

# Compact manifold with 90° bends

Combined flow and return manifold with 90° bends, consisting of rectangular tubing as standard design, with chambers made of black sheet steel S235 arranged adjacent to one another and separated by sinusoidal parting wall, configured with threaded and/or flanged nozzles PN 6/PN 16 exiting adjacent to one another at the front and back sides and directed upwards. Nozzles aligned to the height of the shut-off valves. Drainage bushings for flow and return chambers are provided as standard. The compact manifold is 100% tightness tested and primed before leaving the factory.

Manufacturer certification	
Description	Compact manifold with 90° bends
Design pressure	6 or 16 bar
Design temperature	0/+110 °C
Design procedure	Article 4, Paragraph 3
Manufacturer	Sinusverteiler GmbH Dieselweg 2 48493 Wettringen/Germany

We declare under our sole responsibility that the pressure equipment meets the requirements of Directive 2014/68/EU. This product was manufactured in accordance with the principles of GEP "Good Engineering Practice".

Compact manifold 6 bar

Type	Power at Δt 20 K	Heating water flow rate	Water capacity	Heat transfer at 70 °/50 °C		Return flow increase	Main body weight	Largest nozzle/boiler connection	Nozzle spacing	Wall thickness
[WxH]	[kW]	[m³/h]	[litres/running metre]	[kW/running metre]	[%]	[K/running metre]	[kg/running metre]	[DN]	[mm]	[mm]
120/80	150	6.5	8.0	2.7	1.8	0.3	13.8	50/65	200/250 variable	4
160/80	150	6.5	8.0	2.6	1.7	0.3	13.8	50/65	variable	4
180/110	400	17.2	17.6	4.2	1.0	0.2	20.5	80/100	250/300/350/variable	4
200/120	600	25.8	21.5	4.3	1.0	0.2	22.6	100/125	250/300/350/variable	4
280/180	1250	53.8	45.0	7.8	0.6	0.1	46.8	125/150	300/350/variable	6
300/200	1600	68.8	54.1	8.3	0.5	0.1	51.3	125/150	300/350/variable	6
400/200	2100	90.0	72.9	10.6	0.5	0.1	61.2	150	variable	6
450/250	3500	150.0	101.5	11.5	0.3	<0.1	95.4	200	variable	8
500/300	4500	194.0	137.3	13.6	0.3	<0.1	113.0	250	variable	8
600/400	6200	267.0	216.5	13.1	0.2	<0.1	168.7	300	variable	12
700/500	9100	391.0	321.0	14.6	0.2	<0.1	261.9	300	variable	12

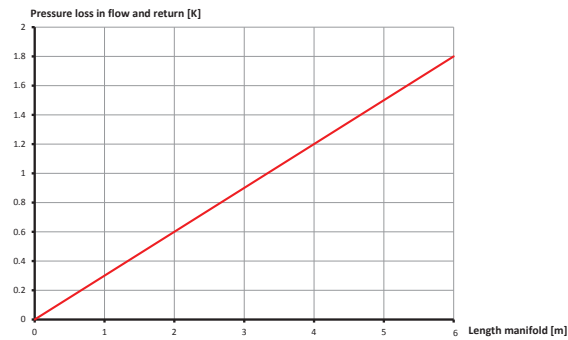
Compact manifold 16 bar

Type	Power at Δt 20 K	Heating water flow rate	Water capacity	Heat transfer at 70 °/50 °C		Return flow increase	Main body weight	Largest nozzle/boiler connection	Nozzle spacing	Wall thickness
[WxH]	[kW]	[m³/h]	[litres/running metre]	[kW/running metre]	[%]	[K/running metre]	[kg/running metre]	[DN]	[mm]	[mm]
120/80	150	6.5	8.0	2.6	1.7	0.3	13.8	50/65	200/250/variable	4
160/80	250	10.8	10.0	3.3	1.3	0.3	21.5	65/80	250/300/variable	6
180/110	400	17.2	16.4	4.2	1.0	0.2	28.7	80/100	250/300/350/variable	6
200/120	600	25.8	20.3	4.8	0.8	0.2	31.8	100/125	250/300/350/variable	6
280/180	1250	53.8	43.2	7.5	0.6	0.1	54.2	125/150	300/350/variable	8
300/200	1600	68.8	52.2	7.9	0.5	0.1	65.5	125/150	300/350/variable	8
400/200	2100	90.0	68.3	9.5	0.5	0.1	97.2	150	variable	10
450/250	3500	150.0	98.0	10.9	0.3	0.1	114.7	200	variable	10
500/300	4500	194.0	131.3	12.0	0.3	<0.1	158.1	250	variable	12
600/400	6200	267.0	210.8	12.3	0.2	<0.1	258.0	300	variable	15
700/500	9100	391.0	314.8	13.8	0.2	<0.1	313.9	300	variable	15

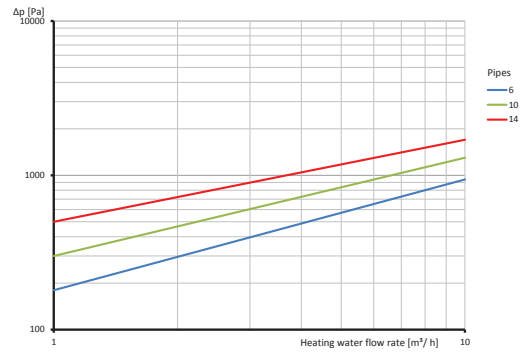
## Heat transfer and pressure loss between flow and return chambers

Heat transfer diagram showing the return temperature increase in Kelvin [K] per running metre. Manifold length and pressure loss diagram to show pressure loss dependent on the water throughput for a given number of nozzles.

### Type 120/80

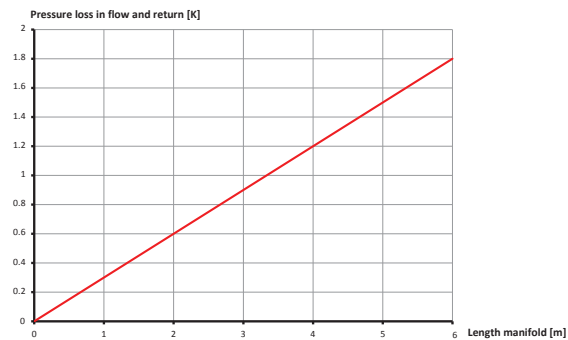


Heat transfer between flow and return chambers

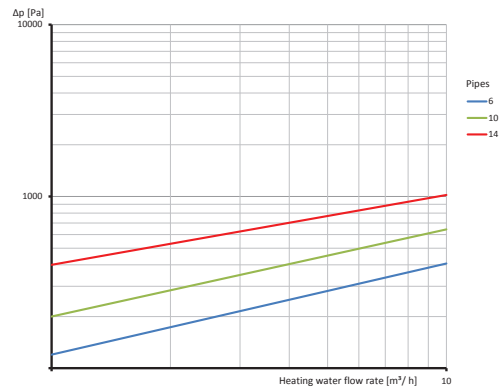


Pressure loss in flow and return

### Type 160/80

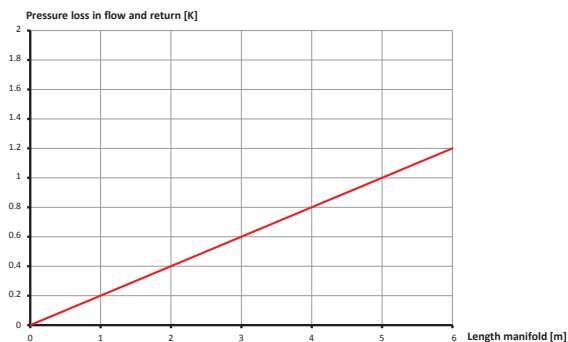


Heat transfer between flow and return chambers

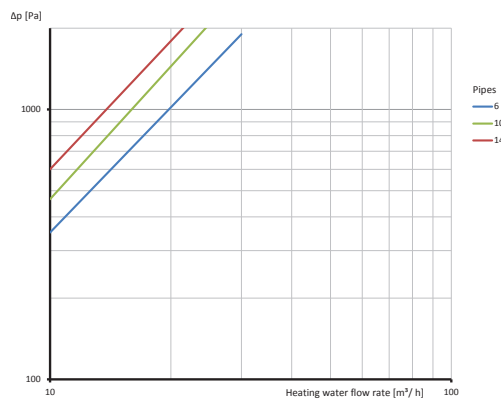


Pressure loss in flow and return

### Type 180/110

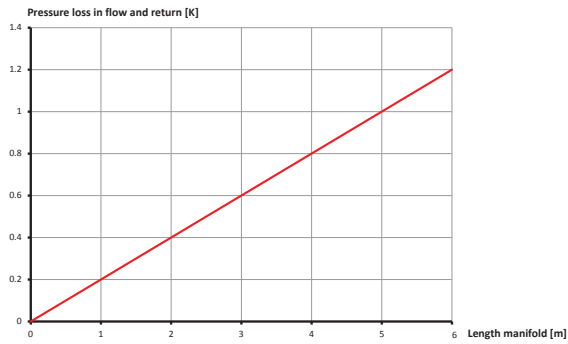


Heat transfer between flow and return chambers



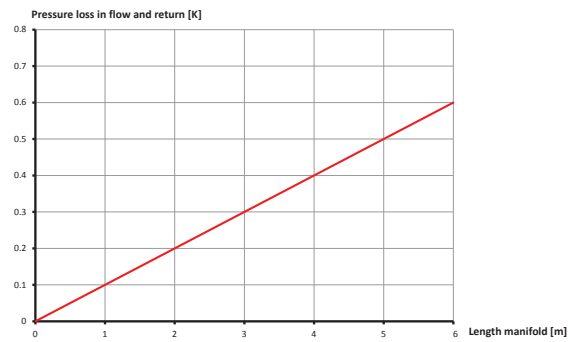
Pressure loss in flow and return

### Type 200/120



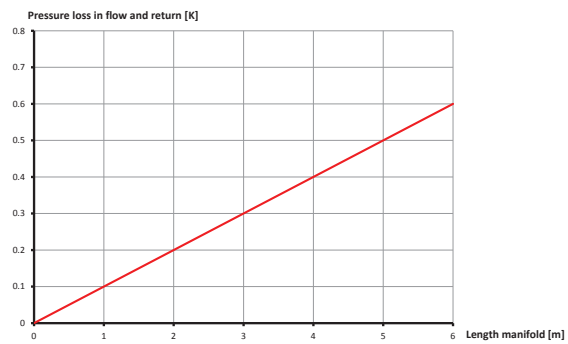
Heat transfer between flow and return chambers

### Type 280/180



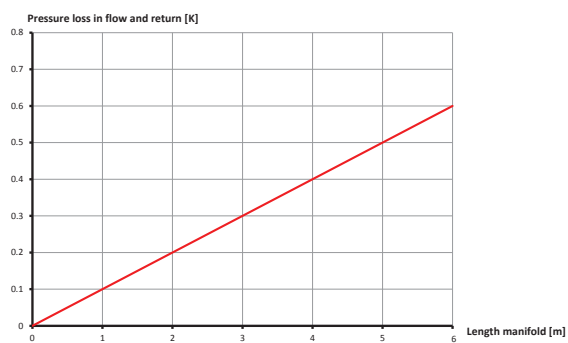
Heat transfer between flow and return chambers

### Type 300/200

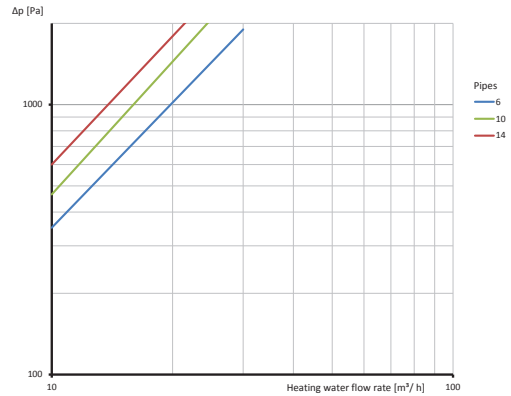


Heat transfer between flow and return chambers

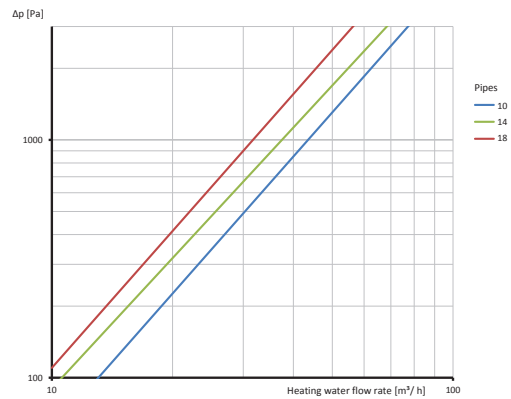
### Type 400/200



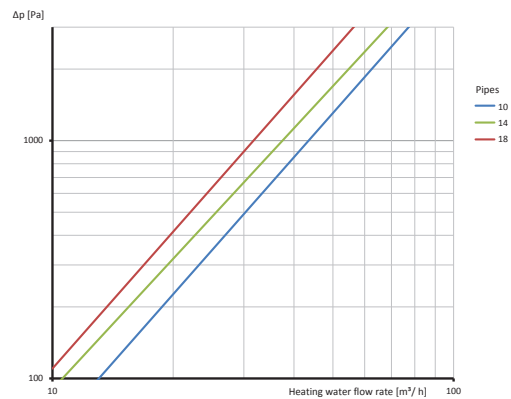
Heat transfer between flow and return chambers



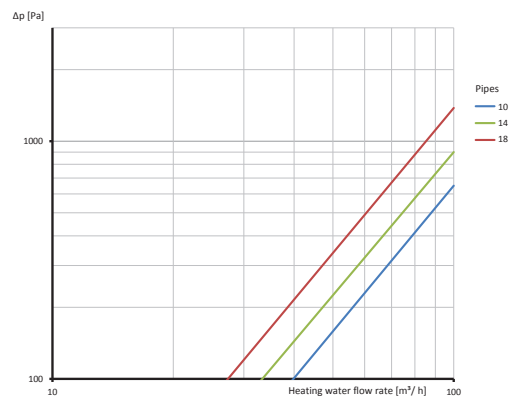
Pressure loss in flow and return



Pressure loss in flow and return

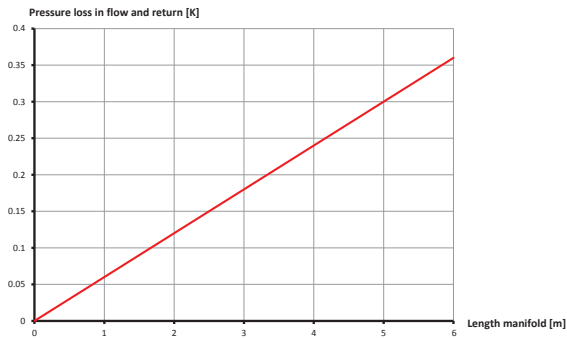


Pressure loss in flow and return



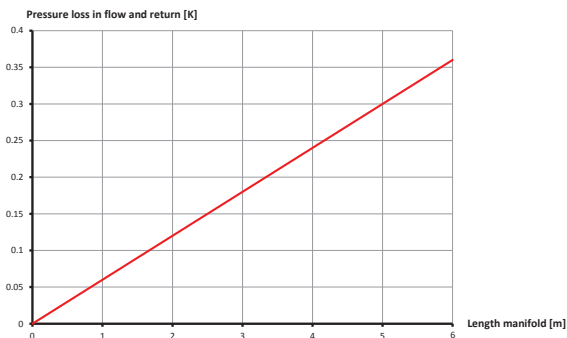
Pressure loss in flow and return

### Type 450/250



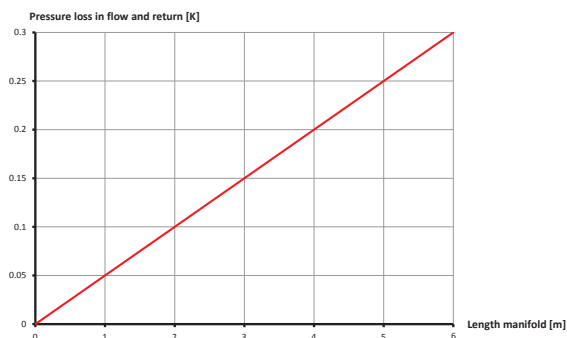
Heat transfer between flow and return chambers

### Type 500/300



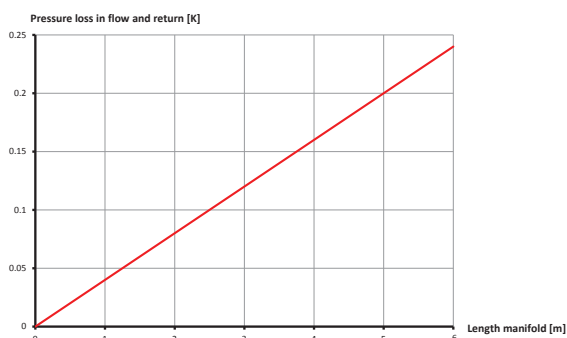
Heat transfer between flow and return chambers

### Type 600/400

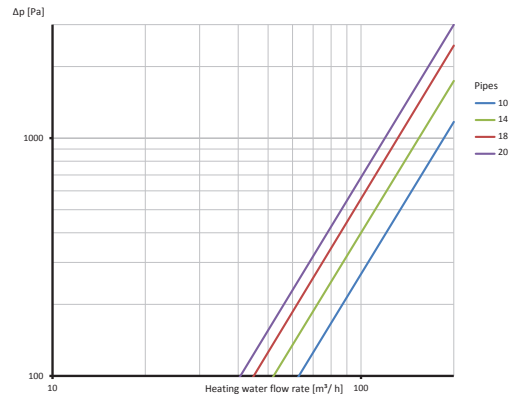


Heat transfer between flow and return chambers

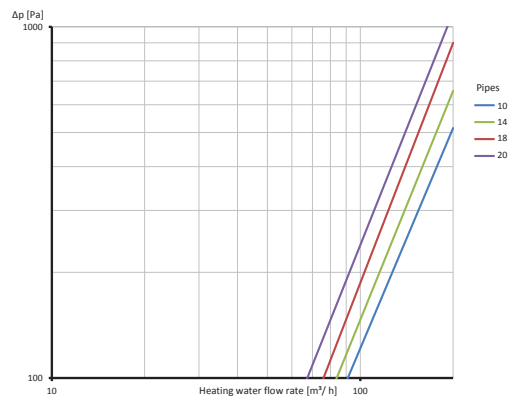
### Type 700/500



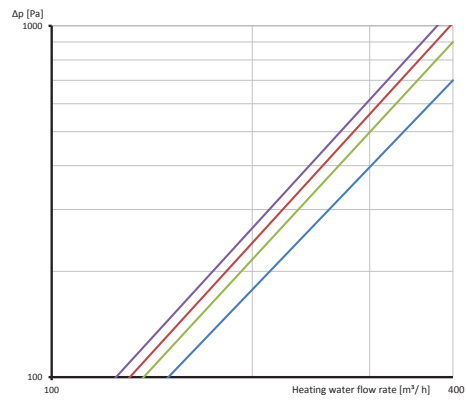
Heat transfer between flow and return chambers



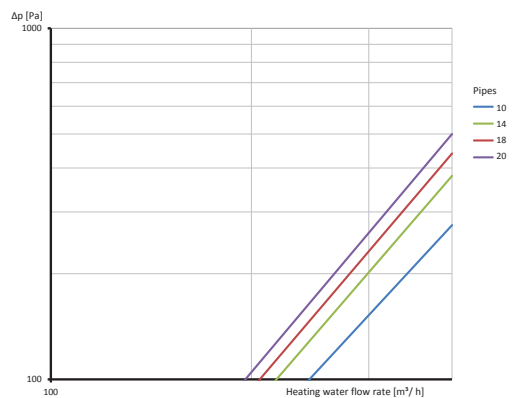
Pressure loss in flow and return



Pressure loss in flow and return



Pressure loss in flow and return



Pressure loss in flow and return