



Agilent TwisTorr 84FS

Technical Specifications

Pumping speed		KF40	CFF 2.75"	ISO 63	CFF 4.5"
Ar	l/s	44	57	66	66
N ₂	l/s	49	56	67	67
He	l/s	38	46	63	63
H ₂	l/s	36	40	53	53
Gas throughput at full rotational speed (with recommended forepump)		Air cooling (35°C)		Water Cooling (25°C, 65 l/h)	
N ₂		100 sccm		100 sccm	
Ar		70 sccm		70 sccm	
Compression ratio & Foreline Tolerance					
Ar		> 1.0 x 10 ¹¹		>14 mbar	
N ₂		≥ 1.0 x 10 ¹¹		>14 mbar	
He		2.0 x 10 ⁶		>12 mbar	
H ₂		5.0 x 10 ⁴		>4 mbar	
Base pressure with recommended forepump (5 m ³ /h)		< 8 E-10 mbar (< 6.0 x 10 ⁻¹⁰ Torr)			
Inlet flange		CFF 4.5" O.D.		ISO 63	
		CFF 2.75" O.D.		KF 40	
Foreline flange		KF16 NW			
Rotational speed		81000 rpm (1350 Hz driving frequency)			
Start-up time		< 2 minutes			
Recommended forepump		mechanical: Agilent DS 42 / DS 102 dry pump: Agilent SH 110 / IDP-3			
Operating position		Any			
Operating ambient temperature		+5 °C to +35 °C			
Relative humidity of air		0 - 90 % (not condensing)			
Bakeout temperature		80°C for ISO (120°C for CFF) at inlet flange			
Lubricant		Permanent lubrication			
Cooling requirements					
- Air Cooling		Air flow temperature +5°C to +35 °C			
- Water Cooling		Cooling water temperature: +15 °C to +25 °C Minimum flow: 65 l/h (0.30 GPM) Pressure: 2 to 4 bar (45 to 75 psi)			
Noise Pressure Level (at 1 mt at full speed)		40 dB(A) *			
Storage temperature		-40° C to +70° C			
Max altitude		3000 m			
Certifications		CE, C-CSA-US, RoHS compliant as per 2011/65/UE			
Weight kg (lbs)		Pump ISO 63		kg 2.05	
		Pump CFF 4.5"		kg 3.50	
		Pump CFF 2.75"		kg 3.34	
		Pump KF 40"		kg 2.37	

*average value ± 4 dB(A) std deviation





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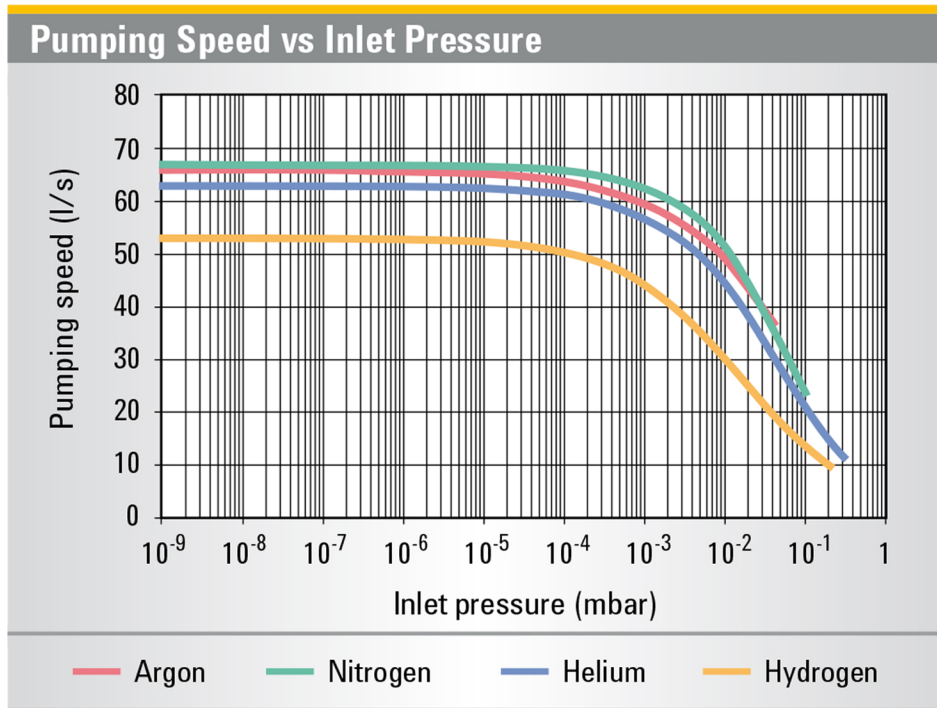
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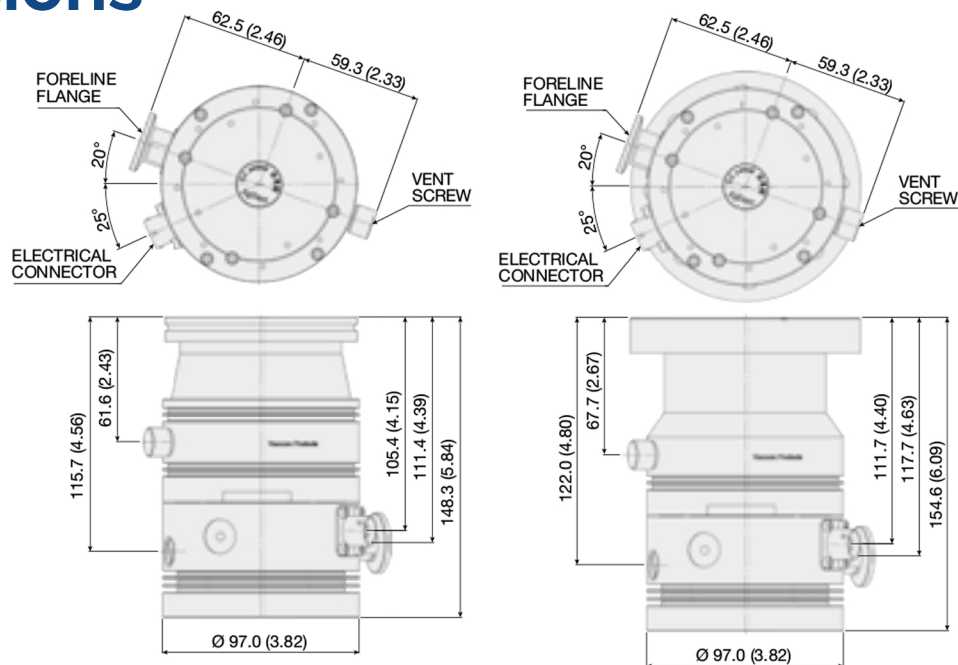
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Agilent TwisTorr 84FS Pumping Curves



Dimensions



Dimensions: millimeters (inches)



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Features & Benefits

- highest pumping speed for gases
- compact, reliable, energy efficient
- reduced cost of ownership and system down-time
- plug & play
- operation in any position
- suitable for high gas load applications
- quiet and low vibration
- oil free, permanent lubrication
- ceramic ball bearings
- thermal efficiency & temperature control

Applications

- academic research • electron microscopes • analytical instruments
- industrial • semiconductor • mass spectrometry • thin film deposition
- device processing