HCR01 – Temperature Regulator Unit
For paints, sealers and mastics

The temperature regulator unit has been specifically designed for use with paints and sealers by accurately controlling process water to a secondary heat exchanger. By using an onboard water tank with independent control, the paint or mastic temperature threshold limits can be set providing a failsafe devise were the product is protected from temperature damage. This unit can be used with open loop control maintaining a constant water temperature to a secondary devise or alternatively with the use of a Pt100 probe the unit can operate in closed loop control maintaining product temperature.

The unit can be used in conjunction with heat exchangers, jacketed tanks of heated take-off hoses.

Features
- Controller – 90mm Colour Unitronics touch screen HMI with integrated PLC
- Water Circuit Monitoring – Flow and temperature monitoring for process and chilled water
- Temperature Control – Built in PID with Autotune function
- Level Control – Automatic level top up with float valve and level switch protection
- Plate Heat Exchanger – For connection to chilled water supply c/w solenoid valve
- Heater Control – Fully modulating heater control from 0 up to 4.5kW
- Fail Safe Temperature Protection – Mechanical Capillary cut off
- Alarms – Audible alarm and visual built in alarm screens

Heat Transfer Fluid – Water
The units are supplied as standard set up for use with water as the thermal transfer fluid for operating temperatures from 6°C up to 90°C. The heater can be supplied in 3 options 3kW, 4.5kW and 9kW. The cooling circuit can be supplied with either a cooling coil for chilled water below 0°C or a plate heat exchanger for cooling above 0°C.
## Technical data

### HCR01 Temperature regulator unit

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Width: 260 mm</th>
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</thead>
<tbody>
<tr>
<td>Height:</td>
<td>615 mm</td>
</tr>
<tr>
<td>Depth:</td>
<td>560 mm</td>
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<tr>
<td>Weight:</td>
<td>45 kg</td>
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<tr>
<td>Colour:</td>
<td>Stainless steel dull polish</td>
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</tbody>
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**Connections**

- Process circuit connections: 3/4” BSP Female cooling/process water connections
- Mains water supply: 3/8” BSP Female

**Electrical**

- Power supply: 380 to 415v 50Hz 3-phase + earth
- Power consumption: Varies according to the heater rating
- Recommended customer protection: 16A HRC fuses
- Control circuit: 24vdc

The unit is fitted with a BS 4343 / IEC EN 60309-2 industrial plug on a 2 meter power flex for easy connection / disconnection rated at 16A.

**Process circuit**

- Standard pump capacity: 45 l/m max. flow
- 2.5 bar max. pressure

**Communication**

Additional communication ports can be provided as an option for receiving and sending information.

- Serial/Ethernet/Profibus