

# FACTORY RECOMMENDED BLASTING OPTIMIZATION

## SET UP THE BLAST POT

Make sure the blast pot is connected to the compressor with the largest air supply hose possible. This ensures that there is sufficient air flow. Undersized blast hoses can slow down the speed and drastically decrease nozzle pressure. We recommend using four lug fittings and a 2" bull hose.

01



## VERIFY THE NOZZLE CONDITION

If the nozzle is 1/16" larger than its design size it has reached the end of its usefulness. To guarantee correct measurements, an orifice gauge is recommended. The preferred nozzle series is the Kennametal XL Performance nozzles which increase the speed of 10X and deliver more energy to the surface.

02



## MEASURE THE PRESSURE

The pressure must be measured at the nozzle prior to blasting using a needle gauge. With the abrasive valve closed, activate the dead-man switch. Wait 15-30 seconds for the system to come up to pressure and read the needle gauge. The minimum recommended pressure is 110PSI; 10X excels at higher pressures.

03



## OPTIMIZE MEDIA FLOW RATE

Start with the metering valve shut and slowly increase the feed rate. Open 1/2 turn and wait until the feed rate reaches the operator. Continue until the media is cleaning the surface uniformly. Note the setting then open 1/4 turn. If cleaning does not improve, reduce to the noted setting. This is the optimum media flow rate.

04



## BLAST CONSISTENTLY

Hold the nozzle at a consistent distance from the surface that is being blasted. Initially start at 18-24 inches from the surface and adjust based on the working conditions. Constant movement in a side to side motion at a slight angle to the surface yields optimum results.

05



## CFM / PSI REQUIREMENTS

PRESSURE	COMPRESSED AIR USE	NOZZLE # AND ORIFICE SIZE								
	MOBILE COMPRESSOR PROJECTED FUEL USAGE	#2	#3	#4	#5	#6	#7	#8	#10	#12
		1/8 in	3/16 in	1/4 in	5/16 in	3/8 in	7/16 in	1/2 in	5/8 in	3/4 in
60PSI	CFM	14	31	55	87	125	170	222	346	498
	GPH	0.32	0.71	1.26	1.97	2.84	3.87	5.05	7.89	11.36
70PSI	CFM	16	35	63	98	141	192	251	392	565
	GPH	0.36	0.81	1.43	2.24	3.22	4.38	5.73	8.95	12.88
80PSI	CFM	18	39	70	110	158	215	281	439	632
	GPH	0.40	0.90	1.60	2.50	3.60	4.90	6.40	10.00	14.40
90PSI	CFM	19	44	78	121	175	238	310	485	699
	GPH	0.44	1.00	1.77	2.76	3.98	5.42	7.08	11.06	15.92
100PSI	CFM	21	48	85	133	191	260	340	531	765
	GPH	0.48	1.09	1.94	3.03	4.36	5.94	7.75	12.11	17.44
110PSI	CFM	23	52	92	144	208	283	370	578	832
	GPH	0.53	1.19	2.11	3.29	4.74	6.45	8.43	13.17	18.97
120PSI	CFM	25	56	100	156	225	306	399	624	899
	GPH	0.57	1.28	2.28	3.56	5.12	6.97	9.11	14.23	20.49
130PSI	CFM	27	60	107	168	241	329	429	670	965
	GPH	0.61	1.38	2.45	3.82	5.50	7.49	9.78	15.28	22.01
140PSI	CFM	29	65	115	179	258	351	459	717	1032
	GPH	0.65	1.47	2.61	4.08	5.88	8.01	10.46	16.34	23.53
150PSI	CFM	31	69	122	191	275	374	488	763	1099
	GPH	0.70	1.57	2.78	4.35	6.26	8.52	11.13	17.40	25.05

\*This table is for reference only and actual results may vary. Actual fuel usage is determined by many factors. Please contact your 10X technical representative for more information.

### 10X MINIMUM RECOMMENDED PRESSURE



Per industry standard, the minimum recommended pressure for blasting is 100PSI. For every 1 PSI below 100, productivity decreases 1.5%. 10X abrasive performance continues to improve with increased pressure.

### ADDITIONAL EQUIPMENT CONSIDERATIONS



If you are using a compressor driven respirator it is important to take that into account when calculating your CFM requirements. In general, a respirator requires an extra 6-16 CFM. See your respirator owner's manual for further details.



# PREMIUM ABRASIVE PRODUCTS

WWW.10XEM.COM

PATENT PENDING

## Material Composition

Oxide	CAS Number	Weight %
Silicon Dioxide	7631-86-9	33-43
Calcium Oxide	1305-78-8	23-33
Magnesium Oxide	1309-48-4	8-14
Aluminum Oxide	1344-28-1	7-13
Iron Oxide	1345-25-1	1-5

## Physical Properties

Property	Value
Mohs Hardness	7
Particle Shape	Angular/Rounded
Color	Black, gray
Melting Temperature	1,150 °C / 2,102 °F
Material Specific Gravity	2.7-2.9
Bulk Density – 10X 20/40	90-95 lb/ft <sup>3</sup>
Bulk Density – 10X 40/70	95-105 lb/ft <sup>3</sup>
Bulk Density – 10X 70/100	100-110 lb/ft <sup>3</sup>

## Quality & Safety Parameters

Property	Value
Crystalline Silica	Not Detected (NIOSH Method 7500)
Beryllium	Not Detected (SSPC-AB1 Section B.4.1)
Conductivity	40-150 μS/cm
Moisture	0.0 - 0.05%
Oil Content	None
Dust	Low

## Environmental

10X abrasives contain no hazardous materials and are not regulated for transportation or disposal. TCLP data below.

Metal	Method	Value (mg/L)	EPA Limit
Mercury	EPA 7471B	<0.0005	0.200
Arsenic	EPA 6010D	<0.08	5.00
Barium	EPA 6010D	0.217	100
Cadmium	EPA 6010D	<0.08	1.00
Chromium	EPA 6010D	<0.2	5.00
Lead	EPA 6010D	<0.08	5.00
Selenium	EPA 6010D	<0.08	1.00
Silver	EPA 6010D	<0.08	5.00

Less-than sign (<) signifies below the detection limit of the test method used.

## Product Options

<b>10X 20/40 - Coarse</b>	<ul style="list-style-type: none"> <li>• Thick or hard coatings</li> <li>• Corrosion &amp; mill scale removal</li> <li>• Oil, dirt, and grease removal</li> <li>• Stone cutting and engraving</li> <li>• 90 psi or higher recommended</li> <li>• 2.5-4.0+ mil profile on steel</li> <li>• Reusable</li> </ul>
<b>10X 40/70 - Medium</b>	<ul style="list-style-type: none"> <li>• General all-purpose abrasive</li> <li>• Medium to thick coatings</li> <li>• Corrosion &amp; mill scale removal</li> <li>• Oil, dirt, and grease removal</li> <li>• Stone cutting and engraving</li> <li>• 90 psi or higher recommended</li> <li>• 1.5-3.0+ mil profile on steel</li> <li>• Reusable</li> </ul>
<b>10X 70/100 - Fine</b>	<ul style="list-style-type: none"> <li>• Specialized surface treatment</li> <li>• Thin coatings</li> <li>• Corrosion &amp; mill scale removal</li> <li>• Oil, dirt, and grease removal</li> <li>• Pressure is application dependent</li> <li>• 0.5-2.0 mil profile on steel</li> <li>• Reusable</li> </ul>

## Packaging Options

- Bulk truck
- 4,000 lb. super sack
- 2,000 lb. super sack
- 50 lb. bags

## Use Instructions

- Use personal protective equipment as required.
- Maintain pressure at the nozzle above 90 psi for best performance. Performance improves at higher pressures.
- A long venturi nozzle is recommended for best performance.
- Adjust abrasive pot metering valve starting fully closed and opening until material cleans the surface. 10X abrasive flows well and lower metering valve settings are normal.



100% Made in the USA

No warranty, express or implied, is made for use of this information. 10X Engineered Materials liability is limited to replacement of defective products.