



BULK ABRASIVE HOPPER INSTALLATION AND OPERATION MANUAL

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H2O JET, INC.



H2O Jet
1145 85th Ave SE
Tumwater, WA 98501

Phone: (866) WATERJET
Fax: (360) 866-7610
Email: info@waterjetparts.com

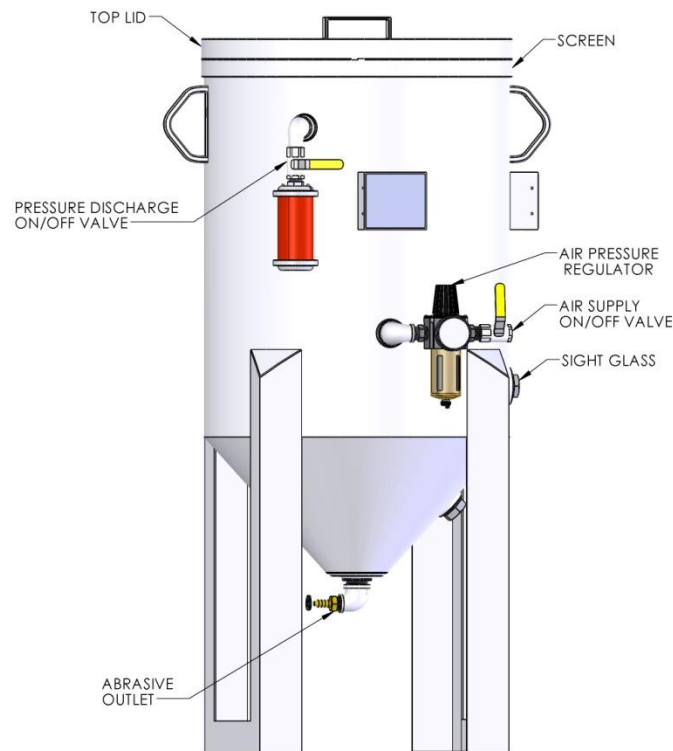
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1. OVERVIEW

The abrasive delivery system is a low maintenance and reliable component of the abrasive waterjet cutting system. The bulk hopper will store the abrasive and pneumatically transfer it to the metering device located on the machine. There are 4 main components to the machines use and operation:

- Screened loading area will allow for individual bags to be loaded through the screen on top of the bulk hopper.
- Storage tank will hold 600 pounds of abrasive.
- Sight Glass will allow you to check the abrasive levels and know when a refill is needed.
- Air regulator and 2 way valve allow control of the pressure and on/off capabilities.



Failure to follow the outlined maintenance and installation guidelines may result in component failure, causing equipment damage.

2. LOCATION

The bulk abrasive hopper must be located on a solid, level foundation. It is important to keep the area surrounding the hopper clear of obstructions or debris to allow easy access. A tipping or falling hopper can cause damage or injuries.

3. SAFETY

The bulk abrasive hopper is a pressurized vessel and only properly trained personnel should operate this device. Safety glasses should be worn at all times while working on or around the hopper.

4. ABRASIVE LOADING

1. Make sure cutting machine is not actively running.
2. Close the air supply valve, and open the discharge valve. Allow all the pressure to bleed from the hopper.
3. Remove the top lid and load abrasive through the screen until the hopper is full. Make sure the abrasive inlet is unobstructed before adding abrasive.
4. Replace the lid and close the discharge valve. Open the air supply valve and allow the tank to pressurize.

5. TROUBLESHOOTING

Table 2: Troubleshooting Guide

Issue	Possible Causes	Solution
1. No air pressure in bulk hopper	Insufficient air supply	Check to make sure there is air being supplied and it is operating at the recommended flow rate and pressure
	Pressure discharge valve is open	Close discharge valve
	Air supply valve is closed	Open air supply valve
2. Abrasive does not flow, or is too slow or erratic,	Abrasive outlet is obstructed	Check to make sure outlet is clean and dry
	Delivery hose is blocked or kinked	Check to make sure hose is not kinked or blocked.
	Insufficient air supply in the bulk hopper	Check discharge valve to make sure it is closed
Increase pressure on regulator or the pressure of the supply air		

6. SPECIFICATIONS

Table 3: Technical Specifications

Height	58.4 in (148.3 cm)
Width	31.0 in (78.7 cm)
Length	33.1 in (84.1 cm)
Weight (Dry)	320 lbs (145.1 kg)
Hopper Capacity	6.5 ft ³ (0.18 m ³)
Recommended Air Supply	60-80 psi (4.1-5.5 bar)
Air Flow Requirement (Startup)	10 ft ³ /min (.28 m ³ /min)
Air Flow Requirement (Operating)	1.0 ft ³ /min (.028 m ³ /min)
Air Inlet	½" NPT Female
Abrasive Outlet	½" Barb Fitting

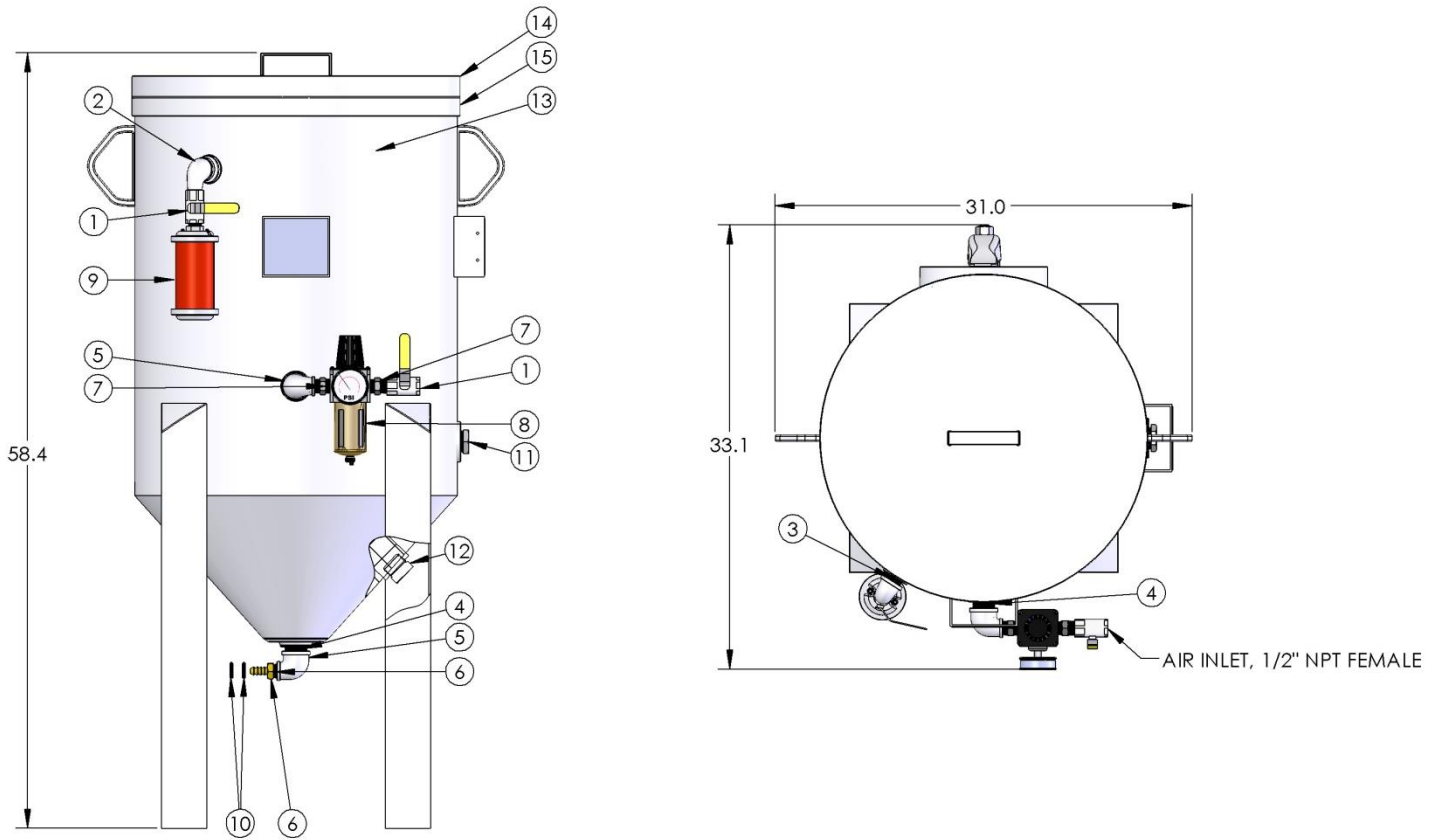
7. PARTS LIST

To facilitate parts ordering, the following table contains the parts list with item numbers that correspond to a diagram of the parts on the following page.

Table 4: Parts List

ITEM #	QTY	PART #	DESCRIPTION
1	2	400312-75	Brass Ball Valve 3/4" NPT F
2	1	400360-1.0-.75	Reducing Elbow, 1" NPT F x 3/4 M, 90Deg, Iron
3	1	400330-1.0x1.5	Pipe Nipple, 1" NPT, 1.5" LG, Iron
4	2	400330-1.25x1.6	Pipe Nipple, 1.25" NPT, 1.625" LG, Black Iron
5	2	400358-1.25-.75	Reducing Elbow, 1.25" NPT F x 3/4 NPT F, 90 Deg, Iron
6	1	400333-75-5	Push Lock Fitting, 3/4" NPT X 1/2" Barb, Brass
7	2	400330-1.0x1.5-3	Pipe Nipple, 1" NPT, 1.5"LG, Black Iron
8	1	400359-.75	Filter/Regulator, 3/4"NPT, W/Gauge
8		400359-.75-1	Filter Element for Regulator, SMC
8		606050-11	160 psi Replacement Gauge for Regulator, SMC
9	1	400218-3	Muffler, 3/4" NPT MALE, 595 CFM, 4.6" LG
10	1	400314-16-1	Hose Clamp, Worm Drive, 1"
11	2	400141-1.25	Plug, Sight Gauge, 1.25" NPT
12	3	400142-1.25	1.25" Galvanized Plug
13	1	700002-2-P	Abrasive Hopper, 6.5 FT ³
14	1	700002-1-2	Top Lid, Abrasive Hopper, W/ Handle, 6.5 FT ³
15	1	700002-1-3	Screen, Debris, Abrasive Hopper, 6.5 FT ³
16	1	700002-2-4	Gasket, Clean Out Port, Axiom Hopper, Oval
17	1	700002-1-5	Pop-Up Ball, with Stem (Not Shown)
18	1	700002-1-6	Gasket Seat, Pop-Up Ball, Bulk (Not Shown)

Figure 6: Parts List Diagram



8. REVISION TABLE

DATE	REV. ID.	DESCRIPTION OF CHANGE	WRITTEN BY	CHECKED BY	APPROVED BY
03/03/2011	0	First Publication	L.J.	M.H.	H.A.
07/24/2017	A	Format Update	L.J.	M.H.	H.A.