

Powerfeed™ Self-Expanding Stent Loading Machine Model LX



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Model LX PowerFeed™ Self-Expanding Stent Loading Machine is a tabletop machine that compresses self-expanding stents and loads them into a sheath or delivery device. 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 **Microcontroller (MCU)** with **Touchscreen HMI (Human/Machine Interface)**, which implements a closed-loop position (diameter) control using feedback from an encoder integrated into the actuator. It also commands the sequencing between up to 50 “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 touchscreen HMI. 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. The Powerfeed action and rate can be fine-tuned for the most delicate and difficult to load stents.



**Powerfeed™ Stent Loading Machine
Model LX Shown with Model RFE 225mm Length
Crimping Station, Automated Pushrod, Custom
Sheath Holder**

Available options include:

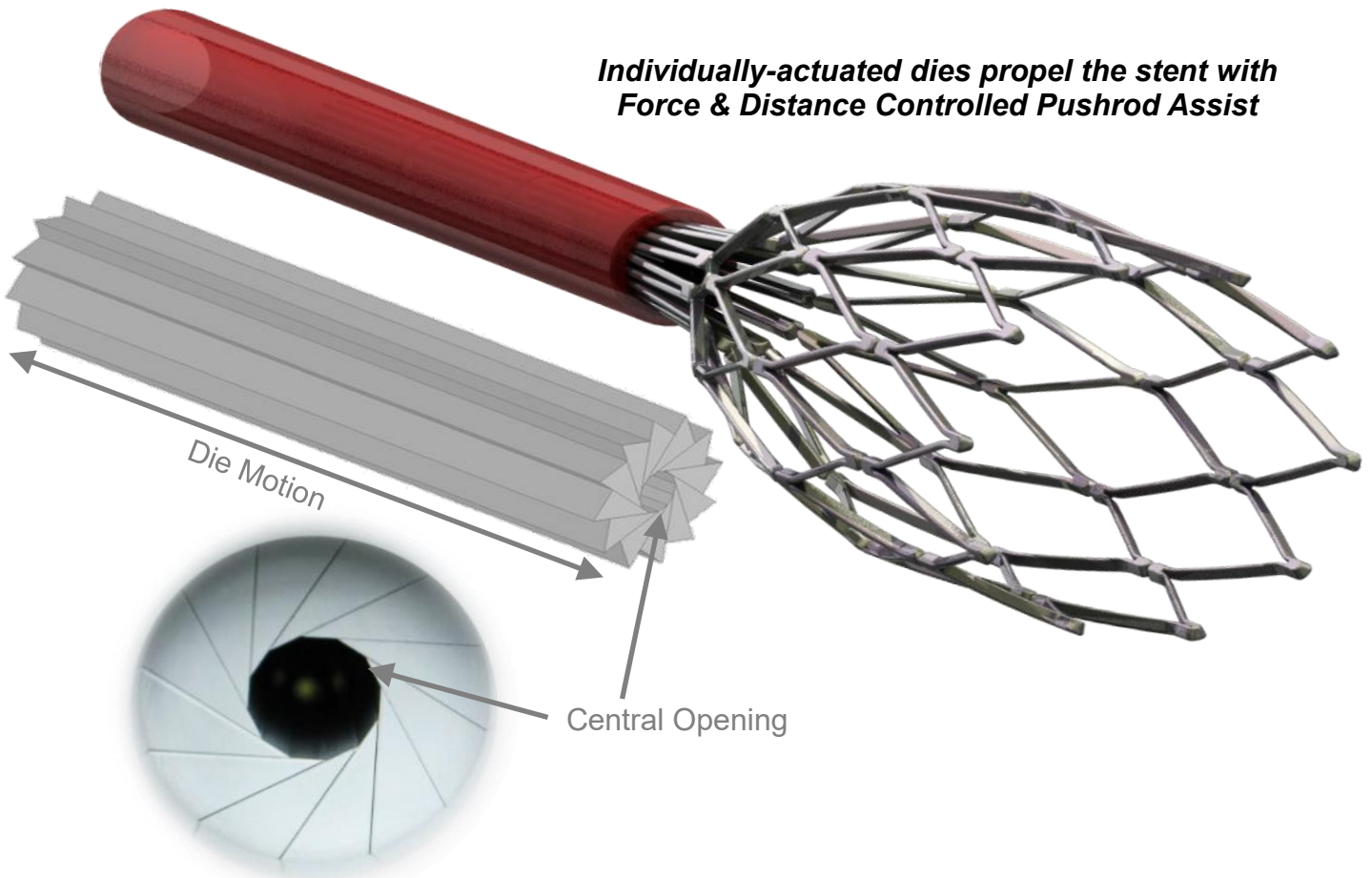
Automated Mandrel Pusher/Puller load at a fixed rate or force controlled by the MCU.

N2 Cooling crimp at a cold temperature set by a recipe parameter in the HMI.

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

***Blockwise offers a variety of stent loading machines, we'll perform trial loading
of your product to determine which is most effective at loading your stents.***

Individually-actuated dies propel the stent with Force & Distance Controlled Pushrod Assist



Specifications:

Opening Diameter Range	0 mm - 28 mm
Die Lengths Available	225 mm, custom
Die Material	Ertalyte TX (PET with fluoropolymer lubricant), PEEK
Die-to-Die Gap	Zero at all opening diameters
Die axial Displacement	0.4 mm per cycle
Loading Frequency	1 - 30 Hz
Maximum Total Radial Force Available	1200 N
Number of Compression Dies	12
Machine Dimensions	61 cm deep x 61 cm high x 92 cm width
Sequence Control	Microcontroller, Touchscreen operator interface, 100 recipes
Service Connections	AC power 110 to 240 V, compressed air 5 to 7 bar

CRIMP

DIAMETER: MIN 5.00
14.00 mm

FORCE: MAX 79.8
7.0 N

LOAD

POSITION:
0.00 mm

SPEED:
0.0 mm/s

FORCE: MAX 0.0
2.9 N

NAME: **FLEXFORCE 8X100** RECIPE: **1**

STEP	TYPE	SETTING 1	SETTING 2	TIME
0	DIAMETER	14.00 mm	15.00 mm/s	
1	DIAMETER	5.00 mm	5.00 mm/s	0.0
2	LOAD SPEED	20.00 mm/s	25.0 mm	0.0
3	FORCE	250.0 N	1.00 mm/s	2.0
4	VERIFY DIA	1.98 mm	2.02 mm	Button
5	COOL	ON	-30.0 c	5.0
6	LOAD FOR	15.0 N	127.0 mm	0.0

TEMP **26.1 c**

GRIPPER PRESS **1.48 bar**

SETUP
ABORT
← JOG →
MODIFY RECIPE

RUN SCREEN displays live indications of diameter, force, temperature, pressure, and the selected recipe's number, name, and steps.

