

CR-150

FOR SELF-EXPANDABLE STENTS

The CR-150 Stent Crimping Machine is developed for the crimping and transfer into the delivery system of self-expandable stents up to 120 mm length with a maximum diameter of approx. 20 mm.



KEY FEATURES

- Automatic stent loading with cradle system
- Servo controlled stent crimping head with Zero Gap technology
- Exchangeable pusher rods and delivery system holders for various stent diameters
- 10" user interface with recipe control
- The CR-150 is built with a very high-quality benchmark resulting in a stable and robust design with minimal cost of ownership.
- The CR-150 stent crimper can be easily calibrated using the one-point automatic diameter calibration function built into the system. Calibration in seconds.
- Full process data logging to the internal PC system and transfer possibly to external USB for registration or analysis.

SELF-EXPANDABLE STENTS

The accurate 150 mm long, Medical Production Technology Europe BV designed servo-controlled stent crimping head is very stable and can deliver forces up to 1000 N radial while maintaining an even diameter all over the length of the head.

The innovative stent cradle system allows operators to load the stents into the delivery systems without the need for touching the stent. Simply drop the stent from the container or vial into the cradle. The machine will position the stent to the proper position inside the stent crimping head.

The stent pusher system is stepper controlled and has a loadcell to accurately measure the stent transfer the delivery system is placed in a holder. A small light sensor detects the presence of the delivery system in the holder and detects if the system is fully advanced to the transfer plate.

The stent crimping head has stainless tool steel blades that have a special high wear resistant very low friction coating. The transfer forces measured inside the head and in the delivery system are typically at the same magnitude.

The Medical Production Technology Europe BV design stent crimp head is unique in its design and during the crimping action the blades have very little relative motion to the products. That prevents damaging of any fragile cover materials, and make that the products crimped with the CR-150 crimper are not damaged in the crimping and the transfer process.

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| TECHNICAL SPECIFICATION | CR-150 |
|-------------------------------|--|
| Stent crimping length | 150 mm head. Maximum 120 mm length stents |
| Stent type | Self-expandable stents (also for covered stents) |
| Maximum diameter auto loading | 20 mm (optionally larger sizes possible) |
| Maximum opening crimp head | 35 mm |
| Minimum closing diameter | 0.1 mm (software limit) |
| Crimp head control | Servo controlled position / force |
| Diameter accuracy | +/- 0.02 mm @ 100 N |
| Maximum crimp force | 1000 N radial. Dynamic Diameter Compensation possible |
| Crimping speeds | 0.1 mm/s – 10 mm/s |
| Maximum transfer force | 200 N with loadcell measurement on the pusher |
| Stent positioning | Fully automatic with stent cradle system |
| GUI | 10" colour touch panel |
| Control software | Zoomable process graphs Recipe based Password levels (operator, engineer, calibrator) Remote support option Data logging with USB transfer possibility |
| Ethernet | 2x |
| USB | 4x |
| Required air pressure | 7 bar minimum |
| Power supply | 115 / 240VAC / 0.5kW |
| UPS | Optional power supply backup to finish current cycle |
| Safety systems | Covers with coded magnets and safety PLC system |



Medical Production Technology is proud to be an MMT company – Leading provider of catheter balloon forming, folding and pleating, thermal bonding, and stent crimping solutions.

Medical Manufacturing Technologies (MMT) brings together applications expertise, technical solutions, and aftermarket support to revolutionize medical device manufacturing. [Learn more at mmt-inc.com](http://mmt-inc.com).