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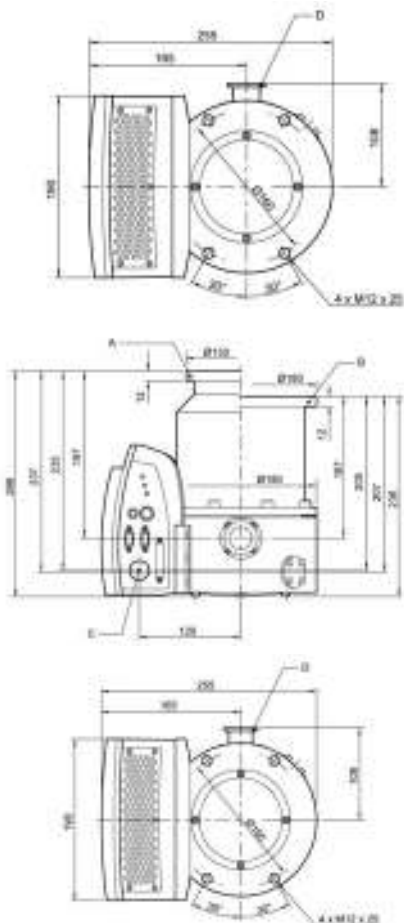


The STP-iX455 turbo-molecular pump features an innovative, magnetic bearing and motor drive system, providing a 50% reduction in vibration compared to previous generation turbo pumps. An integrated controller eliminates the need for a conventional, rack-mounted controller and interconnecting cables, and does not require water cooling. The pump features 450 l/s pumping speed for nitrogen. The STP-iX455 is an excellent fit for electron microscope, metrology, lithography and other vibration sensitive applications.

Features & Benefits

- Compact Design including a fully integrated controller
- Innovative, Self-Sensing magnetic bearing system
- Digital 5-axis control
- Vibration levels reduced by 50% compared to the existing turbo pumps
- Can be configured to run corrosive processes

Dimensions

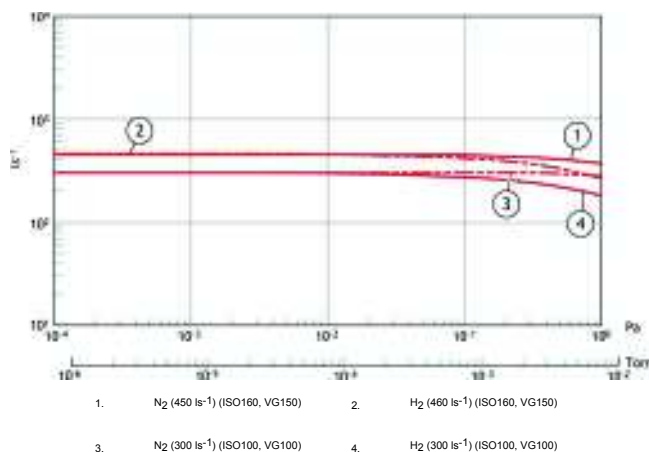


Inlet Flange	A	B
ISO100	130 (5.12)	12 (0.47)
DN100CF	152 (5.98)	21 (0.83)
VG100	182 (7.17)	12 (0.47)
ISO160	180 (7.09)	12 (0.47)
DN160CF	203 (7.99)	22 (0.87)
VG150	235 (9.25)	12 (0.47)

Applications

- Plasma etch (chlorine, fluorine and bromine chemistries) for metal (aluminum), tungsten and dielectric (oxide) and polysilicon
- Electron cyclotron resonance (ECR) etch
- Film deposition CVD, PECVD, ECRCVD, MOCVD
- Sputtering
- Ion implantation source, beam line pumping end station

Performance Curves



Technical Data

Inlet flange	ISO100K
Pumping Speed	
N ₂	300 ls ⁻¹
H ₂	300 ls ⁻¹
Compression ratio	
N ₂	>10 ⁸
H ₂	>1 x 10 ⁴
Ultimate pressure	6.5 x 10 ⁻⁶ order Pa
Max working pressure	1.3 x 10 ⁻¹ Pa
Allowable backing pressure	67 Pa
Rated speed	55000 rpm
Starting time	<6 min
Mounting position	Any orientation
Cooling method	Natural cooling (water cooling or air cooling when baking and gas pumping)
Lubricating oil	Not necessary
Backing pump	240 lmin ⁻¹
Leakage Magnetic Flux	
Axial direction	<100 m/Gauss
Radial direction	<100 m/Gauss
Ambient temperature range	0 to 40 °C
Storage temperature range	-25 to 55 °C
Weight	15 kg

Ordering Information

Product Description	Order No.
STP-iX455 Turbomolecular pump ISO100K	PT640Z010
STP-iX455 Turbomolecular pump ISO160K	PT640Z020
STP-iX455 Turbomolecular pump DN100CF	PT640Z050
STP-iX455 Turbomolecular pump DN160CF	PT640Z060
Accessories & Spares	Order No.
iDT-001 Display unit	PT64W1Z00
iPS240 Power supply	PT64W0Z00
STP-iX455-iPS240 interconnection cable 5 m	PT64Y0B20
STP-iX455-iPS240 interconnection cable 10 m	PT64Y0B30
STP-iX455-iPS240 interconnection cable 15 m	PT64Y0B40
STP-iX455-iPS240 interconnection cable 20 m	PT64Y0B50
Power supply cable for iPS240 3m	PT64Y0A10
Power supply cable for iPS240 5m	PT64Y0A20

STP-iXR1606 Turbomolecular vacuum pump

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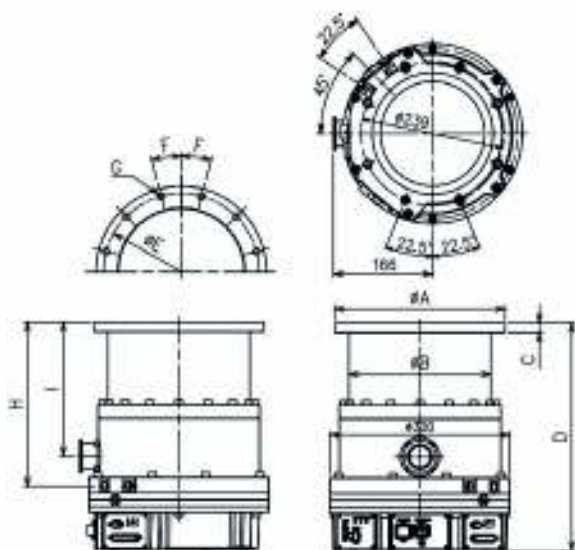


STP-iXR1606 series magnetically levitated turbo-molecular pump provides industry-leading performance and incorporates latest technology small power supply into the onboard control which is the same concept with STP-iXA2206/iXA3306 series. The pumping performance is improved by the newest developed revolutionary rotor design. This fully integrated product offers easy installation and small footprint as an all-in-one solution for all application tools.

Features & Benefits

- Eliminates connection cable between pump and control unit.
- Eliminates installation space and cost required by conventional rack type control unit.
- Compact design results in easy installation and small foot print.
- Highest pumping speed in the 8" TMP class, along with the STP-A1603.
- 32% reduced power consumption in the high gas flow area.

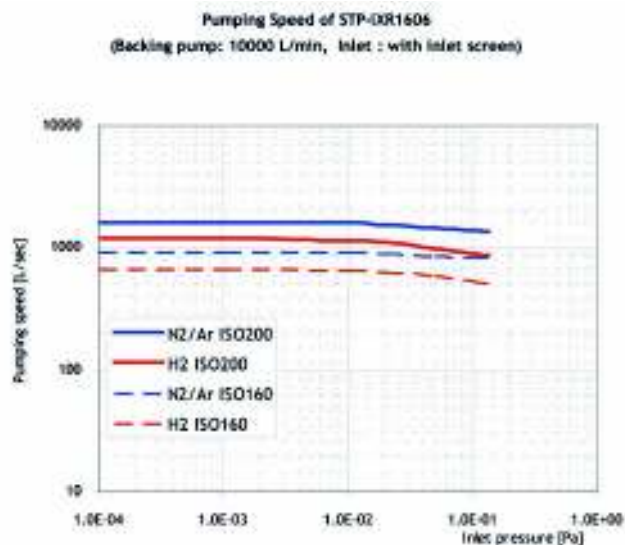
Dimensions



Applications

- Glass Coating
- Solar PVD
- Industrial Sputtering

Performance Curves



Technical Data

Intel Flange Size	VG200/VG250	VG150
	ISO200F/ISO250F	ISO160F
	ICF253/ICF305	ICF203
Backing port size	KF40	KF40
Pump Speed		
N ₂	1600 ls ⁻¹	900 ls ⁻¹
H ₂	1200 ls ⁻¹	600 ls ⁻¹
Compression ratio		
N ₂	>10 ⁸	>10 ⁸
H ₂	1 x 10 ³	1 x 10 ³
Ultimate pressure	10 ⁻⁷ Pa (10 ⁻⁹ Torr)	10 ⁻⁷ Pa (10 ⁻⁹ Torr)
Allowable backing pressure	266 Pa (2 Torr)	266 Pa (2 Torr)
Max Gas size N2 (water cooled only)	4700 sccm (7.94 Pam ³ s ⁻¹)	4700 sccm (7.94 Pam ³ s ⁻¹)
Max Gas size Ar (water cooled only)	1800 sccm (3.04 Pam ³ s ⁻¹)	1800 sccm (3.04 Pam ³ s ⁻¹)
Rated speed	36,500 rpm	36,500 rpm
Starting time	8 min	8 min
Mounting position	Any orientation	Any orientation
Input voltage	200 to 240 (± 10) V a.c.	200 to 240 (± 10) V a.c.
Maximum input power	750 VA	750 VA
Weight	48 kg	48 kg-

Ordering Information

Product Description	Order No.
STP-iXR1606 ISO200F	YT790Z010
STP-iXR1606 VG200	YT790Z020
STP-iXR1606 ISO250F	YT790Z040
STP-iXR1606 ISO160F	YT790Z070
STP-iXR1606 VG150	YT790Z080
STP-iXR1606 ISO200F with Profibus	YT790Z100
STP-iXR1606 ISO250F with Profibus	YT790Z110
Accessories & Spares	Order No.
iDT-001 Display Terminal	YT79U1Z00
Power cable 3m	YT79Y0A01
Power cable 5m	YT79Y0A00
Power cable 10m	YT79Y0A03
Power connector only	PTZ003114

STP-iXA2206C Turbomolecular vacuum pump

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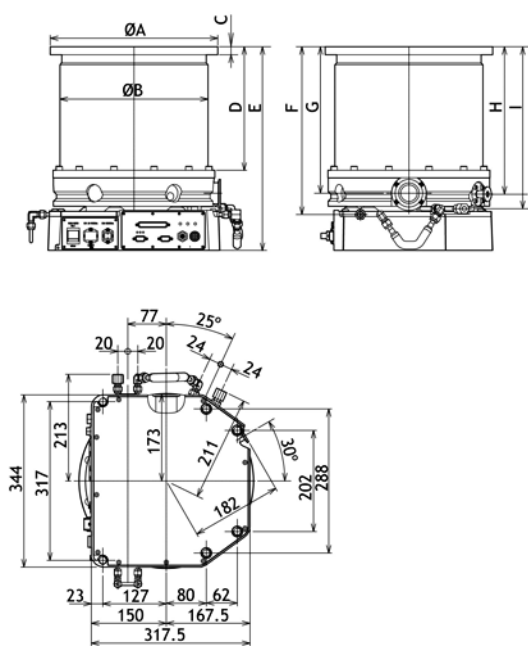


The STP-iXA2206 series magnetically levitated turbomolecular pump provides industry-leading performance and incorporates a small power supply into the onboard control unit – the latest technology of the well-established STP-iXA2205 series. The height of the pump is equal to the STP-A2203C and is also equal to the height of the STP-iXA2205 series without its power supply (iPS-1200). This fully integrated product offers easy installation and a small footprint as an all-in-one solution for all application tools.

Features & Benefits

- Compact design including a fully integrated controller
- Innovative, self-sensing magnetic bearing system
- Digital 5-axis control
- Vibration levels reduced by 50% compared to the existing turbo pumps
- Can be configured to run corrosive processes

Dimensions

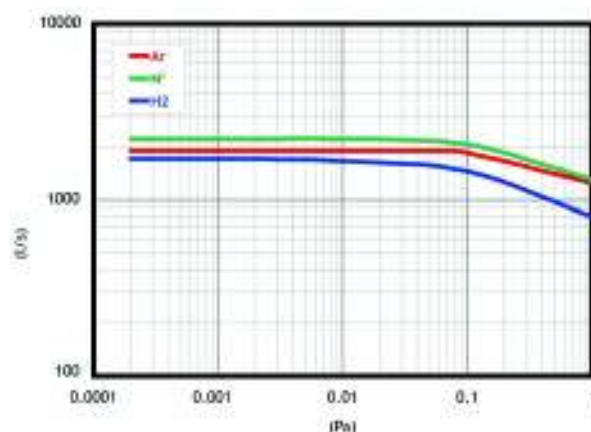


Inlet port flange	VG250	ISO250F	ICF305
ØA	350	335	305
ØB	296	296	296
C	18	16	28
D	235	245	275
E	395	405	435
F	312	322	352
G	281	291	321
H	283	293	323
I	322	332	322

Applications

- Plasma etch (chlorine, fluorine and bromine chemestries) for metal (aluminium), tungsten and dielectric (oxide) and polysilicon
- Electron cyclotron resonance (ECR) etch
- Film deposition CVD, PECVD, ECRCVD, MOCVD
- Sputtering
- Ion implantation source, beam line pumping and station

Performance Curves



Technical Data

Inlet flange size	ISO250F/VG250/ICF305
Backing port size	KF40
Pump speed N ₂ /Ar	2200/1900 l s ⁻¹
Compression ratio N ₂ /H ₂	$>10^8 / 1 \times 10^4$
Ultimate pressure	10 ⁻⁷ Pa (10 ⁻⁹ Torr)
Allowable backing pressure	266 Pa (2 Torr)
Max gas flow N ₂ * (water cooled only)	3000 sccm (5.07 Pam ³ s ⁻¹)
Max gas flow Ar * (water cooled only)	1400 sccm (2.36 Pam ³ s ⁻¹)
Rated speed	27000 rpm
Run-up time to 90% rated speed	<8 minutes
Mounting position	Any orientation
Input voltage	200-240 V
Max input power (without TMS)	1200 VA
Weight	62 kg

* The maximum gas flow is applicable under conditions that N₂ or Ar gas is pumped continuously with water cooling temperature between 15-25 °C and the backing pump (10,000 l/min size) is used. It is changed on condition.

Ordering Information

Product Description	Order No.
STP-iXA2206C ISO250F	YT810Z010
STP-iXA2206C VG250	YT810Z020
STP-iXA2206C DN250CF	YT810Z030
STP-iXA2206C ISO250F with Profibus	YT810Z040
Accessories & Spares	Order No.
iDT-001 Display unit	YT63U1Z30
Power Cable 10M	PT35Y0A00
Power Cable 15m	B75030430
Power Cable 5m	B75030020

STP-iXA3306C Turbomolecular vacuum pump

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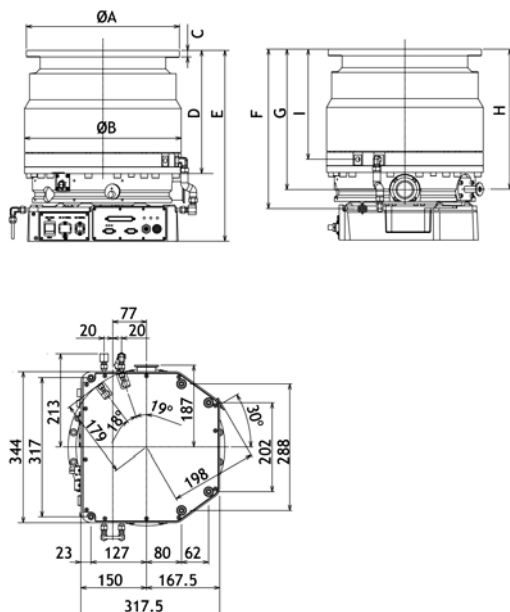
The STP-iXA3306 series magnetically levitated turbomolecular pump provides industry-leading performance and incorporates a small power supply into the onboard control unit – the latest technology of the well-established STPiXA3305 series.

The height of the pump is equal to the STP-XA2703/XA3203 and is also equal to the height of the STP-iXA3305 series without its power supply (iPS-1200). This fully integrated product offers easy installation and a small footprint as an all-in-one solution for all application tools.

Features & Benefits

- Compact design including a fully integrated controller
- Innovative, self-sensing magnetic bearing system
- Digital 5-axis control
- Vibration levels reduced by 50% compared to the existing turbo pumps
- Can be configured to run corrosive processes

Dimensions

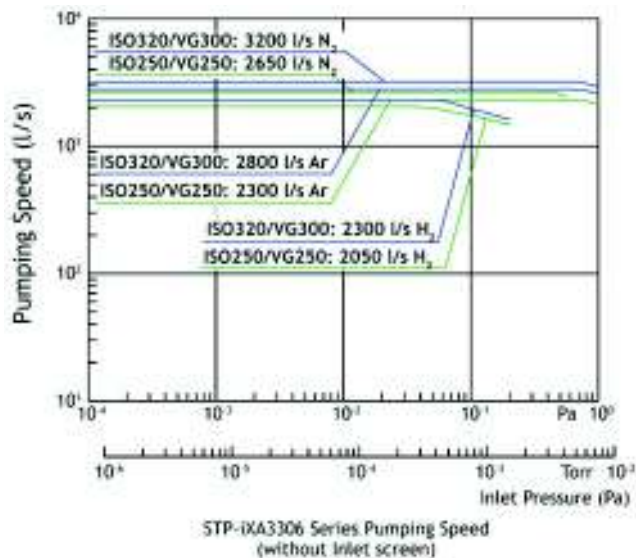


Inlet port/flange	VG250	ISO250F	VG300	ISO320F	ICF305	ICF356
ØA	350	335	400	425	305	356
ØB	358	358	358	358	358	358
C	15	15	18	20	28	28.5
D	281	281	242	242	286	281
E	435	435	396	396	440	435
F	363	363	325	325	368	364
G	320	320	282	282	325	321
H	319	319	281	281	324	320
I	251	251	212	212	256	251

Applications

- Plasma etch (chlorine, fluorine and bromine chemistries) for metal (aluminium), tungsten and dielectric (oxide) and polysilicon
- Electron cyclotron resonance (ECR) etch
- Film deposition CVD, PECVD, ECRCVD, MOCVD
- Sputtering
- Ion implantation source, beam line pumping and station

Performance Curves



Technical Data

Inlet flange size	ISO250F / VG250 / ICF305
Backing port size	KF40
Pumping speed N ₂	2650 l s ⁻¹
Pumping speed Ar	2300 l s ⁻¹
Compression ratio N ₂ /H ₂	$>10^8 / 2 \times 10^3$
Ultimate pressure	10 ⁻⁷ Pa (10 ⁻⁹ Torr)
Allowable backing pressure	266 Pa (2 Torr)
Max gas flow N ₂ *(water cooled only)	4000 sccm
	(6.76 Pam ³ s ⁻¹)
Max gas flow Ar * (water cooled only)	2100 sccm
	(3.55 Pam ³ s ⁻¹)
Rated speed	27700 rpm
Starting time	<10 minutes
Mounting position	Any orientation
Input voltage	200-240 V
Max input power without TMS	1500 VA
Max input power with TMS	1800 VA
Weight	80 kg

* The maximum gas flow is applicable under conditions that N₂ or Ar gas is pumped continuously with water cooling temperature under 25° C and the backing pump (10,000 l/min size) is used. It is changed on condition.

Ordering Information

Product Description	Order No.
STP-iXA3306C ISO250F	YT820Z020
STP-iXA3306C VG250	YT820Z030
STP-iXA3306C ISO320F	YT820Z040
STP-iXA3306C VG300	YT820Z050
STP-iXA3306C ISO250F with Profibus	YT820Z060
STP-iXA3306C ISO320F with Profibus	YT820Z070
Accessories & Spares	Order No.
iDT-001 Display unit	YT63U1Z30
Power Cable 5m	B75030020
Power Cable 10M	PT35Y0A00
Power Cable 15m	B75030430