

STPH451C high performance turbopump

The high performance STPH451C turbomolecular pump has been designed for use in the harshest of semiconductor applications.

Field proven reliability and class-leading performance give maximum process flexibility. The STPH451C has been approved for use by major equipment manufacturers in the semiconductor and magnetic media industries.



Features and benefits

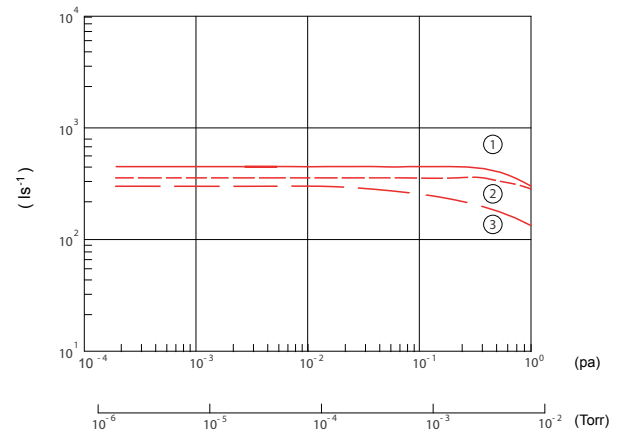
- Advanced rotor technology
 - Higher gas throughput
 - Maximised process flexibility
 - Oil free
 - Low vibration
 - High reliability
 - Maintenance free
 - Harsh process compatible
 - Increased life
- Advanced controller design
 - Auto tuning
 - Self diagnostic functions
 - DC motor drive
 - Battery-free operation
- Compact design
 - Small footprint
 - Half rack controller
- 5 axis magnetic suspension system
 - Zero contamination
 - Low maintenance
 - Any orientation operation

Technical data

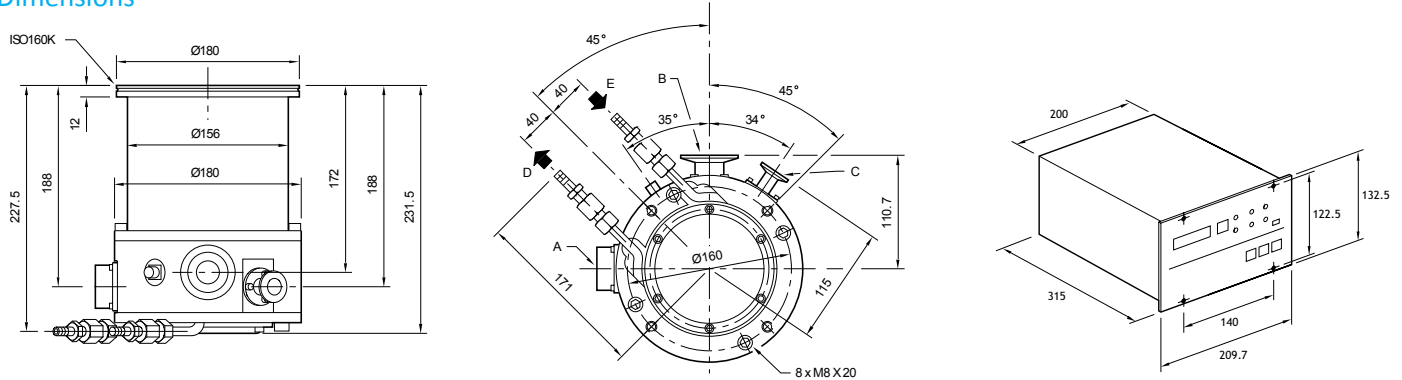
Inlet flange size	ISO160K	
Pumping speed, N ₂ /H ₂	450/300	Litres/second
Compression ratio N ₂ /H ₂	>10 ⁸ /10 ³	
Ultimate pressure	10 ⁻⁷ (10 ⁻⁹)	Pa (Torr)
Maximum continuous outlet pressure*	665 (5)	Pa (Torr)
Maximum Nitrogen throughput*	2500 (4.2)	sccm (Pa m ³ /sec)
Rated speed	48000	rpm
Starting time	4	minutes
Maximum inlet flange temperature [‡]	120	°C
Power consumption (Max, without TMS)	600	VA
Input voltage	100 - 240	V
Weight, pump/controller	15/9	kg

*water cooled ‡ with cooling

Performance curves



Dimensions



Ordering information

Pump	
Description	Order No.
STPH451C ISO160K inlet	B71901001
STPH451C DN160CF inlet	PT340Z005
STPH451CV (TMS) ISO160F inlet	YT3416007
STPH451CV (TMS) DN160CF inlet	YT3416006

Custom configurations are available for specific OEM applications

Accessories and spares	
Description	Order No.
SCU-800 control unit	YT4922Z00
Power cable 5m	PT49Y0A00
Power cable 10m	PT49Y0A01
Straight connection cable 5m	B75130020
Straight connection cable 10m	B75130060
TMS connection cable kit	PT330V000
TMS connection cable kit	PT330V001
TMS connection cable kit	PT330V002

- A Electrical Connector
- B Output Port
- C Purge Port
- D Cooling water out
- E Cooling water in
- F Temp sensor connector

Global contacts

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