

Brooks On-Board[®] Upgrade for NV-10 Ion Implanters

Turn-Key Upgrade Package:

- **Brooks offers a performance-enhancing, fully-integrated On-Board Cryopump upgrade solution for the NV-10 Ion Implanter:**
 - On-Board 8 Cryopumps replace the Cryo-Torr[®] 8 Cryopumps on the P2 Beamline and P3 End-station chambers.
 - The P3 End-Station On-Board 8 Cryopump is specially-designed with a higher capacity for hydrogen.



Value Proposition:

This upgrade is ideal for Customers who are trying to improve their tool availability and wafer throughput. This upgrade reduces regeneration-caused downtime and **increases wafer throughput** by enhanced hydrogen pumping during ion implants.

All upgrade inquiries must be transacted through Brooks technical support 1-800-FOR-GUTS[®]

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Features:

- Automated regenerations designed for optimal photoresist removal
- The cryopumps are interlocked with an automatic temperature-initiated purge feature .
- GOLDLink[®] enabled
- Installed by experienced Brooks Engineers
- Analysis of historical On-Board performance
- Backed by 1-800-FOR-GUTS[®]: 7x24x365 Technical Support

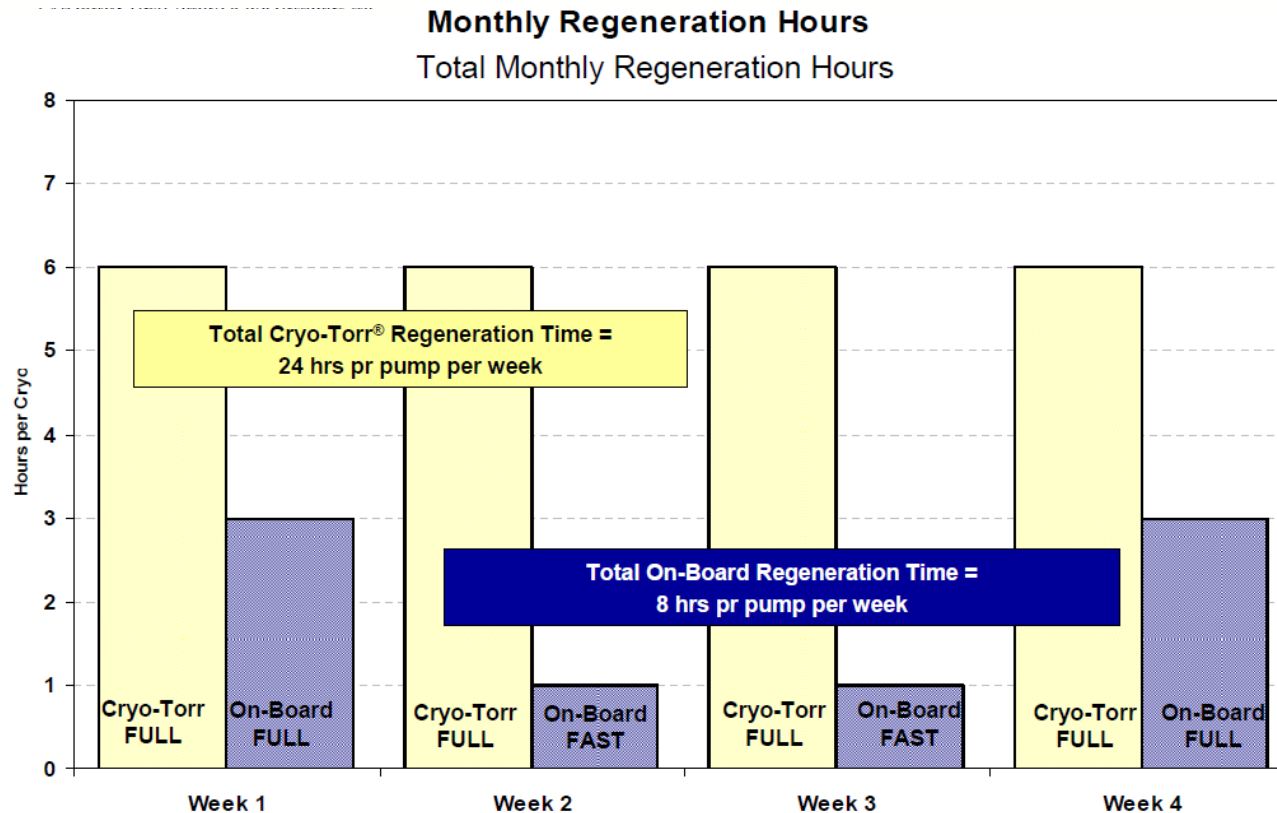
Benefits:

- Reduced vacuum dose holds leading to an increase of up to 9% in wafer throughput.
- Reduced pump downtime to base pressure during "wheel spin up".
- Fast Regenerations restore hydrogen pumping speed and capacity to 100%
- Improved hydrogen-pumping speed
- Extension and optimization of pump change-out cycles
- Faster and improved automated regenerations
 - Full Regeneration = 3 hours
 - Fast Regeneration < 1 hour

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- By utilizing On-Board's FastRegen[®] capability, availability-increasing benefits are immediately realized via reduced regeneration downtime. In addition, the new On-Board Ion Implant module will optimize Full Regenerations to remove internal build-up of process by-products, effectively extending each pump's operational life.



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