

PRECISION GRADES

FACTORY RECOMMENDED BLASTING OPTIMIZATION

PRESSURE POT EQUIPMENT SETUP

COMPRESSOR

Set the compressor to as high as necessary to deliver the desired pressure at the nozzle during blasting. 90 PSI or higher at the nozzle is recommended for coating removal.

AIR DRYER & POT

For dry blasting it is important to use an air dryer upstream of the pot. Use the largest diameter and shortest length possible air supply hose to connect the compressor to the air dryer and/or pot. Minimum 2" diameter bull hose is recommended for a single nozzle blast pot. Check all fittings for leaks and repair if needed.

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. Slotted abrasive valve sleeves are available for more precise metering. Contact 10X for details.

NOZZLES

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.

COMPRESSED AIR (CFM)

Nozzle air demand at 100 PSI:

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

The total air requirement includes the nozzles, breathing air, air-powered exhaust fans, etc. All of these demands need to be considered when selecting the compressor size.

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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 required to achieve desired results. 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 for the pressure to stabilize. **The needle gauge should read at least 90 PSI for fastest blasting.** Lower pressure may be appropriate for thin coatings or surface profiling. Do not operate with a partially closed choke valve.

OPTIMIZE MEDIA FLOW RATE

Plunger-style abrasive metering valves are recommended when using superalloy abrasives. 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. 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 with the desired nozzle distance. 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) Make only minor adjustments (< ¼ turn) from this valve position. **At the optimal valve setting, superalloy abrasives are extremely efficient and very low in dust.**

BLAST CONSISTENTLY

Use proper blasting technique. Move the nozzle as fast as possible using a smooth and constant 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 BLAST CABINET

CHECK ABRASIVE FEED RATE

Make sure the abrasive feed rate can be adjusted. Suction systems tend to overfeed superalloy abrasives, resulting in high dust and loss of performance. When a suction air regulator is not available, consider using a screw compressor clamp or suction end restriction (i.e. hose barb) to restrict the amount of abrasive drawn through the pickup point.

ADJUST AIR-SUPPLY PRESSURE REGULATOR

Adjust the air-supply pressure regulator for best performance. We recommend 60-90 PSI while blasting to ensure maximum abrasive durability. Higher pressures may be beneficial for the removal of difficult coatings.

For vapor, slurry and mixed media dry ice blasting or blasting applications where metallized coatings will be thermally applied, contact 10X for technical details before blasting.