

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 Buchi Glas Uster 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

Cooling from 20 °C to -20 °C takes approximately 60 minutes and heating back to 20 °C taking approximately 40 minutes. The third curve shows a cool down time from 20 °C to -30 °C (50 K) taking approximately 110 minutes.

