

APPLICATION CONSIDERATIONS: SYSTEM SELECTION AND SIZING

The charts below will help you maximize your investment in a portable blaster. They assist in coordinating the size of components as well as selecting the Empire unit best suited for the type of work you normally perform.

System Sizing Chart (at 100 psi nozzle pressure)

Nozzle (No.)	Hose I.D. (Blast)			(Air Supply)	Optimum Vessel Size	Minimum Compressor Size (SCFM)	(HP)*	Approximate Blast Time (Min.)	Media Use (lbs/hr)
#2	1/8"	1/2"	3/4"		100 150	20	5	35 50	175
#3	3/16"	1/2 to 3/4"	1"		150 to 350	45	10	25 45	250
#4	1/4"	3/4 to 1"	1 to 1-1/4"		350	81	18	45	500
#5	5/16"	1 to 1-1/4"	1-1/4"		650	137	30.5	50	800
#6	3/8"	1 to 1-1/4"	1-1/2"		650 1050	196	44	35 55	1150
#7	7/16"	1-1/2"	2"		1050	254	56.5	40	1600
#8	1/2"	1-1/2"	2"		1050	338	75	30	2000
#10	5/8"	1-1/2"	3"		1050	548	122	20	3300

*HP: Use horsepower figures for reference only as actual air output may vary between compressors with the same horsepower rating.

Air Requirement & Media Consumption Chart

Nozzle Inside Orifice	PSI	Media Consumption (lbs/hr)						
		60	70	80	90	100	120	
3/16"	Air (CFM)	30	33	38	41	45	--	
	Horsepower	7.0	7.5	8.5	9.5	10.0	--	
	Media (lbs/hr)	171	196	216	238	264	--	
1/4"	Air (CFM)	54	61	68	74	81	97	
	Horsepower	12.0	13.5	15.0	16.5	18.0	21.5	
	Media (lbs/hr)	312	354	408	448	494	582	
5/16"	Air (CFM)	89	101	113	126	137	152	
	Horsepower	20.0	22.5	25.5	28.0	30.5	34.0	
	Media (lbs/hr)	534	604	672	740	812	912	
3/8"	Air (CFM)	126	143	161	173	196	220	
	Horsepower	28.0	32.0	36.0	38.5	44.0	49.0	
	Media (lbs/hr)	764	864	960	1,052	1,152	1,320	
7/16"	Air (CFM)	170	194	217	240	254	300	
	Horsepower	38.0	43.5	48.5	53.5	56.5	67.0	
	Media (lbs/hr)	1,032	1,176	1,312	1,448	1,584	1,800	
1/2"	Air (CFM)	224	252	280	309	338	392	
	Horsepower	50.0	56.0	62.5	69.0	75.0	87.5	
	Media (lbs/hr)	1,336	1,512	1,680	1,856	2,024	2,352	
5/8"	Air (CFM)	356	404	452	504	548	611	
	Horsepower	79.5	90.0	100.5	112.0	122.0	136.0	
	Media (lbs/hr)	2,136	2,424	2,712	3,024	3,288	3,668	

Media consumption rates, labeled as "Media (lbs/hr)" in the chart above, are based upon media having a bulk density of 100 pounds per cubic foot.

PERFORMANCE CHECKLIST ✓

Compare SuperBlast portables with any other blasters on the market today. The check-off list below shows why SuperBlast portables are the best buy in the industry. Empire invites you to make a point-by-point matchup.

	SuperBlast	Competitor
Vessel Construction & Loading		
Large (6-inch) opening for fast filling	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Automatic bag breaker to simplify loading*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Concave top for automatic refilling	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Built-in screen for lower profile, fewer clogs	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Filling height with screen (inches)*	_____ "	_____ "
Extra half-bag capacity for longer blasting	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ASME construction, National Board Reg.*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Transportation Features		
Tilt control for stability, easy mobility and no flat spots on tires*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large, semi-pneumatic tires	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wide handle for stability while moving*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lifting eyes to simplify handling*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Invertible for transportation*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Streamlined control piping	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Front-mounted controls to prevent damage*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Performance & Maintenance		
Large piping and valves to maintain operating pressure and increase productivity	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Flexible air line that simplifies maintenance and minimizes pressure loss	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large access port for easy internal inspection and access*	6.5" x 8.5"	_____ ?
Moisture separator to prevent clogs and freeze-ups	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Grit Valve		
Provides straight-through media flow	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Has no metal surfaces exposed to grit	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Regulates all sizes and types of media	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Uses long-lasting, gum rubber pinch tube	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Convertible from manual to automatic	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Easy to repair in the field	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cost of grit-valve repair kit?	\$ _____	\$ _____
Approximate time to repair valve	15 minutes	_____ ?
Warranty	3 years	_____ ?

* SAFETY FEATURE