

AUTOMATED WORKCELL

Catheter & Stent Processing Equipment



Vertically aligned pleat and fold heads



10 Station Rotary Index table



The "Workcell" is an automated platform designed to improve the quality, speed and cost of multiple balloon catheter and stent delivery production processes.

MSI's patented balloon catheter pleating and folding equipment has been reconfigured to allow pleating and folding processes to occur simultaneously to significantly reduce takt time. A new automated sheathing process ensures folded balloons are carefully loaded into protective sheaths without risk of twisting or damage.

The system also features industry leading stent positioning capabilities so stents are accurately aligned between marker bands. The system can be configured with standard or film integrated stent crimping heads to protect drug coatings from damage and contamination.

Inspection stations such as stent positioning and leak testing can be incorporated without affecting takt times. 100% quality inspections with batch record storage provides confidence that all products met output criteria.

Catheters are oriented vertically to significantly reduce floor space required. It is estimated that the standard configuration of these machines would require over 25 linear meters of manufacturing floor space. The Workcell can squeeze all of these processes into 2m² machine.

Full size 350mm Pleat and Fold heads and 120mm Crimp heads are accommodated for on the Workcell platform.

Workcell Value

- Single operator can run multiple production processes
- Parallel processes run simultaneously to optimize takt time and production output
- Vertical product handling reduces equipment footprint
- Integrate quality inspections without impact on takt time
- Automated product handling increases **consistency of finished product**
- **Customize configuration to meet the** needs of your unique process

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Configuration Options:	Rotary Index table from 4 - 12 stations
Power Requirements:	220 VAC; 10A FLA
Pneumatic Requirement:	100psi (300psi for high pressure inflation and leak test)
Thermal Compression Control:	Ambient to 100°C
Stent Placement Accuracy:	+/-0.1mm after pre-crimp
Profile Storage Capacity:	999
CE Certified :	Yes
General Warranty :	1 Year

Sample 10 Station Workcell Dimensions

- Machine Weight: 3500lbs (1588Kg)
- Height: 83.0"
- Width: 63.0"
- Depth: 63.0"

Featured MSI Technology:

- Balloon Pleating and Folding with WavePleat Technology
- Autosheathing with Patented Process
- Stent Positioning
- Stent Crimping with Hybrid Film Head Technology

Workcell Configuration Options:

- Barcode Scanning and Verification
- Stent Positioning +/- 0.1mm
- Autosheathing up to 250mm Balloon Catheters with Torque Feedback
- Data Logging with Error Handling and Reporting
- Full Network Capabilities
- 24" Touch Screen HMI
- Rotary Index Table for 4-12 Independent Stations
- Preliminary Balloon Integrity Verification
- Balloon Diameter Verification
- Final Product Leak Detection
- COGNEX Vision Inspection for Stent and Sheath Position Verification
- Keyence Light Curtain for Category III Operator Safety
- Servo Motor Control for All Processing Heads

10 Station Example Configuration

- Load/unload
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- Initial Inspection w/ Keyence Laser Micrometer and Barcode Verify
- Pleat w/ WavePleat Technology
- Pleat w/ unique geometry
- Fold w/ 250mm Head
- Autosheather
- PreCrimp w/ Stent Positioning
- Final Crimp w/ Hybrid Film Head
- Final Inspection w/ Cognex Vision

**Station sequence can be customized to meet customer needs*