Regumaq X-70

Fresh Water Station

The Regumaq X-70 fresh water station is an electronically controlled product assembly with heat exchanger for hygienic potable water heating according to the continuous flow principle for connection to a buffer storage cylinder. Depending on the temperature and the volume flow on the potable water side, the circulation pump on the heating side is speed-controlled. When selecting the fresh water station, it is necessary to consider the water quality of the area of use.

The stations consist of a plate heat exchanger, a controller, a circulation pump, a throttle valve with actuator, a volume flow sensor, a safety valve, temperature sensors, fill and drain ball valves and ball valves.

The particularly powerful stations are characterised by high draw-off capacities at low excess temperatures. Remote access, networking and visualisation is possible via the CS-BS-1 data logger The controller data can be set and read out via a web interface or be passed on to the building management system (BMS). With the help of the Regtronic KM-IP communication module, the controller can be integrated into the building automation system via a BACnetIP or a Modbus TCP interface.

Features

+ Particularly powerful
+ Potable water circulation modularly extendable
+ Monitoring of potable water hygiene vis CS-BS-1 data logger or Regtronic KM-IP communication module possible

General data

Variants	With copper brazed heat exchanger or copper brazed heat exchanger with Sealix® protective layer
Nominal size	DN 32
Max. operating temperature	95 °C
Max. operating pressure	10 bar (PN 10)
Weight	42 kg

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Product Details

Technical Data

Dimensions and connections

Width x Height x Depth	660 x 875 x 300 mm
Primary and secondary circuit connections	G 1 ½ ET, flat sealing
Circulation connection	G 1 ET, flat sealing
Flush, fill and drain ball valve connections	G ¾ ET, for hose fitting
Distance between pipe centres – primary circuit connections	220 mm
Distance between pipe centres – secondary circuit connections	205 mm
Centre distance to wall – primary circuit	150 mm
Centre distance to wall – secondary circuit	90 mm
Distance between sealing surfaces – primary to secondary side	800 mm

Hydraulic data: Primary circuit

Medium	Heating water according to VDI 2035/Ö-Norm H 5195-1, fluid category ≤ 3 according to EN 1717. Observe the specifications of the Oventrop information sheet on corrosion protection.
Kv value	6.9

Hydraulic data: Secondary circuit

Medium	Potable water. Observe the specifications of the Oventrop information sheet on corrosion protection.
Kv value	6.6
Safety valve	10 bar
Setting range potable water temperature	20...75 °C

Electrical data: Pump

Pump	Wilo PARA 25-180/9-87/iPWM2
Power consumption	3...87 W

Material

Heat exchanger copper brazed	Plate material: Stainless steel 1.4401 Connections: Stainless steel 1.4404 Brazing material: Copper
Heat exchanger copper brazed with Sealix® protective layer	Plate material: Stainless steel 1.4401 Connections: Stainless steel 1.4404 Brazing material: Copper Protective layer: SiO2 basis
Pipes	Stainless steel 1.4404
Valves and fittings	Brass / DZR brass / bronze
Seals	EPDM
Insulation	EPP

Applications

The Regumaq X-70 fresh water station is an electronically controlled product assembly with heat exchanger, which is intended exclusively for heating potable water for individual or a large number of draw-off points in building complexes or in the commercial sector. The principle of system separation is effective in the station, i.e. the thermal energy from a storage cylinder circuit is indirectly transferred to the potable water circuit. The thermal energy (max. 95°C) may only be provided by a buffer storage cylinder. Parallel operation of several Regumaq X-70 is permissible. Any use of the fresh water station beyond and/or different from this is considered unintended use. The applies in particular to the passage of media other than heating water in the storage cylinder circuit and fresh water in the potable water circuit. Direct connection of the fresh water station to local and/or district heating networks is not permitted. Parallel operation with other heating system components, such as heating circuit stations is not permitted. The manufacturer is not liable for damage resulting from unintended use of the station. The product is only to be used in a technically perfect condition and in accordance with its intended use, in a safety-conscious and hazard-conscious manner and in compliance with all operating instructions.

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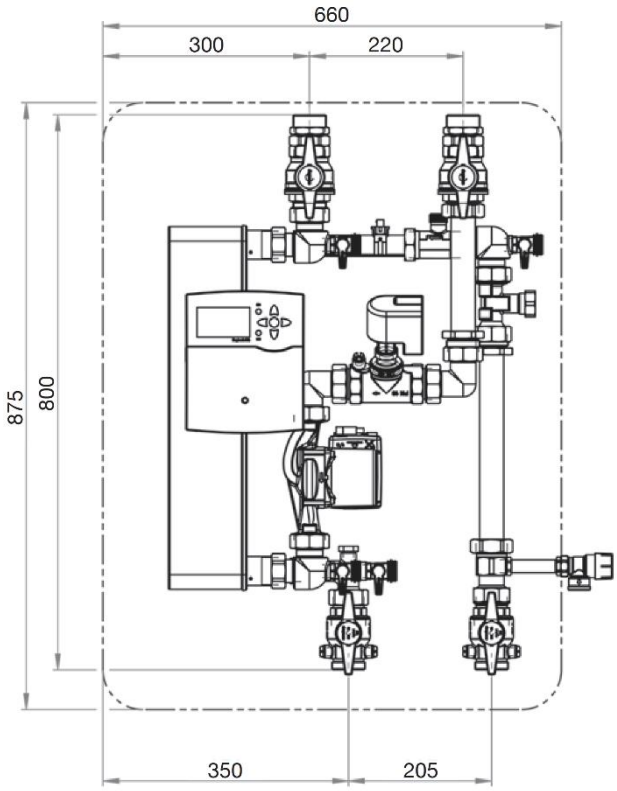
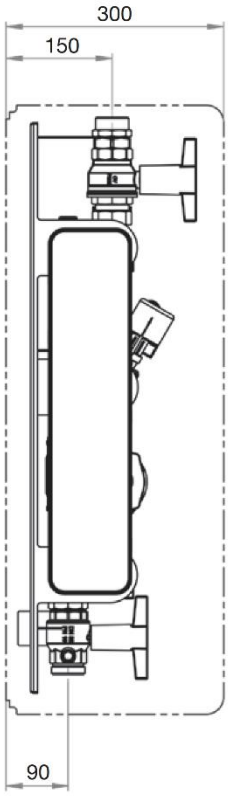
Dimensions



Dimensions Regumaq X-70 (front view)



Dimensions Regumaq X-70 (side view)

Selection

Item Numbers

Regumaq X-70

	Description	Item no.
	Heat exchanger copper brazed	1381480
	Heat exchanger copper brazed with Sealix® protective layer	1381482

Accessories

Selected accessories for the Regumaq X-70 station.

Designation	Item no.
Potable water circulation set, without circulation pump	1381590
High-efficiency circulation pump for potable water circulation set, Wilo PARA BZ Z 15-130/7-50/SC	1381591
High-efficiency circulation pump for potable water circulation set, Wilo PARA MAXO-Z 25-180-10-F02	1381592
Shutoff unit with Hycocon HTZ DN 40 and Aktor M 2P H	1381078
Regtronic KM-IP communication module BACnet IP or Modbus TCP	1159094
Collective fault module	1381594
Return stratification ball valve, DN 32, PN 16, IT, brass	1381192
Return stratification ball valve, DN 40, PN 16, IT, brass	1381193
Return stratification ball valve, DN 50, PN 16, IT, brass	1381194
Actuator for stratification ball valve	1381199
Installation relay for connecting high-performance pumps (> 1A)	1152089
Earthing clamp, DN 20...32	1359995
Earthing clamp, DN 40...50	1359996
Aquastrom P water sampling valve, DN 8, PN 10, flame resistant, bronze/stainless steel, G ¼	4209102
Aquastrom P water sampling valve, DN 10, PN 10, flame resistant, bronze/stainless steel, G ⅜	4209103

Spare Parts

Selected spare parts for the Regumaq X-70 station.

Designation	Item no.
Heat exchanger copper brazed	1381595
Heat exchanger copper brazed with Sealix® protective layer	1381584
Ball valve Optibal TW for secondary circuit	4208910
Volume flow sensor (VTY25)	1381693
Potable water temperature sensor	1389052
High-efficiency pump for primary circuit, Wilo PARA 25-180/9-87/iPWM2	1381499
Valve assembly	9010506
Actuator	9010507
Regtronic RQ controller	1381597

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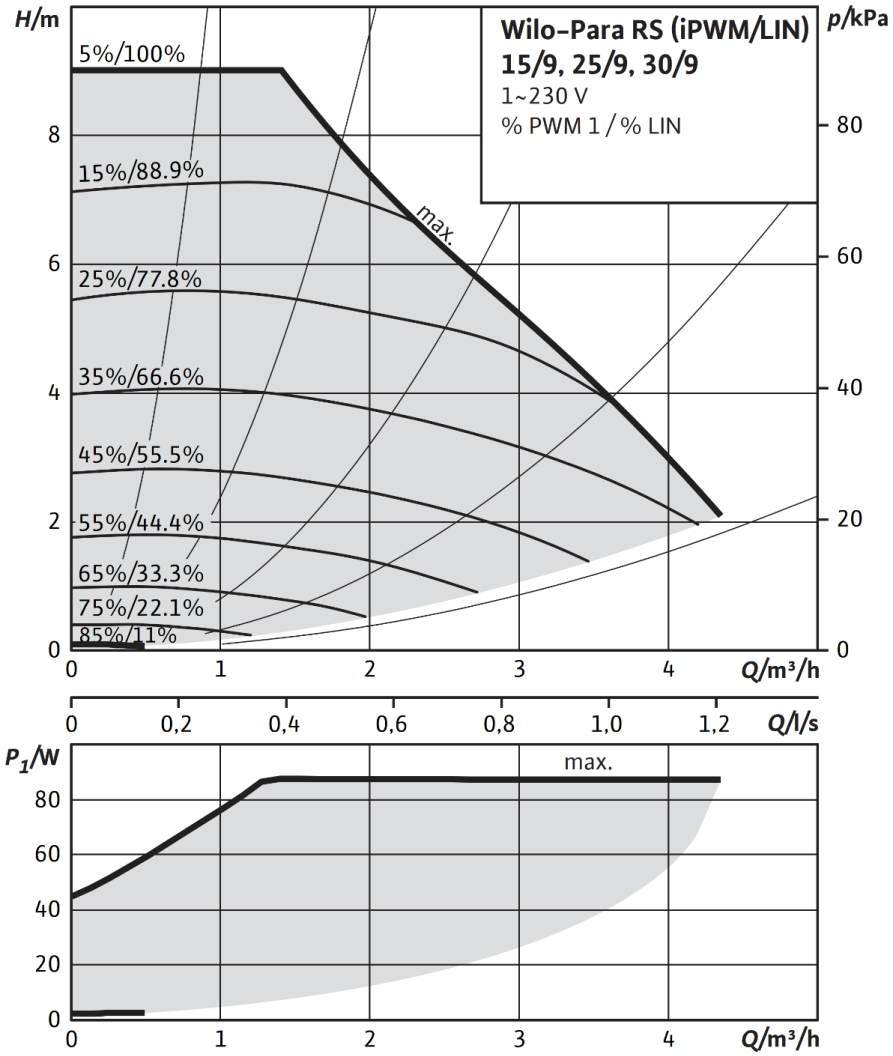
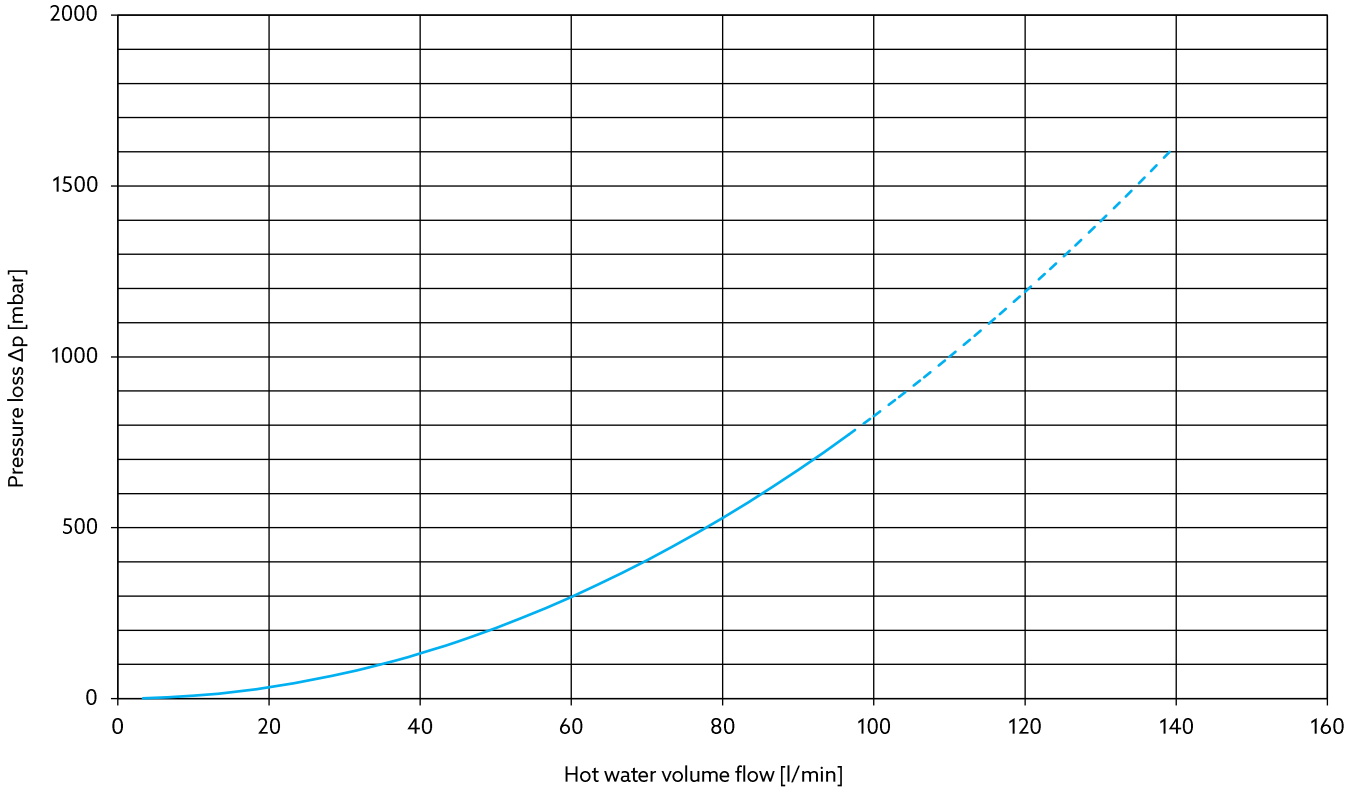
Design charts

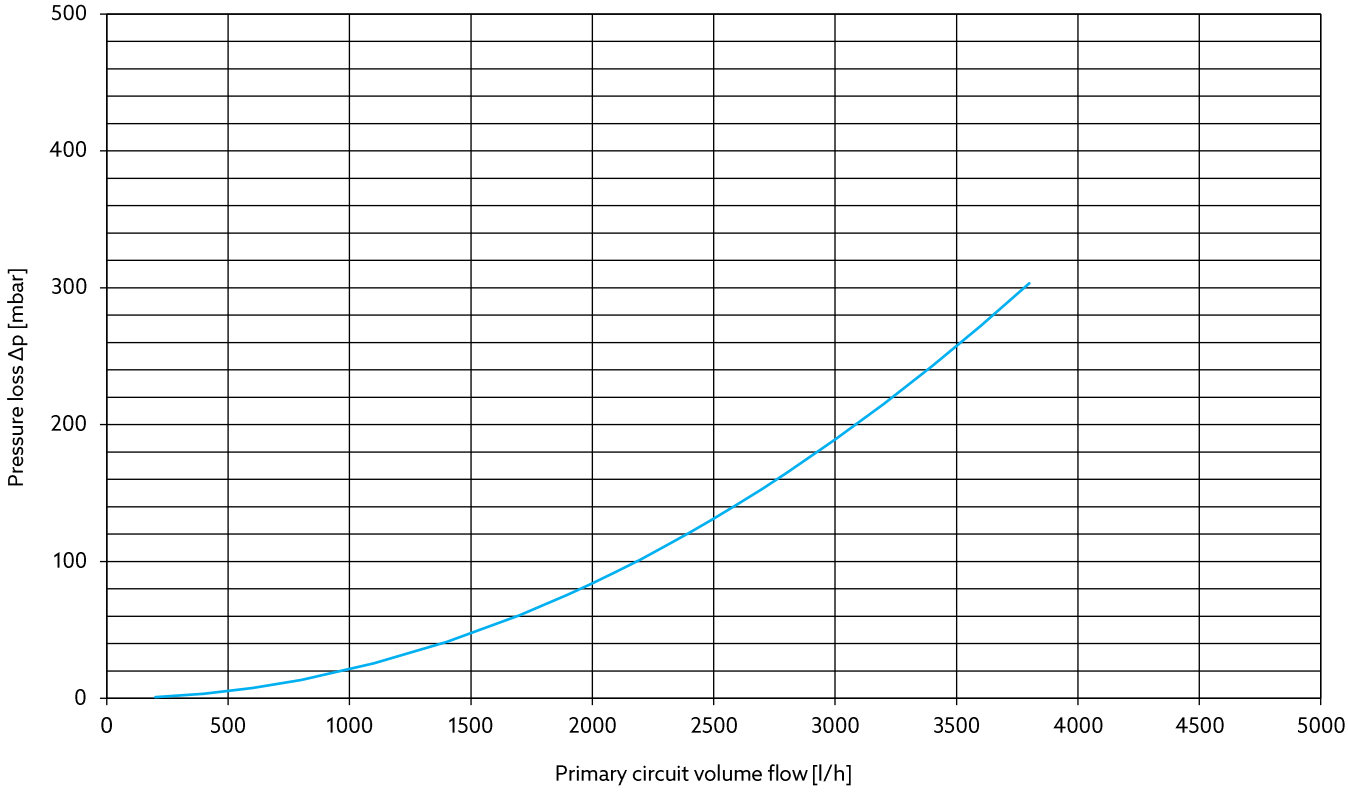
Characteristic line Wilo PARA 25-180/9-87/iPWM2



Pressure loss of the potable water circuit for potable water heating



Pressure loss of the primary circuit for potable water heating



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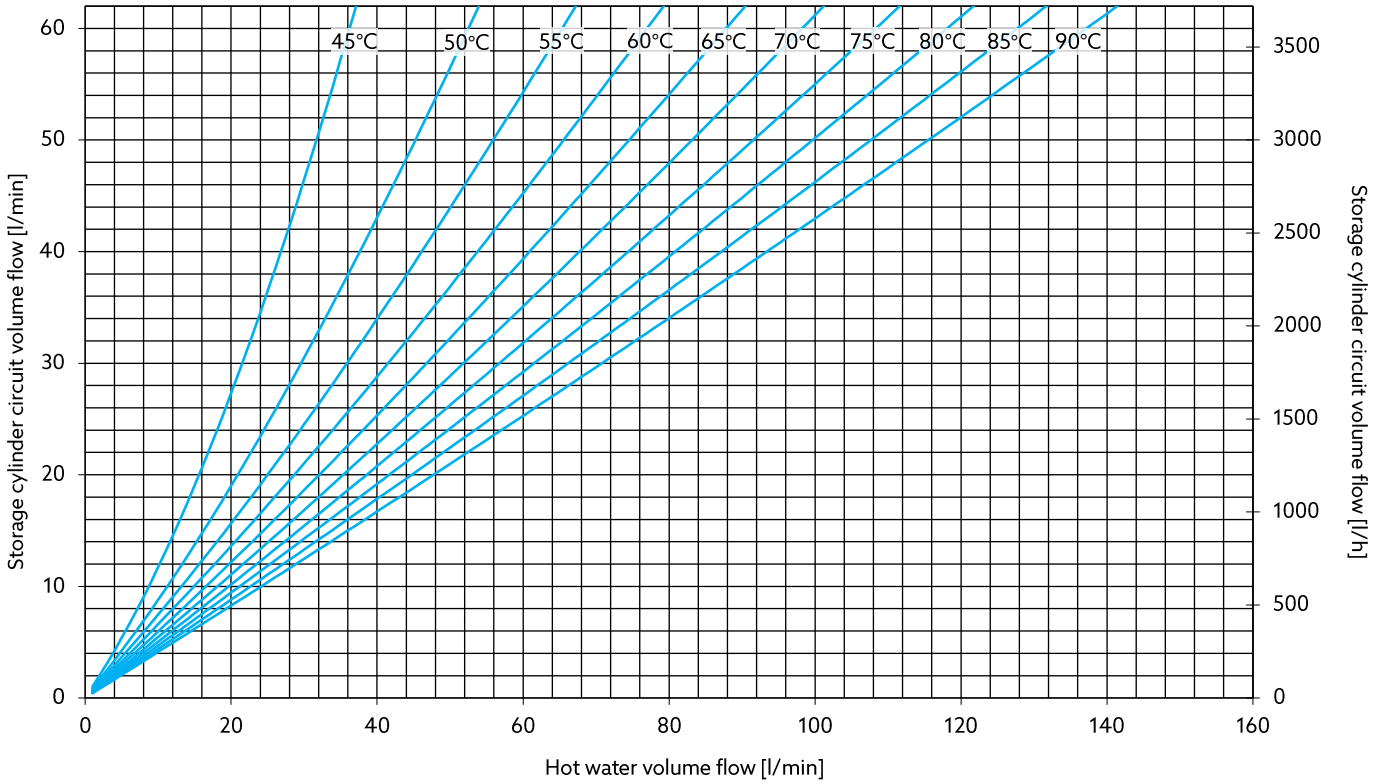
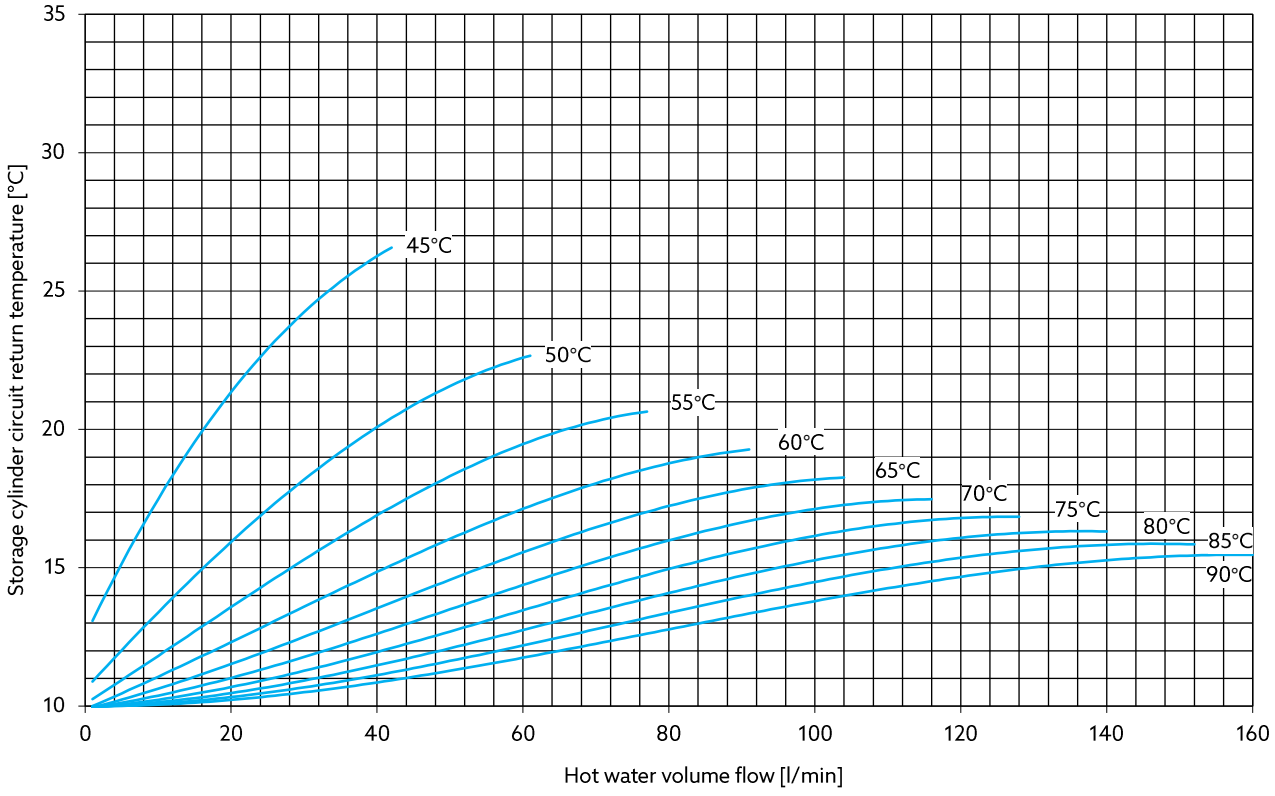
Heating of potable water from 10 °C to 45 °C

(Performance data according to SPF test procedure)

Volume flow of the storage cylinder circuit at different flow temperatures



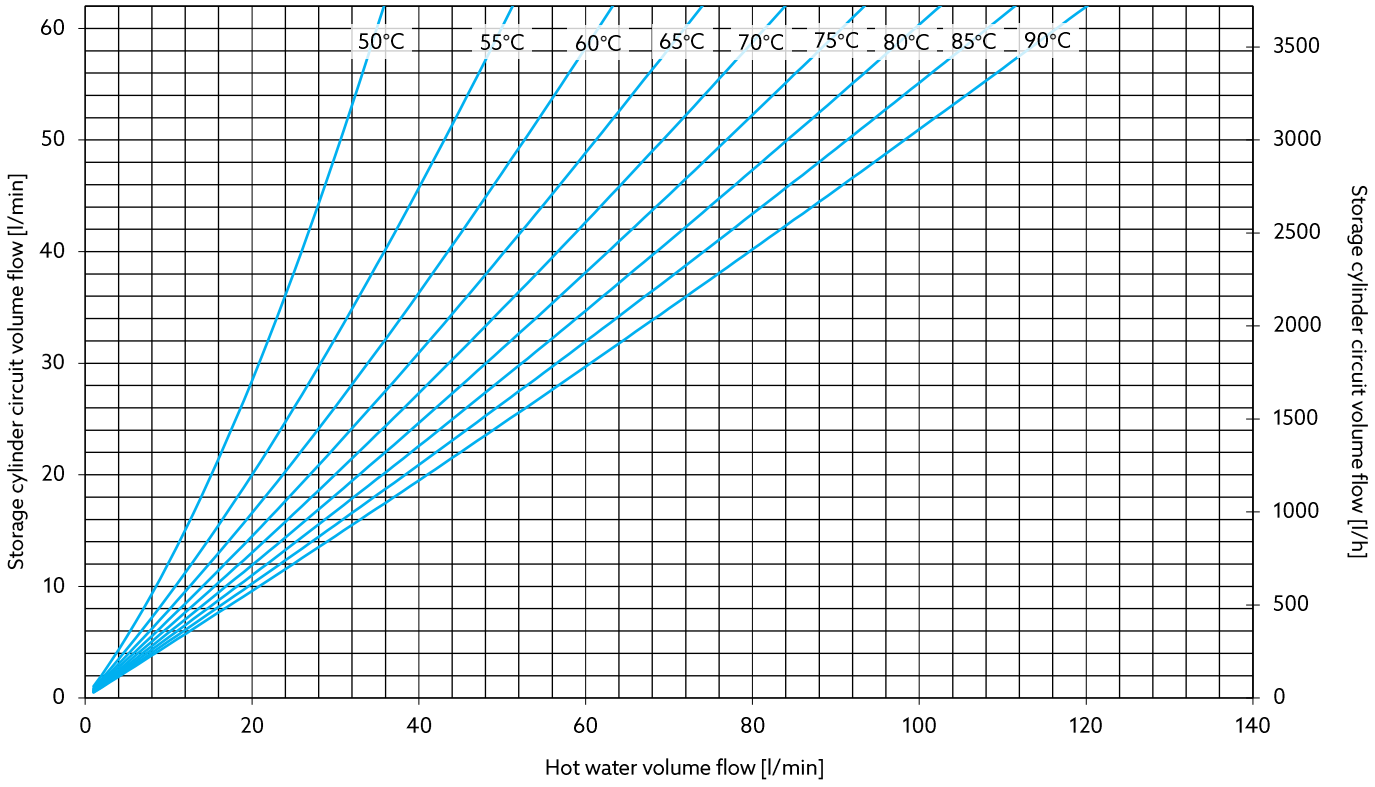
Return temperature of the storage cylinder circuit at different flow temperatures



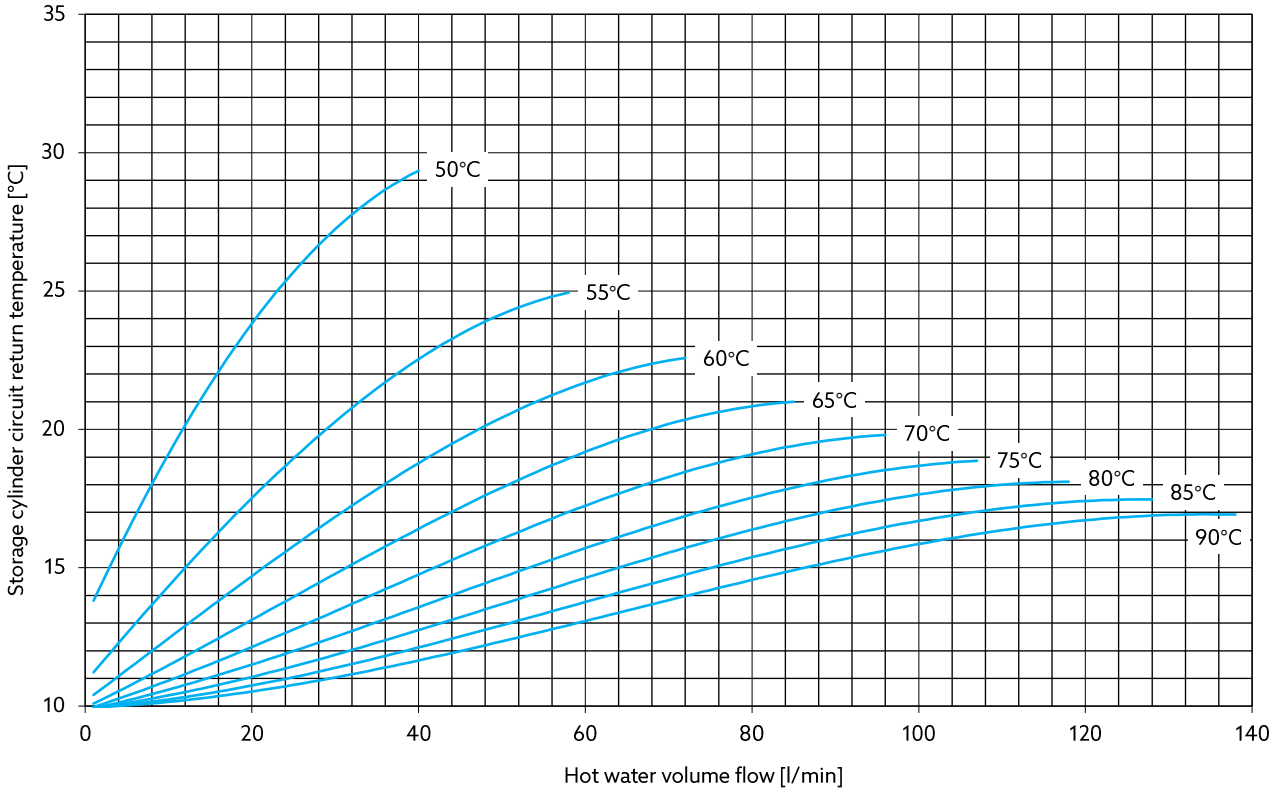
Heating of potable water from 10 °C to 50 °C

(Performance data according to SPF test procedure)

Volume flow of the storage cylinder circuit at different flow temperatures



Return temperature of the storage cylinder circuit at different flow temperatures



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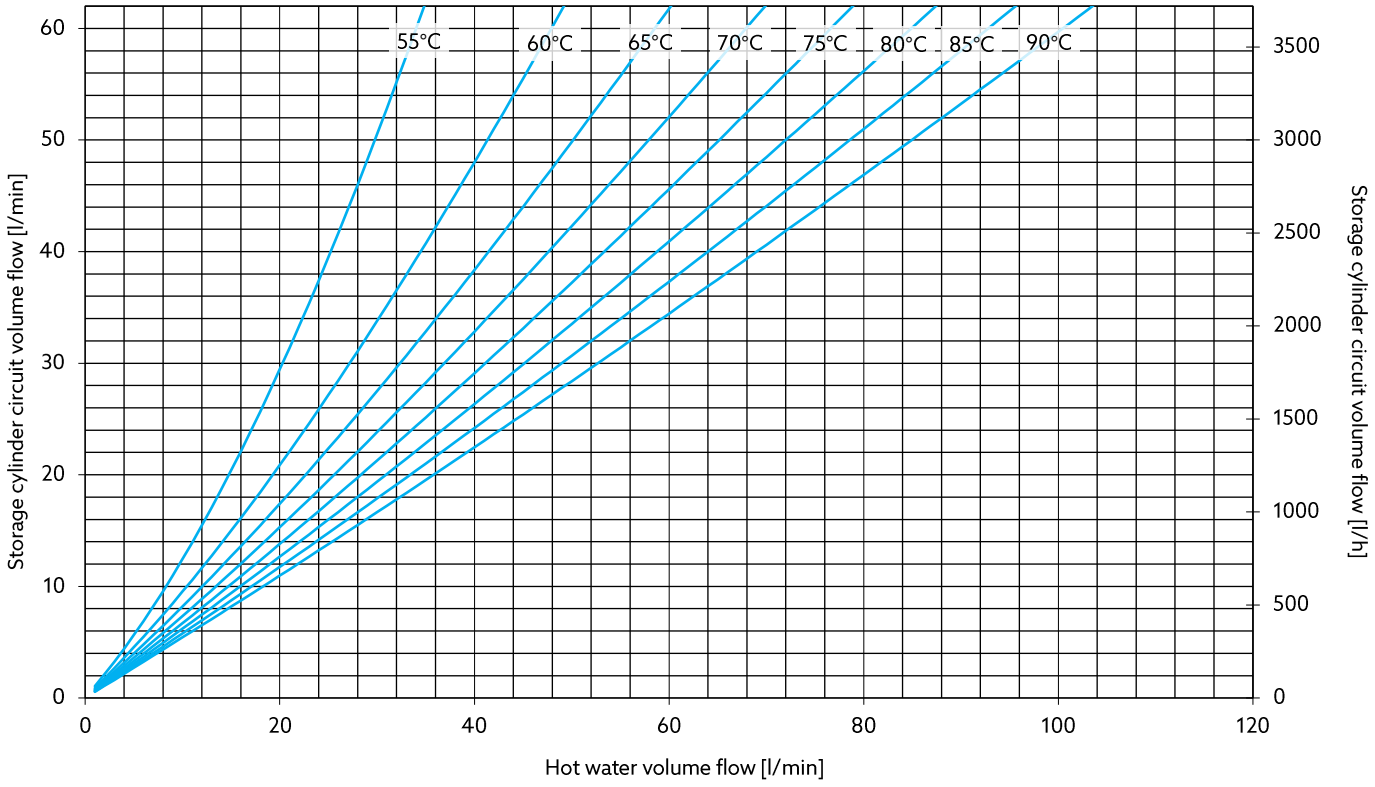
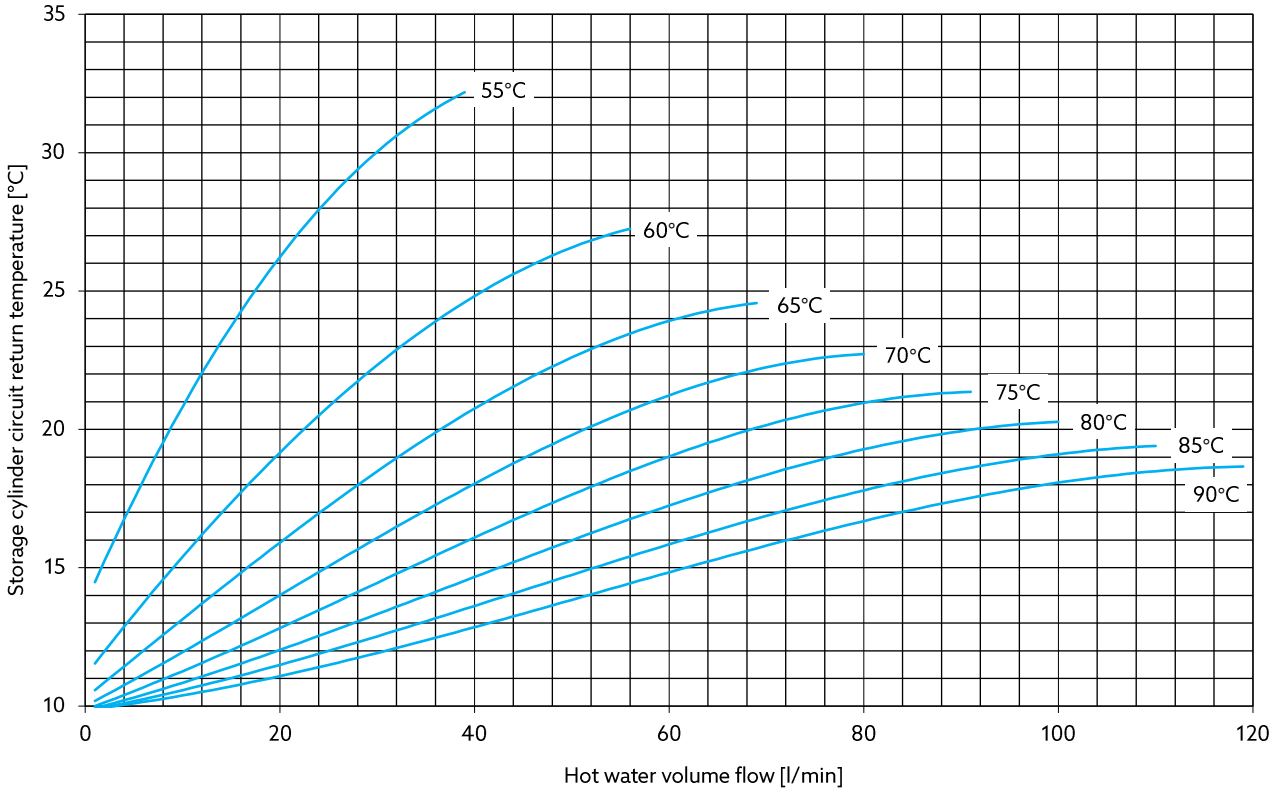
Heating of potable water from 10 °C to 55 °C

(Performance data according to SPF test procedure)

Volume flow of the storage cylinder circuit at different flow temperatures



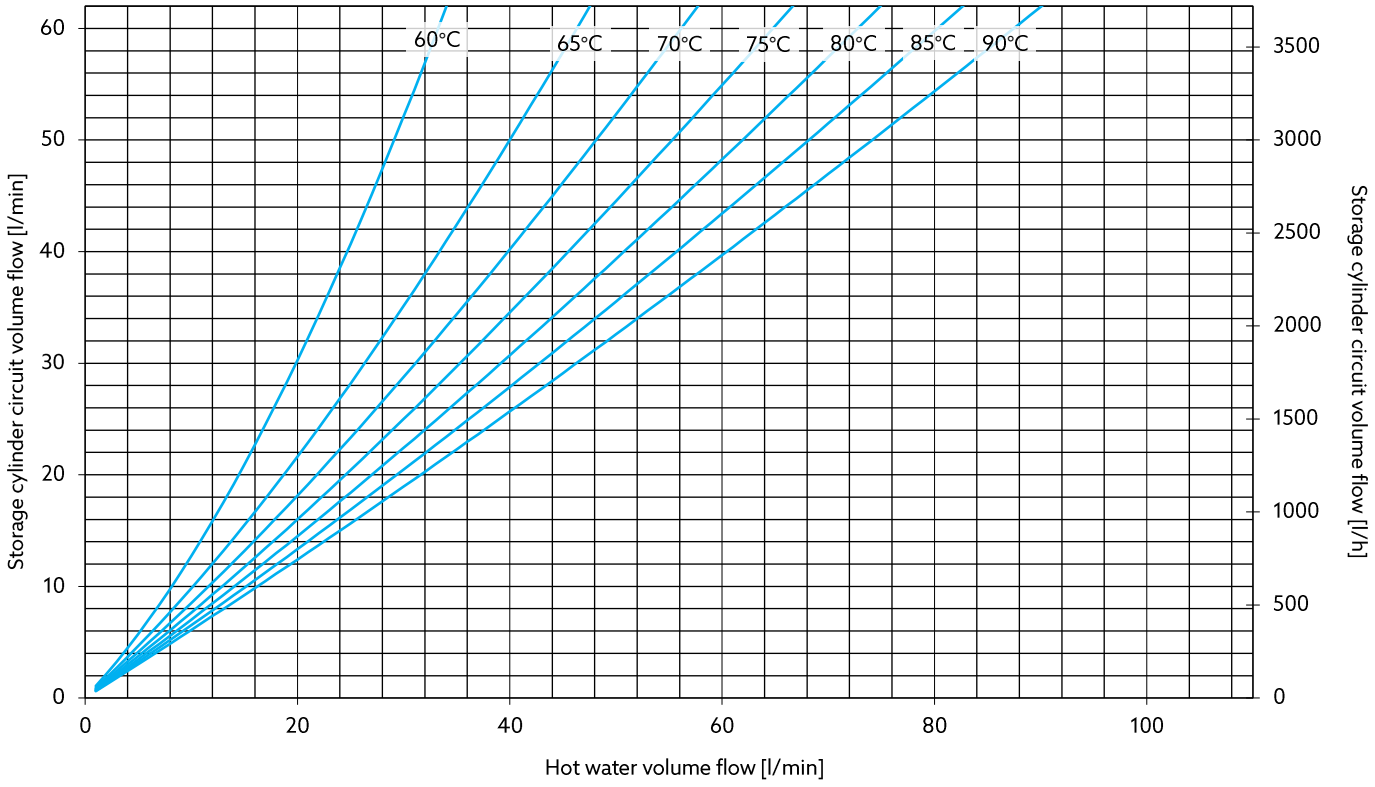
Return temperature of the storage cylinder circuit at different flow temperatures



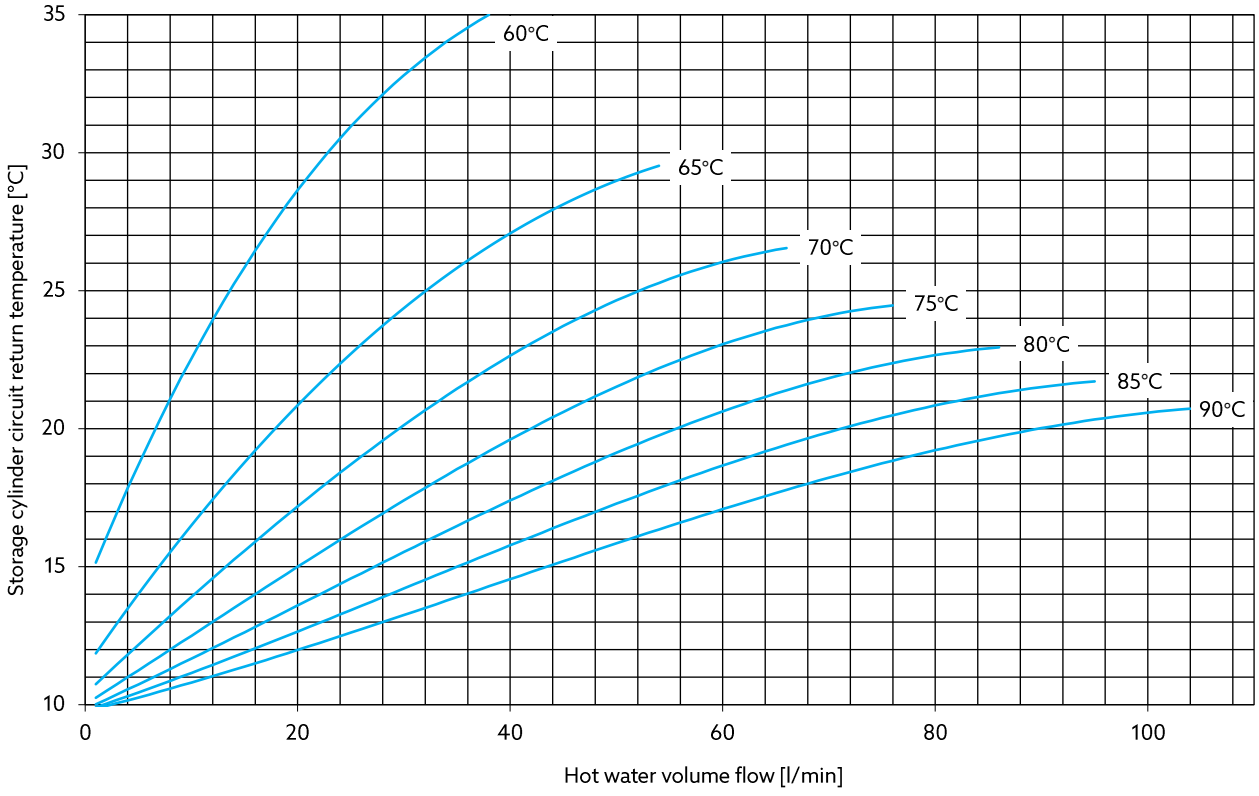
Heating of potable water from 10 °C to 60 °C

(Performance data according to SPF test procedure)

Volume flow of the storage cylinder circuit at different flow temperatures



Return temperature of the storage cylinder circuit at different flow temperatures



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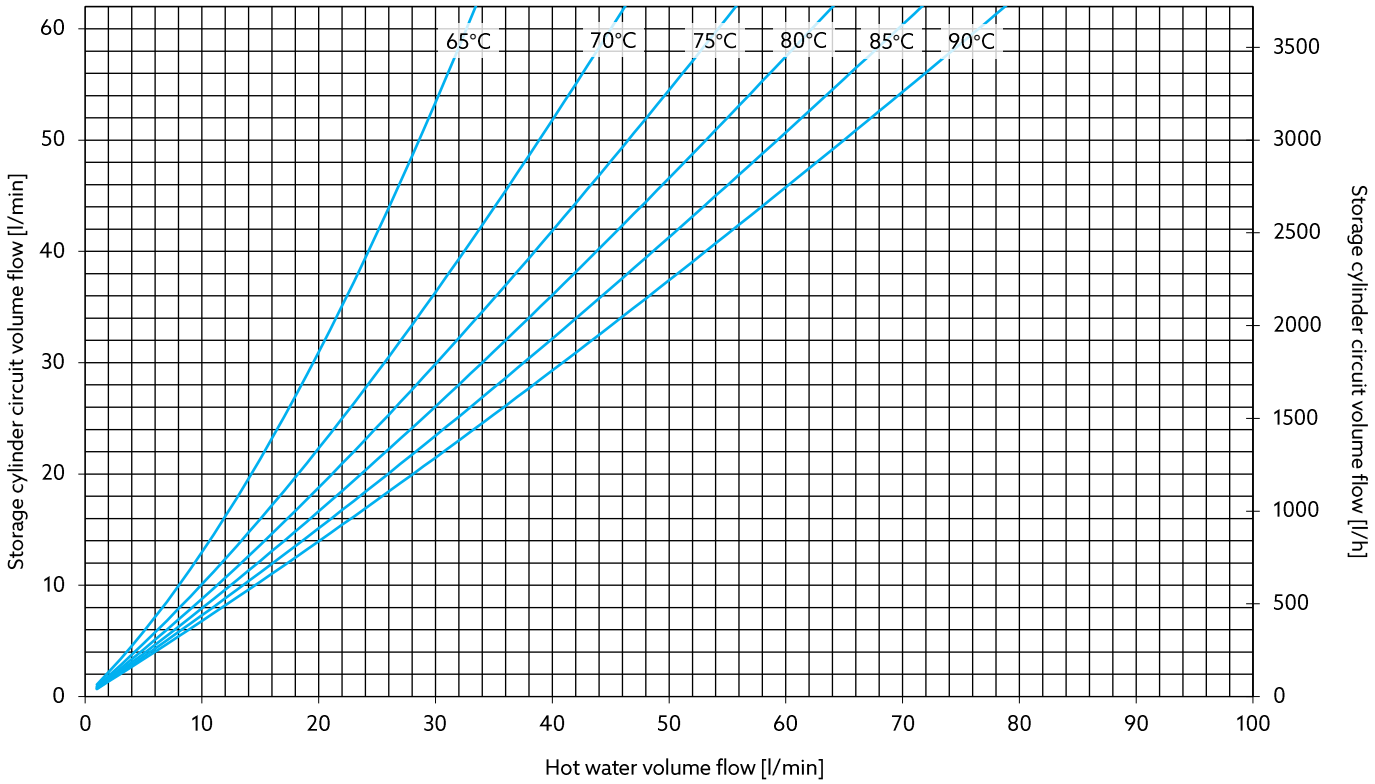
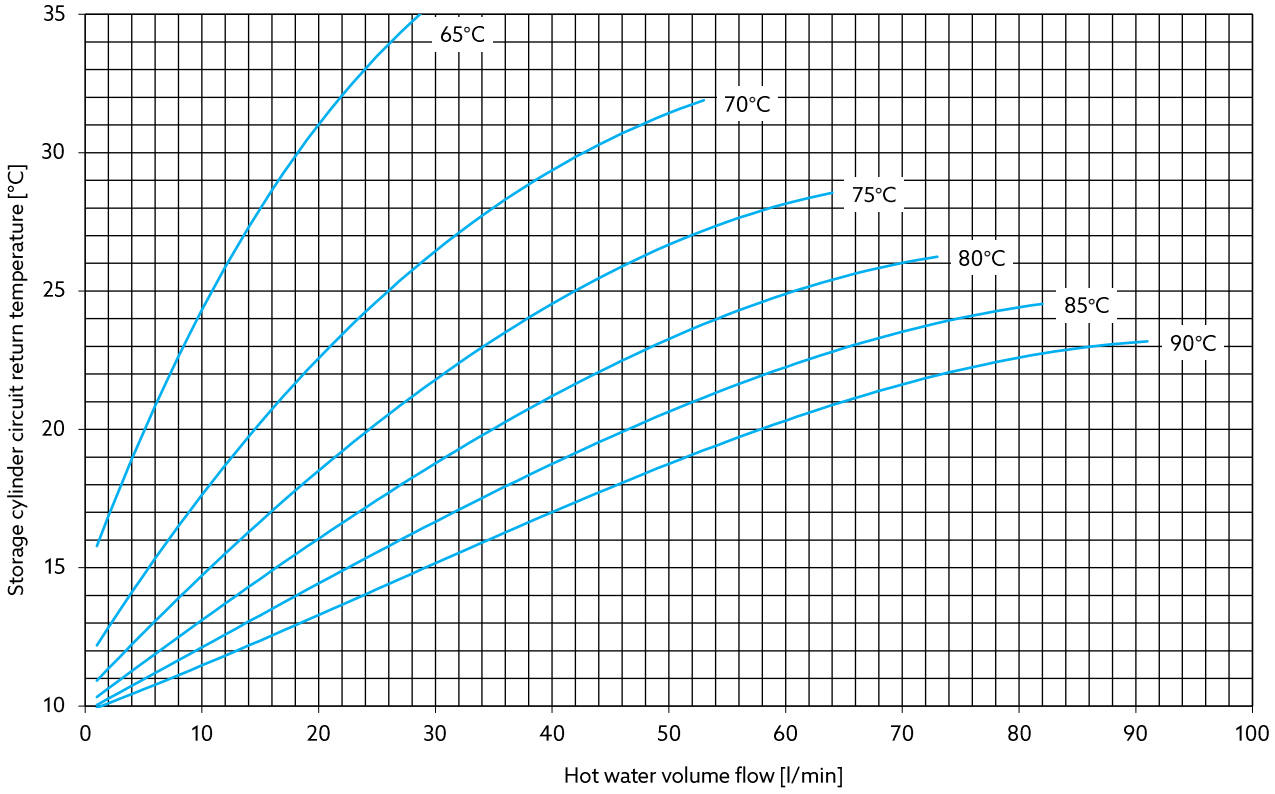
Heating of potable water from 10 °C to 65 °C

(Performance data according to SPF test procedure)

Volume flow of the storage cylinder circuit at different flow temperatures



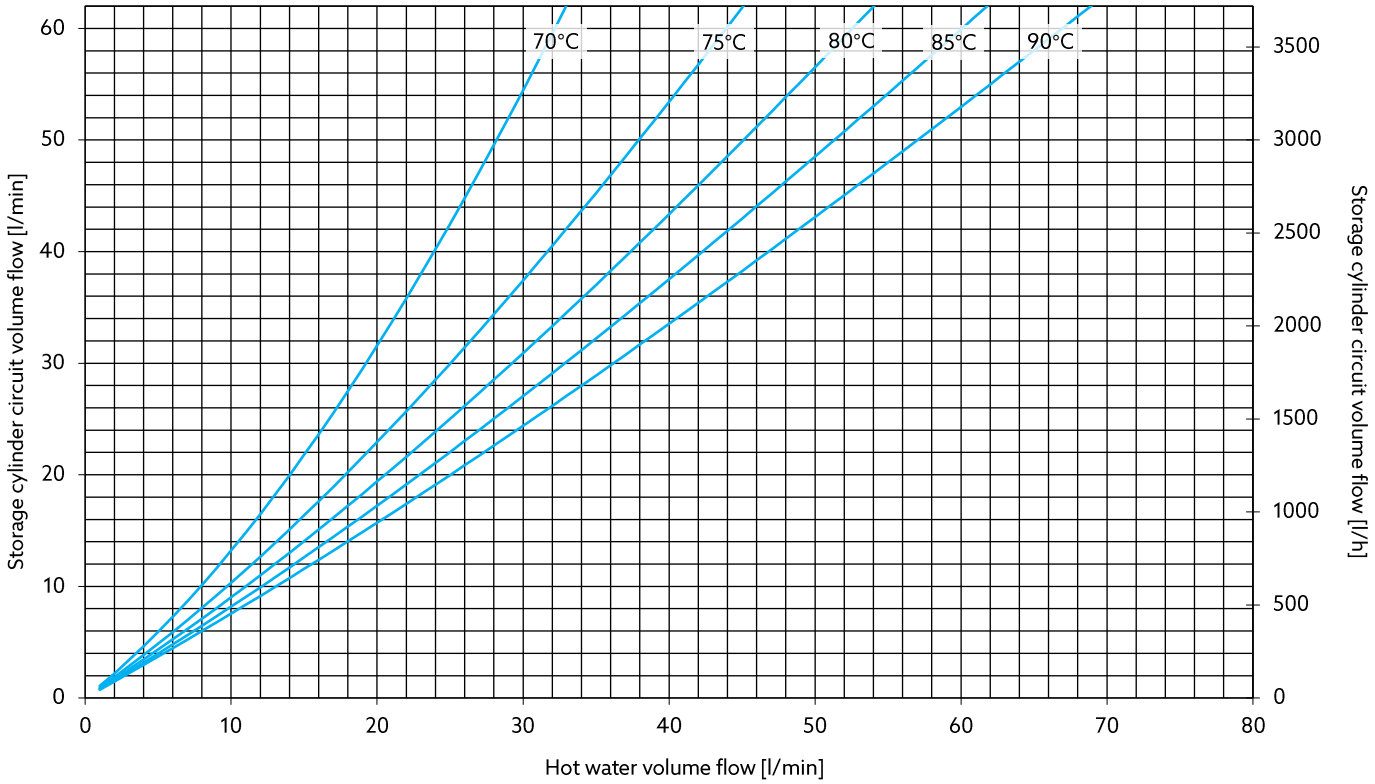
Return temperature of the storage cylinder circuit at different flow temperatures



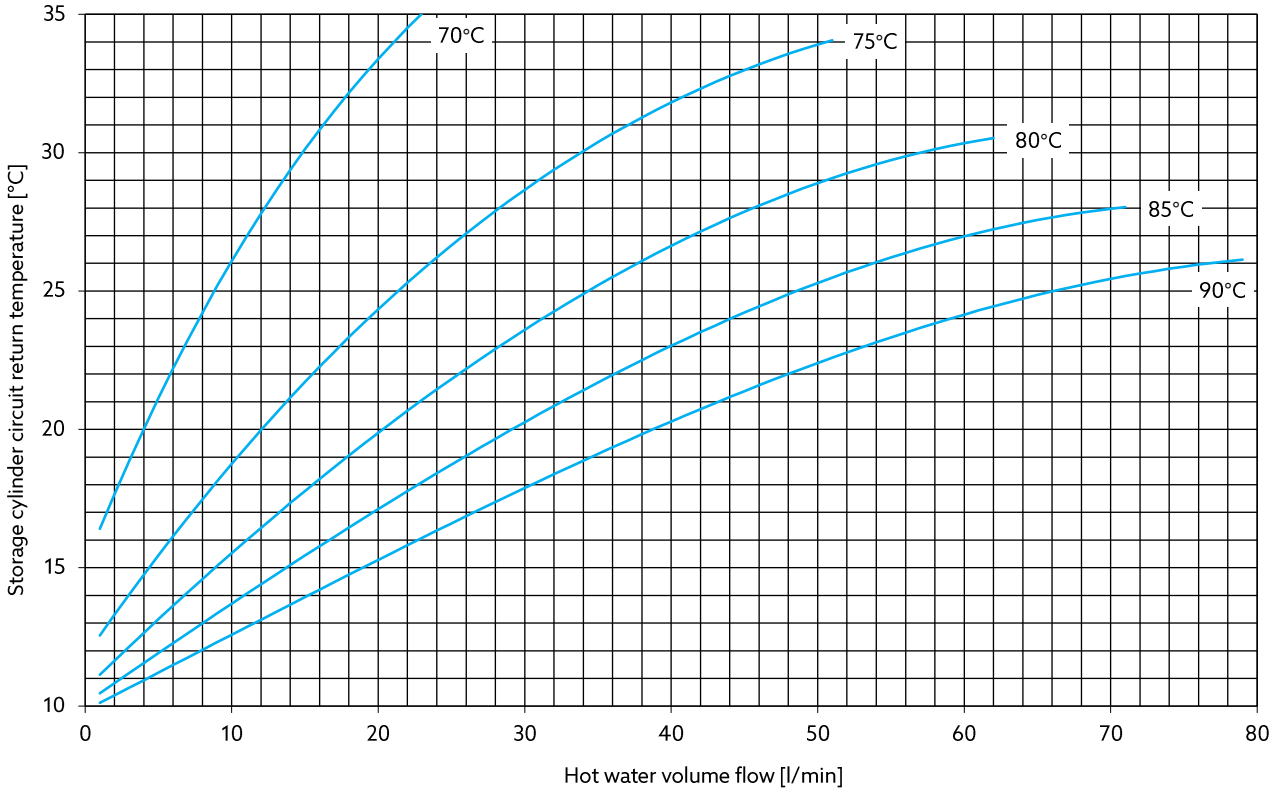
Heating of potable water from 10 °C to 70 °C

(Performance data according to SPF test procedure)

Volume flow of the storage cylinder circuit at different flow temperatures



Return temperature of the storage cylinder circuit at different flow temperatures



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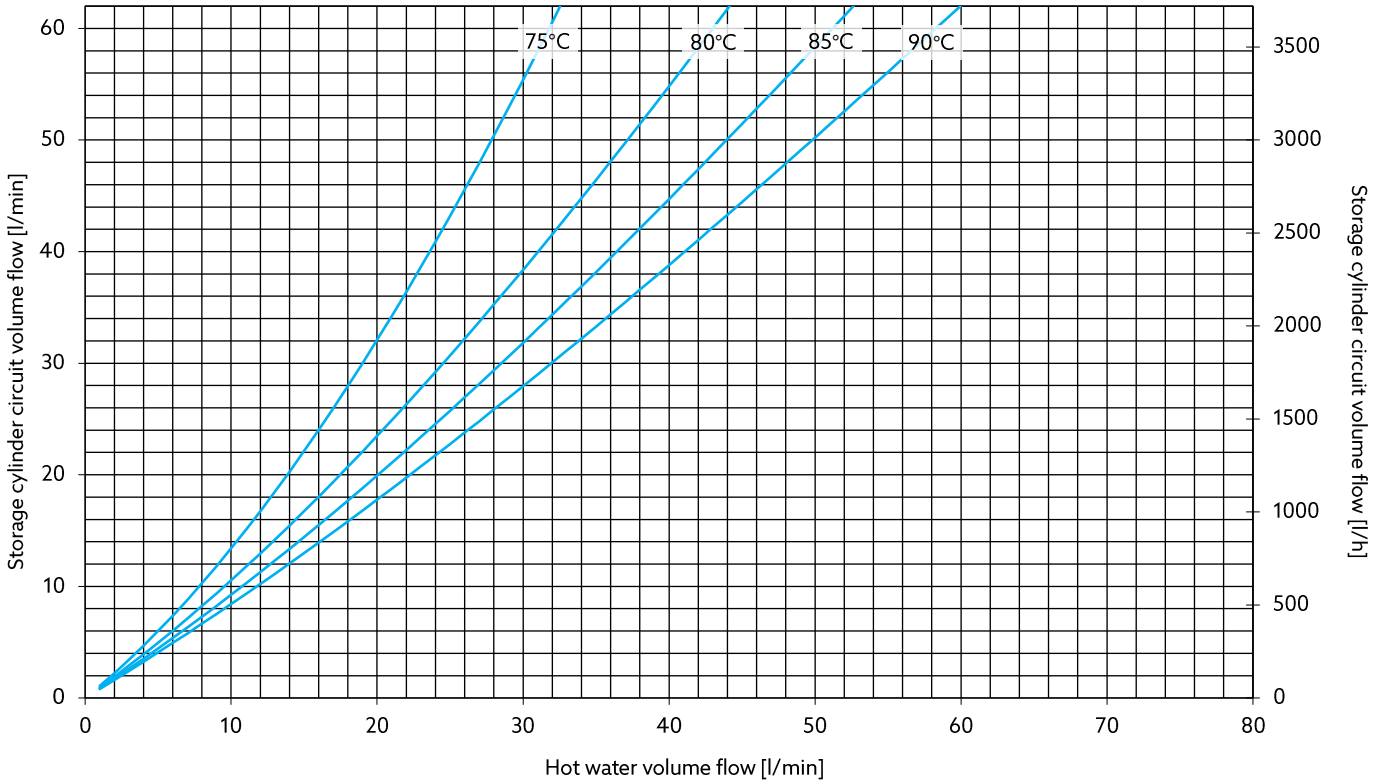
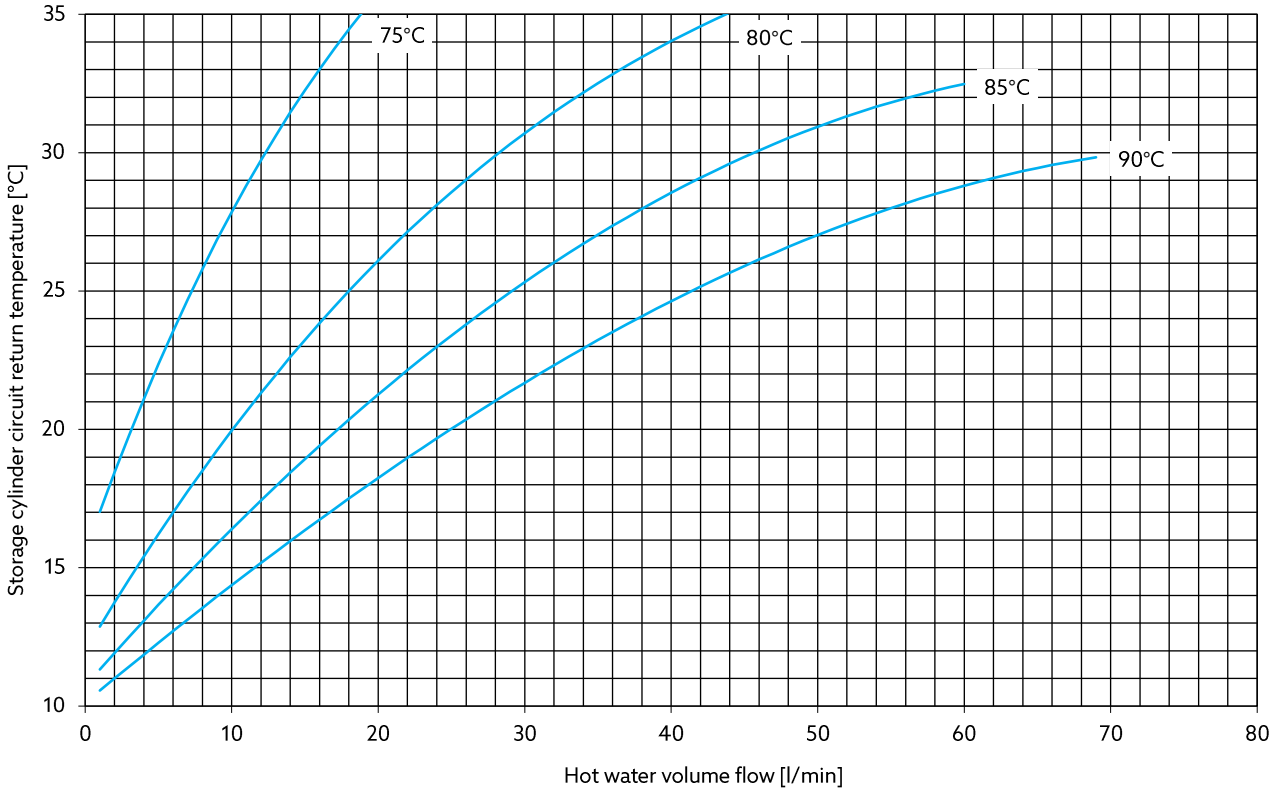
Heating of potable water from 10 °C to 75 °C

(Performance data according to SPF test procedure)

Volume flow of the storage cylinder circuit at different flow temperatures



Return temperature of the storage cylinder circuit at different flow temperatures



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