Instructions

EcoQuip 2™ EQm
Vapor Abrasive Blast System

3A3489T

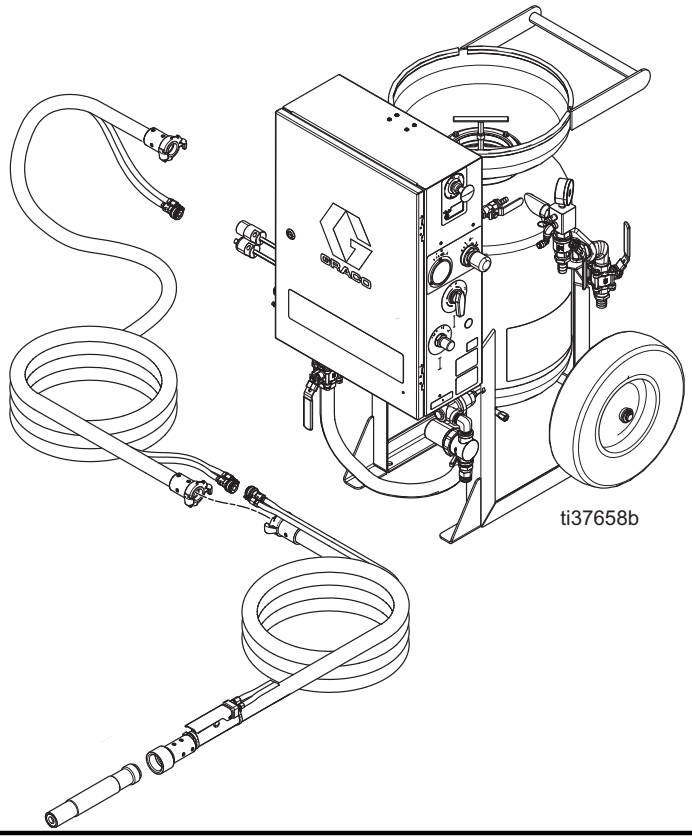
EN

Vapor abrasive blast system for coating removal and surface preparation.
For professional use only.

175 psi (12.06 bar, 1.2 MPa) Maximum Air Working Pressure

See page 3 for models and approval information.

Important Safety Instructions
Read all warnings and instructions in this manual before using this equipment.
Save these instructions.



PROVEN QUALITY. LEADING TECHNOLOGY.

Contents

Related Manuals

Manual in English	Description
3A7467	EcoQuip 2 EQs,EQc, and EQ Trailer Unit Vapor Abrasive Blast System
313840	DataTrak™
333397	Pump
335035	Air Inlet Kit
309474	Low Pressure Fluid Regulators
3A3838	Nozzle Pressure Verification Kit
3A3839	Nozzle Extension Handle Kit
3A3970	Water Dose Kit
3A3971	Mobile Water Tank Kit

Models

EcoQuip 2 Vapor Blast Systems				
Model	Part	Blast Control		Approvals
		Pneumatic	Electric	
EQm	262950	✔	✔	CE
	262951	✔		CE Ex II 2 G Ex ia h IIA T3 Gb X

Packages

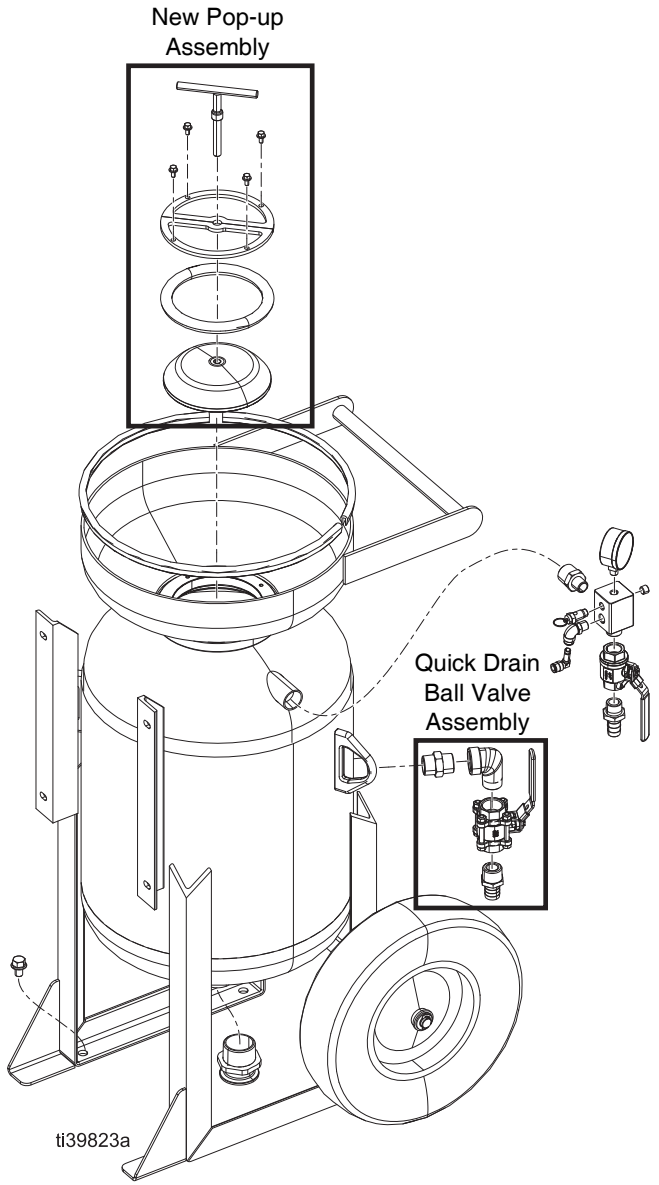
NOTE: Packages include a blast hose with electric or pneumatic blast controls and a tool kit.

EcoQuip 2 Vapor Blast System Packages						
Model	Package	Included System	Blast Control		Blast Hose	Nozzle
			Pneumatic	Electric		
EQm	262952	262950	✔		100 ft, 1.00 in. ID	#7 Standard
	262953			✔		
	262954	262951	✔			

Series Change

The EcoQuip pressure pot has been updated with a new pop-up assembly and the addition of a quick drain ball valve assembly to simplify the process for filling and draining the pot.

System Series D (262950, 262951)



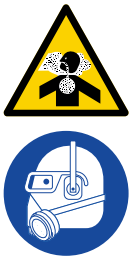
Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual or on warning labels, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

⚠ WARNING

SPECIFIC CONDITIONS OF USE (ATEX systems only)

- Ground all equipment in the work area. See **Grounding (ATEX systems only)** Instructions.
- All label and marking material must be cleaned with a damp cloth (or equivalent).



DUST AND DEBRIS HAZARD

Use of this equipment can result in the release of potentially harmful dust or toxic substances from the abrasive being used, the coatings being removed, and the base object being blasted.

- For use only by sophisticated users familiar with applicable governmental safety and industrial hygiene regulations.
- Use equipment only in a well-ventilated area.
- Wear a properly fit-tested and government approved respirator suitable for the dust conditions.
- Follow local ordinances and regulations for disposal of toxic substances and debris.

PRESSURIZED EQUIPMENT HAZARD

Fluid from the equipment, leaks, or ruptured components can splash in the eyes or on skin an cause serious injury.

- Follow the **Pressure Relief Procedure** when you stop spraying/dispensing and before cleaning, checking, or servicing equipment.
- Tighten all fluid connections before operating the equipment.
- Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately.

⚠ WARNING

EQUIPMENT MISUSE HAZARD

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Specifications** in the equipment manuals.
- Do not use this equipment without hose restraints and coupler pins installed on all air and blast hose couplings.
- Do not blast unstable objects. The high amount of fluid flow from the nozzle can potentially move heavy objects.
- Do not exceed load ratings of lift eyes.
- Do not operate equipment on or stand on an unstable support. Keep effective footing and balance at all times.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Specifications** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer.
- Never use 1, 1, 1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use could result in a chemical reaction, with the possibility of explosion.
- Do not leave the work area while equipment is energized or under pressure.
- Turn off all equipment and follow the **Pressure Relief Procedure** when equipment is not in use.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.
- Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards.
- Make sure all equipment is rated and approved for the environment in which you are using it.
- Use equipment only for its intended purpose. Call your distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

BURN HAZARD

Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:

- Do not touch hot fluid or equipment.

FIRE AND EXPLOSION HAZARD

Flammable fumes, such as solvent, in work area can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well ventilated areas.
- Abrasive material exiting blast nozzle can generate sparks. When flammable liquids are used near the blast nozzle or for flushing or cleaning, keep the blast nozzle at least 20 feet (6 meters) away from explosive vapors.
- Ground all equipment in the work area. See **Grounding (ATEX systems only)** instructions (ATEX systems only).
- Keep work area free of debris, including solvent, rags and gasoline.
- Keep a working fire extinguisher in the work area.

⚠ WARNING

MOVING PARTS HAZARD

Moving parts can pinch, cut, or amputate fingers and other body parts.

- Keep clear of moving parts.
- Do not operate equipment with protective guards or covers removed.
- Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the **Pressure Relief Procedure** and disconnect all power sources.

RECOIL HAZARD

Blast nozzle may recoil when triggered. If you are not standing securely, you could fall and be seriously injured.

PRESSURIZED ALUMINUM PARTS HAZARD

Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.

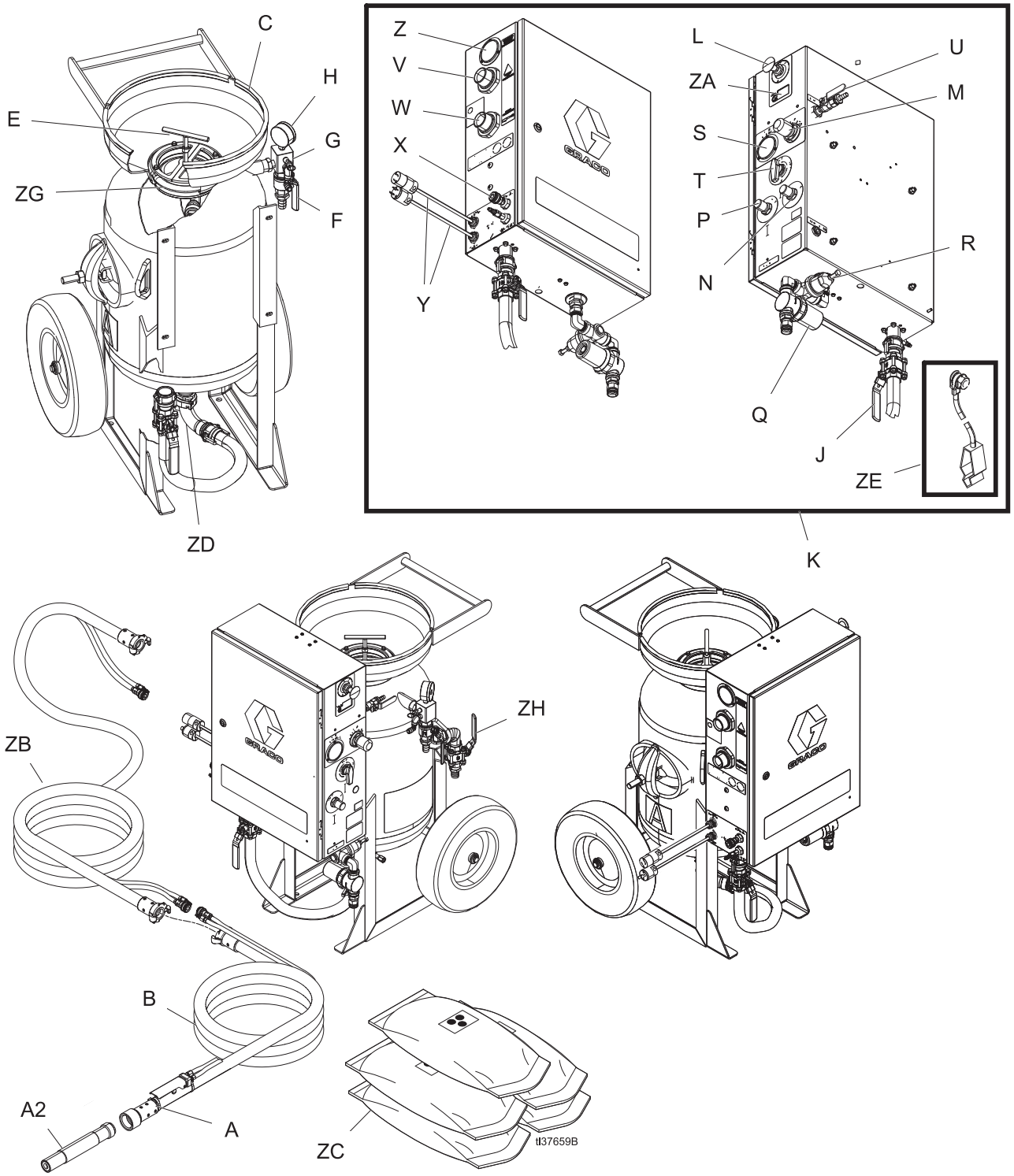
- Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.
- Do not use chlorine bleach.
- Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.

PERSONAL PROTECTIVE EQUIPMENT

Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:

- Protective eyewear and hearing protection
- Protective clothing, shoes and gloves
- Properly fit-tested and government approved respirator subtable for the dust conditions

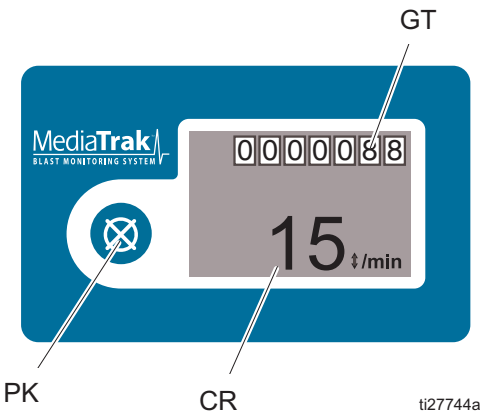
Component Identification



Key:

A	Blast Control Switch
A2	Blast Nozzle
B	Blast Hose
C	Pot
E	Pot Seal Plunger
F	Pot Dump Valve
G	Pressure Relief Valve
H	Pot Pressure Gauge
J	Abrasive Ball Valve
K	Control Box
L	Emergency Stop
M	Blast Air Regulator
N	Water Dose Valve
P	Abrasive Metering Valve
Q	Water Pump Inlet Filter
R	Inlet Water Pressure Regulator
S	Blast Air Pressure Gauge
T	Selector Valve
U	Rinse Ball Valve
V	Air Supply Connection
W	Blast Connection
X	Pneumatic Control Connection
Y	Electric Control Connection (non-ATEX systems only)
Z	Supply Pressure Gauge
ZA	MediaTrak
ZB	Accessory Extension Hose
ZC	Abrasive Material
ZD	Pot Outlet Manifold
ZE	Ground Wire and Clamp (ATEX systems only)
ZG	Pop-Up Seal
ZH	Quick Drain Valve

MediaTrak Controls



Key:

PK	Power Key
CR	Cycle/Rate
GT	Grand Totalizer

Installation

Grounding (ATEX systems only)

The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.

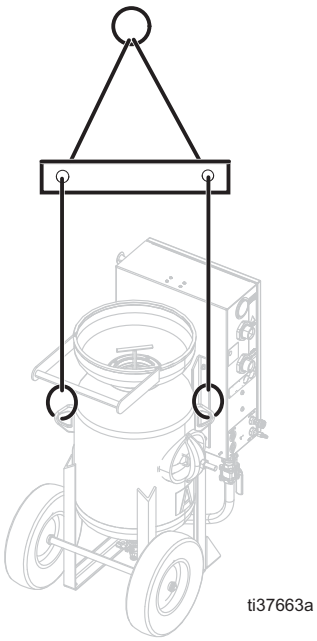
Systems: Use supplied ground wire and clamp (237686).

Air and fluid hoses: Use only genuine Graco conductive blast hoses with a maximum of 150 ft (45 m) combined blast hose length to ensure grounding continuity. Check the electrical resistance of the blast hoses. If the total resistance to ground exceeds 29 megaohms, replace the blast hose immediately.

Air compressor: Follow manufacturer's recommendations.

Lifting the System

- Before lifting the system, drain the water tank and pot of media and water.
- Lift the system with a lift apparatus rated appropriately for the weight of the system. See , page 50.
- Do not lift the system by the handle on the EQm pot.
- Lift the system using the lift eyes shown on the following illustration.



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Blast Hose Selection

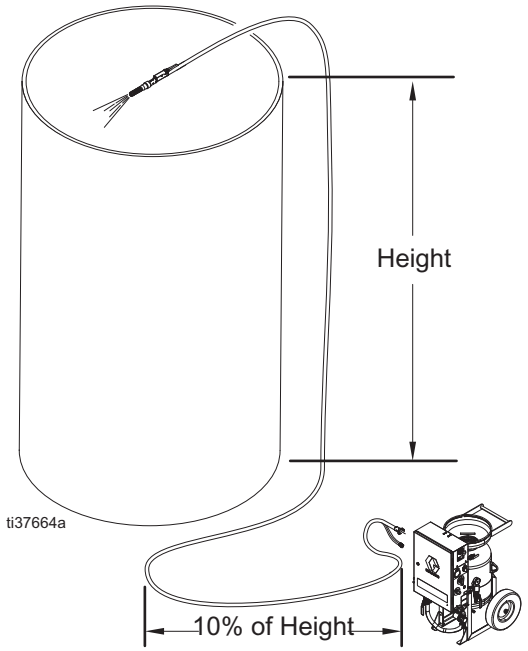
Make sure to use the correct type of blast control. An electric or pneumatic blast control switch can be used with hose lengths less than 150 ft (45 m). Blasting with 150 ft (45 m) or more of blast hose requires the use of an electric blast control switch.

Blasting on Higher Surfaces

NOTICE

When blasting on a surface higher than the equipment, make sure that there is a length of blast hose on the ground equal to 10-20% of the height. The hose on the ground prevents unspent abrasive in the hose from backing up into the internal plumbing of the panel, which can cause damage to the main air regulator when the blast switch is disengaged.

For example: When blasting 50 feet (15 m) straight up, use at least 10 feet (3 m) of blast hose on the ground before the blast hose goes up to the blasting height.



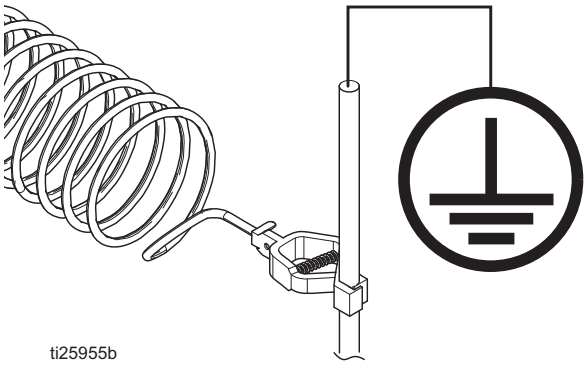
Pinch Hose Inspection

Inspect the pinch hose at the start of each job, or monthly, looking for “bubbles” in the outer casing. If bubbles in the casing are found, replace the pinch hose (see **Replace the Pinch Hose**, page 35). Keep a spare pinch hose on the job site in case of failure. See **Vapor Abrasive Blast Systems and Accessories**, page 47.

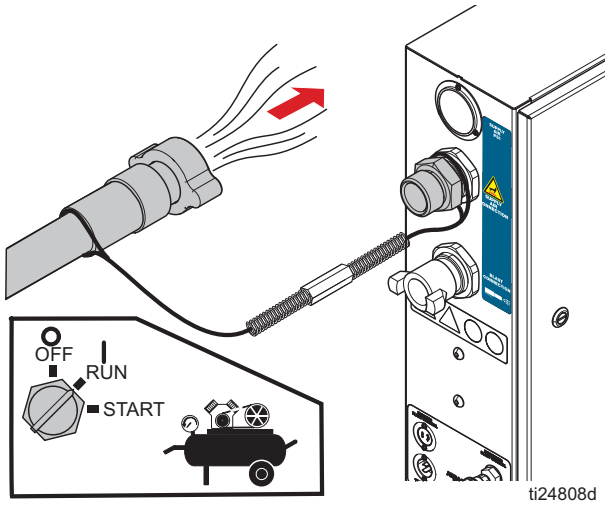
NOTE: There are three main factors that can affect (diminish) the life of the pinch hose: abrasive media used (course/sharp), blast control switch trigger rate (high), and the air inlet pressure to the system (high). If your setup reflects one or more of these factors, inspect the pinch hose at the start of each job, and weekly thereafter for signs of failure (bubbling).

Connect the Blast Hose and Air Hose

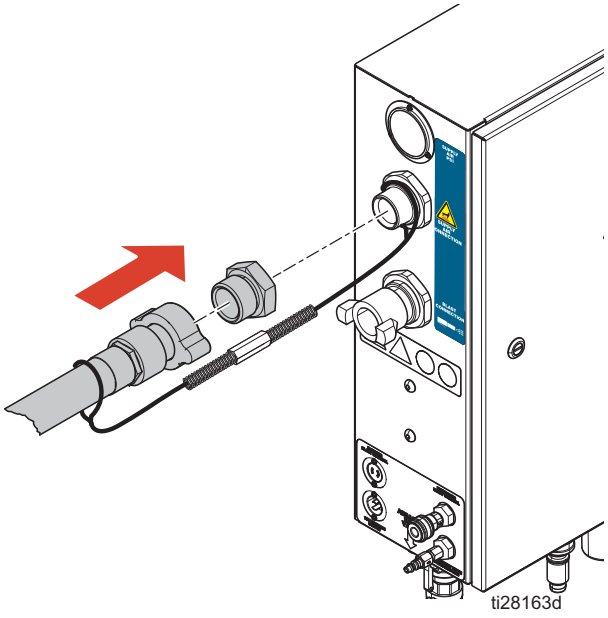
1. **ATEX models only:** Connect the grounding cable to th external ground stud on the enclosure, then connect the clamp to a true earth ground.



2. Always purge the air supply hose for 15-20 seconds before connecting the air supply hose from the compressor (or on-site compressed air source) to the panel. Make sure all debris is cleared from the hose.

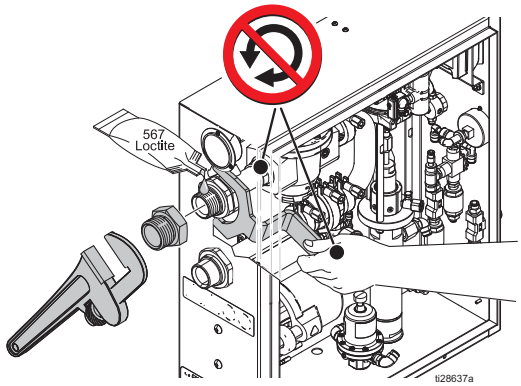


3. Connect an appropriately sized air supply hose to the air inlet and install coupler pins. See **Technical Specifications**, page 51.



NOTICE

Damage to the tubing connections on the blast control can occur if the blast circuit is allowed to rotate. To avoid damage, use the supplied wrench to hold the blast circuit nut inside the enclosure while installing fittings to the air inlet and blast hose connections.

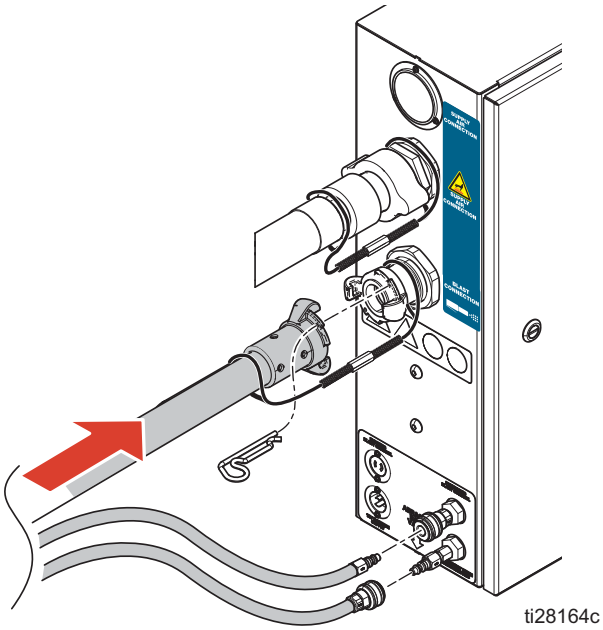


4. Open the compressor air supply valve (175 psi, 12.06 Bar, 1.2 MPa maximum compressor supply).

NOTE: Make sure the air supply meets the appropriate air flow requirements. See , page 50.

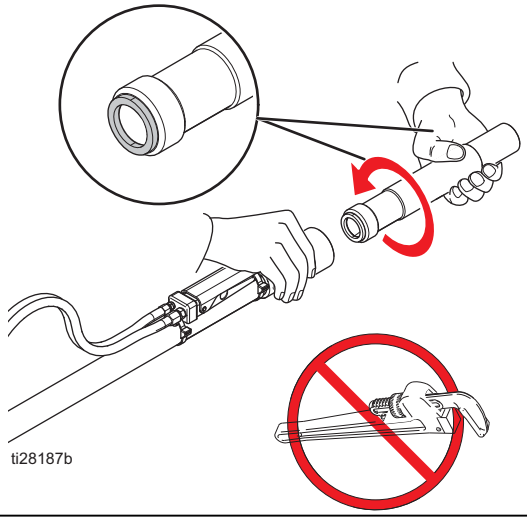
Failure to fully secure the blast hoses may cause hoses to detach during operation. To help prevent serious injury from flying debris, always install the blast hose restraints and coupler pins.

5. Connect the blast hose, hose restraints, control hoses, and coupler pins.



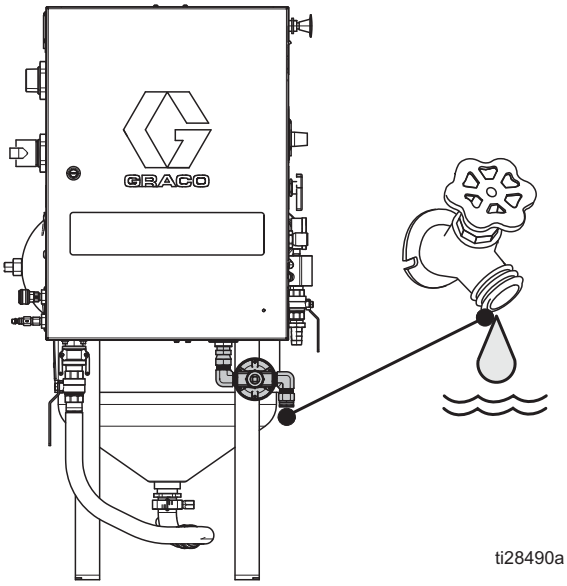
NOTICE

Do not use a wrench when installing the nozzle. Damage to the seal could occur. To avoid seal damage, always hand-tighten the nozzle.



Connect the Water Supply

1. Connect to a water supply hose with a minimum ID of 3/4 in. (19 mm) to the garden hose connection on the pump inlet.

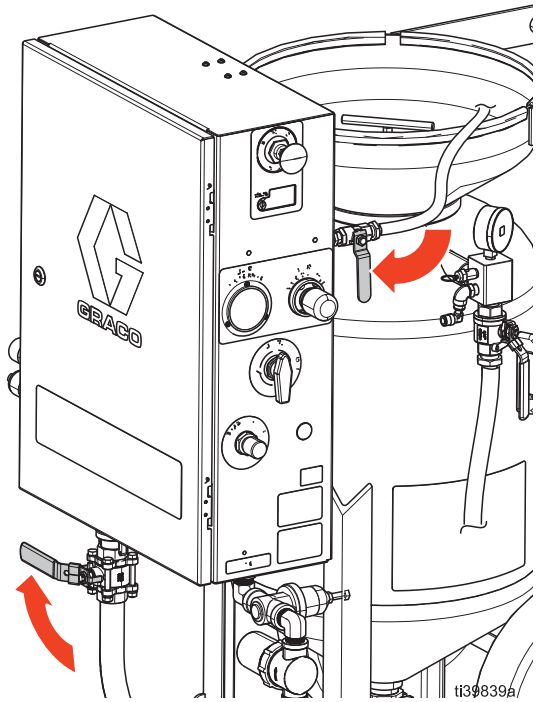


NOTE: The maximum water supply pressure is 100 psi (6.8 bar, 0.68 MPa). The minimum flow requirements is 3 gpm (11 lpm).

Setup

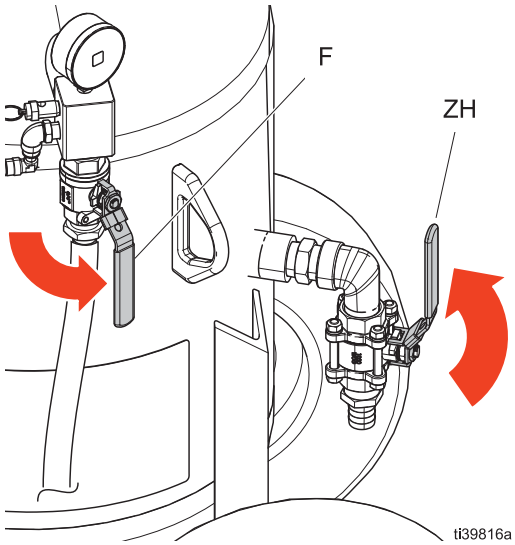
Fill Pot with Abrasive Media

1. Verify that the pot seal plunger (E) is in the DOWN position. If the plunger is in the UP position, perform the **Pressure Relief Procedure** on page 17.
2. Verify that all **Installation** procedures, beginning on page 10, have been completed.
3. Close the rinse ball valve (U) and abrasive ball valve (J).

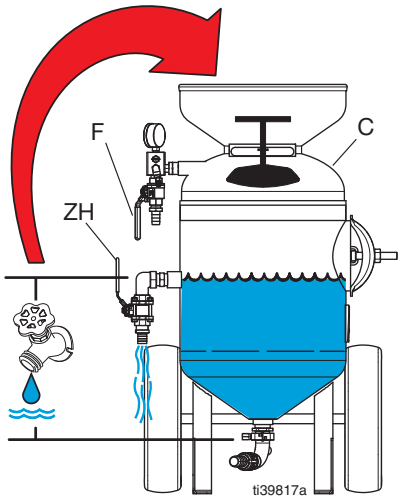


4. Turn the selector valve (T) to OFF.

5. Open the pot dump valve (F) and quick drain valve (ZH).



6. Prepare the pot to accept media:
   - **To fill an empty pot:** Fill approximately half the pot (C) with water, until the water drains from the quick drain valve (ZH). Shut the quick drain valve.
   - **To refill the pot during operation:** Open the quick drain valve (ZH) to drain the water until the pot is approximately half full. Shut the quick drain valve.

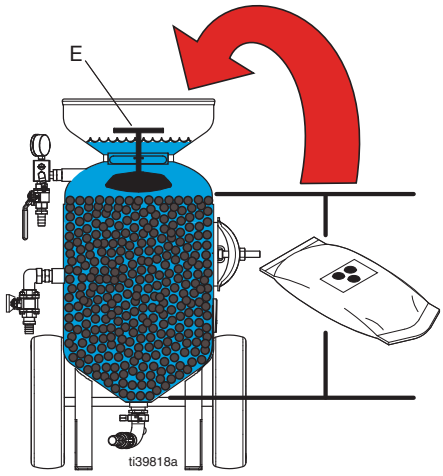


7. **For systems with water tank supply only:** if the water in the tank is less than halfway full, fill the tank with fresh water.

8. Add abrasive media to the pot.

NOTE: The media level should be a few inches below the pot seal plunger (E). Do not overfill the pot with abrasive material, or the pot seal plunger will not be able to seal.

NOTE: As long as the abrasive media is below the plunger, the water level can rise above the pot seal plunger (E) without affecting performance.



9. With a garden hose or the rinse valve (U), wash the abrasive into the pot and clear any abrasive from the pot seal plunger (E) and pot seal gasket.

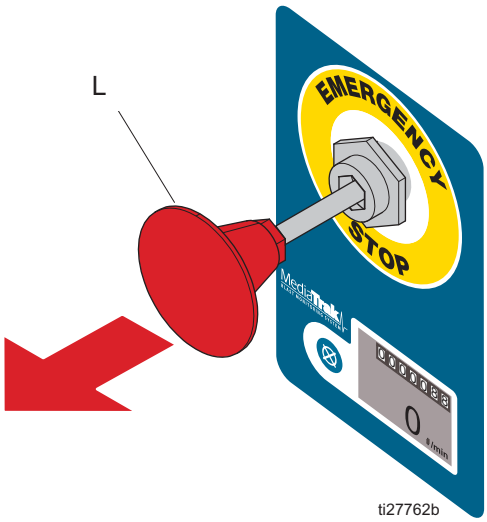
10. Close the pot dump valve (F).

11. Fill the pot with water until the water level is above the pot seal plunger (E).

Pressurize the Pot

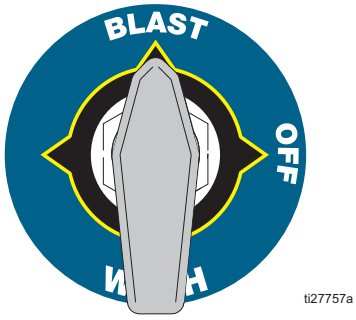
To avoid injury to the operator, always pressurize the pot before opening the abrasive ball valve (J) or engaging the blast control switch (A).

1. Verify that the pot seal plunger (E) is in the down position and the top of the plunger is clean of abrasive media.
2. Verify that the rinse valve (U), abrasive ball valve, (J), the pot dump valve (F), and the quick drain valve (ZH) are closed.
3. Verify that the water level in the pot (C) is above the pot seal plunger (E).
4. Disengage the emergency stop (L).

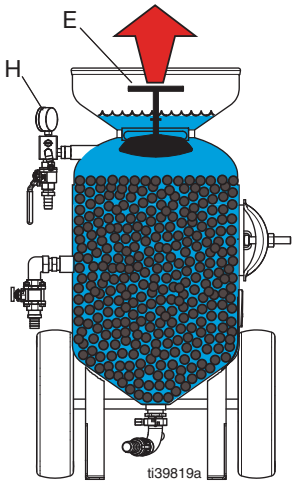


NOTE: The water pump will not work unless the Emergency Stop is disengaged.

5. Turn the selector valve (T) to BLAST



6. Pull upwards on the pot seal plunger (E). Hold until the pot pressure on the pot pressure gauge (H) rises to 185 psi.The pressure holds the pot seal plunger in place.



Operation

This equipment may introduce dust and debris into the air. To help prevent serious injury from flying debris, always wear personal protective equipment while operating the equipment.

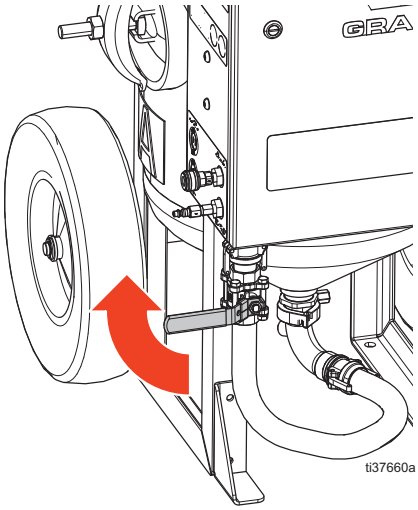
Pressure Relief Procedure

Follow the Pressure Relief Procedure whenever you see this symbol.

This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop spraying and before cleaning, checking, or servicing the equipment.

1. Close the abrasive ball valve (J).

NOTE: If the abrasive ball valve is not closed when the supply air is shut off, gravity will cause abrasive media and water to drain from the pot (C) and into the blast hose (B).

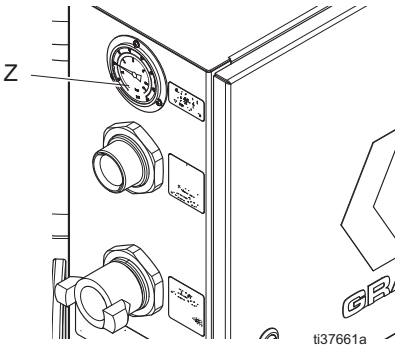


2. Close the compressor supply air valve, then turn the compressor off.

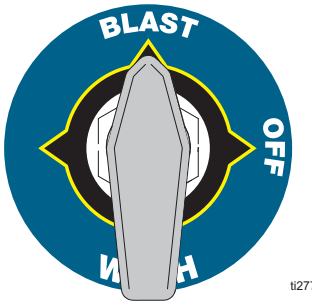
3. Engage the emergency stop (L).

4. Engage the blast control switch (A) to relieve pressure in the system.

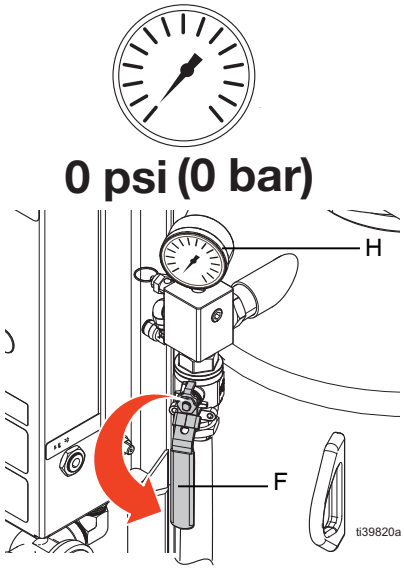
5. Verify that the supply pressure gauge (Z) reads 0 psi. Then disconnect the air inlet hose from the system.



6. Turn the selector valve to BLAST.



7. Open the pot dump valve (F) until the pot pressure gauge (H) reads 0 psi.

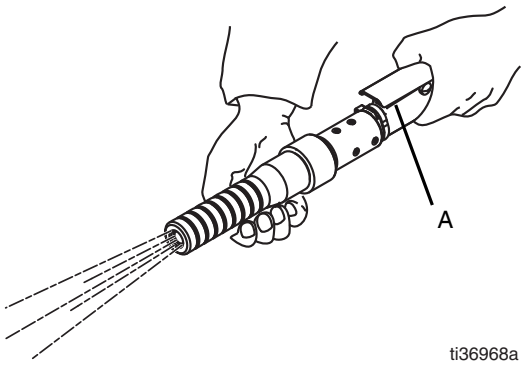


8. Close the pot dump valve (F). Turn the selector valve (T) to OFF.

Adjust Blast Pressure

To avoid injury due to a spray from wet media from the pot, always **Pressurize the Pot**, page 16, before opening the abrasive ball valves (J) and engaging the blast control switch (A).

1. Perform the **Fill Pot with Abrasive Media** procedure on page 14.
2. Perform the **Pressurize the Pot** procedure on page 16.
3. Trigger the blast control switch (A).



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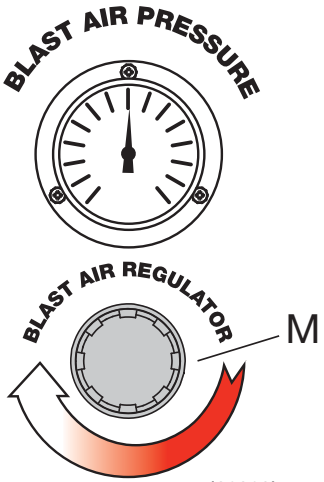
4. Adjust the blast air regulator (M) until the desired pressure appears on the blast pressure gauge (H).

NOTE: Do not increase directly to blast pressure. Always set below the desired pressure, then increase to the actual setpoint.



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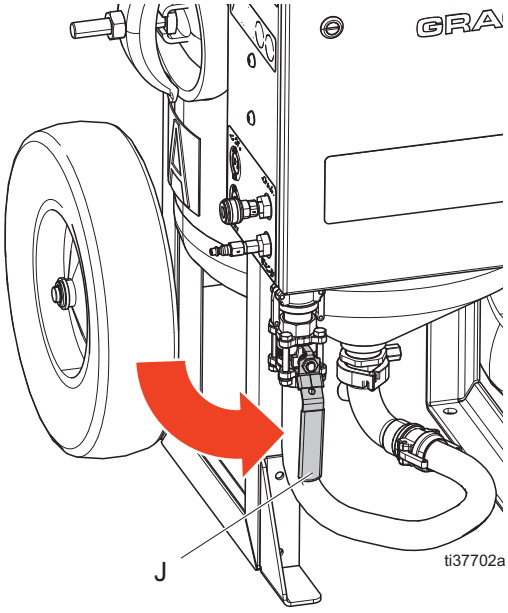
5. Disengage the blast control switch (A).

Adjust Abrasive Media

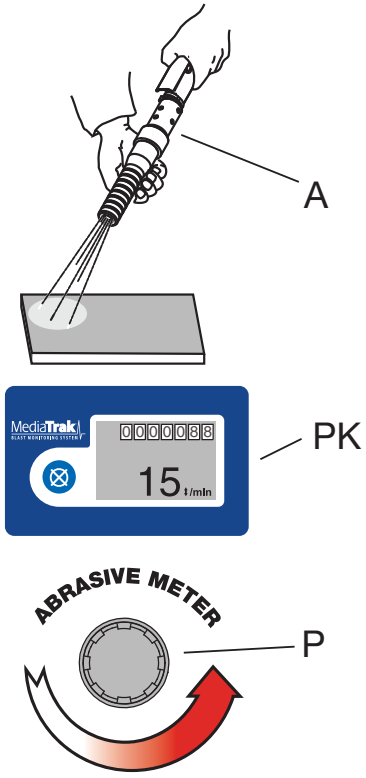
1. Perform the **Adjust Blast Pressure** procedure on page 18.
2. Open the abrasive media ball valve (J). Trigger the blast control switch (A).



3. Turn on the MediaTrak display (PK).
4. Slowly adjust the abrasive meter valve (P) to the desired flow of abrasive media.

NOTE: You may have to wait 1-2 minutes for the abrasive material to reach the nozzle.

NOTE: Use a piece of test material similar to what you will be blasting. Always start as gently as possible and then increase the blast force as necessary to clean without doing any damage to the substrate.



Refill the Pot with Media

As abrasive media leaves the pot during blasting, follow the **Fill Pot with Abrasive Media** procedure, page 14.

NOTE: If the pot loses pressure, follow the **Pressurize the Pot** procedure, page 16.

Set the Abrasive Metering Value

The optimal setpoint of the abrasive metering valve and corresponding MediaTrak CPM value varies significantly depending on application and user desired performance. The **General Application Guides**, page 21, describe the generally accepted range of CPM setpoints based on the substrate and blast pressure setpoint. The gray highlighted area illustrates the typical range of blast pressure setpoints and their corresponding CPM setpoints for that substrate.

To find the recommended CPM setpoint, select the table that most closely matches the substrate that is to be blasted. Determine the blast pressure setpoint based on the media that is being used, and the desired surface profile to be achieved. Then, use the corresponding lines on the chart to select the appropriate CPM setpoint.

For inexperienced users, select a blast pressure near the low end of the highlighted range. Increase blast pressure and CPM until the desired profile and removal rate are achieved.

Optimize the Abrasive Metering Value

To optimize performance, use the High Production or Media Efficient lines on the charts. CPM setpoints near the High Production lines will yield the highest removal rates, and the highest media consumption rates. To maximize removal rate regardless of media consumption, use the highest possible blast pressure and set the CPM to the highest achievable value that produces a consistent pattern. The CPM setpoint is too high if the flow from the nozzle starts to sputter.

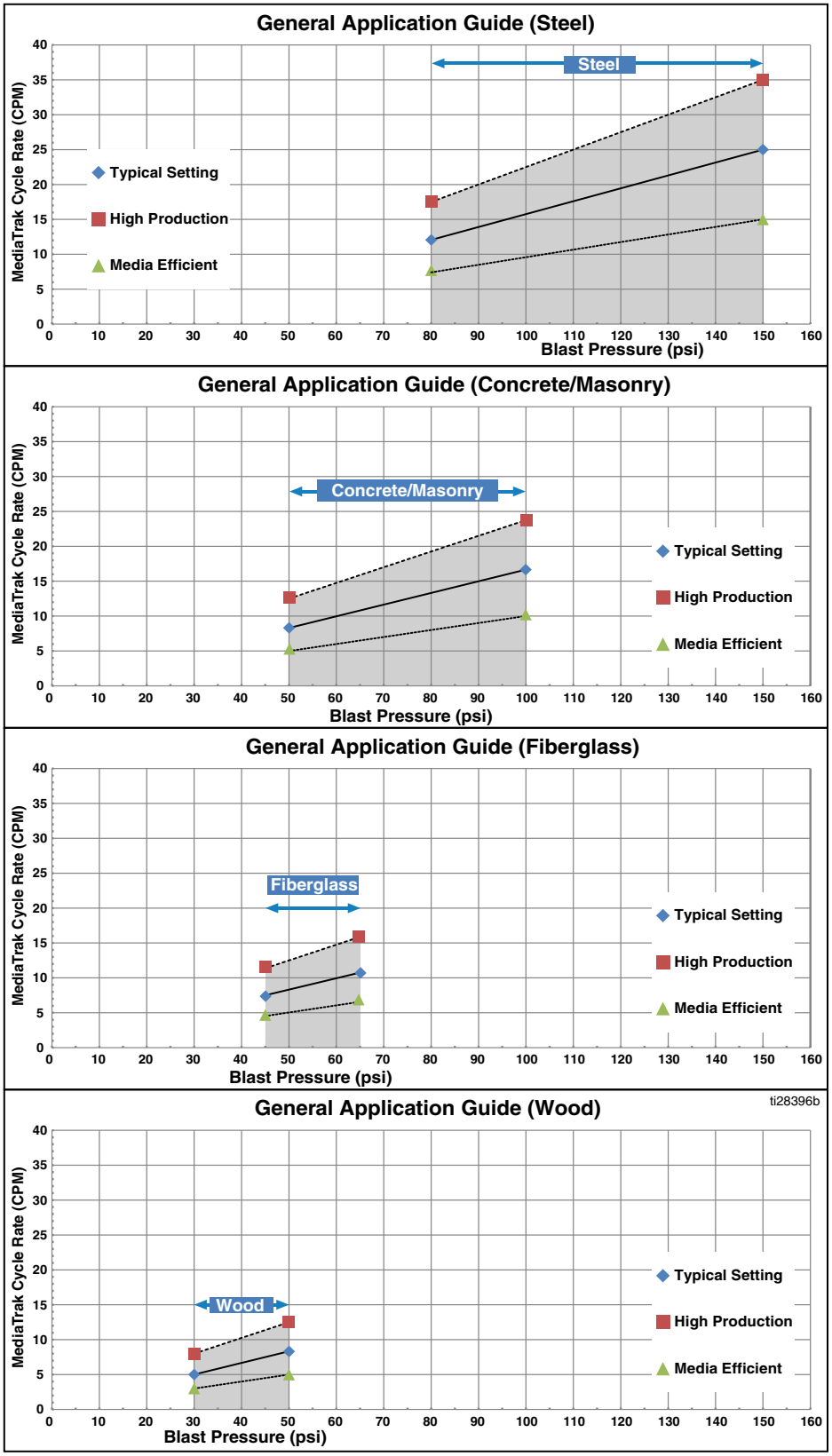
CPM setpoints near the Media Efficient line will use the lowest amount of media. To minimize cleanup and media usage, use a setpoint closer to this line. Generally, removal rates will be less than average when setting the CPM according to this line.

The charts on the following page are only guidelines. They were developed using garnet media in the 30-80 mesh range. Coarser media will produce a deeper profile, but will require higher CPM setpoints to yield similar removal rates to the setpoints shown in the tables. Finer media will yield higher removal rates, but will not produce as deep of a profile.

Fine tuning and experimentation are necessary to optimize performance for each application.

See the **General Application Guides**, page 21.

General Application Guides



Nozzle Selection Guide

Use the **Blast Pressure vs. Air Flow Guide** to determine which nozzle to use to achieve the desired blast pressure based on compressor output.

Blast Pressure vs. Air Flow Guide

Blast Pressure	#6HP CFM (m^3/min)	#7 CFM (m^3/min)	#7HP CFM (m^3/min)	#8 CFM (m^3/min)	#8HP CFM (m^3/min)	#10 CFM (m^3/min)	#10HP CFM (m^3/min)
30 psi (2.0 bar, 0.20 MPa)	78 (2.2)	117 (3.3)	137 (3.9)	151 (4.3)	161 (4.6)	229 (6.5)	224 (6.9)
40 psi (2.8 bar, 0.28 MPa)	90 (2.5)	129 (3.7)	161 (4.6)	181 (5.1)	212 (6.0)	254 (7.2)	286 (8.1)
50 psi (3.5 bar, 0.35 MPa)	117 (3.3)	161 (4.6)	193 (5.5)	200 (5.7)	225 (6.4)	308 (8.7)	337 (9.5)
60 psi (4.1 bar, 0.41 MPa)	137 (3.9)	190 (5.4)	225 (6.4)	234 (6.6)	256 (7.2)	362 (10.3)	391 (11.1)
70 psi (4.8 bar, 0.48 MPa)	166 (4.7)	225 (6.4)	251 (7.1)	269 (7.6)	293 (8.3)	422 (11.9)	447 (12.7)
80 psi (5.5 bar, 0.55 MPa)	188 (5.3)	244 (6.9)	281 (8.0)	298 (8.3)	337 (9.5)	460 (13.0)	498 (14.1)
90 psi (6.2 bar, 0.62 MPa)	210 (5.9)	266 (7.5)	293 (8.3)	317 (9.0)	374 (10.6)	520 (14.7)	562 (16.0)
100 psi (6.9 bar, 0.69 MPa)	239 (6.8)	283 (8.0)	327 (9.3)	378 (10.7)	413 (11.7)	561 (15.9)	601 (17.0)
110 psi (7.6 bar, 0.76 MPa)	256 (7.2)	325 (9.2)	347 (9.8)	420 (11.9)	457 (12.9)	634 (18.0)	664 (18.8)
120 psi (8.3 bar, 0.83 MPa)	273 (7.7)	344 (9.7)	378 (10.7)	452 (12.8)	476 (13.5)	691 (19.6)	720 (20.4)
130 psi (9.0 bar, 0.90 MPa)	288 (8.2)	374 (10.6)	415 (11.8)	493 (14.0)	527 (16.2)	721 (20.4)	759 (21.5)
140 psi (9.7 bar, 0.97 MPa)	313 (8.9)	405 (11.5)	449 (12.7)	530 (15.0)	571 (16.2)	758 (21.5)	797 (22.6)
150 psi (10.3 bar, 1.0 MPa)	331 (9.5)	430 (12.2)	476 (13.5)	558 (15.8)	601 (17.0)	796 (22.54)	853 (24.2)

Legend:

< 185 CFM

185 - 375 CFM

> 375 CFM

Use the Wash Feature

The wash feature uses water (without abrasive) to rinse areas that have been blasted with abrasive. It is also a convenient feature for flushing abrasive from the blast hose.

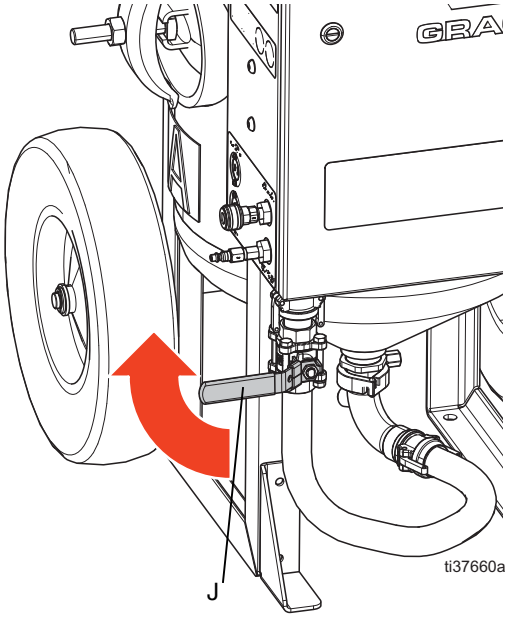
NOTICE

There will always be some residual abrasive in the blast hose. Never use the wash feature on any surface other than where you have blasted, or intend to blast. The wash feature could cause damage to the surface.

NOTICE

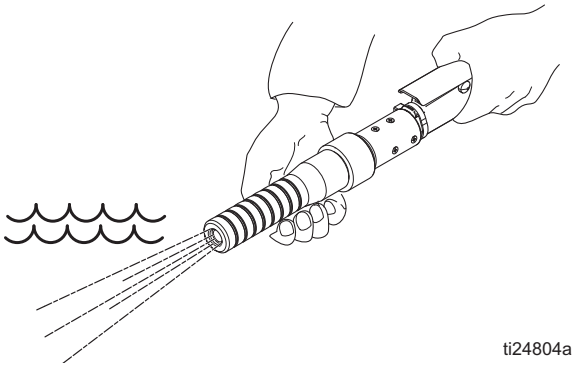
Do not use the wash feature on wood that has been blasted. It could damage the wood and cause the grain to rise. Wait for the wood to dry and then use a broom, brush, or vacuum to remove any residual abrasive.

1. Close the abrasive ball valve (J).



2. Turn the selector valve (T) to WASH.

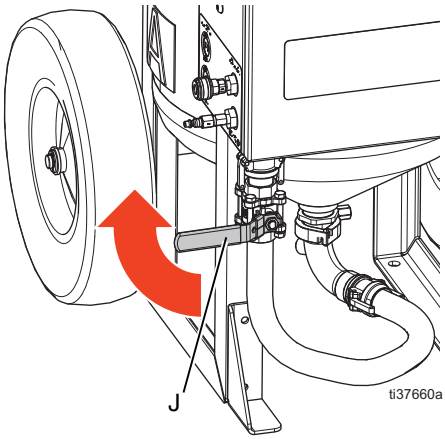
3. Blast 1-2 minutes until the abrasive is cleared from the hose.



4. The equipment is now ready to wash any previously blasted surfaces.

Standby

1. Close the abrasive ball valve (J).



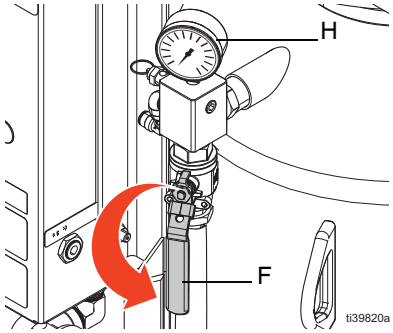
NOTICE

To prevent material from packing out and damaging the blast hoses, do not shut off your air compressor during Standby.

2. Turn the selector valve (T) to OFF.

3. Open the pot dump valve (F) until the pot pressure gauge (H) reaches 0 psi.

0 psi (0 bar)



Shutdown

NOTICE

To prevent material from packing out and damaging blast hoses, ensure that the abrasive ball valves are fully closed before shutting off your air compressor.

1. When you have finished blasting, use the wash feature to flush all of the abrasive from the blast hose. See **Use the Wash Feature**, page 23.

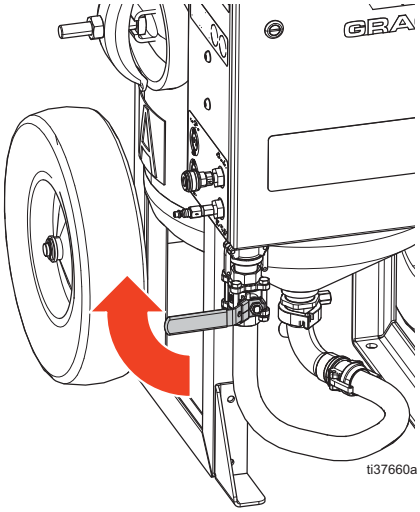
2. Turn the selector valve to OFF, and with the abrasive ball valve closed, continue to blast until water is cleared from the hose. This is to dry the inside of the hose for storage.

3. Perform **Pressure Relief Procedure**, page 17.

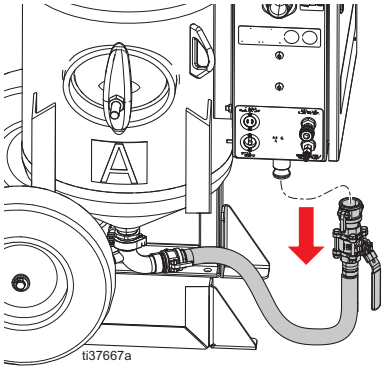
Drain the Pot

NOTE: Before draining the pot, verify that all steps in **Pressurize the Pot**, page 16, have been followed. Check the pot pressure gauge (H) to make sure the pot is pressurized**.**

1. Close the abrasive ball valve (J).



2. Disconnect the abrasive ball valve cam-lock by removing the coupler pins and pulling the rings out and up to pull the two cams away from the groove.

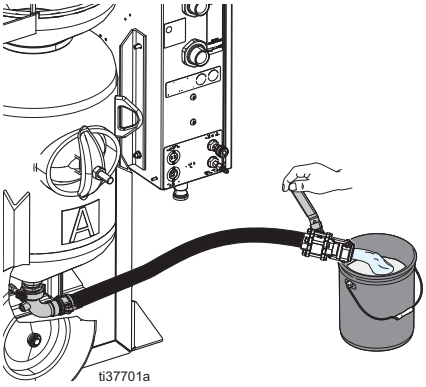


3. Hold a bucket under the cam-lock coupler, then turn the selector valve (T) to WASH. This will clean debris from the cam-lock coupler and gasket.

NOTE: Make sure the gasket is clean and in place after the procedure.

4. Turn the selector valve (T) to BLAST. This will pump the abrasive out through the abrasive hose.

5. Place a bucket under the abrasive hose. Slowly open and close the abrasive ball valve (J) to flush abrasive material from the pot. Repeat several times. Once no abrasive material flows from the hose, close the abrasive ball valve (J).

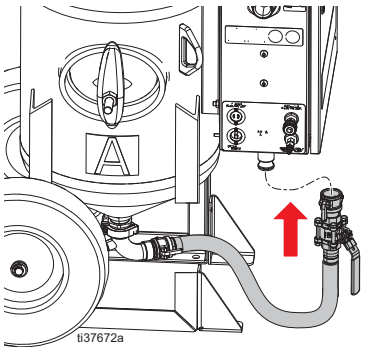


6. Turn the selector valve (T) to OFF.

7. Open the abrasive ball valve (J) and drain the pot of water.

8. Close the abrasive ball valve (J).

9. Connect the abrasive ball valve cam-lock to the enclosure.



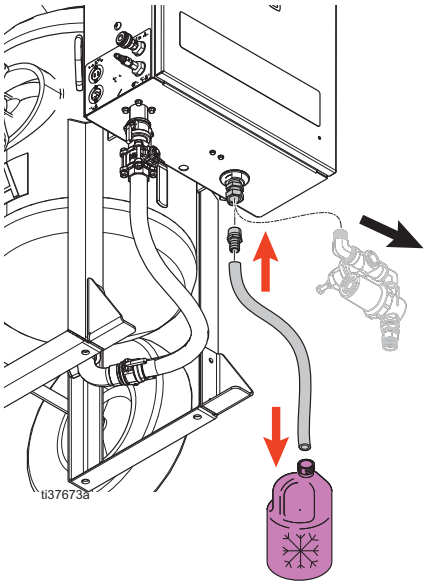
NOTE: The system must be winterized if it will be exposed to temperatures below freezing. See **Winterize the Equipment**, page 26.

Winterize the Equipment

NOTICE

Vapor abrasive blasters must be winterized whenever there is a possibility of freezing temperatures during storage to avoid damage to the equipment.

1. Drain the pot. See **Drain the Pot**, page 25.
2. Disconnect the water inlet regulator from the pump and install the winterizing tube. Insert the winterizing tube into a windshield washer fluid container. Choose a windshield wash with a rating that will protect the equipment for the lowest temperatures in your area.



3. Turn the selector valve (T) to WASH and open the rinse ball valve (U). While holding the rinse hose over the pot, run the pump until windshield wash comes out of the rinse hose.

4. Move the selector valve (T) into the other two positions (BLAST and OFF). Confirm that the internal water tubing fills with windshield wash before turning the selector valve to the next position.

NOTE: All water tubing should be filled with windshield wash for full protection.

5. Engage the emergency stop (L).
6. Make sure that the rinse ball valve (U) is left open.

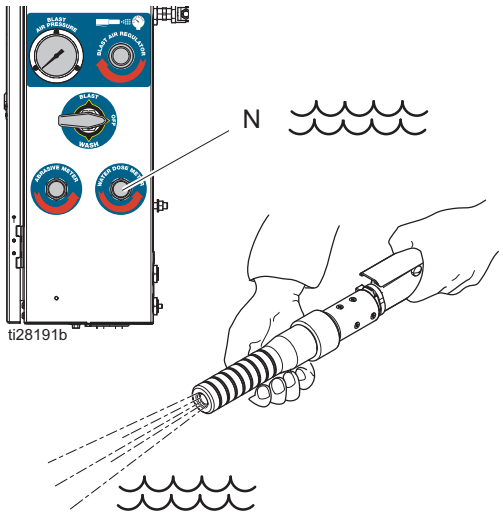
NOTICE

When ice forms behind the seals, the seals can become damaged. During storage, position all ball valves in the open position.

Use the Water Dose Meter

The water dose meter is a feature that allows the user to adjust how wet the blast will be during operation.

1. Perform the **Adjust Abrasive Media** procedure, page 19.
2. Adjust the water dose valve (N) to adjust how wet the blast will be during operation.



Troubleshooting

Problem	Cause	Solution
Unable to fill or pressurize the pot with water.	The emergency stop (L) is engaged.	Disengage the emergency stop (L).
	The air supply is inadequate.	Make sure the air compressor is capable of suppling the minimum air flow requirements for your system. See , page 50. Make sure the air inlet pressure gauge reads 100-175 psi (6.8-12 bar, 0.68-1.2 MPa). If the gauge does not read 100-175 psi, check the air compressor for proper setup. Make sure the air inlet filters are clean, and replace if necessary.
	Inadequate water supply to the pump.	**Systems with water tanks:** Make sure the water tank is full and the inlet ball valve is open. Clean or replace water inlet filter if necessary. Make sure all fittings connections are tight.
		Systems with pressurized supply connections: Ensure water supply connection is connected and pressurized. Check that water supply meets appropriate pressure and flow requirements. Ensure all fitting connections are tight. Check inlet water pressure regulator for proper flow direction installation. See **Parts**, page 36. Check inlet water pressure regulator screen filter for debris, clean if possible. Replace regulator if no flow can be passed through regulator.
	The water pump air regulator is malfunctioning.	Disengage the blast control switch (A). Adjust the pump inlet air pressure regulator until the pump air pressure regulator gauge reads 100 psi (6.9 bar, 0.69 MPa). If you are unable to attain this setting, check the air inlet filters and make sure the supply air pressure is greater than or equal to 100 psi. If the above steps do not resolve issue, replace the pump air pressure regulator.
	The water pump is malfunctioning.	Rotate 3-way selector valve to OFF position. Open rinse valve and ensure pump cycles, and water flows from rinse hose. Close rinse valve and verify that pump stalls. If pump continues to creep or will not prime, refer to manual 333397 for pump service.
	The pop-up cannot seal.	Make sure the pop-up is clean and free of debris in the o-ring sealing area. Check for proper pop-up alignment in the closed position (there should be no gaps between the o-ring and the pop-up). Remove the o-ring and make sure the o-ring gland is clear of debris. Replace the o-ring and /or pop-up if worn.
	The water pressure regulator is malfunctioning.	Adjust the water pressure regulator until the pot pressure gauge reads 185 psi (12.75 bar, 1.275 MPa). If this adjustment is not possible, service the water pressure regulator. Refer to your regulator manual. See **Related Manuals**, page 3.

Problem	Cause	Solution
The blast hose recoils heavily when the blast control switch (A) is engaged. Large slugs of abrasive and water are ejected from nozzle.	The abrasive ball valve was left open during shut down.	See **Shutdown**, page 24, step 2.
	The abrasive ball valve is worn.	With the pot pressurized and the abrasive ball valve closed, engage the blast control switch (A) and check to make sure the pump is stalled. If the pump rod is creeping, replace abrasive ball valve (J) or replace the abrasive ball valve seals. See **Common Spare Parts**, page 48.
	The pinch hose is worn.	With the pot pressurized and the abrasive ball valve open, check to make sure the pump is stalled. If the pump rod is creeping, replace the pinch hose. See **Replace the Pinch Hose**, page 35.
The pot pressure relief valve is discharging water.	The water pressure regulator is malfunctioning.	Adjust the water pressure regulator to 185 psi (12.75 bar, 1.275 MPa). If this adjustment is not possible, service the water pressure regulator. Refer to your regulator manual. See **Related Manuals**, page 3.
	The pressure relief valve has failed.	Replace the pressure relief valve if weeping occurs at or below 185 psi (12.75 bar, 1.275 MPa).
No blast air flow when the blast control switch (A) is engaged. The water pump does cycle while the blast control switch is engaged.	The adjustable blast regulator is not adjusted to the correct pressure.	Adjust the blast regulator to the desired pressure while the blast control is engaged.
	The tubing to the main air regulator is not properly connected or there are air leaks in the fittings or tubing.	See the **Tubing Schematic**, page 49. Check for leaks at connection points.
	The adjustable blast air regulator is malfunctioning.	Clean or replace the adjustable blast air regulator.
	The main air regulator is malfunctioning.	Disassemble the main air regulator and inspect components. Replace or repair parts as necessary. See **Enclosure Box Parts**, page 39.

Problem	Cause	Solution
No blast air flow when the blast control switch (A) is engaged. The water pump does not cycle while the blast control switch is engaged.	The emergency stop (L) is engaged.	Disengage the emergency stop (L).
	The air supply is inadequate.	Make sure the air compressor is capable of supplying the minimum air flow requirements for your system. See , page 50, for more information. Make sure the air inlet pressure gauge reads 100-175 psi (6.8-12 bar, 0.68-1.2 MPa). If the gauge does not read 100-175 psi, check the air compressor for proper setup.
	The electric blast control circuit is malfunctioning.	Ensure proper 12V DC supply is connected, and at full charge. Inspect cable for damaged or 'open' wiring. Check blast control fuse and replace if necessary. Check for continuity through connectors on the control box and all external cables. Check continuity though the electric blast control switch (A) (the switch is normally open). If all above items are functional, replace the 4-way solenoid valve.
	The pneumatic blast control circuit is malfunctioning.	Actuate the blast control switch (A) and check for proper spool valve actuation in the 4-way valve. If no actuation occurs, check the blast control switch and twin-line by disconnecting the yellow tube at the enclosure male quick disconnect and engage the control switch. If no air comes from the fitting, check the pneumatic blast control filter. If the filter is clean, check for signal air at the blast control switch. Replace the pneumatic blast control switch if signal air does not pass through the valve when the handle is depressed. If the switch is functioning, make sure the yellow tubing inside the control box is properly connected and is clear of obstructions. If the tubing is clean, replace the 4-way solenoid valve.

Problem	Cause	Solution
While in BLAST mode, with the blast control switch (A) engaged, air is flowing from the nozzle but little or no abrasive is flowing from the nozzle.	The abrasive ball valve is closed.	See **Setup**, page 14.
	The abrasive metering valve is not properly set.	See **Setup**, page 14.
	The pot does not have a sufficient amount of abrasive.	See **Standby**, page 24.
	The pinch valve does not open.	Engage the blast control switch (A) and check for actuation of the pinch valve. If there is no actuation, disconnect the orange tubing at the pinch valve. If the pinch valve opens and source air is coming from the orange tubing, confirm that the tubing is correctly routed. If the pinch valve does not open, replace it. If the pinch valve opens and there is no source air coming from the tubing, inspect the mufflers on the 4-way valve for debris. If debris is not present, clean or replace the 4-way valve.
	There is an obstruction inside the pot or inside the abrasive hose between the pot and the enclosure.	Follow **Drain the Pot**, page 25, followed by the **Pressure Relief Procedure**, page 17. With the abrasive hose disconnected, inspect the interior of the pinch hose for obstructions or debris and replace if necessary (see **Replace the Pinch Hose**, page 35). Remove the tri-clamp from the bottom of the pot. Inspect the bottom of the pot and the abrasive hose for obstructions or debris.
	The pot pressure is too low.	With the blast control disengaged, allow the pot to pressurize and wait for the pump to stall. If the pot pressure gauge does not reach 185 psi (12.75 bar, 1.275 MPa), see the “Unable to fill or pressurize the pot with water” problem listed on this table.
	The blast pressure is too high.	If the blast pressure gauge reads 160 psi (11.03 bar, 1.10 MPa) or greater, it may not be possible to achieve than 15 CPM on the MediaTrak. This is more common with fine mesh abrasive usage. Decrease the blast pressure to 100 psi (6.9 bar, 0.69 MPa) to see if CPM can be increased.

Problem	Cause	Solution
The blast control switch (A) is not engaged, but blasting occurs.	The air supply is inadequate.	Make sure the air compressor is capable of supplying the minimum air flow requirements for your system. See , page 50. Makes sure the air inlet pressure gauge reads 100-175 psi (6,8-12 bar, 0.68-1.2 MPa). If the gauge does not read 100-175 psi, check the air compressor for proper setup.
	The main air regulator is malfunctioning or is stuck open.	Disassemble the main air regulator and check for obstructions. Replace or repair parts as necessary. See **Enclosure Box Parts**, page 39.
	The electric blast control circuit is malfunctioning.	Unplug the hose cable at the control box. If the blast stops, inspect the hose cable for shortened wiring. Check continuity through the electric blast control switch (A) (the switch is normally open). Check for continuity across connectors of the recessed plugs on the control box (there should be no continuity). If all above items are functional, replace the 4-way solenoid valve.
	The pneumatic blast control circuit is malfunctioning.	Engage the emergency stop (L). If blasting stops, check the blast control switch (A) by disconnecting the yellow tube at the enclosure male quick disconnect. There should be no signal air unless you engage the control switch. If the switch is functioning, remove the exhaust mufflers from the 4-way and check for debris, clean ports, and replace the mufflers if necessary. If all above items are functional, replace the 4-way solenoid valve.
While the blast control switch (A) is engaged, the blast air flow is fluctuating.	The supply air pressure is fluctuating.	Make sure the compressor meets minimum flow requirements and is operating properly. See , page 50, for more information on flow requirements.
	The main air regulator is malfunctioning or is stuck open.	Disassemble the main air regulator and check for obstructions. Replace or repair parts as necessary. See **Enclosure Box Parts**, page 39.
	The electric blast control circuit is malfunctioning.	Inspect the hose cable for damaged or shorted partially open wiring. Check the blast control fuse and replace if necessary. Check for loose wire connections on the recessed plugs on the control box (K) and all external cables. Check continuity through the electric blast control switch (A) (the switch is normally open). If all above items are functional, replace the 4-way solenoid valve.
	The pneumatic blast control circuit is malfunctioning.	Actuate the blast control switch (A) and check for proper spool valve actuation in the 4-way valve. If no actuation occurs, check the blast control switch by disconnecting the yellow tube at the enclosure male quick disconnect and engage the control switch. If only a little air comes from the fitting, check the twin-line hose for damage or crimping and check the pneumatic blast control filter. If the twin-line and filter are clean, replace the pneumatic blast control switch. If the switch is functioning, make sure the yellow tubing inside the control box is properly connected and clear any obstructions. If all above items are functional, replace the 4-way solenoid valve.

Problem	Cause	Solution
The blast spray pattern is sputtering or irregular.	The air supply is inadequate.	Make sure the air compressor is capable of supplying the minimum air flow requirement for your system. See , page 50. Make sure the air inlet pressure gauge reads 100-175 psi (6.8-12 bar, 0.68-1.2 MPa). If the gauge does not read 100-175 psi check the air compressor for proper setup. Make sure the air inlet filters are clean and replace if necessary.
	The blast hose was not properly cleaned out after previous use.	See **Shutdown**, page 24.
	The abrasive metering valve setting is too high for the blast pressure and/or abrasive type.	See **As abrasive media leaves the pot during blasting, follow the Fill Pot with Abrasive Media procedure, page 14.**, page 20.
	The pot does not have a sufficient amount of abrasive.	Refill the pot with abrasive. See **Standby**, page 24.
	There is an obstruction in the nozzle.	Remove the nozzle and inspect for blockage, buildup, or damage. Replace the nozzle if necessary.
	There is an obstruction inside the pot or inside the abrasive hose between the pot and the enclosure.	Perform **Drain the Pot**, page 25, followed by **Operation**, page 17. With the abrasive hose disconnected, inspect the interior of the pinch hose for obstructions or debris and replace if necessary. See **Replace the Pinch Hose**, page 35. Remove the tri-clamp from the bottom of pot. Inspect the bottom of the pot and abrasive hose for obstructions or debris.
Too much dust occurs during blasting.	There is not enough water in abrasive mixture.	See **Use the Water Dose Meter**, page 26. A water dose upgrade kit is available for EQm systems.
	The blast pressure is too high.	Decrease the blast pressure and re-evaluate the dust levels.
	The abrasive is too fine for the application.	Try a coarser or harder abrasive if possible.
Too much water is coming from the nozzle in BLAST mode.	The water dose valve (N) is open too far.	Close the water dose valve (N).
	The abrasive material is too coarse.	If possible, use at least 20 mesh abrasive material. Otherwise, decrease the CPM setpoint until the pattern improves.
	The abrasive metering valve setting is too high for blast pressure and/or abrasive type.	See **As abrasive media leaves the pot during blasting, follow the Fill Pot with Abrasive Media procedure, page 14.**, page 20.

Repair

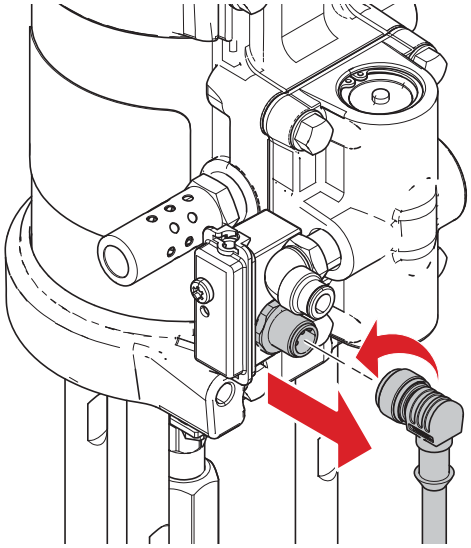
Replace the DataTrak Battery

To reduce the risk of fire and explosion, the battery must be replaced in a non-hazardous location.

Use only an approved replacement battery (see table). Use of an unapproved battery will void Graco's warranty.

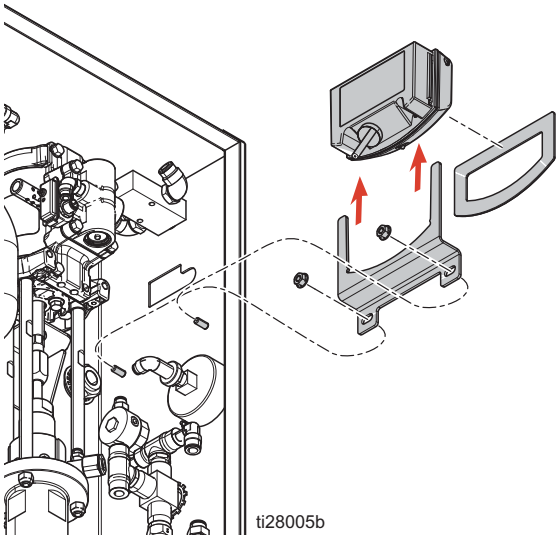
Replace Battery

1. Unscrew cable from the back of the reed switch assembly.
2. Remove the cable from the two cable clips.



ti24946b

3. Remove the DataTrak module from the bracket. Take the module and attached cable to a non-hazardous location.



ti28005b

4. Remove the two screws on the back of the module to access the battery.
5. Disconnect the used battery and replace it with an approved battery.

Approved Batteries
Energizer® brand alkaline #522
Varta® brand alkaline #4922
UltraLife® brand lithium #U9VL
Duracell® brand alkaline #MN1604

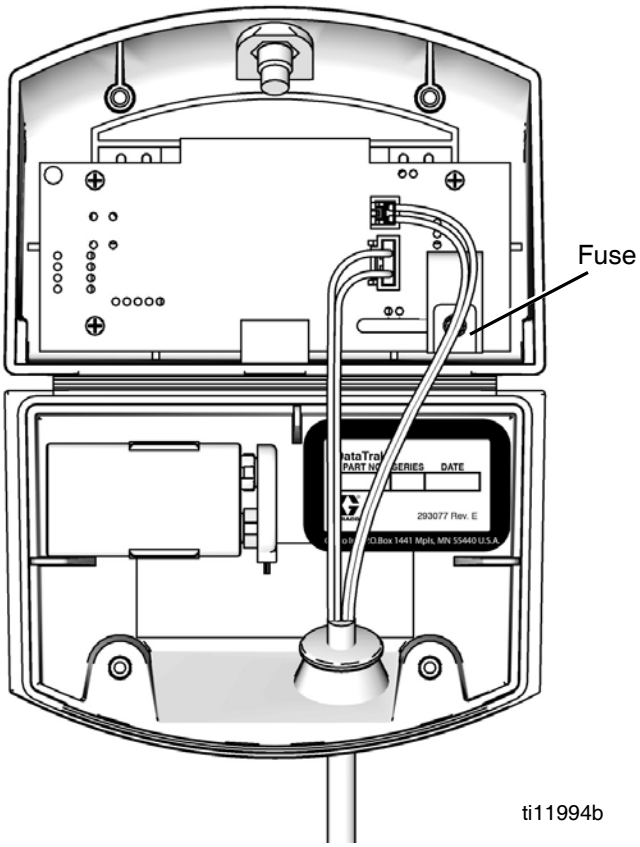
Replace the DataTrak Fuse

To reduce the risk of fire and explosion, the fuse must be replaced in a non-hazardous location.

Use only an approved replacement fuse (see table). Use of an unapproved fuse will void Graco's warranty.

Replace Fuse

1. Remove the screw, metal strap, and plastic holder.
2. Pull the fuse away from the board.
3. Replace with an approved fuse.



Approved Fuses		
DataTrak Part Number	**Series Letter**	**Fuse Required**
17K057	A or B	24C580
	C and later	24V216
All other part numbers	A	24C580
	B and later	24V216

Replace the Pinch Hose

Remove the Pinch Hose

1. Perform **Pressure Relief Procedure**, page 17.
2. Remove the claw coupler (CP) at the swivel connection.
3. Use the supplied 2-7/8 in. wrenches (WR) to loosen the lock nuts (S1, S2) on the inside and outside of the box.
4. Remove the clamp (HC) connecting the blast circuit (BC) to the check valve.
5. Remove check valve assembly (CV) and clean all abrasive that may be stuck to the check valve components.

NOTICE

Check valve components coated in abrasive can allow abrasive to enter the main air regulator and lead to improper operation. Clean off all abrasive material that may be stuck to the check valve components to allow for proper operation.

6. Remove the bottom hose clamp (C2).
7. Pull the pinch hose (PH) out of the box.

NOTE: Use the blast circuit (BC) as a handle, and twist while pulling.

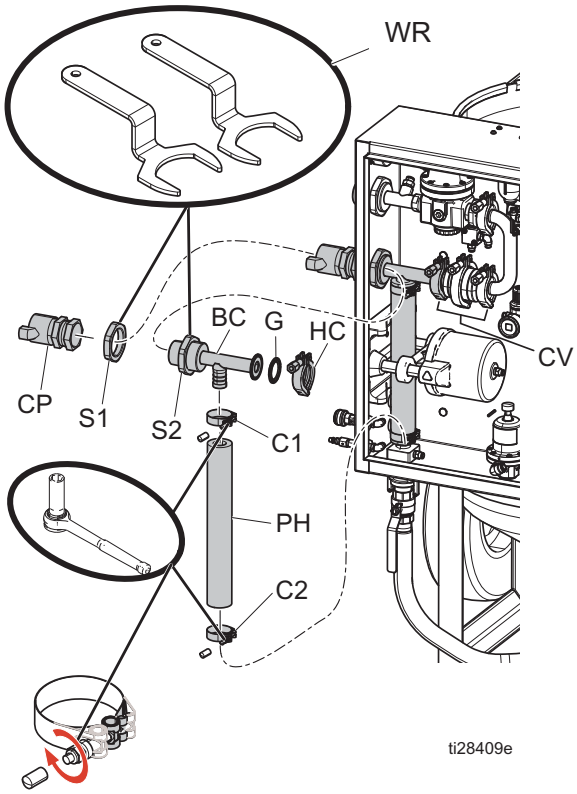
8. Loosen the remaining hose clamp and remove the pinch hose from the circuit.

Install the Pinch Hose

1. Reinstall the check valve, ensuring proper orientation. Assemble the valve with the plunger facing the bent manifold.
2. Place both hose clamps (C1, C2) on the pinch hose (PH). Leave 1/4 in. of hose exposed on the ends.
3. Slide the pinch hose (PH) into the box through the pinch valve.
4. Reinstall the blast circuit (BC) and pinch hose (PH) into the box through the pinch valve.
5. Install and tighten the clamp (HC) to 15ft-lb (20.3 N•m) to connect the blast circuit to the check valve.

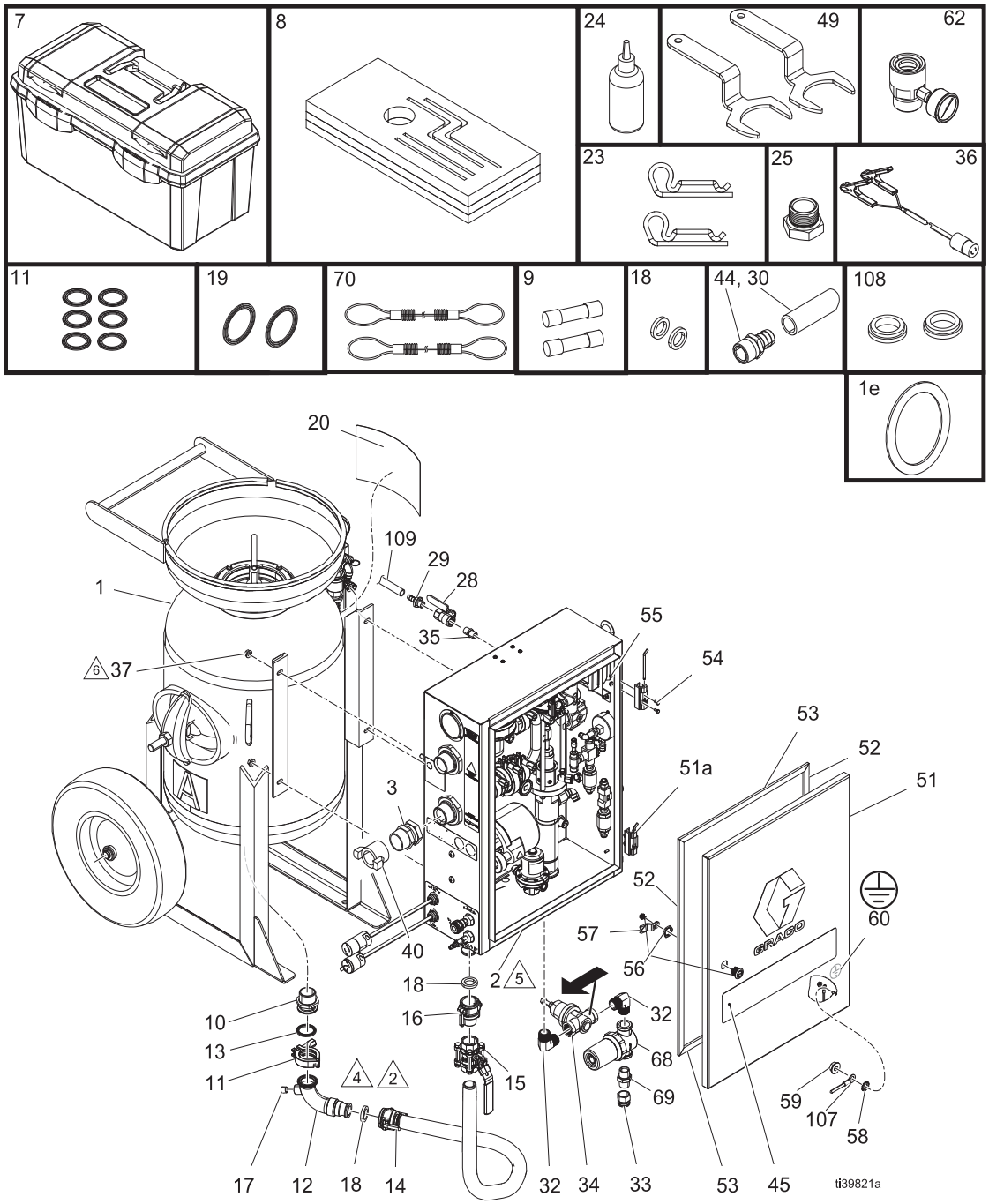
NOTE: If necessary, loosen the inside nut (S2) to provide room for gasket (G) installation. Inspect the gasket (G) and replace if necessary.

6. Apply anti-seize to threads on clamps (C1, C2). Align the nuts pointing towards the front of the enclosure. Torque to 85 +/- 5 in-lb (9.6 +/- 0.5 N•m).
7. Tighten the lock nuts (S1, S2).
8. Install the claw coupler (CP).

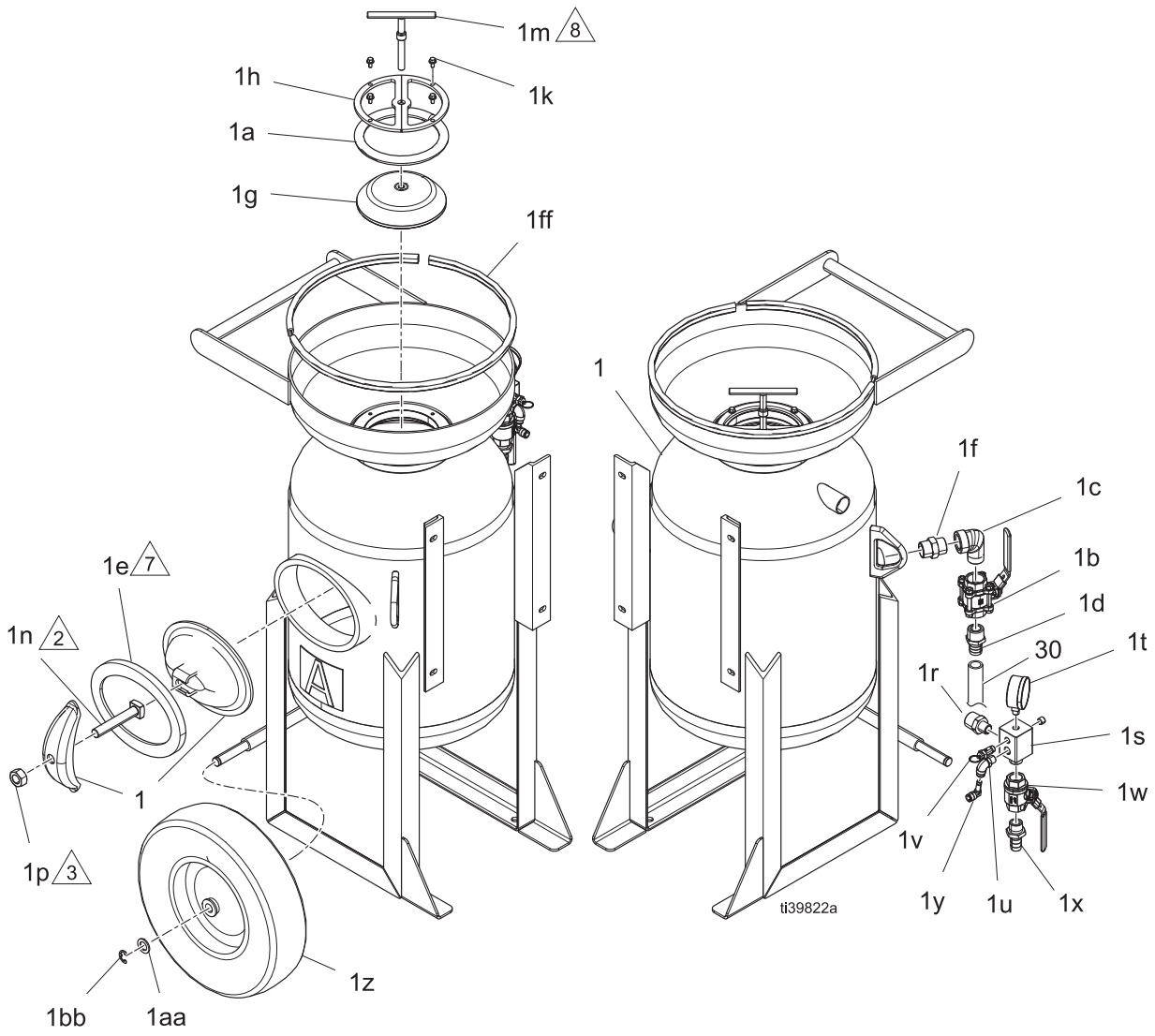


Parts

EQm Parts



1. Apply thread sealant to all non-swivel pipe threads.
2. Apply anti-seize to threads.
4. Torque to 15 +/- 2 ft-lb (20.3 +/- 2.7 N•m)
5. Apply anti-seize to enclosure mounting studs.
6. Torque to 25-30 ft-lb (34-40.6 N•m).



1. Apply thread sealant to all non-swivel pipe threads.

2 Apply anti-seize to threads.

3 Torque to 60 +/- 5 ft-lb (81.3 +/- 6.7 N•m) with pot pressurized.

7 The hand-way gasket must be installed centered and flat on the hand-way cover.

8 Apply anaerobic sealant to threads.

EQm Parts List

Ref.	Part	Description	Qty.
1*	-------	PRESSURE POT, blast media, 3.5 cu ft	1
1a*	17L310	SEAL, o-ring	1
1b	17L046	VALVE, ball, 1 npt sst	1
1c	-------	FITTING, elbow, street, 1 npt	1
1d	113607	FITTING, 1 in. barb	1
1e*	17D790	GASKET, hand-way, 6 x 8	2
1f	EQ1612	FITTING, nipple, hex, 1 npt	1
1g*	18A340PKG	PLUNGER, pot seal	1
1h*✠	-------	BRACKET, d-ring, pop-up	2
1k*	128504	BOLT, flange hd, serrated, 1/4, ss	4
1m*	18A383PKG	HANDLE, tee with stop	1
1n*	17L630	BOLT, square hd, 3/4 x 4 1/2, sst	1
1p*	17L630	NUT, hex, 3/4-10, sst	1
1r	17R930	FITTING, nipple, reducing, 1 x 1/2, sst	1
1s	-------	MANIFOLD, dump	1
1t	17L320	GAUGE, pressure, fluid	1
1u	EQ1500	FITTING, elbow, swivel, male, 3/8 in.	1
1v	17L622	VALVE, safety relief, 220 psi	1
1w	129903	VALVE, ball, 3.4 npt, brass, nickel	1
1x	EQ1012	FITTING, nipple, barb, hose, 3/4 in.	1
1y	EQ1122	FITTING, elbow, stem, 3/8 in.	1
1z*	17L645	WHEEL, semi-pneumatic	2
1aa*	17L645	WASHER	2
1bb*	17L645	RING, retaining	2
1ff*	128982	TRIM, edge, neoprene, black	4.5 ft
2	-------	ENCLOSURE, EcoQuip, mobile	1
3	113864	UNION, swivel, 1-1/2 npt	1
7†	-------	BOX, tool, 20 in., black	1
8†	-------	INSERT, foam, tool box, EcoQuip	1
9❖	18A604	FUSE, glass, 0.25 x 1.25, 400ma	2
10*	17H273	ADAPTER, tri-clamp, 1.5, hex wing nut	1
11	17L317	CLAMP, tri-clamp, 1.5, hex-wing nut	1
12	17L631	MANIFOLD	7
13	680454	GASKET, sanitary fitting	1
14	17L329	HOSE, inlet media (includes 18)	1
15‡	17L046	VALVE, ball, 1 npt SST	1
16	17J329	COUPLER, cam-lock, sst, 1 npt(f) (includes 18)	
17	112306	PLUG, pipe, 3/8 npt, sst	1
18	17L309	GASKET, cam lock, buna, 1.0	2
19	502598	GASKET, sanitary (PTFE)	2
20*▲	3A8508	LABEL, instructions	1
23	17D787	PIN, safety item, hose, hair c (6 pack)	1
24	206994	FLUID, TSL 8 oz. bottle	1
25	EQ1829	FITTING, ground boss, spud, 1-1/2 in.	1
28	17L642	VALVE, ball, 3/8 npt, sst	1
29	EQ1627	FITTING, nipple, barb, hose, 3/8 in.	1
30	-------	HOSE, braided, 1 in. ID, clear	2.5
32	17K344	FITTING, elbow, 3/4 npt, sst	2
33	EQ7004	FITTING, hose, garden, 3/4 in. mpt x 3/4 in.fgt, swivel	1
34	18B105	VALVE, pressure reducing, 3/4 npt	1
35	167702	NIPPLE, pipe hex	1
36❖	EQ5183	CABLE, battery	1
37	128226	NUT, flange, 3/8-16, sst	4
40	EQ1934	COUPLER, sandblast, 1-1/2 npt(f), brass	1
44	17L558	FITTING, 3/4 npt x 3/4 barb, brass	1
45	17J941	LABEL, brand, EcoQuip, EQm	1
49	17L633	TOOL, EQ, wrench, 2-7/8	2
51	25D033	DOOR, enclosure, small	1
51a	17T721	KIT, hinge	2
52◆	-------	GASKET, door, vertical	2
53◆	--------	GASKET, door, horizontal, small	2
54	111639	SCREW, cap, hex hd	4
55	127918	NUT, flange, serrated, m5	4
56	17L623	LOCK, door, tooled (includes 57)	1
57	--------	LATCH, cam, door lock	1
58‡	555629	WASHER, #10 external tooth lock	1
59‡	127908	NUT, flange, serrated, #10-32, ss	1
60‡▲	186620	LABEL, symbol, ground	1
62✠	17J958	TOOL, pressure verification	1
68	17L332	STRAINER, in-line	1
69	190724	NIPPLE, sst	1
70	17D786	KIT, replacement, whip check	2
107‡	194337	WIRE, grounding, door	1
108	17C124	GASKET, metal blast coupler	2
109	EQ1840	HOSE, braided, clear, 3/8 in. ID	6 ft

▲ *Replacement safety labels are available at no cost.*

* *Parts included in 3.5 Cubic Ft Pressure Pot Kit 17K127*

❖ *Non-ATEX models only.*

† *Included in Replacement Tool Box Kit, see **Other Accessories**, page 48.*

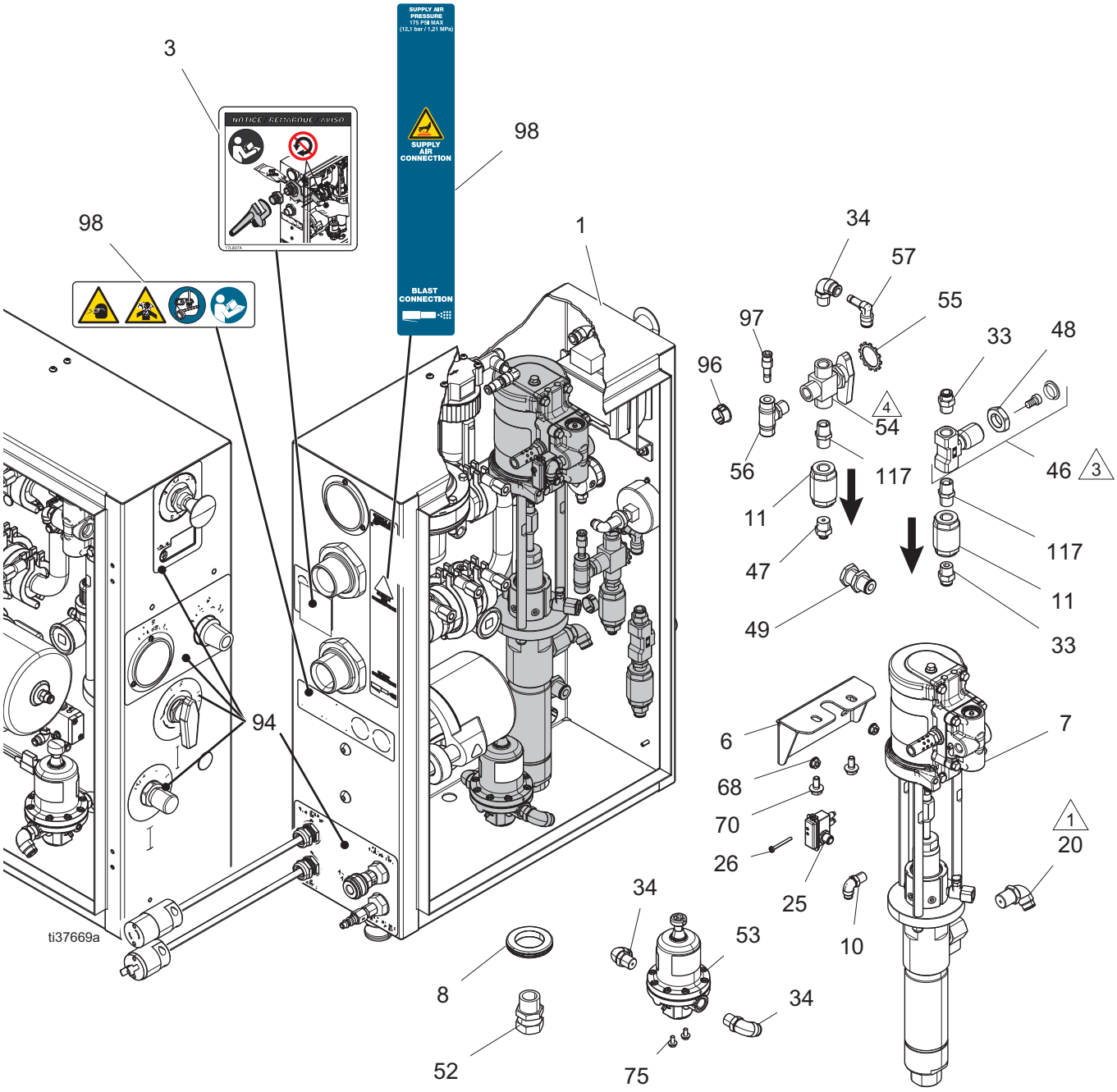
◆ *Included in Small door Gasket Kit 17L694.*

✠ *Included in Pressure Verification Kit (purchase separately).*

‡ *Ball valve seal repair kit available, see '**Common Spare Parts**, page 48.*

✠ *Included in D-Ring Bracket Kit 25P172*

Enclosure Box Parts



1 Torque fitting with pump outlet fitting to 35–40 ft-lb (47.4–54.2 N•m).

3 Apply thread sealant to needle valve knob screw when reassembling. Align knob with ‘D’ facing up when in closed position.

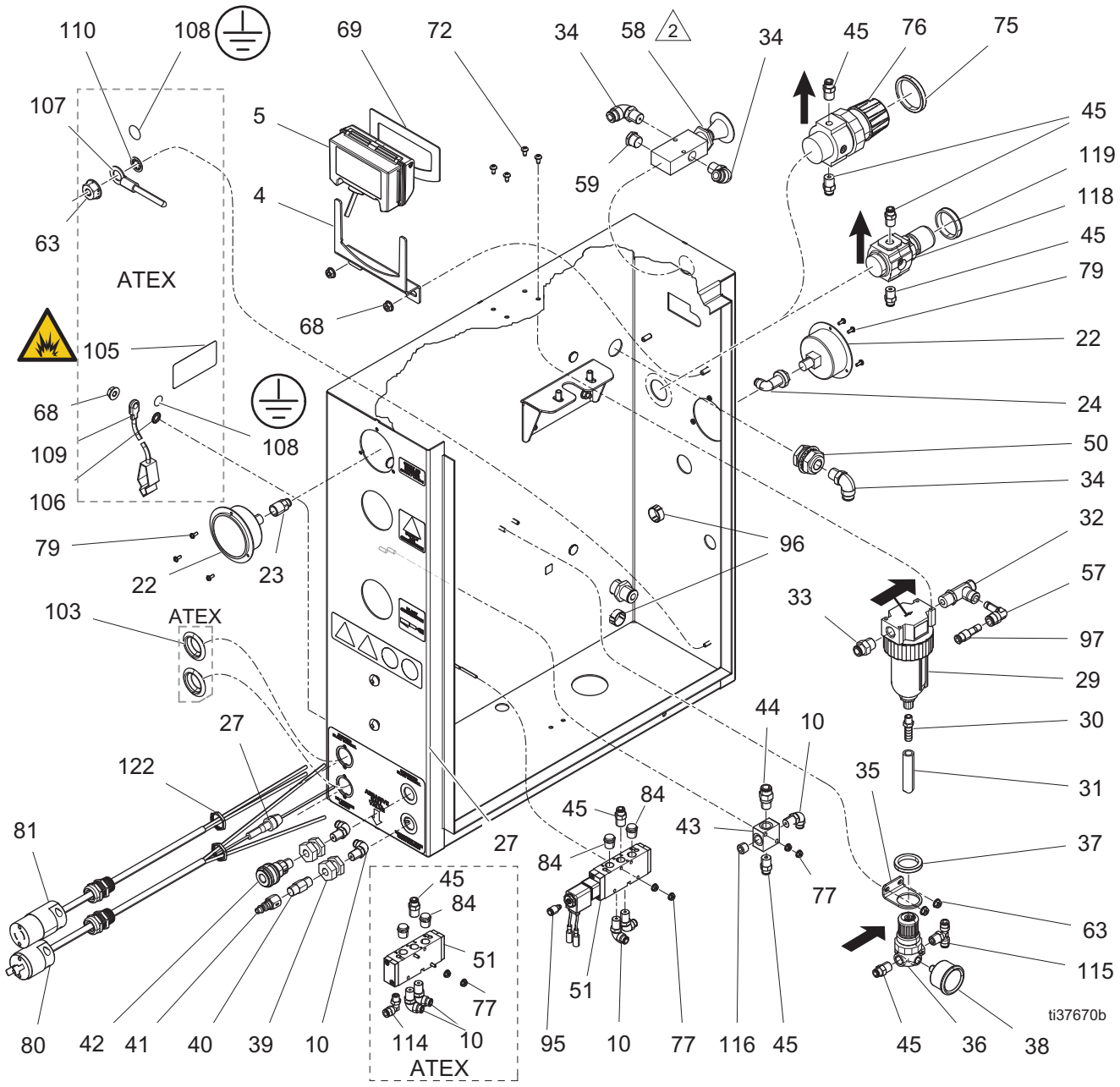
4 Apply thread sealant to selector valve handle set screw when reassembling.

Enclosure Box Parts List

Ref.	Part	Description	Qty.
1	25D023	PANEL, enclosure, EQm	1
3▲	17L807	LABEL, notice	1
6	-------	BRACKET, pump	1
7	25A531	PUMP, water, sst, 3:1	1
8	128483	GROMMET, pump, EQ2	1
10	121022	FITTING, elbow, male, 1/2 npt	1
11	EQ1034	VALVE, check, 3/8 in., sst	2
20	EQ1798	FITTING, ptc, elbow, 1/2 mpt, 3/8 OD	1
25	24B659	SWITCH, reed assembly (includes 26)	1
26	-------	FASTENERS, screw, slot hex, #8-32 tap	1
33	128638	FITTING, ptc, straight, 3/8	5
34	EQ1500	FITTING, elbow, swivel, male, 3/8 in.	6
46	17K056	VALVE, needle, 3/8 npt, brass (includes 48)	1
47	128798	FITTING, ptc, 1/4 tube, 3/8 mpt	1
48	17H280	NUT, m20, needle valve	1
49	EQ1115	BULKHEAD, connector, union, 3/8 in.	1
52	112268	SWIVEL, union	1
53	17L324	REGULATOR, pressure, water, 185 psi (includes 75)	1
54	17K055	VALVE, selector, 3-way, 3/8 npt, brass	1
55	118160	WASHER, lock, external	1
56	EQ1832	FITTING, T, branch, swivel male	1
57	EQ1122	FITTING, elbow, stem, 3/8 in.	3
68	127917	NUT, flange, serrated, 1/4-20, ss	4
70	111799	SCREW, cap, hex hd	2
75	128670	BOLT, flange hd, serrated, m5, sst	2
94▲	17J290	LABEL, instructions	1
97	EQ1759	FITTING, stem, reducer	2
98▲	17J291	LABEL, safety	1
117	167702	NIPPLE, pipe	2

▲ *Replacement safety labels are available at no cost.*

Enclosure Box Parts (continued)



2 Apply thread sealant to emergency stop valve stem when reassembling the red knob.

Enclosure Box Parts List (continued)

Ref.	Part	Description	Qty.
4	-------	BRACKET, EcoQuip, DataTrak	1
5	17K057	ENCLOSURE, DataTrak, EcoQuip	1
10	121022	FITTING, elbow, male 1/4 npt	5
22	17L319	GAUGE, flange mount, 2.5 in., 200 psi	2
23	128725	FITTING, ptc, 1/4 tube, 1/4 npt	1
24	EQ1113	FITTING, elbow, swivel, female	1
27	-----	CABLE, fuse holder	1
28	EQ1844	FUSE, blade, atc, 3a	1
29*	106148	FILTER, air, 3/8 npt	1
30	128273	FITTING, barb x npt, brass	1
31	EQ1840	HOSE, braided, clear, 3/8 ID	2
32	128634	FITTING, ptc, tee, run, 3/8 in.	1
33	128638	FITTING, ptc, straight, 3/8 in.	4
34	EQ1500	FITTING, elbow, swivel, male, 3/8 in.	5
35	17G567	BRACKET, regulator, EQ2	1
36	17L322	REGULATOR, air, adj, 100 psi	1
37	15K040	NUT, 1.25 in. OD regulator	1
38	17L323	GAUGE, pressure, 1-1/2 in., 160 psi.	1
39	123390	FITTING, 1/4 npt, brass	2
40	EQ1814	FILTER, in-line, 1/4 npt(m)	1
41	EQ1421	COUPLER, air, 1/4 qd(m), 1/4 npt(f), brass	1
42	EQ1813	COUPLER, air, 1/4 qd(f), 1/4 npt(m), brass	1
43	128479	MANIFOLD, 4-port, 1/4 npt	1
44	128636	FITTING, ptc, 3/8 tube, 1/4 npt	1
45	128637	FITTING, ptc, straight, 1/4	5
50	16N177	FITTING, bulkhead, brass, 3/8	1
51	17K053	VALVE, solenoid, elec/pneu, assembly	1
	17K054	VALVE, solenoid, pneumatic, ATEX	1
57	EQ1122	FITTING, elbow, stem, 3/8 in.	3
58	EQ5108	VALVE, 3-way, e-stop, 3/8 in., (f)pt 3-port	1
59	EQ1438	VENT, breather, 3/8 npt	1
63	127908	NUT, flange, serrated, #10-32, ss	2
68	127917	NUT, flange, serrated, 1/4-20, ss	2
69	17C001	GASKET, EcoQuip, DataTrak	1
72	128502	SCREW, pan, type F, #10-24, 3/8, sst	4
75†	-----	NUT, 1.75 in. OD regulator	1
76†	-----	REGULATOR, air, 1.75 in. (44.5 mm) OD only	1
77	128672	NUT, serrated flange, #6-32, sst	4
79	127929	SCREW, sems, #6-32, 3/8 in., sst	6
80	19Y239	CABLE, male plug	1
81	25P357	CABLE, female plug	1
84	121021	MUFFLER, 1/4 npt	2
95	128888	FITTING, ptc, 1/4 tube, m5	1
96	128500	PLUG, hole, snap-in, black, 22 mm	2
97	EQ1759	FITTING, stem, reducer	2
103	128892	PLUG, hole, black	2
105▲	16P265	LABEL, safety, warning, explosion	1
106	100985	WASHER, lock ext	1
107	194337	WIRE, grounding, door	1
108▲	186620	LABEL, symbol, ground	2
109	237686	WIRE, ground assembly with clamp	1
110	555629	WASHER, #10 external tooth lock	1
114	128863	FITTING, ptc, elbow, 1/4 OD, 1/8 npt	1
115	128864	FITTING, ptc, tee, branch, 1/4 OD, 1/8 npt	1
116	101970	PLUG, pipe, handles	1
118‡	-----	REGULATOR, air	1
119‡	16F810	NUT, regulator	1
122	-----	NUT, strain relief	2

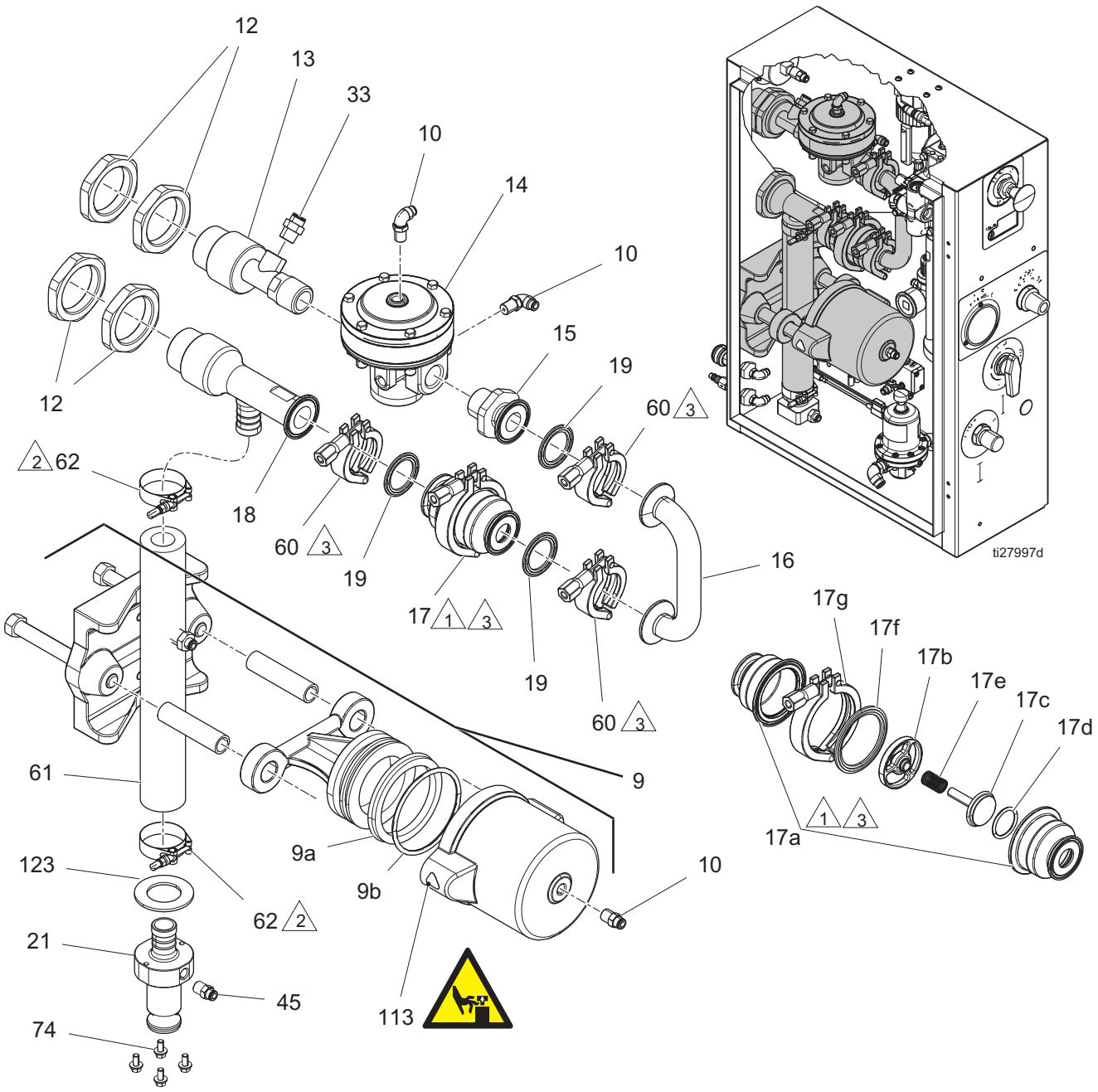
▲ *Replacement safety labels are available at no cost.*

* *See **Common Spare Parts**, page 48, for replacement filter element.*

† *Part included in Air Regulator Kit 25P174 (purchase separately).*

‡ *Part included in Air Regulator Kit 19Y249 (purchase separately).*

Enclosure Parts (EQm only)



1 Assemble valve (17) with plunger facing the bent manifold (16).

2 Apply anti-seize to threads on clamp (62). Align the nuts pointing towards the front of the enclosure. Torque nuts to 85 +/- 5 in-lb (9.6 +/- 0.5 N•m).

3 Apply anti-seize to threads on clamp (17g and 60). Align the nuts pointing towards the front of the enclosure. Torque nuts to 15 +/- 2 ft-lb (20.3 +/- 2.7 N•m).

Enclosure Parts List (EQm only)

Ref.	Part	Description	Qty.
9	17K052	VALVE, pinch	1
9a	-------	SEAL, wiper	1
9b	-------	SEAL, o-ring	1
10	121022	FITTING, elbow, male, 1/4 npt	3
12	17G574	NUT, bulkhead, 2-1/4, sst	4
13*	-------	MANIFOLD, blast circuit, 1.0, top	1
14*	-------	REGULATOR, 1 in. pilot operated air	1
15	17F440	ADAPTER, tri-clamp, 1 npt, sst	1
16	19Y725	MANIFOLD, blast circuit, 1.0, bend	1
17	-------	VALVE, check, sanitary, 1 in.	1
17a	17K050	VALVE, check, 1.0 in., housing	2
17b	17L376	VALVE, check, guide	1
17c	17L377	VALVE, check, piston	1
17d	17L378	VALVE, check, o-ring, 5-pack	1
17e	17L375	VALVE, check, spring	1
17f	17L313	GASKET, sanitary, 2-1/2 in.	1
17g	17L318	TRI-CLAMP, 2-1/2 in.	1
18	17G578	MANIFOLD, blast circuit, 1.0, bottom	1
19	680454	GASKET, sanitary fitting	3
21	19A742	MANIFOLD, slurry, barb/cam-lock	1
33	128638	FITTING, ptc, straight, 3/8	1
45	128637	FITTING, ptc, straight, 1/4	1
60	17L317	CLAMP, tri-clamp, 1.5, hex wing nut	3
61	17K051	HOSE, pinch	1
62	128642	CLAMP, hose, t-bolt, 1.75-2.00, sst	2
73	128787	BOLT, button hd, 3/8-16 x 3/4, ss	2
74	128504	BOLT, flange hd, serrated, 1/4, ss	4
113▲	F744	LABEL, warning, ISO pinch hazard	1
123	19A741	WASHER, push	1

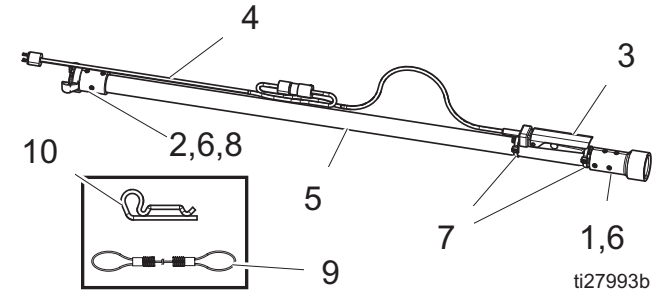
▲ *Replacement safety labels are available at no cost.*

* *Part included in Kit 19Y367.*

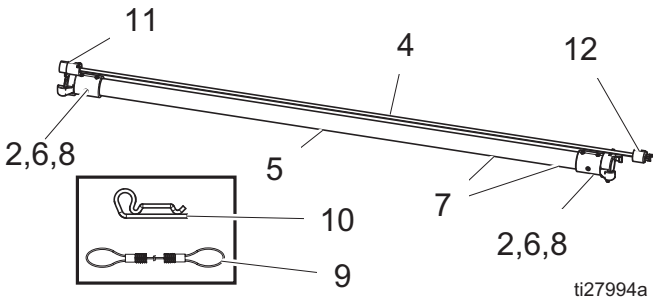
Blast Hoses

For Use with Mini Electric Plugs

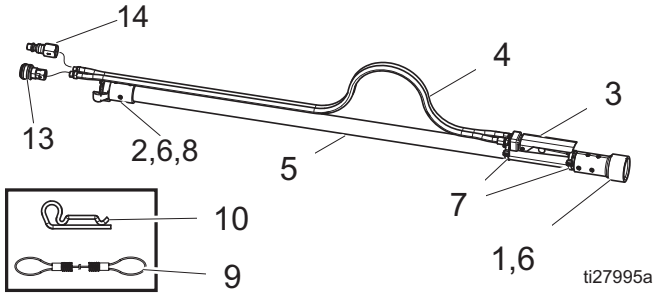
Electric, 50 ft
26A024 (1.25 in.), 26A074 (1.0 in.)



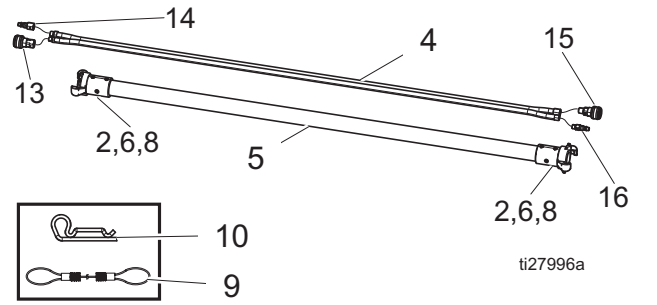
Electric Extension, 50 ft
26A026 (1.25 in.), 26A076 (1.0 in.)



Pneumatic, 50 ft
26A025 (1.25 in.), 26A075 (1.0 in.)



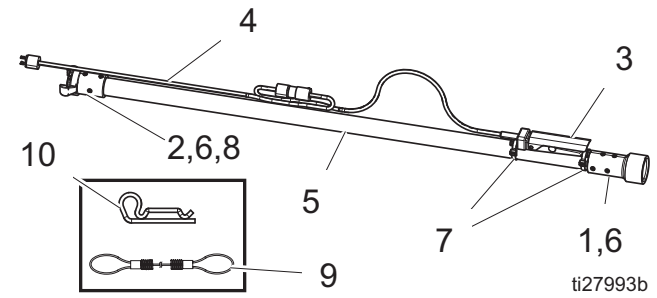
Pneumatic Extension, 50 ft
26A027 (1.25 in.), 26A077 (1.0 in.)



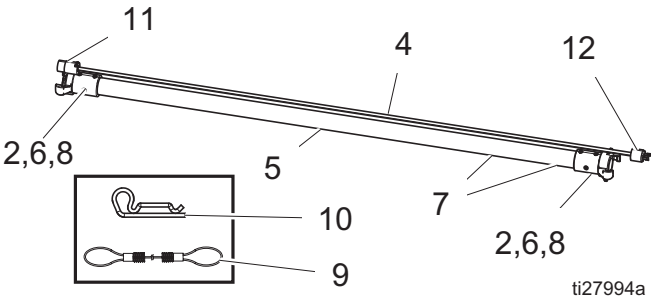
Ref.	Part	Description	Qty.
1	17L274	HOLDER, 1.25 in.	1
	17L276	HOLDER, 1.0 in.	1
2	17L273	COUPLER, 1.25 in.	1
	17L275	COUPLER, 1.0 in.	1
3	17D788	HANDLE, blast control switch, pneumatic	1
	17L331	HANDLE, switch, electric	1
4	24X746	HOSE, pneumatic, control, blast	1
	24X744	HOSE, pneumatic, control, extension	1
	17L471	CABLE, blast control	1
5	17L472	HOSE, blast, 1.25 in. ID	1
	17L473	HOSE, extension, 1.25 in. ID	1
	17L474	HOSE, blast, 1.0 in. ID	1
	17L475	HOSE, extension, 1.0 in ID	1
6	17L476	KIT, screws, flat hd, sst, 8 pk	1
7	17H240	KIT, cable ties, 6 pk	1
8	17C124	GASKET, brass, blast coupler	1
9	17D786	KIT, replacement, whip check	1
10	17D787	KIT, replacement, hairpin, hose	1
11	17L327	CONNECTOR, twist-lock, f	1
12	17L328	CONNECTOR, twist-lock, m	1
13	EQ1336	1/4 QD(f), 1/8 npt(f)	1
14	EQ1421	1/4 QD(m), 1/4 npt(f)	1
15	EQ1813	1/4 QD(f), 1/4 npt(m)	1
16	EQ1823	1/4 QD(m), 1/8 npt(m)	1

For Use with Standard Electric Plugs

Electric, 50 ft
28A024 (1.25 in.), 28A074 (1.0 in.)



Electric Extension, 50 ft
28A026 (1.25 in.), 28A076 (1.0 in.)



Ref.	Part	Description	Qty.
1	17L274	HOLDER, 1.25 in.	1
	17L276	HOLDER, 1.0 in.	1
2	17L273	COUPLER, 1.25 in.	1
	17L275	COUPLER, 1.0 in.	1
3	17D791	HANDLE, switch, electric	1
4	17F506	CABLE, blast control	1
5	17L472	HOSE, blast, 1.25 in. ID	1
	17L473	HOSE, extension, 1.25 in. ID	1
	17L474	HOSE, blast, 1.0 in. ID	1
	17L475	HOSE, extension, 1.0 in ID	1
6	17L476	KIT, screws, flat hd, sst, 8 pk	1
7	17H240	KIT, cable ties, 6 pk	1
8	17C124	GASKET, brass, blast coupler	1
9	17D786	KIT, replacement, whip check	1
10	17D787	KIT, replacement, hairpin, hose	1
11	EQ1863	CONNECTOR, twist-lock, f	1
12	EQ1864	CONNECTOR, twist-lock, m	1

Vapor Abrasive Blast Systems and Accessories

50 ft (15 m) Blast Hoses with Control Hose/Cable

Part	ID	Blast Control	Electric Plug Type	Coupler 1	Coupler 2	ATEX Approved
26A077	1.0 in.	Pneumatic		2-prong coupler, brass	2-prong coupler, brass	Yes
26A076	1.0 in.	Electric	Mini			No
28A076	1.0 in.	Electric	Standard			No
26A075	1.0 in.	Pneumatic		Nozzle holder, brass		Yes
26A074	1.0 in.	Electric	Mini			No
28A074	1.0 in.	Electric	Standard			No
26A026	1.25 in.	Electric	Mini	2-prong coupler, brass		No
28A026	1.25 in.	Electric	Standard			No
26A027	1.25 in.	Pneumatic				Yes
26A025	1.25 in.	Pneumatic		Nozzle holder, brass		Yes
26A024	1.25 in.	Electric	Mini			No
28A024	1.25 in.	Electric	Standard			No

50 ft (15 m) Blast Hoses without Control Hose/Cable

Part	ID	Blast Control	Coupler 1	Coupler 2	ATEX Approved
17L474	1.0 in.	None	Nozzle holder, brass	2-Prong coupler, brass	Yes
17L475	1.0 in.		2-Prong coupler, brass		
17L472	1.25 in.		Nozzle holder, brass		
17L473	1.25 in.		2-Prong coupler, brass		

Control Hoses/Cable with Blast Hose

Part	Description
24X746	Blast control hose, pneumatic control line, 55 ft, ATEX approved
24X744	Blast control hose, pneumatic control line, 55 ft, extension, ATEX approved
17L471	Blast control cable, electric, 55 ft, mini plug
17F506	Blast control cable, electric, 55 ft, standard plug

Nozzles

Part	Description	Length	Thread Size
17J859	Nozzle, #7 standard	7.8 in.	50 mm Contractor Thread (2 in. 4-1/2 UNC-2A)
17J860	Nozzle, #8 standard	8.8 in.	
17J861	Nozzle, #10 standard	9.0 in.	
17J862	Nozzle, #12 standard	9.0 in.	
17K898	Nozzle, #6 high performance*	12.0 in.	
17J855	Nozzle, #7 high performance*	12.0 in.	
17J856	Nozzle, #8 high performance*	12.0 in.	
17J858	Nozzle, #10 high performance*	12.0 in.	

** High performance nozzles require 100 psi (7 bar, 0.7 MPa) or more air pressure at nozzle.*

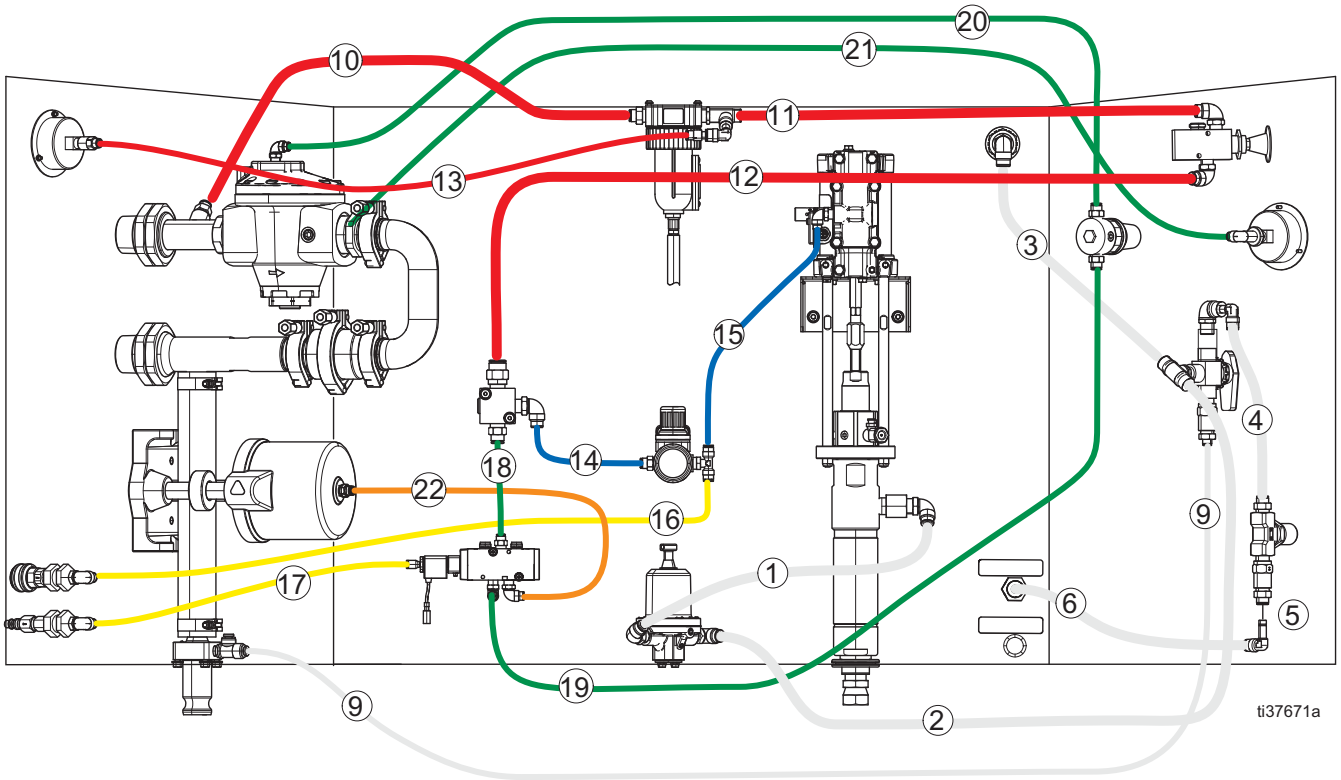
Other Accessories

Part	Description
17L119	KIT, nozzle gasket (pack of 5)
EQ5166	KIT, nozzle extension, 24 in. (0.6 m)
26A029	KIT, nozzle extension, 24 in. (0.6 m), with handles
17J958	KIT, nozzle pressure verification tool
17K025	KIT, pot strainer
16A002	KIT, water tank, 25 gal (95 L), EQm
17K058	KIT, water dose upgrade
17L316	KIT, garden hose inlet and pressure regulator
24Z005	KIT, inlet ball valve/stainer kit, EQ2 units
25A253	KIT, bull hose, 25 ft
25A254	KIT, bull hose, 50 ft
24Z156	KIT, tool box with insert
17L624	KIT, gaskets, small door
17L625	KIT, gaskets, large door
17D686	KIT, door stay
19Y238	KIT, cable plug upgrade
19Y367	KIT, upper blast circuit standard (mobile)

Common Spare Parts

Part	Description
17D786	Hose restraint / Whip check
17D787	Blast hose coupler pin kit (6 pack)
17C124	Grommet, hose coupler. Fits either 1.0 in. or 1.25 in. diameter hose
17L309	Gasket, abrasive hose cam lock (10 pack)
17L119	Gasket, blast nozzle (5 pack)
17L313	Blast circuit gasket kit (10 pack)
206994	Throat seal liquid (TSL)
17B186	Pump repair, lower
17L310	O-ring, pop-up
17D790	Gasket, handway
17L333	Pump, inlet filter replacement
EQ1818	Air filter, replacement, inside enclosure
17K051	Pinch hose replacement kit
17L046	Abrasive ball valve replacement
18B069	Standard main air regulator repair kit
18B807PKG	Abrasive ball valve seal repair kit

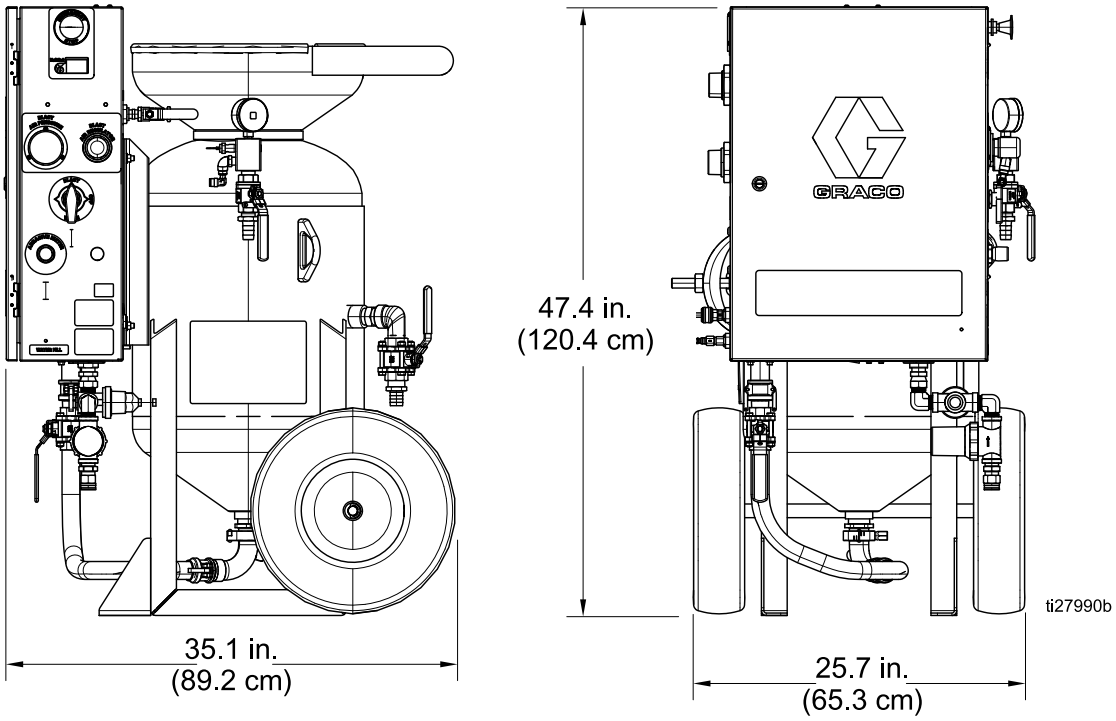
Tubing Schematic



Ref.	Part	Color, Tube Size	Cut Length inches (mm)
1	EQ1273	Natural, 3/8 in. OD	12.25 (311)
2	EQ1273	Natural, 3/8 in. OD	15.5 (394)
3	EQ1273	Natural, 3/8 in. OD	19 (483)
4	EQ1273	Natural, 3/8 in. OD	5.25 (133)
5	EQ1273	Natural, 3/8 in. OD	2.25 (57)
6	EQ1273	Natural, 3/8 in. OD	6 (152)
9	EQ1881	Natural, 1/4 in. OD	24 (610)
10	EQ1297	Red, 3/8 in. OD	10.5 (267)
11	EQ1297	Red, 3/8 in. OD	6.25 (159)
12	EQ1297	Red, 3/8 in. OD	18.75 (476)
13	EQ1882	Red, 1/4 in. OD	9.5 (241)
14	EQ1883	Blue, 1/4 in. OD	7.5 (191)
15	EQ1883	Blue, 1/4 in. OD	21.5 (572)
16	EQ1885	Yellow, 1/4 in. OD	22.5 (572)
17	EQ1885	Yellow, 1/4 in. OD	9.25 (235)
18	EQ1884	Green, 1/4 in. OD	12.5 (318)
19	EQ1884	Green, 1/4 in. OD	23 (584)
20	EQ1884	Green, 1/4 in. OD	23 (584)
21	EQ1884	Green, 1/4 in. OD	18 (457)
22	EQ1296	Orange, 1/4 in. OD	13 (330)

Dimensions

EQm Models



Technical Specifications

EQm

EcoQuip 2 EQm		
	US	**Metric**
Maximum Inlet Air Pressure	175 psi	10.3 bar, 1.03 MPa
Maximum Inlet Water Pressure	100 psi	6.9 bar, 0.69 MPa
Operating Temperature	35°–110° F	1.6°–43.3° C
Recommended Compressor Size+	185–600 CFM	5.3–17 m3/min
Blast Hose Size (supplied)	1.25 in. ID	31.75 mm ID
Abrasive Capacity*	440 lb	200 kg
Dry Weight	370 lb	168 kg
Wet Weight*	900 lb	408 kg
Pressure Pot Volume	3.5 cubic feet	99 liters
Air Inlet Connection†	1-1/2 npt	
Water Inlet Connection	3/4 in. garden hose connection	19 mm garden hose connection
*Abrasive capacity and wet weight was found using 80 grit garnet. Using coarser media or less dense media will decrease weight.		
† 2 in. ground boss adapter included in tool box (see Parts section of the EcoQuip 2 manual for more detail).		
Air Supply Hose Minimum ID		
185–600 CFM compressor and less than 100 ft hose length	1.5 in. ID	38 mm ID
Over 600 CFM compressor or greater than 100 ft hose length	2 in. ID	51 mm ID
Sound Data**		
Sound Pressure Level	133 dB(A)	133 dB(A)
Sound Power Level	139 dB(A)	139 dB(A)
Instantaneous Sound Pressure Level	131 dB(C)	131 dB(C)
**All readings were taken at the maximum system blast pressure 150 psi (10.3 bar, 1.03 MPa) from the operator position. The abrasive used was garnet and the substrate was steel. Tested in accordance with ISO 9614-2.		
+ See the Nozzle Selection Guide for information on how to properly select the blast nozzle based on compressor pressure and flow output specifications.		
Notes		
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California Proposition 65

CALIFORNIA RESIDENTS

⚠ **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

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