

CTI-CRYOGENICS® ON-BOARD® IS XP CRYOPUMP

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The On-Board® IS XP Cryopump delivers the highest mixed gas capacity in the industry for PVD applications, along with stable vacuum performance and consistent pumping speeds.

The On-Board® IS XP Cryopump delivers increased productivity, higher tool utilisation, improved energy efficiency and lower cost of ownership.

Fab managers benefit from less frequent regenerations, up to or beyond their process kit changes, maximising process tool availability. The XP delivers up to a 60% increase in mixed gas capacity compared to the On-Board® IS 8F and up to a 41% increase over competitive models.

Other design innovations enable the most stable, consistent vacuum performance in the industry. Consistent base pressure recovery time permits maximum product throughput for demanding PVD applications, while improved pressure stability between pump regenerations results in consistent product yields from lot to lot.

The XP leverages proven On-Board® IS technology: intelligent system controls, cryopump solution integration, electronics and software. Like the rest of the product line, it enables multiple pump configurations with the most efficient and cost-effective helium management solution.

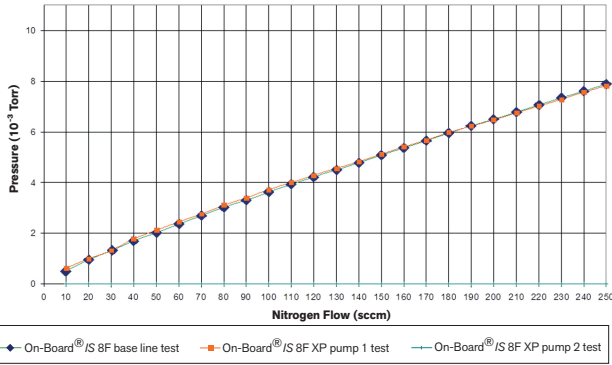


Features and Benefits

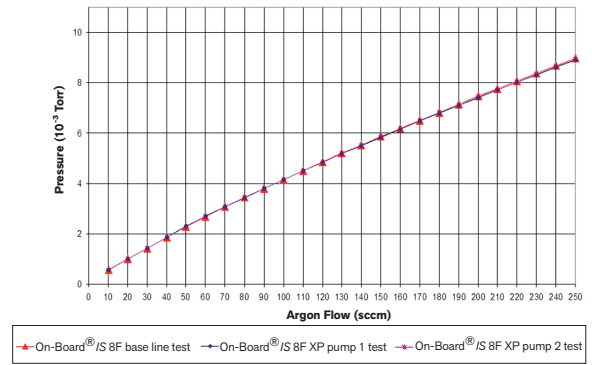
- Highest-capacity PVD pump in the industry
 - Greater than 55% increase in gas capacity over the On-Board® IS 8F
- Improved pressure stability provides consistent throughput
 - After changeover and between regenerations, the XP offers greater consistency in reaching and maintaining desired pressure parameters
- Greater process transparency with repeatable vacuum performance
 - Within the same mixed-gas flows, the XP upgrade provides identical process parameters as the On-Board® IS 8F
- Proven reliability and operational life
- FASTRegen® increases tool availability for higher productivity
- Intelligent cryopumping solution maximises pump efficiency
- Optimal helium management and power savings
- Global rapid response teams

Process Transparency

N2 Gas Pumping Performance
On-Board® IS 8F XP Compared to On-Board® IS 8F



Ar Gas Pumping Performance
On-Board® IS 8F XP Compared to On-Board® IS 8F

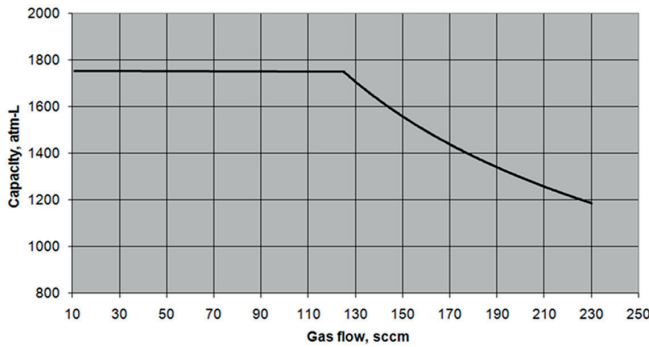


The On-Board® IS XP Cryopump delivers the same pumping speeds as the 8F Cryopump, reducing the need for process recipe changes.

Capacity Across Gas Types

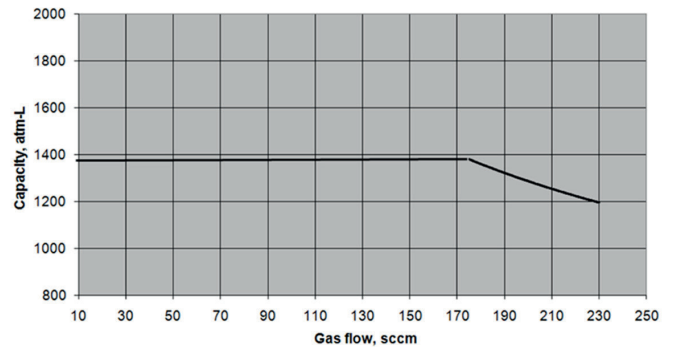
Graph "A" use for:

Ar = 100% or N2 < 50% of process gas mixture



Graph "B" use for:

N2 ≥ 50% of process gas mixture



Consistent pumping speeds for all gases are the result of design improvements that ensure consistent ice formation.

Performance Specifications

Pumping Speeds (L/s) (with sputter plate)

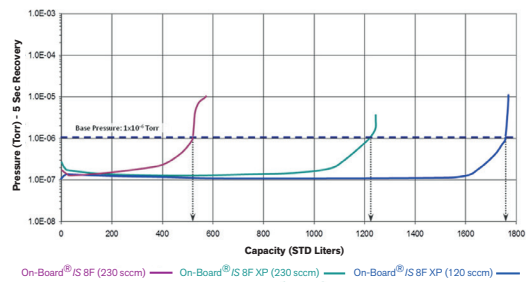
Hydrogen	800
Air	330
Water	4,000
Argon	275

Gas Capacities

Hydrogen	12
Argon (w/ recovery 10-7 in 5 sec)	1,500
Nitrogen (w/ recovery 10-7 in 5 sec)	850

Cryopump Capacity and Stability

Ar/N₂ Mixed Gas Capacity
(N₂ > 50%, 120 sccm / 230 sccm)



The On-Board® IS XP offers an increase of more than 55% in gas capacity over the 8F pump, as well as highly stable performance, resulting in less frequent regenerations and higher productivity.

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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Edwards Ltd, registered in England and Wales No. 6124750, registered office: Innovation Drive, Burgess Hill, West Sussex, RH15 9TW, UK.

EMEA	
UK	+44 (0) 1444 253 000 (local rate) 0845 921 2223
Belgium	+32 2 300 0730
France	+33 1 4121 1256
Germany	0800 000 1456
Italy	+ 39 02 48 4471
Israel	+ 972 8 681 0633

ASIA PACIFIC	
China	+86 400 111 9618
India	+91 20 4075 2222
Japan	+81 47 458 8836
Korea	+82 31 716 7070
Singapore	+65 6546 8408
Taiwan	+886 3758 1000

AMERICAS	
USA	+1 800 848 9800
Brazil	+55 11 3952 5000

