

Powerfeed™ Stent Loading Machine Model RFL (Patent Pending)



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<http://www.blockwise.com>

Model RFL PowerFeed™ Stent Loading Machine is a tabletop machine that compresses self-expanding stents and loads them into a sheath. The compression station uses Zero-G™ technology with the compression force provided by a stepper motor mounted to the station. The machine is controlled by a PLC with LCD operator interface, which implements a closed-loop position (diameter) control using feedback from an encoder integrated into the actuator, and also commands the sequencing between up to 19 “steps”, which are stored in “recipes”. Each step may be specified as a diameter setting, a force setting, a cooling temperature setting, a loading speed setting, or a loading force setting. (Loading speed & force settings refer to the mandrel movement.)

The opening diameter and compression force are displayed by the PLC. A force transducer on the actuator is used to compensate for compliance in the compression station, providing a more accurate control of the actual opening diameter. Diameter calibration and compliance compensation are accomplished quickly by an automated calibration routine.

Compression station includes the patent-pending Powerfeed™ technology in which the dies are actuated in an axis parallel to the stent loading path in such a way to propel the stent through the compression mechanism.

Powerfeed™ Stent Loading Machine
Model RFL Shown With
225mm Length, N2 Cooling,
Automated Puller, Custom Sheath
Holder



Available **Options** include:

Automated Mandrel Pusher/Puller load at a fixed rate or force controlled by the PLC.

N2 Cooling crimp at a cold temperature set by a PLC recipe parameter.

Sheath Holder firmly secures the catheter or transfer tube while maintaining a round profile.

Specifications:

Compression Station Opening Diameter Range	0 to 28.0 mm
Die Lengths Available:	225 mm, custom
Die Material	Ertalyte TX (PET with flouropolymer lubricant)
Die-to-Die Gap	Zero at all opening diameters
Die axial Displacement	Approx .4mm
Loading Frequency	1to 30 Hz
Maximum Total Radial Force Available	1200 N (270lbf)
Number of Compression Dies	12
Machine Dimensions	61 cm deep x 61 cm high, 92 cm width
Sequence Control	PLC with LCD operator interface panel and storage for recipes
Service Connections	AC power 110 to 240 V, compressed air 5 to 7 bar