InTech

SILVENT 705 L

SILVENT 705 L: a stainless steel Laval nozzle. Compressed air is utilized optimally in this nozzle, and its introduction constitutes a new dimension in blowing technology. The effect is achieved by surrounding a core of air traveling at supersonic speed with a protective sheath of air moving parallel to the central air jet. The central stream of air in the Silvent 705 L is generated by a Laval nozzle. The design of the nozzle converts all of the energy stored in the compressed air into kinetic energy without permitting the air jet to expand laterally after leaving the nozzle. The protective sheath of air prevents the core stream from being slowed down by the surrounding air and allows it to be utilized at full effect. This hinders the creation of turbulence and thereby lowers the sound level. Fully meets the EU Machine Directive's noise limitation requirements and OSHA's safety regulations. Patented.

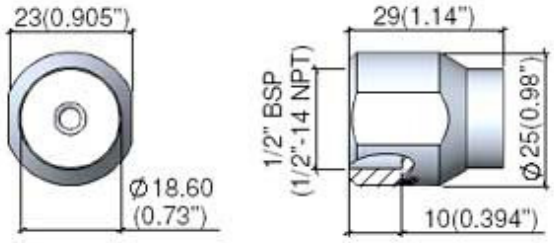
Noise reduction **73%** Air/cost savings **49%**

SPECIFICATIONS

	SI units	US units
Blowing force	17.0 N	3.8 lbs
Air consumption	95 Nm³/h	55.9 scfm
Sound level	93 dB(A)	
Blowing pattern	Laval	
Connection	G 1/2"	1/2"-14 NPT
Connection type	Female	
Dimensions	⬡ 23x33 mm	⬡ 0.91x1.30 inch
Material	Stainless steel	
Weight	0.051 kg	0.112 lbs
Max temp	400 °C	752 °F
Max operating pressure	1.0 MPa	143.0 psi

Benefits

Replace open pipe	10 mm	3/8 inch
Noise reduction [dB(A)]	19 dB(A)	73 %
Air/cost savings [Nm³/h]	90 Nm³/h	49 scfm
OSHA	Yes	
Meet the EU Machine directives	Yes	



Blowing properties at different pressures

SI units (kPa)	**200**	**400**	**600**	**800**	**1000**
Blowing force (N)	6.5	13.1	20.2	27.1	33.9
Air consumption (Nm³/h)	43.1	78.0	111.2	145.8	181.1
Sound level (dB(A))	86.0	91.2	94.0	96.1	97.6
US units (psi)	**40**	**60**	**80**	**100**	**120**
Blowing force (oz)	32.0	49.0	65.8	83.4	99.6
Air consumption (scfm)	33.1	47.4	60.8	74.9	89.9
Sound level (dB(A))	89.7	91.6	93.3	94.5	95.7

Air cone patterns and velocity distribution

SI units (mm)	**50**	**100**	**200**	**300**	**400**	**500**
Blowing pattern (ø)	95	140	190	235	280	330
Velocity (m/s)	253	203	103	76	55	50
US units (inch)	**2**	**4**	**8**	**12**	**16**	**20**
Blowing pattern (ø)	3.74	5.51	7.48	9.25	11.02	12.99
Velocity (ft/s)	830	666	338	249	180	164