



# Brooks On-Board® Upgrade for GSD Classic Ion Implanters

## Turn-Key Upgrade Package:

Brooks offers a performance-enhancing, fully-integrated On-Board Cryopump upgrade solution for all vacuum configurations of the GSD Classic Ion Implanter:

- On-Board 8 and On-Board 10 Cryopumps replace the Cryo-Torr® 8 and Cryo-Torr 10 Cryopumps on the P2 Beamline and P3 Resolver Housing chambers.
- Systems with the P9 End-station cryopump are upgraded with the On-Board 250F or On-Board 10F Cryopump.



## Value Proposition:

This upgrade is for customers who are concerned with increasing tool availability and increasing wafer throughput. With this upgrade customers can reduce regeneration-caused downtime and increased wafer throughput with enhanced hydrogen pumping during ion implants.



# Brooks On-Board<sup>®</sup> Upgrade for GSD Classic Ion Implanters

## Features

- Automated regenerations designed for optimal photoresist removal
- Faster and improved automated regenerations
  - Full Regeneration = 3 hours
  - Fast Regeneration < 1 hour
- Fast Regenerations restore hydrogen pumping speed and capacity to 100%
- GOLDLink<sup>®</sup> enabled
- Installed by experienced Brooks Engineers
- Backed by 1-800-FOR-GUTS<sup>®</sup>: 7x24x365 Technical Support

## Benefits

- Lower Maintenance Costs
  - Save \$3,000 to \$10,000 per cryopump over 24-months*
- Increase Tool Availability
  - Reduce monthly regeneration times from 60 hrs to 18 hrs per pump*
- Increases Wafer Throughput

### **Wafers per Year with Cryo-Torr<sup>®</sup>:**

*240 Cycles @ 8 Wafers/Cycle = 1,920 Wafers/Day  
1,920 Wafers x 300 Days = 576,000 Wafers/Yr*

### **Wafers per Year with On-Board:**

*262 Cycles @ 8 Wafers/Cycle = 2,096 Wafers/Day  
2,096 Wafers x 300 Days = 628,800 Wafers/Yr*

***52,800 Additional Wafers per Year = 9.1% Increase***



# Brooks On-Board<sup>®</sup> Upgrade for GSD Classic Ion Implanters

By utilizing On-Board's **FastRegen<sup>®</sup>** 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.

