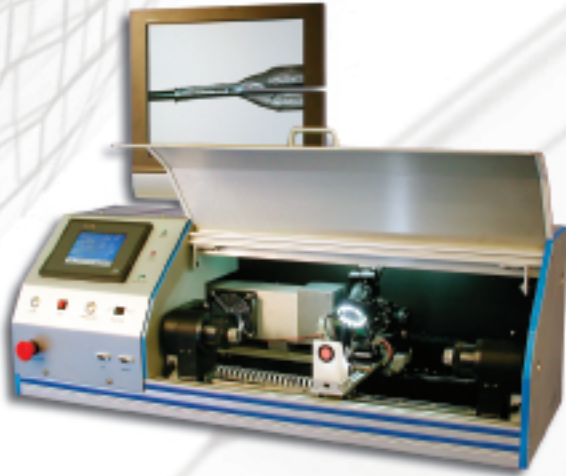


LASER BONDING

The MSI Laser Bonding Equipment offers a highly efficient, consistent alternative for PTCA & PTA proximal and distal bonding, soft tip attachment, butt joints and other catheter and tube bonding applications. The MSI Laser Bonding equipment is PLC controlled and utilizes a CO2 laser that creates a bond between two polymer materials smooths out the tubing edge at the joint. Versus other laser types, the CO2 laser provides a wave length that is close to the resonance frequencies of polymer groups leading to tighter bonds.

- Allows for very close bond of balloon cone
- Attach, bond, and form soft tip in a single run
- Create long bond with dynamic bonding
- Highly efficient, extremely consistent



THERMAL HOT BOX

The MSI swaging equipment eliminates several operator steps by integrating our proprietary, automatic and precise positioning feature into the swaging process as well as an in line QA/QC inspection system. This equipment utilizes the principles of the patented MSI segmental compression mechanism and is offered for either standard or high force swaging applications. The MSI swaging equipment is the first technology developed with the specific needs of catheter manufacturers in mind.

- Increased swaging accuracy
- Clean, quiet machine operation
- Short process cycle times
- Automatic and accurate band positioning



THERMAL BALLOON BONDING

MSI offers the most solutions for crimping DES, coated and bare stents and stent graft products of any manufacturer. Our latest generation equipment integrates a thin walled film into our proprietary crimping technology that eliminates the need to sheath product prior to crimping. The protective film maintains the integrity of the stent polymer and drug coatings while eliminating concerns of cross contamination between crimps and lots.

- Servo motor or pneumatic operation
- Improved yields
- Reduced cycle times



VERTICAL TUBE SHRINKER

The MSI catheter & stent testing tools have an emphasis on improving repeatability while increasing accuracy and resolution in your testing environment. Current products include tools for measuring and quantitatively analyzing catheter performance features and stent hoop force as well as providing contract testing services. Testing tools can be used with a number of different interventional devices including: catheters, guidewires, stent delivery systems, colonoscopes, endoscopes and scope tools.

- Track and push testing
- Stent preconditioning
- Radial stiffness or hoop strength measurement



Machine Solutions

The complete source for process and testing equipment outsourcing.



**STENT CRIMPING • SWAGING • BALLOON PLEATING & FOLDING • CATHETER & STENT TESTING
TUBE PROCESSING • THERMAL BONDING**

Our mission at Machine Solution Inc. (MSI) is to provide unique and innovative process and testing solutions to device manufacturers.

MSI is dedicated to meeting the needs of our customers through the development of custom processing tools and equipment that will advance process development solutions within manufacturing organizations. The proprietary MSI segmental compression mechanism provides an even, repeatable radial compression that is proven technology for stent crimping, swaging, catheter balloon pleating & folding, tube processing and catheter & stent testing applications.

At MSI we understand the gauntlet of stringent manufacturing steps required in stent delivery system processing and can provide the equipment to improve process yields, reduce cycle time and speed time to market. MSI works as your partner, whether a start-up or multi-national organization, through the development of custom tools and equipment to solve complex process or device design challenges. If your process and testing equipment does not say Machine Solutions Inc., you could be risking yields, cycle time and repeatability.

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