



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 jacketed glass reactor
 Reactor contents: 18.75 litre M90.055.03 (#6259)
 Reactor stirrer speed: 70 rpm
 Control: internal

Unistat® 830

Jacket heating from -80 °C to 180 °C in a DDPS 25-litre reactor

Requirement

A simple test is conducted to measure the time taken by the Unistat 830 to heat the DDPS's reactor's minimum achievable temperature with the Unistat 830 (-80 °C) to 180 °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

With a heating power of 3.0 kW the Unistat takes under 1 hour 40 minutes to ramp through 260 K.

