



### Setup details

Unistat® 425w & Buchi Glas Uster reactor

- Temperature range: -40...250 °C
- Cooling power: 2.8 kW @ 250...100 °C  
2.5 kW @ 0 °C  
1.9 kW @ -20 °C  
0.2 kW @ -40 °C
- Heating power: 2.0 kW
- Hoses: 2x1 m; M38x1.5 (#6656)
- HTF: DW-Therm (#6479)
- Reactor: 20-litre jacketed glass reactor
- Reactor content: 15 litre M90.055.03 (#6259)
- Stirrer: 150 rpm
- Control: process

## Unistat® 425w

**Heating a Buchi Glas Uster 20-litre jacketed glass reactor to 60 °C**

### Requirement

This case study looks at the performance of a Unistat 425w heating a 20-litre glass reactor from 20 °C to 60 °C under "process" control.

### Method

The Unistat 425w is connected to the 20-litre Buchi Glas Uster reactor using two insulated metal 1-metre hoses. The reactor is filled with 15 litre of "M90.055.03", a silicon based HTF.

### Results

The jacket heats quickly to 102 °C creating a wide  $\Delta T$  to pull the process temperature to its new set-point. As the process approaches the set-point the jacket cools rapidly to guide the process precisely to target temperature.

