



Varian TV-300HT

Technical Specifications

Pumping speed	With CFF 8" or ISO 160: N ₂ : 280 l/s He: 230 l/s H ₂ : 210 l/s	With CFF 6" or ISO 100: N ₂ : 250 l/s He: 220 l/s H ₂ : 220 l/s
Compression ratio	N ₂ : >2 x 10 ⁸ He: 1 x 10 ⁵ H ₂ : 2 x 10 ⁴	
Base pressure*	with recommended mechanical forepump: < 2 x 10 ⁻¹⁰ mbar (< 1.5 x 10 ⁻¹⁰ Torr) with recommended diaphragm forepump: 2 x 10 ⁻⁸ mbar (1.5 x 10 ⁻⁸ Torr)	
Inlet flange	CFF 8" O.D. ISO 160 CFF 6" O.D. ISO 100	
Foreline flange	KF 25 NW	
Rotational speed	56000 RPM	
Start-up time	< 3 minutes	
Recommended forepump	mechanical: Varian SD 300 diaphragm: Varian MD 60	
Operating position	any	
Cooling requirements	Natural air convection Forced air or water optional	

Operating ambient temperature	+ 5° C to + 35° C
Coolant water	flow: 200 l/h (0.89 GPM) temperature: + 10° C to + 30° C pressure: 3 to 5 bar (45 to 75 Psi)
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
Noise level	≤ 45 dB (A) at 1 meter
Input	90 Vac, three phase, 933 Hz
Lubricant	permanent lubrication
Storage temperature	- 20° C to + 70° C
Weight kg (lbs)	ISO 100 and 160: 4.5 (10) CFF 6" and 8": 8 (17.6)

* According to standard DIN 28 428, the base pressure is that measured in a leak-free test dome, 48 hours after the completion of test dome bake-out, with a Turbopump fitted with a ConFlat flange and using the recommended pre-vacuum pump.





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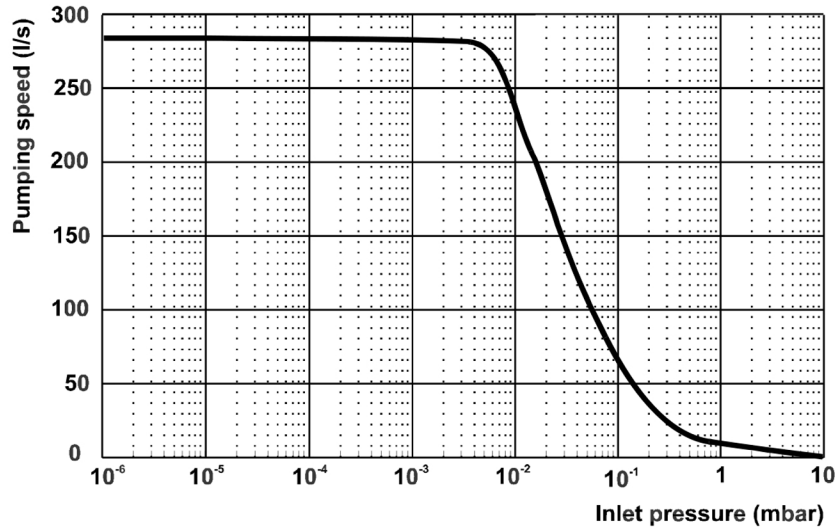
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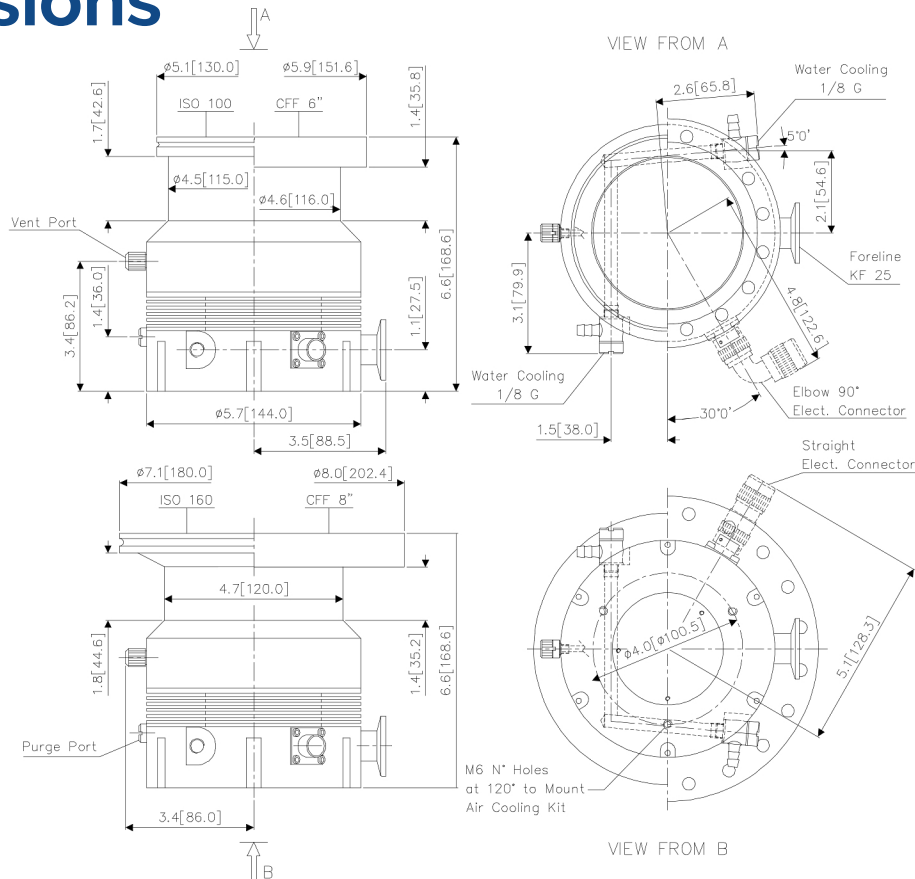
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Varian TV-300HT Pumping Curves



Graph of nitrogen pumping speed vs inlet pressure

Dimensions





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Features & Benefits

- wide pumping speed range
- high speed and compression
- designed for very high gas load operation
- monolithic rotor
- highly reliable, maintenance-free ceramic ball bearings
- very high foreline tolerance

Applications

- semiconductors • high energy physics • research laboratories • fusion technology • UHV research • analytical instrumentation • electron microscopy • focused ion beam systems • surface analysis