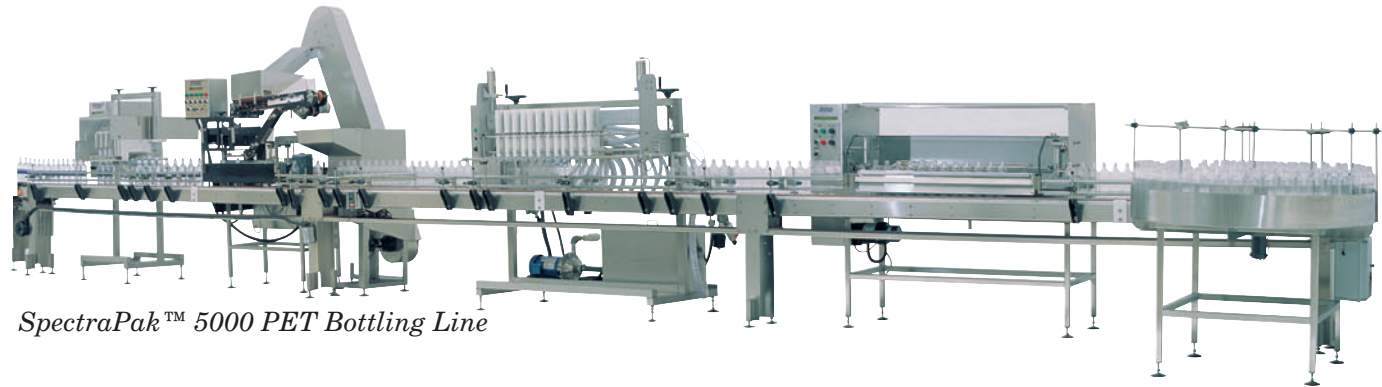


Other Products Available from Norland.

Norland is your complete source for bottled water equipment. In addition to the new Freedom Series Blow Molders, Norland offers full turnkey PET water bottling plants, a variety of additional blow molding equipment, ozone-generating systems, water distillers, bottle washers and fillers, pre-treatment and post treatment systems, and more.

For more information, call (402) 441-3737, e-mail us at bk@norlandintl.com, or visit our web site at www.norlandintl.com.



SpectraPak™ 5000 PET Bottling Line



CasePak™ / ShrinkPak™ Packaging System



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www.norlandintl.com

Freedom™ Series PET Blow Molders

Cuts Bottle Costs by 25-50%



*Freedom™ Series Model 3000
 PET Blow Molder*

Your Benefits

- Cuts your bottle costs by 25-50%*
- Frees you from dependency on vendor deliveries, storage complications and lack of inventory
- Produces up to 4500 bottles an hour**
- Handles multi-sized and shaped preforms
- Produces bottles of up to 50 oz (1.5 liters)
- Easy-to-change molds provide fast switch-out
- Compact size
- Easy-to-use PLC touch-screen controls

* Savings depends on plant location, sales volume, and other operational factors.
 ** Depending on model. See specifications inserts.

Norland Int'l. Inc.

Your
Complete
 Source

With the New Freedom™ Series PET Blow Molders, You Make Your Own Bottles When You Need Them—and Save.



1. Hopper filled with preforms. Gravity-fed elevator platform moves preforms up to



2. Automatic sorter separates, orients and loads preforms into gravity-fed preform chute.



3. Preforms move down the chute from the sorter to be loaded onto the preform holders for transport to heat tunnels. Preform chute includes sensors to verify proper feed status.



4. Preforms move through four parallel heat tunnels, each with eight heat zones and two quartz heaters.



5. Preforms enter the open custom-designed molds.



8. Bottles exit the blow molder.



7. Bottles move out of the molds and onto a conveyor, which takes them out of the blow



6. Finished bottles in the molds.



Freedom Series Model 3000



PLC touch-screen controls make start-up and monitoring job status easy.

Overview:

The new Freedom Series PET Blow Molders free you from the high costs for vendor-supplied pre-blown bottles. You'll also be free to produce your own bottles when you need them. No more waiting for bottle deliveries that may not arrive in time. And, you'll free up valuable plant space from storing large quantities of empty bottles.

The Freedom Series Blow Molders may cut your bottle costs by 25% to 50%, depending on location, size and volume of your business. You can choose models with bottles/hour capacities of 1500, 3000 and 4500.

An efficient mix of simplified mechanics and high-tech controls make the Freedom Series units highly reliable and easily maintained.

With a Freedom Series Blow Molder, one employee can produce up to 4500 bottles an hour—that's nearly 36,000 bottles per 8-hour shift. And it's priced considerably lower than similar competing models.

The innovative design of the Freedom Series has eliminated the usual preform-to-bottle inversion process, thereby eliminating costly robotics and/or labor. The preform unscrambler, hopper, elevator and sorter are all standard. Options allow you to produce oval and rectangular bottles, as well as heat-resistant bottles for hot filling.

Benefits:

- Cut your bottle costs by 25% to 50%*, because when you produce your own bottles on-site you eliminate the need to buy and ship pre-blown empties.
- Produce from 1500 to 4500 bottles an hour, when you need them—depending on model purchased. With a Freedom Series Blow Molder, you can minimize the amount of floor space you need for empty bottle storage.
- Easy change-out molds allow you to produce a variety of bottle sizes and shapes up to 50 oz (1.5 L).

- Compact footprint saves plant floor space.
- PLC touch-screen controls make start-up and monitoring job status easy.

* Savings will vary by location, sales volume and other operational factors. Call (402) 441-3737 for an estimate based on your specific situation.

The Process:

1. Preforms are loaded into the hopper, which holds up to 3000 preforms at a time.
2. An elevator moves preforms up to a gravity-based sorter, which aligns preforms on a conveyor.
3. Preforms are then aligned and loaded onto a chute, where they are gravity-fed into the preform holders. Four preforms simultaneously move through two parallel heat tunnels, each with eight heat zones and two quartz heating elements.
4. The preforms move through the heat tunnels, where they are heated to the optimal blowing temperature prior to entering the molds. A sensor at the end of the tunnels monitors the preform temperature. If temperature has not reached the minimum preset temperature of approximately 194°F (90°C), the preforms move through the molds and are not blown.
5. From the heaters, preforms are loaded into the custom-designed molds where four bottles are blown at a time. A pressurized liquid chiller keeps the mold temperature in a controlled range to ensure that consistently high-quality bottles are blown.
6. The blown bottles, still in the preform/bottle holders, are placed on the motorized exit conveyor.
7. Bottles are conveyed out of the Freedom Series Blow Molder and into collection receptacles, then moved to storage areas to await processing on the production line.

Call us now at (402) 441-3737 to find out how much a Freedom Series PET Blow Molder can cut your bottle costs. Or e-mail us at bk@norlandintl.com