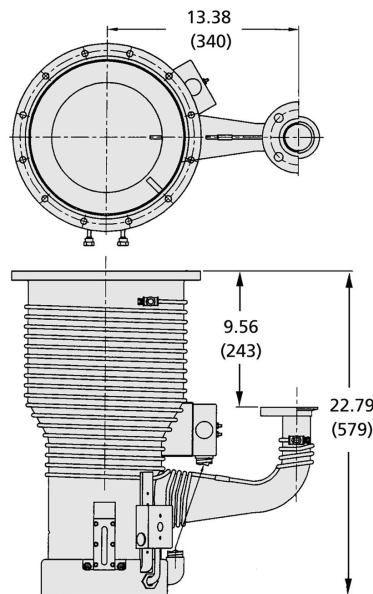


## VHS-250 Oil Diffusion Pump



Dimensions: inches (millimeters)



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[Download 3d drawings here.](#)

The VHS-250 diffusion pump has a pumping speed of 2,125 L/s and has a 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. The patented Bulge Contour increases gas capture and maintains lower pressure. Finned boilers increase surface area, prolonging pumping fluid life.

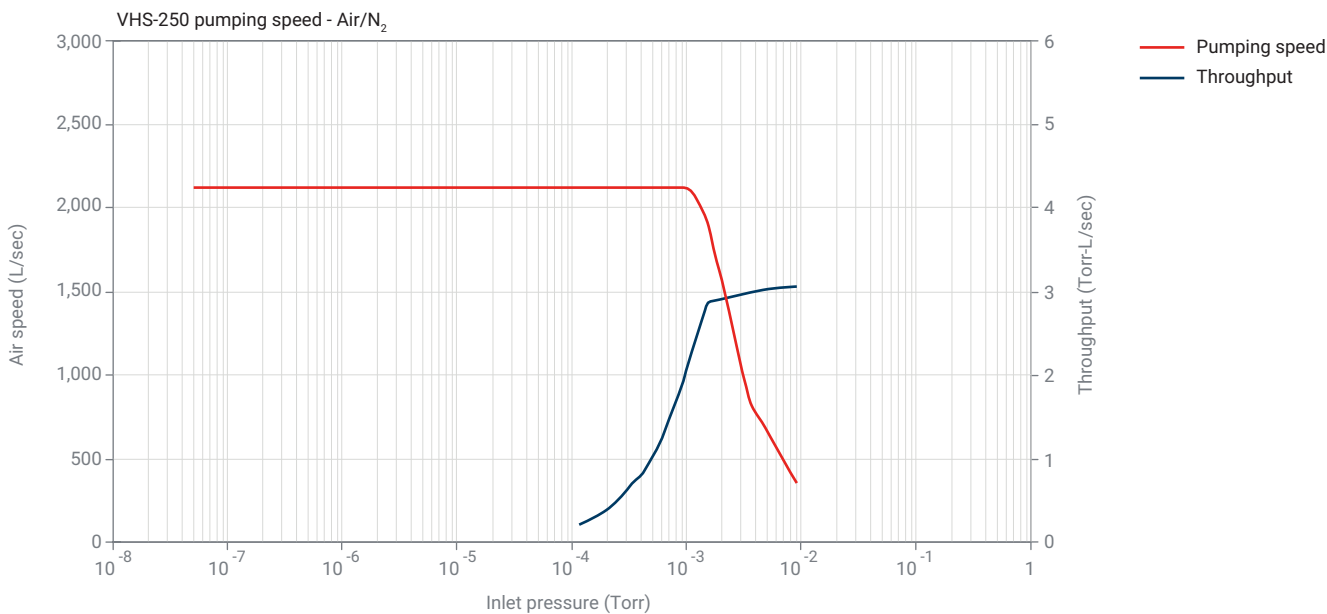
This diffusion pump is a perfect fit for high vacuum and industrial applications such as vacuum furnace, heat treatment, metallizing, and coating processes for optical lenses, electronics, and protective film layers.

## Technical specifications

Pumping Speed, Operating Range	2,125 L/s air, 2,660 L/s He and H <sub>2</sub>
Pumping Speed, AVS 4.1 (1963)	3,700 L/s air
Maximum Throughput	2.6 T-L/s (3.5 mbar-L/s) in operating range, 3.5 T-L/s (4.5 mbar L/s) at 0.01 Torr
Operating Range	$1.2 \times 10^{-3}$ to $<5 \times 10^{-9}$ Torr ( $1.6 \times 10^{-3}$ 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	$<5.0 \times 10^{-4}$ 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 (50 L/hr)
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
<b>VHS-250 Pump</b>			
VHS-250 with Standard Cold Cap	120 V	34.0 (75.0)	K0543301
VHS-250 with Standard Cold Cap	208 V	34.0 (75.0)	K0543306
VHS-250 with Standard Cold Cap	240 V	34.0 (75.0)	K0543302

Description	Weight kg (lb)	Part Number
<b>Accessories</b>		
Santovac 5 Diffusion Pump Fluid, 500 cc (Exact Pump Charge)	1.1 (2.5)	695405005
<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)	K0377178
Thermal Switch (set at 300 °F - 147 °C)	0.5 (1.0)	642906025
Sight Glass Repair Kit		L8908301

- Inlet flange: DN 250 ISO-F (bolted, O-ring seal).
- Foreline flange: ASA with 5 in. od.

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