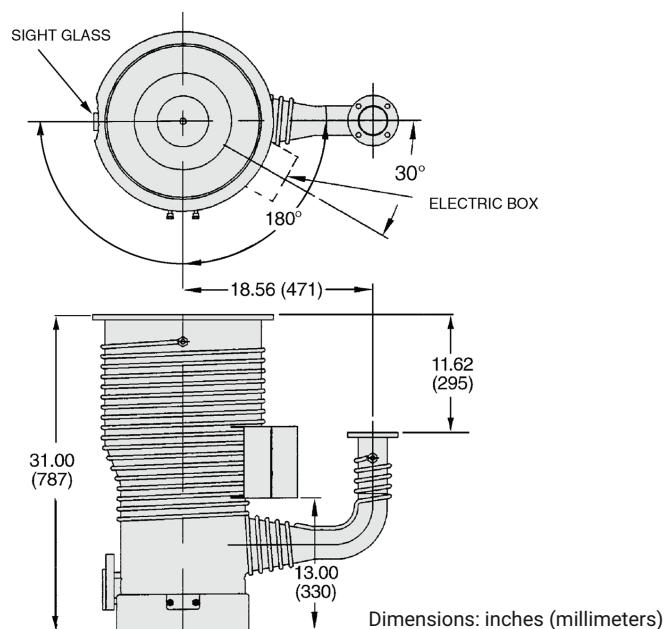


## VHS-400 Oil Diffusion Pump



Download 3d drawings [here](#).

The VHS-400 diffusion pump has a pumping speed of 4,500 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.

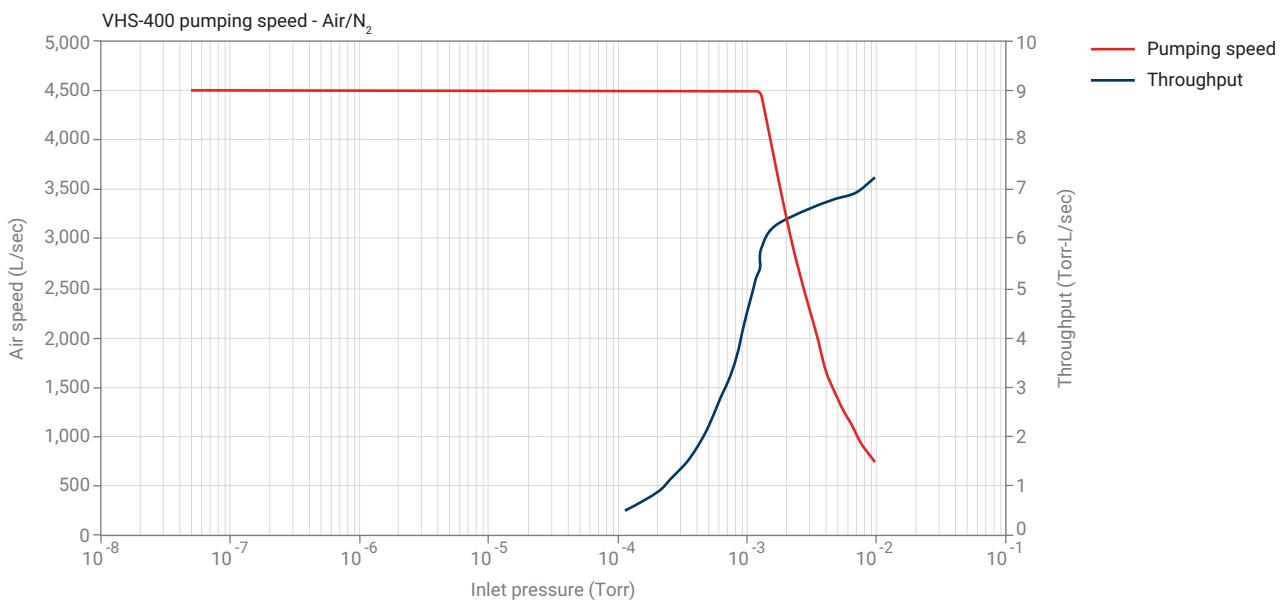
This diffusion pump is great for high vacuum applications. This pump is a perfect fit for industrial applications such as vacuum furnace, heat treatment, metallizing, and coating processes for architectural glass and the automotive industry.

## Technical specifications

Pumping Speed, Operating Range	4,500 L/s air, 5,625 L/s He and H <sub>2</sub>
Pumping Speed, AVS 4.1 (1963)	8,000 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	$1.4 \times 10^{-3}$ to $< 5 \times 10^{-9}$ Torr ( $1.9 \times 10^{-3}$ 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	$< 1.0 \times 10^{-3}$ 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, 208/380/480 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	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	Voltage	Weight kg (lb)	Part Number	
			ASA	ISO
VHS-400 Pump				
VHS-400 with Standard Cold Cap	208 V	75.0 (180.0)	K4816307	L9767307
VHS-400 with Standard Cold Cap	380 V	75.0 (180.0)	K4816326	L9767326
VHS-400 with Standard Cold Cap	480 V	75.0 (180.0)	K4816309	L9767309
VHS-400 with Standard Cold Cap	240 V	75.0 (180.0)	K4816308	L9767308

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	1.0 (0.5)	647310140
2200 W, 240 V Heater	1.0 (0.5)	647310150
2200 W, 380 V Heater	1.0 (0.5)	647310160
2200 W, 480 V Heater	1.0 (0.5)	647310170
Heater Crush Plate (One Required Per Pump; Replace When Either Heater is Replaced)	2.0 (1.0)	K7667001
Heater Clamping Plate (One Required Per Pump)	1.0 (0.5)	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, Foreline Flange O-Ring, Sight Glass O-Ring and Gasket, 10 Fill and Drain O-Rings)	1.0 (0.5)	K0377189
Thermal Switch (Set at 300 °F – 147 °C)	1.0 (0.5)	642906025
Sight Glass Repair Kit		L8908301

- Inlet flange DN 400 ISO-K, foreline flange DN 63 ISO-K.
- Inlet flange non-standard ASA, foreline flange 2 in ASA.
- Pumps with ASA flanges include O-rings for inlet and foreline flanges.
- Pumps with ISO flanges do not include centering rings required for inlet and foreline flanges.

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Printed in the USA, August 19, 2024  
5994-3471EN

