

Setup details

Temperature range: −60...200 °C

9.5 kW @ 200...0 °C Cooling power:

8.0 kW @ -20 °C 4.8 kW @ -40 °C 1.2 kW @ -60 °C

12 kW Heating power:

M38x1,5; 2x2 m Hoses: HTF: DW-Therm (#6479) Reactor: Buchi Glas Uster CR252 250-litre glass-lined

(enameled) steel reactor

Reactor content: Reactor stirrer speed: 90 rpm Control: process



Unistat® 615w

Heating and cooling a Buchi 250-litre glass lined stainless steel reactor through 60 K

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 Unistat cools the process from 20 °C to -40 °C (60 K) in approximately 150 minutes. It can be seen from the jacket temperature that the system is "comfortable" with this load. The heat up time back to 20 °C takes approximately 60 minutes.

