

Abrasive Blasting Technical Data

Air Consumption (CFM) per Blast Nozzle Using Garnet Abrasive

Nozzle Size		Nozzle Pressure										
		50 psi	60 psi	70 psi	80 psi	90 psi	100 psi	110 psi	120 psi*	130 psi*	140 psi*	150 psi*
No. 2	1/8"	14	17	19	21	24	26	28	30	32	34	37
No. 3	3/16"	32	37	42	47	52	57	62	67	72	77	83
No. 4	1/4"	57	66	75	84	93	103	111	119	127	136	185
No. 5	5/16"	89	103	117	131	145	158	172	186	200	214	229
No. 6	3/8"	129	149	169	189	209	229	249	269	289	309	330
No. 7	7/16"	176	203	230	258	285	312	339	367	394	422	451
No. 8	1/2"	229	265	300	336	371	407	442	478	513	549	586
No. 10	5/8"	356	412	468	524	580	632	688	744	800	856	914
No. 12	3/4"	516	596	676	756	836	916	996	1076	1156	1236	1318
EFFICIENCY		47%	55%	64%	74%	86%	100%	115%	130%	145%	165%	175%

* Ensure equipment is rated for these pressures.

Nozzle Pressure vs Efficiency

Blast Nozzle Pressure	Approximate Abrasive Velocity	Approximate Efficiency Factor
100 psi	675 kph (422 mph)	100%
95 psi	640 kph (400 mph)	93%
90 psi	585 kph (366 mph)	86%
85 psi	530 kph (331 mph)	80%
80 psi	495 kph (309 mph)	74%
75 psi	450 kph (281 mph)	69%
70 psi	420 kph (263 mph)	64%

Hose Selection Guide for Blasting at 100 psi Nozzle Pressure

Nozzle Number	No. 4	No. 5	No. 6	No. 7	No. 8
Nozzle Size	1/4" (6 mm)	5/16" (8 mm)	3/8" (10 mm)	7/16" (11 mm)	1/2" (13 mm)
CFM at 100 psi	103	158	229	312	407
Air Hose ID - minimum	25 mm (1")	38 mm (1 1/2")	38 mm (1 1/2")	50 mm (2")	50 mm (2")
Blast Hose ID - minimum	20 mm (3/4")	25 mm (1")	32 mm (1 1/4")	32 mm (1 1/4")	38 mm (1 1/2")

Typical ID - OD Relationship in Common Blast Hose

Standard Hose				Supa/Whip Hose			
ID		OD		ID		OD	
mm	inch	mm	inch	mm	inch	mm	inch
13	1/2"	33	1 5/16"	13	1/2"	30	1 3/16"
19	3/4"	40	1 1/2"	19	3/4"	33	1 5/16"
25	1	48	1 7/8"	25	1	40	1 1/2"
32	1 1/4"	55	1 5/32"	32	1 1/4"	48	1 7/8"
38	1 1/2"	60	2 3/8"	38	1 1/2"	55	2 5/32"

English USA Units/Metric Conversion Chart

3/16"	5 mm	1 1/4"	32 mm
1/4"	6 mm	1 5/16"	33 mm
5/16"	8 mm	1-1/2"	38 mm
3/8"	10 mm	1 9/16"	40 mm
7/16"	11 mm	1 3/4"	44 mm
1/2"	13 mm	1 7/8"	48 mm
5/8"	16 mm	2"	51 mm
3/4"	19 mm	2 5/32"	55 mm
1"	25 mm	2 3/8"	60 mm
1 3/16"	30 mm	2 1/2"	64 mm