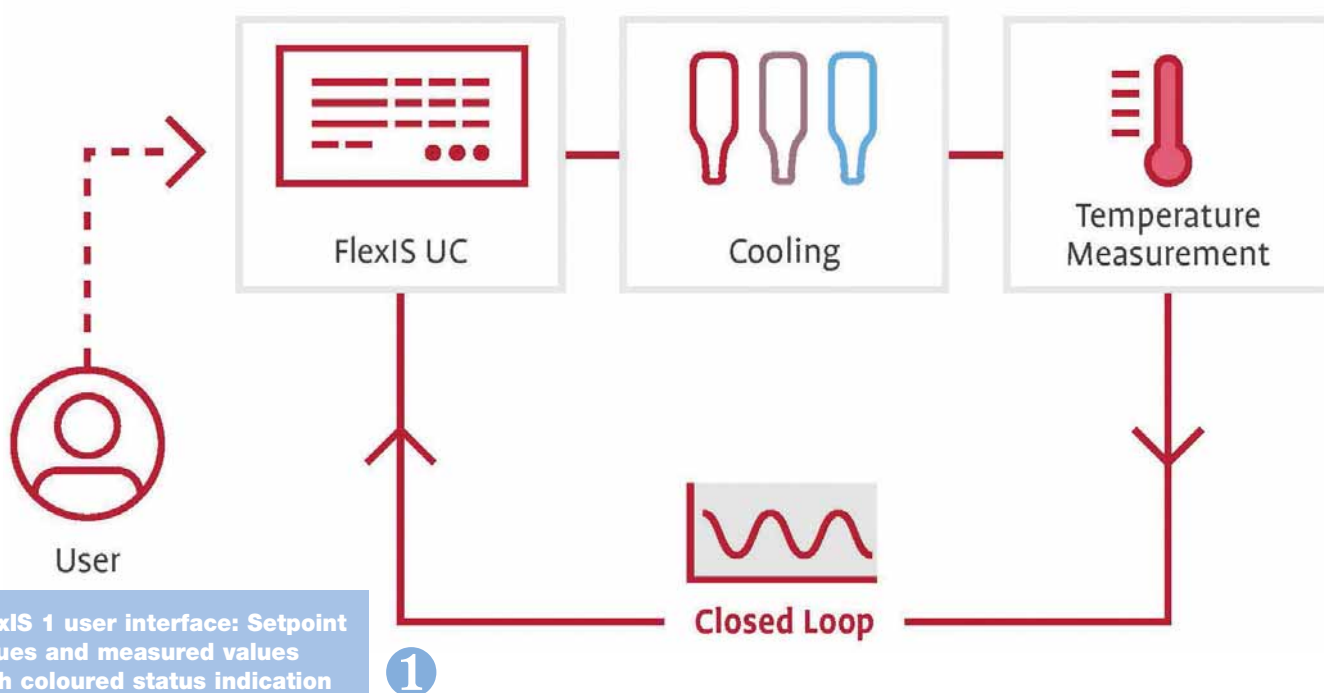


BUCHER EMHART GLASS

More stable production runs while preventing quality problems with FlexIS Blank Cooling Control

The FlexIS Process Control System is the core component that makes automation of the container forming process possible. FlexIS is not only capable of controlling a forming machine, but also driving all mechanisms from feeder to stacker.



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

MOTION CONTROL SOLUTIONS AND TECHNOLOGY

EMHART GLASS JOBID: FXT_Voller_Ausbau Speed: 174.9 BPM USER ID: 3 LINE: 098 ONLINE 14.12.12 09:02:59

[Job Forming and Delivery](#) [Section Adjustment](#) [Section Setup](#) [Machine Adjustment](#) [Machine Setup](#) [Ware Handling](#) [Diagnostics 1](#) [Diagnostics 2](#) [Jobs](#) [Lineserver](#)

Section: 3 / Blank Cooling Control Setting

Description	LH inner	RH inner	LH middle	RH middle	LH outer	RH outer	No Event	No Event
Setpoint value [°C]	450.0	450.0	450.0	450.0	450.0	450.0	0.0	0.0
Actual value [°C]	425.0	418.0	448.0	460.0	438.0	465.0	-1	-1
Lower limit [°]	050.0	050.0	120.0	330.0	330.0	330.0	000.0	000.0
ON	330.0	169.9	150.0	330.0	050.0	330.0	-000.0	-000.0
OFF	155.0	170.0	150.0	155.0	335.4	155.0	-000.0	-000.0
Upper limit [°]	200.0	150.0	220.0	150.0	150.0	150.0	000.0	000.0
Cooling duration [°]	185.0	000.1	000.0	185.0	285.4	185.0	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

[Overview](#) [Overview Parameters](#) [Setup](#) [Section+](#) [Section-](#)

2

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

Knowledge in motion control solutions and technology, combined with expertise in technology and application of the Bucher Emhart Glass IS machines, make the FlexIS a powerful process control system

that can manage the entire glass container forming process.

The FlexIS Control System is at the heart of a strategy that brings well-coordinated and integrated process control to glass container production and the

FEATURE/BENEFITS

Features	Benefit
<ul style="list-style-type: none"> FlexIS Blank 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
<ul style="list-style-type: none"> No additional cabling or sensors in the machine 	<ul style="list-style-type: none"> Accessibility and mold change procedure stay as before
<ul style="list-style-type: none"> Automatically adjusts temperatures of mold halves 	Keeps process steady / less variation - over time - between cavity halves - less stops <ul style="list-style-type: none"> higher quality / pack rate
<ul style="list-style-type: none"> TCS or BlankRadar remote access through the FlexIS remote access system 	<ul style="list-style-type: none"> Optimal addition to FlexIS remote service. Experts can support remotely auditing real time TCS and Blank Cooling closed loop.

capability to interface with other current and future components – from the feeder to inspection.

FLEXIS BLANK COOLING CONTROL

FlexIS Blank Cooling Control is a control loop available in the FlexIS Timing using information from the TCS (Temperature Control System) or the BlankRadar. It gets the measured temperature values of the mould surfaces and adjusts automatically the duration of the mould cooling. Depending on the machine type and configuration, up to 72 mould halves are permanently monitored and adjusted to slow changes of surrounding parameters. This leads to more stable production runs and also prevents quality problems such as leaners, for example.

APPLICATION

FlexIS Blank Cooling Control is very beneficial for all types of production.

SETTING

FlexIS Blank Cooling Control is fully integrated into the FlexIS controls (FlexIS 1, 2 and 3). All settings are carried out on the User Console and are stored as job data. The configuration setup can be done according to the number of available cooling valves and according to the locations measured.

Settings (all per closed loop)

- FlexIS Blank Cooling Control on/off
- Setpoint value for temperature
- Upper and lower limits

Feedback to the user (all per closed loop)

- Actual (measured) temperatures
- FlexIS Blank Cooling Control on/off (status)
- Cooling duration (event OFF-ON)
- Cooling duration reached a limit (status)

Functions

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

Remote Access Extension

- Due to the communication with the FlexIS, the TCS or BlankRadar gets accessible through the FlexIS remote access system. ■



BUCHER emhart glass Jobname: EGRC-Job Line-NO: 64 User-ID: Developer ONLINE Speed: 113.8 bpm Jan 27, 2016 6:05:38 PM

Closed Loop Adjustment Section 3

Adjustment	left	right
Actual value 1 [°]	472.0	479.0
Setpoint value [° C]	470.0	460.0
Lower adjustment limit [°]	10.0	10.0
ON 1 [°]	0.0	0.0
OFF 1 [°]	64.6	150.0
Cooling Duration 1 [°]	64.6	150.0
Upper adjustment limit [°]	150.0	150.0
Automode on/off	ON >	ON >

Alarms: 3 Bar Chart Event Timing Overview Pusher Section Offsets HEWR Closed Loop Adjustment

3