

Setup details

Temperature range: -60...200 °C
 Cooling power: 9.5 kW @ 200...0 °C
 8.0 kW @ -20 °C
 4.8 kW @ -40 °C
 1.2 kW @ -60 °C
 Heating power: 12 kW
 Hoses: M38x1,5; 2x2 m
 HTF: DW-Therm
 Reactor: Buchi Glas Uster CR252
 250-litre glass-lined
 (enameled) steel reactor
 Reactor content: 200 litre Ethanol
 Reactor stirrer speed: 90 rpm
 Control: process



Unistat® 615w

Heating and cooling a 250-litre GLSS reactor

Requirement

This case study shows the remarkable power transfer capabilities of the Unistat range in using a Unistat 615w to heat and cool a 250-litre Buchi Glas Uster GLSS reactor.

Method

The Unistat was connected to the reactor using two 2-metre insulated metal hoses. The reactor was filled with 200 litre of Ethanol.

Results

The graph shows the close control and rapid response of the jacket to change the process temperature from 20 °C to -10 °C and back again. It takes approximately 60 minutes to cool the process through 30 K from 20 °C to -10 °C.

