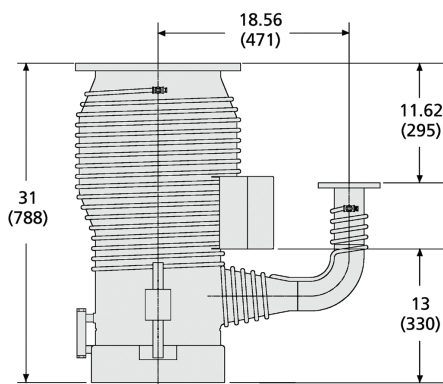
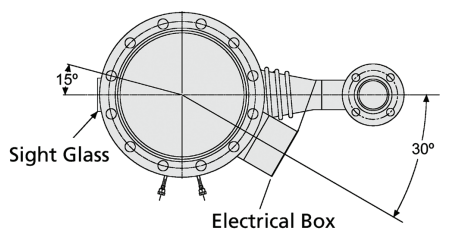


## VHS-10 Oil Diffusion Pump



Dimensions: inches (millimeters)

Download 3d drawings [here](#).

The VHS-10 diffusion pump has a pumping speed of up to 3,650 L/s and can be ordered with ASA or ISO flanges, standard or extended cold caps, and a variety of voltages. The patented Bulge Contour increases gas capture and maintains lower pressure. The VHS-10 has stainless steel body and flanges allowing easy cleaning. There is also a sight glass/fill and drain assembly for continuous monitoring and easy maintenance of pump fluid. Finned boilers increase surface area, prolonging pumping fluid life.

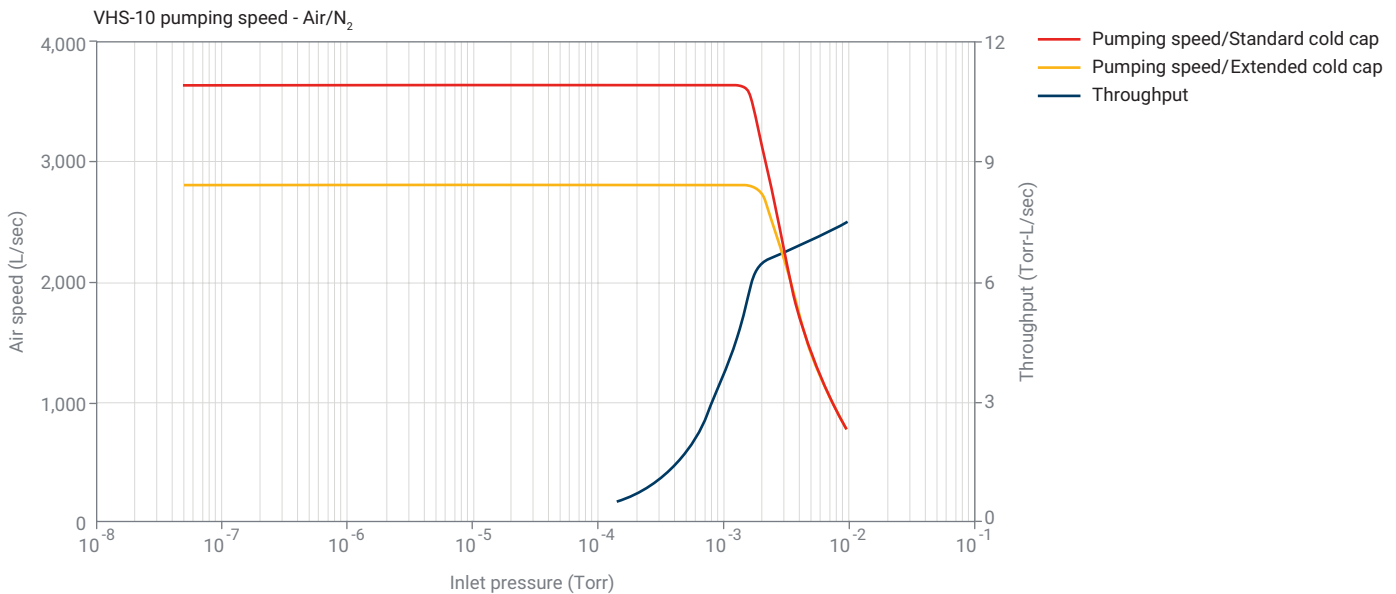
This diffusion pump is a perfect fit for industrial applications such as vacuum furnace, heat treatment, metallizing, and coating processes for optical lenses, electronics, and protective film layers.

## Technical specifications

Pumping Speed, Operating Range	3,650 L/s air, 4,560 L/s He and H <sub>2</sub>
Pumping Speed, AVS 4.1 (1963)	5,300 L/s air
Maximum Throughput	6.3 T-L/s (8.4 mbar-L/s) in operating range, 7.5 T-L/s (10.0 mbar-L/s) at 0.01 Torr
Operating Range	$1.7 \times 10^{-3}$ to $< 5 \times 10^{-9}$ Torr at 4,400 W ( $2.3 \times 10^{-3}$ 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	$\geq 30$ cfm (51 m <sup>3</sup> /hr)
Backstreaming Rate, Standard Cold Cap	$< 5.0 \times 10^{-4}$ mg/cm <sup>2</sup> /min
Warmup Time	15 minutes
Cooldown Time	25 minutes
Fluid Charge	1,000 cc
Electrical Requirements	3 ph, 50/60 Hz, 208/240/380/480 VAC
Pump Power	4,400 watts
Cooling Water Requirements	0.50 gpm (115 L/hr) at 60 to 80 °F (15 to 26 °C)
Water Connections	$\frac{1}{8}$ in FPT Tee
Recommended Holding Pump*	DS102 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	Weight kg (lb)	Part Number	
		ASA	ISO
VHS-10 with Standard Cold Cap, 208 V	68 (150)	F0426307	L5920307
VHS-10 with Extended Cold Cap, 208 V	68 (150)	F0426317	L5920317
VHS-10 with Standard Cold Cap, 240 V	68 (150)	F0426308	L5920308
VHS-10 with Extended Cold Cap, 240 V	68 (150)	F0426318	L5920318
VHS-10 with Standard Cold Cap, 380 V	68 (150)	F0426326	L5920326
VHS-10 with Extended Cold Cap, 380 V	68 (150)	F0426336	L5920336
VHS-10 with Standard Cold Cap, 480 V	68 (150)	F0426309	L5920309
VHS-10 with Extended Cold Cap, 480 V	68 (150)	F0426319	L5920319

Description	Weight kg (lb)	Part Number
<b>Accessories</b>		
Centering Ring for ISO Foreline Flange, 63K	0.5 (1.0)	IC063SV
<b>Replacement Parts (Two Heaters Required Per Pump)</b>		
2200 W, 208 V Heater	0.5 (1.0)	647310140
2200 W, 240 V Heater	0.5 (1.0)	647310150
2200 W, 380 V Heater	0.5 (1.0)	647310160
2200 W, 480 V Heater	0.5 (1.0)	647310170
Heater Crush Plate (Covers Both Heaters; One Required for Pump; Replace When Either Heater is Replaced)	1.0 (2.0)	K7667001
Heater Clamping Plate (One Required Per Pump)	0.5 (1.0)	R2667301
VHS-10/400 Heater Wire, 10 AWG, 42 Inches (Three Per Pump Required)	1.0 (0.4)	X3901-68003
Replacement O-Ring Kit (Kit Contains: 1 Inlet Flange O-Ring, 1 Foreline Flange O-Ring, Sight Glass O-Ring and Gasket, 10 Fill and Drain O-Rings)	1.0 (0.5)	K0377185
Thermal Switch (set at 300 °F – 147 °C)	0.5 (1.0)	642906025
Extended Cold Cap	2.0 (0.9)	L8917301
Sight Glass Repair Kit		L8908301

- Inlet flange 10 in ASA, foreline flange 2 in ASA.
- Inlet flange DN 320 ISO-K, foreline DN 63 ISO-K.

## Contact information

### Americas

Agilent Technologies  
121 Hartwell Avenue,  
Lexington, MA 02421 USA  
Toll free: +1 800 882 7426  
[vpl-customer@agilent.com](mailto: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](mailto: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](mailto: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-10-diffusion-pump](http://www.agilent.com/en/product/vacuum-technologies/diffusion-pumps/small-diffusion-pumps/vhs-10-diffusion-pump)

DE44326.5728935185

This information is subject to change without notice.

© Agilent Technologies, Inc. 2021, 2024  
Printed in the USA, August 19, 2024  
5994-3469EN