

ON-BOARD® IS 320F XVS CRYOPUMP

edwardsvacuum.com

The On-Board® IS 320F XVS reaches new levels in cryopump performance by providing higher hydrogen pumping speed with more consistent process vacuum for today's demanding Ion Implant applications

The On-Board® IS 320F XVS cryopump is designed to deliver the highest hydrogen pumping performance for improved process yield and throughput. Edwards has forged a reputation for designing the highest performing and reliable implant cryopumps on the market.

Intelligent system control ensures better process quality, vacuum consistency and uptime, while providing real-time system information for optimum control of array temperatures. Automatic adaptation to changing thermal/ gas loading conditions enhances vacuum quality.



On-Board® IS 320F XVS



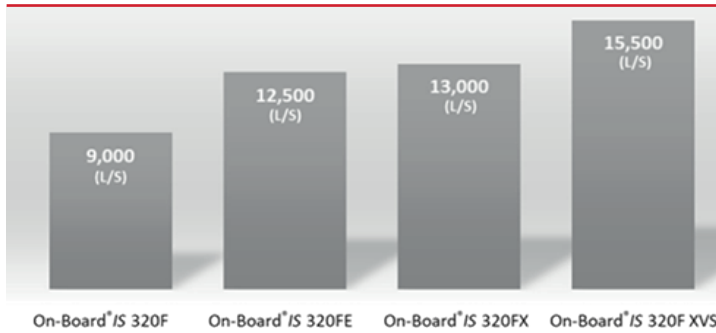
On-Board® IS 320FX



Features and Benefits

- Stable Vacuum Performance
 - Reduced H₂ Pumping Speed Variation between Regenerations
 - Reduced Impact to H₂ Pumping Speed due to Photoresist Contamination
 - Optimized stable array temperatures
- Enhanced Vacuum Performance
 - High H₂ Pumping Speed-15,500 L/S
 - High H₂ Capacity – 40 STD-L
- System Compatibility
 - On-Board IS Cryopump systems
 - IS-1000, IS-2000V, IS-1800 XVS Compressors

Hydrogen Pumping Speed



Features

Integrated Controls

- Pump-mounted, Field-replaceable Module
- Motor Drive Electronics
- Host Communication Interface (RS-232C, DB-9 Connector)
- First Stage Temperature Control
- Helium Management
- Service Communications Port
- Remote Display Option
- Gate Valve Control

Cryopump Performance

Pumping Speed*	
Water	11,000 L/Sec
Air	4,800 L/Sec
Hydrogen	15,500 L/Sec
Argon	3,800 L/Sec
Gas Capacities	
Hydrogen	40 Std Liters
Base Pressure	<1.0 x 10 ⁻⁸ Torr
Crossover	300 Torr-Liters
Regeneration	
Regen Time (Full)	135 min (w/20 min ext purge)
Regen Time (Fast)	65 min

*Measurements per: "Recommended practices for measuring the performance and characteristics of closed-loop gaseous helium cryopumps." (J. Vac Technol. A 17(5), Sep/Oct 1999)

Integrated Accessories

- First and Second Stage Temperature Sensors
- First and Second Stage Heaters
- Purge Valve
- Roughing Valve
- Vacuum (TC) Gauge
- Pressure Relief Valve
- Exhaust Purge Valve
- IntelliPurge System

Pump Motor

Variable Speed (3Ø, Low Vibration)

Power

200/230 VAC 50/60 Hz 1Ø, (5A)

Compatible Compressors

On-Board®/S-2000V, On-Board®/S-1000

Mechanical Interface Requirements

Mounting Flange	Standard ISO 320mm
Weight	100 lbs
Helium Connection	Aeroquip 5400 series in -8 (1/2 inch) size - supply side fitting has an internal female thread and the return side has an external male thread

Edwards continually updates its products to match the evolving needs of the semiconductor industry and any specifications given here are subject to change without notice.

GLOBAL CONTACTS

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