

# Unistat® 910w

**Cooling a DDPS 25-litre reactor from 100 °C to 20 °C**

**Requirement**

The graphic shows the performance of a Unistat 910w working to cool a DDPS 25-litre vacuum insulated reactor from 100 °C to 20 °C.

**Method**

The Unistat and reactor are connected using two 1.5-metre insulated metal hoses. The reactor is filled with 18.75 litre of "M90.055.03", a Huber supplied silicon based HTF.

**Results**

The internal temperature cools to approximately -52 °C cooling to create a wide ΔT resulting in the the process temperature ramping quickly through 80 K to reach the set-point temperature in 40 minutes.

**Setup details**

Unistat® 910w & DDPS reactor

- Temperature range: -90...250 °C
- Cooling power: 5.2 kW @ 250...-20 °C
- Heating power: 6.0 kW
- Hoses: 2x1.5 m; M38x1.5 (#6656)
- HTF: DW-Therm (#6479)
- Reactor: 25-litre vacuum insulated jacketed glass reactor
- Reactor content: 18.75 litre M90.055.03 (#6259)
- Stirrer speed: 70 rpm
- Control: process

