

Technical News Bulletin

Steinhausen, December 2007



FPS for Plunger Up – Performance Enhancement

- Well accepted option to increase the plunger performance on IS and AIS machines.
- Used to control the Plunger Up pressure for precise parison forming which is a key for Narrow Neck Press & Blow and Press & Blow production.
- New valves, with higher performance have been developed, and introduced.

Introduction

The Emhart Glass Flex Pressure System technology has become a well accepted option to increase the plunger performance on IS and AIS machines. For the NIS this has always been standard. FPS for Plunger Up is used to control the Plunger Up pressure for precise parison forming which is a key for Narrow Neck Press & Blow and Press & Blow production. A high flow FPS valve controls the pressure for the Counter Blow in Blow & Blow production and the Plunger Cooling pressure in Narrow Neck Press & Blow, and Press & Blow production.

In line with Emhart Glass's philosophy of continuous improvement, new valves, with higher performance have been developed, and introduced.

Process Performance Improvements

The performance in the Blow and Blow process as well as in Narrow Neck Press and Blow could be significantly improved due to optimized FPS valve parameter settings. This has been possible because of the features the new designed valves which introduced earlier this year (see TNB 122) provide.

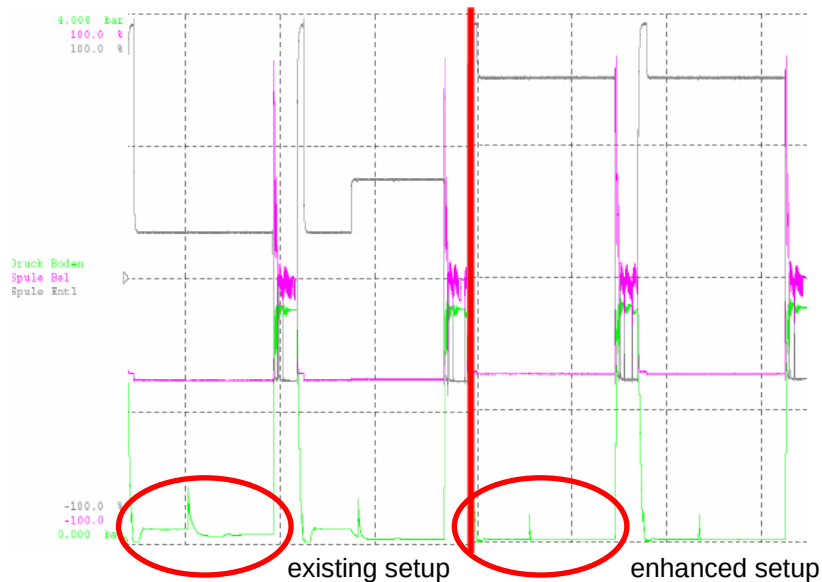
The new ED07 valve setup as no impact in case this size of valve is used for Counter Blow/Plunger Cooling application and can be used as spare/replacement for any previous ED/ND07 FPS valve.

Blow and Blow Production

In Blow and Blow production the significant difference is the motion from the Counter Blow Position to the Down Position. The speed of the plunger movement from the **Counter Blow Position to the Down Position** will be much faster and more controllable as on the previous setup.

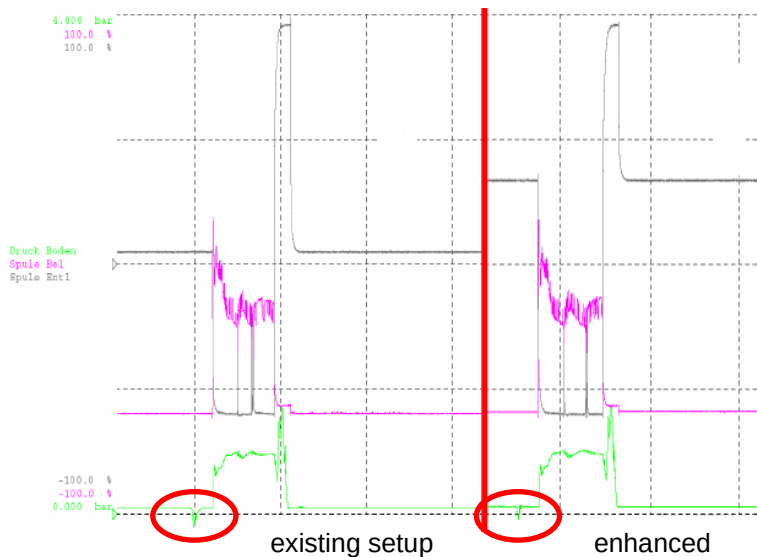
The motion from the **Down Position into the Up Position** and the motion from the **Up Position to the Counter Blow Position** will not be affected by the changes.

*Narrow Neck
Blow/Press
Production*



*Press and
and Blow*

In Narrow Neck Press and Blow as well as Press and Blow the significant difference is the motion from the **Down Position to Loading Position**. The motion speed to the loading position and the precision of the loading position will be enhanced with the new setup. The **Pressing** and the **Down Motion** will remain unchanged.



Compatibility

The new ED07 FPS valve for Plunger up (59-27249) can be directly replaced with the previous ED07 type (59-90311), the mechanical and the electrical interfaces remains unchanged. For replacing the old ND07 type (59-90272 and SE-12552-1) see TNB 122.

Availability

The new FPS valve (59-27249) is available from now on as spare part and replaces the current valve (59-90311). The change for machines delivered with FPS for Plunger up will be during first quarter of 2008.

Repair Process

The recently introduced repair program for FPS valves will also include the new valve (59-27249) and will receive the number 59-27249-RS after repairs. The current valve (59-90311) will be updated to the new configuration during the repair process and will a