

## Bottle Container Manufacturing System



The Bottle Container
Manufacturing System is
Designed to Produce the
Lightest Weight
Specialty Containers at
High Speeds

## **Key Benefits**

The Bottle Container Manufacturing System (BCMS) produces specialty neck configurations for lightweight metal bottles with ROPP and Crown closures. Aerosol with Transfer or Ogival Necks are available as well. Rated up to 600 containers per minute running through a recirculation system, the overall machine footprint is significantly reduced. The BCMS is the optimal solution for high speed, high volume, and lower cost of production reaching speeds up to 600 CPM.

After entering the machine through the infeed, the preform containers are lubricated and fed into the odd pockets on each turret. The preforms enter a series of progressive necking operations, which include trimming stages until they reach the threader. The first pass necked preforms are then recirculated back through the second infeed. The BCMS has pocket-to-pocket integrity through each process turret. The bottles are lubricated a second time and proceed through the even pockets of each turret to complete the bottle forming process.

## **Features**

High Speed up to 600 CPM
Produces Lightweight Containers
Shaped Bottle Option Capable
Quick Change
Crown, ROPP, Aerosol Closures
Multi-pass Recirculation System
Height Range 127 mm to 254 mm
Body Diameter 45 mm to 83.8 mm

The advanced patent forming technology can create a Roll on Pilfer Band (ROPB) groove on a single module versus the traditional neck and expansions processes. This eliminates the need for expansion cameras and blow-off resulting in less wear parts, loss of process air, and lower spoilage.

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Coupling the BCMS and Belvac's Container Engineering Services, brands are able to differentiate products with exclusively designed market samples, manufactured on Belvac's pilot line. Belvac supports from concept to production ensuring containers meet performance specifications. Services include the design and engineering of process tooling for the entire canmaking line, which includes Cupper, Bodymaker, and Necker tooling.

Traditional Inspection Systems including light testing and vision systems which track color dot, Bodymaker ID, can be coupled with advanced Inspection Systems including thread, curl, and expander. All are available upgrades to maximize machinery efficiencies.

The BCMS features quick access guarding designed for ease of entry to the working side of the machine.

The BCMS forms containers with a body diameter range of 45mm up to 83.8 mm and a height range of 127mm up to 254mm. Pryoff and/or ROPP closure finish available from 28mm to 42 mm in diameter. The BCMS will create a container with a maximum neck length of 69.85mm with a maximum shoulder dimension of 75.95mm. When the container is preshaped on the Belvac Shaper, the maximum forming capability will extend up to 200mm from the top edge. The minimum neck length is 5.8 mm.

| Technical Specifications          |   |   |
|-----------------------------------|---|---|
| Machine Dimensions                | Length  | 31" (787.4 mm) + 27" (685.8 mm) x # Modules |
|                                   | Width (Non-Cradle Mount)                          | 130" (3302 mm)                              |
|                                   | Width (Cradle Mount)                              | 155" (3937 mm)                              |
|                                   | Height  | 107" (2718 mm)                              |
| Can Body Size Range               | 1.771" (45 mm) to 3.07" (83.8 mm)                 |   |
| Closure Range                     | 1.102" (28 mm) to 1.654" (42 mm)                  |   |
| Can Height Range                  | 5" (127 mm) to 10" (254 mm)                       |   |
| Neck Length Range                 | 0.23" (5.8 mm) to 2.75" (69.85 mm)                |   |
| Maximum Neck Shoulder Dimension   | Approx. 2.99" (75.95 mm)                          |   |
| Shaped Can Capable                | Yes   |   |
| Rated Speed (Linear Machine)      | Shaped Cans                                       | 500 CPM (100 RPM)                           |
|                                   | Unshaped Cans                                     | 600 CPM (120 RPM)                           |
| Guard Style                       | Quick Access Guarding                             |   |
| Active Pockets with Recirculation | 5   |   |
| Cam Working Arc                   | 180 Degrees                                       |   |
| Main Shaft Style                  | Horizontal  |   |
| Main Drive Motor and Gearbox      | Single or Multiple Drive: Configuration Dependent |   |
| Gearbox                           | Helical Bevel                                     |   |
| Drive Gearing                     | Spur Gear, Inline Steel Oil Bath Lubed            |   |
| Waxer                             | Standard Rollerless Hot Wax or Oil                |   |
| Transfer Starwheel                | Quick Change Modular                              |   |
| Face Seal Manifold                | Modular FSM with HyComp Lining                    |   |

