



Seiko Seiki STP-L451C

Technical Specifications

Pump Type		STP-L301	STP-L451	STP-L301C	STP-L451C
Corrosion resistant specific		N/A		Applicable	
Flange size	Inlet port flange	VG100 ISO100 ICF152	VG150 ISO160 ICF203	VG100 ISO100 ICF152	VG150 ISO160 ICF203
	Outlet port flange	KF25			
	Purge port flange	N/A		KF10	
Pumping speed ^{*1} (L/s) (See chapter 7.1)	N ₂	260	450	260	450
	H ₂	290	410	290	410
Compression ratio ^{*1}	N ₂	> 10 ⁸			
	H ₂	2×10 ⁴			
Ultimate pressure ^{*1, *2}	Pa	6.5×10 ⁻⁶ (5×10 ⁻⁸ Torr): VG/ISO			
		10 ⁻⁸ (10 ⁻¹⁰ Torr) order: ICF		10 ⁻⁷ (10 ⁻⁹ Torr) order: ICF	
Allowable maximum working pressure ^{*1}	Pa	6.7×10 ⁻² (5×10 ⁻⁴ Torr)			
Allowable maximum backing pressure ^{*1}	Pa	13 (0.1 Torr)			
Enable exhaust gas		STP-L301/STP-L451 is not corrosion resistant type. Chlorine and Fluorine gases cannot be used. Use corrosion resistant pump (C type) when using Chlorine and Fluorine gases.		Chlorine and Fluorine gases can be used. When using the following gas, contact Edwards. - The gas including alkali metal, but except "Li". - The gas including "Ga", "Hg", "Sn" and "In". - HBr	
Purge gas flow rate	Pa·m ³ /s (SCCM)	—		1.7×10 ⁻² (10) (see chapter 2.2.2)	
Back pump size	L/min	> 240 (Recommended)			
Rated speed	rpm	48,000 (Allowable speed range: between 25,000 and 48,000)			
Starting time	min	3			
Stopping time	min	5			
Vibration	μm(O-P)	< 0.001 (at 48,000 rpm)			
Baking temperature	°C	< 120			
Lubricating oil		Not necessary			
Installation position		Free			
Cooling method		Natural Air Cooling (Air cooling: for baking / gas suction)			
Mass	kg	13	14	13	14
Physical size	Mm	(See chapter 6.3 Pump Overview Chart)			
Ambient air temp. range	°C	0 to 40			
Storage temp. range	°C	-25 to 55			
Connection cable length	m	30 (maximum)			

The data inside above table are the typical measured value. It's not guaranteed performance.



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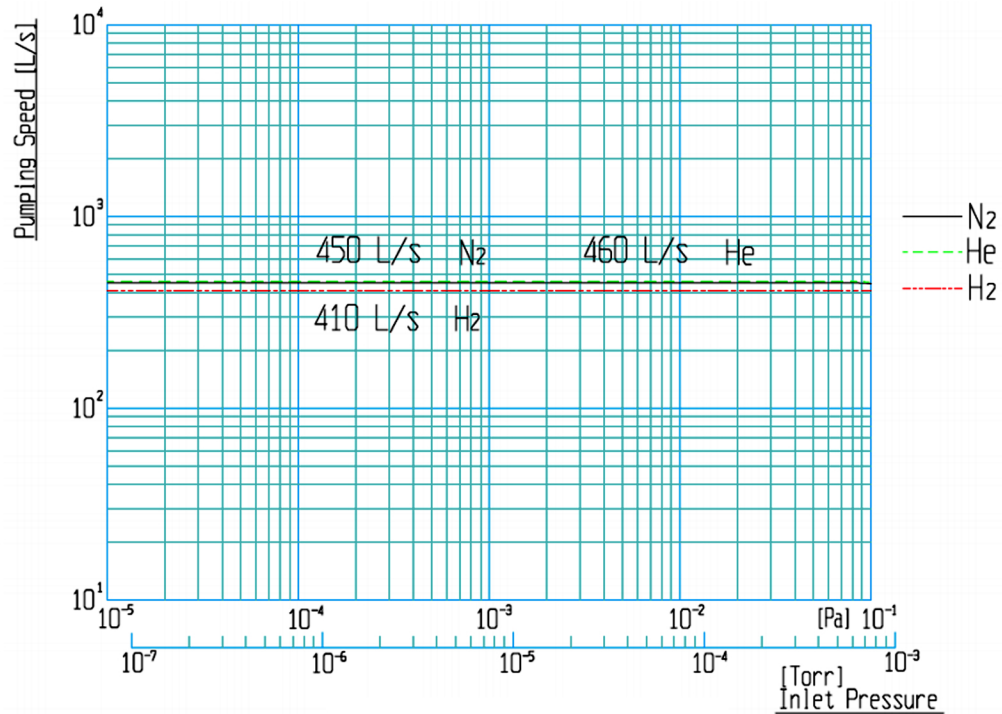
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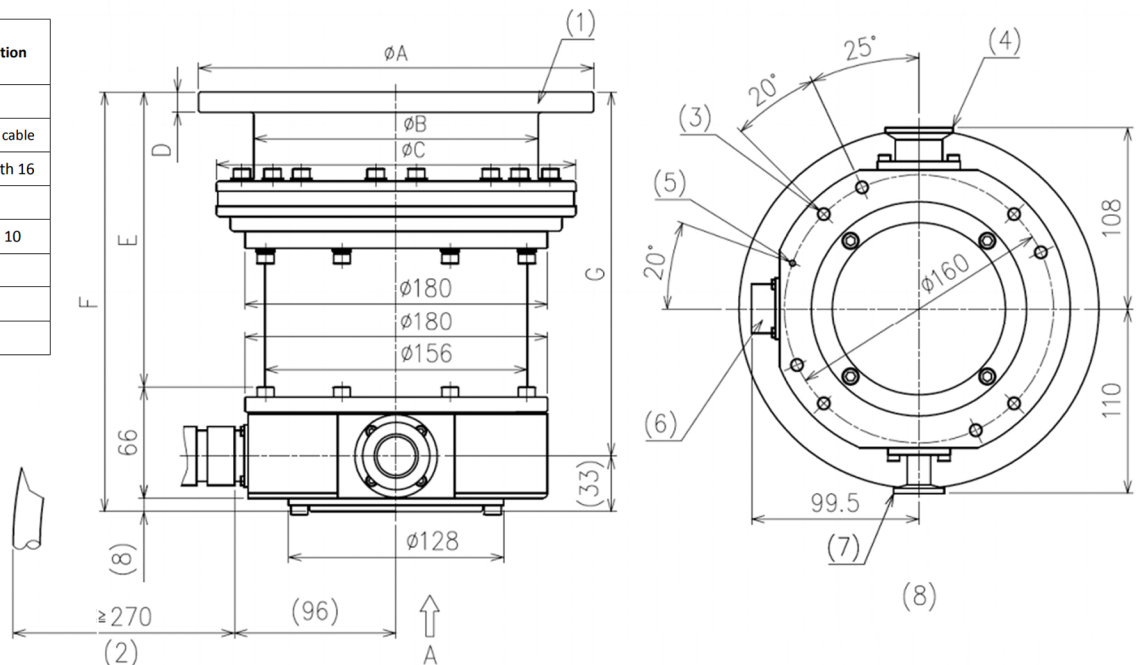
Pumping Curves



Dimensions

No.	Item	Description
1	Inlet port flange	
2	Bending dimension of the STP connection cable	
3	Screw hole of legs	8-M8 depth 16
4	Outlet port flange	KF25
5	Screw hole for earth	M4 depth 10
6	STP connector	
7	Purge port	KF10
8	Viewed from arrow A	

	STP-L451 series		
	VG150	ISO160	ICF203
φA	235	180	203
φB	169	169	169
φC	214	214	214
D	12	12	22
E ^{*1}	176	176	196
F ^{*1}	250	250	270
G ^{*1}	217	217	237





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Features & Benefits

- designed to meet the low vibration requirements of advanced spectroscopy & microscopy tools
- vibration isolation system built into the pump body
- hydrocarbon-free pumping
- minimal maintenance, low cost of ownership
- installation in any orientation
- full remote control interface
- suspended magnetic bearings eliminate contact between rotor & pump
- corrosion resistant model

Applications

- plasma etch • electron cyclotron resonance (ECR) etch • film deposition CVD, PECVD, ECRCVD, MOCVD • sputtering • ion implantation source, beam line pumping end station • MBE • diffusion • photo resist stripping
- crystal/epitaxial growth • wafer inspection • load lock chambers
- scientific instruments: surface analysis, mass spectrometry, electron microscopy • high energy physics: beam lines, accelerators