

Metos kettle cooling with Polar heat exchanger

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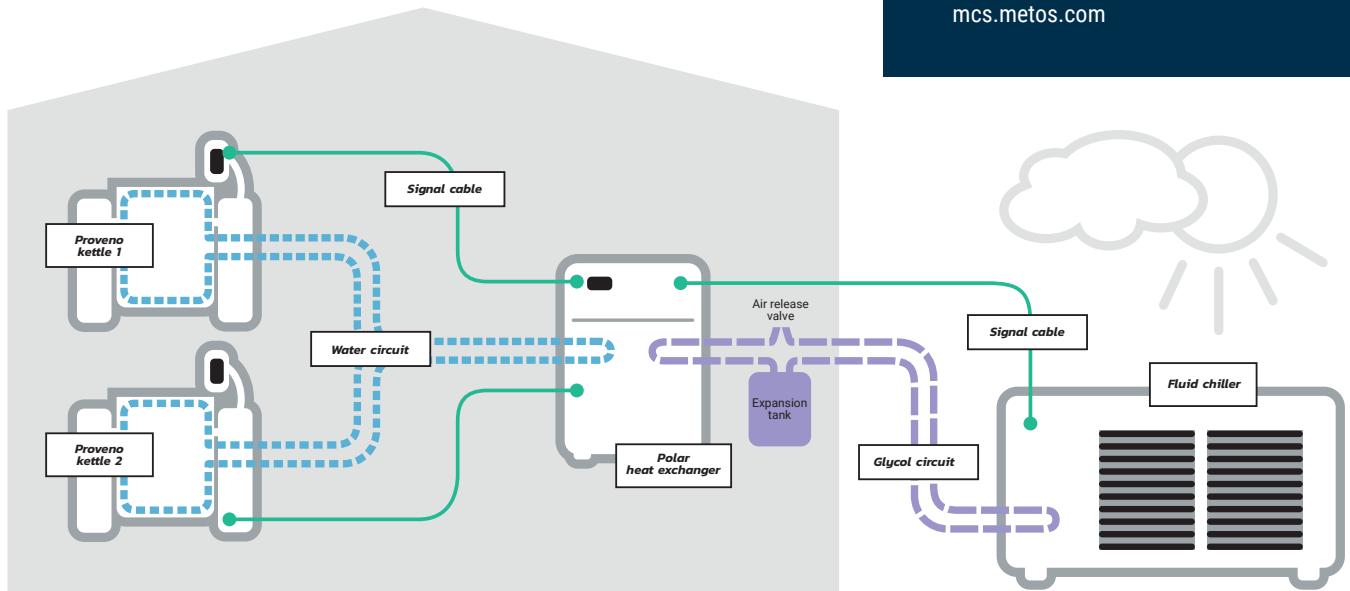
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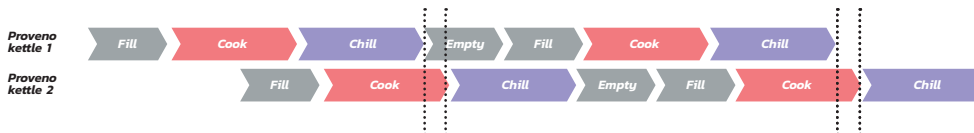
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System drawing



Two-kettle consecutive operation – no cooling overlap



Fluid chiller requirements

- Nominal flow for glycol-water ~200 l/min
- Propylene glycol fluid
- Typical ratio 30% glycol / 70% water, maximum being 50%/50%
- Temperature of fluid to be kept as close as possible to setpoint of 0°C
- Insulated glycol-water piping
- Pipe size according guidelines given by fluid chiller manufacturer
- Expansion tank in the circuit
- Automatic air release valve in the circuit
- Signal cable to the heat exchanger min. 4x 0.75mm²
- Fluid chiller can be turned on/off with external potential free control signal



Example chiller models for sizing reference:

Aermec ANL090QY for 40-100 L kettles

Aermec ANL202QY for 150-200 L kettles

Aermec NRG0352ZL-03 for 300-400 L kettles

A suitable chiller model in cold operating conditions must always be verified separately with Metos for all kettle sizes. Example:

Aermec NRG0352ZFEJ-03 for 300-400 L kettles

Model examples are for Europe, for other markets please contact mcs@metos.com.

Note:

The suitability of the fluid chiller depends on local climate conditions. Always ensure with the supplier that the selected model is suitable for the intended installation.

Metos Polar heat exchanger

MG4224096

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Technical specifications

- For cooling of one or two Metos Proveno kettles consecutively
- Ice water cooling option C3iPA required for kettles (C5iPA for kettles with direct steam heating) + Shared heat exchanger connection if two kettles are cooled
- Suitable for kettle sizes from 80 to 400 litres
- Heat exchanger is placed inside building
- Heat exchanger is recommended to place on the same floor with kettles or one floor below kettles. NOTE! Never install above kettles.
- Water pipings between kettle and heat exchanger recommended maximum length 20 metres
- Signal light for water filling
- Alarm light for heat exchanger pump malfunction
- Alarm light for connected fluid chiller malfunction
- Fluid chiller on/off control to save energy when cooling is not needed

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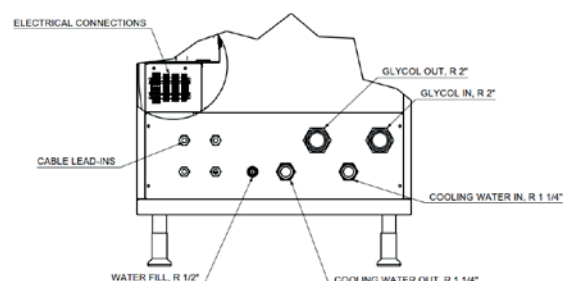
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Polar heat exchanger

Power	1,3 kW
Voltage	1~ / N / PE 230V
Fuse	10 A
Signal cable 1 kettle	min. 4x 0.75mm ²
Signal cable 2 kettles	min. 6x 0.75mm ²
Cooling water connections in/out	1 1/4"
Glycol connections in/out	2"
Filling water connection, cold	1/2"
Water tank capacity	220 l
Floor drain needed, drain valve in the tank	
Weight, net	140 kg
Weight, in operation	360 kg
Protection class	IPX5



Dimensions

