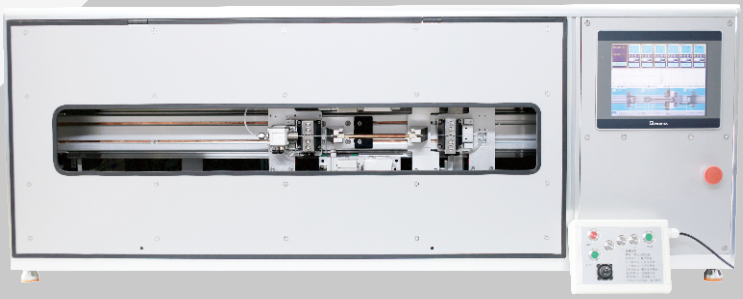
SBF1000V4 Balloon Former and Tube Necker

EQUIPMENT OVERVIEW

SBF1000V4 Balloon Former and Tube Necker integrates the function of tube necking and balloon forming. It uses hot air heating and cold air cooling, totally eliminates the bulky and expensive water jacket. The machine features our patent pending high-efficiency and high stability fan driven heating nozzles. Paired heating/cooling nozzles make temperature around the mold uniform. It adopts the same three section mold design commonly used with other type of balloon forming machines, with the difference that the mold does not have to be embedded in the water jacket. Instead, the mold can be mounted and removed from the mold clamps freely and with ease. Due to its flexible clamping system design, the SBF1000V4 can blow balloons up to 400 mm long and more than 25 mm in diameter without having to purchase any additional fixtures other than making the mold. These advanced design and technologies made the SBF1000V4 not only highly efficient, but also exceptionally affordable.



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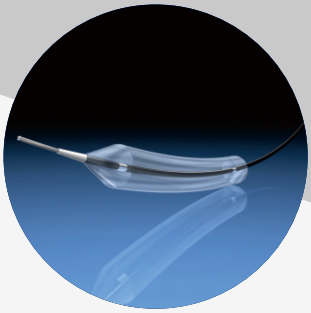
PARAMETERS

Heating and Cooling System	
Maximum temperature in the mold	>250°C
Time required to reach the highest temperature in the mold	< 90s (5×40mm balloon)
Maximum heating rate in the mold	5 °C/s
Maximum mold length the heater suit for	not less than 500mm
Time required to reduce the maximum temperature to room temperature in the mold	not exceeding 1 min (5×40mm balloon)

Stretching System	
Maximum unilateral stretching length	up to 400mm
Maximum stretching speed	>100 mm/s
Maximum moving speed of clamp	200mm/s
Maximum clamping force of moldr	>1200N (0.8Mpa)
Maximum stretching force	no less than 300N

Others	
Electric source	single-phase power 220VAC
Dimensions	length 1620mm, width 400mm, height 600mm
Blowing pressure	up to 5.5Mpa
Compressed air	0.65-0.8Mpa



FEATURES

1.Heating / Cooling System

◇ Convection hot air heating and swirl chilled air cooling
◇ Paired (up to 3 pairs) heating/cooling nozzles for uniform heating/cooling
◇ High efficiency and stability fan driven hot air heaters
◇ Programmable static (fixed position) and dynamic (moving) heating
◇ Dynamic heating range up to 500 mm
◇ Customizable heating nozzles for different applications
◇ Special nozzle and end mold design to help reduce balloon cone/leg thickness

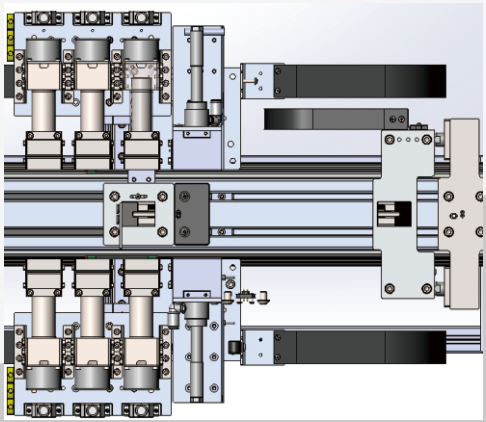


Figure 1 Convective Heating / Cooling System

2.Mold System

◇ Three section mold design
◇ Configurable mold clamp system for any mold length
◇ Dual clamp cylinder for stability and increased clamping force
◇ Sensors to detect mold presence and mold close

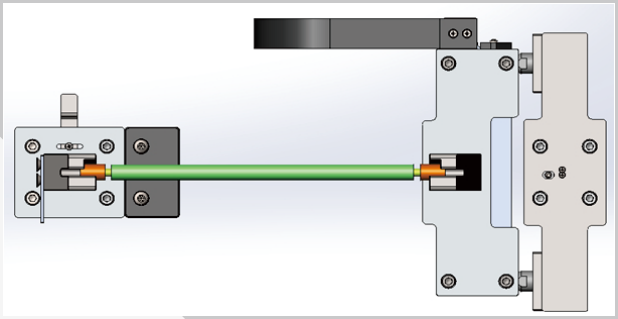


Figure 2 Mold System

3.Multi Motor System on the Same Track

◇ Adjustable tube clamp travel
◇ Reconfigurable mold clamp position
◇ Timing belt driven for tube clamps for fast and quiet motion
◇ Ball screw for heating/cooling system

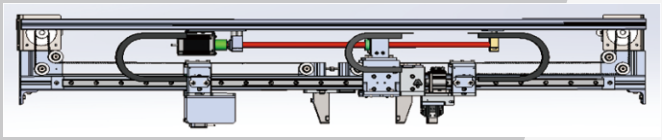


Figure 3 Multi Motor System on the Same Track

4.Control System

◇ 10"Touch screen HMI
◇ User friendly recipe editing system
◇ Supporting both template driven and free style
◇ Mold data base allow association of every blowing and necking recipe to a balloon (mold)
◇ Switch between English and Chinese

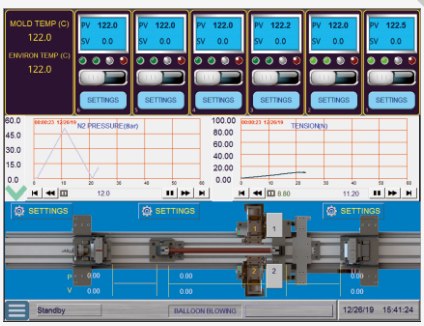


Figure 4 Main Interface of Control System

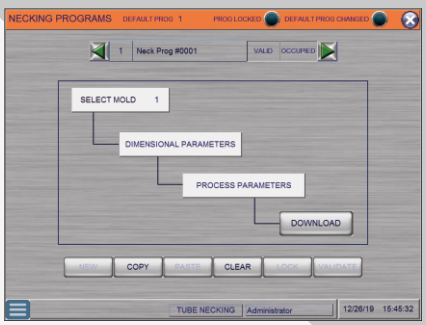


Figure 5 Main Interface of Extender

Figure6 Blowing Program Interface

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