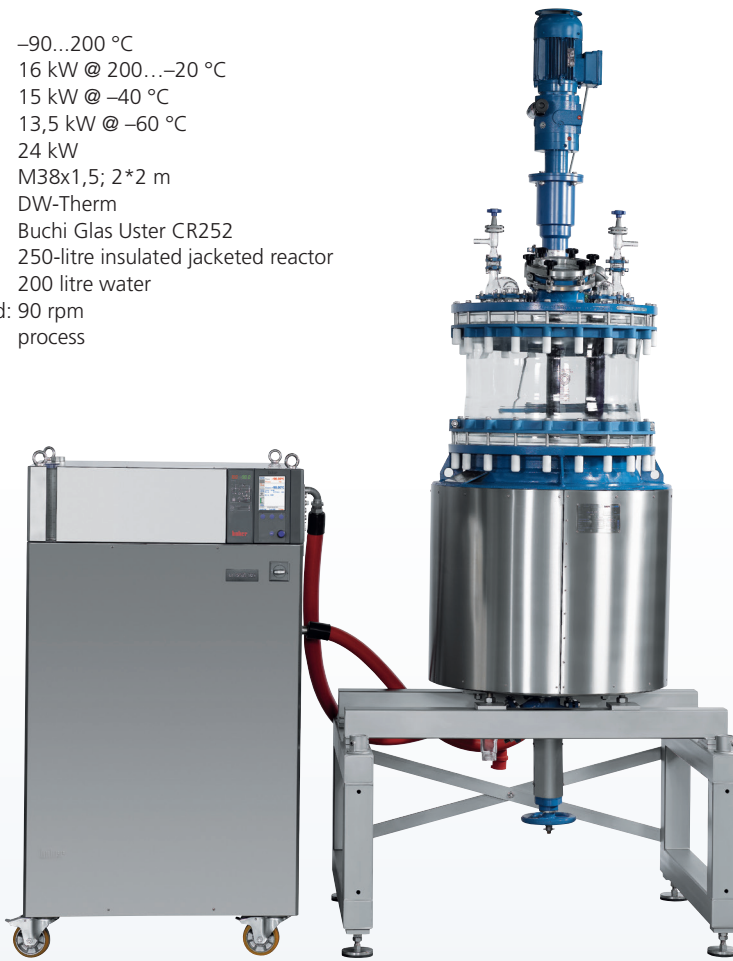


**Setup details**

Temperature range: -90...200 °C  
 Cooling power: 16 kW @ 200...-20 °C  
 15 kW @ -40 °C  
 13,5 kW @ -60 °C  
 Heating power: 24 kW  
 Hoses: M38x1,5; 2\*2 m  
 HTF: DW-Therm  
 Reactor: Buchi Glas Uster CR252  
 250-litre insulated jacketed reactor  
 Reactor content: 200 litre water  
 Reactor stirrer speed: 90 rpm  
 Control: process



# Unistat® 925w

**Heating a Buchi Glas Uster CR252 GLSS reactor filled with water to 100 °C (24 kW heater)**

**Requirement**

This case study examines the tightness and speed of control when a Unistat 925w is used with a Buchi Glas Uster CR252 reactor filled with 200 litre of water.

**Method**

The Unistat and reactor are connected using two 2-metre insulated metal hoses. The reactor is filled with 200 litre of water.

**Results**

The minimum jacket temperature of the Buchi Glas Uster reactor was limited to -60 °C as was the ramp rate to avoid damaging the glass lining. It can be seen that the heat up curve is linear for almost the entire process before reaching and stabilising exactly at the set-point of 100 °C.

**Heat up curve with 24 kW heating power**

