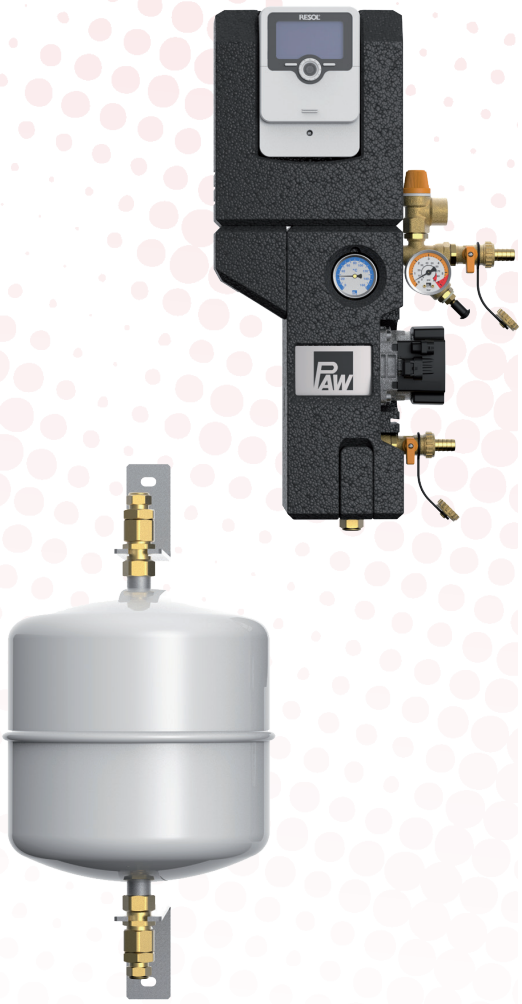
DrainBloC® – DN 20

Innovative pressurised drain-back system
with self-draining collector

DrainBloC® – DN 20



Application ranges

Drain-back system

for small and medium solar thermal installations

System advantages:

Pressurised system, thus air molecules don't enter the solar circuit

Simple adjusting of pressure by means of Schrader valve (automatic)

Quick draining in case of pump stagnation

Simple and optimal level adjustment

Plug&Play, optimal drain-back values already preset

Safe filling process without pressure surges

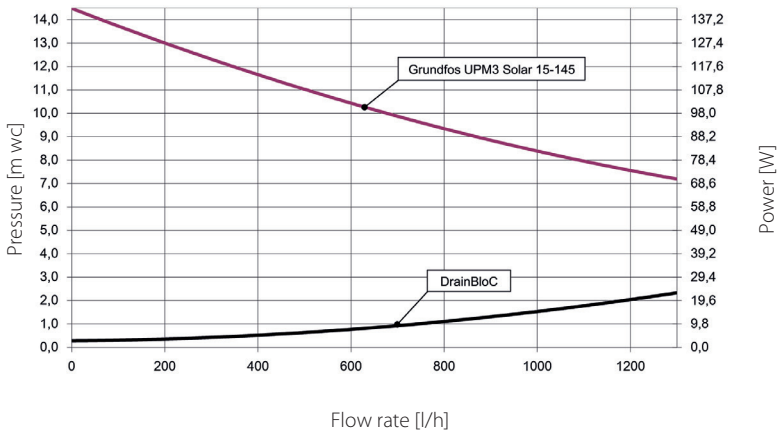
Quiet operation

Detailed and illustrated operation instructions
Available in the following languages:

Further languages are available on request.

TECHNICAL DATA DRAINBLOC® DN 20	
Materials	
Valves and fittings	Brass
Gaskets	Klingersil / EPDM
Technical data	
Max. pressure	10 bars
Maximum operating temperature	95 °C, short-term: 130 °C
Head of the pump	14.5 m wc
Container volume	20 litres (usable 15 litres)
Equipment	
PWM pump	2-60 W, PWM control
Flow meter	0.5 - 10 l/min
Pressure relief valve	6 bars
Pressure gauge	0-6 bars, resistant to high temperatures
Controller	SC2.3
Dimensions	
Connections	¾" ext. thread, flat sealing
Centre distance	variable, at least 400 mm
Width	721 mm
Height	622 mm
Depth	365 mm

Differential pressure diagram DrainBloC® DN 20



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Technical data and accessories

Design insulation with optimised function made of EPP
- elastic, front and back shell snap in accurately
- optimum thermal insulation

Intermediate tank
- made of steel, for high pressure resistance
- high container volume of 20 litres

Wall bracket
- zinc-galvanised steel sheet
- specially formed, for a quick and easy wall assembly of the complete station

Controller SC2.3

specially for operation in a drain-back system
- with monitoring and possibility of heat quantity

Solar pressure gauge

with double scale for bars/psi

Schrader valve (automatic)

comfortable adjusting of operating pressure by mans of commercial Schrader valve (automatic)

High-efficiency pump with PWM control
- up to 14.5 m head
- fitted with controller
- with serial number

Flow meter

for precise flow rate measurement

Connections ¾" ext. thread

flat-sealing, brass, for a safe connection of stainless steel corrugates pipes

OVERVIEW CONTROLLER FUNCTIONS SC2.3	
Display	Segment display with intuitive imagery and symbols
Operation	2 push buttons + wheel for scrolling
Relay outputs	2 x 230 V, semiconductor relay 1 x PWM signal for speed control
Sensor inputs	5 x Pt1000
Flow rate sensor	yes
Balancing of operating hours	yes
Heat quantity balancing	yes
Emergency shut down	yes
Target temperature	yes
Antifreeze	yes

Data for the calculation of the installation volume Usable volume of the DrainBloC® container: 15 l		
	Ø	Volume [l/m]
Copper pipe	12 mm	0.08
	15 mm	0.13
	18 mm	0.2
	22 mm	0.38
Stainless-steel corrugated hose	DN 15	0.2
	DN 20	0.35
Collector	according to the indications of the collector manufacturer	

Illustration	DrainBloC® – DN 20	Item no.
	**DrainBloC® – DN 20,** Drain-back system incl. high-efficiency pump with PWM control and intermediate tank	**6104425**

Why using a drain-back system?

DrainBloC® - Ideal solution: draining of the collector field

Vapour and over-pressure formation is avoided, as there is no solar fluid in the collector field

No stagnation of the system

Diaphragm expansion tank not necessary due to the air cushion in the system

In case of swithing on the pump:

Back filling of the collector field out of the container

Transfer of heat into the storage tank by means of the solar fluid

The intelligent system

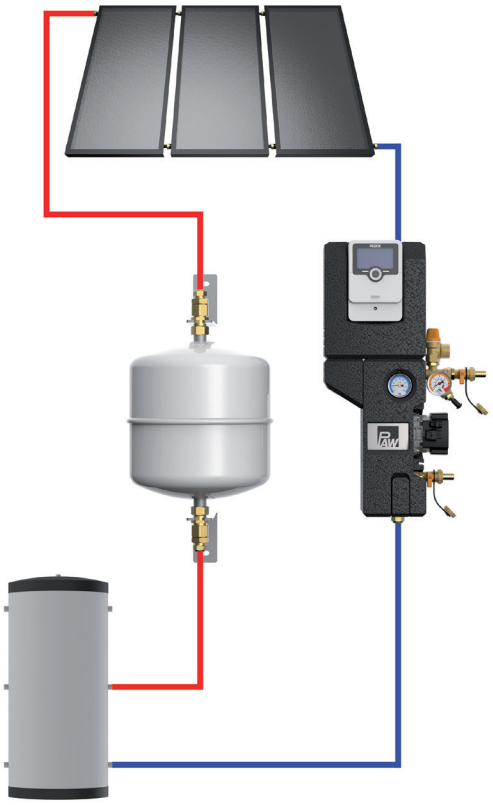
Control via collector and storage tank temperature sensors

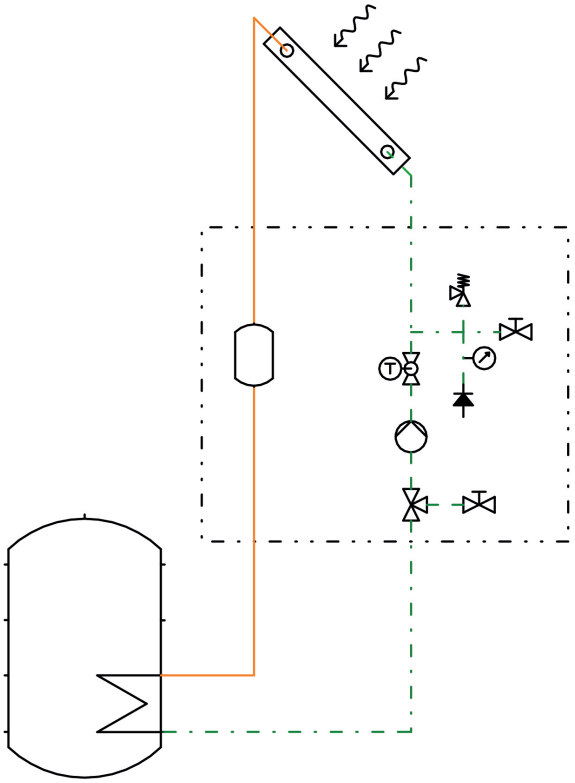
Automatic reduction of pump performance after startup phase by means of the controller

Speed control of the pump performance during operation: Optimum adaptation to the operating conditions of the system

System with compressed air cushion: pressurised system → high system stability

Innovative drain-back mechanism: draining of the collector is ensured





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