

Unistat Chili

Unistat Chili controls a 20 liter reactor

Requirement

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

Method

The 20 liter Chemglass reactor was connected to Unistat 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

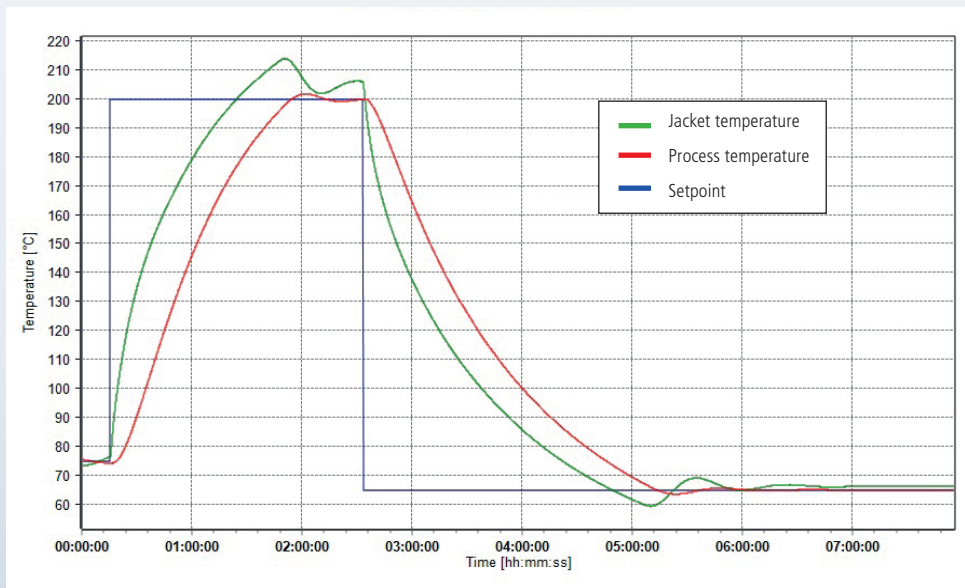


Results

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



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.

