

Norland's TritonLine™ Series of Washers, Fillers and Cappers

TritonLine™ Specifications*

System Dimensions

- Length, including loader and conveyor: 16 ft (487.68 cm)
- Width: 9 ft 7 in (292.1 cm)
- Height: 9 ft 2 in (279.4 cm)
- Weight: 4,300 lb (1950.45 kg)

General Specifications

- Electronic Controls: Programmable logic controller (PLC)
- Bottle Sizes: 3- to 5-gal (with/without handles)
- Cap Hopper Capacity: 1500-2000 caps (foam-lined or Safety Guard)
- Materials in contact with product water: Sanitary stainless steel, food grade schedule 80 PVC, nylon-braided hose
- Construction materials: 304 stainless steel
- Detergent and sanitizer: automatic injection via precision metering pump

Electrical Requirements

- Electrical: 125 AMP 3-phase 200-240 VAC
- Other options available

Water Requirements (customer-supplied)

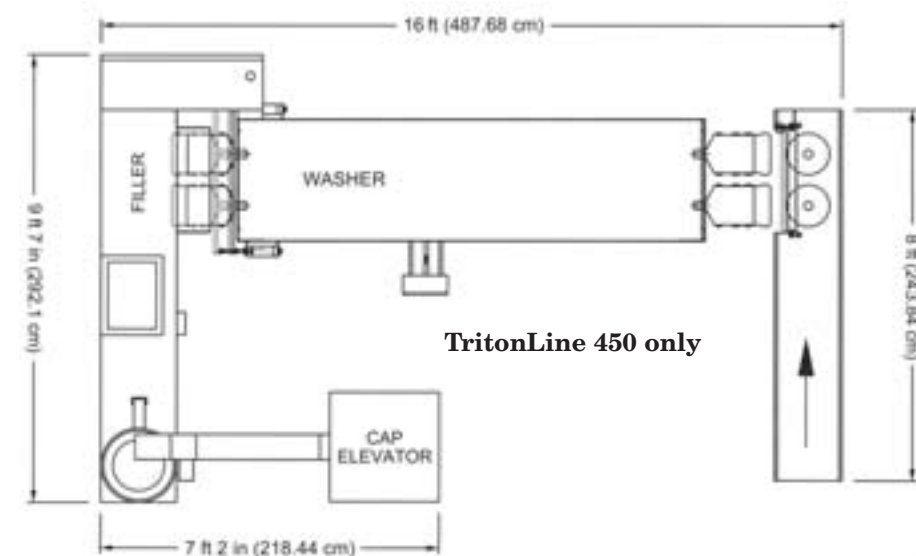
- Wash/Rinse/Final Rinse: 1-2 liters per bottle at 45 psi
- Fill: 45 gallons (170.3 L) per minute, at 25 psi

Air Pressure Requirements (customer-supplied)

- Compressed Air Requirement: 7 cfm at 125 psi, clean and dry
- Clean Room Fill Chamber: filtered air flow—550 cfm

Production Capacities Available

- Model 300: 300 bottles per hour
- Model 450: 450 bottles per hour
- Model 600: 600 bottles per hour
- Model 900: 900 bottles per hour



Norland Int'l. reserves the right to change specifications without notice. All specifications approximate (± 10%).

*Model 450 only. Other models available:

The TritonLine™ series also includes Model 300, which processes up to 300 bottles an hour, Model 600, which processes up to 600 bottles an hour, and Model 900, which processes up to 900 bottles an hour. Other operating parameters are virtually identical with the Model 450. For specific details on these models, please call Norland at (402) 441-3737 or email us at bk@norlandintl.com.

Norland Int'l. Inc.: Helping You Succeed in the Bottled Water Business.



Norland is known worldwide as the bottled water industry's complete source for everything needed to operate a successful bottled water business. And we do far more than manufacture and sell equipment. We work with hundreds of bottled water companies across the U.S. and around the world in all phases of the business.

That's because we have extensive experience at all levels of the bottled water industry: from start-up consultations with industry newcomers and new plant design and layout, to providing complete water bottling production lines and components. We even operate our own bottling plant, so we know the business inside and out.

Whenever possible, we like to work with our customers face-to-face. We encourage visits to our plant to meet our engineers, technical support staff, and factory technicians.

Norland believes that it's this personal touch that helps us understand our customers' business needs and builds a special relationship based on mutual trust and understanding.

Combine Norland's commitment to your success with our unmatched experience in the bottled water industry and you have a combination that's tough to beat.

For more information about Norland's complete range of services, visit us on the web at www.norlandintl.com; E-mail us at bk@norlandintl.com; or call us at (402) 441-3737.

Norland Int'l. Inc.

Your *Complete* Source

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TritonLine™

Automatic Bottle Washer/
Filler/Cappers: 450-, 600- and
900 BPH Available



Shown: Model 450

Norland Int'l. Inc.

Your *Complete*
Source

The first automatic system to process multiple-sized bottles and styles simultaneously—without hand-sorting or adjustments.

Norland's new TritonLine™ series automatically washes, fills and caps 3-to-5-gallon bottles of virtually any style simultaneously without the need for any hand-sorting or equipment adjustments. The TritonLine Model 450 washes, fills and caps up to 450 bottles an hour. Also available are models that will process 600 and 900 bottles an hour respectively.

The system has been designed by Norland engineers for maximum efficiency and ease of operation. Stainless steel piping is used throughout the equipment, providing longevity, durability and low maintenance. Pre-stretched stainless steel drive chains ride on self-lubricating UHMW support guides to eliminate risk of grease contamination. Just two supply water connections and two drains are required, making installation easy. Additionally, both washer and filler units operate from the same electrical connection. Over-sized filter screens at the pre-wash, wash and sanitize tanks minimize screen cleaning requirements, virtually eliminating downtime for pump maintenance.

Norland's multi-function Programmable Logic Controller (PLC) provides immediate digital readout quickly and easily. Bottle-positioning controls sense faults and alert the operator to any problems. Stack lighting indicators show operating conditions at a glance.

The TritonLine Model 450 features a floor-level high capacity hopper that holds approximately 1500 caps, making the refill process a twice-a-shift operation. An elevator automatically carries caps up to the pneumatically assisted cap sorter.

System Features

1. Handles multiple-sized bottles with no manual adjustments (3-5 gal., 11.4-18.9 L).
2. Stainless steel piping used throughout, providing longevity, durability and virtually eliminating maintenance.
3. Pre-stretched stainless steel drive chains ride on self-lubricating UHMW support guides to eliminate risk of grease contamination.
4. Easy to hook up: just two supply water connections and two drains.
5. Washer and filler use same electrical connection.

Pre-wash/Wash Features

1. Bottles stop at each station to ensure highest quality, cleanest bottles possible.
2. Enclosed clean room separates washer unload area from filling area.
3. Uses recycled product rinse water, to keep the pre-wash, wash and sanitizing tanks cleaner, and to reduce amount of separate bottle pre-cleaning required before washing.
4. Low-water protection for all heating elements in wash tank.
5. Filter screens for pre-wash, wash and sanitizing tanks minimize screen cleaning requirements and virtually eliminate downtime for pump maintenance.
6. Adjustable wash time. (Normal cycle is 60-second wash, 30-second sanitize and 16-second product water rinse.)
7. Electric wash water heater thermostatically controlled by the PLC.
8. Chemical feed pumps for detergent and sanitizer solutions are easily adjustable at the PLC or pump, to maintain proper solution concentration.
9. Adjustable rinse cycle controller can be manually set at desired intervals up to 100 seconds.



Filling Component Features

1. Stainless steel filler supply tank is designed to supply product water to the filler valves. Water does not recirculate back to the main storage tank, substantially reducing amount of waste water, and eliminating the threat of contaminating the large tank.
2. Inlet/outlet bottle sensors provide positive bottle location.
3. Unique "lift-and-hold" device during filling and capping process minimizes wear on bottle bottoms and the central drive chain.
4. Stainless steel conveyor on filler and stainless steel filler nozzles increase durability for longer life, minimizes maintenance, and provides easier, more effective sanitation.

Capping Component Features

1. High-capacity hopper holds approximately 1,500 caps, to make hopper refill process a twice-a-shift operation.
2. Floor-level hopper means no ladder-climbing to fill sorter, making the operation easier and safer.
3. Elevator automatically carries caps from hopper to pneumatically-assisted cap sorter.
4. Cap-sorter is quiet and reliable, with few moving parts to wear out or misalign.

Photo Captions

1. Bottles from 3- to 5-gal. can be loaded side-by-side with no hand-sorting or manual equipment adjustments.
2. During pre-wash and wash, all bottles stop at each station to ensure cleanest bottles possible.
3. Filter screens virtually eliminate pump maintenance downtime.
4. Norland's multi-function PLC provides immediate digital readout of system status.
5. Stainless steel filler nozzles provide longer life, more effective sanitation and minimal maintenance.
6. Pneumatically-assisted cap sorter is quiet and reliable.
7. Elevator automatically carries caps from floor-level hopper to pneumatically-assisted cap sorter.