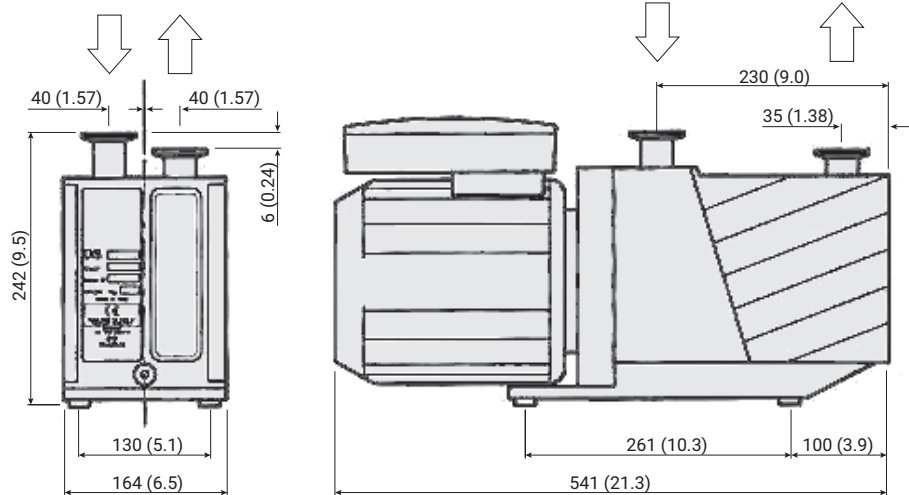


DS 402 Rotary Vane Pump



Dimensions: millimeters (inches)

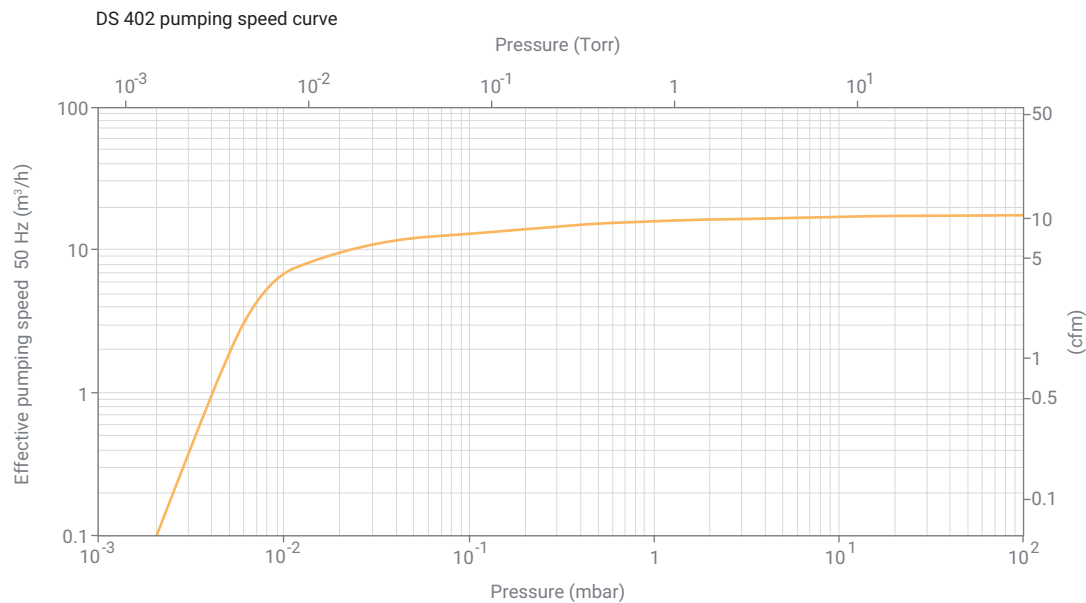
The DS 402 is a dual-stage oil-sealed rotary vane pump that delivers a pumping speed of 17.4 m³/h at 50 Hz or 12.3 CFM at 60 Hz, and a base pressure of $<2 \times 10^{-3}$ mbar. The DS 402 operates at a very quiet sound pressure, and is available with either a universal-voltage single-phase electric motor, with integral power switch, or an optional three-phase motor.

An inlet isolation valve is integrated into the pump to close off the inlet port whenever power to the pump is interrupted. This antibackstream valve maintains vacuum in the roughing, or foreline, and prevents pump oil from contaminating the vacuum chamber. The DS 402 has a manual gas ballast valve, which when opened, allows the pump to achieve its rated water-vapor handling specification of 550 g/hr.

Technical specifications

Free Air Displacement	60 Hz: 410 L/min (14.5 cfm)	50 Hz: 342 L/min (20.5 m³/h)
Pumping Speed*	60 Hz: 12.3 cfm	50 Hz: 17.4 m³/h
Ultimate Partial Pressure*	10^{-4} mbar	
Ultimate Total Pressure*	2×10^{-3} mbar	
Ultimate Total Pressure With Gas Ballast*	2×10^{-2} mbar	
Water Vapor Tolerance	30 mbar	
Water Vapor Capacity	350 g/h	
Oil Capacity Min/Max	0.5/1 L	
Motor Rating 1 ph	60 Hz: 1.1 kW	50 Hz: 1.1 kW
Motor Rating 3 ph	Y 460 V/60 Hz: 0.5 kW Δ 200 to 230 V/60 Hz: 0.3 kW	Y 380 to 415 V/50 Hz: 0.6 kW Δ 200 to 230 V/50 Hz: 0.5 kW
Nominal Rotation Speed	60 Hz: 1,800 rpm	50 Hz: 1,500 rpm
Weight	35 kg (77 lb)	
Inlet Flange	DN 25 ISO-KF	
Exhaust Flange	DN 25 ISO-KF	

* According to PNEUROP 6602



Ordering information

Description	Part Number
Dual Stage Rotary Vane Pump: DS 402 with 1-Phase Worldwide Motor* DS 402 with 3-Phase Worldwide Motor** * 1-phase motors (100 to 120/200 to 230) V $\pm 10\%$, 50/60 Hz. ** 3-phase motors (200 to 220/380 to 415) V $\pm 10\%$ at 50 Hz or (200 to 230/460) V $\pm 10\%$ at 60 Hz All motors comply with CE and UL/CSA standards.	9499330 9499331
Maintenance Kits	
Minor Maintenance Kit: Contains all the Valves, O-rings, and Seals to Refurbish the Pump to Vacuum Integrity	9499371
Major Maintenance Kit: Includes all the Items of the Minor Kit Plus the Vanes	9499382
Oil and Accessories	
Rotary Vane Pump Fluid, AVF Silver, formerly called DS19 Type, 1 liter	9499390
Rotary Vane Pump Fluid, AVF Silver, formerly called DS19 Type, 1 liter (USA)	K7516301
Rotary Vane Pump Fluid, AVF Silver, formerly called DS19 Type, 1 gallon (USA)	K7516302
Oil Mist Eliminator	9499395
Oil Mist Replacement Cartridge (Pkg. of 2)	9499394
NW 25 Oil Exhaust Filter	9499392
NW 25 Oil Exhaust Replacement Cartridge	9499342
Oil Return Kit	9499376
Oil Drain Extension	9499375
European Plug Power Cable 2 Meters 1 ph	9499396
USA Plug Power Cable 2 Meters 1 ph	9499397
UK Plug Power Cable 2 Meters 1 ph	9499398
NW 25 Centering Ring Viton	KC25AV
NW 25 Aluminum Clamp	KQ25AWP

Contact information

Americas

Agilent Technologies
121 Hartwell Avenue,
Lexington, MA 02421 USA
Toll free: +1 800 882 7426
vpl-customer@agilent.com

Europe, Middle East, Africa, India

Agilent Technologies Italia SpA
Via F.lli Varian 54,
10040 Leini (Torino), Italy
Tel: +39 011 9979 111
Toll free: 00 800 234 234 00
vpt-customer@agilent.com

China

Beijing Office Agilent Technologies
(China) Co. Ltd.
No.3, Wang Jing Bei Lu,
Chao Yang District,
Beijing, 100102, China
Toll free: 800 820 6778
Contacts.vacuum@agilent.com

For more information, please contact
your Agilent representative or visit
www.agilent.com/chem/vacuum where
you can chat live with a vacuum expert.



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