

# BFM-5510 HF

## HIGH FORCE BALLOON FORMING MACHINE

The Interface Catheter Solutions BFM-5510 High Force Balloon Forming Machine introduces advanced capabilities for manufacturing Structural Heart, Large Platform & Thick Wall High Pressure Balloons to the Interface BFM lineup. The BFM-5510 HF is a bench-top, computer-controlled system for the precise production of low and non-compliant polymer balloons used in angioplasty, stent placement, and other cardiac procedures. Built on the reliable BFM-3310 platform, the BFM-5510 HF utilizes beryllium copper molds to **shape precision-extruded balloon tubing**, delivering balloons with stringent quality and tight tolerances across an extensive range of sizes and shapes.



### KEY FEATURES

- Capable of producing low and non-compliant balloons
- Form robust balloons that withstand pressure variations
- Includes high-pressure mold close
- Ability to produce many unique shapes (cylindrical, spherical, oval, conical, stepped, tapered, and more)
- Accurate and repeatable results to produce high-quality catheter balloons
- Stretch by force and distance
- Utilizes Interface standard molds, end plugs, and high-efficiency water jackets
- CE marked
- Available safety light curtain
- Omron-based control system

Building on the foundation of the BFM-3310, the BFM-5510 HF introduces significant enhancements to meet the demands of larger, thicker, and more complex medical balloon production:

- **Boosts motor torque by 83%**, enhancing its capability to handle tougher, more resilient materials with ease
- **Increases clamping force by 356%**, providing superior grip and stability, ensuring precise and secure balloon formation
- **Expands Diameter Range of Water Jackets to 18-52mm**, allowing for the production of larger balloons that can be used in a wider range of medical applications
- **Enhances Load Cell Capacity by 150%**, ensuring robust performance during the balloon-forming process, even under high-stress conditions.



The BFM-5510 HF is designed to form large balloons with diameters up to 52mm and lengths up to 150mm.

### KEY MECHANICAL FEATURES

The Interface Catheter Solutions BFM-5510 HF 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 on the balloon diameter and the 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-5510 HF 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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## HIGH FORCE COMPUTERIZED BALLOON FORMING MACHINE

TECHNICAL SPECIFICATION	BFM-5510 HF
Balloon Forming Diameter Range	18.0 to 52.0mm (dependent on water-jacket size)
Balloon Forming Length Range	9.0 to 150mm (dependent on water-jacket size)
Dimensions	64"L x 22" W x 21"H (1,625mm x 560mm x 535mm) 23" (585mm) H w/ Safety cover
Weight	300 lbs (135 Kg)
Electrical Power and Fusing	220 V, 50 Hz/60Hz Up to 3,300 Watts
Materials	Nylon, PEBAX®, polyurethane, PET, PE, polyamides, etc.
Compressed Air	80-120 PSI (0.55 to 0.83 MPa)
Nitrogen Gas	0-1000 PSI @ 0-16 LPM (during cycle)
Forming Pressure	Up to 1,000 psi (6.89 MPa) dry nitrogen



Interface Catheter Solutions is proud to be an MMT company.

Medical Manufacturing Technologies (MMT) brings together applications expertise, technical solutions, and aftermarket support to revolutionize medical device manufacturing. [Learn more at mmt-inc.com](http://mmt-inc.com).