

Technical data sheet

ProfiFixx flange pump groups

ProfiFixx flange pump groups complete system includes:

- Compact manifold, thermally separated compact manifold or HydroFixx
- Feeder - Regulated heating circuits - Unregulated heating circuits

Manufacturer certification	
Description	ProfiFixx Flange pump groups
Design pressure	up to 6 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

Combined flow and return manifold consisting of rectangular tubing with chambers made of black sheet steel S235 arranged adjacent to one another and separated by sinusoidal parting wall. Nozzles configured as flanged nozzles PN 6 and aligned to the height of the ProfiFixx flange pump groups. Boiler connection at the top, side or underneath. Drainage bushings for flow and return chambers are provided as standard. The Sinus manifold is 100% tightness tested and primed before leaving the factory.

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 in the heating circuit/between heating circuits	Wall thickness
[WxH]	[kW]	[m³/h]	[litres/running metre]	[kW/running metre]	[%]	[K/running metre]	[kg/running metre]	[DN]	[mm]	[mm]
160/80	150	6.5	8.0	2.6	1.7	0.3	13.8	50/65	290/330	4
180/110	400	17.2	17.6	4.2	1.0	0.2	20.5	80/100	290/330	4
200/120	600	25.8	21.5	4.3	1.0	0.2	22.6	100/125	290/330	4
280/180	1250	53.8	45.0	7.8	0.6	0.1	46.8	125/150	290/330	6
300/200	1600	68.8	54.1	8.3	0.5	0.1	51.3	125/150	290/330	6

Compact manifold, thermally separated

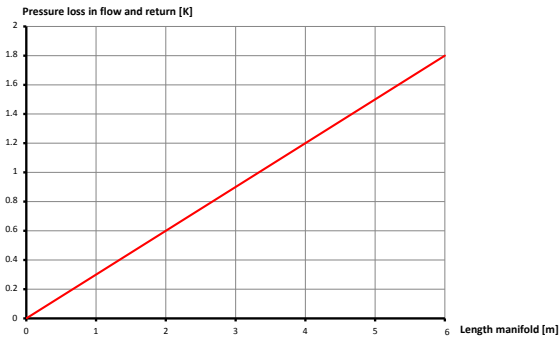
Combined flow and return manifold consisting of rectangular tubing in standard design with 20 mm air cavity with chambers made of black sheet steel S235 arranged adjacent to one another and separated by sinusoidal parting wall. Nozzles configured as threaded and/or flanged nozzles PN 6/PN 16. All nozzles 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.

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 in the heating circuit/between heating circuits	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	290/330	4
180/111	320	13.8	15.2	0.003	0.001	0.0002	26.6	80	290/330	4
200/121	510	22.0	18.9	0.004	0.001	0.0002	30.0	80	290/330	4
280/181	980	42.0	41.1	0.006	0.002	0.0001	53.9	125	290/330	6
300/201	1400	60.2	49.8	0.006	0.002	0.0001	58.7	125	290/330	6

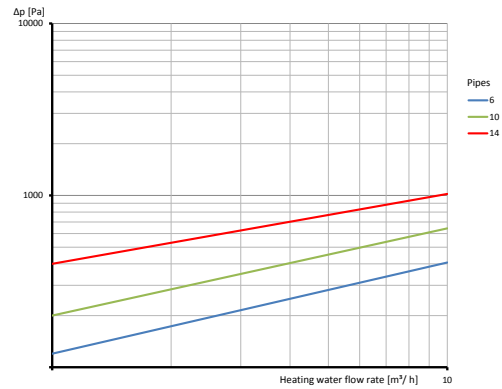
Heat transfer and pressure loss between flow and return chambers

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 160/80

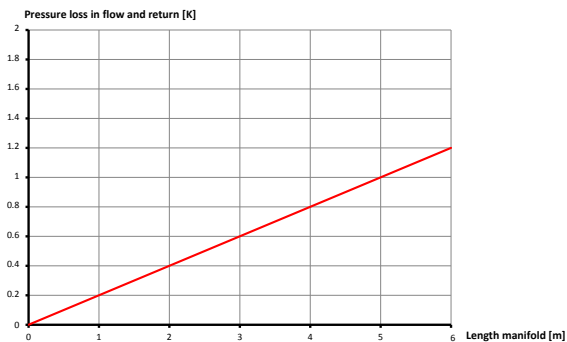


Heat transfer between flow and return chambers

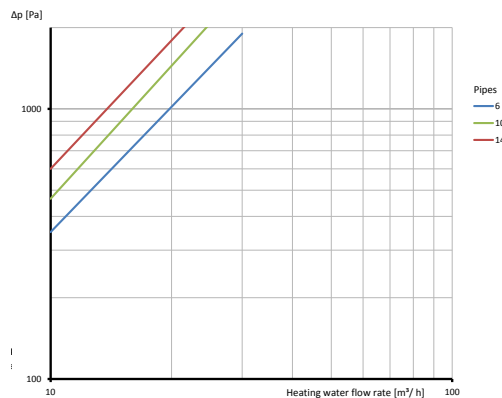


Pressure loss in flow and return

Type 180/110

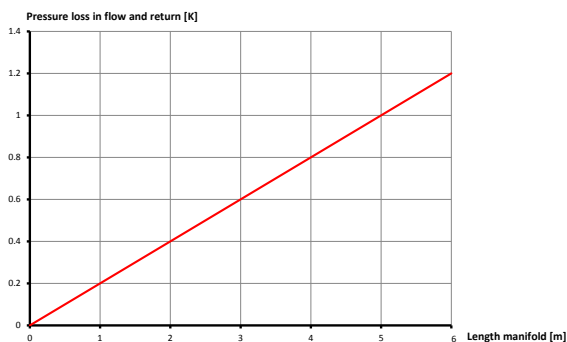


Heat transfer between flow and return chambers

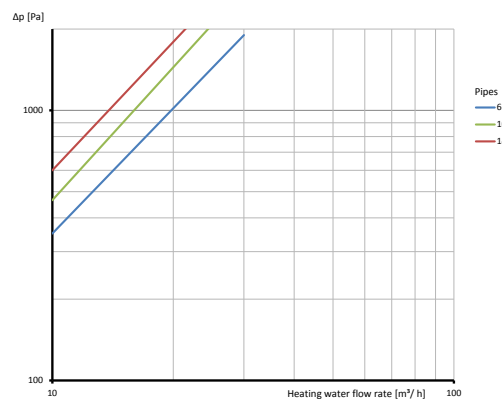


Pressure loss in flow and return

Type 200/120

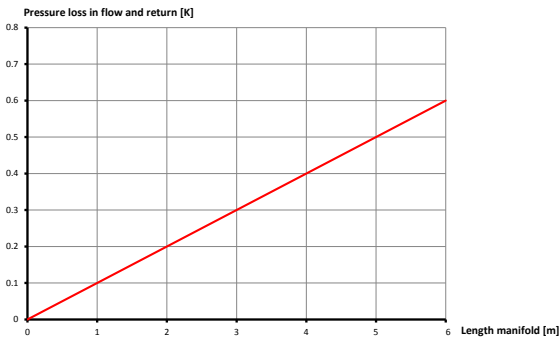


Heat transfer between flow and return chambers

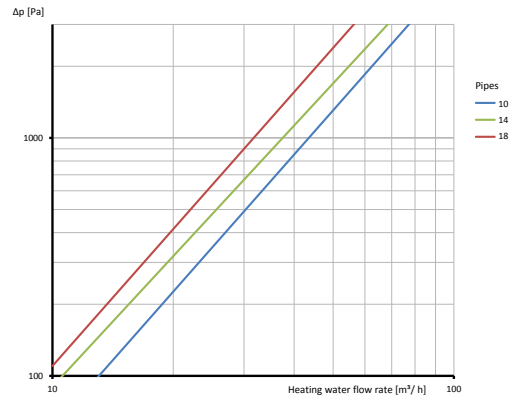


Pressure loss in flow and return

Type 280/180

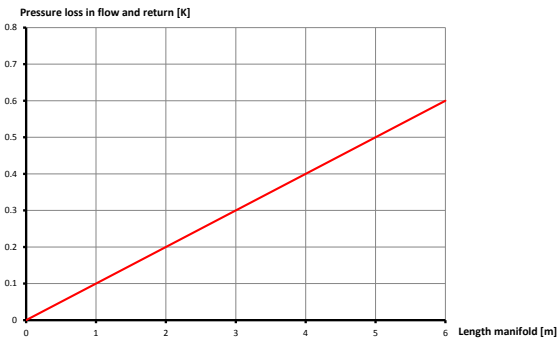


Heat transfer between flow and return chambers

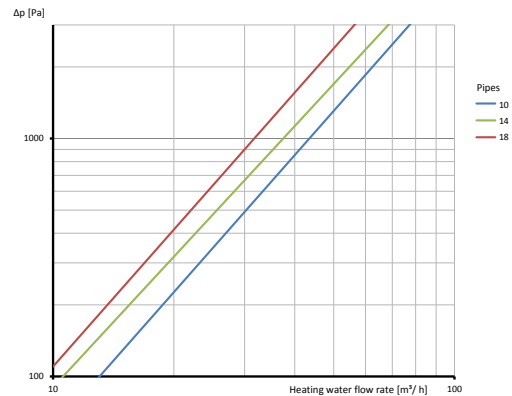


Pressure loss in flow and return

Type 300/200



Heat transfer between flow and return chambers



Pressure loss in flow and return

HydroFixx

Combined flow and return manifold with chambers arranged adjacent to one another and separated by sinusoidal parting wall, with hydraulic separator welded on horizontally directly beneath the chambers. Made from rectangular profile S235. Feed from/to the heating boiler can take place both from above at the Sinus compact manifold and from below, at the hydraulic separator. Heating circuit connections configured as threaded and/or flanged nozzles PN 6/16 and aligned to the height of the shut-off valves. With sludge trap with sludge removal bushing exiting downwards. The HydroFixx is 100% tightness tested and primed before leaving the factory.

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 in the heating circuit/between heating circuits	Wall thickness
[WxH]	[kW]	[m³/h]	[litres/running metre]	[kW/running metre]	[%]	[K/running metre]	[kg/running metre]	[DN]	[mm]	[mm]
120/120	160	7.0	8.0	2.7	1.8	0.3	19.8	50/65	290/330	4
160/160	250	10.8	10.9	3.7	1.5	0.3	26.2	65/80	290/330	4
180/180	400	17.2	17.6	4.2	1.0	0.2	30.3	80/100	290/330	4
200/200	600	25.8	21.5	4.3	1.0	0.2	33.7	100/125	290/330	4
280/320	1,250	53.8	45.0	7.8	0.3	0.1	72.6	125/150	290/330	6
300/350	1,600	68.8	54.1	8.3	0.5	0.1	79.0	125/150	290/330	6

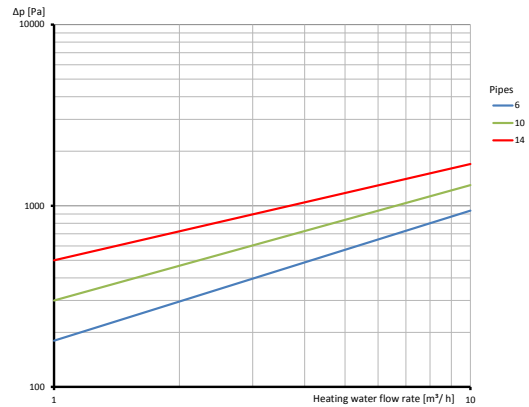
Heat transfer and pressure loss between flow and return chambers

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 120/120

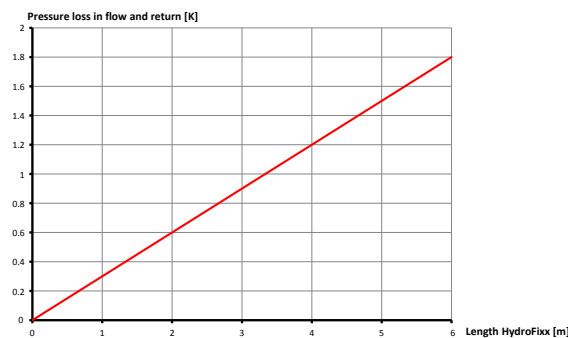


Heat transfer between flow and return chambers

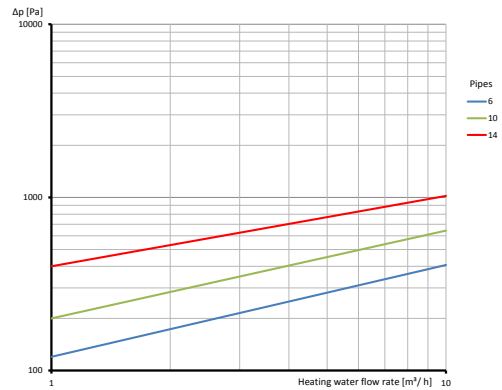


Pressure loss in flow and return

Type 160/160

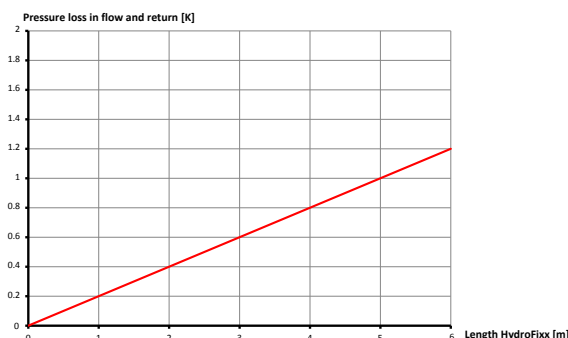


Heat transfer between flow and return chambers

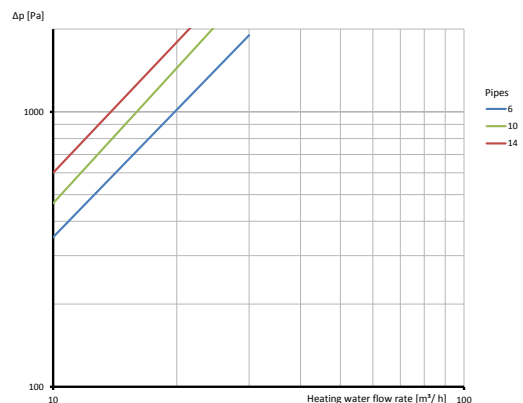


Pressure loss in flow and return

Type 180/180

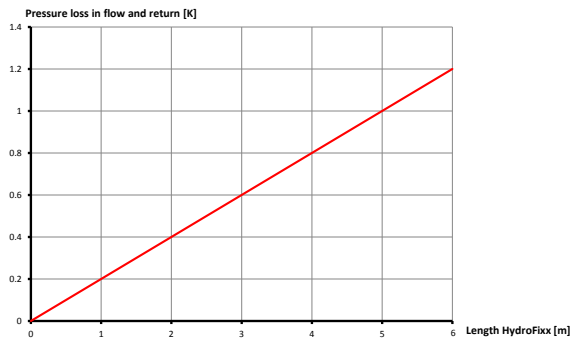


Heat transfer between flow and return chambers

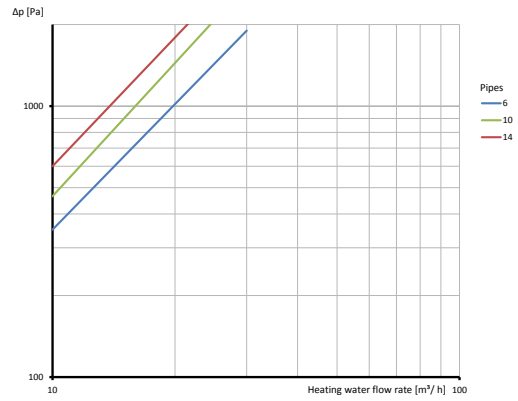


Pressure loss in flow and return

Type 200/200

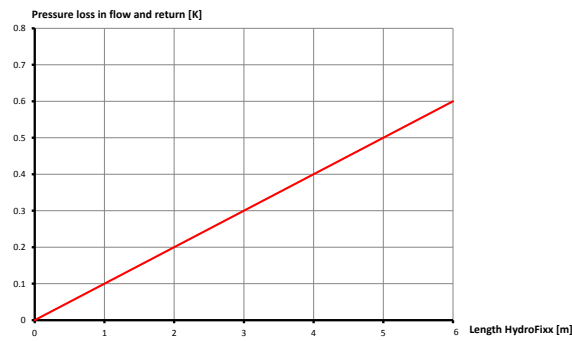


Heat transfer between flow and return chambers

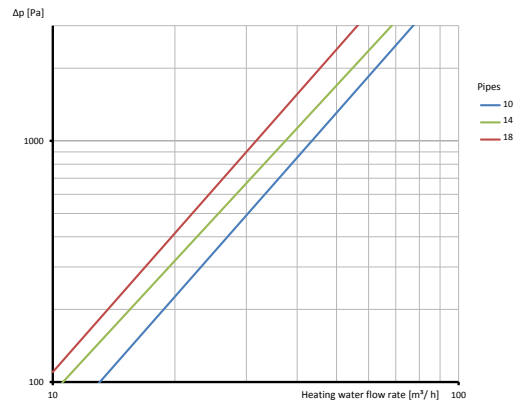


Pressure loss in flow and return

Type 280/320

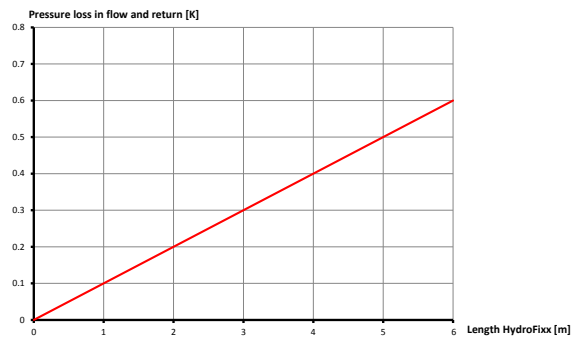


Heat transfer between flow and return chambers

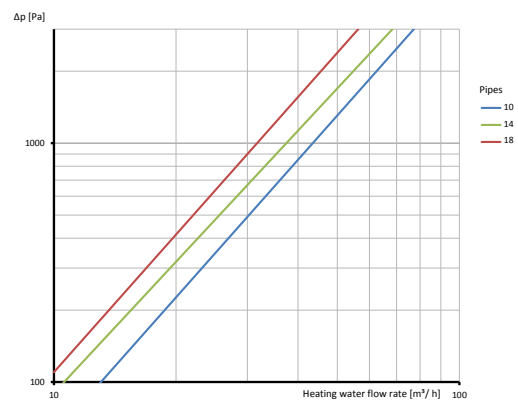


Pressure loss in flow and return

Type 300/350

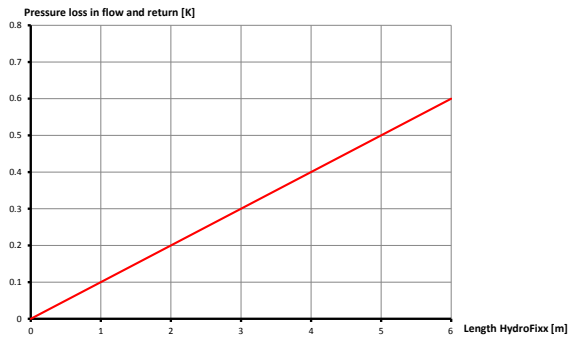


Heat transfer between flow and return chambers

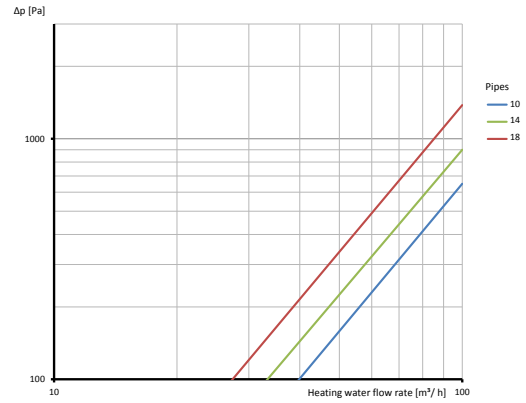


Pressure loss in flow and return

Type 400/400

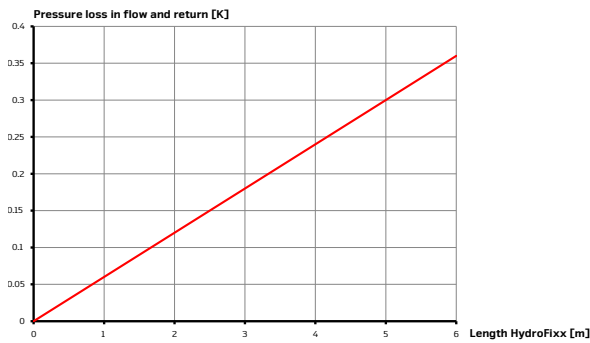


Heat transfer between flow and return chambers

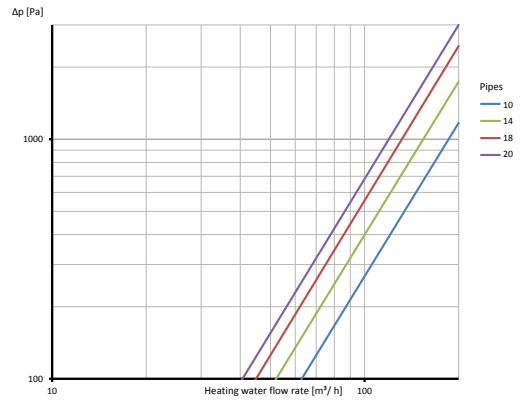


Pressure loss in flow and return

Type 450/450

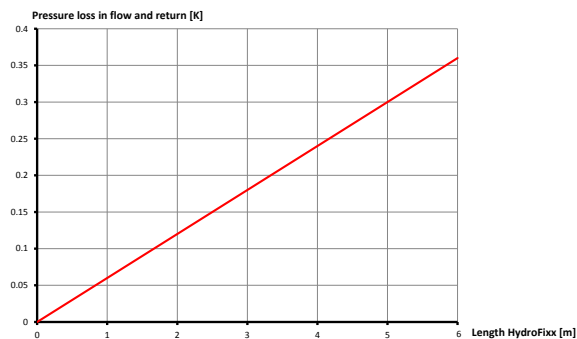


Heat transfer between flow and return chambers

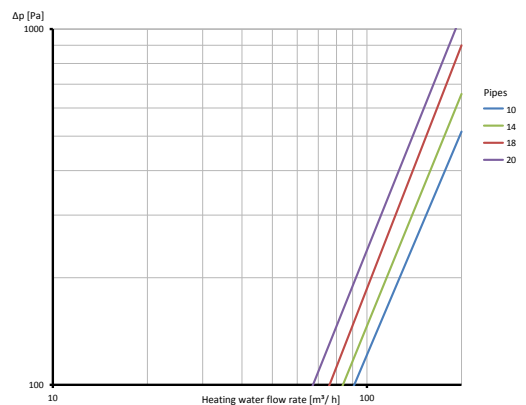


Pressure loss in flow and return

Type 500/550



Heat transfer between flow and return chambers



Pressure loss in flow and return

Feeder

Included in delivery: Butterfly valves including thermometer, flange adapters including screws and gaskets in insulation box pursuant to EnEV [German Energy Saving Ordinance].

Size
[DN]
50
65
80
100
125
150

Servo motor for three-way mixer

Type	Torque	Control signal	Regulating time	Supply voltage	For mixer
	[Nm]		[s/90°]	[V]	[DN]
Danfoss AMB 162	5	3-point	120	24	15-50
Danfoss AMB 162	5	3-point	120	230	15-50
Danfoss AMB 162	5	continuous	60/90/120	24	15-50

Kvs values

Pump group	Mixer designation	Connection	Kvs value
DN 25	HRB 3 DN 20	¾" internal thread	4.0 (2.5 and 6.3 on request)
DN 32	HRB 3 DN 25	1" internal thread	10.0 (6.3 on request)
DN 40	HRB 3 DN 32	1 ¼" internal thread	16.0
DN 50	HRB 3 DN 40	1 ½" internal thread	25.0
DN 65	HRB 3 DN 50	2" internal thread	40.0
DN 80	HFE 3 DN 50	Flange DN 50/PN6	60.0

Regulated heating circuit

Included in delivery: Butterfly valves including thermometer, three-way mixer including 230-V 3-point servo motor, dummy adapter for customer's pump, flap valve with airlock, boiler filling and drain valve ½", flange adapters including screws and gaskets, insulation box pursuant to EnEV [German Energy Saving Ordinance].

Size of pump group	Size of pump	Length of customer pump	Servo motor
[DN]	[DN]	[mm]	[V]
25	25	180	230
32	32	220	230
	32	180	230
	25	180	230
40	40	250	230
	40	220	230
	32	220	230
	32	180	230
	25	180	230
50	50	280	230
	50	240	230
	40	250	230
	40	220	230
	32	220	230
	32	180	230
65	50	280	230
	50	240	230
	40	250	230
	40	220	230

Unregulated heating circuit

Included in delivery: Butterfly valves including thermometer, dummy adapter for customer's pump, flap valve with airlock, boiler filling and drain valve ½", flange adapters including screws and gaskets, insulation box pursuant to EnEV [German Energy Saving Ordinance].

Size of pump group	Size of pump	Length of customer pump
[DN]	[DN]	[mm]
25	25	180
32	32	220
	32	180
	25	180
40	40	250
	40	220
	32	220
	32	180
	25	180
50	50	280
	50	240
	40	250
	40	220
	32	220
	32	180
65	50	280
	50	240
	40	250
	40	220