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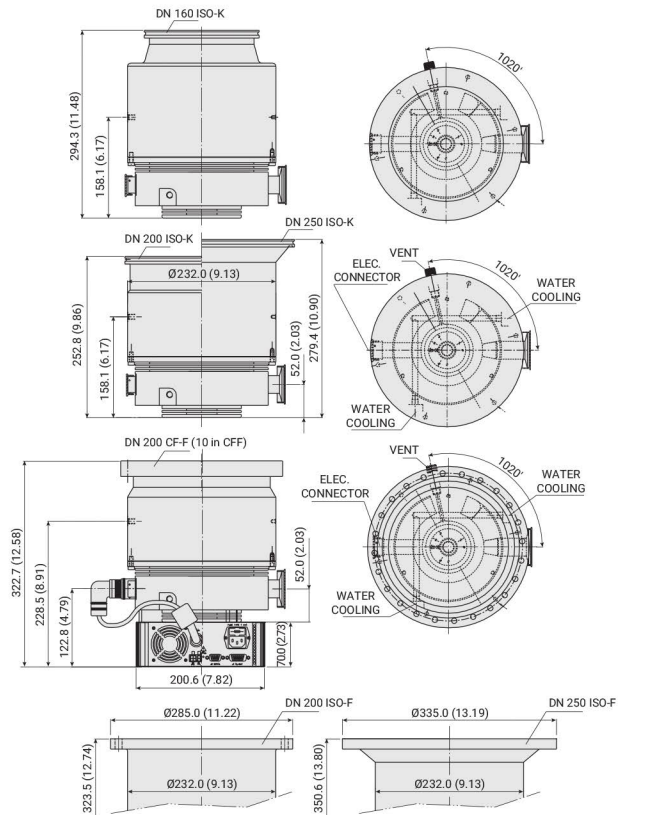
# Turbo-V 1001 Pump and Navigator System

## Product description



The Agilent Turbo-V 1001 Navigator Pump offers a pumping speed up to 1,050 L/s in DN 160, 200, and 250 installations. The high compression ratios, high foreline pressure tolerance, and maintenance-free operation make the Turbo-V 1001 a reliable, high-performance pump with a low cost of ownership.

The Turbo-V 1001 offers hydrocarbon-free operation, and is an excellent choice for large UHV systems, nuclear research, ion implanters, surface analysis, electron microscopy, and any application where high pumping speed is required.



Dimensions: millimeters (inches)

# Technical specifications

SEM version available on request

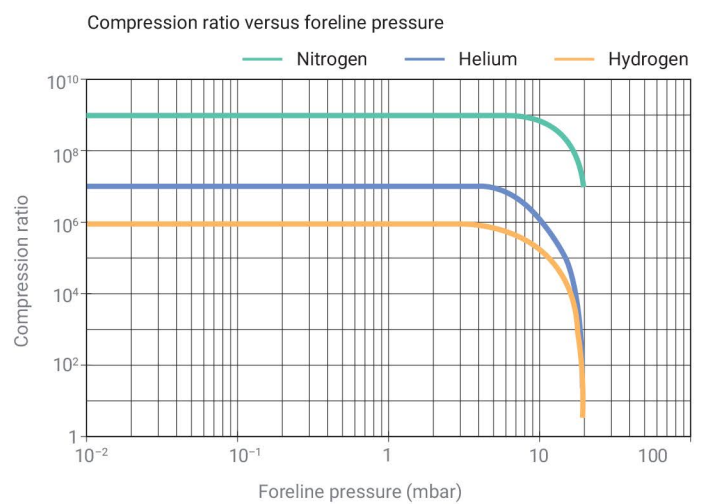
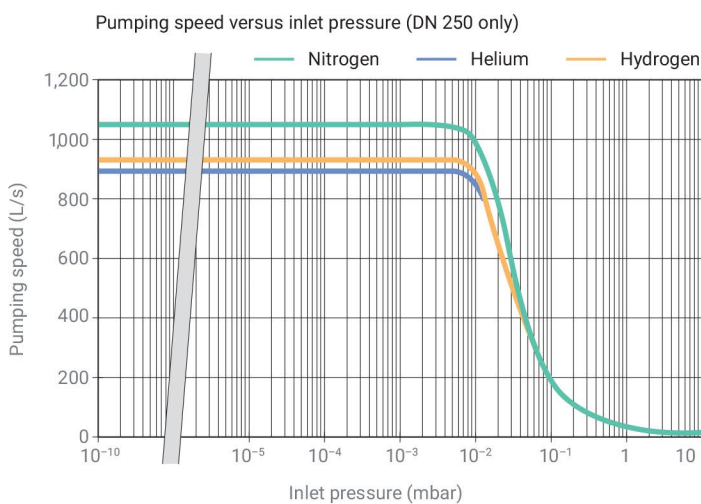
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Pumping Speed	DN 160 ISO DN 200 ISO or DN 200 CF-F (10 in CFF) DN 250 ISO	N <sub>2</sub> : 790 L/s N <sub>2</sub> : 950 L/s N <sub>2</sub> : 1,050 L/s	He: 820 L/s He: 870 L/s He: 900 L/s	H <sub>2</sub> : 860 L/s H <sub>2</sub> : 900 L/s H <sub>2</sub> : 920 L/s
Compression Ratio	DN 160 ISO DN 200-250 ISO, DN 200 CF-F (10 in CFF)	N <sub>2</sub> : 1 × 10 <sup>9</sup> N <sub>2</sub> : 1 × 10 <sup>9</sup>	He: 1 × 10 <sup>7</sup> He: 1 × 10 <sup>7</sup>	H <sub>2</sub> : 1 × 10 <sup>6</sup> H <sub>2</sub> : 1 × 10 <sup>6</sup>
Base Pressure* (with Recommended Forepump)	<1 × 10 <sup>-10</sup> mbar (<1 × 10 <sup>-10</sup> Torr)			
Inlet Flange	DN 160 ISO-K DN 200 ISO-K DN 200 ISO-F DN 200 CF-F (10 in CFF) DN 250 ISO-K DN 250 ISO-F			
Foreline Flange	DN 40 ISO-KF			
Rotational Speed	38,000 rpm			
Start-Up Time	<4 minutes			
Recommended Forepump	Mechanical: Agilent DS 402 Dry scroll: Agilent TS300, IDP-15			
Operating Position	Any			
Cooling Requirements	Forced air or water			
Bakeout Temperature	120 °C at inlet flange max (CF flange) 80 °C at inlet flange max (ISO flange)			
Vibration Level (Displacement)	<0.01 μm at inlet flange			
Weight kg (lb)	DN 160 ISO-K DN 200 ISO-K DN 200 CF-F (10 in CFF) DN 250 ISO-K DN 200 ISO-F, DN 250 ISO-F, DN 200 CF-F (10 in CFF)	19 (41.8) 19.4 (43.0) 25.5 (54.2) 21.2 (46.6) 25.5 (54.2)		
Special Versions Available	SEM			

\* According to standard DIN 28 428.

Available with On-board Navigator controller, ½ Rack controller, or PCB controller. For information on controllers, see the Ordering Information table.



## Ordering information

Description	Weight kg (lbs)	Part Number
<b>Complete Systems</b>		
Turbo-V 1001 Navigator Complete System, DN 160 ISO-K Flange	24.4 (53.8)	9698840
Turbo-V 1001 Navigator Complete System, DN 200 ISO-K Flange	24.8 (55.0)	9698838
Turbo-V 1001 Navigator Complete System, DN 200 ISO-F Bolted Flange	30.9 (66.2)	9698844
Turbo-V 1001 Navigator Complete System, DN 200 CFF (10 in CFF)	30.9 (66.2)	9698839
Turbo-V 1001 Navigator Complete System, DN 250 ISO-K	26.6 (58.6)	9698841
Turbo-V 1001 Navigator Complete System, DN 250 ISO-F Bolted Flange	30.9 (66.2)	9698845

Complete system includes: Pump, inlet screen, controller mounted on the bottom, 2 mains cables (NEMA plug and European plug).

<b>Pumps</b>		
Turbo-V 1001 Pump, DN 160 ISO-K Flange	19.0 (41.8)	9698933
Turbo-V 1001 Pump, DN 200 ISO-K Flange	19.4 (43.0)	9698931
Turbo-V 1001 Pump, DN 200 ISO-F Bolted Flange	25.5 (54.2)	9698946
Turbo-V 1001 Pump, DN 160 CF-F (8 in CFF) Flange	25.5 (54.2)	9698932M003
Turbo-V 1001 Pump, DN 200 CF-F (10 in CFF) Flange	25.5 (54.2)	9698932
Turbo-V 1001 Pump, DN 250 ISO-K Flange	21.2 (46.6)	9698934
Turbo-V 1001 Pump, DN 250 ISO-F Bolted Flange	25.5 (54.2)	9698947
<b>Controllers</b>		
Turbo-V 1001 Navigator Controller 120/220 V – 50/60 Hz	5.4 (12.0)	9698978
Turbo-V 1001 Rack Controller, 100 to 240 V	15.7 (35.0)	X3501-64003

Description	Weight kg (lbs)	Part Number
<b>Pump Accessories</b>		
Mains Cable NEMA Plug, 3 m long		9699958
Mains Cable European Plug, 3 m long		9699957
RS232 – Serial Cable		9699883
Inlet Screen DN 160		9699304
Inlet Screen DN 200		9699316
Inlet Screen DN 250		9699350
Metal Water Cooling Kit for 1/4 in or 6 × 8 mm (id × od) Hoses		9699337
Plastic Water Cooling Kit for 4 × 6 mm (id × od) Flexible Hose		9699347
Air Cooling Kit for use with Navigator Controller		9699297
Air Cooling Kit for use with Standard Rack Controller		X3501-68001
Bracket for Navigator Controller Side Mouting		9699298
Vibration Damper DN 160	4.0 (9.0)	9699345
Vibration Damper, DN 200	5.0 (10.0)	9699346
Vibration Damper, DN 200 CF-F (10 in CFF)	5.0 (10.0)	9699336
Vent Flange, DN 10 ISO-KF/M8		9699108
Vent Device with Adjustable Delay Time for Standard Rack Controller		9699831
Vent Valve for Standard Rack Controller		X3501-68002
Vent Valve for Navigator Controller		9699834
Purge Valve 10 SCCM DN 16 ISO-KF – M12		9699239
Purge Valve 10 SCCM ¼ Swagelok – M12		9699240
Purge Valve 20 SCCM DN 16 ISO-KF – M12		9699241
Purge Valve 20 SCCM ¼ Swagelok – M12		9699242
Purge Valve 10 SCCM ¼ Swagelok ¼ Swagelok		9699232
Purge Valve 20 SCCM ¼ Swagelok ¼ Swagelok		9699236

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**www.agilent.com/en/product/vacuum-technologies/turbo-pumps-controllers/turbo-pumps/turbo-v-1001-navigator-pump**

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