



BCMS



The BCMS is designed to produce the lightest weight, highest quality, and lowest cost bottle container at up to speeds of 600BPM.

Key Benefits

The Belvac Bottle Container Manufacturing System will produce a lightweight metal bottle at speeds up to 600 BPM and a shaped bottle at up to 500 BPM. The BCMS is the best solution for high speed, high volume, lower cost production of branded metal bottles or aerosol containers. The BCMS will produce a metal bottle with either a Crown or ROPP closure or an aerosol container from either a straight wall or shaped wall preform.

The Belvac BCMS forms containers with a body size range of 45mm up to 83.8mm and a height range of 127mm up to 254mm. In addition to a Crown closure, ROPP closures in 28mm and 38mm diameters are also available.

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 5.8mm.

Features

High Speed—up to 600BPM
Produces a Lightweight Bottle
Shaped Bottle Option Capable
Quick Change Capabilities
Crown or ROPP Closure
Pocket-to-Pocket Integrity
Matched Velocity Cam
180-Degree Working Arc
Alternate Pocket Recirculation
Supported by Complete Process Solutions
Height Range from 127mm to 254mm
Body Size from 45mm to 83.8mm

The BCMS has pocket-to-pocket integrity with ten pockets for each working and transfer turret in the forming processes and five pockets in the turrets of the finishing stages. The turret cam is matched velocity with a 180 degree working arc.

The effective push cam stroke is 114.3mm and a maximum knock out cam stroke of 72.9mm. The BCMS has quick-change capabilities for both height and diameter changes.

Technical Specifications	BCMS	
Can Body Size Range	1.771" (45 mm) to 307 (83.8 mm)	
Can Neck Size Range	307 to 28 mm (83.8 to 28 mm)	
Maximum Can Height	10" (254 mm)	
Minimum Can Height	5" (127 mm)	
Number of Pockets per Working Turret	10-Pocket Pre-Threader, 5 Pocket Post Treader	
Number of Pockets per Transfer Turret	10-Pocket Pre-Threader, 5 Pocket Post Treader	
Pocket-to-Pocket Integrity	Yes	
"Active" Pockets (Linear)	Not Applicable	
Shaped Can Option Capable	Yes	
"Active" Pockets (Recirculation)	5	
<i>Rated Speed (CPM) Recirculating Machine & Staged Infeed Specific</i>	<i>Shaped Cans: 500 CPM (100 RPM)</i>	<i>Unshaped Cans: 600 CPM (120 RPM)</i>
	<i>Pressure Requirements</i>	<i>Flow Requirements</i>
Dual Compressor Setup	50 psig (3.4 BAR) Process Air 80 psig (5.5 BAR) Brake Circuit	<ul style="list-style-type: none"> • 115 SCFM (55 SLPS) per Necking Turret • 50 SCFM (24 SLPS) per Flanger, Trimmer & Light Tester Unit
Single Compressor Setup	80 psig (5.5 BAR)	<ul style="list-style-type: none"> • 115 SCFM (55 SLPS) per Necking Turret • 50 SCFM (24 SLPS) per Flanger, Trimmer & Light Tester Unit
Inspection Blow-Off (Lt/V)	80 psig (5.5 BAR) minimum	• 100 SCFM (24 L/s) per Blow-Off
Trimmer Scrap Vacuum Utilities (Minimum)	15" WG @ 5000 Ft/Min (381 mm VG @ 1524 M/min) < Per Trimmer Scrap Exit	
Required Utilities: Vacuum	25 In/HG @ 25 ACFM/ Active Process Ram (635 mm HG @ 9.4 ALPS) /Active Process Ram <i>Example:</i> 10-Pocket Starwheel Module with 180° Cam Working Arc Yields; 10*(180°/360°) *25 = 125 ACFM / Module	25 In/HG @ 25 ACFM/ Active Process Ram (635 mmHG @11.8 ALPS) /Active Process Ram <i>Example:</i> 10-Pocket Starwheel Module with 180° Cam Working Arc Yields; 10*(180°/360°) *25 = 125 ACEFM / Module
	50 psig (3.4 BAR) Process Air 80 psig (5.5 BAR) Brake Circuit	115 SCFM (55 SLPS) per Necking Turret 50 SCFM (24 SLPS) per Flanger, Trimmer & Light Tester Unit

Technical Specifications	BCMS	
Machine Overall 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)
Maximum Neck Shoulder Dimension	Approx. 2.99" (75.95 mm)	
Maximum Neck Length	2.75" (69.85 mm)	
Minimum Neck Length	0.23" (5.8 mm)	
Effective Push Cam Stroke (Less BIS) Max	4.500" (114.3 mm) < New RDC Profile	
KO Cam Stroke Max	2.870" (72.9 mm) < New RDC Profile	
Cam Dynamics	Reduced Dynamics Cam (RDC)	
Cam Style	Matched Velocity	
Cam Working Arc	180°	
Diameter Change Capability	One QC parts kit per can diameter	
Height Change Capability	"Quick Change"	
Ram Assembly Style	Precision linear bearing (Pre-Threader with dual cam followers, Cast IronBushing (Post Threader) with dual cam followers	
Main Shaft Style	Horizontal	
Guard Style	Aluminum Extruded Modular Bi-Fold	
Main Drive Motor and Gearbox	Single or Multiple Drive: Configuration Dependent	
Gearbox	Helical Bevel	
Drive Gearing	Spur Gear, Inline Steel Oil Bath Lubed	
Transfer Shaft Assembly	Quick Change Modular	
Blowers	Floor Standing	
Infeed Star Wheel	5 pocket (recirculating)	
Waxer	Standard Rollerless hot wax or oil	
Transfer Starwheel	Quick Change Modular: 10-Pocket Pre-Threader, 5 Pocket Post-Threader	
Discharge Starwheel	Quick Change Modular 5-Pocket	
Face Seal Manifold	Modular FSM with HyComp Lining	
Main Drive Side Bearing	Tapered Roller Bearing	
Pusher Side Bearing	Radial Roller Bearing	



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