



Gemini-Pi

Automated Polishing and Inspection System for Fiber Optic Devices

Technology

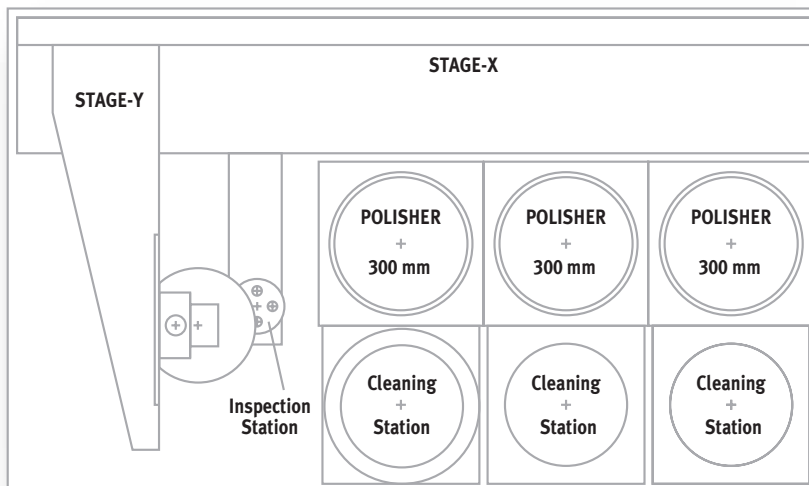
- Configurable multistation system for up to:
 - Three 300 mm polishing stations
 - Three integrated cleaning stations
- Multiple devices polished simultaneously
- Patented sub micron polishing technology, S μ PT
- High precision automated robot handler
- Integrated imaging for inspection
- Graphical user interface with process recipe control

Productivity

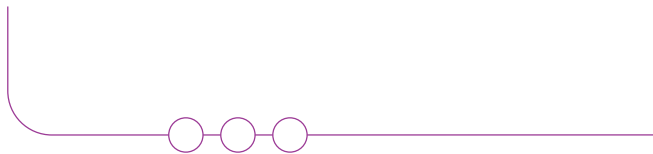
- High throughput due to:
 - Full automation
 - Multistation design
 - Multiple device polishing
 - Integrated imaging platform for inspection

Quality

- Superior polished surfaces through patented submicron polishing technology, S μ PT™
- Repeatable results through robotics handling and automated process flows
- Excellent contamination control due to automated cleaning and robotics handling



Gemini-Pi with three polishing stations, three integrated cleaning stations and an inline inspection station



**For Critical Applications,
the Gemini-Pi will optimize your yield,
productivity and reproducibility**

Applications

- Variety of applications can be polished on the same platform on the same production shift
 - Planar Waveguide Devices
 - Splitter and Combiner
 - Arrayed Waveguide Grating (AWG)
 - V-Groove Fiber Arrays
 - Fiber Tips, Ferrules and Capillaries



*Gemini-Pi multi-station
polish and inspection system*

Gemini-Pi

Automated Polishing and Inspection System for Fiber Optic Devices

Gemini-Pi Specification

System

The Gemini-Pi is a configurable multi-station polishing system with integrated vision for inspection. Process a variety of applications on the same platform during the same production shift.

Applications

V-Groove Fiber Arrays
Splitter/Combiner
Fiber Tips

Si Based Waveguides (AWG)
Modulators
Ferrules, capillaries, etc

Configuration

Process Stations

Configurable process and clean stations for custom process/productivity
Up to three 300 mm polishing stations and
Up to three integrated cleaning stations

Inspection

Integrated optics station for inspection and sort

Motion Platform

Direct drive 3-axis robot for fully automated batch process handling

Quick Disconnect

Easy load/unload Smart Carrier™ for multiple parts process Smart Carrier™

System specification

Polish Station

Batch process Smart Carrier™
Easy flip-over Smart Carrier™ for double sided polishing
Programmable polishing profiles
Up to 3 computerized dispensers

Clean Station

Non-contact ultrasonic cleaner for 200mm or 300mm disk polishing
Configurable up to 3 cleaning stations

Inspection Station

Optical lens turret with selectable 5X, 20X, 50X, 100X objectives
Integrated color CCD camera for automated inspection
Dark field illumination (optional)
Bar Code (optional)

User Interface

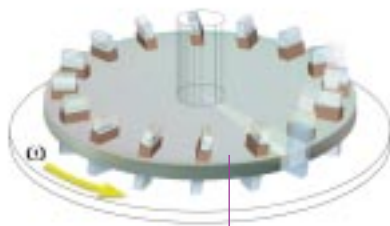
Graphical User Interface
Statistical Process Control (SPC)
In-situ process parametric diagnostics
Windows-2000 based platform

Footprint:

L 1800mm x D 1300mm x H 1400mm

Utilities:

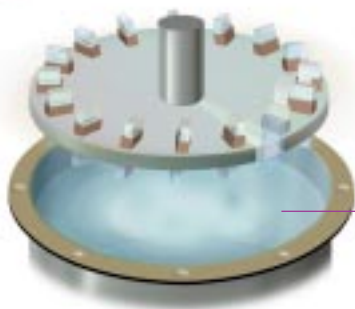
Mains: 115V/230V @ 60/50Hz 1ph



Batch production process



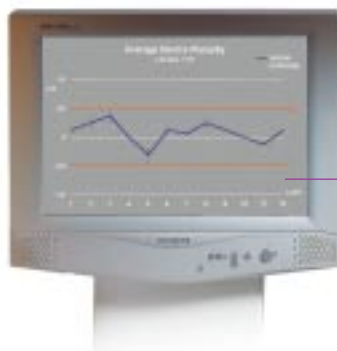
Rough to fine polish



Integrated cleaning



Optical inspection & sort



Statistical process control




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