

# STP-iXA4506 large capacity turbomolecular pump

Edwards STP-iXA4506 series magnetically levitated turbomolecular pump (TMP) uses state-of-the-art technology to provide industry-leading performance, improved gas flow capability and high temperature management for today's challenging applications.

Achieving world-class pumping speed of 4300 l/s (N<sub>2</sub>) and throughput up to 4300 sccm (N<sub>2</sub>), on a 12-16 inch (300-400 mm) inlet flange, makes the STP-iXA4506 TMP the ideal choice for a wide range of large-volume, high-flow applications including semiconductor etch, LCD etch, glass coating, solar PVD and coating PVD.

Its tightly-integrated design includes a completely sealed electronic module for robust, reliable operation in the most demanding factory environments. And, like all of our magnetically levitated TMPs, the absence of mechanical bearings practically eliminates the cost of periodic maintenance.



## Features and benefits

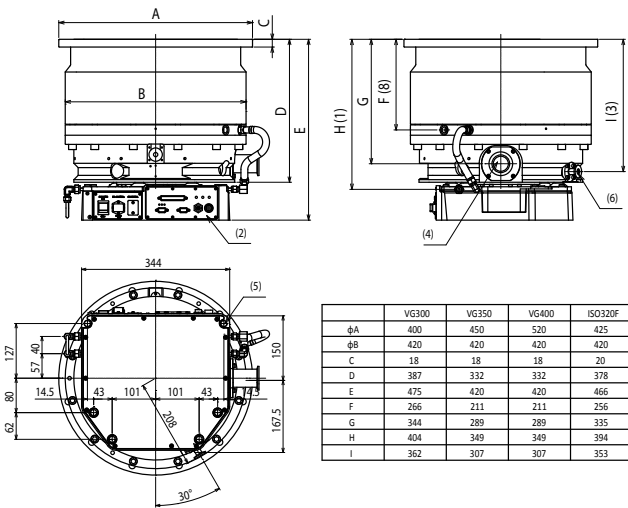
- All-in-one solution
  - The fully integrated controller and power supply eliminates the need for cables and a separate controller rack, resulting in a cost effective, compact TMP package that is fast and easy to install in a small footprint.
- High performance, high throughput
  - Maximum continuous flow capability of 4300 sccm (N<sub>2</sub>), achieving a performance increase of more than 50%, when compared to STP-XA4503.
- Energy efficient
  - The pump will operate efficiently with cooling water supply up to 35°C.
- Additional options
  - Temperature Management System (TMS) unit is available for processes generating by-products.
  - Optional B\* Coating can be applicable for high throughput processes with TMS.
- Communication
  - I/O Remote, RS232C, RS485, STP-Link are standard ports.
  - Profibus, DeviceNet, Lonworks and EtherCAT can be selected as optional alternatives.
- Compliant Standards
  - UL marked, CE marked, SEMI-S2 and RoHS compliant.

# Technical data

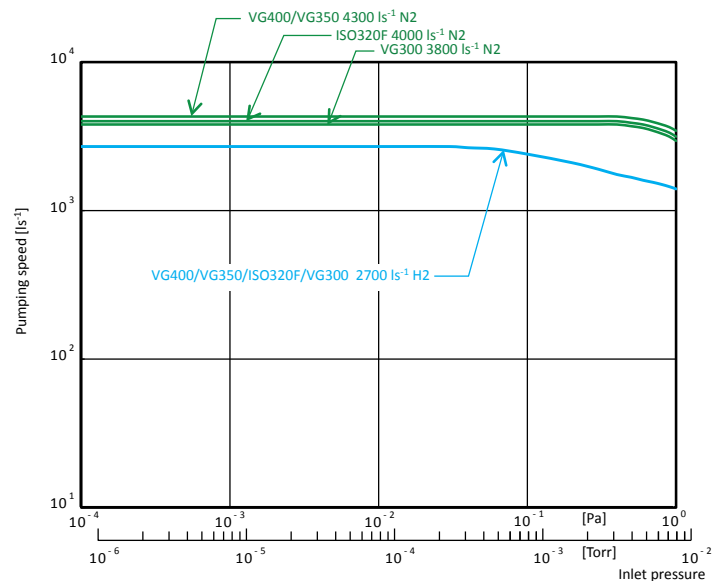
Intel port flange	VG300	ISO320F	VG350	VG400	
Outlet port flange		KF40			
Pump Speed					
N <sub>2</sub> /H <sub>2</sub>	3800/2700	4000/2700	4300/2700	4300/2700	Litres/second
Compression ratio N <sub>2</sub> /H <sub>2</sub>		>108 / 103			
Ultimate pressure		10 <sup>-7</sup> (10 <sup>-9</sup> )			Pa(Torr)
Allowable backing pressure		266(2)			Pa(Torr)
Max gas flow N <sub>2</sub> *1		4300			
(water cooled only)		(7.26)			(Pa m <sup>3</sup> /sec)
Max gas flow Ar *1		2600			
(water cooled only)		(4.39)			(Pa m <sup>3</sup> /sec)
Rated Speed		24,240			rpm
Starting time		≤11			minutes
Mounting position		Any orientation			
Input voltage		200-240			V
Maximum input power					
without TMS		1700			VA
with TMS		2200			VA
Weight	109	111	104	111	kg

\*1: The maximum gas flow value applies for N<sub>2</sub> or Ar gas pumped continuously, with water cooling temperature under 25 degrees C and a backing pump of 10,000 l/min size or larger used. The value is changed if operated under different conditions

## Dimensions



## STP-iXA4506 Series/Pumping speed against Inlet Pressure



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