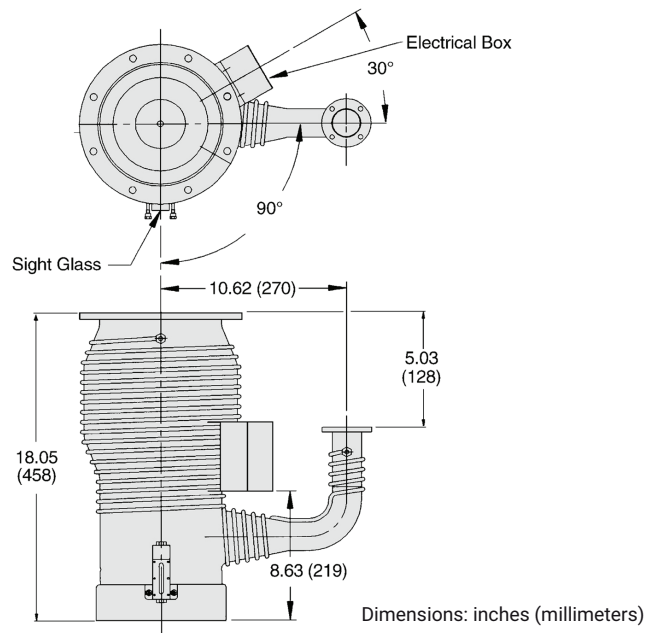


VHS-4 Oil Diffusion Pump



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The Agilent VHS-4 diffusion pump has a pumping speed of up to 750 L/s and can be ordered with ASA or ISO flanges, standard or extended cold caps, and with a variety of voltages. The VHS-4 has stainless steel body, flanges, and jet assembly allowing easy cleaning. There is also a sight glass/fill and drain assembly for continuous monitoring and easy maintenance of pump fluid. The patented Bulge Contour increases gas capture and maintains lower pressure. Finned boilers increase surface area, prolonging pumping fluid life.

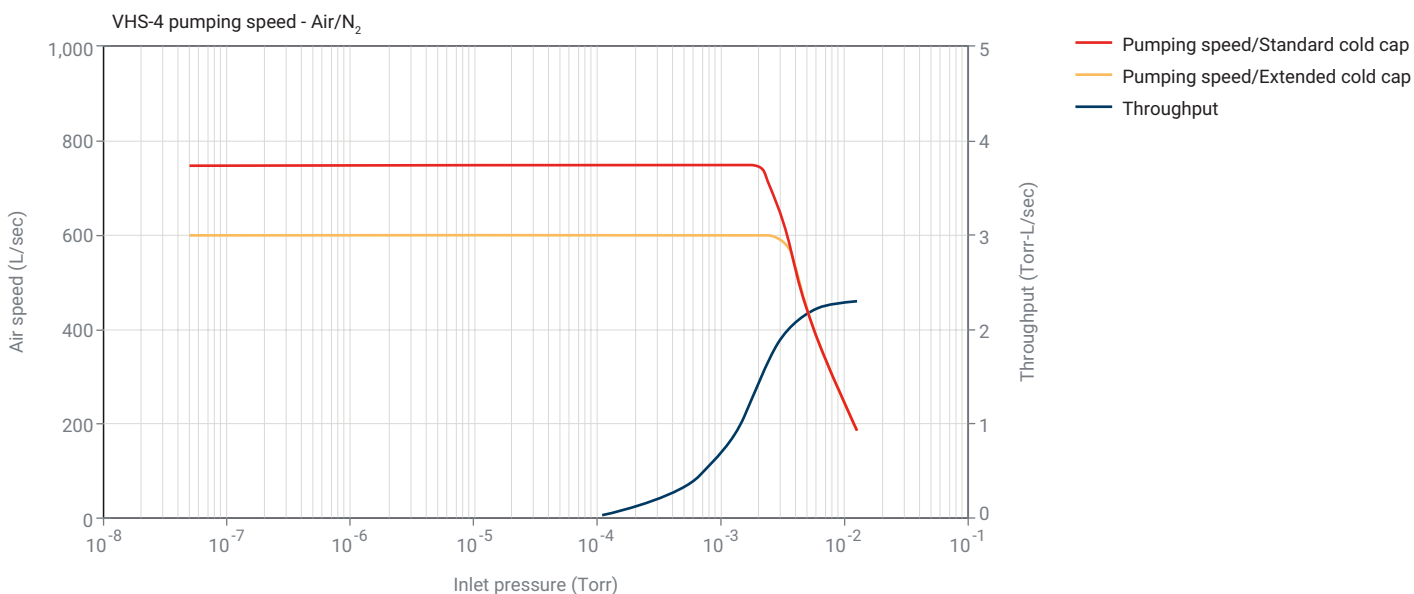
This diffusion pump is a perfect fit for high-vacuum and industrial applications such as vacuum furnace, heat treatment, metallizing, and coating processes for optical lenses, electronics, and protective film layers.

Technical specifications

Pumping Speed, Operating Range	750 L/s air, 940 L/s He and H ₂
Pumping Speed, AVS 4.1 (1963)	1,200 L/s air
Maximum Throughput	1.5 T-L/s (2.0 mbar-L/s) in operating range, 2.5 T-L/s (3.2 mbar-L/s) at 0.01 Torr
Operating Range	2×10^{-3} to $<5 \times 10^{-9}$ Torr (2.7×10^{-3} to $<6.5 \times 10^{-9}$ mbar)
Maximum Forepressure	No load: 0.65 Torr (0.86 mbar) Full load: 0.55 Torr (0.73 mbar)
Recommended Backing Pump	≥ 10 cfm (17 m ³ /hr)
Backstreaming Rate, Standard Cold Cap	$<5 \times 10^{-4}$ mg/cm ² /min
Warmup Time	10 minutes
Cooldown Time	10 minutes (with quick cool coil)
Fluid Charge	300 cc
Electrical Requirements	1 ph, 50/60 Hz, 120/208/240 VAC
Pump Power	1,450 watts
Cooling Water Requirements	0.15 gpm (30 L/hr) at 60 to 80 °F (15 to 26 °C)
Water Connections	$\frac{1}{8}$ in FPT Tee
Recommended Holding Pump*	DS40M Rotary Vane Pump

* Recommended holding pump sizes are based on estimates; assuming good vacuum practice in system design and operation. Results may vary from system to system.

Performance specifications based on tests done with DC704.



Ordering information

Description	Voltage	Weight kg (lb)	Part Number	
			ASA	ISO
VHS-4 Pump				
VHS-4 with Standard Cold Cap	120 V	25.0 (55.0)	86460301	L6256301
VHS-4 with Extended Cold Cap	120 V	25.0 (55.0)	86460311	L6256311
VHS-4 with Standard Cold Cap	208 V	25.0 (55.0)	86460306	L6256306
VHS-4 with Extended Cold Cap	208 V	25.0 (55.0)	86460316	L6256316
VHS-4 with Standard Cold Cap	240 V	25.0 (55.0)	86460302	L6256302
VHS-4 with Extended Cold Cap	240 V	25.0 (55.0)	86460312	L6256312

Description	Weight kg (lb)	Part Number
Accessories		
Centering Ring for ISO Inlet Flange, 160K	0.5 (1.0)	IC160SV
Centering Ring for ISO Foreline Flange, KF40	0.2 (0.5)	KC40SV
Santovac 5 Diffusion Pump Fluid, 500 cc	1.1 (2.5)	695405005
Replacement Parts (One Heater Required Per Pump)		
1450 W, 120 V Heater	0.5 (1.0)	647304205
1450 W, 208 V Heater	0.5 (1.0)	647304210
1450 W, 240 V Heater	0.5 (1.0)	647304250
Heater Clamp (One Required Per Pump)	1.0 (2.0)	88164301
VHS-4 Heater Wire, 10 AWG, 24 Inches (Three Per Pump Required)	0.5 (0.2)	X3901-68001
Replacement O-Ring Kit (Kit Contains: 3 Inlet Flange O-Rings, 10 Fill and Drain O-Rings, Sight Glass O-Ring and Gasket)	0.5 (1.0)	K0377183
Thermal Switch (set at 300 °F – 147 °C)	0.5 (1.0)	642906025
Extended Cold Cap	0.5 (1.0)	F6898301
Sight Glass Repair Kit		L8908301

- Inlet flange 4 in. ASA, foreline flange KF40.
- Inlet flange DN 160 ISO-K, foreline flange ISO KF40.
- Pumps with ISO flanges do not include required centering rings.

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www.agilent.com/chem/vacuum where
you can chat live with a vacuum expert.



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