Unistat® 830

Heating a DDPS 25-litre glass reactor

Requirement
The diagram shows the temperature profile of a Unistat 830 working with a DDPS 25-litre reactor within a temperature range from 20 °C to 100 °C.

Method
The Unistat and reactor are connected using two 1.5-metre insulated metal hoses. The reactor is filled with 18.75 litre of "M90.055.03", a Huber supplied silicon based HTF.

Results
The Unistat takes 28 minutes to heat the process temperature up to 100 °C an average ramp rate > 2 K/min. and the jacket temperature > 3 K/min.

Setup details
Unistat® 830 & DDPS reactor

Temperature range:	-85...200 °C
Cooling power:	3.6 kW @ 0 °C
	2.2 kW @ -60 °C
Heating power:	3 kW
Hoses:	2x1.5 m; M38x1.5 (#6656)
HTF:	DW-Therm (#6479)
Reactor:	25-litre vacuum insulated glass reactor
Reactor contents:	18.75 litre M90.055.03 (#6259)
Reactor stirrer speed:	70 rpm
Control:	process

Legend:
- Jacket temperature
- Process temperature
- Setpoint

On the point control

Jacket temperature ramp rate > 3 K/min.

Process temperature ramp rate > 2 K/min.