



Horizon Pharmaceuticals

Aseptic Blow-Fill-Seal (BFS) Pharmaceutical Manufacturing

Horizon Pharmaceuticals is a leader in custom, sterile Blow-Fill-Seal (BFS) manufacturing for the pharmaceutical, medical, diagnostic and clinical industries. Our commercial aseptic manufacturing facility is **fully validated, FDA registered and meets or exceeds all cGMP requirements**. All critical aseptic processes are conducted under **Class 100 conditions** and we pride ourselves on exceeding our competitors' production and customer service standards.

Our complete in-house manufacturing plant combines **one-stop shopping convenience** and accurate production timelines with **extremely competitive pricing**.

Our In-house capabilities include:

- Custom container design support
 - Mold fabrication support
 - Formulation development and micro/analytical support
 - Complete sterile blow-fill-seal production
 - Regulatory filing assistance
 - End-user packaging...
- ...and we do it all under one roof.

From small-volume clinical packaging to full-scale pharmaceutical manufacturing, our dedicated team is skilled in matching your product's unique regulatory and aseptic requirements with the right package...on time.

> Benefits

Flexibility in Shape and Size

Using medical-grade plastics, **Horizon Pharmaceuticals** is able to create packages to hold as little as 0.2ml to as much as 1 liter. Unlike conventional glass, we are able to quickly design and tool molds for just about any shape imaginable. There is also the added feature of a variety of tops for various dispensing methods and your choice of plastic colors.

Inherently Aseptic

Humans are the greatest source of contamination in an aseptic production environment. Because the entire process takes place in a single machine under a controlled environment, the sterile integrity of your product is assured.

Cost Savings

One of the advantages of blow-fill-seal technology over conventional packaging is the overall cost savings. BFS requires less floor space, fewer personnel for greater production capabilities and reduced "clean-room" requirements. With the single process BFS package, your product is complete and ready for distribution immediately, eliminating the need for costly storage of conventional containers prior to filling.



Blow-Fill-Seal with a twist...precision, quality and SERVICE.

> Consistent Results

Quality Control

An experienced staff of technicians and quality assurance personnel are on the floor to check and recheck each lot and batch for uniformity. Additionally, our BFS machines have built-in control systems that monitor the various functions including temperature, extruder speed and parison thickness. Every aspect of the BFS process is constantly evaluated and any necessary adjustments are made immediately to ensure your product's integrity and quality from the first to the last container.

Reliability

BFS technology has a long history of consistent results. **Horizon Pharmaceuticals** has the experience, technical ability and the innovative staff needed to guarantee your product is delivered in the right package...on time.



> Applications

Solutions for the Pharmaceutical, Medical and Diagnostic Industries

BFS vials and bottles are ideally suited for unit dose applications of liquids for the pharmaceutical and medical device industries. The unit dose applications are typically used in ophthalmic products (eye drops), inhalation solutions (nebulized solutions or suspensions), and in the application of topical or orally dispensed material (gel, cream, ointment, or aqueous liquid).

Pharmaceutical

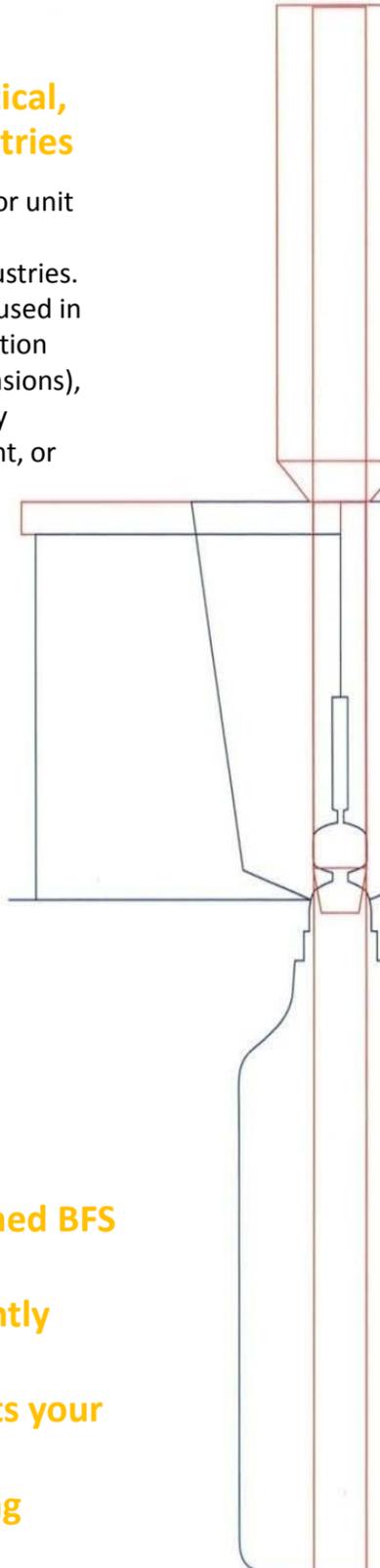
- OTC and Rx unit dose eye drops
- Inhalation solutions
- Injectable products
- Biotechnology products
- Topical liquids, creams, gels, and ointments
- Oral liquids

Medical

- Components to medical devices

Diagnostics

- Components in diagnostic kits
- Reagents in diagnostic products



The Continuous Process:

> Blow

> Fill

> Seal

Utilizing a single machine, plastic is heated, liquefied and "blow" into a custom mold to form a container. The container is then immediately and precisely "filled and hermetically "sealed."

