

Technical data sheet

Compact manifold – Thermally separated

Combined flow and return manifold consisting of rectangular tubing in standard design with 20 mm air cavity with chambers made of black sheet steel S235 arranged adjacent to one another and separated by sinusoidal parting wall. Nozzles configured as threaded and/or flanged nozzles PN 6/PN 16. All nozzles are aligned to the height of the shut-off valves, and can be at the top, side or underneath. 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, thermally separated
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]
160/81	210	9.0	9.2	0.002	0.001	0.0002	22.0	65	250/300/variable	4
180/111	320	13.8	15.2	0.003	0.001	0.0002	26.6	80	250/300/variable	4
200/121	510	22.0	18.9	0.004	0.001	0.0002	30.0	80	250/300/variable	4
280/181	980	42.0	41.1	0.006	0.002	0.0001	53.9	125	300/350/variable	6
300/201	1400	60.2	49.8	0.006	0.002	0.0001	58.7	125	300/350/variable	6
400/201	1800	77.0	68.6	0.007	0.002	0.0001	94.6	150	variable	6
450/251	2900	125.0	96.1	0.008	0.003	0.0001	107.6	200	variable	8
500/300	4500	194.0	130.9	0.010	0.000	0.0001	127.3	250	variable	8
600/401	6200	267.0	206.2	0.013	0.000	0.0000	241.5	300	variable	12
700/501	9100	391.0	308.7	0.016	0.000	0.0000	295.5	350	variable	12

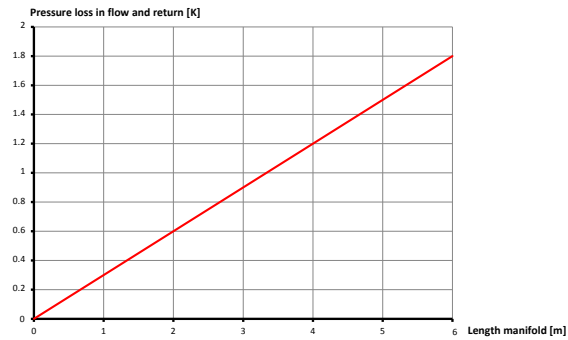
Compact manifold 16 bar

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]
160/81	210	9.0	8.3	0.002	0.0010	0.0002	28.5	65	variable	6
180/111	320	13.8	14.0	0.003	0.0010	0.0002	36.3	80	variable	6
200/121	510	22.0	17.6	0.004	0.0007	0.0001	40.2	80	variable	6
280/181	980	42.0	39.3	0.006	0.0006	0.0001	66.7	125	variable	8
300/201	1400	60.2	47.8	0.006	0.0004	0.0001	86.2	125	variable	8
400/201	1800	77.0	64.0	0.006	0.0003	0.0001	115.9	150	variable	10
450/251	2900	125.0	90.3	0.008	0.0003	0.0001	166.4	200	variable	12
500/300	4500	194.0	124.1	0.009	0.0002	0.0000	193.9	250	variable	12
600/401	6200	267.0	201.3	0.012	0.0002	0.0000	292.3	300	variable	15
700/501	9100	391.0	302.9	0.016	0.0002	0.0000	356.7	350	variable	15

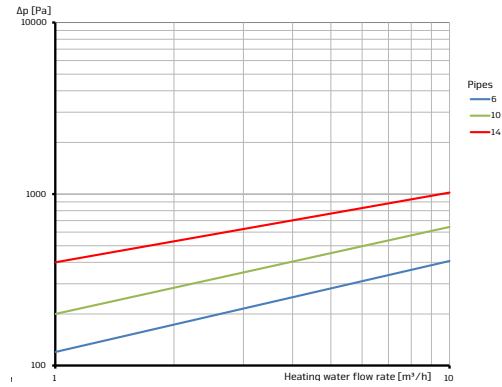
Heat transfer and pressure loss between flow and return chambers

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

Type 160/81

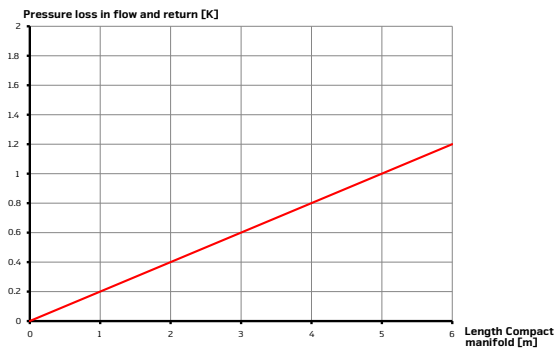


Heat transfer between flow and return chambers

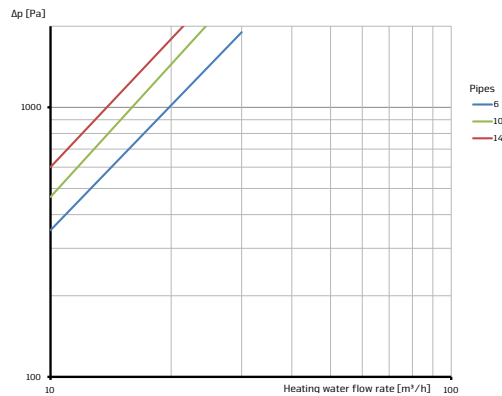


Pressure loss in flow and return

Type 180/111

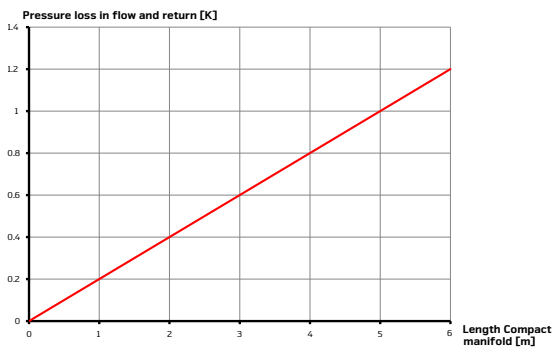


Heat transfer between flow and return chambers

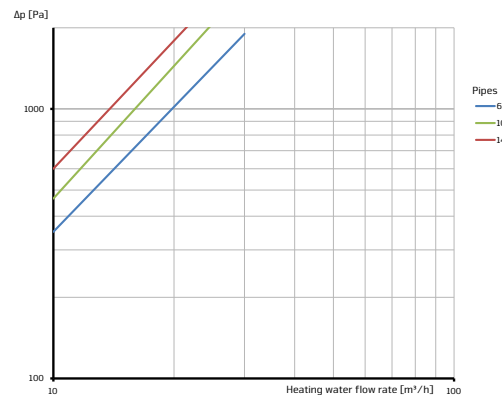


Pressure loss in flow and return

Type 200/121

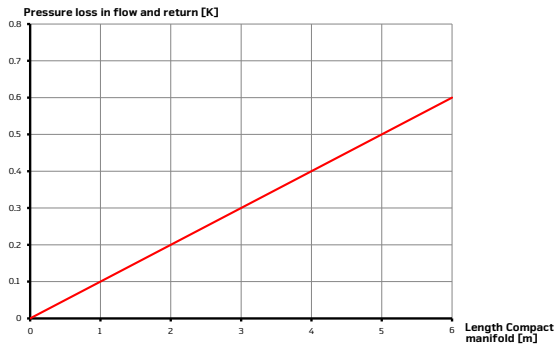


Heat transfer between flow and return chambers



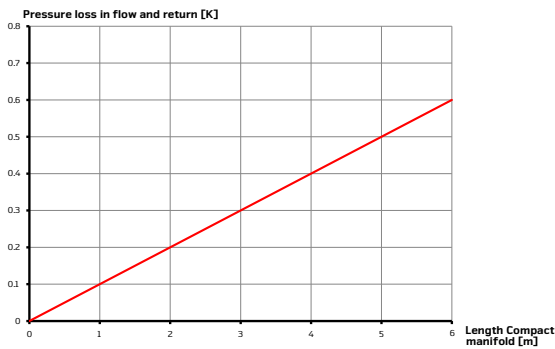
Pressure loss in flow and return

Type 280/181



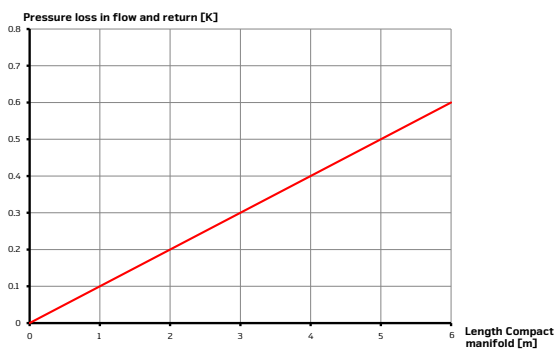
Heat transfer between flow and return chambers

Type 300/201



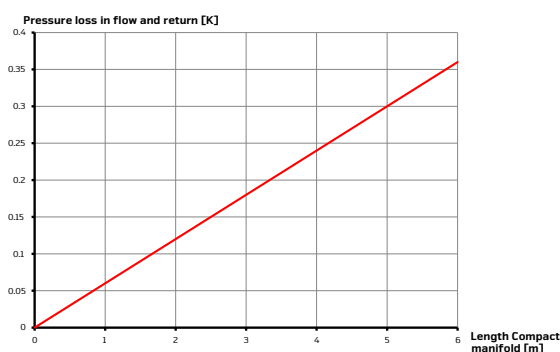
Heat transfer between flow and return chambers

Type 400/201

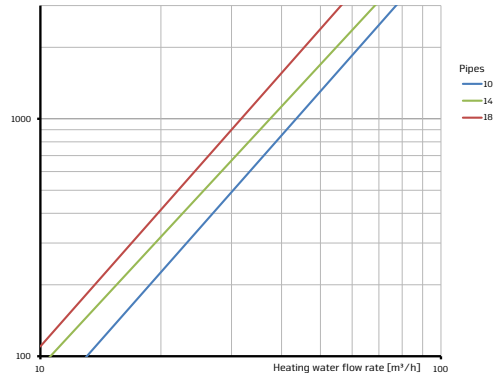


Heat transfer between flow and return chambers

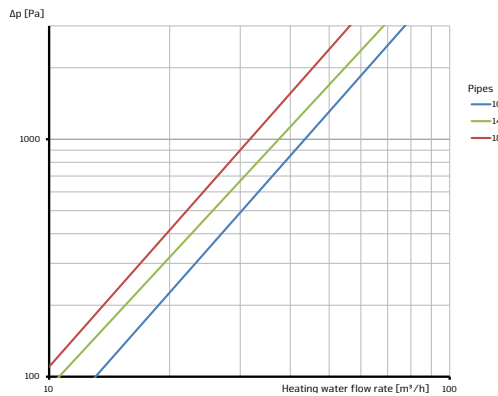
Type 450/251



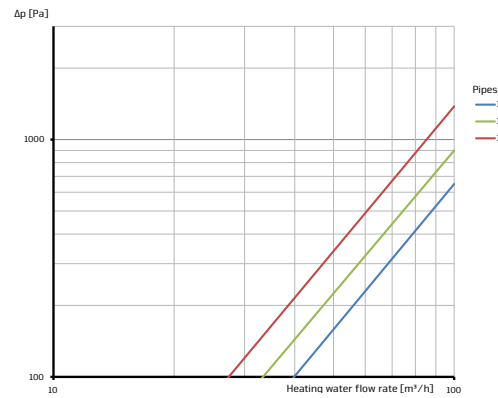
Heat transfer between flow and return chambers



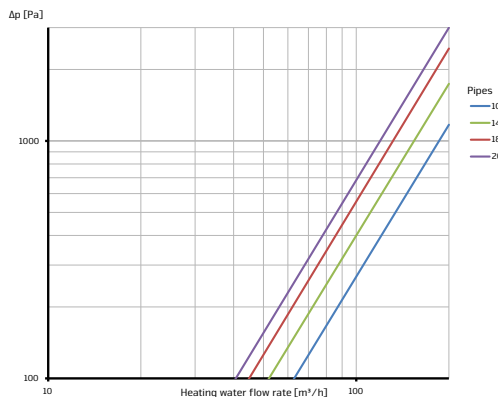
Pressure loss in flow and return



Pressure loss in flow and return

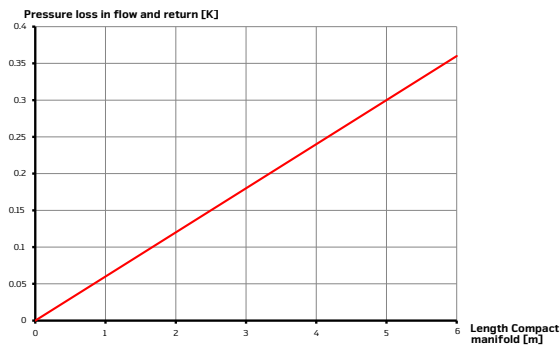


Pressure loss in flow and return

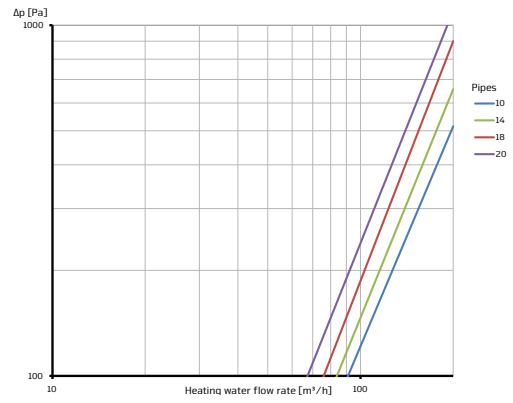


Pressure loss in flow and return

Type 500/301

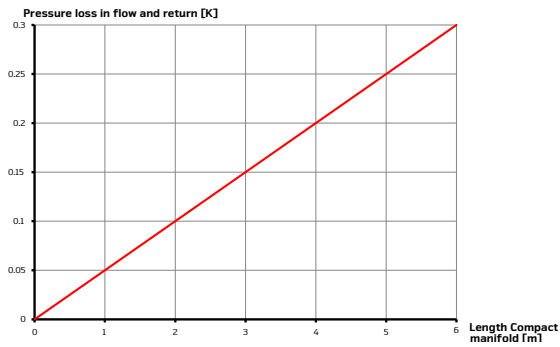


Heat transfer between flow and return chambers

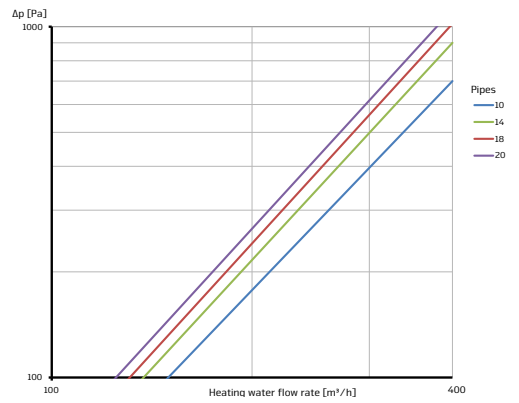


Pressure loss in flow and return

Type 600/401

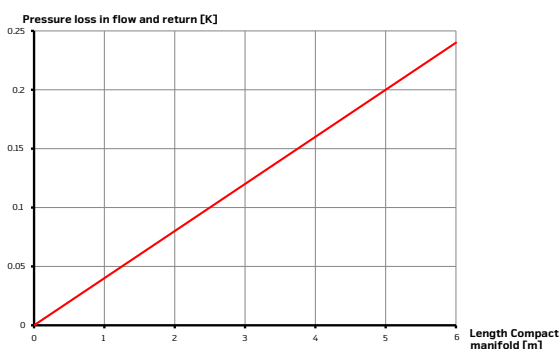


Heat transfer between flow and return chambers

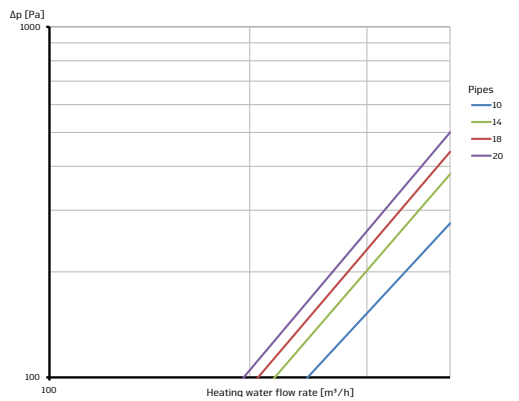


Pressure loss in flow and return

Type 700/501



Heat transfer between flow and return chambers



Pressure loss in flow and return