

# Unistat® 930w

Cooling a Diehm 100-litre reactor to -60 °C

### Requirement

This case study is to demonstrate the performance of a Unistat 930w as it cools a Diehm 100-litre jacketed glass reactor to -60 °C.

### Method

The Unistat and reactor are connected using two 1.5-metre insulated metal hoses. The reactor is filled with 75 litre of "M90.055.03", a Huber supplied silicon based HTF.

### Results

The jacket is ramped rapidly down and the growing  $\Delta T$  between the process temperature and jacket temperature cools the process smoothly to its set-point.

### Setup details

Unistat® 930w & Diehm reactor

Temperature range:	-90...200 °C
Cooling power:	20 kW @ 0...-40 °C 15 kW @ -60 °C
Heating power:	24 kW
Hoses:	2x1.5 m; M38x1.5 (#6656)
HTF:	DW-Therm (#6479)
Reactor:	100-litre un-insulated glass reactor VPC Bypass installed (#6259)
Reactor content:	75 litre M90.055.03 (#6259)
Stirrer speed:	400 rpm
Control:	process

