BUCHER
emhart glass

Technical News Bulletin

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V-Baffle

- Reduced blank contact time
- Simplified pre-forming process flow
- No need of funnel mechanism for round containers

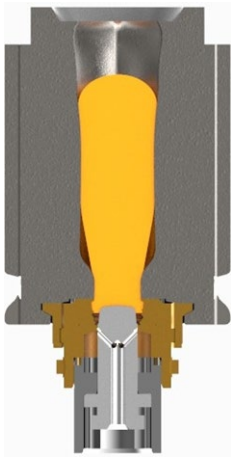
Introduction

To keep up with the evolving market demands, the hollow glass forming process has continuously improved to increase the production throughput. This has been achieved by two main approaches: firstly, by expanding the number of forming-machine sections and cavities per section, secondly, by integrating efficient cooling systems with quicker servo mechanisms. Furthermore, the introduction of servo mechanisms has paved the way for new innovations, such as the use of V-Baffles on servo baffle mechanism.

This approach makes the funnel useless for most common articles produced with Blow & Blow process.

So far only NIS forming machines benefit from this approach, but the development of the AIS-M forming machine allows to envisage the use of this technical solution.

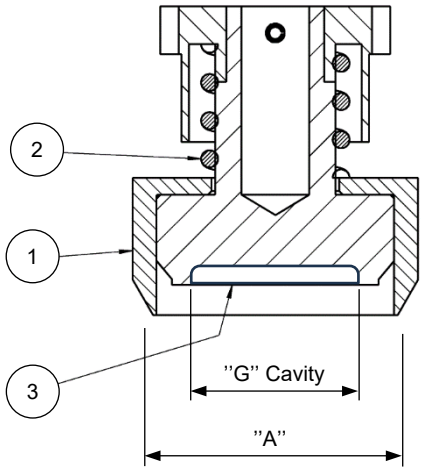
Working Principle

Gob loading	Settle Blow	Settle Blow Air relieve (optional)	Counter Blow	Release
				
a) Baffle in up position b) Plunger in loading position	a) Baffle down motion b) V-Baffle body sits onto blank molds c) Settle blow air is applied	a) V-Baffle moves slightly up to relieve settle blow air pressure from blank mold cavity	a) Baffle fully down b) V-Baffle piston sits onto blank molds c) Plunger moves down d) Counter blow air is applied	a) Baffle in up position b) Plunger fully down c) Ready for blank mold open

V-Baffle Design

The design of the V-Baffle consists of three main parts. The body (1) which closes the mold with a compression spring (2) during the Settle Blow function. Settle blow air is applied through bores at outer ring of the piston (3). For the Counter Blow position, the piston is pushed further down by the Baffle Mechanism to completely close the blank cavity.

V-Baffle Overview



1. Body
2. Compression spring
3. Piston

V-Baffle size	‘’G’’ Max (mm)	Dimension A (mm)	Forming Machine	Center Distance (AIS / NIS)	Part No. (AIS / NIS)
00	30	46.05	QG - AIS M / NIS	3’’ / 95mm	400-5102-1
0	40	58.75	QG & TG & DG - AIS M / NIS	3’’ & 4.25’’ & 6.25’’ / 95mm & 5’’ & 6.25’’	400-5102-2
1	45	65.10	TG & DG - AIS M / NIS	4.25’’ / 5’’ & 6.25’’	400-5102-3
2	55	77.80	TG & DG - NIS	6.25’’ / 5’’ & 6.25’’	400-5102-4
2A	60	85.75	TG & DG - NIS	6.25’’ / 5’’ & 6.25’’	400-5102-5
3	72	101.63	DG - AIS M / NIS	6.25’’ / 6.25’’	400-5102-6

Installation Requirements

The V-Baffle is fully compatible with the baffle arms used with NIS and AIS forming machines.
The servo-operated baffle mechanism is required for the V-Baffle application.

Refer to your Mold Design manuals for further information.

Features	Benefits
Simplified Blow & Blow forming process sequence	Simpler process control (timing)
Shorter blank event timing with Blow & Blow process	Potential for higher cavity rates
Enables earlier counter blow application	Improves settle wave mark
Funnel mechanism not required for round container production	More room in the forming section for other functions