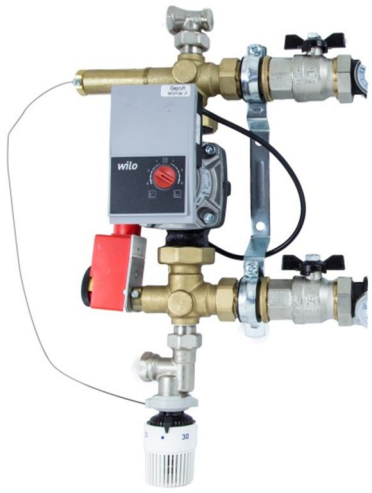
9100 pump unit for 9000TP manifold



Application

Let just add a radiator circuit (high temperature) and a floor heating and refreshing circuit (low temperature). Ideal for renovation or extension as it adapts directly to a heating system equipped with radiators without additional or special control circuit.

Description

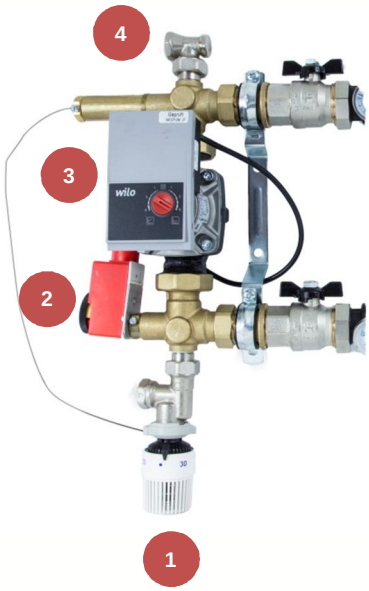
- Specifically for use with Biofloor manifold series 9000 (same center distance)
- Equipped with pump Wilo RS 25/6 Yonos PARA RKA (Class A - ErP 2015).
- Complete package already pre-mounted.
- Fits directly and without sealing to the modular manifold Biofloor 9000.
- Secure and integrated thermal prewired (action on the pump).
- Robust and reliable (no electronics).

Models

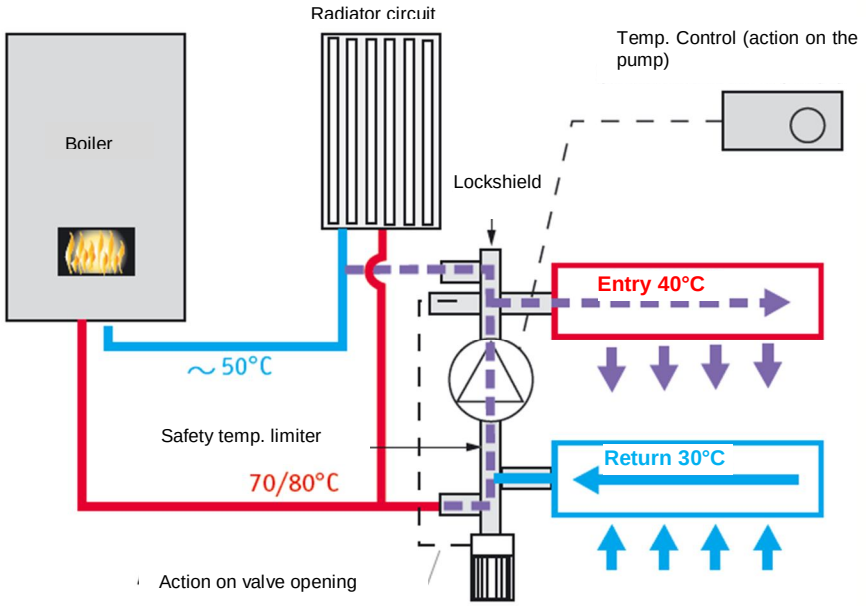
Item code	Description	
C321048001	Pump unit for 9000 Manifold	1

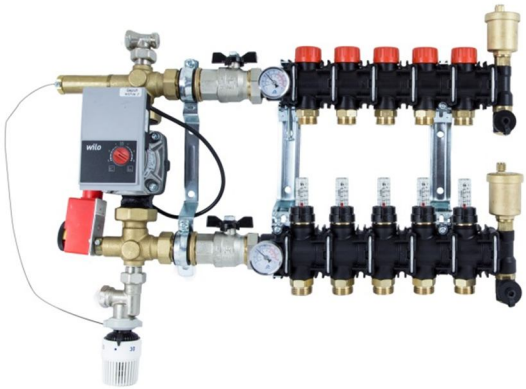
Composition

1. Thermostatic valve ST 6803, regulates floor heating flow temperature setpoint displayed on the wheel.
2. Safety Temperature limiter: Cutting the pump in case of accidental increase in temperature floor heating.
3. Circulator WILO Yonos PARA HU 25/6 (Class A).
4. Adjustable fitting for balancing the floor heating circuit in relation to the radiator circuit.



Operation





Technical features

Tch	Ppcbt max	Qpcbt max	Tpcbt
(°C)	**(kW)**	**(l/h)**	**(°C)**
65 à 80	10	1400	30 à 45

- **Tch (°C)**: radiator circuit temperature
- **Ppcbt (kW)**: underfloor heating system power
- **Qpcbt (l/h)**: underfloor heating system flow rate
- **Tpcbt (°C)**: underfloor heating system temperature

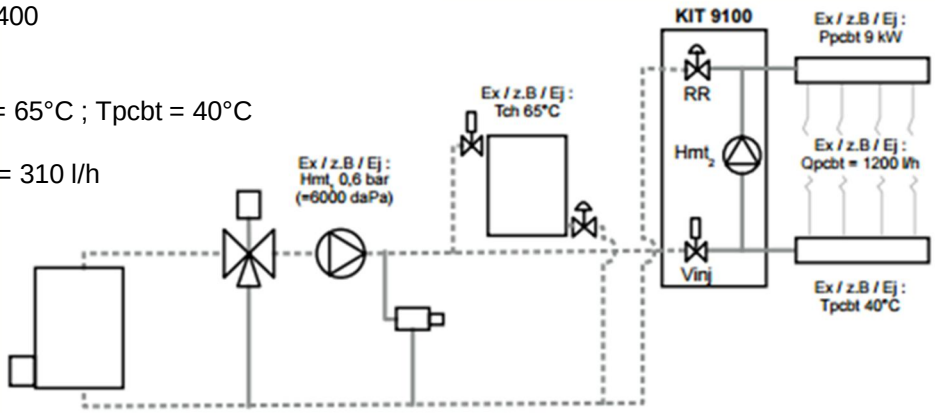
Control of the injection limit

Qinj the injection rate (l / h) from the radiator circuit to the underfloor heating and cooling circuit should be between 100 and 400 (l / h).

$$100 \leq Qinj = \frac{1000 \times Ppcbt}{1{,}163 \times (Tch - Tpcbt)} \leq 400$$

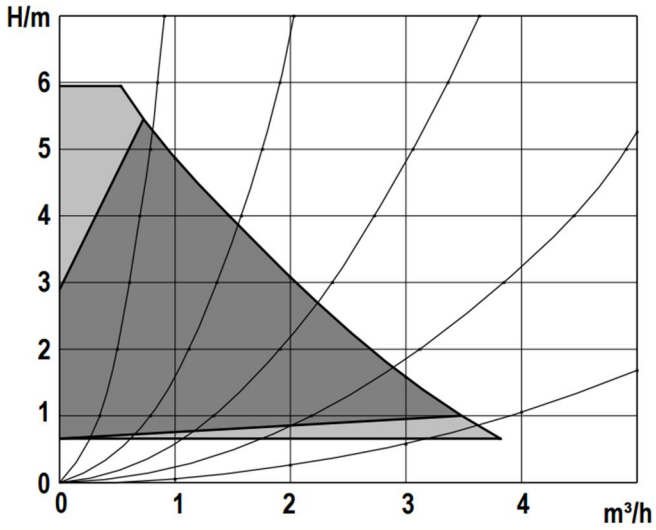
***Example*:** Ppcbt = 9 kW ; Tch = 65°C ; Tpcbt = 40°C

$$Qinj = \frac{1000 \times 9}{1{,}163 \times (65-40)} = 310 \text{ l/h}$$



ΔP determination

Pump hydraulic curve



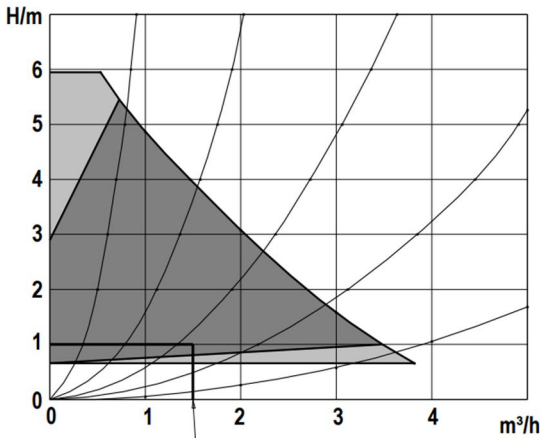
Example (after) :

For a pump flow

$$Qpump = Qinj + Qpcbt$$
$$= 310 + 1200 = 1500 \text{ l/h}$$
$$= 1{,}5 \text{ m}^3/\text{h}$$

H/m = 1 = 1000 daPa

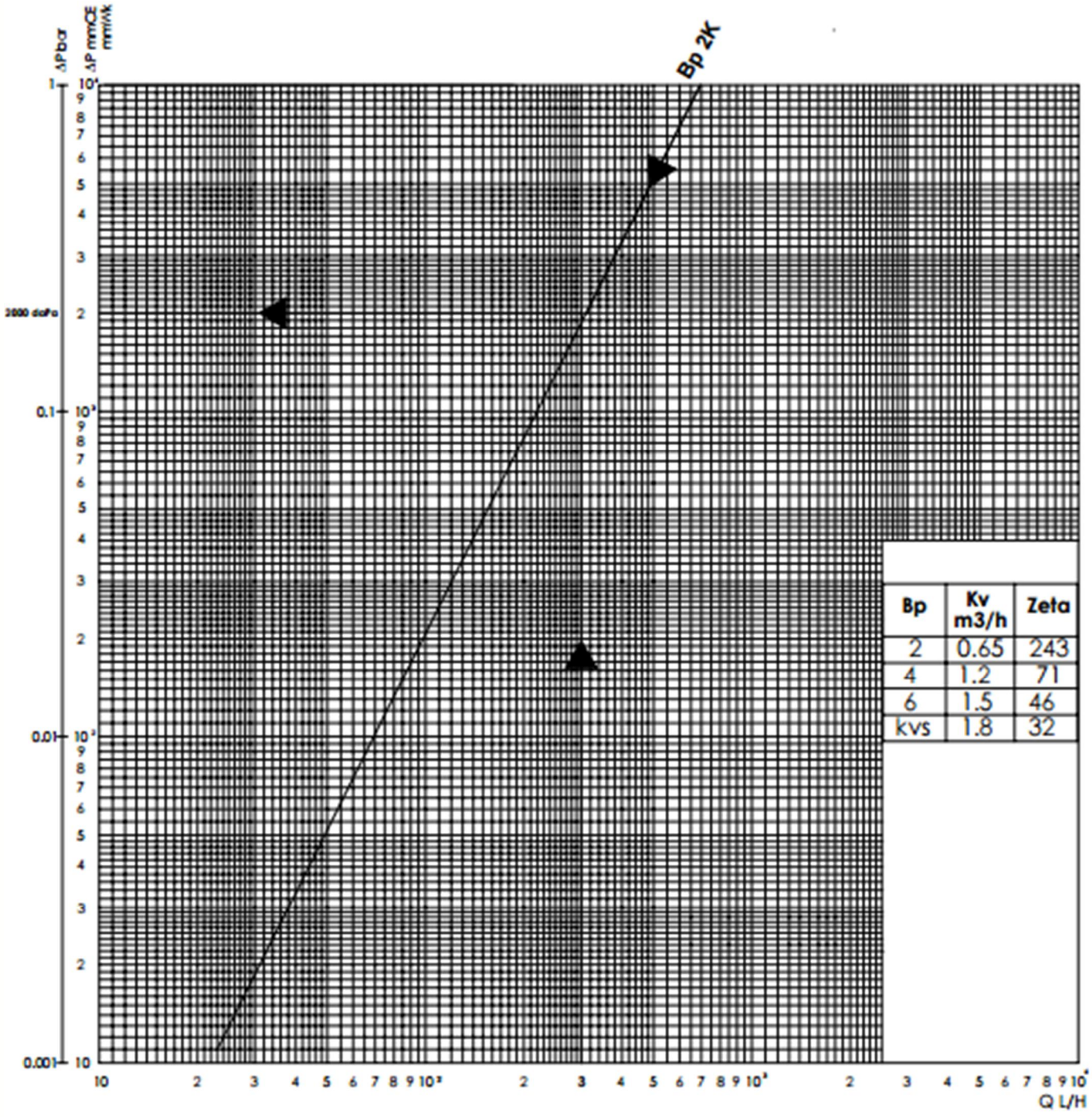
ΔP = 1000 daPa



ΔP Qinj determination

Thermostatic control curve 6803ST set to Tpcbt.

Example (after):
For a pump flow Qinj = 310 l/h
ΔP Qinj = 2000 daPa

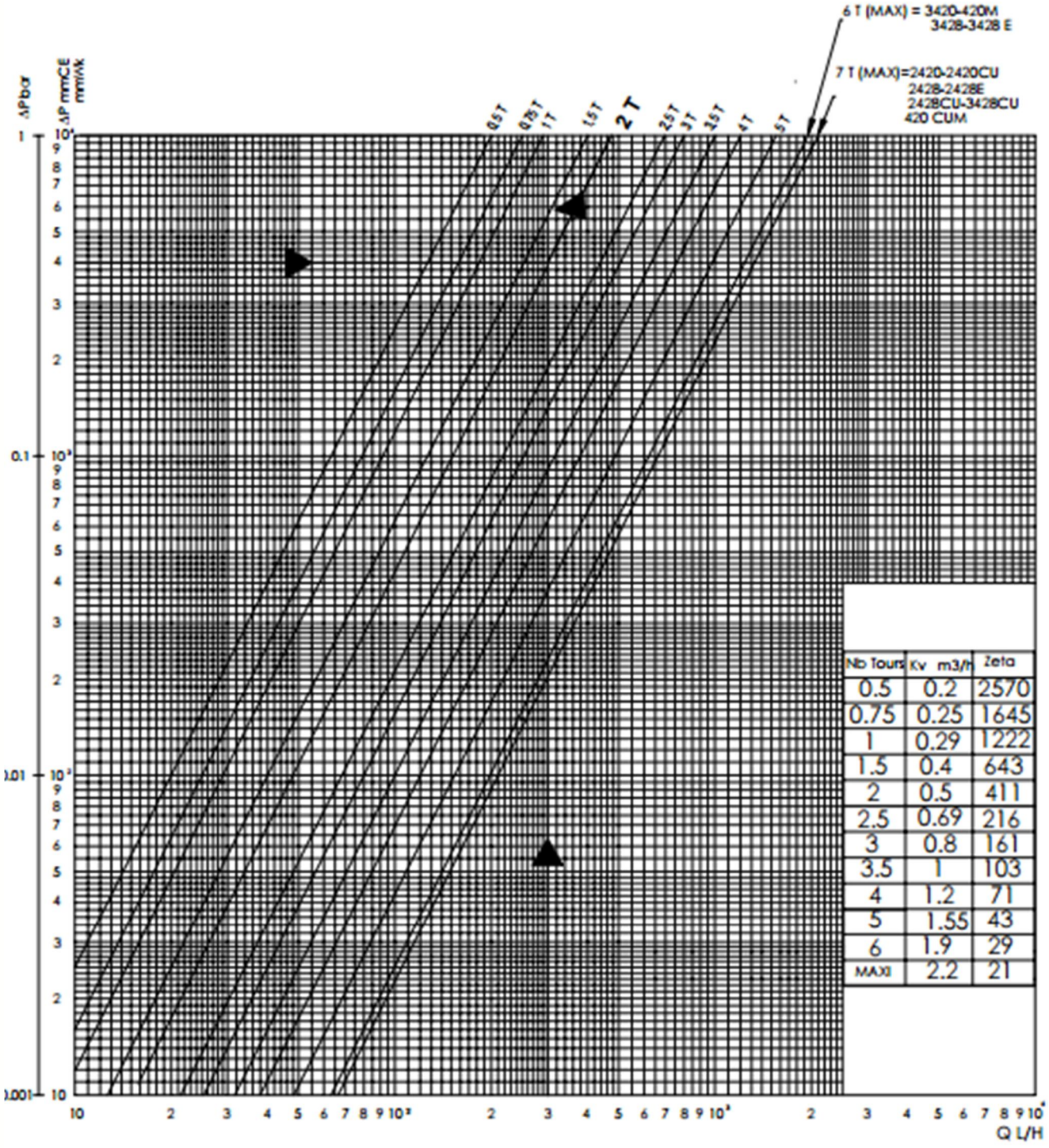


Bp	Kv m3/h	Zeta
2	0.65	243
4	1.2	71
6	1.5	46
kvs	1.8	32

ΔP Lockshield determination

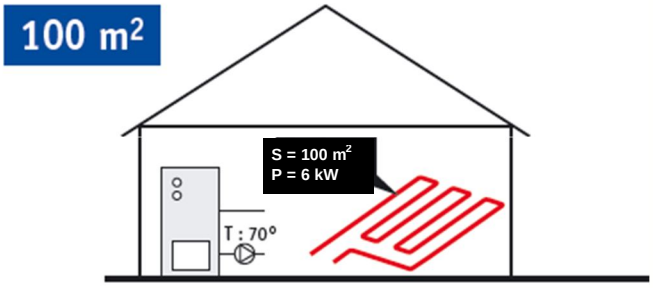
ΔP RR = (Hmt1 + Hmt2) – (ΔP + ΔP Qinj)

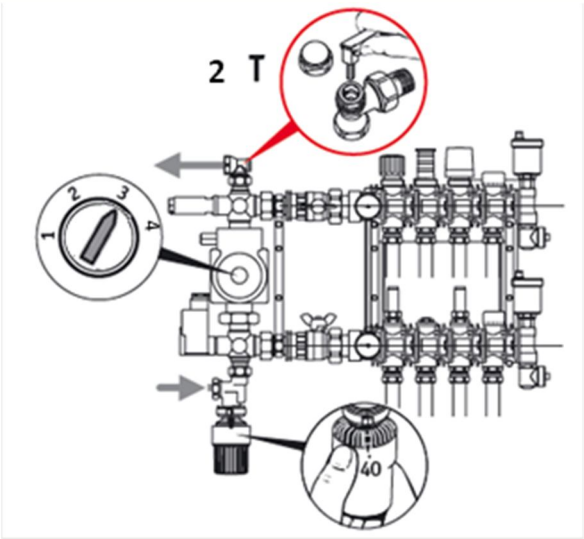
Example (after): ΔP RR = (6000 + 1000) – (1000 + 2000) = 4000 daPa
Qinj = 310 l/h
Set the lockshield at 2 rounds



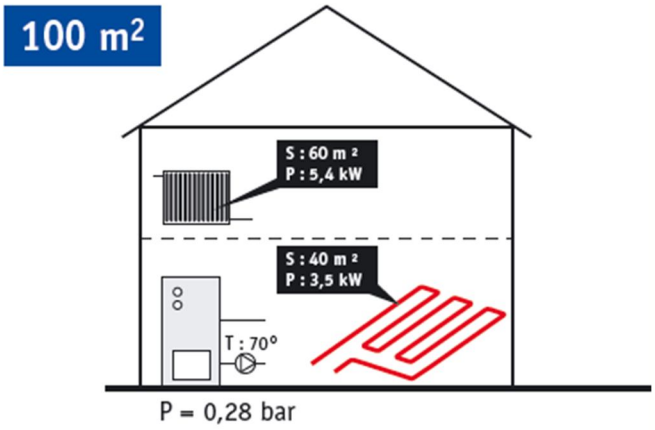
Quick settings

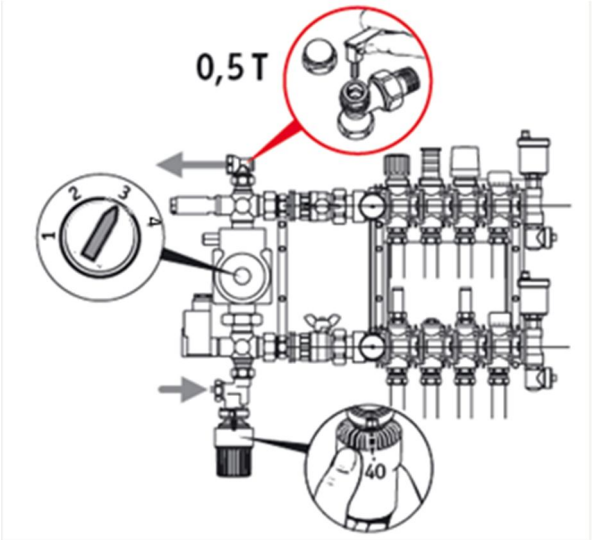
100m² of underfloor heating only



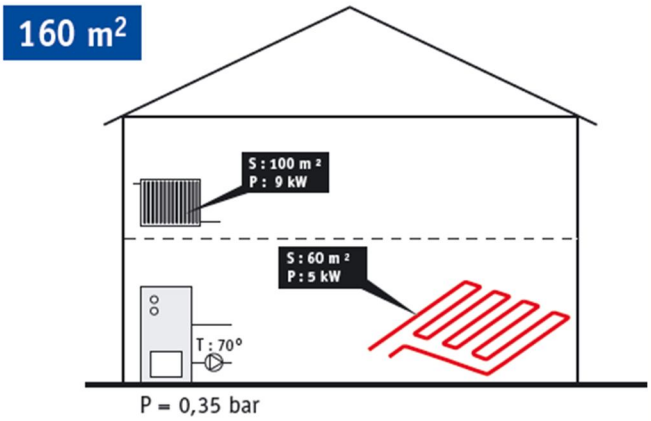


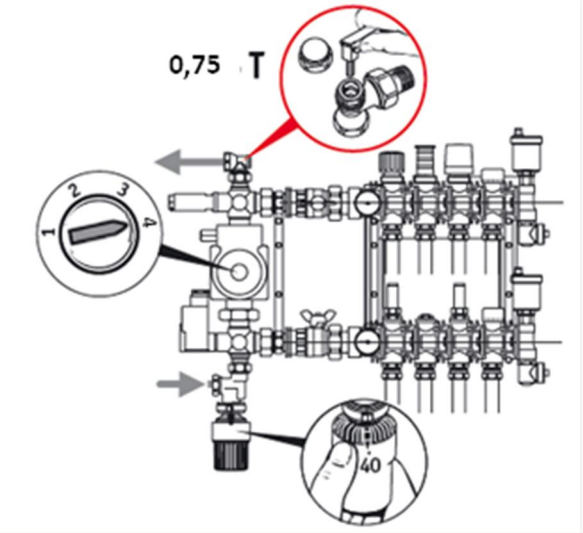
40m² of underfloor heating and 60m² with radiators





60m² of underfloor heating and 100m² with radiators





80m² of underfloor heating and120m² with radiators