



Varian TV-1001SEM

Technical Specifications

Pumping speed (with inlet screen)	ISO 200K / ISO 200F:
N ₂ :	950 l/s
He:	870 l/s
H ₂ :	900 l/s
Compression ratio	
N ₂	1 x 10 ⁹
He	1 x 10 ⁷
H ₂	1 x 10 ⁶
Base pressure with recommended forepump	< 1 x 10 ⁻¹⁰ mbar (< 1 x 10 ⁻¹⁰ Torr) <i>(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)</i>
Inlet flange	ISO 200K, ISO 200F
Foreline flange	KF 40 NW
Rotational speed	38000 rpm
Start-up time	< 4 minutes
Recommended forepump	DS 402, TriScroll 300
Operating position	Any
Operating ambient temperature	+5 °C to +35 °C
Bakeout temperature	80° C at inlet flange max.
Vibration level <i>(Data measured with an indicated bearing temperature of 20 °C: see vibration graph in the following figure)</i>	bearing peak: < 45 mm/sec ² residual unbalance: < 350 mm/sec ² <i>(see the following typical vibration graph)</i>
Lubricant	permanent lubrication

Cooling requirements	Forced air or water
Coolant water	Minimum flow: 200 l/h (0.89 GPM) Temperature: +10 °C to +20 °C Pressure: 3 to 5 bar (45 to 75 psi)
Noise level	<45 dB(A) at 1 meter
Power supply:	
Input voltage:	100 - 240 Vac
Input freq.:	50 - 60 Hz
Max input power:	850 VA
Stand-by power:	30 to 35 W
Max operating power:	450 W with water cooling 220 W with air cooling
Protection fuse	1 x 6.3 A
Compliance with:	UNI EN 292-1 UNI EN 292-2 EN-CENELEC 55011 IEC 1000-4-2 (ex 801-2) IEC 1000-4-3 (ex 801-3) IEC 1000-4-4 (ex 801-4) EN 61010-1 (IEC 1010-1) EN 1012-2
Installation category	II
Pollution degree	2
Power cable	With European or NEMA plug 3 meters long (optional)
Serial communication (Navigator kit)	RS232 cable with a 9-pin D type male connector and a 9-pin D type female connector, and Navigator software (optional)
Storage temperature	-20° C to +70° C
Weight kg (lbs)	
ISO 200K flange	19 (41.8)
ISO 200F flange	19.4 (43)
Controller	5.4 (12)



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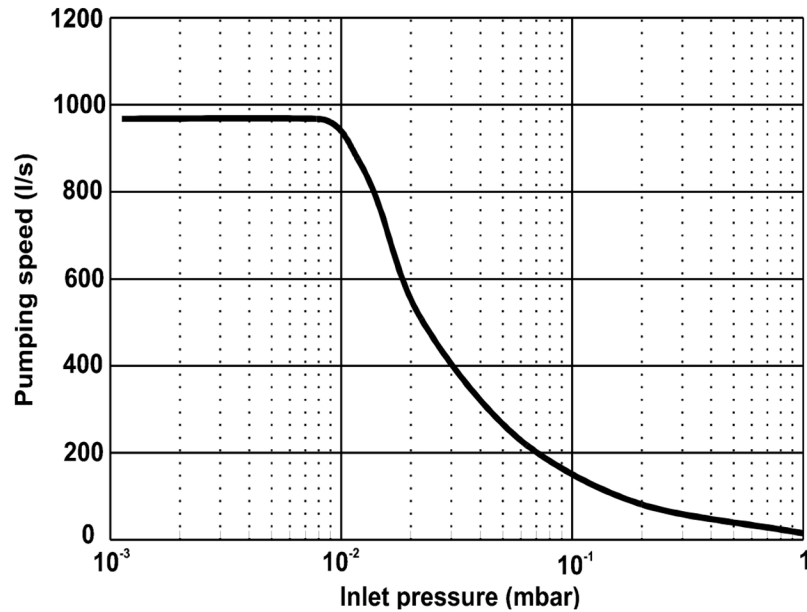
PHONE: 831-462-8900

FAX: 831-462-3536

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Pumping Curves



Graph of nitrogen pumping speed vs inlet pressure

Dimensions

