

# Ministat<sup>®</sup> 125-cc<sup>®</sup>-NR

Heating an un-insulated Radleys 10-litre glass jacketed reactor from 20 °C to 60 °C

### Requirement

The Ministat range comprises of three models of which the Ministat 125-cc-NR has the lowest power. Typically designed for reactors up to 5 litre, this case study shows how the Ministat performs on a comparatively large load.

### Method

The reactor was filled with 8 litre of P20.165.10 as a thermal load. The control was set to "Process" and the stirrer speed was set to 160 rpm. The results were recorded using the Huber "SpyLight" software. The HTF (heat transfer fluid) used was M40.165.10

### Results

It can be seen from the graphic that the comparatively low powered Ministat 125-cc-NR heats the process from 20 °C to 60 °C in less than 45 minutes. The control is very tight despite such a low powered unit being attached to such a comparatively large load.

### Setup details

Ministat<sup>®</sup> 125-cc<sup>®</sup>-NR & Radleys 10-litre jacketed reactor.

Temperature range: -25...150 °C  
Cooling power: 0.21 kW @ 0 °C  
0.05 kW @ -20 °C

Heating power: 1 kW  
Pump speed: 4500 rpm  
Hoses: 2x1 m; M16x1 (#9608)  
HTF: M40.165.10 (#6164)  
Reactor: 10-litre jacketed glass reactor

Reactor contents: 8 litre P20.275.50 (#6158)

Reactor stirrer speed: 160 rpm  
Control: process

