Chili

Chili controls a 20 liter reactor

Requirement
This Case Study demonstrates the process temperature control abilities of Chili when it is connected to a Chemglass 20 liter glass reactor.

Method
The 20 liter Chemglass reactor was connected to Chili using 1 meter metal insulated hoses M16. The thermofluid used in the system was "M20.195/235". Process control was carried out. Stirrer speed was set to 150 rpm.

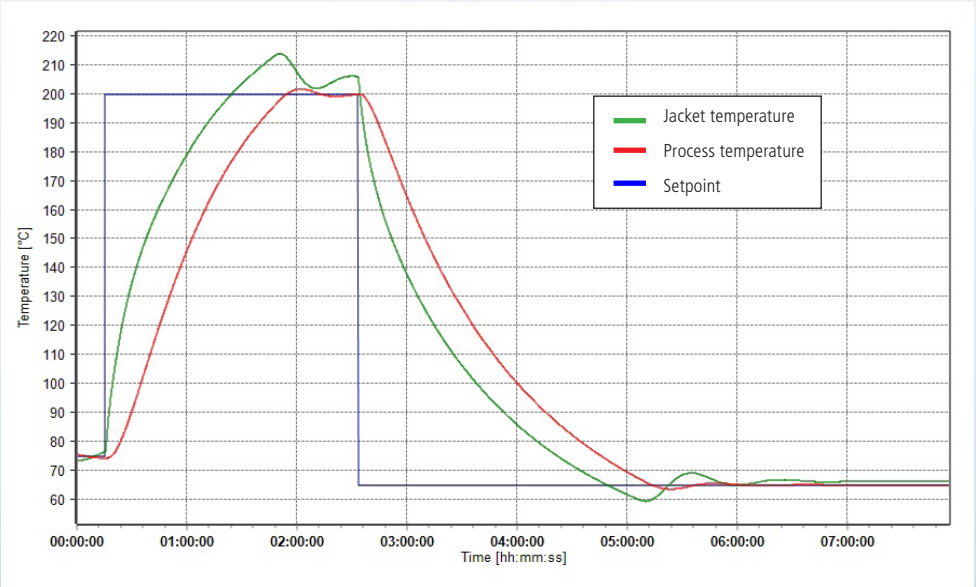
Setup details

Temperature range:	+65°C...+300°C
Heating power:	3.0 kW
Hoses:	1 m metal insulated M16
HTF:	M20.195/235
Reactor:	Chemglass 20 liter
Reactor content:	17.0 l M20.195/235
Stirrer speed:	150 rpm
Control:	process
Amb. temperature:	+24°C

Results

1. Performance:
The graphic shows the speed, accuracy and stability of the Chili as each as it reaches and maintains +200°C.

Start T	End T	Approximate Time	Av. Ramp Rate
+75°C	+200°C	99 minutes	1.3 K/min



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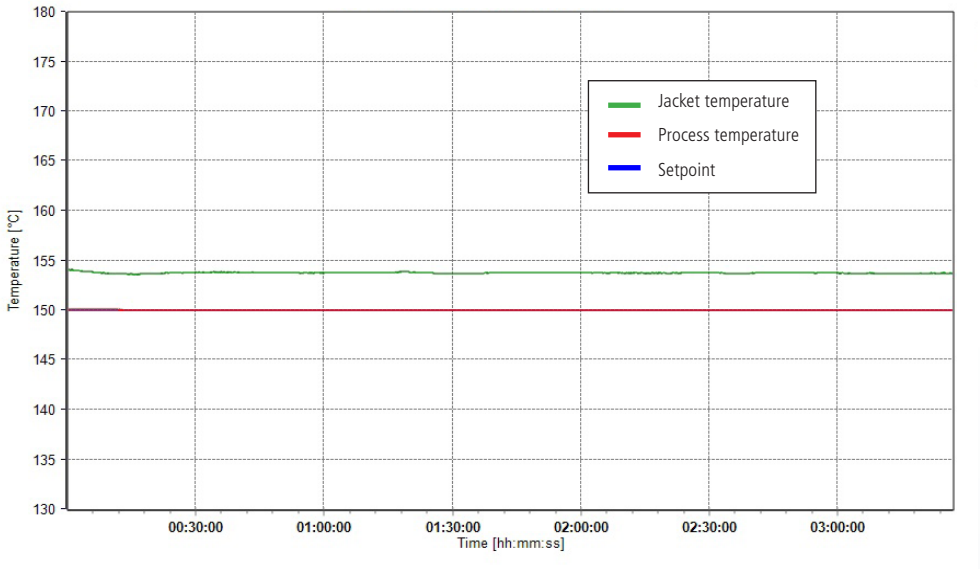
2. Stability:
The graphic shows the Chili continually adjusting the jacket temperature to hold the process under a tight and stable control at a temperature of +150°C.



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