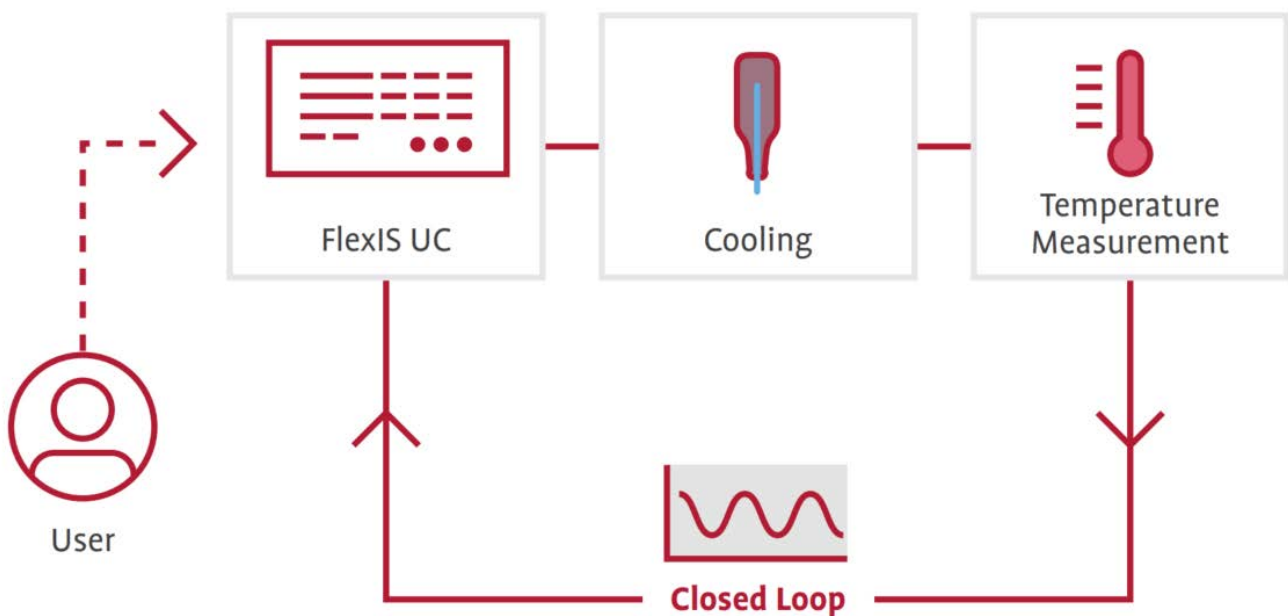


# Technical News Bulletin

Steinhausen, April 2020

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## FlexIS Plunger Cooling Control

- Automatically adjusts temperatures of plungers
- More stable production runs
- FlexIS Plunger Cooling Control is fully integrated into the FlexIS controls

## 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.

## System 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)

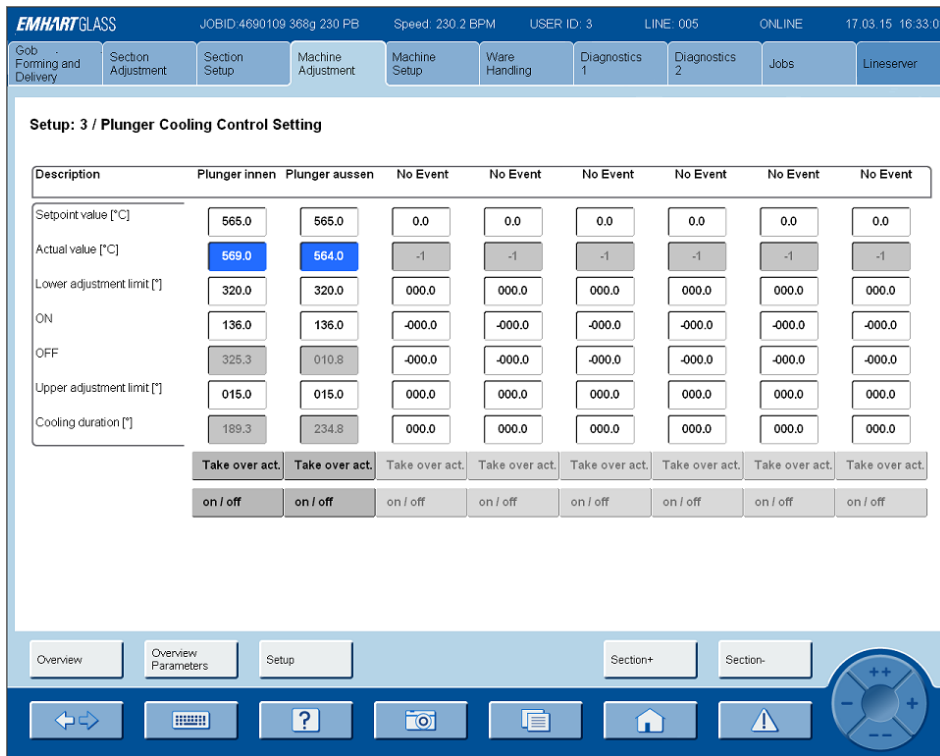
- FlexIS Plunger Cooling Control on / off
- Setpoint value for temperature
- Upper and lower limits for cooling adjustment

### Feedback to the user (all per cavity)

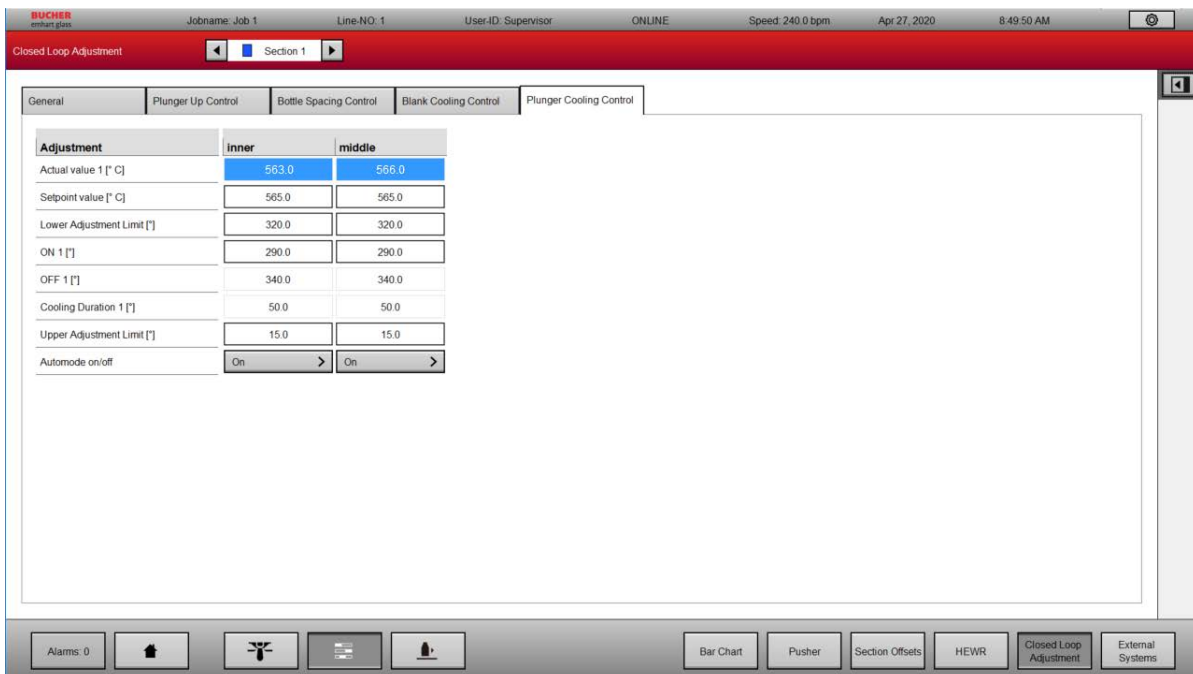
- Actual (measured) temperature
- FlexIS Plunger Cooling Control on / off (status)
- Cooling duration (event OFF-ON)
- Cooling duration reached upper or lower limit (status)

### Functions

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



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).

## Specification

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.

## Application

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

## 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)

### Features

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Automatically adjusts temperatures of plungers

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FlexIS Blank Cooling Control is fully integrated into the FlexIS controls

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### Benefits

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Keeps process more steady

Prevents certain critical defects inside the container / finish

Early warning for plungers with excessively high or low cooling demand

Improved start up after job change

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Reduced complexity / better ease of use

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