

DVS DRY VANE VACUUM PUMPS

The latest new in Atlas Copco product portfolio are the Dry Vane pumps, that complete our offer to cover the segment of rough vacuum.

Different models are available to cover the most common applications needs.

The compact design ensure to Atlas Copco dry vane pumps to be suitable for installation even having small room available, thanks to the rotor assembled directly on the motor shaft -directly driven machine.



Dry Vane pumps do not need of oil to run. This ensures oil-free and clean operation. The DVS-series offer unparalleled design simplicity and competitive initial investment costs for rough vacuum applications.

All Atlas Copco dry vane pumps come equipped with inlet filter and outlet silencer in order to guarantee a complete solution to our customers.

The range

The DVS5, 8, 12, 16-25-40, 60-80 and 100-140 are a range of single stage, oil free and air-cooled dry vane vacuum pumps.

These compact machines, with a small footprint, deliver excellent performance with all the support expected from Atlas Copco. The performed flows are from 5 to 140 m3/h with ultimate pressure that goes from 120 to 150 mbar depending on the model. Thanks to the complete closed canopy DVS can guarantee a silence operation for the range of vane pumps. The new design with the frontal grid ensures a fast and easy service thanks to the direct access to the vanes housing.





Working Principles

Rotary vane vacuum pump works on a positive displacement pumping principle. The design consists of a rotor, which is mounted eccentrically inside a cylindrical housing or stator. High quality graphite blades mounted inside the rotor, slide in and out and turn against the inner wall of the rotor due to centrifugal force following the internal surface of the housing, creating vacuum/pressure. This process happen in a close chamber: the air enters the suction side of the chamber, where it compresses with each rotation. Once the suction chamber reaches its maximum capacity, the contents release into the discharge chamber and through the pump outlet. Finally, an exhaust valve prevents backflow by blocking contents that try to reenter the pump.



The dry running pumps use graphite vanes which rub over the surface of the housing cylinder. This creates a graphite layer on the surface which allows the vanes to slide with minimal wear. The air must also be filtered after compression to blow out nearly particle-free air. In addition, the air is normally led through an air-air cooler to reduce the temperature of the exhaust air. The pump can work 24/7.

All of this allows to get simple, dry, and reliable industrial vacuum pump which fits for all below applications.





Features and Benefits

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Efficient



- Direct drive
- Very low noise level
- Small footprint
- Long time between service

> Robust Design



- Reliable graphite vanes
- Design for an easy maintenance
- Compact and modular design
- Included accessories

Clean



- Dry and oil-free vacuum technology
- Air cooling pump
- No emissions and contamination for your process

Applications:

Dry vane vacuum pumps are used for applications which require clean and non-oil ambient beside production lines. Plus, if required vacuul level is less 400 mbar(a) (500 mbar(a) for example) we don't recommend usual oil sealed vane vacuum pumps du to a big gas load on an oil system on these vacuum levels close to atmospheric pressure.

Main applications:

- Pneumatic conveying
- ➤ Holding, Lifting, Moving
- Pick & Place
- > CVS
- > Dust extraction systems
- Degassing

Main industries:

- Flat Glass
- Medical
- Food and Beverage
- Plastic
- Printing
- Woodworking
- Electronics
- Pharmaceutical
- Packaging

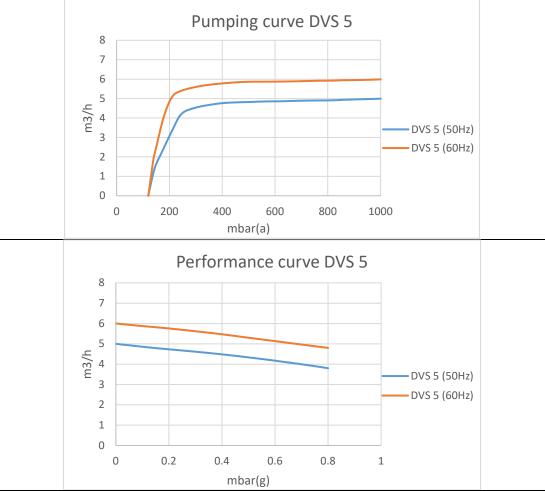


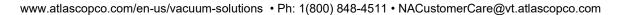


Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 5 1ph**

Main technical parameters						
Nominal capacity (50/60 Hz), m3/h			5/6			
Ultimate vacuum, mbar(a)			120			
Maximum	pressure	e, bar(e)		0.,8		
Nominal electric power (50/60 Hz), kW			0.12 / 0.1	15		
Nominal rpm (50/60 Hz), n/min			2800 / 33	300		
Dimensions, mm			226 x 139 x 138			
Net mass, kg			5.4			
Connection inlet			G 1/8"			
Connection outlet			G 1/8"			
	8		Pui	nping c	urve D\	/
	0					
	7					t
	6					





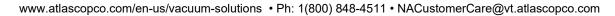






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Nominal (50/60 H	capacity		5/6			
		ı, mbar(a)	120			
		ure, bar(e)	0.8			
Nominal (50/60 H	electric		0.12 / 0.	15		1000
		/60 Hz), n/min	2800 / 3	300		
Dimensi	ons, mm	1		20 x 138	410	
Net mas			5.4			#
Connect	ion inlet		G 1/8"		10	
Connect	ion outle	et	G 1/8"			
	8 7 6 5 4 4 3 2 1 0	Pt	400 e	600 8		DVS 5 (50Hz) DVS 5 (60Hz)
	8 7 6 5 4 8	Perf	Formance	curve	DVS 5	
	E 3					—— DVS 5 (50Hz)
	3					DVS 5 (60Hz)



0.8

1

0.6

DVS 5 (60Hz)



0.2

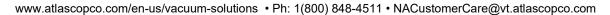
0.4

mbar(g)



Thank you for your interest to our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 8 1ph**

Main to	echnical parameters	
Nomina	al capacity	8/9
	Hz), m3/h	0/9
Ultimate vacuum, mbar(a)		150
	um pressure, bar(e)	0.8
	al electric power	0.25 / 0.3
	Hz), kW	DVS.
	al rpm (50/60 Hz), n/min	2800 / 3300
	sions, mm	253 x 167 x 160
Net ma		8.5
	ction inlet	G 3/8"
Connec	ction outlet	G 1/2"
	Pu 12	mping curve DVS 8
	10	
	10	
	8	
	€ .	
	h 3/h	—— DVS 8 (50Hz)
	4	—— DVS 8 (60Hz)
		DV3 8 (00HZ)
	2	
	0	
		400 600 800 1000
		mbar(a)
		ilibal(a)
	Perfo	ormance curve DVS 8
	12	
	10	
	10	
	8	
	h 3/h	2000 (2000)
		—— DVS 8 (50Hz)
	4	—— DVS 8 (60Hz)
	2	
	_	
	0	
	0 0.2	0.4 0.6 0.8 1
		mbar(g)

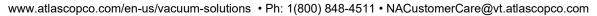






Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 8 3ph**

Main technical parameters	
Nominal capacity (50/60 Hz), m3/h	8/9
Ultimate vacuum, mbar(a)	150
Maximum pressure, bar(e)	0.8
Nominal electric power	
(50/60 Hz), kW	0.25 / 0.3
Nominal rpm (50/60 Hz), n/min	2800 / 3300
Dimensions, mm	253 x 167 x 147
Net mass, kg	8.5
Connection inlet	G 3/8"
Connection outlet	G 1/2"
12 10 8 8 4 2 0 0 200 4	—— DVS 8 (50Hz) —— DVS 8 (60Hz) —— DVS 8 (60Hz) 00 600 800 1000 mbar(a)
Perfo	ormance curve DVS 8
12	
10	
10	
8	
ا ا	
m3/h	—— DVS 8 (50Hz)
4	
	—— DVS 8 (60Hz)
2	
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.6 0.9 4
0 0.2 0	0.4 0.6 0.8 1 mbar(g)

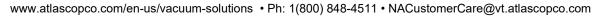






Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 16 1ph**

Main technical parameters		
Nominal capacity (50/60 Hz), m3/h	16 / 19	
Ultimate vacuum, mbar(a)	120	
Maximum pressure, bar(e)	1.0	401
Nominal electric power	0.75 / 0.9	
(50/60 Hz), kW		DVS 16
Nominal rpm (50/60 Hz), n/min	1400 / 1700	Allastopes
Dimensions, mm	412 x 206 x 270	
Net mass, kg	31	Alle.
Connection inlet	G 1/2"	
Connection outlet	G 1/2"	
20 18 16 14 4 12 10 8 6 4 2	oo 600 80 mbar(a)	DVS 16 (50Hz) DVS 16 (60Hz)
20 18 16 14 12 12 10 E 8 6 4 2 0	rmance curve D\	DVS 16 (50Hz) DVS 16 (60Hz)
	mbar(a)	

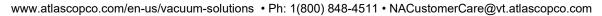






Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 16 3ph**

	meters		
Nominal capacity		16 / 19	0
(50/60 Hz), m3/h	(-)	100	
Ultimate vacuum, mb		120	
Maximum pressure,		1.0	
Nominal electric pow	er	0.75 / 0.9	
(50/60 Hz), kW	Uz) p/min	1400 / 1700	0VS 18
Nominal rpm (50/60	⊓∠), n/min	412 x 206 x 244	Allastons
Dimensions, mm			
Net mass, kg		33 G 1/2"	
Connection inlet			
Connection outlet		G 1/2"	
20 18 16 14 12 (£) 10 8 6 4 2 0	Pu 200	mping curve D\ 400 600 mbar(a)	DVS 16 (50Hz) DVS 16 (60Hz) 800 1000
20 18 16 14 12 2 8 6 4 2 0	Perfo	ormance curve	DVS 16 DVS 16 (50Hz) DVS 16 (60Hz) 0.8 1
0	0.2	0.4 0.6 mbar(a)	0.8 1

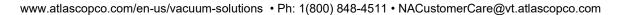






Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 25 1ph**

Main technical parameters	
Nominal capacity	25 / 29
(50/60 Hz), m3/h	
Ultimate vacuum, mbar(a)	120
Maximum pressure, bar(e)	0.6
Nominal electric power	0.75 / 0.9
(50/60 Hz), kW	DVS 16
Nominal rpm (50/60 Hz), n/min	1400 / 1700
Dimensions, mm	412 x 206 x 270
Net mass, kg	31
Connection inlet	G 3/4"
Connection outlet	G 1/2"
40 35	nping curve DVS 25
30	
25	
ج 25	
₹ 20 % E	D)/C 3F (FOUL-)
15	—— DVS 25 (50Hz)
10	—— DVS 25 (60Hz)
5	
0	
0 200 40	00 600 800 1000
	mbar(a)
Perfor	rmance curve DVS 25
40	
35	
30	
<u>_</u> 25	
√ _€ 20	210 (-211)
15	—— DVS 25 (50Hz)
10	—— DVS 25 (60Hz)
5	
0	
0 0.2	0.4 0.6 0.8 mbar(g)







Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 25 3ph**

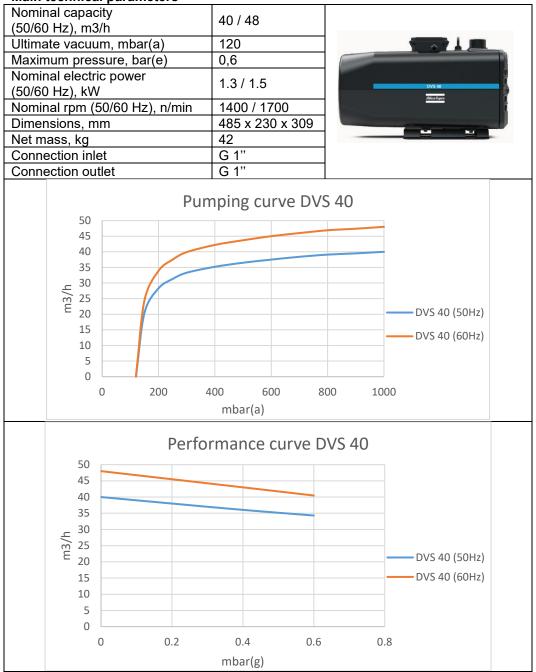
Main technical parameters

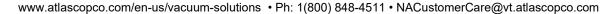
	technical parameters	1	
	nal capacity) Hz), m3/h	25 / 29	
Ùltima	ite vacuum, mbar(a)	120	
	num pressure, bar(e)	0.6	407
	nal electric power		
) Hz), kW	0.75 / 0.9	0VS 16
	nal rpm (50/60 Hz), n/min	1400 / 1700	also force
Dimer	nsions, mm	412 x 206 x 244	
	ass, kg	33	
	ection inlet	G 3/4"	
Conne	ection outlet	G 1/2"	
	40 35 30 25 25 20 15 10 5	mping curve DV	DVS 25 (50Hz) DVS 25 (60Hz) B00 1000
	Perfo 40 35 30 25 20 15 10 5 0 0 0.2	ormance curve D	—— DVS 25 (50Hz) —— DVS 25 (60Hz)
	0 0.2	mbar(g)	0.0
		ilinai (g)	





Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 40 1ph**



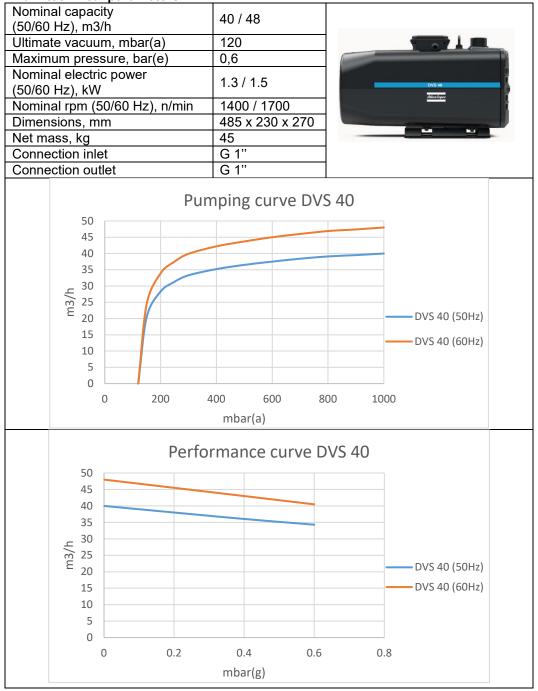






Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 40 3ph**

Main technical parameters



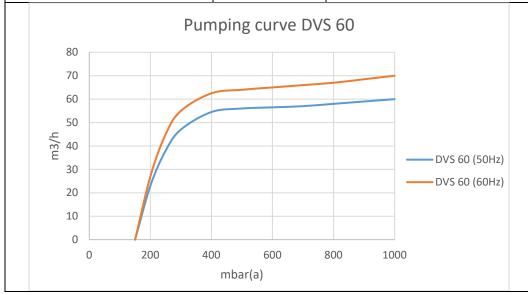




Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 60 3ph**

Nominal capacity (50/60 Hz), m3/h	60 / 70
Ultimate vacuum, mbar(a)	150
Nominal electric power (50/60 Hz), kW	1.5 / 1.8
Nominal rpm (50/60 Hz), n/min	1400 / 1700
Dimensions, mm	692 x 365 x 382
Net mass, kg	66
Connection inlet	G 1"
Connection outlet	G 1"



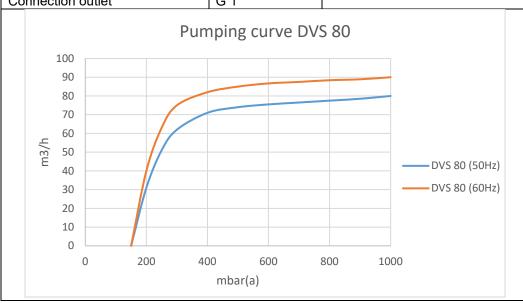




Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 80 3ph**

Nominal capacity (50/60 Hz), m3/h	80 / 90
Ultimate vacuum, mbar(a)	150
Nominal electric power (50/60 Hz), kW	2.2 / 3.0
Nominal rpm (50/60 Hz), n/min	1400 / 1700
Dimensions, mm	722 x 365 x 382
Net mass, kg	71
Connection inlet	G 1"
Connection outlet	G 1"



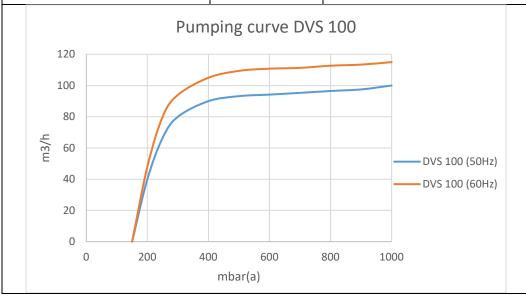




Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 100 3ph**

Nominal capacity (50/60 Hz), m3/h	100 / 115
Ultimate vacuum, mbar(a)	150
Nominal electric power (50/60 Hz), kW	3.4 / 4.0
Nominal rpm (50/60 Hz), n/min	1400 / 1700
Dimensions, mm	820 x 365 x 382
Net mass, kg	87
Connection inlet	G 1 1/2"
Connection outlet	G 1 1/2"
Dum	ning curve DV9







Thank you for your interest in our dry vane vacuum pumps. We would like to introduce following model: **Atlas Copco DVS 140 3ph**

130 / 150
150 / 200
3,4 / 4,0
1400 / 1700
820 x 365 x 382
95
G 1 1/2"
G 1 1/2"
ping curve DVS



