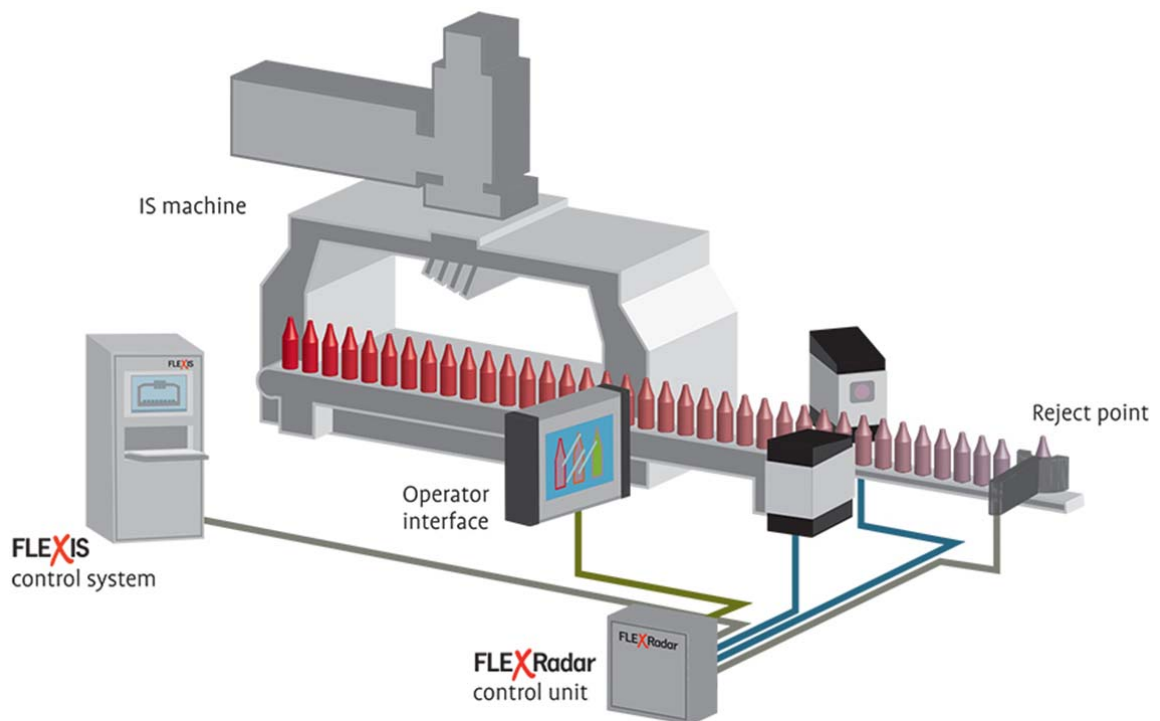


## Technical News Bulletin

Cham, March 2018

### FlexIS Bottle Spacing Control



#### Introduction

FlexIS Bottle Spacing Control is a new closed loop available in the FlexIS Timing using information from the FlexRadar forming process monitor system. For each bottle, a deviation value to the ideal position on the conveyor axis is transmitted and used to adjust the Pushout timings.

The closed loop averages the position deviations for each section and calculates a correction for the Pushout and related events, so that the bottles maintain equally distributed on the conveyor axis.

#### Application

FlexIS Bottle Spacing Control is very beneficial for all types of production.

## Setting Description

FlexIS Bottle Spacing Control is fully integrated into the FlexIS controls (FlexIS 1, 2 and 3). The user can see the actual average deviation value for each section on the Pusher user interface. The user can also switch the closed loop on or off with a button on the same page.

**EMHARTGLASS**      JOBID: 1118\_477b      Speed: 214.3 BPM      USER ID: 3      LINE: 010      ONLINE      28.01.15 20:10:08

### Pusher

Section	01	02	03	04	05	06	07	08	09	10	11	12
Finger angle out [arc]	091.0	091.0	091.0	091.0	091.0	091.0	091.0	091.0	091.0	091.0	091.0	091.0
Belt contact vel. [%]	40.10	40.10	40.10	40.10	40.10	40.10	40.10	40.10	40.10	40.10	40.10	40.10
Belt approach dur. [* rel]	080.0	080.0	080.0	080.0	080.0	080.0	080.0	080.0	080.0	080.0	080.0	080.0
Retract dur. [* rel]	015.0	015.0	015.0	015.0	015.0	015.0	015.0	015.0	015.0	015.0	015.0	020.0
Pushout On [*]	100.3	97.1	098.6	098.6	099.8	099.2	100.0	100.0	099.1	100.5	101.7	101.9
Pocket air ON [* rel]	-029.9	-010.0	-010.0	-010.0	-020.0	-010.0	-010.0	-010.0	-010.0	-010.0	-008.9	-005.3
Pocket air OFF [arc]	089.4	089.1	089.3	089.1	089.2	089.1	089.3	088.9	089.1	088.9	094.3	110.2
actual deviation [*]	000.07	-000.43	-000.13	000.02	000.05	000.15	000.08	000.00	-000.11	000.00	-000.10	-000.09

FlexPusher user interface page with FlexIS Bottle Spacing Control: Coloured status indication, measured deviation values for each section, corrected Pushout On angles and *Auto Spacing On/Off* button.

### **Settings**

- FlexIS Bottle Spacing Control on / off
- Limits for the correction of the Pushout On angle are calculated automatically out of the relevant timing settings of the FlexIS.

### **Feedback to the user**

- Actual (measured) deviation values – per section
- Corrected Pushout On angles – per section
- Corrected Pushout On angle reached a limit (status) – per section
- FlexIS Bottle Spacing Control on / off (status) – common for all sections

### **Remote Access Extension**

Due to the communication with the FlexIS, the FlexRadar gets accessible through the FlexIS remote access system.

## **Installation Requirements**

FlexIS Bottle Spacing Control can be ordered for any forming machine having:

- ✓ FlexIS Timing Control - Software Version 1.07.03.033 or higher
- ✓ FlexPusher
- ✓ FlexRadar
- ✓ Basic Closed Loop Equipment (TNB248)

## **Order Information**

FlexIS Bottle Spacing Control includes:

- 601-20001-6 Software License FlexIS Bottle Spacing Control
- 601-217-4 Communication Kit for FlexRadar (specify cable length to FlexIS MC cabinet)
- 1 day Service engineer for installation
- 1 day Production specialist for commissioning and on site training

## **Documentation**

H11105AEN is the English manual of FlexIS Bottle Spacing Control.

## Availability

The 'FlexIS Bottle Spacing Control' closed loop is available from January 2016.

## Feature / Benefits

Feature	Benefit
<ul style="list-style-type: none"> <li>Automatically adjusts Pushout On angles (and related events like Pocket Air etc.) for each section</li> </ul>	<ul style="list-style-type: none"> <li>Keeps equally distributed container spacing               <ul style="list-style-type: none"> <li>prevents interference on conveyor</li> <li>prevents jams at ware transfer</li> <li>maintains 'hitting the gap' constantly</li> </ul> </li> <li>⇒ higher pack rate</li> </ul>
<ul style="list-style-type: none"> <li>FlexIS Bottle Spacing Control is fully integrated into the FlexIS controls, stored in the job file</li> </ul>	<ul style="list-style-type: none"> <li>Reduced complexity / better ease of use</li> <li>Improved start up after job change</li> </ul>
<ul style="list-style-type: none"> <li>FlexRadar remote access through the FlexIS remote access system</li> </ul>	<p>Optimal addition to FlexIS remote service. Experts can support remotely auditing real time FlexRadar and Bottle Spacing closed loop.</p>