# **VL1000**

# Vertical Laminator







The MSI Vertical Laminator, VL1000 features our Microswirl 360° thermal nozzle that provides superior uniform heating characteristics and minimizes the incidence of hot or cold spots during the shrinking process versus flat or "C" nozzle technologies. There are ten (10) high efficiency heating nozzles which maximize air flow to the product which allows for faster speed and maximum production throughput.

The touchscreen PC operator interface is designed for saving and retrieving numerous programmable parameter profiles. The machine is capable of 6 length and speed transitions within a single cycle and features tubing guides to ensure product centering within the heat zone and independent temperature control of each thermal nozzle. Universal grippers ensures a full range of products can be processed without need for tooling changes. The loading height can be adjusted so that each operator can load product at a comfortable height.

This machine is an ideal compliment to the SteegerUSA braiding and coiling machines as it is designed to uniformly laminate multi durometer tubing to create a braided catheter with extremely high yields and repeatable results.

### VL1000 Features

- Process ten (10) products simultaneously
- Adjustable height gripper rack for ergonomic product loading
- Microswirl 360 nozzle produce an even temperature distribution around product
- 0-34Fr product grippers and optional centering guides
- 175, 205 or 255cm travel
- HMI Controlled Temperature
- Automated Universal Gripper rack 0-34Fr
- Universal Funnels
- Windows 10
- Barcode Scanning



### Vertical Laminator





Temp Range	Ambient to 750 °F (399 °C)
Accuracy	(±) 5 °F (2.78 °C)
Air Pressure	0.5 - 15 psi
Compressed Air Requirements	100 psi at 13cf/min (Filtered / Oil Free)
Power Requirements	60A, 240V
Product Length	175, 205, 255cm machines available
Product Diameter	0 - 34Fr
Heater Travel Speed	0 - 3.9 in/sec (0 - 100mm/sec)
General Warranty	1 Year

### **VL1000 Machine Dimensions**

Shipping Weight: 730 lbs (331kg)
Machine Weight: 419lbs (190kg)
Overall Height: 109" (2760mm)

Width: 60" (1520mm)Depth: 34" (865mm)

## VL1000 Equipment Specifications

- Mlicroswirl 360 STANDARD NOZZLE ASSEMBLY, SET OF 10, 1.5" L x 0.5" ID
- Automated gripper rack moves grippers to load and unload positions.
- Heater nozzles utilize expanded metal technology along with baffling to produce an even temperature distribution around the ID circumference.
- Heater controls: The heaters are controlled independently with the ability to run the machine with 1 to 10 heaters in operation. Flow meters have a built in flow control valve allowing accurate heater airflow control and monitoring.
- Universal grippers hold product diameters from 0-34Fr.
- Independent temperature and digital flow meters (SCFH) for each nozzle.
- · Temperature displayed and controlled through HMI.
- · Polycarbonate safety door.
- Heater assembly traversing is accomplished using a linear slide driven with a stepper motor.
- Touch screen PC controlled system. (Windows 10)
- Software allows multiple traverse speed and distance relationships to be set.
- 6 stage recipe development.
- 1000 recipes can be stored for future product runs.
- Software alarm prevents a process from starting until the set point temperature has been reached.
- Temperature of each zone monitored independently and will indicate if temperature deviates outside of a set window (process will continue on remaining lanes not in an alarm state).
- · Castering wheels with levelers.
- · CE Marked.

#### System Options

- · Adjustable centering guides
- Product holding trays
- Barcode scanning
- · Light tower process stage indicator
- · Cycle complete alarm