



AIRBLAST

ATSD(X)

Tungsten Carbide Long Venturi Nozzle with Aluminium Jacket



ATSD(X)

The ATSD(X) range comprises of Tungsten Carbide lined long venturi nozzles with Aluminum Jackets. Tungsten Carbide is the liner material of choice for the majority of contractors due to long life and impact resistance - the Aluminum Jacket adds to the rugged character of the nozzle. 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 ATSD nozzle has a 25 mm (1") inlet and the ATJDX has a 32 mm (1¼") inlet - both are available with a standard large thread (/50) or fine thread.

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.

ATSD(X) - Tungsten Carbide Long Venturi Nozzles with Aluminium jacket

Part no.	Description	Orifice	Length	Inlet
2001000	ATSD-3 TC Nozzle with fine thread	4,8 mm	135 mm	25 mm
2002000	ATSD-4 TC Nozzle with fine thread	6,4 mm	135 mm	25 mm
2003000	ATSD-5 TC Nozzle with fine thread	8,0 mm	145 mm	25 mm
2004000	ATSD-6 TC Nozzle with fine thread	9,5 mm	170 mm	25 mm
2005000	ATSD-7 TC Nozzle with fine thread	11,0 mm	200 mm	25 mm
2006000	ATSD-8 TC Nozzle with fine thread	13,0 mm	230 mm	25 mm
2007000	ATSDX-4 TC Nozzle with fine thread	6,4 mm	135 mm	32 mm
2008000	ATSDX-5 TC Nozzle with fine thread	8,0 mm	145 mm	32 mm
2009000	ATSDX-6 TC Nozzle with fine thread	9,5 mm	170 mm	32 mm
2010000	ATSDX-7 TC Nozzle with fine thread	11,0 mm	200 mm	32 mm
2011000	ATSDX-8 TC Nozzle with fine thread	13,0 mm	230 mm	32 mm
2012000	ATSDX-10 TC Nozzle with fine thread	16,0 mm	230 mm	32 mm
2013000	ATSDX-12 TC Nozzle with fine thread	19,0 mm	230 mm	32 mm
2014000	ATSD-3/50 TC Nozzle with large thread	4,8 mm	135 mm	25 mm
2015000	ATSD-4/50 TC Nozzle with large thread	6,4 mm	135 mm	25 mm
2016000	ATSD-5/50 TC Nozzle with large thread	8,0 mm	145 mm	25 mm
2017000	ATSD-6/50 TC Nozzle with large thread	9,5 mm	170 mm	25 mm
2018000	ATSD-7/50 TC Nozzle with large thread	11,0 mm	200 mm	25 mm
2019000	ATSD-8/50 TC Nozzle with large thread	13,0 mm	230 mm	25 mm
2020000	ATSDX-4/50 TC Nozzle with large thread	6,4 mm	135 mm	32 mm
2021000	ATSDX-5/50 TC Nozzle with large thread	8,0 mm	145 mm	32 mm
2022000	ATSDX-6/50 TC Nozzle with large thread	9,5 mm	170 mm	32 mm
2023000	ATSDX-7/50 TC Nozzle with large thread	11,0 mm	200 mm	32 mm
2024000	ATSDX-8/50 TC Nozzle with large thread	13,0 mm	230 mm	32 mm
2025000	ATSDX-10/50 TC Nozzle with large thread	16,0 mm	230 mm	32 mm
2026000	ATSDX-12/50 TC Nozzle with large mm thread	19,0 mm	230 mm	32 mm

The standard size thread of the nozzle is 50 mm, which is indicated by /50 in the Airblast article, without this indication the nozzle has a fine thread of 41 mm.

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	CFM	m ³ /min		
	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	Lbs./hr.	KG/hr. *		
	7	5.3	8	5.6	9	6.4	10	7.1	10	7.5	12	9.0	REQUIRED POWER	hp	kw		
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	CFM	m ³ /min		
	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	Lbs./hr.	KG/hr. *		
	12	9.0	14	10.1	16	11.6	17	12.4	18	13.5	22	16.2	REQUIRED POWER	hp	kw		
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	CFM	m ³ /min		
	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	Lbs./hr.	KG/hr. *		
	20	15.0	23	19.1	26	20.2	28	21.0	31	22.9	37	27.5	REQUIRED POWER	hp	kw		
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	CFM	m ³ /min		
	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	Lbs./hr.	KG/hr. *		
	28	21.0	32	24.0	36	27.0	39	28.9	44	33.0	52	39.6	REQUIRED POWER	hp	kw		
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	CFM	m ³ /min		
	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	Lbs./hr.	KG/hr. *		
	38	28.5	44	32.6	49	36.4	54	40.1	57	42.4	69	50.9	REQUIRED POWER	hp	kw		
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	CFM	m ³ /min		
	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	Lbs./hr.	KG/hr. *		
	50	37.5	56	42.0	63	46.9	69	51.8	75	56.3	90	67.6	REQUIRED POWER	hp	kw		

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.