



# Chili

#### Chili controls a 10 liter vacuum insulated reactor

## Requirement

This Case Study demonstrates the process temperature control abilities of Chili when it is connected to an Asahi 10 liter vacuum insulated glass reactor.

#### Method

The 10 liter Asahi vacuum insulated reactor was connected to Chili using 1 meter metal insulated hoses M16. The thermofluid used in the system was "M20.195/235". Process control was carried out. Stirrer speed was set to 150 rpm.

#### **Setup details**

Temperature range: +65°C...+300°C

Heating power: 3.0 kW

Hoses: 1 m metal insulated M16

HTF: M20.195/235 Asahi 10 liter Reactor: vacuum insulated

Reactor content: 7.0 | M20.195/235

Stirrer speed: 150 rpm Control: process +24°C Amb. temperature:

# Results

### Performance:

The graphic shows the speed, accuracy and stability of the Chili as it reaches and maintains +200°C.

| 230 | 0 |      |        |      |                   |          |
|-----|---|------|--------|------|-------------------|----------|
| 210 |   |      |        |      |                   | <b>—</b> |
| 200 |   |      |        | J:   | acket temperature |          |
| 190 |   |      |        | P    | rocess temperatui | re       |
| 180 |   |      |        | s    | etpoint           |          |
| 170 |   |      | <br>   |      | ·                 |          |
| 160 |   |      |        |      |                   |          |
| 150 | 1 | <br> |        | <br> |                   |          |
| 140 |   | <br> |        | <br> |                   |          |
| 130 |   | <br> |        | <br> |                   |          |
| 120 |   | <br> | <br>11 | <br> |                   |          |
| 110 |   | <br> |        |      |                   |          |
| 100 |   | <br> |        |      |                   |          |
| 90  |   | <br> | <br>   |      |                   |          |
| 80  |   | <br> | <br>   |      |                   |          |
| 70  |   | <br> | <br>   | <br> |                   |          |

**Approximate Time**