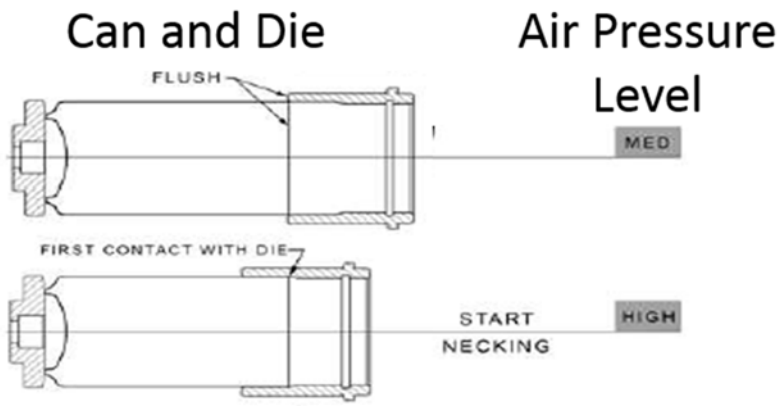
Belvac Production Machinery
Technical Bulletin
Information for Customers Operating & Maintaining Belvac Machines
ISSUE 3, VOLUME 22, APRIL 2019

NECKER FACE SEAL MANIFOLD TIMING

Belvac Necker systems commonly use Face Seal Manifold (FSM) technology to control compressed air delivery to the process turret. The Face Seal Manifold allows compressed air delivery to be timed to coincide with the forming processes to ensure air is available when needed. The Face Seal Manifold is designed to minimize the opportunity for compressed air to be wasted to atmosphere.

Face Seal Manifolds are designed to allow timing adjustment. Though the manifolds will allow turrets to process cans in a wide array of settings, the best utility cost savings are achieved when the manifold is timed to match the specific can and tooling combination in use. Customers report substantial annual utility savings with proper FSM timing.



Die Necking Process

Timing

Steps for establishing proper timing of the FSM:

1. Insert a can into the turret starwheel at the point of transfer from the transfer starwheel.
2. Hand rotate machine until can just begins light contact with the tooling.
3. Crush can by hand and remove.
4. Insert air pressure gauge in position from which the can was removed
    a. Alternately, if a can is left in place, it will be necessary to open a hole in the side wall of the can to allow detection of pressure changes.
5. Adjust Face Seal Manifold to ensure low pressure air is replaced by higher pressure air (medium or high based on neck depth) at this point.

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Plumbing 595/590/810K/TBN

When discussing timing, you have to discuss the plumbing of the “variable” FSM port. This port is indicated on the Face Seal Manifold drawing for each system configuration.

- Neck depths >= 0.44: Qty (3) High Pressure and Qty (1) Medium Pressure Port Connections [3-HP & 1-MP]
- Neck depths < 0.44: Qty (2) High Pressure and Qty (2) Medium Pressure Port Connections [2-HP & 2-MP]

Contact Belvac Sales and Service for Face Seal Manifold Timing performed by a Belvac Service professional.