# side channel blowers





#### HOW THE SIDE CHANNEL BLOWER WORKS

The shell that encases the turbine forms the side channel, which surrounds the entire turbine, except for the short area between the inlet and outlet ports at the bottom of the casing, which are sealed off from each other.

Air is forced from between the turbine blades outwards. The compressed air is then forced to the centre of the perimeter of the side channel, where it then, following the channel, is set in a spiral motion until it returns to the turbine. With each such motion, the air makes its way from the inlet towards the discharge.

All ESAM side channel blowers are completely oil free.

# OTHER SIDE CHANNEL BLOWER CONFIGURATIONS - 2V, 1AC, LHT

Designed for the specific requirements of certain applications is our range of 2V and 1AC models, which have in effect two side channel blowers built into the one compact unit. By connecting two turbines in series, as is done in the 2V range (light blue curves) we achieve far greater pressures. Similarly, by connecting two turbines in parallel, as is the case in our range of 1AC models (green curves) we achieve much higher flows than standard models.

LHT models are fitted with bearings designed for higher temperatures, allowing these models to reach much greater pressures.

# APPLICATIONS ACROSS INDUSTRY



AGRICULTURE



**AQUACULTURE** 



**AQUATIC** 



**AUTOMOTIVE** 



CHEMICAL & PHARMACEUTICAL



**CLEANING** 



CONSTRUCTION



ELECTRONIC



**ENERGY** 



FOOD



**GLASS** 



GOVERNMENT



**GRAPHICS** 



LABORATORY



MANUFACTURING



MEDICAL



METAL WORK



**PACKAGING** 



**RETAIL** 



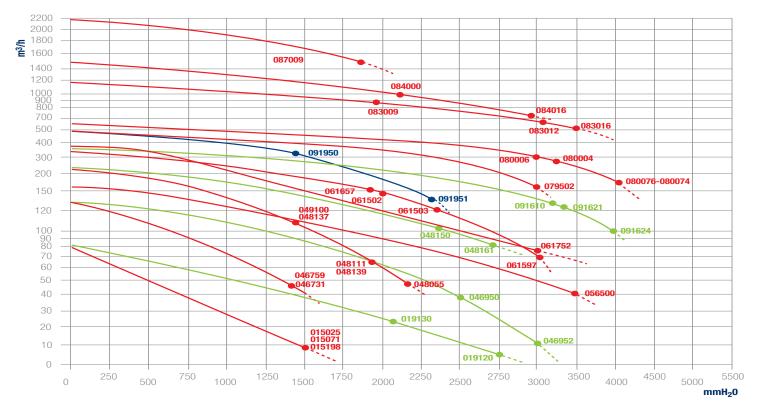
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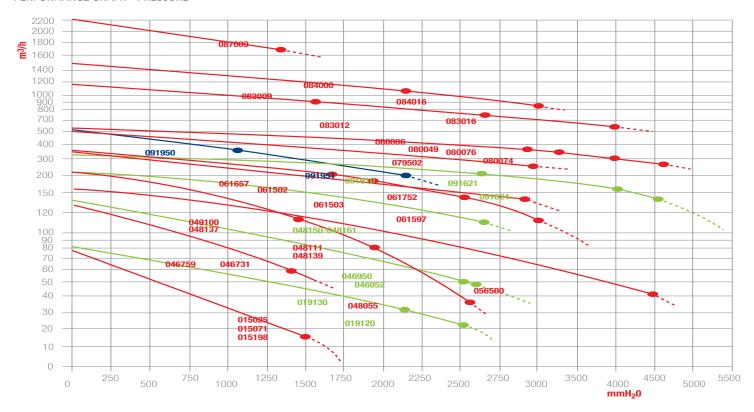
WATER & ENVRIONMENT



#### PERFORMANCE GRAPH - VACUUM



#### PERFORMANCE GRAPH - PRESSURE



#### **VALUES & DATA**

The pressure and flow rates have a tolerance of  $\pm$  10%. The vacuum curves are valid for pumping air, with a temperature of 20°C at the inlet flange and with a pressure of 1013 mbar at the discharge port.

The pressure curves are valid for pumping air, with an average temperature of 20°C, a density of 1.23 kG/m3 and 1013 mbar at the inlet flange. All catalogue data is intended as an indication of product specification.

Due to our programme of continuous improvement, we reserve the right to change pictorial, performance and dimensional data without prior notice. Sound pressure data in accordance to ISO 3746-1979 (E) norms. Parameters: r = 1 - background noise ≤ 51 dB(A) instrument used: Bruel & Kjær.

#### MEDIUM OF AIR

The standard side channel blowers / aspirators are designed to pump clean air up to a maximum of 40°C. Special units made to individual specifications, are also available.

50 Hz Three Phase Electric Motor		Delta		Star Y		Max Air	Max	Max			
Item Code	Description	kW	Volt	А	Volt		Flo w m²/ hr	Pressure mbar	Vacuum mbar	dB(A)	Kg
015071	UNI JET 75	0.4	200-240	2.3	345-415	1.35	80	+145	-145	62	10
046731	TECNO JET II/s	0.75	200-240	4.2	345-415	2.4	135	+140	-145	68	18
049100	FLUX JET 80	1.1	200-240	5.2	345-415	3	200	+145	-145	68	19
048111	FLUX JET	1.5	200-240	6.9	345-415	4	200	+185	-185	68	21
048055	FLUX JET	2.2	230	9	400	5.2	200	+265	-215	68	24
061502	MEDIO JET	2.2	230	9	400	5.2	330	+185	-195	76	30
061503	MEDIO JET	3	230	11.8	400	6.8	330	+245	-230	76	32
061597	MEDIO JET LHT	4	200-240	16.7	345-415	9.7	330	+295	-295	76	44
061752	MEDIO JET 350	4	200-240	16.7	345-415	9.7	340	+290	-300	76	44
056500	UNI JET 160	4	200-240	16.7	345-415	9.7	160	+440	-345	78	62
079502	UNI JET 501	7.5	345-415	17.8	-	-	500	+285	-295	78	88
080006	UNI JET 500	7.5	345-415	17.8	-	-	600	+285	-295	78	96
080049	UNI JET 500	9	345-415	22.3	-	-	600	+320	-315	78	102
080076	UNI JET 500	11	345-415	24.2	-	-	600	+400	-390	78	112
080074	UNI JET 500	12.5	345-415	26.8	-	-	600	+465	-390	78	112
083009	UNI JET 1000	11	345-415	25	-	-	1200	+155	-185	82	140
083012	UNI JET 1000	15	345-415	33.2	-	-	1200	+265	-315	82	155
083016	UNI JET 1000	20	345-415	44.3	-	-	1200	+390	-345	82	180
084000	UNI JET 1500	15	345-415	33.2	-	-	1500	+210	-225	82	156
084016	UNI JET 1500	20	345-415	44.3	-	-	1500	+295	-295	82	156
087009	UNI JET 2200	20	345-415	44.3	-	-	2200	+130	-185	82	156
019130	UNI JET 75 2V	0.75	200-240	3.4	345-415	1.95	80	+215	-215	64	16
046950	TECNO JET 2V	1.5	200-240	7.1	345-415	4.1	135	+245	-245	65	25
046952	TECNO JET 2V LHT	1.5	200-240	7.1	345-415	4.1	135	+255	-295	65	25
048150	FLUX JET 2V	2.2	230	9	400	5.2	200	+265	-230	72	31
048161	FLUX JET 2V LHT	2.2	230	9	400	5.2	200	+265	-265	72	31
091610	MEDIO JET 2V	4	200-240	16.7	345-415	9.7	330	+260	-315	77	57
091621	MEDIO JET 2V	5.5	200-240	22.5	345-415	13	330	+390	-320	77	60
091624	MEDIO JET 2V LHT	5.5	200-240	22.5	345-415	13	330	+440	-390	77	60
091950	MEDIO JET 1AC	4	200-240	16.7	345-415	9.7	500	+105	-135	77	56
091951	MEDIO JET 1AC	5.5	200-240	22.5	345-415	13	500	+215	-225	77	56

50 Hz Single Phase Electric Motor					Max Air	Max	Max Vacuum	طD(۸)	I/ or
Item Code	Description	kW	Volt	А	Flow m²/ hr	Pressure mbar	mbar	dB(A)	Kg
015025	UNI JET 75	0.4	230	3.1	80	+ 145	- 145	62	10
015198	UNI JET 75 (50/60Hz)	0.4	115-230	6-3	80	+ 147	- 147	62	10
046759	TECNO JET IIs	0.75	230	5.5	135	+ 135	- 135	68	18
048137	FLUX JET	1.1	230	7.6	200	+ 145	- 145	68	21
048139	FLUX JET	1.5	230	10	200	+ 185	- 185	68	21
061657	MEDIO JET CE	2	240	12	330	+ 160	- 170	75	33
019120	UNI JET 75 2V	0.8	230	4.8	80	+ 245	- 270	64	16

#### **ESAM WEBSITE**

If you're not 100% sure which Side Channel Blower is the perfect fit for your application, visit the handy, interactive product selector tools at the ESAM website.

Choose from two selector options: performance graphs or tables, to accurately match a product to your exact requirements. Easily switch between pressure and vacuum functions or single-phase and three-phase units, to quickly find what you're looking for.

With all results expressed on the actual flow at a pressure, rather than maximum figures, you can get an accurate representation of each blower's performance potential.

Once you've found the optimum blower statistics, click through for access to specific product information, dimensional drawings and images. From there, you're only one click away from a speedy product enquiry, and well on your way to owning the very best air technology in the industry. It really couldn't be easier!

# **ABOUT ESAM**

What is different about ESAM?



#### **SERVICE**

Our aim stretches well beyond pressures and flows; every time we deliver a product our goal is nothing short of complete customer satisfaction.

#### **DESIGN AND MANUFACTURE**

All ESAM side channel blowers are manufactured in Parma, Italy. Products are designed and manufactured under the quality program of ISO 9001.

#### **PRECISION**

Each ESAM turbine is dynamically balanced to ensure the highest possible quality and reliability.

ESAM is a comprehensive package of high quality product and committed customer service.

### TESTING

At ESAM, there is no such thing as 'batch testing'; we rigorously test every unit, putting every blower through all the extreme conditions under which it is likely to operate.

# COMMITMENT TO OUR CUSTOMERS

ESAM Australia hold a large stock of most models, and will also hold stock for your particular requirements.

#### **ESAM AUSTRALIA'S COMMITMENT**

ESAM Australia is committed to meeting the demands and exceeding the expectation of our customers.



#### **ACCESSORIES**

We have a large range of accessories for ESAM Side Channel Blowers including vacuum and pressure relief valves, filters and silencers .

Please contact ESAM for further information.

#### **WARRANTY**

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