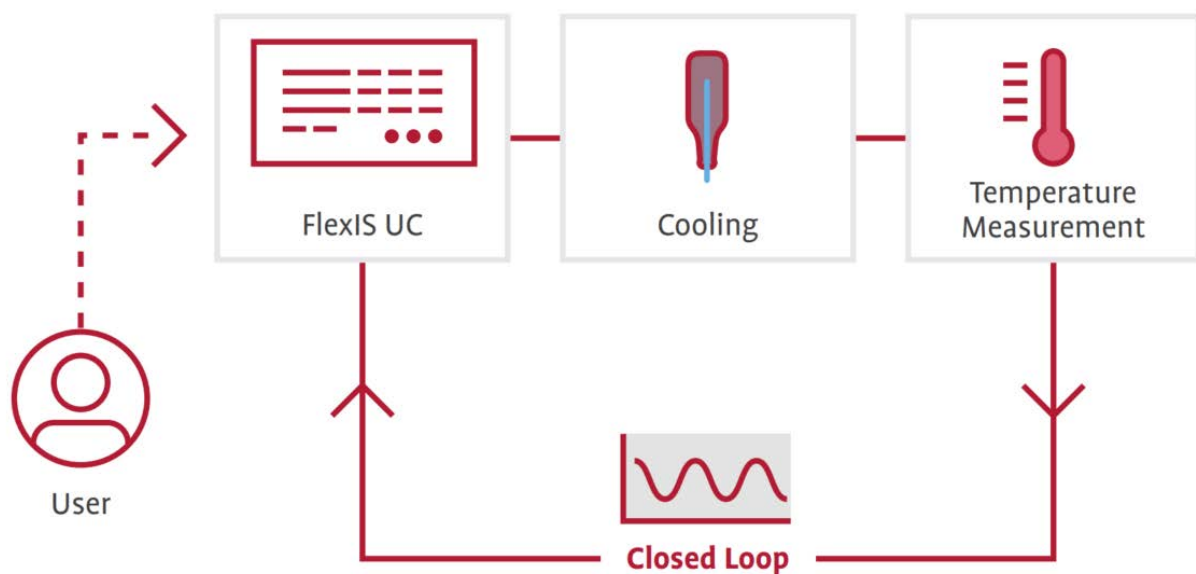


Technical News Bulletin

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FlexIS Plunger Cooling Control



Introduction

FlexIS Plunger Cooling Control is an optional control loop available in the FlexIS Timing (FlexIS 1, 2 and 3) using information from the TCS (Temperature Control System) or the BlankRadar. It gets the measured temperature values of the plunger surfaces and adjusts automatically the duration of the plunger cooling.

Depending on the machine type and configuration, up to 48 plungers are permanently monitored and adjusted to changes of surrounding parameters. This leads to more stable production runs and also prevents quality problems inside the container and finish.

Application

FlexIS Plunger Cooling Control is beneficial for NNPB, P&B and certain B&B productions.

Setting Description

FlexIS Plunger Cooling Control is fully integrated into the FlexIS controls. All settings are done on the User Console and are stored as job data. The user interface is very similar to the FlexIS Blank Cooling Control.

Settings (all per cavity)

- FlexIS Plunger Cooling Control on / off
- Setpoint value for temperature
- Upper and lower limits for cooling adjustment

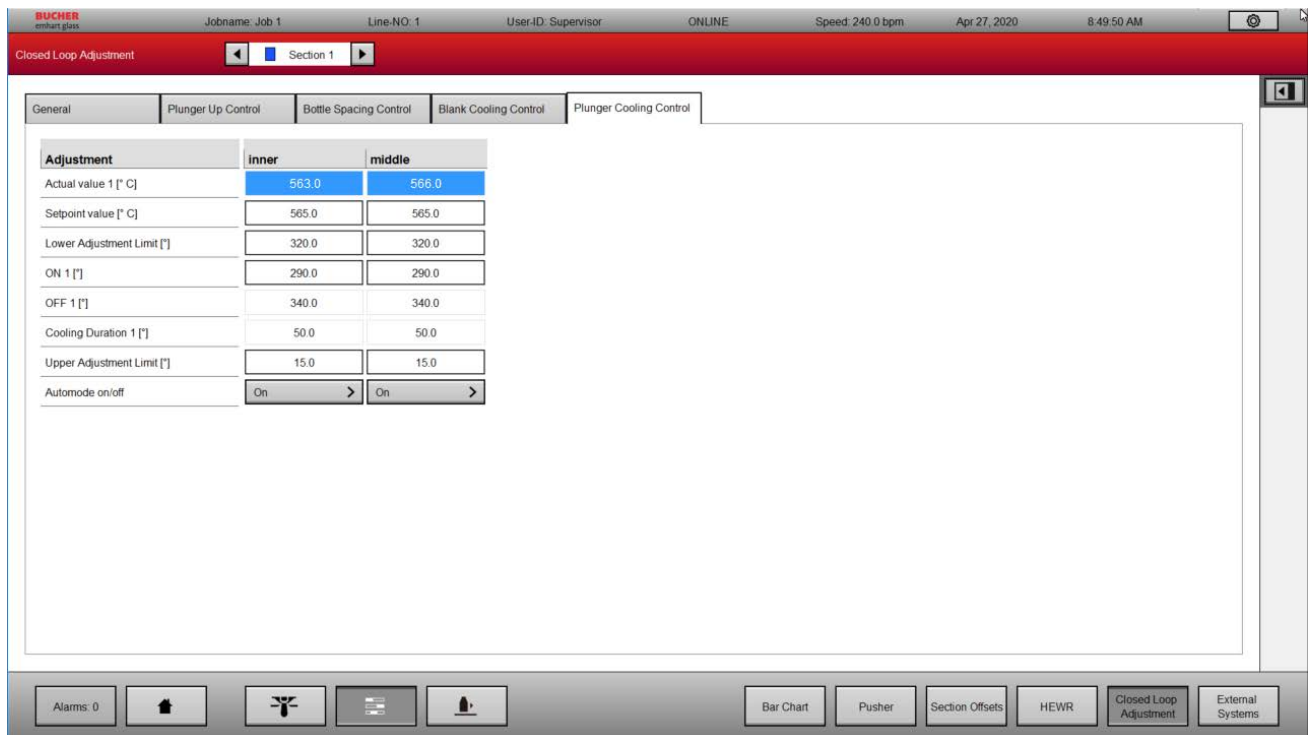
Feedback to the user (all per cavity)

- Actual (measured) temperature
- FlexIS Plunger Cooling Control on / off (status)
- Cooling duration (event OFF-ON)
- Cooling duration reached upper or lower limit (status)

Setup: 3 / Plunger Cooling Control Setting

Description	Plunger innen	Plunger aussen	No Event	No Event	No Event	No Event	No Event	No Event
Setpoint value [°C]	565.0	565.0	0.0	0.0	0.0	0.0	0.0	0.0
Actual value [°C]	569.0	564.0	-1	-1	-1	-1	-1	-1
Lower adjustment limit [°]	320.0	320.0	000.0	000.0	000.0	000.0	000.0	000.0
ON	136.0	136.0	-000.0	-000.0	-000.0	-000.0	-000.0	-000.0
OFF	325.3	010.8	-000.0	-000.0	-000.0	-000.0	-000.0	-000.0
Upper adjustment limit [°]	015.0	015.0	000.0	000.0	000.0	000.0	000.0	000.0
Cooling duration [°]	189.3	234.8	000.0	000.0	000.0	000.0	000.0	000.0
	Take over act.	Take over act.	Take over act.	Take over act.	Take over act.	Take over act.	Take over act.	Take over act.
	on / off	on / off	on / off	on / off	on / off	on / off	on / off	on / off

FlexIS 1 user interface: Setpoint values and measured values with colored status indication shown in the Settings Section page (sample values).



FlexIS 2 and 3 user interface: Setpoint values and measured values with colored status indication shown in the Closed Loop Adjustment page (sample values).

Functions

- See all values per section or grouped in an overview
- Fill values to all closed loops or to all sections

Installation Requirements

FlexIS Plunger Cooling Control can be ordered for any forming machine having:

- ✓ FlexIS 1 Timing Control - Software Version 1.07.03.038 or higher
- ✓ FlexIS Blank Cooling Control (TNB220)

Order Information

FlexIS Plunger Cooling Control includes:

- 601-20001-5 Software License FlexIS Plunger Cooling Control
- 1 day Service engineer for installation
- 2 days Production specialist for commissioning and on site training

Documentation

H11106_EN is the English manual of FlexIS Plunger Cooling Control for UC 1.

H11113_EN is the English manual of FlexIS Plunger Cooling Control for UC 2.

Feature/Benefits

Features	Benefit
<ul style="list-style-type: none"> • Automatically adjusts temperatures of plungers 	<ul style="list-style-type: none"> • Keeps process more steady • Prevents certain critical defects inside the container / finish • Early warning for plungers with excessively high or low cooling demand • Less stops <p>⇒ higher quality / pack rate</p>
<ul style="list-style-type: none"> • FlexIS Plunger Cooling Control is fully integrated into the FlexIS controls, stored in the job file 	<ul style="list-style-type: none"> • Reduced complexity / better ease of use • Improved start up after job change