

PRECISION GRADES

FACTORY RECOMMENDED BLASTING OPTIMIZATION

PRESSURE POT EQUIPMENT SETUP

COMPRESSOR

Set the compressor to as high a pressure as allowable making sure not to exceed the pressure ratings of downstream equipment (hoses, pot, etc.). For fastest blasting, set above 140 PSI. Set lower if a lower surface profile is needed.

AIR DRYER & POT

Use the largest and shortest possible air supply hoses to connect the compressor to the air dryer and/or pot. 2" bull hoses are recommended. Check all fittings for leaks and repair if needed. 4-lug Chicago-style fittings are recommended for the best seal.

ABRASIVE METERING VALVE

EpiX superoxalloy abrasives require a lower abrasive flow setting compared with other abrasives. Metering valves will be set lower with superoxalloy abrasives than with other abrasives. Plunger-style valves are recommended for best performance.

NOZZLES

Longer extra long style nozzles achieve best performance. Use an orifice gauge to check for nozzle wear and replace if the nozzle is 1/16" (one nozzle size) larger than its original size. Use the following table to determine the air volume (CFM) requirement for various nozzle sizes. The total air requirement, which includes the nozzles, breathing air, air-powered exhaust fans, etc., must be lower than the CFM capacity of the compressor to maintain 100 PSI pressure or higher.

COMPRESSED AIR (CFM)

Requirement to maintain 100 PSI or higher when measured at the nozzle

NUMBER OF NOZZLES	NOZZLE SIZE					
	#4 (1/4")	#5 (5/16")	#6 (3/8")	#7 (7/16")	#8 (1/2")	#10 (5/8")
1 Nozzle	85	133	191	260	340	531
2 Nozzles	170	266	383	521	680	1,063
3 Nozzles	255	399	574	781	1,020	1,594
4 Nozzles	340	531	765	1,042	1,360	2,126



Superalloy Abrasive

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BLASTING WITH EPIX SUPEROXALLOY ABRASIVES

WITH A PRESSURE POT

VERIFY NOZZLE CONDITION

Use a properly maintained nozzle. Use an orifice gauge to check for nozzle wear and replace if the nozzle is 1/16" (one nozzle size) larger than its nominal size.

MAINTAIN PRESSURE

Use the highest nozzle pressure allowable. Measure pressure at the nozzle before blasting using a needle pressure gauge in the hose just upstream of the nozzle. To measure pressure, close the abrasive metering valve, activate the dead-man switch, and wait 15 – 30 seconds for the pressure to stabilize. **The needle gauge should read at least 100 PSI for fastest blasting (> 110 PSI recommended)** unless lower pressure is needed to achieve desired results.

OPTIMIZE MEDIA FLOW RATE

Set the metering valve for superalloy abrasives. **Plunger-style abrasive metering valves are recommended for best performance.** 1) Start with the metering valve closed and open to 1 full turn of the valve knob. 2) Activate the dead-man switch and test blast for 15-30 seconds. 3) If not enough abrasive, open the valve ½ turn at a time, test blasting for 15-30 seconds at each ½ turn. After 2 adjustments (2 turns open), open valve ¼ turn each adjustment and test blast. Repeat until the abrasive is blasting effectively. 4) Open the valve ¼ turn more and test again. If performance improves, use this valve setting. If performance is the same or worse, close the valve ¼ turn back to the setting after Step 3. 4) Make only minor adjustments (< ¼ turn) from this valve position. **When the valve is set properly, the abrasive will be nearly invisible coming out of the nozzle, dust will be very low, and the blast pattern will be full and fast.**

BLAST CONSISTENTLY

Use proper blasting technique. **Move the nozzle as fast as possible** using a smooth and constant side-to-side sweeping motion at a slight angle to the surface for best results. Maintain a consistent nozzle distance from the work surface. Start at a nozzle distance of 18-24" and adjust based on working conditions.

IN A SUCTION BLAST CABINET

CHECK ABRASIVE FEED RATE

Make sure the abrasive feed rate can be adjusted. **Siphon systems tend to overfeed superalloy abrasives, resulting in high dust and loss of performance.** Use a screw compressor clamp to pinch the abrasive delivery hose and regulate the abrasive.

ADJUST AIR-SUPPLY PRESSURE REGULATOR

Adjust the air-supply pressure regulator for best performance. **The cabinet air-supply pressure gauge should read at least 100 PSI while blasting for highest productivity (> 110 PSI recommended)** unless lower pressure is needed to achieve desired results.

Contact 10X for vapor, slurry and mixed media dry ice blasting.



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