



AIRBLAST

RJL

Tungsten Carbide Long Venturi Nozzle with Rubber Jacket



RJL

The RJL range comprises of Tungsten Carbide lined long venturi nozzles with a Rubber Jacket. Tungsten Carbide is the liner material of choice for the majority of contractors due to long life and impact resistance - the Rubber Jacket provides impact resistance for tough environments. Long venturi nozzles are used in standard applications in which the blaster operates at a distance of more than 30 cm (or 12") from the surface.

The RJL series are available with a 32 mm (1¼") inlet and a large thread, with an orifice range from 4,8 mm to 19 mm.

Airblast high velocity venturi style nozzles have been designed to maximize blast cleaning rates and provide uniform abrasive distribution. The venturi design accelerates the air / abrasive mix as it exits the nozzle providing additional momentum – this can increase productivity and reduce abrasive consumption by up to 40% when compared with straight bore nozzles.

Airblast offers a full selection of nozzles with various orifice sizes, nozzle lengths, insert and liner materials. Contact Airblast to discuss which nozzle is most suitable for your specific application.

RJL - Tungsten Carbide Long Venturi Nozzles with Rubber Jacket

Part no.	Description	Orifice	Lenght	Inlet
2049000	RJL-3/50 TC Nozzle with large 50 mm thread	4,8 mm	135 mm	32 mm
2050000	RJL-4/50 TC Nozzle with large 50 mm thread	6,5 mm	135 mm	32 mm
2051000	RJL-5/50 TC Nozzle with large 50 mm thread	8,0 mm	145 mm	32 mm
2052000	RJL-6/50 TC Nozzle with large 50 mm thread	9,5 mm	170 mm	32 mm
2053000	RJL-7/50 TC Nozzle with large 50 mm thread	11,0 mm	200 mm	32 mm
2054000	RJL-8/50 TC Nozzle with large 50 mm thread	13.0 mm	235 mm	32 mm
2054100	RJL-10/50 TC Nozzle with large 50 mm thread	16.0 mm	235 mm	32 mm
2054200	RJL-12/50 TC Nozzle with large 50 mm thread	19.0 mm	235 mm	32 mm

COMPATIBILITY GUIDE

No.	Nozzle Orifice	Recommended range		Minimum Blast Machine capacity	Minimum Pipe ID	Blast Hose ID	Minimum Air Hose ID
		m ³ /min	CFM				
3	5.0 mm	1.27 - 2.29	45 - 81	60 ltr.	1"	¾"	1"
4	6.5 mm	2.29 - 3.88	81 - 137	60 ltr.	1"	1" - 1¼"	1¼"
5	8.0 mm	3.88 - 5.55	137 - 196	100 ltr.	1"	1" - 1¼"	1¼"
6	9.5 mm	5.55 - 7.19	196 - 254	200 ltr.	1¼"	1¼"	1½"
7	11.0 mm	7.19 - 9,57	254 - 338	200 ltr.	1¼"	1¼" - 1½"	2"
8	12.5 mm	9.57 - 15.52	338 - 548	200 ltr.	1¼"	1½"	2"

Note: Best performance is obtained when sizes of nozzle, blast machine piping, blast hose and air hose are properly matched.

- m³/min and CFM range is based on blasting at 7 bar (100 psi) for the life of the nozzle.
- Blast machine capacity should allow 20 to 30 minutes of blasting.
- Hose ID should be three to four times the size of the nozzle orifice.

NOZZLE PRESSURE / NOZZLE DIAMETER GUIDE

ORIFICE (mm) (")	NOZZLE PRESSURE / NOZZLE DIAMETER GUIDE												REQUIRED AIR	REQUIRED ABRASIVE	REQUIRED POWER	CFM	m ³ /min
	60 PSI	4.2 BAR	70 PSI	4.9 BAR	80 PSI	5.6 BAR	90 PSI	6.3 BAR	100 PSI	7.0 BAR	120 PSI	8.5 BAR					
5.0 mm 3/16"	30.0	0.85	33.0	0.93	38.0	1.08	41.0	1.16	45.0	1.27	58.0	1.64	REQUIRED AIR				
	171.0	77.00	196.0	89.00	216.0	96.00	238.0	108.00	264.0	120.00	375.0	170.00	REQUIRED ABRASIVE	CFM	m ³ /min		
	7	5.3	8	5.6	9	6.4	10	7.1	10	7.5	12	9.0	REQUIRED POWER	Lbs./hr.	KG/hr. *		
6,5 mm 4/16"	54.0	1.53	61.0	1.73	68.0	1.93	74.0	2.10	81.0	2.29	105.0	2.97	REQUIRED AIR				
	312.0	141.00	354.0	160.00	408.0	185.00	448.0	203.00	494.0	224.00	660.0	300.00	REQUIRED ABRASIVE	CFM	m ³ /min		
	12	9.0	14	10.1	16	11.6	17	12.4	18	13.5	22	16.2	REQUIRED POWER	Lbs./hr.	KG/hr. *		
8.0 mm 5/16"	89.0	2.52	101.0	2.86	113.0	3.20	126.0	3.57	137.0	3.88	160.0	4.53	REQUIRED AIR				
	534.0	242.00	604.0	274.00	672.0	305.00	740.0	335.00	850.0	385.00	1.050.0	476.00	REQUIRED ABRASIVE	CFM	m ³ /min		
	20	15.0	23	19.1	26	20.2	28	21.0	31	22.9	37	27.5	REQUIRED POWER	Lbs./hr.	KG/hr. *		
9.5 mm 6/16"	126.0	3.57	143.0	4.05	161.0	4.56	173.0	4.90	196.0	5.55	235.0	6.65	REQUIRED AIR				
	764.0	346.00	864.0	392.00	960.0	425.00	1.052.0	477.00	1.152.0	523.00	1.475.0	669.00	REQUIRED ABRASIVE	CFM	m ³ /min		
	28	21.0	32	24.0	36	27.0	39	28.9	44	33.0	52	39.6	REQUIRED POWER	Lbs./hr.	KG/hr. *		
11.0 mm 7/16"	170.0	4.81	184.0	5.21	217.0	6.14	240.0	6.80	254.0	7.19	315.0	8.92	REQUIRED AIR				
	1.032.0	468.00	1.176.0	533.00	1.312.0	595.00	1.448.0	657.00	1.584.0	719.00	2.050.0	930.00	REQUIRED ABRASIVE	CFM	m ³ /min		
	38	28.5	44	32.6	49	36.4	54	40.1	57	42.4	69	50.9	REQUIRED POWER	Lbs./hr.	KG/hr. *		
12.5 mm 8/16"	224.0	6.34	252.0	7.14	280.0	7.93	309.0	8.75	338.0	9.57	410.0	11.61	REQUIRED AIR				
	1.336.0	606.00	1.512.0	686.00	1.680.0	762.00	1.856.0	842.00	2.024.0	918.00	2.650.0	1.202.00	REQUIRED ABRASIVE	CFM	m ³ /min		
	50	37.5	56	42.0	63	46.9	69	51.8	75	56.3	90	67.6	REQUIRED POWER	Lbs./hr.	KG/hr. *		

Chart shows calculated consumption rates of air and abrasive for new nozzles. When selecting a compressor add 50% to above figures to allow for normal nozzle wear and friction loss.

* Based on abrasive density of 1,5 kgs. per liter.

NOTE: Figures may vary depending upon working conditions. To maintain desired air pressure as nozzle orifice wears, air consumption increases. The effects of nozzle wear on air consumption must be considered when selecting nozzles and the compressors that support them.