



NECK DOWN MACHINE 109

The **Neck Down Machine** is designed to reduce the wall thickness and diameter of plastic tubes. The balloon is slipped over a mandrel and placed in the product fixture. The material, partially heated at the end of the balloon cone, is reduced to a defined inner diameter according to the size/shape of the mandrel, and as a result of an applied linear pulling force.

Through the changing of either: temperature, preheating time, start position, pulling way or pulling speed, as well as the diameter of the mandrel, the resulting diameter of the balloon shaft is modified. The necessary process parameters for specific outcomes can be stored in separate menus ensuring a high level of process security and reproducibility.



Rear side with flow meter



Clamps



Clamps

Technical Specifications

Benchtop model	
• Pneumatic Clamping System:	2 Parallel air grippers, separate, controlled by an air pressure controller with a manometer for each
• Necking drive linear guide with ball screw spindle and 3-phase stepper motor amplifier implemented in the housing	
• Soft silicon grippers insert for careful fixation of the balloon	
• Stainless steel gripper for clamping of the shaft	
• Adjustable stopper for positioning the product	
• Foot switch for clamping and opening the two air gripper	
• Special air heating nozzle mounted on an X/Y linear slide:	
Nozzle positioning radial	50 mm
Ceramic heating element	250 W
Heating nozzle with round front side opening	
• PID controller, working temperature 20–400°C	
• Air flow controller with 100 mm scale	
• PLC controller with interactive display for programming and operating	
• Memory for 350 parameter menus	
• Program level password protected for:	program no., preheating time, start position, necking distance, speed, axial moving nozzle
• Dimensions LxVxH	800 x 500 x 250 mm
• Weight	30 kg
• Power	100–230 VAC 150 W others upon request
• Air pressure	6–10 bar (0.6–1.0 MPa)

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