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Seiko Seiki STP-301, STP-451

Technical Specifications

Item			STP-301 series	STP-451 series
Flange size*1	Inlet port flange		ICF152/VG100/ISO100	ICF203/VG150/ISO160
	Outlet port flange		KF25	
Pumping speed*2	N_2	L/s	300	480
	He	L/s	280	460
	H_2	L/s	300	460
Compression ratio	N_2		$>10^8$	
	He		5×10^5	
	H_2		2×10^4	
Ultimate pressure Pa (Torr)	Without anti-corrosion treatment		10^{-8} (10^{-10}) : ICF flange 6.5×10^{-6} (5×10^{-8}) : VG/ISO flange	
	Chemical specific type		10^{-7} (10^{-9}) : ICF flange 6.5×10^{-6} (5×10^{-8}) : VG/ISO flange	
Maximum working pressure		Pa (Torr)	6.7×10^{-2} (5×10^{-4}) : Natural air cooling	
Allowable backing pressure		Pa (Torr)	13 (0.1) : Natural air cooling	
Rated speed		rpm	25,000 to 48,000	
Starting time		min	3	
Stopping time		min	3	
Vibration		μm O-P	<0.01 (at 48,000 rpm)	
Noise		dB	<50 (at 48,000 rpm)	
Baking temperature		°C	<120	
Lubricating oil			Not necessary	
Installation position			Free	
Cooling method			Natural air cooling (Water/air cooling: for baking/gas suction)	
Standard backing pump		L/min	240	
Mass		kg	11	12
Dimensions		mm	φ180x230	φ180x200
Ambient temperature range		°C	0 to 40	
Storage temperature range		°C	- 25 to + 55	

The values shown in the table are typical; they are not guaranteed.

*1 :ICF (JVIA standard), VG, KF (JIS)

*2: At 48,000 rpm. The performance varies with the rated speed

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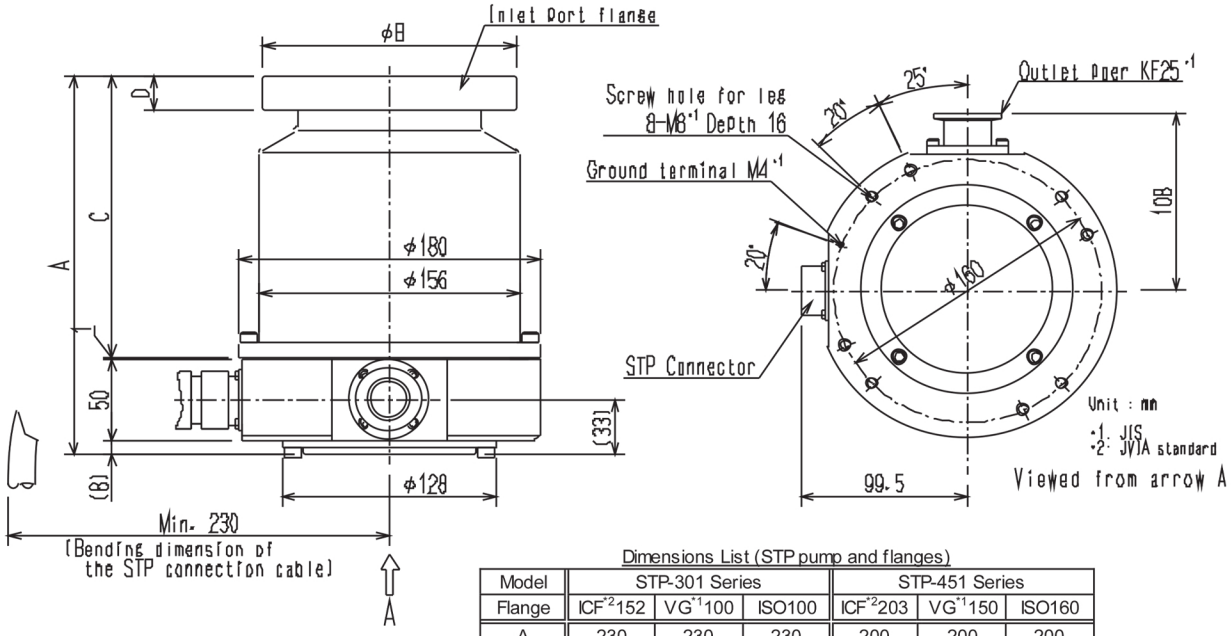
Dimensions



Dimensions List (STP pump and flanges)

Model	STP-301 Series			STP-451 Series		
Flange	ICF*2152	VG*1100	ISO100	ICF*2203	VG*1150	ISO160
A	230	230	230	200	200	200
B	152	185	130	203	235	180
C	171	171	171	141	141	141
D	21	12	12	22	12	12

External Appearance of the STP Pump [without Anti-Corrosion Treatment] (Example: STP-301)

Features & Benefits

- oil free
- low vibration
- high reliability
- maintenance free
- increased life
- advanced controller design
- compact design
- small footprint
- advanced rotor technology
- installation in any orientation

Applications

• plasma etch • electron cyclotron resonance • film deposition • ion implantation • sputtering • MBE • diffusion • photo resist stripping • crystal growth • water inspection • load-lock chambers.