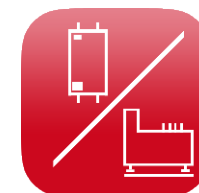
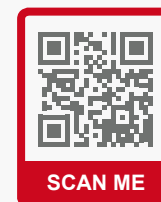


BUSINESS DIVISIONS
SMALL AND LARGE UNITS
SPECIAL PLANT ENGINEERING
*custom-made solutions for heat generation
and distribution up to several megawatts*



TAKING THE LEAD. NOW.



Legal notice:

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Reprints or reproduction, even extracts, only with permission from aqotec GmbH, 4890 Weißenkirchen, Austria. Subject to technical changes and errors. Included performance diagrams, statements and tables are exclusively to facilitate understanding. They have no bearing on our complete and current product portfolio and thus do not form a basis for planning. The images used as examples sometimes include special custom equipment. The manufacturer and type of components shown may vary. This document does not contain any catalogue goods. The units are partially planned, designed and manufactured according to customer specifications. A short waiting time must be expected. Photos: aqotec gmbh; fotolia.com



What exactly is district heating?

District heating is heat that is produced in a central facility and distributed to customers via a piping network in the form of steam or water.

How does district heating work?

As the name suggests, the transfer of heat to the building takes place via a district heating transfer station. The hot medium from the district heating pipes flows into the transfer station which represents the division between primary and secondary heat media. This is where the secondary-side medium is heated to the required temperature by means of heat exchangers. Once cooled, the heat medium flows back into the energy centre where it is heated once again.

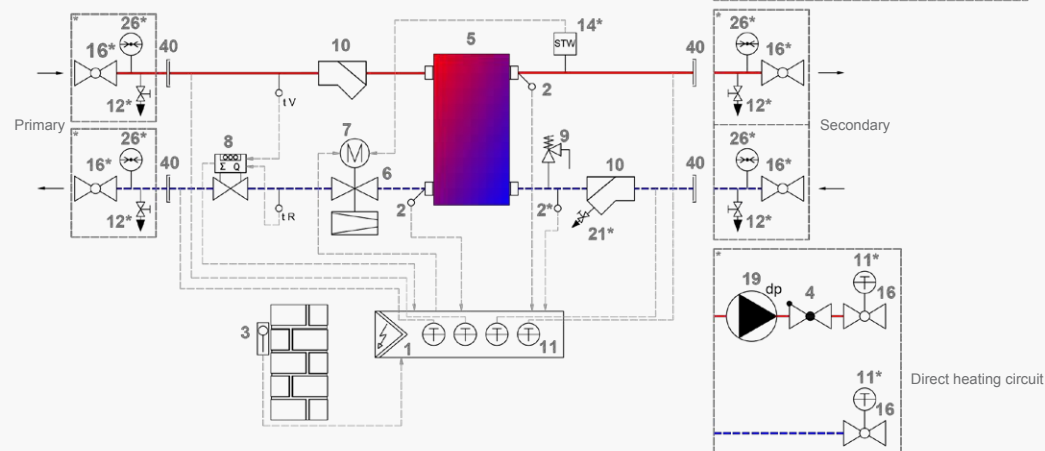


Advantages

- ✓ Demand-dependent power grading
- ✓ Connections of the primary and secondary media are freely selectable (top and/or bottom)
- ✓ Innovative heat insulation
- ✓ Heat exchanger with large thermal length
- ✓ Low space requirement
- ✓ Minimal on-site installation effort
- ✓ Optimal combination and expansion options
- ✓ Adjustment of the axle spacing of the pipes to standard heating circuits

Legend

- | | | | |
|----|-----------------------------|----|---------------------------------|
| 1 | Control panel + modul | 11 | Thermometer |
| 2 | Temperature sensor | 12 | Flush/Ventilate |
| 3 | External temperature sensor | 14 | Safety temperature monitor |
| 4 | Non-return valve | 16 | Ball valve |
| 5 | Plate heat exchanger | 19 | Variable speed circulation pump |
| 6 | Volume flow controller | 21 | Flushing connection |
| 7 | Actuator | 24 | 3-way mixing valve |
| 8 | Heat flow meter | 26 | Pressure gage |
| 9 | Safety valve | 40 | Threaded connector |
| 10 | Dirt trap | | |



The district heating transfer station aqoClick is a compact device for the indirect district heating of buildings. A copper soldered stainless steel plate heat exchanger only transfers the amount of heat actually required at the customer facility. The heating system is hydraulically separated from the district heating network.

The components of the transfer station are fully assembled and electrically wired to the controls which calculate the flow temperature of the heating side based on requirements, outside temperature and customer specifications. The removable heat insulation cover ensures that all heat-carrying components are completely insulated and easily accessible for any type of work. The temperature sensors in the primary side return pipe, as well as the secondary side flow pipe, are attached via thermowells directly to the fluid stream.

The flat-sealing installation makes it easy to carry out maintenance work or replace components. To offer you the best protection, the district heating transfer station has easily accessible and large-sized dirt filters on the primary and on the secondary side.

Expansion options: *

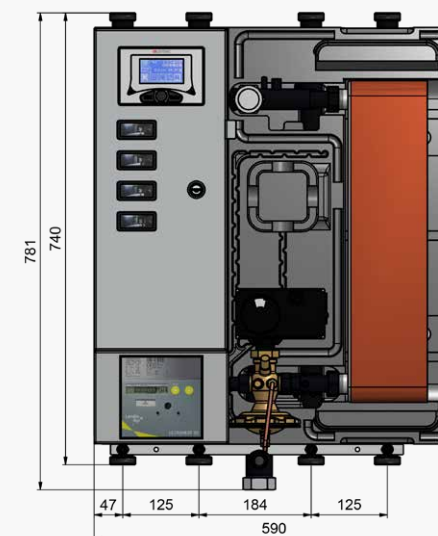
- ✓ **aqoPFM**
- ✓ **aqoBLM / BLM+**
- ✓ **aqoStore**
- ✓ **aqoFW55**
- ✓ **aqoFWS**
- ✓ **aqoHKG**

*Information about these products can be found in the folder "DHW Solutions Division"



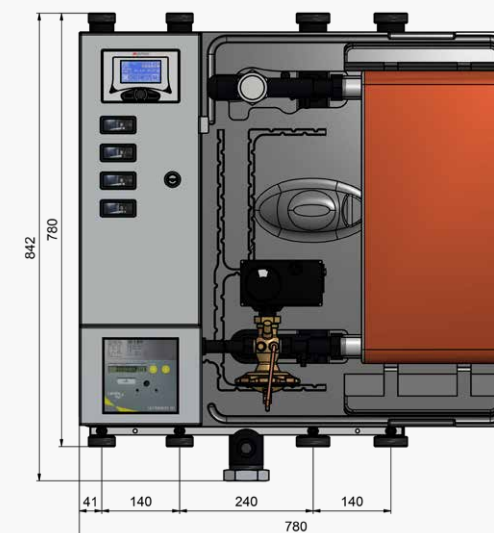
Symbolphoto aqoClick S

<i>aqoClick S (10 - 60 kW*)</i>	<i>primary</i>	<i>secondary</i>
Flow temperature max.	130°C	120°C
Pressure rating PN	16 bar / 25 bar	10 bar
Rate of flow max.	1,5 m³/h	2,5 m³/h
Power at 20 K max. at 25 K max.	60 kW 75 kW	
Pressure loss dp max.	depends on the required temperature programme upon request	
Nominal Pipe Size	1" / DW25	1" / DW25
Connections flat sealing	5/4" AG	5/4" AG
Medium	Water	Water
electrical connection	230V 50 Hz	
Dimensions (WxHxD)	590 x 782 x 285 mm	
Weight	approx. 40 kg	
Control cabinet	IP 55	
Dirt trap mesh size	0.5 mm	0.5 mm
Heat meter	110 - 190 mm	
Approved based on Pressure Equipment Directive PED 97/23/EC		



Symbolphoto aqoClick L

<i>aqoClick L (50 - 100 kW*)</i>	<i>primary</i>	<i>secondary</i>
Flow temperature max.	130°C	120°C
Pressure rating PN	16 bar / 25 bar	10 bar
Rate of flow max.	3,5 m³/h	5.9 m³/h
Power at 20 K max. at 25 K max.	135 kW 170 kW	
Pressure loss dp max.	depends on the required temperature programme upon request	
Nominal Pipe Size	5/4" / DW 32	6/4" / DW 40
Connections flat sealing	6/4" AG	2" AG
Medium	Water	Water
electrical connection	230V 50 Hz	
Dimensions (WxHxD)	780 x 834 x 300 mm	
Weight	approx. 70 kg	
Control cabinet	IP 55	
Dirt trap mesh size	0.5 mm	0.5 mm
Heat meter	110 - 260 mm	
Approved based on Pressure Equipment Directive PED 97/23/EC		



Advantages

- ✓ Custom fabrication according to requirements
- ✓ Innovative heat insulation
- ✓ Low vibration and sound absorbing construction
- ✓ Heat exchanger with large thermal length
- ✓ Low space requirement
- ✓ Minimal on-site installation effort
- ✓ Optimal combination and expansion options
- ✓ Very detailed 3D design (upon request)



District heating stations aqoFrame & aqoCase cover the entire heat transfer spectrum up to several megawatts. They contain all the necessary modules for connecting the building systems to the relevant district heating network. Trained employees are there to advise you when planning the configuration of the station. The systems are built according to the requirements of the network operator.

Apart from using standardised modules, the systems can be freely configured. For example, control cabinets with manual controls and hydraulic wiring diagrams, pressure maintenance systems for heating and hot water, various storage options etc., can be integrated.

Expansion options:

- ✓ HC = Heating Circuit (direct)
- ✓ MHC = Mixed Heating Circuit (Mixer heating circuit)
- ✓ PBLM = Primary Boiler Load Module
- ✓ SBLM = Secondary Boiler Load Module
- ✓ PFM = Primary Fresh Water Module
- ✓ RHU = Residual Heat Use

A stand frame made from square steel tubes with special anti-corrosion coating, serves as a basic framework and is mounted on vibration dampening feet.

The systems are customised by our engineers based on the requirements of every customer. We are able to provide power up to 10 megawatts and more, if necessary. This is carried out in complex cases or upon request via 3D planning in our design department.

There is also an option to split the system to ensure better incorporation. The stations are hydraulically adjusted to the control requirements of the customer in order to constantly guarantee energy-efficient control.

Frames

The systems are generally mounted on a frame stand or alternatively they can also be designed to be wall-mounted. The frame stand for mounting is equipped with height-adjustable feet. For both types of installation, the accessibility of all components and controls is guaranteed. This results in optimal control and ease of service.

Characteristics:

- ✓ painted, galvanised or powder coated
- ✓ substructure suitable for lift trucks and forklifts
- ✓ Transport solutions
- ✓ individual design of housing cover (colour, imprint, design)



Feet

- ✓ height-adjustable
- ✓ adjustable degree of hardness
- ✓ made from galvanised steel
- ✓ suitable for heavy loads, low friction
- ✓ sound and vibration dampening
- ✓ absolutely corrosion free



Heat insulation agoFix

All components of a heating or hot water system must be adequately insulated. Our new EPP insulation system gives you the option to do this as economically and effortlessly as possible. The EPP insulation can be removed at any time and is reusable to facilitate easy maintenance and system repairs.

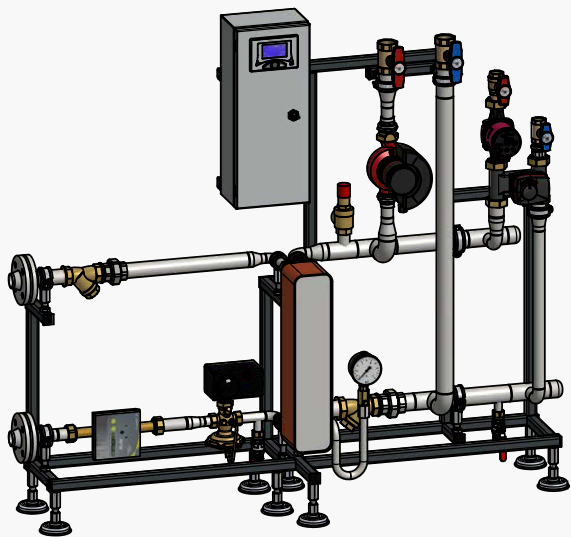
The EPP material is absolutely free of harmful substances and recyclable and that is why it has been used in the food industry for many years. And the EPP insulation also meets the requirements of fire protection grade B2.

No special training or qualification is required to handle the material. It is also easy to cut, saw, drill, mill and grind the material.

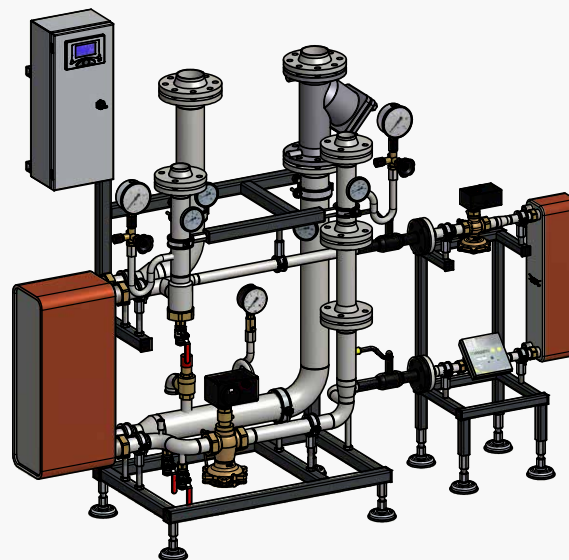
Technical data:

Material.....expanded polypropylene, CFC free
Spec. Volume weight.....40-65 kg/m³
Colour.....anthracite
Application temperature.....130°C
Thermal conductivity.....0.035 W/mK
Fire protection grade.....B2 according to DIN 4102 or E according to ÖNORM EN 13501-1

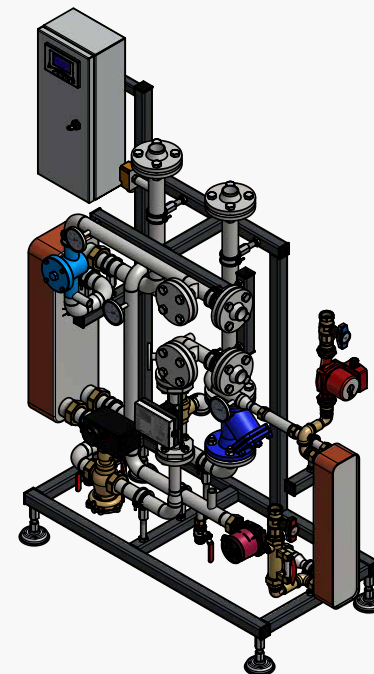




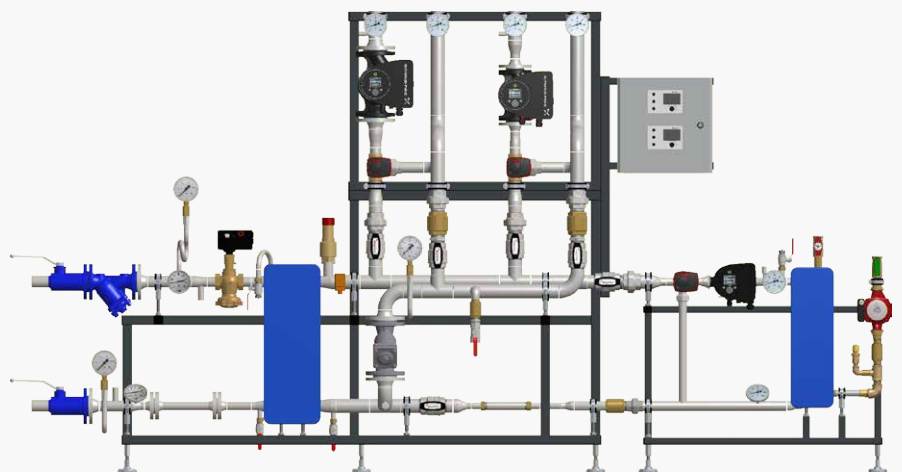
aqoFrame with Heating Circuit
and Mixed Heating Circuit



aqoFrame with Primary Boiler Load
Module and Primary Fresh Water Module



aqoFrame with Secondary Boiler Load Module



aqoFrame with two mixed Heating
Circuits and Boiler Load Module



aqoFrame with Residual Heat Use

Advantages

- ✓ Custom fabrication according to requirements
- ✓ Innovative heat insulation
- ✓ Low vibration and sound absorbing construction
- ✓ Less sensitive to dirt
- ✓ Protection against damage
- ✓ Provides protection from external influences
- ✓ Very detailed 3D design (upon request)

A stand frame made from square steel tubes with a special coating, serves as a basic framework and is mounted on feet that are height and hardness adjustable. The systems have detachable service doors at the front and back. These can also be designed to be lockable.

The sides are perforated to allow for good thermal flow. The primary and secondary connections are generally on the top but can also be placed on the side upon request.

For maintenance reasons the exchanger is mounted externally on the Case III and is attached to its own vibration-free stand. The power ratings of the systems are selected up to a maximum of 1000 kW based on the layout.



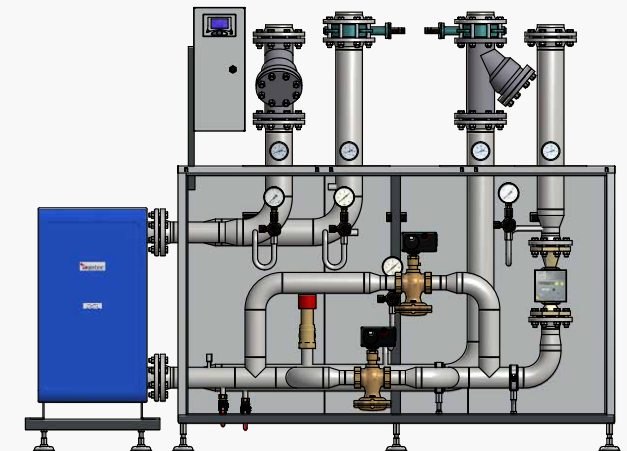
aqoCase II with Design Panel



aqoCase II perfectly insulated



aqoCase III

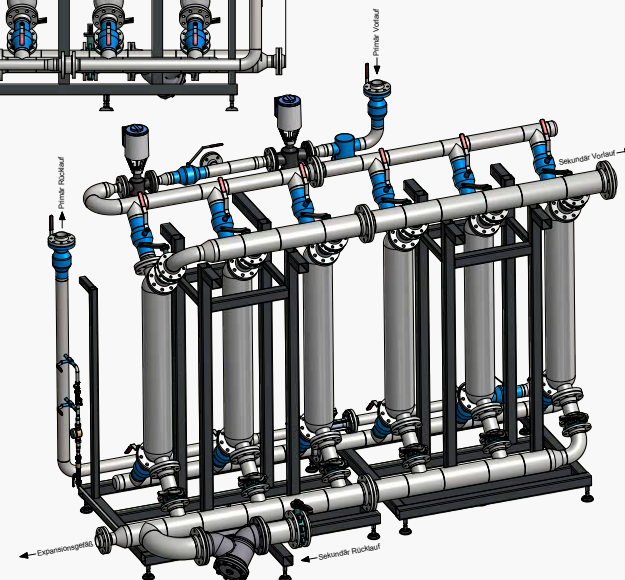
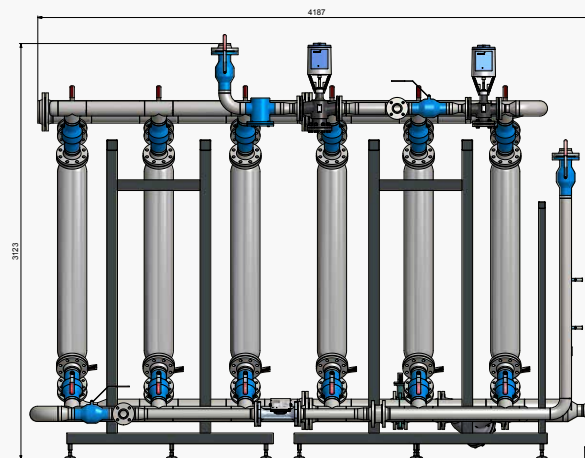
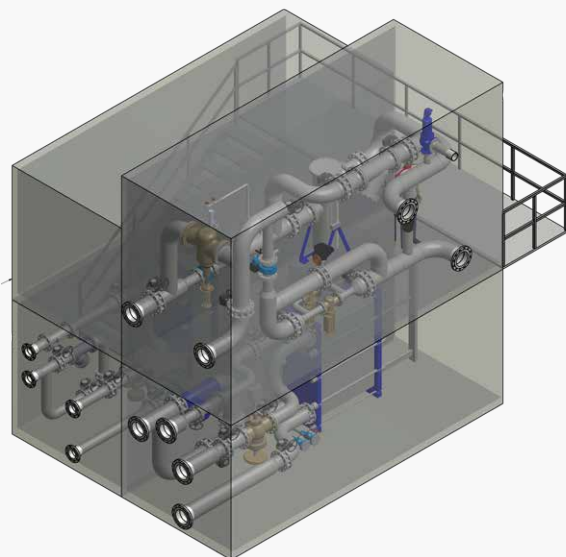


aqoCase III

Advantages

- ✓ Custom fabrication according to requirements
- ✓ Innovative heat insulation
- ✓ Quick on-site assembly
- ✓ individual software solution
- ✓ Protection against damage
- ✓ Provides protection from external influences
- ✓ Very detailed 3D design

Container solutions can already be delivered to the site ready for operation. The MSR technology of the system is already built and tested at the factory and can, therefore, be quickly put into operation on site. For the MSR technology, a customised software solution is developed in conjunction with the heat system to cater to the specific needs of the customer. These already fully insulated system components can be immediately installed on site. This allows for smooth production and commissioning and economical and technical set-up.





**BUSINESS UNIT
SMALL AND LARGE UNITS**

compact district heating transfer stations,
individually designed to meet customer
requirements



**BUSINESS UNIT
HOME STATIONS**

sophisticated and user-friendly solutions
to transfer heat and water



**BUSINESS UNIT
CONTROL TECHNOLOGY**

Intuitive tools for network and special station
controls for best heat operation



**BUSINESS UNIT
PLANNING & ENGINEERING**

Solutions for heat generation - from the idea
right through to commissioning



**BUSINESS UNIT
CONTROL AND COMMUNICATION TECHNOLOGY**

perfect energy management from the point of power
generation to the billing of heat customers



**BUSINESS UNIT
ENERGY MANAGEMENT AND AUDIT**

Total solutions for the optimisation of heat
distribution and supply



**BUSINESS UNIT
DHW SOLUTIONS**

compact, high-performance solutions for
DHW heating



**BUSINESS UNIT
SPECIAL PLANT ENGINEERING**

Heat solutions perfectly matched –
according to the wishes of the customer



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