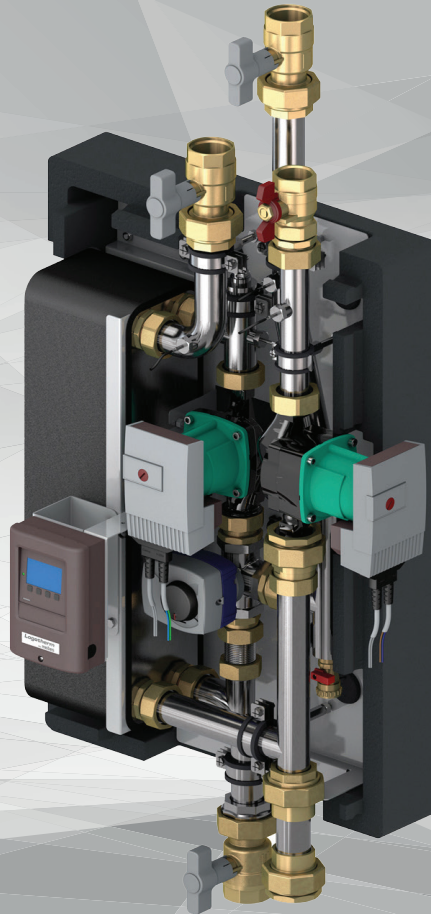




Logotherm

LogoFresh XL-Line



ENG Installation and operating instruction

Contents

1.	Safety instructions	3
1.1	Intended use	4
1.1.1	Use for intended purpose	4
1.1.2	Improper use	5
1.2	Device designation	5
1.3	Hazard notes	5
1.4	What to do in the event of breakdown or leaks	6
1.5	Spare and wear parts	6
1.6	Requirements on trained engineers	6
1.7	Liability and copyrights	7
1.8	Earth bonding or protective earthing in accordance with VDE	7
2.	Unit description and product details	7
2.1	Technical data	8
2.2	Dimensions and connections	8
2.3	Design and configuration	9
2.4	Performance values	9
3.	Functional description	10
3.1	Installation example	10
4.	Hydraulic and electrical scheme	11
5.	Installation	14
5.1	Heating connection	14
5.2	Domestic water connection	14
6.	Commissioning	15
6.1	Flushing and filling	15
6.2	Initial Commissioning	15
7.	Operating instructions	16
7.1	Domestic water circulation	16
7.2	Primary and circulation pump	16
7.3	3-way primary mixer with servomotor	17
7.4	Shut-off	17
7.5	Manual air bleed device	17
7.6	Additional information regarding the installation and commissioning	18
8.	Maintenance and Service	18
8.1	Heat exchanger	18
9.	Diagrams	19
9.	Decommissioning, disassembly, environmental protection and disposal of electrical and electronical equipment	22

1. Safety instructions



Please follow these safety instructions carefully to prevent hazards and injury to persons and property.

These operating instructions are primarily designed for the safe use and installation of the device and make no claims to completeness.

These operating instructions are valid only for the described device and are not subject to the manufacturer's revision service. The sketches and drawings they contain are not suitable to scale.

- Keep the operating instructions within easy reach of all employees instructed to carry out work on the device so that they can refer to them as required.
- Keep the operating instructions in a clean, complete and legible condition throughout the entire period of use.
- Read the operating instructions before working on the device for the first time and consult them whenever uncertainties or doubts arise as to how the device should be handled.
- Should you come across any discrepancies when reading these operating instructions or should anything remain unclear, please contact the manufacturer.

Target group

These instructions are intended exclusively for authorised trained experts.

Only trained experts/installers authorised by the respective competence authority are permitted to work on heating systems and domestic water, gas and electric circuits.

Regulations

When carrying out work, you must comply with:

- The statutory accident prevention regulations,
- The statutory environmental protection regulations,
- Liability/Insurance regulations,
- The pertinent safety requirements of DIN, EN, DVGW, VDI, TRGI, TRF and VDE,
- ÖNORM, EN, ÖVGW-TR Gas, ÖVGW-TRF and ÖVE,
- SEV, SUVA, SVGW, SVTI, SWKI and VKF,
- And all new and regionally applicable regulations and standards

Instructions for working on the system

- Disconnect the system from the mains and monitor it to ensure that no voltage is being supplied (e.g. at the separate cut-out or a main switch).
- Secure the system from restarting / switching to auxiliary power supply.
- **WARNING!** Risk of scalding at media temperatures: >60°C

Note: If high primary temperatures >60°C are to be expected, thermostatic scald protection must be provided for a domestic hot water tapping point in order to limit the outlet temperature accordingly.

Permissible mains supply and operating parameters

- Heating side/primary side:	Permissible pressure rating:	PN10
	Max. permissible operating	90°C
- Sanitation side:	Permissible pressure rating:	PN10
	Max. permissible operating	90°C

Environmental and connection conditions:

- Permissible ambient temperature: 5...40°C (non-condensing), dry ambient conditions: Avoid installing the station in areas with high ambient humidity, as there is an increased risk of corrosion.
- The devices must be installed in enclosed, dry, frost-free spaces
- Any noise emissions or radiant heat from the station must be taken into account in the choice of installation site
- Observe the safety areas in accordance with EN 60529 when designing and installing the system
- The fire protection classes of any thermal insulation used must be observed
- Device protection code in accordance with EN 60520 IP42
- Any sanitary installation must be made safe in compliance with DIN 1988 or DIN EN 806, i.e. with the use of a safety valve and, where applicable, an expansion vessel.

1.1 Intended use

1.1.1 Use for intended purpose

Heat interface units are used to transfer heat between the supply network and the heat consumer. Heat interface units may only be used for this purpose in compliance with the maintenance and operating instructions and all relevant standards and regulations. All instructions in the operating instructions must be followed and the maintenance plan adhered to.

Any deviation from the intended use may cause hazards and is fundamentally not permitted.

Appropriate use in heating and domestic water systems must be in accordance with the applicable DIN and local standards. Installing and operating the assembly incorrectly will invalidate any warranty claims. The shut-off valves may only be closed by an approved specialist when servicing, otherwise the safety valves will not work.



Caution:

Do not make any changes to the electrical components, the design of the system or the hydraulic components! This would adversely impact on the safe function of the system.

Instructions concerning the place of use:

Before using our products, they must be checked regarding their suitability for the respective planned application. In particular for heating systems, please take into account the properties of the heating water in accordance with VDI 2035 to protect the heating system and, for domestic water applications, the water quality at the place of use.

In the case of critical water qualities, please take suitable measures where necessary (e.g. water treatment) to prevent functional impairment and/or damage, e.g. corrosion damage.

In particular, please check the permissible limit values, e.g. electrical conductivity, the pH value, the water hardness level and the ammonium concentration.

Furthermore, in Germany all applicable norms, regulations and guidelines specific to the federal states must be taken into consideration, alongside the instructions in the applicable installation and operating manuals.

Further information can be found in the download section of www.flamcogroup.com.

1.1.2 Improper use

Using the device in any way that does not correspond to the intended use may be hazardous and is therefore prohibited.

In particular, the following is not allowed:

- The use of liquids other than water with the described properties
- Use of the device without prior knowledge of the operating instructions
- Use of the device without legible warning and information signs
- Use of the device in a faulty condition

1.2 Device designation

Designation:	LogoFresh
Function:	Transfer of thermal energy to the heating supply and hot water preparation
Type:	XL-Line 100/120, electronically controlled, with drinking water circulation
Manufacturer:	Meibes System-Technik GmbH, Gerichshain

1.3 Hazard notes



The safety and warning information draws attention to residual hazards that cannot be avoided due to the design and construction of the device. Please always observe the measures shown for avoiding these hazards.

Never alter or modify the unit by yourself. Such work may only be carried out by **trained, specialist personnel**. This also applies to the electrical installation.

When the system is in operation, water-regulating components will be hot. Touching these system components can lead to scalding. The interface station and its heat-carrying components must be operated with permanent insulation. This insulation not only prevents unnecessary thermal losses, but also protects against accidental contact and burns. The insulation must therefore only be removed for maintenance or repair purposes and replaced correctly on completion of such work.

The system is operated using hot, high-pressure water, which can cause scalding on contact.

You should therefore open the bleed or drain valves carefully and not work on pressurised parts.

The control components (controller, servomotors, pumps, etc.) are powered by the mains voltage.

Therefore, always ensure the station is disconnected from the mains supply when carrying out any maintenance or repair work. Secure the system against unauthorised operation.

Life-threatening electric shocks can be caused by spraying or splashing water. Escaping water may also disable the safety devices.

Any changes made to the unit that have not been authorised by the manufacturer will invalidate any warranty claims.

Residual hazards:

The product has been built in accordance with the most relevant and recognised safety regulations. The following residual hazards may arise during installation, commissioning, maintenance and disassembly:

Warning: Risk of scalding from high media temperature

- Work with particular caution.
- Use safety clothing (e.g. heat-resistant protective gloves).
- If necessary, surface temperature must be measured before commencing any work.
- Use only designated tools.

Hazard: Risk of injury from electrical voltage

- Only trained and qualified electricians may undertake work on electrical equipment.
- Electrical installation spaces must always be kept locked.

Warning: Risk of cuts and scratches due to the possibility of sharp edges

- Work with particular caution.
- Use safety clothing (e.g. protective gloves).

Warning: there is a risk of impact/crushing if the station falls over

- Wear personal protective equipment (such as protective work shoes).

1.4 What to do in the event of breakdown or leaks

- Close media lines using the appropriate valve.
- Contact a suitably trained expert or customer service of the manufacturer.

The device will only be cleared for operation again when the trained engineer has remedied the fault and restored the device to its intended condition.

1.5 Spare and wear parts

All spare parts to be used, must correspond to the technical requirements defined by Meibes System-Technik GmbH. This is guaranteed only by using genuine spare parts. The manufacturer is not liable for damage caused by the use of unapproved spare parts or ancillary materials. Appropriate spare parts can be found in our documentation.

1.6 Requirements on trained engineers

A qualified professional must have undergone advanced technical training and have sufficient experience to independently perform complicated tasks or work associated with residual hazards. Each experience refers to a certain speciality, e.g. Maintenance, Electrical and/or HVAC Technician. In preparation for impending work, a qualified professional must be able to correctly estimate the feasibility, risks and hazards of the work as well as the equipment required. A qualified professional is expected to understand complex plans and descriptions of minimum preparation, and to obtain missing and required detailed information by suitable means.

The qualified professional must be able to restore and verify the intended/original state of the system. A worker can be a trained expert in several fields. For the performance of electrical works, only trained electricians according to DGUV regulation 3 may be used.

1.7 Liability and copyrights

We reserve all copyrights to this document. Any misuse, in particular reproduction or disclosure to third parties, is prohibited.

This original operating manual may not be reproduced or distributed, either in part or in its entirety, without the express permission of the manufacturer. This also applies to translations of this document and storage on other media. This document must not be used outside its intended purpose.

These installation and operating instructions must be given to the customer. The technician carrying out and/or authorising the work (e.g. installer) must explain the functioning and operation of the system to the customer in a readily comprehensible way.

1.8 Earth bonding or protective earthing in accordance with VDE



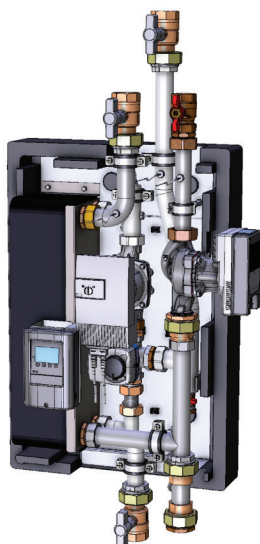
A terminal for earth bonding is provided on all interface stations. An appropriately labelled stud can be found on the base plate for this purpose. Connection cross-section according to the applicable standards and regulations.

2. Unit description and product details

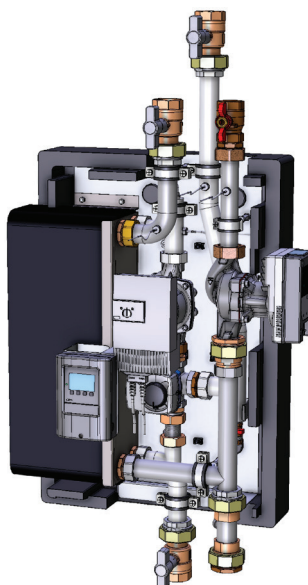
Product details:

- Electronically controlled fresh water station for high draw-off capacities with precise regulation of the temperature
- Hygienic domestic hot water preparation according to the continuous flow principle
- Two performance variants: (A) Up to 100 l/min or (B) 120 l/min (10 → 60°C, flow = 75°C)

A)



B)

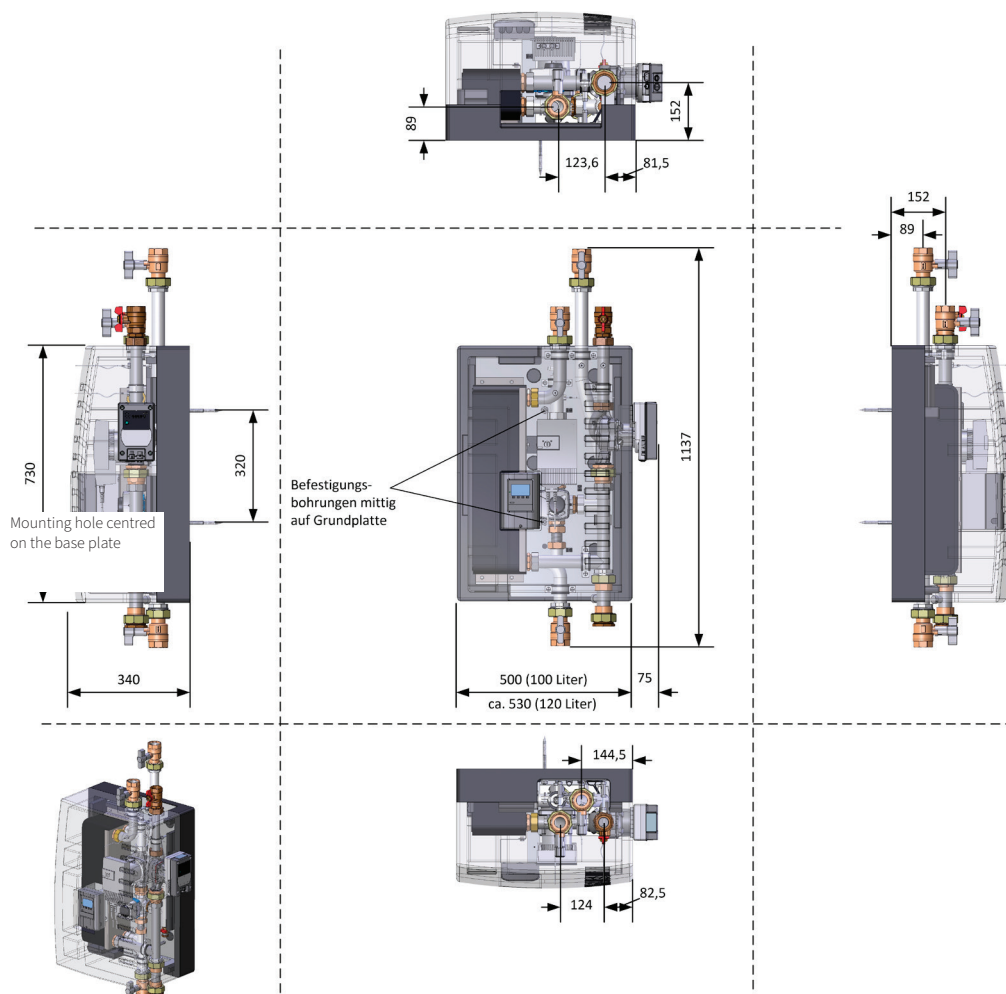


- Speed controlled high-efficiency pumps with a high output
- Electronic primary mixer for infinitely variable adaptation of the output and regulation of the temperature in the heat exchanger
- Simple operation and user-friendly control functions via multi-language full text display
- Housing with EPP thermal insulation, stainless steel piping
- Different operating modes, such as a hot water preparation, reheating, circulation and disinfection function

2.1 Technical data

Output capacity: (10 → 60°C, flow = 75°C)	Version A: 100 l/min (346 kW at 60°C) Version B: 120 l/min (415 kW at 60°C)
Connections:	1 ½" female thread (HW, DCW, supply/return line buffer) 1 ¼" female thread (circulation)
Housing / insulation:	EPP thermal insulation
Power supply:	230 V / 50 Hz
Permissible pressure level - heating:	PN 10
Permissible pressure level - sanitary:	PN 10
Max. operating temperature:	90 °C

2.2 Dimensions and connections



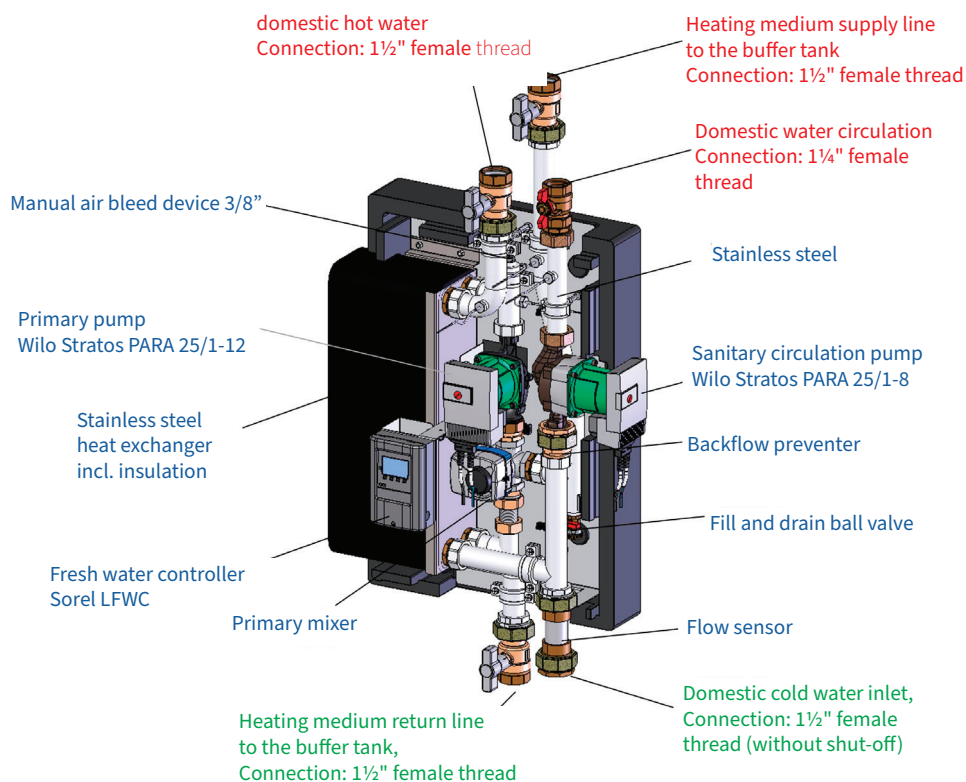
LogoFresh XL-Line 100 & 120 connection:

DCW, HW, flow / return buffer: 1 ½" female thread
 Circulation: 1 ¼" female thread
 (Cold water inlet without shut-off, installation of DCW safety valve and expansion vessel provided by customer)

Dimensions (H x W x D):

LogoFresh XL-Line 100: 1137 x 500 x 340 mm
 LogoFresh XL-Line 120: 1137 x 530 x 340 mm
 (incl. shut off ball valves)
 Weight: Approx. 50 kg

2.3 Design and configuration



Note: See also the separate operating instructions for the controller and control panel

2.4 Performance values

LogoFresh XL-Line 100

Domestic water heating	K	40 (10 → 50°C)					50 (10 → 60°C)				
Supply temperature to the buffer	°C	55.0	60.0	65.0	70.0	75.0	65.0	70.0	75.0	80.0	85.0
Return temperature to the buffer	°C	29.9	26.5	23.6	21.0	19.0	35.2	31.0	28.4	25.1	22.6
Domestic hot water draw-off volume*	l/min	68.0	91.0	100.0	100.0	100.0	64.0	84.0	100.0	100.0	100.0
Domestic hot water power	kW	190.0	252.0	277.4	277.4	277.4	224.0	291.0	346.1	346.1	346.1
Primary flow rate	l/h	6600	6600	5890	4982	4375	6600	6600	6560	5590	4932
Primary pressure loss	bar	0.61	0.61	0.50	0.36	0.28	0.61	0.61	0.60	0.45	0.33
Primary residual delivery head	bar	0.30	0.30	0.51	0.75	0.86	0.30	0.30	0.30	0.60	0.78
Secondary pressure loss	bar	0.25	0.39	0.46	0.46	0.46	0.21	0.34	0.46	0.46	0.46

LogoFresh XL-Line 120

Domestic water heating	K	40 (10 → 50°C)					50 (10 → 60°C)				
Supply temperature to the buffer	°C	55.0	60.0	65.0	70.0	75.0	65.0	70.0	75.0	80.0	85
Return temperature to the buffer	°C	27.5	24.0	21.8	19.3	17.4	32.3	27.9	25.5	22.9	20.5
Domestic hot water draw-off volume*	l/min	83.0	110.0	125.0	125.0	125.0	79.0	101.0	120.0	125.0	125.0
Domestic hot water power	kW	231.0	303.0	346.0	346.0	346.0	273.0	350.0	415.0	432.0	432.0
Primary flow rate	l/h	7400	7400	7050	6013	5320	7400	7400	7400	6710	5970
Primary pressure loss	bar	0.60	0.60	0.51	0.39	0.32	0.60	0.60	0.60	0.48	0.38
Primary residual delivery head	bar	0.21	0.21	0.30	0.62	0.76	0.21	0.21	0.21	0.44	0.64
Secondary pressure loss	bar	0.26	0.43	0.55	0.55	0.55	0.24	0.36	0.50	0.55	0.55

* Max. draw-off volume (output-limited)

3. Functional description

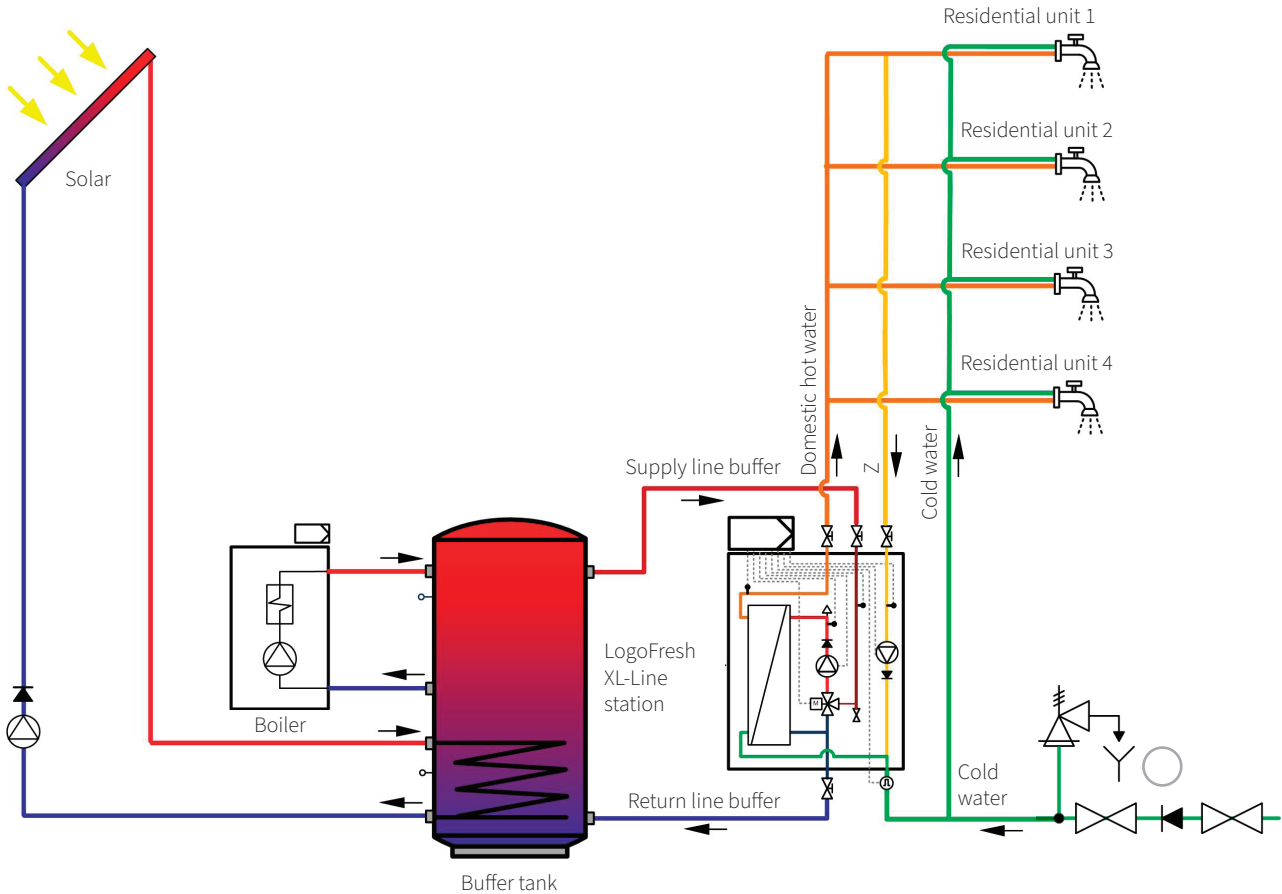
The electronically controlled fresh water station provides several residential units with fresh domestic hot water. The energy is supplied by a heating water buffer tank. Drawing domestic hot water from the tank triggers the heating pump. The domestic water is heated by a stainless steel heat exchanger according to the continuous flow principle. The speed regulation on the primary pump keeps the set hot water outlet temperature constant. The primary mixer reduces very high heating medium temperatures, thus shifting them into the normal control range of the primary pump. Low heating medium temperatures also prevent the accumulation of limescale in the plate heat exchanger. The circulation pump makes it possible to recirculate the domestic water constantly or according to an automatic timer.

The benefits:

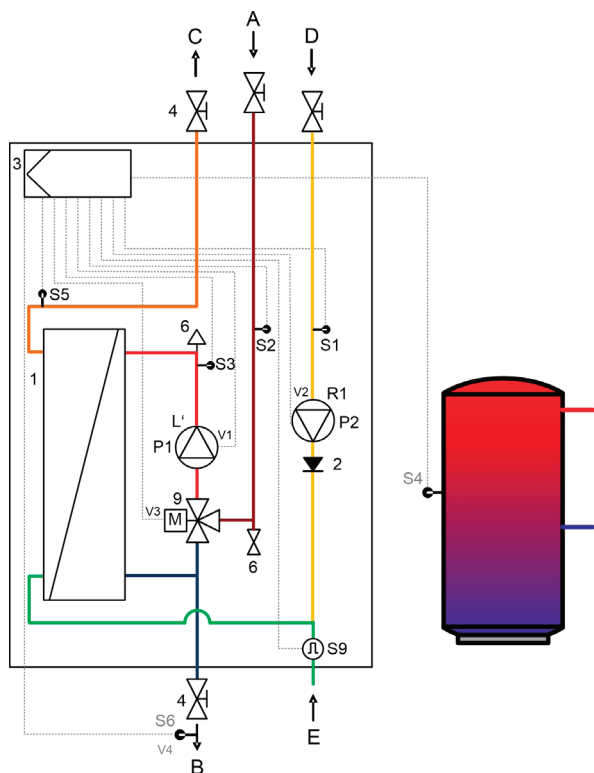
- Hot water preparation on demand
- Low return temperature of the heating water (depending on the design)
- No hot water storage, which considerably reduces the growth of legionella

3.1 Installation example

Hydraulic integration based on an example with a heating water buffer tank and solar system: No feeder pump may be installed unless it has been hydraulically decoupled. The primary pump takes the heating medium from the buffer.



4. Hydraulic and electrical scheme



Legende:

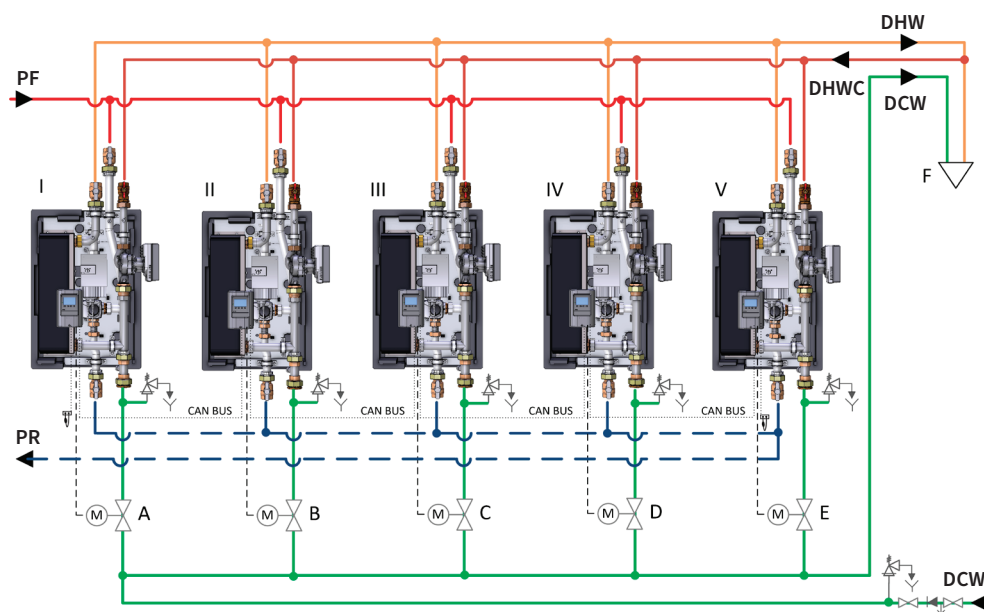
- P1** primary pump
- P2** sanitary circulation pump
- R2*** relay output (230V) - cascade valve
- R3** potential-free relay output
- S1** sanitary circulation sensor
- S2** unmixed primary flow (heating) temp. sensor
- S3** mixed primary flow (heating) temp. sensor
- S4*** buffer tank temp. sensor
- S5** domestic hot water temp. sensor
- S6*** primary return (heating) temp. sensor
- S9** drinking cold water flow temp. sensor
- V1** 0-10V signal primary pump
- V2** 0-10V signal sanitary circulation pump
- V3** 0-10V signal primary mixer
- V4*** return temp. switching module (PWM)
- 1** plate heat exchanger
- 2** return flow inhibitor
- 3** Controller, type LFWC
- 4** ball valves
- 6** Air vent/drain on the heating side
- 7*** return temp. switching module
- 9** primary flow mixing valve

*optional

The applicable operating instructions for individual components (such as control, pump, servomotor) must also be observed.

Cascading LogoFresh XL-Line 100/120 with DHWC (Circulation), electronically controlled:

With the possibility of changing the basic operation to a cascade



****Cascade set consisting of:**

zone valve, drinking water safety valve, Wago clamp and cable, CAN BUS cable and 2 resistors

A notice:

When electr. A CAN BUS cable is supplied to connect a cascade and some resistors excess.

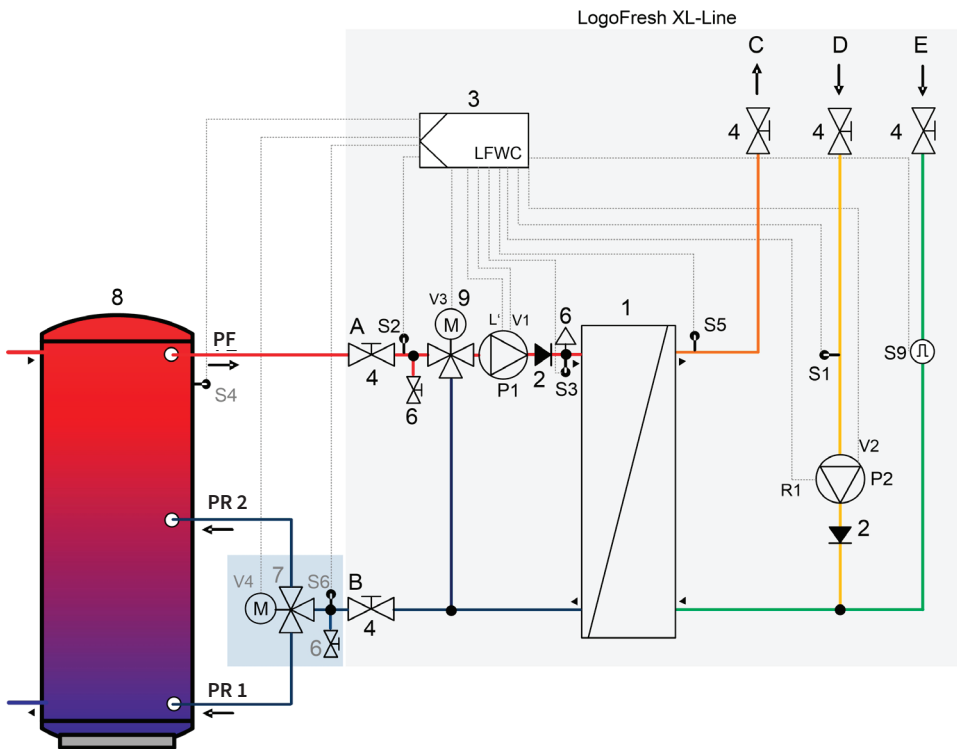
- | | | |
|----------------|----------------------------------|--|
| Legend: | PF - heating flow | DHWC - drinking water circulation |
| | PR - heating return | I-V - fresh water station XL-Line with DHWC |
| | DCW - drinking cold water | A-E - one optional cascade set** item no.: M10270.711 |
| | DHW - domestic hot water | F - tapping point for drinking water |

Notes:

- The same settings must be made for all circulation pumps in the cascade network!
- Drinking water connection lines from stations to distribution/collecting lines should be as short as possible to keep stagnation to a minimum.
- Keep the primary connection lines (e.g. from the heating water buffer cylinder) as short as possible and without an additional supply pump.
- For service/maintenance work, we recommend providing a switch-off device for disconnecting all poles and all sides, in accordance with DIN VDE 0105-100!
- Install CAN-BUS terminating resistors invisibly in the controller housing.

Connection of LogoFresh XL-Line to heating water buffer tank

Representation of LogoFresh XL-Line with optional heating water buffer cylinder return stratification:



- Legend:**
- 1** plate heat exchanger
 - 2** return flow inhibitor (RV)
 - 3** controller, type LFWC
 - 4** shut-off valve
 - 6** venting option, heating side
 - 7*** return temp. switching module
 - 8** heating water buffer tank
 - 9** flow mixing valve
 - P1** heating pumps
 - P2** DHWC pump
 - PR1** lower area of the heating water buffer tank
 - PR2** central area of the heating water buffer tank

Hydraulic connections at the LogoFresh:

- A** heating flow (PF)
- B** heating return (PR)
- C** domestic hot water (DHW)
- D** domestic hot water circulation (DHWC)
- E** drinking water, cold (DCW)

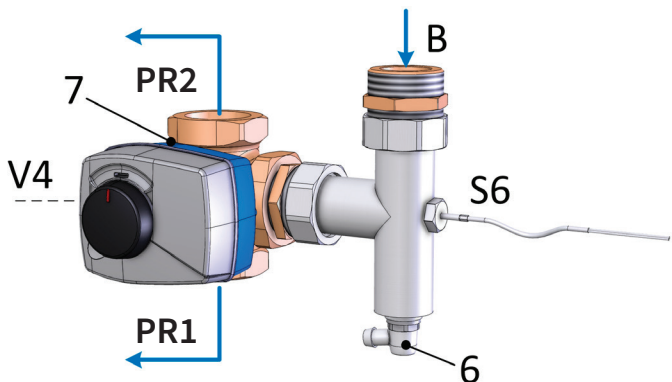
- R1** power supply for circulation pump P2
- R2*** relay output (230V) - cascade valve
- L'** voltage supply to heating pump P1
- V1** signal to heating pump P1
- V2** signal to sanitary circulation pump (DHWC) P2
- V4*** mixing valve signal (9) primary flow
- S9** return temp. switching module (PWM) cold water flow sensor

Temperature Sensors:

- S1** sanitary circulation sensor
- S2** unmixed primary flow (heating) temp. sensor
- S3** mixed primary flow (heating) temp. sensor
- S4*** buffer tank temp. sensor
- S5** domestic hot water temp. sensor
- S6*** primary return (heating) temp. sensor

*optional

Representation and assembly of optional components (article code no.: M10270.712):
for heating water buffer cylinder return stratification



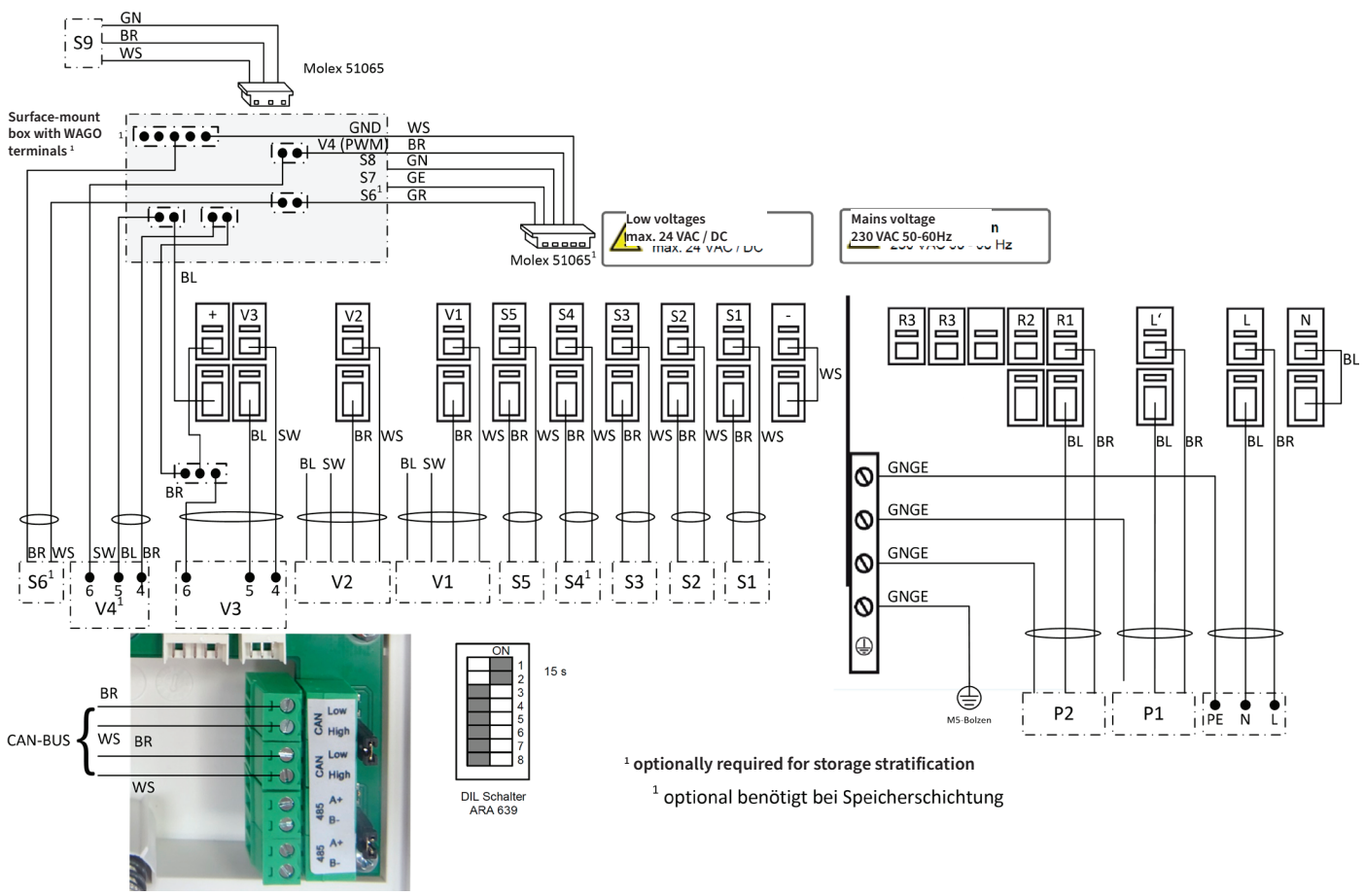
Please also note the operating instructions for the controller.

Electrical connections

Observe the regulations of the EVU! In order to prevent a "dry run" of the pumps, the LogoFresh may only be connected to the mains voltage once the system has been filled and vented.

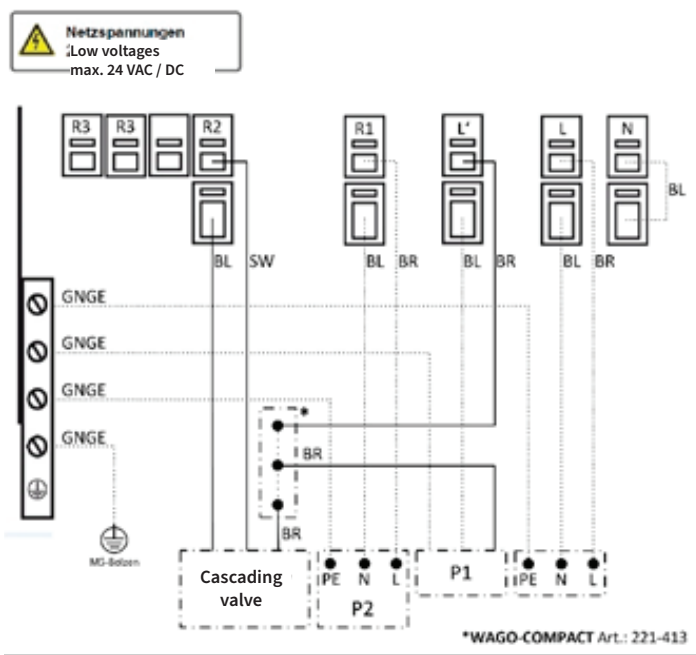
The LogoFresh is delivered fully wired. The connection to the electrical mains 230 V/ 50 Hz AC is made using the installed mains connection cable. This circuit must be protected with a 10 A circuit breaker.

Wiring scheme of the LFWC in the LogoFresh XL-Line:



¹ optionally required for storage stratification
¹ optional benötigt bei Speicherschichtung

Wiring scheme (optional) cascade valve on the LFWC with LogoFresh XL-Line:



5. Installation

Please follow the safety instructions contained in this document during installation! Installing and operating the stations incorrectly will invalidate any warranty claims. Hazards resulting from adjoining masonry components must be avoided. Free access to the station and connection lines must be ensured. Make sure the connection to the station is tension-free. The station should be installed on a dry wall that can take the load and directly adjacent to a heating water buffer tank where possible.

Note:

- Heat exchanger water capacity > 3 litres
- Domestic water safety valve not supplied with the station
- Dirt traps to protect the system are provided in the station inlet if required

5.1 Heating connection

Once the station has been installed correctly, connect the heating circuit.

Connection D	1 ½" female thread	Heating medium return line to the buffer tank
Connection B	1 ½" female thread	Heating medium supply line to the buffer tank
Permissible pressure level:		PN 10
Max. permissible operating temperature:		90°C

5.2 Domestic water connection



Please note:

The safety fuse on the cold water side must comply with DIN EN 806, DIN 1988 and DIN EN 1717, i.e. with a safety group and expansion vessel if necessary.

Connect the domestic water circuit once the station has been installed correctly.

Connection A	1 ½" female thread	Hot water outlet
Connection E	1 ½" female thread	Cold water inlet
Connection C	1 ¼" female thread	Circulation return
Permissible pressure level:		PN 10
Max. permissible operating temperature:		90°C

6. Commissioning

Before using our products, they must be checked for their suitability for the intended application. Please pay special attention to the water quality at the place of use for drinking water applications. In the case of critical drinking water quality, please take suitable measures (e.g. water treatment) to avoid functional impairments and/or damage (water treatment), e.g. corrosion damage.

Check especially permissible limit values, e.g. for the electrical conductivity, the pH value, the German hardness level, ammonium concentration. Further information can be found in the "Docfinder" section at: www.flamcogroup.com.

After installation or maintenance work and prior to commissioning, all media lines must be connected in accordance with the existing plans and the intended condition must be established. Ensure that all materials, tools and other equipment required for the work are removed from the working area of the unit. Equipment required for the work has been removed from the working area of the unit.

6.1 Flushing and filling

Note for the installer:

Heating systems must be flushed through prior to commissioning in accordance with the local regulations, such as DIN EN 14336, VOB ATV C DIN 18380 or VDI 2035. After the system has been filled for the first time, the recirculation pump must be left to run for about 1 hour before it can be switched off for a longer period.

Before starting, all shut-offs must be opened and the servomotor of the primary mixer must be manually set to 50% by hand (observe manufacturer's documents). to 50% by hand (observe the manufacturer's documents), so that all paths are open. Flushing, filling and venting must be carried out professionally and properly. Before filling, connecting and commissioning the station, the entire system must be carefully flushed. All connections must be checked, checked for leaks and tightened if necessary. Screw connections must be securely countered when retightening. After filling the system, the station must be vented and the heating system refilled if necessary. The venting options on the station must be used.

After completion, the servomotor of the primary mixer must be manually reset to automatic. automatic. Any dirt traps in the system must be cleaned before commissioning.

6.2 Initial Commissioning

Commissioning takes place after the station has been flushed and filled and a pressure test has been carried out. All heating and sanitary installations must be completed. During commissioning the station must be vented occasionally (venting options: see point 2.3). The initial commissioning must be carried out by a trained specialist and the settings must be recorded in a log (for subsequent maintenance work). (for later maintenance work). During commissioning, please also observe the instructions given in the chapter Fehler! Reference source could not be found.

The voltage supply of controllers must be permanently present at the pumps when the system is filled. The following prerequisites must be fulfilled for successful commissioning:

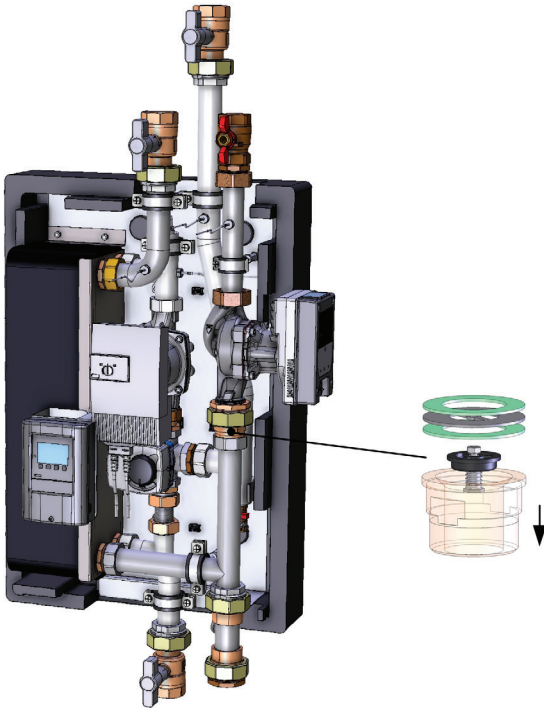
- All components of the system are installed and mounted.
- The entire system is leak-proof.
- All necessary electrical connections have been made.

7. Operating instructions

7.1 Domestic water circulation

The domestic water circulation system is used to provide a constant supply of hot water to the taps and to flush the domestic water pipes (↔growth of legionella). Please ensure you comply with the relevant technical regulations and guidelines.

A check valve is installed on the pressurised side of the circulation pump on the domestic water side in order to prevent unwanted circulation. The controller can be used to control the domestic water circulation. The factory setting must be dependent on the object adapted.

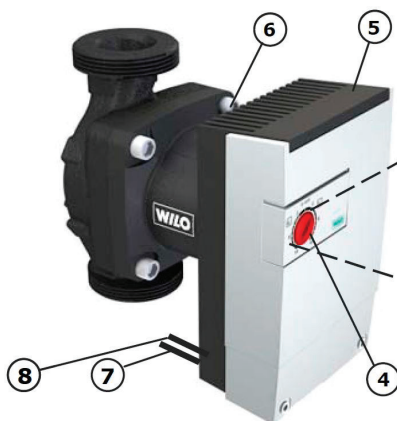


DN32 backflow preventer

- in the domestic water circulation
- with 2" seal
- The illustration shows the installation position and the flow direction of the return inhibitor

7.2 Primary and circulation pump

The "red button", the central control element, with three adjustment ranges (1-3) is located on the front of the control module. The "red button" must be set to Ext.In (1) for the proper operation of the system. Settings (2) and (3) are used to deactivate the controller and set manual mode. Only use manual mode for a functional test!



Legend

1. Analog input 0...10 V
2. Delta p-c control type
3. Delta p-v control type
4. Red control button
5. Motor housing
6. M6 hexagon socket screw
7. Power supply
8. Control cable

Circulation pump, type: Wilo Para MAXO Z 25-180-08-F02

Please also comply with the corresponding documentation pertaining to the recirculation pump!

7.3 3-way primary mixer with servomotor

A handle is located on the front of the servomotor. The opening angle of the mixer can be read on this. In addition, manual mode can be set by gently pulling out the handle (1) and adjusting it manually (2). Please note that the controller is disconnected in manual mode. The handle must be pressed in for the system to operate properly! Only use manual mode when flushing, filling and bleeding the system!

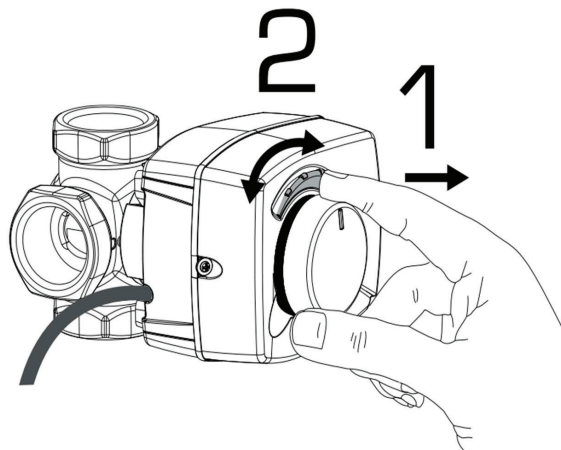
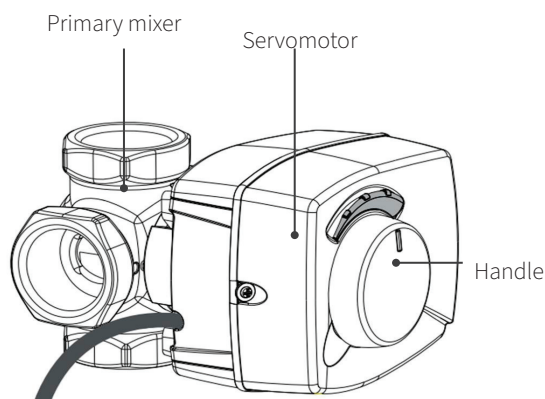
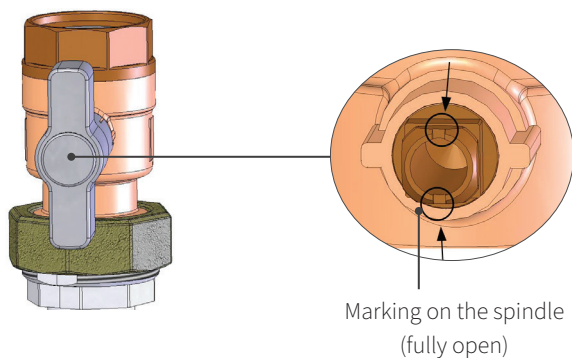


Illustration shows the "automatic mode" setting. Please comply with the corresponding documentation pertaining to the servomotor!

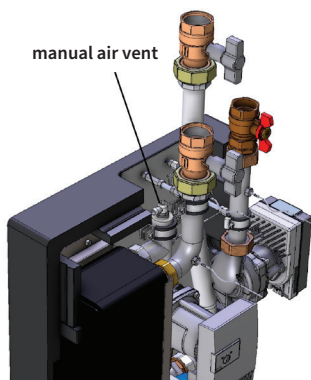
Illustration shows the "manual mode" setting.

7.4 Shut-off

The shut-off with a plastic handle (see Fig.) has a square-end connection (see Fig.) under the handle after it has been pulled down. If the handle has been removed, this square-end connection can be turned with an appropriate socket wrench, thus opening or closing the shut-off. The opening angle of the shut-off is also visible, i.e. whether it is open or closed. Check the opening angle during the commissioning. The full opening of the shut-off is shown in the illustration.



7.5 Manual air bleed device



A manual air bleed device (see Fig.) is located on the heat exchanger inlet on the primary side (heating medium) for manually bleeding the heat exchanger (primary side).

Please only use a suitable tool to open the air vent! The flushing, filling and bleeding of the system must be carried out professionally before the commissioning to ensure that it operates properly.

7.6 Additional information regarding the installation and commissioning

Dirt traps to protect systems are provided in the station inlet if required.

- Commission the system once the station has been flushed and filled and a pressure test has been carried out.
- All installations on the heating and domestic water side must be complete.
- Bleed the system every so often during the commissioning process (heat exchanger above the manual bleed device at the rear/top)
- Please refer to the LogoFresh XL-Line 100/120 operating instructions for the commissioning
- Please observe the "Checklist" chapter.
- The controller can only be actuated through the "Controller function" switch if the system has been put into operation correctly.

8. Maintenance and Service

Inspection, maintenance and service work on the interface station and heating system must be carried out and documented (in accordance with the relevant inspection guidelines) by a trained expert (installation company or Flamco customer service).

The condition of parts must be checked and these must be replaced if necessary. The interface stations must be checked regularly for leaks.

During maintenance work, the safety instructions and residual dangers (see Section 1) must be observed!

For recommissioning, please also follow the points in Section 6.

When using nitrite-free anti-freeze and corrosion protection agents with an ethylene glycol base, please pay close attention to the manufacturer's documentation, particularly with respect to the concentration and specific additives.

Different water qualities and degrees of hardness can also influence the service life of individual components of devices. Therefore, regular inspection and maintenance (according to current technical rules) should be carried out annually to maintain the system's efficiency and functional safety.

If you have any questions, please contact your installation company or Flamco customer service.

8.1 Heat exchanger

Note:

If the water is hard, limescale deposits can build up on hot areas of the heat exchanger at high water temperatures. These should be removed at regular intervals by appropriate means (e.g. flushing). Only use substances approved for use with domestic water and heating water.

Information regarding the hardness of the domestic water:

The propensity for natural water to form limescale deposits depends, among other things, on various factors such as the concentration of calcium and magnesium salts, the pH value and the temperature. If what is known as the lime-carbonic acid balance has been disturbed by an increase in the pH value and/or the temperature, the calcium carbonate precipitates in the form of calcite crystals. The applicable standards and corresponding technical regulations (e.g. DIN and DVGW) must therefore be observed.

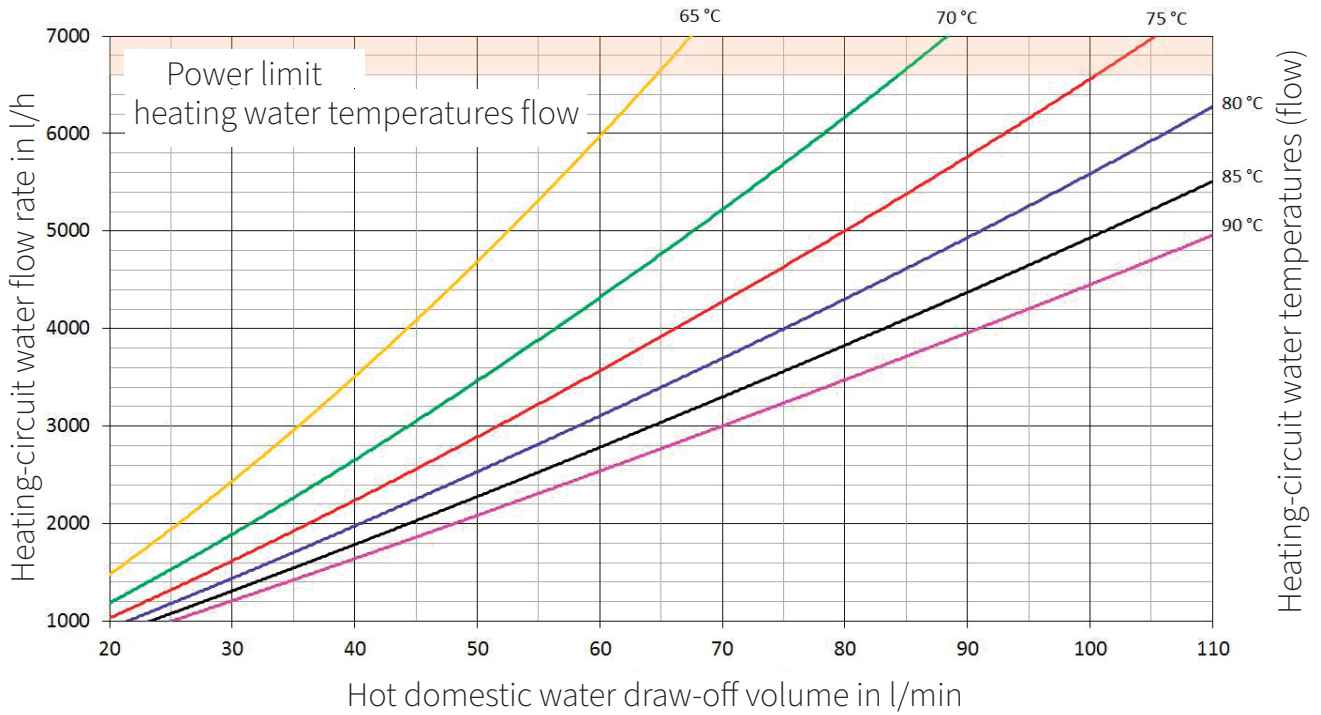
Hardness range	Millimoles of calcium carbonate/ litre	Degree of hardness in °dH	Risk of limescale deposits depending on the domestic water temperature		
			< 60°C	60 – 70°C	> 70°C
Soft	< 1.5	< 8.4	low	low	low
Average	1.5 – 2.5	8.4 – 14	low	low	medium
Hard	> 2.5	> 14	low	medium	high

Note:

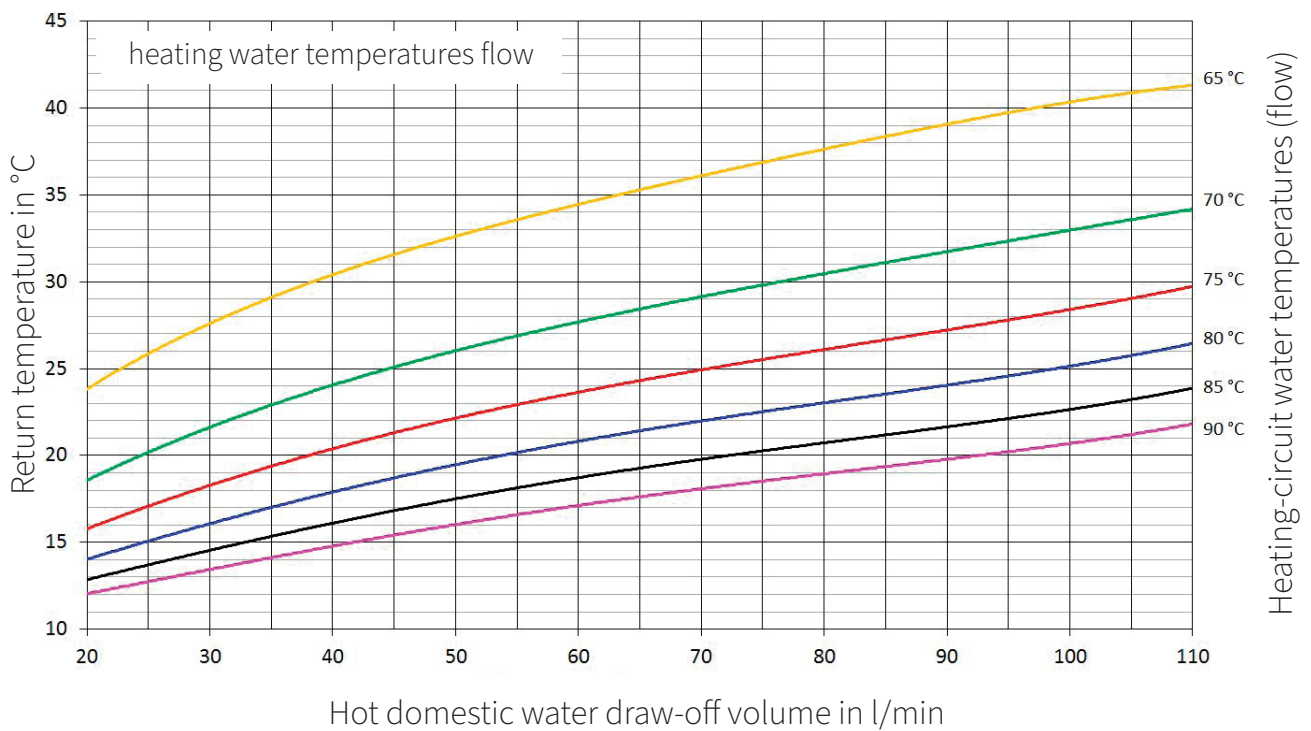
Request a water analysis from the local utility companies for testing in the case of known risks or contested water quality.

9. Diagrams

LogoFresh XL-Line 100 performance data
Required heating-circuit water flow rates when heating domestic water by 50 K (10 at 60°C)

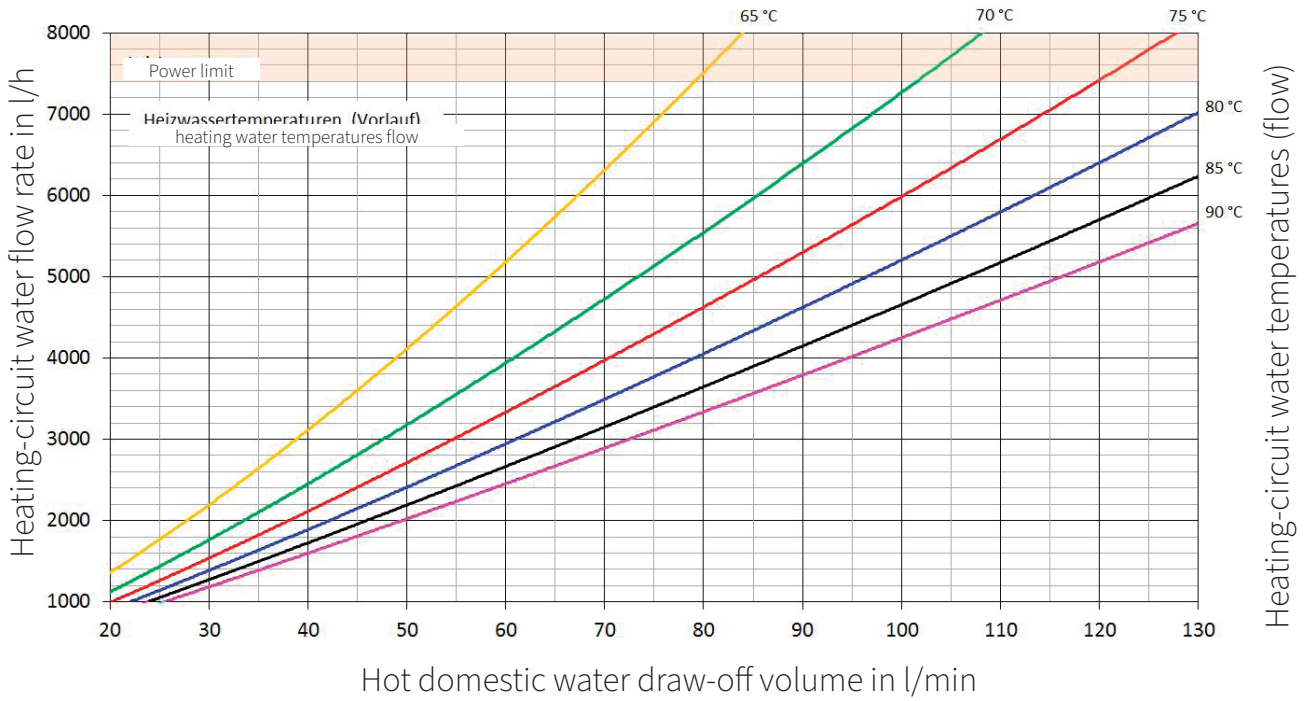


LogoFresh XL-Line 100 performance data
Return temperature when heating domestic water by 50 K (10 at 60 °C)



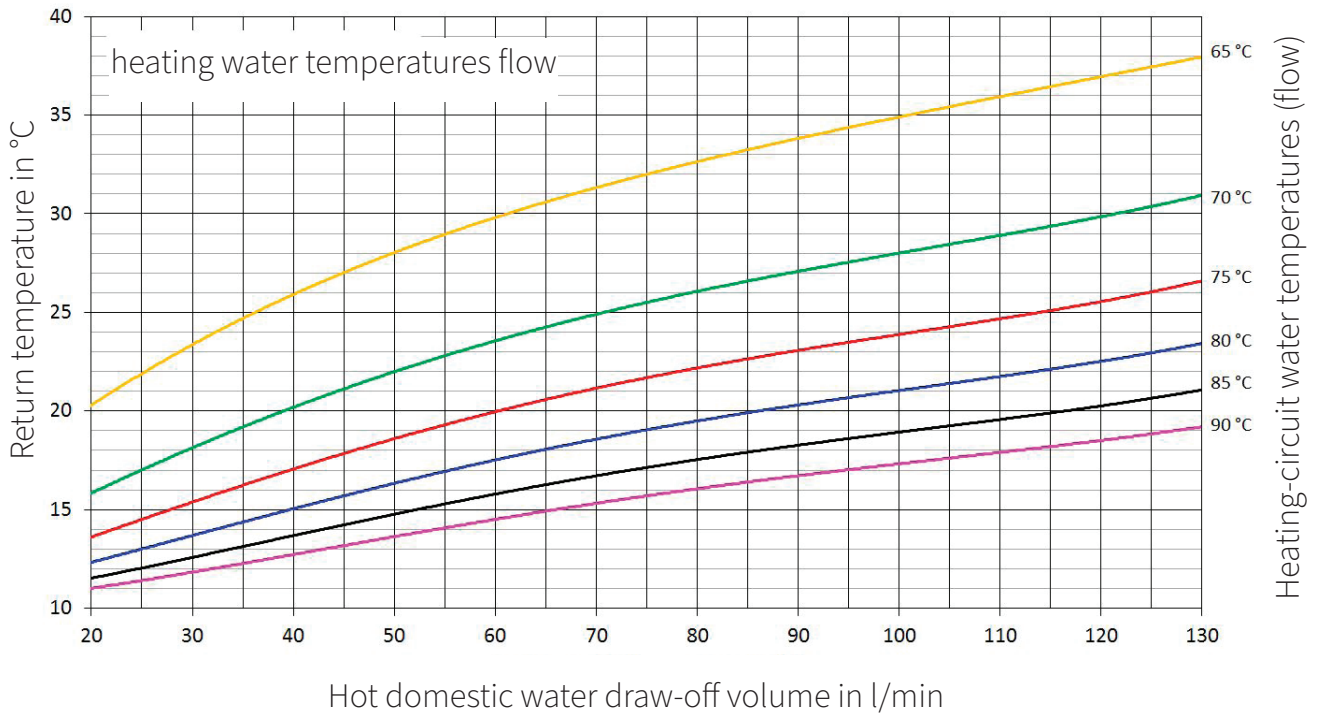
LogoFresh XL-Line 120 performance data

Required heating-circuit water flow rates when heating domestic by 50 K (10 at 60°C)

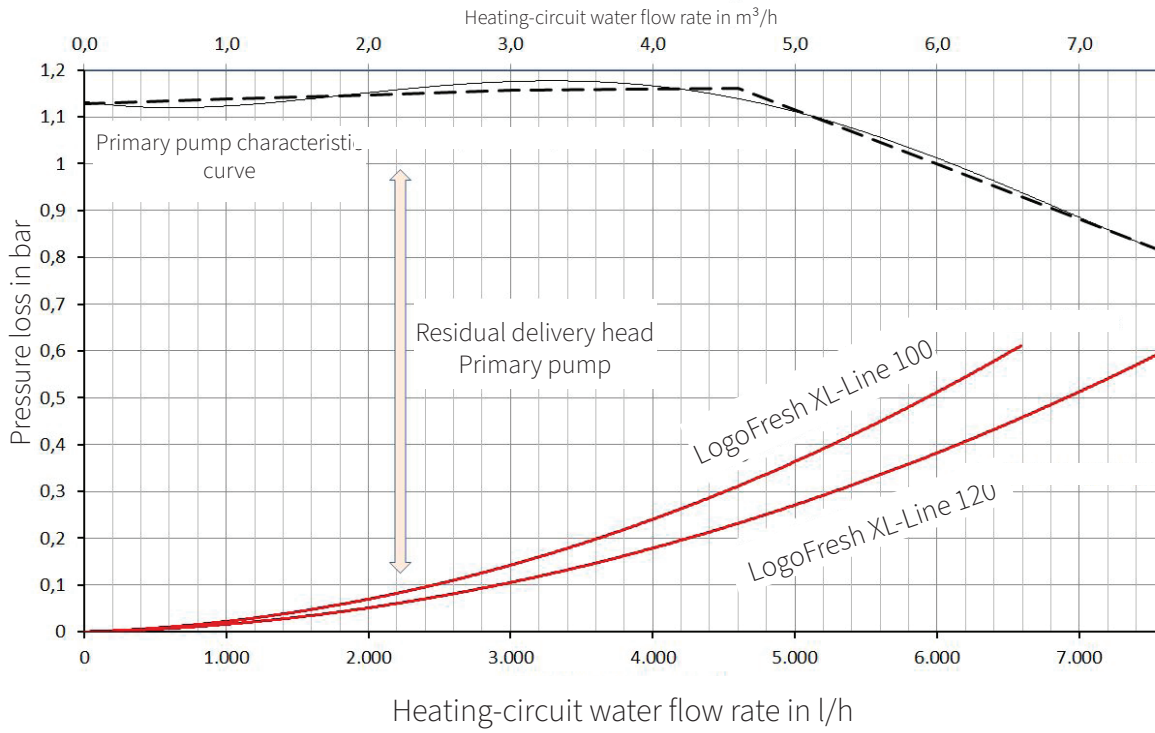


LogoFresh XL-Line 100 performance data

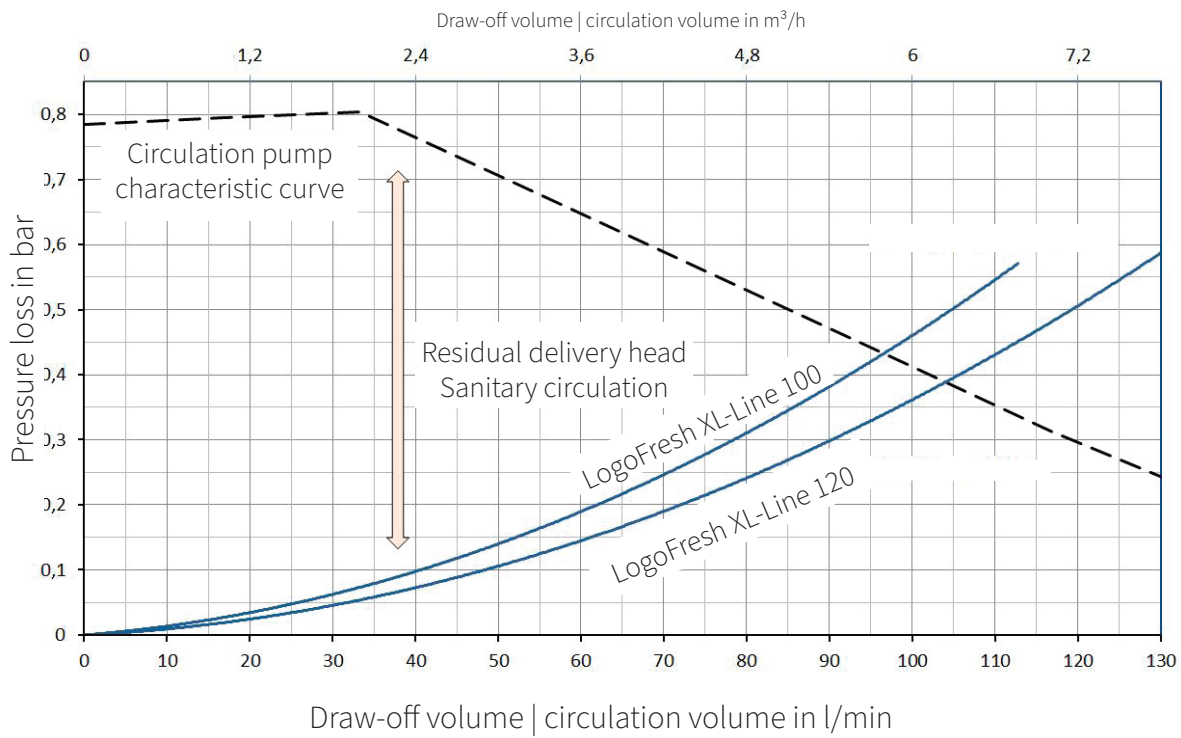
Return temperature when heating domestic water by 50 K (10 at 60 °C)



Pressure loss & residual delivery head on the primary side of the unit



Pressure loss on the sanitary side & residual delivery head of the circulation



9. Decommissioning, disassembly, environmental protection and disposal of electrical and electronic equipment

During disassembly, the respective safety instructions and residual dangers must be observed (see chapter 1)!

Disassembly and disposal:

Disassembly and disposal of the unit should only be carried out by suitable specialists.

When disposing of the auxiliary and operating materials, always observe the specifications in the safety data sheets, which must be provided by the suppliers of the auxiliary and operating materials.

No environmental damage may be caused during disposal.

If the unit is intended for scrapping, please ensure that the individual components are of the correct type when disposing of them (purity of type). Check which way the materials can be recycled properly.

Information according to the ElektroG - German Electrical and Electronic Equipment Act (ElektroG)*:

Disposal of electrical and electronic equipment



The symbol of the crossed-out dustbin that you are legally obliged to dispose these devices separately from unsorted municipal waste. Disposal via household waste, such as the residual waste bin or the yellow bin, is prohibited. Avoid misdirected waste by disposing it correctly at special collection and return points.

Waste prevention measures always take precedence over waste management measures. In the case of electrical and electronic equipment, waste prevention measures include, in particular, extending the service life of defective equipment by repairing it and selling used equipment still in good working order instead of sending it for disposal.

*Please observe the current valid country-specific national implementation of the European WEEE Directive 2012/19/EU on waste electrical and electronic equipment.

Options for the return of old appliances

Owners of electrical and electronic waste (WEEE) can return it free of charge to the public waste management authorities that have set up available facilities for the return or collection of WEEE. In addition, the return is also possible with distributors under certain conditions.

The take-back by the distributor has to be free of charge with the purchase of a similar new appliance (1:1 take-back) at the same time. In addition, it is possible to return old appliances to the distributor free of charge if the external dimensions do not exceed 25cm and the return is limited to three old appliances per type of appliance (0:1 take-back).

Retail sector: Distributors with a sales area for electrical and electronic equipment of at least 400m² are obliged to take back electrical and electronic waste (WEEE). In addition, food retailers with a total sales area of at least 800m² who also offer/ make available electrical and electronic equipment on the market several times a calendar year or on a permanent basis are obliged to take it back.

Remote market: Distributors who sell their products using means of distance communication are obliged to take back electrical and electronic waste (WEEE) if the storage and dispatch areas for electrical and electronic equipment are at least 400m².

Removing batteries and lamps

If the products contain batteries/rechargeable batteries or lamps that can be removed from the old appliance without destroying it, they need to be removed. Dispose these batteries or lamps separately.

Data protection

We would like to point out to all end users of electrical and electronic waste that you are responsible for deleting personal data on the old appliances that will be disposed.

Flamco B.V.
Fort Blauwkapel 1
1358 DB Almere
the Netherlands
+31 36 52 62 300
www.aalberts-hfc.com

Manufacturer:
Meibes System-Technik GmbH
Ringstraße 18
D-04827 Gerichshain
Deutschland

Technical Support:
+49 (0) 342 927 130
de.info@aalberts-hfc.com

Copyright Flamco B.V., Almere, the Netherlands. No part of this publication may be reproduced or published in any way without explicit permission and mention of the source. The data listed are solely applicable to Flamco products. Flamco B.V. shall accept no liability whatsoever for incorrect use, application or interpretation of the technical information. Flamco B.V. reserves the right to make technical alterations.