



Setup details

Unistat® 930w & Diehm reactor

- Temperature range: -90...200 °C
- Cooling power: 20 kW @ 0...-40 °C
15 kW @ -60 °C
- Heating power: 24 kW
- Hoses: 2x1.5 m; M38x1.5 (#6656)
- HTF: DW-Therm (#6479)
- Reactor: 100-litre un-insulated glass reactor
VPC Bypass installed
- Reactor content: 75 litre M90.055.03 (#6259)
- Stirrer speed: 400 rpm
- Control: process

Unistat® 930w

Controlling simulated exothermic reactions of 1 kW (860 kcal / hr) and 2 kW (1720 kcal / hr) in a Diehm 100-litre reactor

Requirement

This case study is to see the performance of a Unistat 930w as it works to control simulated exothermic reactions in a 100-litre reactor.

Method

The Unistat and reactor are connected using two 1.5-metre insulated metal hoses. The reactor is filled with 75 litre of "M90.055.03", a Huber supplied silicon based HTF.

Results

The response of the Unistat 930w can be seen in the graphic below. The jacket temperature is rapidly changed to control the "reaction" and maintain process temperature at its set-point.

