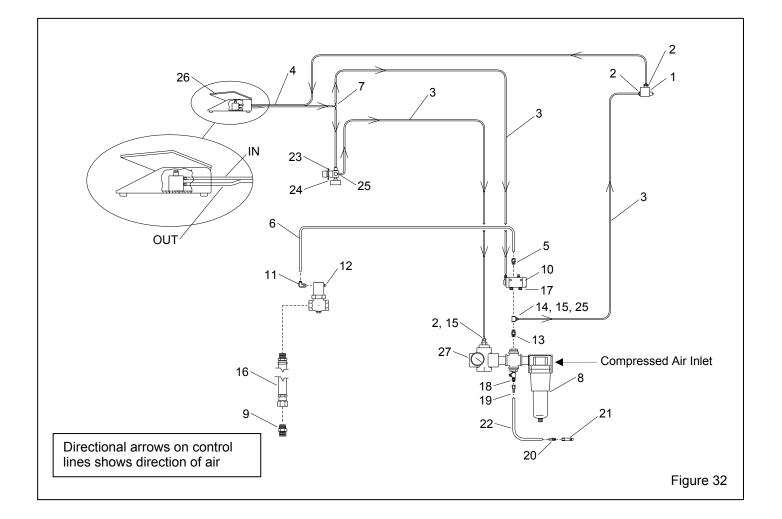


9.5	Cabinet Replacement Parts, Figure	31	11. 12.	Support adaptor, blast hose
Item	Description	Stock No.	12. 13.	Gasket, blast hose support adaptor 13426 Muffler, outlet
1.	Gasket, door, adhesive-backed, per for 24 ft. for 6060A, 28 ft. for 7070A		14.	Foot pedal assembly, less tubing
2.	Light assembly, does not include lampuse 48", T-8, 32 watt lamps		15.	with tubing, 14 feet
3.	Grate, slotted front for 6060A	25155	16. 17. 18.	Over-travel stop, door interlock
4.	for 7070A Grate, unslotted for 6060A		19. 20.	Fitting, straight,, 1/8" NPT x 1/8" barb11732 Eyebolt, 5/8"13421
5.	for 7070A (3 required)	12970	21. 22. 23.	Regulator, 1/4-NPT pilot with gauge
6.	Quick-Change (clampless) attachm Glove, left hand only Band-clamp attachment		24. 25 26.	Fitting, 1/8" NPT elbow x 1/8" barb
7.	Quick-Change (clampless) attachm Glove, right hand only Band-clamp attachment	12711	27. 28. 29.	per foot, specify feet required
8. 9. 10	Quick-Change (clampless) attachm Clamp, for clamp-attached glove Grommet, blow off hose Grommet, blank	11576 11798	30. 31. 32. 33.	Nipple, 1" x close       01701         Tee, 1" pipe       01789         Plug, 1" pipe       01761         Nut, 1" lock       11917



9.6	Plumbing and Air Schematic, Figure 32
Item	Description Stock No.
1.	Valve, 3 way12202
2.	Adaptor, 1/8" NPT x 1/8" barb 11732
3.	Tubing, 1/8" ID urethane, specify ft. reqd 12475
4.	Tubing, 1/8" ID twin urethane
	specify feet required19577
5.	Adaptor, straight 1/4" NPT x 3/8 tube 11736
6.	Tubing, 3/8" OD poly, specify feet req'd 12478
7.	Tee, 1/8" tube barb11734
8.	Filter, 1" w/ auto drain22425
9.	Adaptor, 1" male NPT x 1" male flare 11720
10.	Valve, 4-way air12203
11.	Adaptor, elbow 1/4" male NPT x 3/8 tube 11685

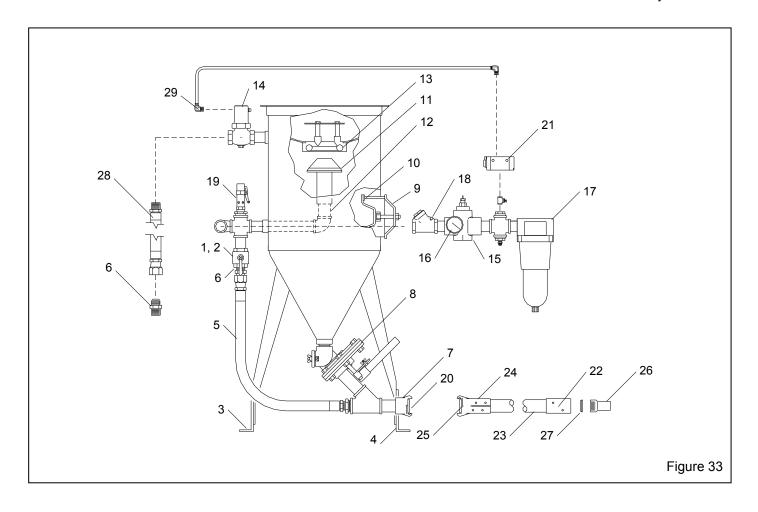
12.	Valve, 1" piston outlet01967
13.	Nipple, 1/4" Hex02808
14.	Tee, 1/4" brass02025
15.	Bushing 1/4" x 1/8" NPT02010
16.	Hose assembly, 1" x 10' exhaust23915
17.	Muffler, 1/4" bronze03988
18.	Adaptor, 1/2" NPT x 1/2" male flare11351
19.	Hose end, 1/2" barb x 1/2" female swivel 15002
20.	Hose end, 1/2" barb x 3/8" male NPT 06369
21.	Blow-off nozzle13116
22.	Hose, 1/2" ID air, specify feet required 12472
23.	Regulator 1/8", pilot12715
24.	Gauge, pressure01908
25.	Adaptor, 1/8" NPT elbow x 1/8" barb 11733
26.	Foot pedal assembly, less tubing20483
27.	Regulator, 1" pilot operated w/ gauge 12052



9.7	Blast Machine and Accessories, Figu	ire 33
Item	Description S	Stock No.
(-)	Media chamber Assembly, 2 cu. ft. capa (includes all items not marked with *)	
1.	Ball valve, 1" with handle (choke valve)	
2.	Handle, 1" ball valve	
3.	Leg pad, right for 1642	20735
4.	Leg pad, left for 1642	20736
5.	Hose, cpld. 1"x 32" pusher line	
6.	Adaptor, 1" male NPT x 1" male flare	11720
7.	CF Coupling	
8.	FSV Media metering valve	02427
9.	Inspection door assembly, 6" x 8"	02377
10.	Gasket, 6" x 8" inspection door	02369
11.	Pop-up valve with external sleeve	03699
12.	Guide 1-1/4" x 6" toe	01722
13.	Seat, pop-up valve	02325

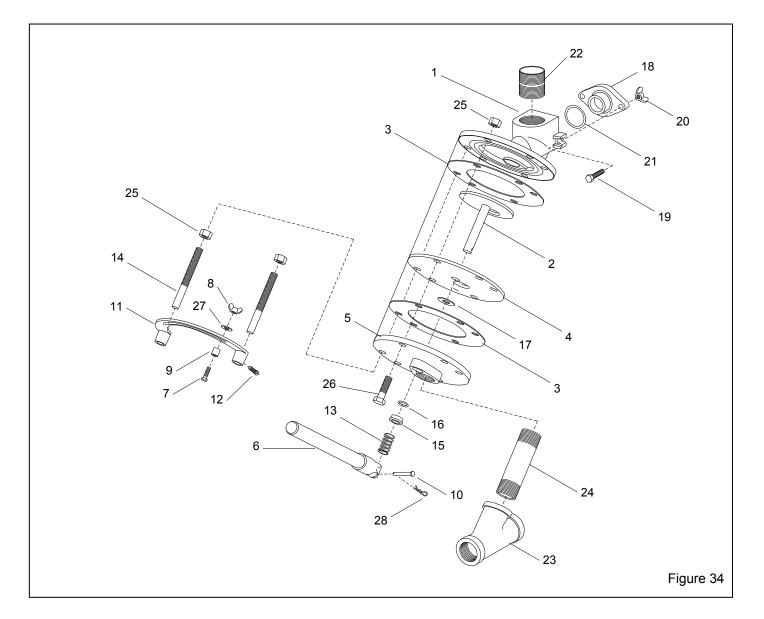
14. 15.	Valve, 1" piston outlet
16.*	Gauge, 1/4" cbm01908
17.	Filter, 1" manual drain
18.	Check valve, 1" swing12187
19.	Relief valve, 3/4" NPT, 65 psi10715
20.*	Gasket, for CF coupling, pack of 10 00850
21.	Valve, 4-way air12203
22.	Nozzle holder, 3/4" Supa hose11398
23.	Hose, 3/4" ID Supa, bulk, 16 ft. required 23100
24.	Coupling, 3/4" Supa hose, CQPS-3/4 11395
25.*	Gasket, CQGP-1 coupling, pack of 10 08852
26.	Nozzle, tungsten carbide short venturi
	*TYP-4, 1/4" orifice23502
	TYP-5, 5/16" orifice (standard) 23503
	*TYP-6, 3/8" orifice
27.*	Nozzle washer, NW-25, pack of 10 91024
28.	Hose assembly, 1" x 10' exhaust
29	Adaptor, elbow 1/4" male NPT x 3/8 tube11685

<sup>\*</sup> Not included with media chamber assembly



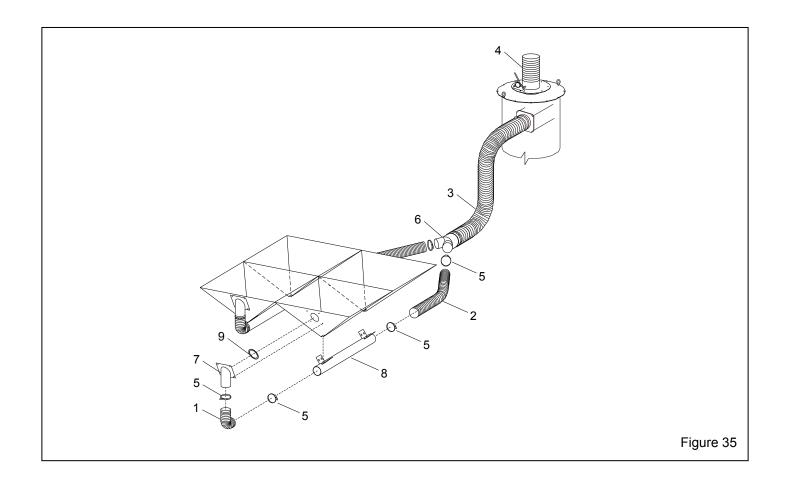
9.8	FSV Media Metering Valve, Figure	ring Valve, Figure 34		
Item	Description	Stock No.		
(-)	Media valve, complete	02427		
`1.	Upper body			
2.	Valve disc			
3.	Gasket, rubber, 2 required			
4.	Disc, stainless	02425	2	
5.	Lower body		2	
6.	Metering handle, heavy duty	20498	2	
7.	Cap screw, 1/4" NC x 1" hex head	03053	2	
8.	Wing nut, 1/4" NC	03113	2	
9.	Handle bolt spacer	02431	2	
10.	Valve handle pin	20246	2	
11.	Gauge unit	02433	2	

12.	Set screw, 1/4" NC x 1/2" square head	03080
13.	Spring, compression	
14.	Stud	02436
15.	Packing gland	02437
16.	O-ring, 7/8" OD	21165
17.	Gasket, shaft	
18.	Inspection plate	02440
19.	Cap screw 5/16" NC x 1" hex head	03152
20.	Wing nut, 5/16" NC	03213
21.	O-Ring	01990
22.	Nipple, heavy wall 1-1/2" x close	01791
23.	Wye, standard 1-1/4"	01818
24.	Nipple, heavy wall 1-1/4" x 5"	01860
25.	Nut, 1/2" NC hex	03511
26.	Cap screw, 1/2" NC x 1-3/4" hex head	03455
27.	Washer, 1/4" flat	03116
28.	Pin, hairpin cotter	20245



9.9	Flex Hose, Pipe, and Adaptors, Figural All hose is sold per foot unless noted, some trimming may be necessary.	pecify feet
Item	Description	Stock No.
1.	Hose, light-lined flex, 2-ft required per 4" ID for 900 cfm conventional use 4" ID for 1200 cfm w/steel media 5" ID for 1200 cfm conventional use 5" ID for 1800 cfm w/steel media	12466 12466 12467 12467
2.	6" ID for 1800 cfm conventional use Hose, light-lined flex, 5-ft required per 4" ID for 900 cfm conventional use 4" ID for 1200 cfm w/steel media 5" ID for 1200 cfm conventional use 5" ID for 1800 cfm w/steel media 6" ID for 1800 cfm conventional use	side 12466 12466 12467
3.	Hose, light-lined flex, 9-ft required 6" ID for 900 cfm conventional use . 6" ID for 1200 cfm w/steel media 7" ID for 1200 cfm conventional use . 7" ID for 1800 cfm w/steel media 8" ID for 1800 cfm conventional use .	12468 12469 12469
4.	Hose, unlined flex, specify feet require 7" ID for 900 cfm	ed 12448

5.	Clamp, hose       11577         for 4" hose       11578         for 6" hose       00750         for 7", 8", and two for 12" hose       11576
6.	Wye pipe adaptor, 4" x 4" x 6" 900 conv'l and 1200 cfm w/steel 12379 5" x 5" x 7"
	1200 conv'l and 1800 cfm w/steel 16939 Consult Clemco distributor for larger sizes
7.	Air intake adaptor, hopper, each
•	4" for 900 cfm conventional use
	4" for 1200 cfm w/steel media
	5" for 1200 cfm conventional use 24527
	5" for 1800 cfm w/ steel media 24527
	6" for 1800 cfm conventional use 24528
8.	Hopper pipe, bolt on, each
	4" for model 6060A, 900cfm 24517
	5" for model 6060A, 1200 cfm 24518
	6" for model 6060A, 1800 cfm 24519
	4" for model 7070A, 900 cfm 24534
	5" for model 7070A 1200 cfm 24535
^	6" for model 7070A, 1800 cfm 24536
9.	Gasket, 5/16" x 1" adhesive-backed, per foot, specify feet required 00187



9.10	Reclaimer,	for 16 "	Dia.	Blast	Machine
	Figure 36				

NOTE: Flex hose, clamps and lower adhesive-backed gasket are not supplied with replacement reclaimers.

ltem	Description	Stock No.
1.	Gasket, 5/16" x 1" adhesive-backed,	
	specify feet required, 5 feet used	00187
2.	Inlet pipe adaptor	
	900 cfm, 6"	12363
3.	Gasket, inlet adaptor	
	900 cfm 6"	11759
4.	Wear plate, rubber-lined w/mntg screv	NS
	900 cfm with bolt-on top	25071
5.	Screen assembly,	
	4.5 mesh without magnets	21275
	4.5 mesh with magnets	
	G	

6.	Door assembly, w/gasket and latch14271
7.	Gasket, door11745
8.	Spring latch assembly12263
9.	Gasket, 2" adhesive-backed, per foot,
	specify ft. required13089
10.	Vortex cylinder assembly, adjustable,
	900 cfm23046
11.	Top assembly, 900 cfm 23040
12.	Eyebolt 3/8-NC00430
13.	Adaptor, 16" dia. blast machine, 900 cfm 23043
14.	Body section with door and wear plate
	for reclaimers with bolt-on top only27465
*15.	Hose, light-lined flex, specify feet required
	6" ID for 900 cfm12468
*16.	Clamp, hose
	For 900 cfm, 6-1/2"00750
*17.	Hose support inlet, optional for 900 cfm only
	6", standard use16887
*18.	Hose support, 7" outlet, option for 900 20619

