

Unistat® Tango® Nuevo

Heating and Cooling ramp, 1-litre Glas-Keller reactor

Requirement

This case study looks at how well the Tango Nuevo controls the process temperature inside a 1-litre reactor.

Method

Using two large diameter (M24x1,5 DN12) insulated metal hoses, the reactor was connected to the Unistat Tango Nuevo. The reactor was filled with 0.75-litre of "M90.055.03", a Huber supplied silicon based HTF.

Results

Efficient thermal transfer made possible by the low flow resistance of the wide bore tubing coupled with the highly efficient thermal transfer capabilities of the Unistat Tango Technology results in a rapid ramping rate and extremely stable control.

Setup details

Unistat® Tango® Nuevo & Glas Keller reactor

Temperature range: -45...250 °C
 Cooling power: 0.7 kW @ 250...0 °C
 0.4 kW @ -20 °C
 Heating power: 1.5 kW / 3 kW
 Hoses: 2x1 m; M24x1.5 (#9325)
 HTF: DW-Therm (#6479)
 Reactor: 1-litre vacuum insulated jacketed glass pressure reactor
 Reactor content: 1.5 litre M90.055.03 (#6259)
 Stirrer speed: 200 rpm
 Control: process

