

# Unistat® 705w

**Heating a Buchi Glas Uster 1-litre reactor from 20 °C to 180 °C**

**Requirement**

The heating curve shows the performance of a Unistat 705w heating a 1-litre reactor from 20 °C to 180 °C.

**Method**

The Unistat and reactor are connected using two 1-metre insulated metal hoses. The reactor is filled with 0.75 litre of "M90.055.03", a Huber supplied silicon based HTF.

**Results**

The process temperature rapidly ramps through 180 °C in 50 minutes to reach the required temperature. It represents a heating ramp rate of 3.2 K/min.

It can be clearly seen how the process curve reaches 180 °C without overshooting the set-point.

**Setup details**

Unistat® 705w & Buchi Glas Uster reactor

Temperature range: -75...250 °C  
 Cooling Power: 0.6 kW @ 250...100 °C  
 0.65 kW @ 0 °C  
 0.6 kW @ -20...-40 °C  
 0.3 kW @ -60 °C

Heating power: 1.5 kW / 3 kW  
 Pump speed 3300 rpm  
 Hoses: 2x1 m; M24x1.5 (#9325)  
 HTF: DW-Therm (#6479)  
 Reactor: 1-litre un-insulated jacketed glass pressure reactor

Reactor contents: 0.75 litre M90.055.03 (#6259)

Reactor stirrer speed: 500 rpm  
 Control: process

