Unistat® 610w

Heating a Radleys 10-litre glass reactor from 20 °C to 180 °C.

Requirement
This case study illustrates the performance of a Unistat 610w heating a Radleys 10-litre glass reactor from 20 °C to 180 °C.

Method
The reactor and Unistat are connected using two 1.5 metre insulated metal hoses. The reactor is filled with 7.5 litre of "M90.055.03", a Huber supplied silicon based HTF.

Results
The heating curve shows that the Unistat 610w takes 45 minutes to reach a set-point of 180 °C. The „internal" (jacket) temperature is limited to 200 °C because of the upper temperature limit of the HTF (DW-Therm).

Setup details
Unistat® 610w & Radleys 10-litre reactor

Temperature range:	-60...200 °C
Cooling power:	7.0 kW @ 200...0 °C 6.4 kW @ -20 °C 3.3 kW @ -40 °C 0.8 kW @ -60 °C
Heating power:	6.0 kW
Hoses:	2x1.5 m; M30x1.5 (#6386)
HTF:	DW-Therm (#6479)
Reactor:	10-litre jacketed glass reactor
Reactor content:	7.5 litre M90.055.03 (#6259)
Stirrer speed:	80 rpm
Control:	process