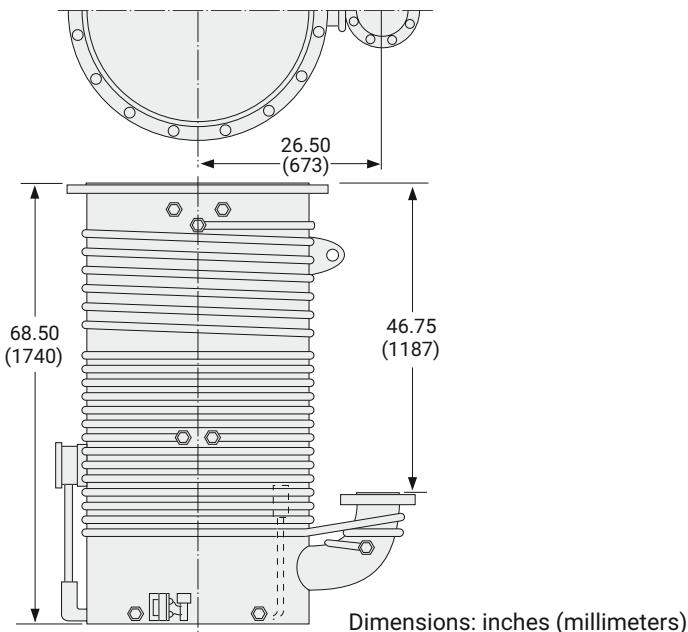


## HS-32 Oil Diffusion Pump



Download 3d drawings [here](#).

The Agilent HS-32 oil diffusion pump provides high throughput and high pumping speed of 17,300 L/s. With its fully optimized vapor jet, robust boiler design, and thermal protection switches, the pump will run without any maintenance for many years. This pump includes a standard sight glass and fill and drain assembly. It is available with a 32 in ASA or ISO DN 800 ISO-F (bolted) inlet flange.

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.

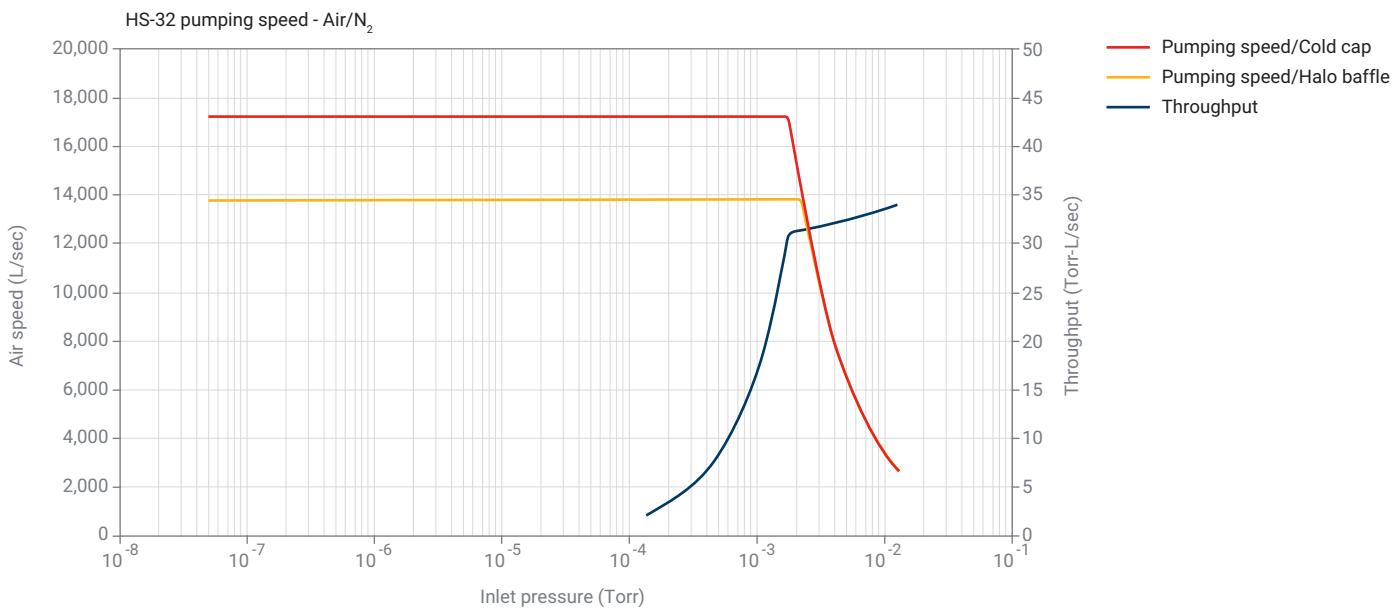
## Technical specifications

Pumping Speed, Operating Range	17,300 L/s air, 21,625 L/s He and H <sub>2</sub>
Pumping Speed, AVS 4.1 (1963)	32,000 L/s air
Maximum Throughput	30 T-L/s (40 mbar L/s) in operating range, 35 T-L/s (45 mbar-L/s) at 0.01 Torr
Operating Range	$1.7 \times 10^{-3}$ to $< 5 \times 10^{-8}$ Torr ( $2.3 \times 10^{-3}$ to $< 6.5 \times 10^{-8}$ mbar)
Maximum Forepressure	No load: 0.50 Torr (0.65 mbar) Full load: 0.35 Torr (0.45 mbar)
Recommended Backing Pump	$\geq 300$ cfm (510 m <sup>3</sup> /hr)
Backstreaming Rate, Standard Cold Cap	$< 7 \times 10^{-4}$ mg/cm <sup>2</sup> /min
Warmup Time	60 minutes
Cooldown Time	180 minutes (60 minutes with optional quick cool coil)
Fluid Charge	3 U.S. gallons (11.3 liters)
Electrical Requirements	3 ph, 50/60 Hz, 240/415/480 VAC
Pump Power	24,000 watts
Cooling Water Requirements	4 gpm (910 L/hr) at 60 to 80 °F (15 to 26 °C)
Thermowell	ISO 228 1/2 thread (with adapter M8x1 thread)
Recommended Fluid	DC-704 or equivalent
Recommended Holding Pump*	DS302 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
HS-32 Pump			ASA ISO
HS-32 with Standard Cold Cap	240 V	612 (1,350)	76134308 L5923308
HS-32 with Halo Baffle	240 V	612 (1,350)	76134318 L5923318
HS-32 with Standard Cold Cap	415 V	612 (1,350)	76134326 L5923326
HS-32 with Halo Baffle	415 V	612 (1,350)	76134336 L5923336
HS-32 with Standard Cold Cap	480 V	612 (1,350)	76134309 L5923309
HS-32 with Halo Baffle	480 V	612 (1,350)	76134319 L5923319
Description		Weight kg (lb)	Part Number
Accessories			
Water-Cooled Halo Baffle		16 (35)	K1856332
Quick Cool Coil – Must Be Installed In The Factory			Factory Special
Centering Ring for ISO Foreline Flange, 200K		0.5 (1.0)	IC200SV
Adapter Kit, 3/8 FPT to G 1/2 Water Fittings			X3900-68011
Replacement Parts (Six Heaters Required Per Pump)			
Heater*, 4000 W, 240 V/415 V/480 V with Leads		0.5 (1.0)	647332010
Heater*, 4000 W, 240 V/415 V/480 V no Leads – Used On Pumps Built Before May 1990		0.5 (1.0)	647332075
Heater Crush Plate (Replace One with Each New Heater)		0.5 (1.0)	K7246001
Heater Clamping Plate (Six Required Per Pump)		4.0 (8.0)	K7247001
HS-32/35 Heater Wire, 10 AWG, 196 Inches (Two Per Heater Required)		1.0 (0.4)	X3900-68003
Heater Insulator (One Required Per Pump)		0.5 (1.0)	75792001
Replacement O-Ring Kit For Asa Pumps (Kit Contains: 1 Inlet Flange O-Ring, 1 Foreline Flange O-Ring, Sight Glass O-Ring and Gasket, 8 Fill and Drain O-Rings)		0.5 (1.0)	K0377167
Sight Glass Service Kit (Pumps Built Before Oct. 1995)		1.5 (3.0)	F6097301
Sight Glass (Pumps Built After Oct. 1995)		1.5 (3.0)	L9223001
ISO Inlet Flange O-Ring		0.5 (1.0)	L9165001
Upper (Water) Thermal Switch (Set at 220 °F/104 °C)		0.5 (1.0)	K9050003
Lower (Boiler) Thermal Switch (Set at 550 °F/288 °C)		0.5 (1.0)	K9050004
Cold Cap Gasket/Grommet (Kit of Four)		0.5 (1.0)	L8839301
Cold Cap Nut and Follower (Two each)		0.5 (1.0)	L8840301

- Inlet flange 32 in ASA, foreline flange 6 in ASA.
- Inlet flange DN 800 ISO-F, foreline flange DN 200 ISO-K.
- Not recommended for use with Santovac 5.
- ASA pump versions include O-rings for both inlet and foreline flanges.
- ISO pump versions include inlet flange O-ring, but does not include foreline flange centering ring.

Please note that this item is controlled for export by the Nuclear Suppliers Group. Accordingly, you may be required to obtain export licenses, including from US government authorities prior to exporting this diffusion pump from the United States. Please contact Agilent Vacuum Products, and the U.S. Export Administration regulations ECCN 2B231 for further guidance.

[www.agilent.com/en/product/vacuum-technologies/diffusion-pumps/large-diffusion-pumps/hs-32-diffusion-pump](http://www.agilent.com/en/product/vacuum-technologies/diffusion-pumps/large-diffusion-pumps/hs-32-diffusion-pump)

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