



BFM-4410-3x

COMPUTERIZED BALLOON FORMING MACHINE

The Interface Model BFM-4410-x3 Computerized Balloon Forming Machine is a bench-top system, designed to handle a wide range of tubing sizes and materials. This includes materials such as Polyethylene (PE), Polyvinyl chloride (PVC), Polyurethane (PU), PET and Polyimides, and amides (Nylons). The BFM-4410 -3x provides the capability to form up to three balloons per cycle.



KEY FEATURES

- Capable of producing the most extensive range of balloons in diameters and lengths (0.5 to 52 mm x 0.5 to 360 mm)
- Ability to produce many unique shapes (cylindrical, spherical, oval, conical, stepped, tapered, and more)
- Accurate and repeatable results to produce high-quality catheter balloons
- Ability to form 1, 2, or 3 balloons in one cycle (at one time).
- If one balloon bursts the other(s) will not be affected.
- Easy setup and daily operational performance
- Reduced footprint - one BFM replaces three
- High-Efficiency triple water jacket for uniform heating and cooling
- High-precision flow and pressure control during balloon forming
- Modifying blow-molding processes to control multiple barrels simultaneously unlike any other system sold for Med device balloons.
- Repeatability of multi-barrel system so all balloons could be included in the same lot.
- Reduces the number of Balloon Forming Machines for large-volume products/product codes.
- Designed to handle a wide range of tubing sizes and materials including Polyethylene (PE), Polyvinyl chloride (PVC), Polyurethane (PU), PET and Polyimides, and amides (Nylons).
- Provides the capability of selecting all balloon-forming parameters and automatically controlling the sequence and timing of up to twenty-four steps in the balloon-forming process.

VISION SYSTEM FEATURES

The Interface Catheter Solutions BFM-4410-3x uses a stretch blow mold process to stretch polymer-based tubing under pressure and at an elevated temperature in a biaxial fashion, both longitudinally and radially, while performing real-time balloon forming profiling. Temperature and pressure settings vary depending upon balloon diameter and material used. The formed balloon is cooled during the final forming process while still maintaining a high internal pressure to set the desired dimensions. The BFM-4410-3x is simple to program and provides the capability to customize and store balloon forming parameters for repeatable and consistent quality results.

- Precision Molds – Excellent thermal conductivity to guarantee uniform and fast heating and cooling for difficult-to-form balloons
- Water Jackets – Uniform and fast heating and cooling
- Axial Stretch Feature – Primary stretch generates uniform body wall thickness; secondary stretch thins cone and neck area
- Tubing Chucks and Clamps – Firm grip during the stretch portion of the cycle
- Pressure Control – Accurate control of gas pressure and flow into the balloon for optimal forming
- Quick Release Bracket – Simplifies water jacket installation and exchange

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COMPUTERIZED BALLOON FORMING MACHINE

TECHNICAL SPECIFICATION	BFM-4410X3
Balloon Forming Diameter Range:	1 to 12mm (dependent on water-jacket size)
Balloon Forming Length Range	1 to 117mm (dependent on water-jacket size)
Dimensions	64"W x 24" D x 21"H w/ Bar Code Reader only 62"W x 24"D x 21" H Basic 64"W x 25" D x 23"H w/ Safety cover
Weight	250 lbs (114 Kg) Gross weight with crate 400lbs
Electrical Power and Fusing	Standard System 220/240VAC 50/60Hz, 15A
Nitrogen Gas	0-1000 PSI @ 0-16 LPM (during cycle)
Air Supply	80-120 PSI @ 20 LPM
Balloon Forming Length Range	1 to 117mm (dependent on water-jacket size)
Cooling Fan Circulation	Approximately 40 CFM
Nitrogen Output Pressure Range	1.0 to 68 BAR (1 to 1,000PSI)
Nitrogen Blow Pressure Accuracy	0.5 BAR
Nitrogen Press Sense Resolutions	0.01 BAR
Stretch Force Range	0-440 N (0-100 LBS)
Stretch Force Resolution	1 N (0.1LBS)
Stretch Slide Accuracy	.5 lbs 1.20 lbs +/- 10% Full Scale 20-100lbs
Stretch Slide Dist Left and Right	0-350mm dependent on machine and water jacket length
Environmental Operating Conditions	5-40°C 10-90% RH non-condensing



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