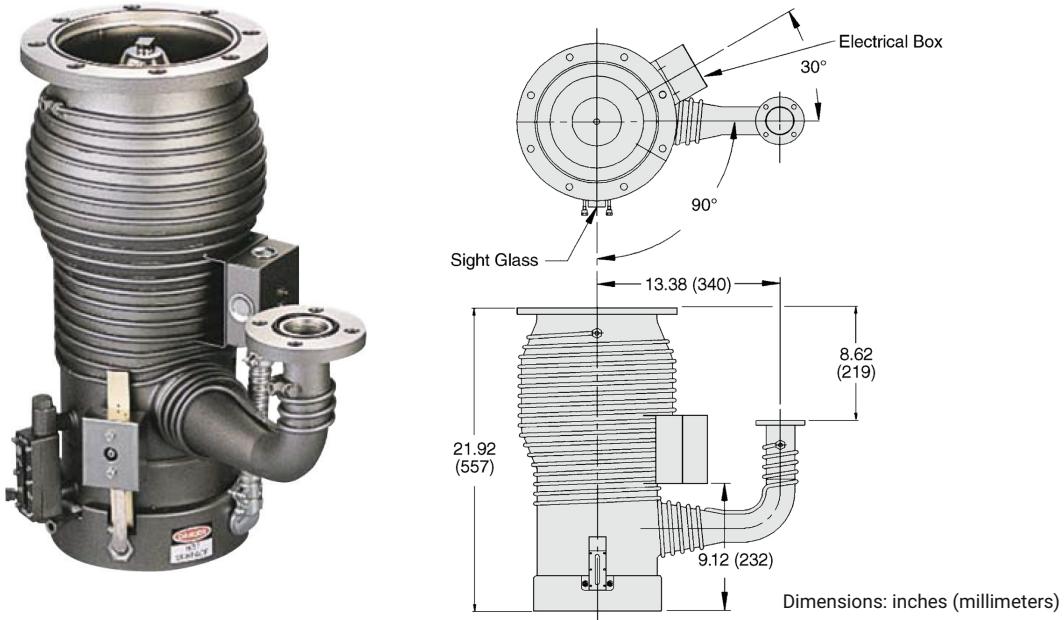


## VHS-6 Oil Diffusion Pump



Download 3d drawings [here](#).

The Agilent VHS-6 diffusion pump has a pumping speed of up to 1,550 L/s and can be ordered with ASA or ISO flanges, standard or extended cold caps, and with a variety of voltages. The VHS-6 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.

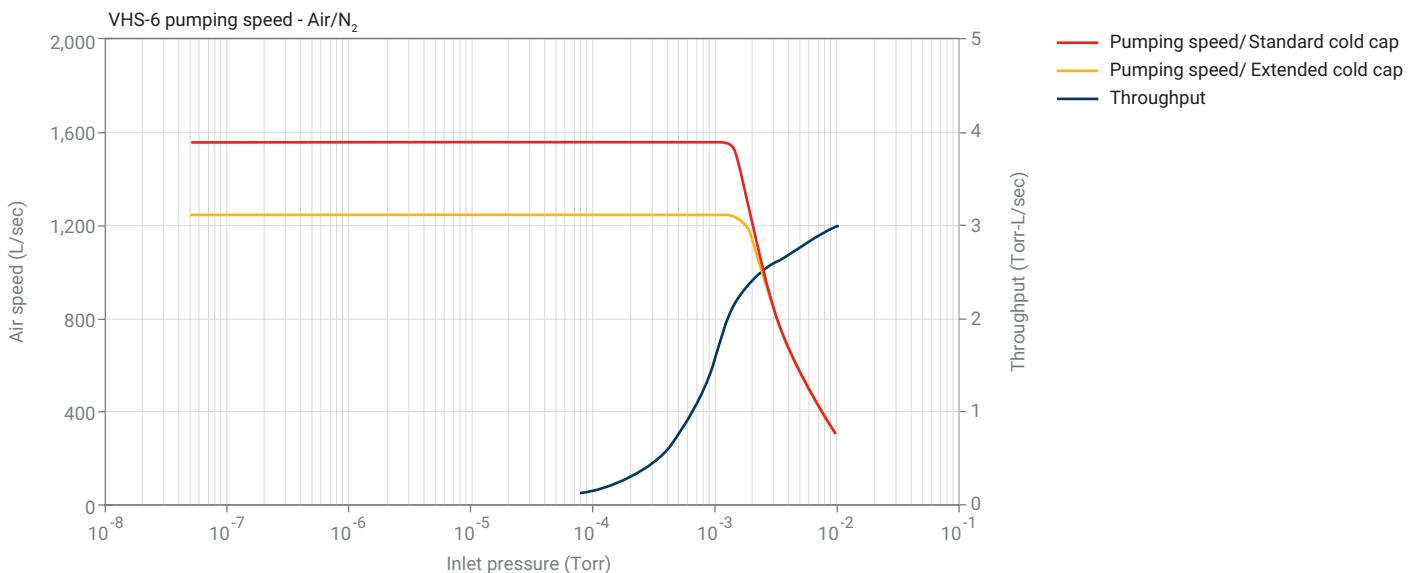
This diffusion pump is a perfect fit for high-vacuum and industrial applications such as vacuum furnace, heat treatment, metallizing, and coating processes for optical lenses, electronics, and protective film layers.

## Technical specifications

Pumping Speed, Operating Range	1,550 L/s air, 1,930 L/s He and H <sub>2</sub>
Pumping Speed, AVS 4.1 (1963)	2,400 L/s air
Maximum Throughput	2.4 T-L/s (3.2 mbar-L/s) in operating range, 3.5 T-L/s (4.5 mbar-L/s) at 0.01 Torr
Operating Range	$1.5 \times 10^{-3}$ to $< 5 \times 10^{-9}$ Torr ( $2 \times 10^{-3}$ to $< 6.5 \times 10^{-9}$ mbar)
Maximum Forepressure	No load: 0.65 Torr (0.85 mbar) Full load: 0.55 Torr (0.72 mbar)
Recommended Backing Pump	$\geq 17$ cfm (29 m <sup>3</sup> /hr)
Backstreaming Rate, Standard Cold Cap	$< 5 \times 10^{-4}$ mg/cm <sup>2</sup> /min
Warmup Time	10 minutes
Cooldown Time	10 minutes (with quick cool coil)
Fluid Charge	500 cc – exact fluid charge available
Electrical Requirements	1 ph, 50/60 Hz, 120/208/240 VAC
Pump Power	2,200 watts
Cooling Water Requirements	0.25 gpm (57 L/hr) at 60 to 80 °F (15 to 26 °C)
Water Connections	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-6 Pump				
VHS-6 with Standard Cold Cap	120 V	34.0 (75.0)	85826301	L6193301
VHS-6 with Extended Cold Cap	120 V	34.0 (75.0)	85826311	L6193311
VHS-6 with Standard Cold Cap	208 V	34.0 (75.0)	85826306	L6193306
VHS-6 with Extended Cold Cap	208 V	34.0 (75.0)	85826316	L6193316
VHS-6 with Standard Cold Cap	240 V	34.0 (75.0)	85826302	L6193302
VHS-6 with Extended Cold Cap	240 V	34.0 (75.0)	85826312	L6193312

Description	Weight kg (lb)	Part Number
<b>Accessories</b>		
Santovac 5 Diffusion Pump Fluid, 500 cc	1.1 (2.5)	695405005
Centering Ring for ISO Inlet Flange, 200K	0.5 (1.0)	IC200SV
Centering Ring for ISO Foreline Flange, KF50	0.2 (0.5)	KC50SV
<b>Replacement Parts (One Heater Required Per Pump)</b>		
2200 W, 120 V Heater	0.5 (1.0)	647306125
2200 W, 208 V Heater	0.5 (1.0)	647306175
2200 W, 240 V Heater	0.5 (1.0)	647306225
Heater Clamping Assembly (Includes Clamping Plate, Cover Plate, Insulator)		86643301
Heater Cover Plate (One Required Per Pump)	1.0 (2.0)	86088001
Heater Insulator (One Required Per Pump)	0.2 (0.5)	86087001
Heater Clamping Plate (One Required Per Pump)	0.5 (1.0)	86086301
VHS-6/250 Heater Wire, 10 AWG, 36 Inches (Three Per Pump Required)	0.5 (2.0)	X3901-68002
Replacement O-Ring Kit (Kit Contains: 3 Inlet Flange O-Rings, 3 Foreline Flange O-Rings, Sight Glass O-Ring and Gasket, 10 Fill and Drain O-Rings)	0.5 (1.0)	K0377184
Thermal Switch (Set at 300 °F – 147 °C)	0.5 (1.0)	642906025
Extended Cold Cap	0.5 (1.0)	F6455001
Sight Glass Repair Kit		L8908301

- Inlet flange 6 in ASA, foreline flange 1.5 in ASA.
- Inlet flange DN 200 ISO-K, foreline flange ISO KF50.
- Pumps with ISO flanges do not include required centering rings.

## Contact information

### Americas

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

### Europe, Middle East, Africa, India

Agilent Technologies Italia SpA  
Via F.Ili Varian 54,  
10040 Leini (Torino), Italy  
Tel: +39 011 9979 111  
Toll free: 00 800 234 234 00  
vpt-customercare@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](http://www.agilent.com/chem/vacuum) where  
you can chat live with a vacuum expert.



[www.agilent.com/en/product/vacuum-technologies/diffusion-pumps/small-diffusion-pumps/vhs-6-diffusion-pump](http://www.agilent.com/en/product/vacuum-technologies/diffusion-pumps/small-diffusion-pumps/vhs-6-diffusion-pump)

DE44326.5718402778

This information is subject to change without notice.

© Agilent Technologies, Inc. 2021, 2024  
Printed in the USA, August 14, 2024  
5994-3468EN

