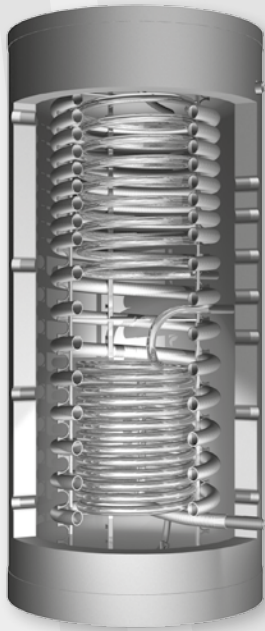


PRODUCT DESCRIPTION



FS/2R – Solar fresh water tank with two coils

High-quality combination tank made of steel (S 235 JR) for heating operation and domestic hot water preparation with a solar system. Solar charging is in zones (2-zone stratification) via two smooth pipe coils. The tank has an integrated corrugated stainless steel pipe in which the water is heated using the hygienic continuous heating process. All necessary connections are at hand; includes 1x 2" sleeves for electric screw-in heating elements. The tank stands on a stand ring. The polyester fibre fleece insulation must be ordered separately (compare accessories).

Area of use

Water heating and heating operation with a solar system for single-family and semi-detached houses.

Product benefits

- Efficient, cost-effective utilisation of solar energy for hot water and heating
- Backup heating from all common systems possible; attention: heat pump with restrictions!
- Hygienic water heating due to a special corrugated stainless steel pipe¹ (DN 40, 1.4404)
- 7 temperature measuring points (contact sensor sleeves) on tank
- Access flange DN 200 from 1500 litres
- Prepared for use with 1 electric screw-in heating element

Standards, guidelines and regulations

- "Pressure Equipment Directive" 97/23/EC
- "Directive on the quality of water intended for human consumption" 98/83/EC
- Sized according to guideline AD-2000
- Welding as per EN 287-1 and EN ISO 3834-2

SPECIFICATIONS

Max. operating temperature	110°C
Max. tank operating pressure:	3 bar
Max. stainless steel pipe operating pressure:	6 bar
Max. operating pressure of smooth pipe coil	10 bar
Boiler/heating connections	Rp 6/4"
Domestic hot water connections	Rp 1"
Cylinder feed and darin cock connections	Rp ½"
Thermometer connection	Rp ½"

Specifications

Type	FS 500/2R	FS 800/2R	FS 1000-S/2R	FS 1500/2R	FS 2000/2R
Item no.	1610692	1610288	1610289	1610784	1610785
Nominal volume [l]	530	766	937	1540	1930
Height without insulation [mm] ²	1760	1940	2120	2190	2280
Height with insulation [mm] ²	1860	2040	2220	2290	2380
Diameter without insulation [mm] ²	650	750	790	1000	1100
Diameter with insulation [mm] ²	850	950	990	1200	1300
Tilt height [mm] ²	1820	1975	2185	2275	2380
Weight [kg]	194	230	277	420	422

¹)For problem free maintenance of the corrugated stainless steel pipe (e.g. decalcification), when installing the tank, our staff recommends installation of flush connections with isolation valves at the hot water connections of the tank. Also, to protect the corrugated stainless steel pipe from excessive calcification, we recommend measures to stabilise or soften the water at tank temperatures of over 60 °C and water hardness of over 2.5 millimoles calcium carbonate per litre (= 14 °dH) (compare DIN 1988-200).

²) All size specifications have a tolerance range of +/- 3%

FS/2R FRESH WATER TANK

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SPECIFICATIONS

Corrugated pipe

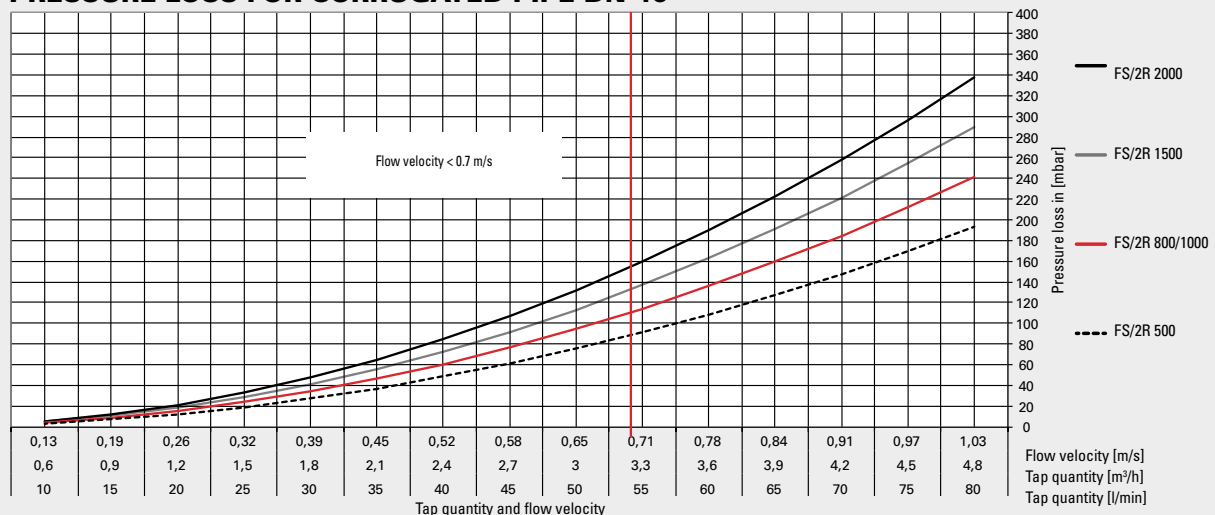
Type	FS 500/2R	FS 800/2R	FS 1000S/2R	FS 1500/2R	FS 2000/2R
Dimension corrugated pipe	DN 40	DN 40	DN 40	DN 40	DN 40
Volume corrugated pipe	35 l	45 l	45 l	55 l	60 l
Length	19 m	24 m	24 m	29 m	34 m
Surface	4,90 m ²	6,19 m ²	6,19 m ²	7,48 m ²	8,77 m ²

Type	FS 500/2R	FS 800/2R	FS 1000S/2R	FS 1500/2R	FS 2000 2/R
Domestic hot water discharge capacity					
One-time discharge capacity ¹⁾ at 60°C	380 l	540 l	700 l	1050 l	1360 l
One-time discharge capacity ¹⁾ at 55°C	304 l	432 l	560 l	843 l	1090 l
One-time discharge capacity ¹⁾ at 50°C	262 l	372 l	483 l	727 l	940 l
Domestic hot water tap output					
ΔT ²⁾ at 30 l/min	6 K	5 K	5 K	4 K	3 K
ΔT ²⁾ at 40 l/min	8 K	7 K	7 K	6 K	5 K
ΔT ²⁾ at 50 l/min	14 K	12 K	12 K	10 K	8 K

Solar heat exchanger

Type	FS 500/2R	FS 800/2R	FS 1000S/2R	FS 1500/2R	FS 2000/2R
Material	Steel S 235 JR (straight pipe)				
Outer diameter	33,7 mm				
Inner diameter	29,1 mm				
Wall thickness	2,3 mm				
Volume	9 + 12 l	10 + 14 l	13 + 18 l	16 + 23 l	18 + 26 l
Length	13 + 17 m	15 + 21 m	19 + 27 m	24 + 35 m	27 + 40 m
Surface area	1,3 + 1,9 m ²	1,6 + 2,3 m ²	2,0 + 3,0 m ²	2,5 + 3,7 m ²	2,8 + 4,2 m ²
Max. collector area	10 m ²	13 m ²	15 m ²	20 m ²	25 m ²

PRESSURE LOSS FOR CORRUGATED PIPE DN 40

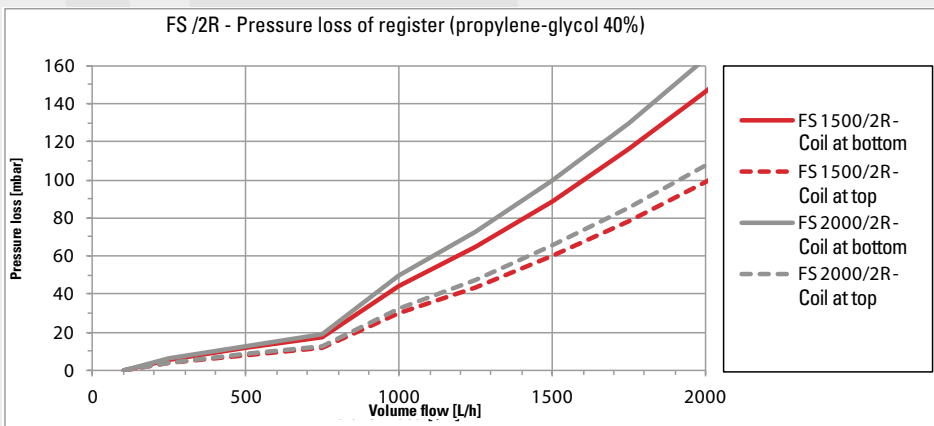
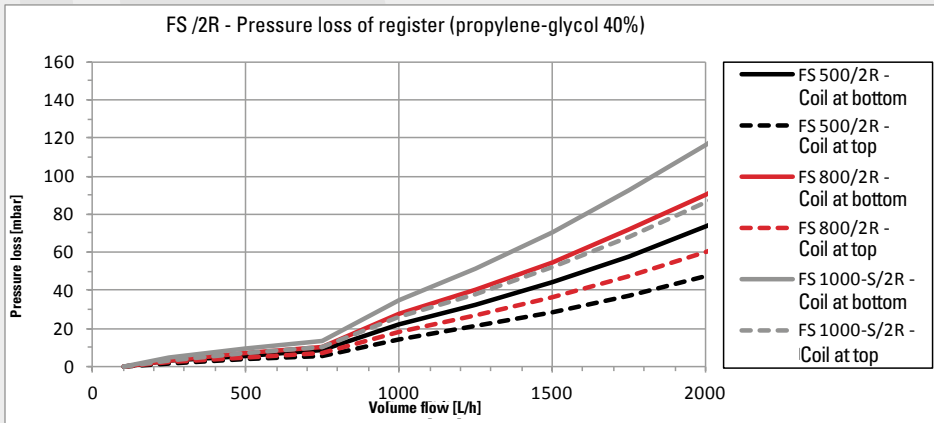


All size specifications have a tolerance range of +/- 5%.

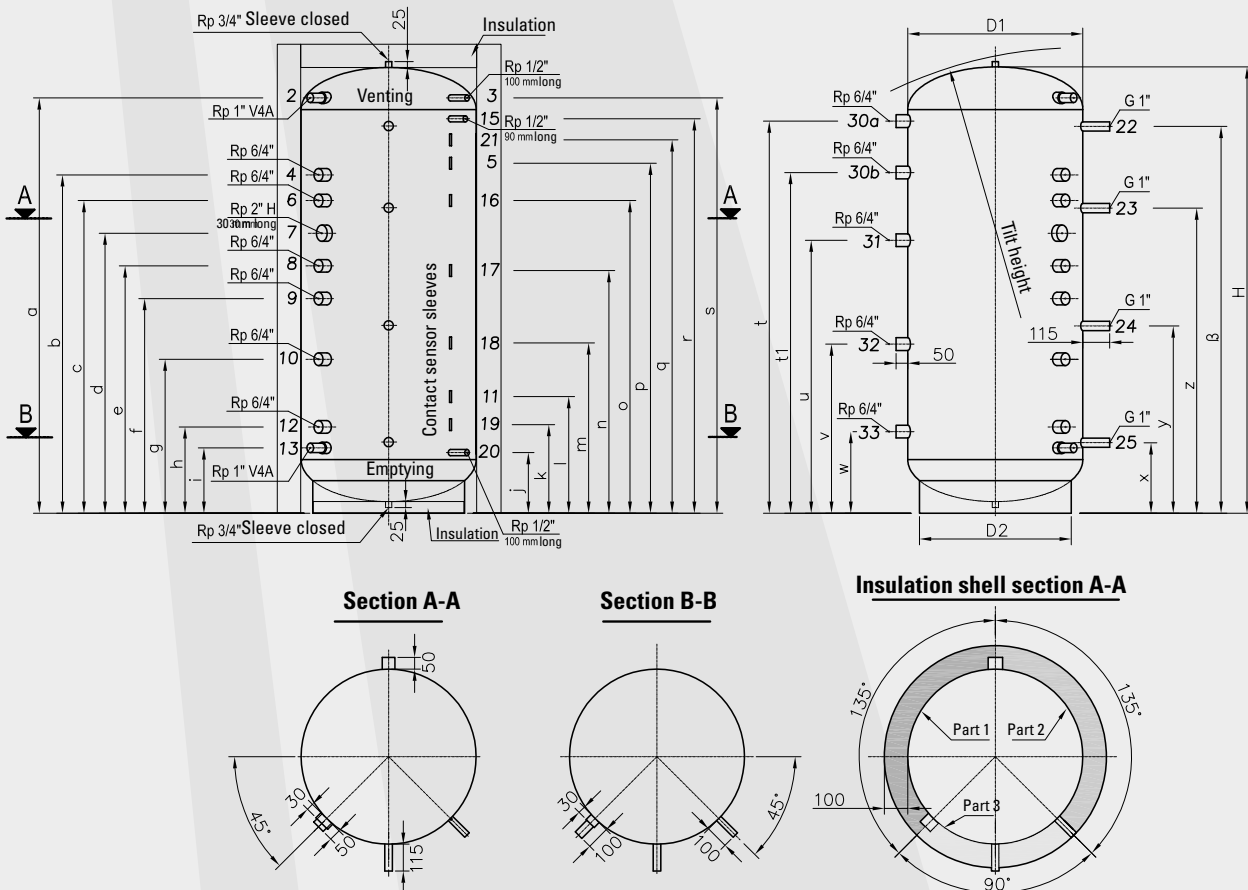
1) discharge capacity (Domestic hot water up to 38°C) with fully loaded tank at 50/55/60°C

2) Temperature difference between tank temperature and domestic hot water output temperature with half loaded tank

SPECIFICATIONS



DIMENSIONS AND SLEEVE ASSIGNMENT



FS/2R FRESH WATER TANK

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TABLE OF DIMENSIONS AND SLEEVE ASSIGNMENT

Table of dimensions as per illustrations [mm]

Type	FS 500/2R	FS 800/2R	FS 1000-S/2R	FS 1500/2R	FS 2000/2R
H	1760	1910	2120	2190	2280
D1	650	750	790	1000	1100
D2	600	700	740	900	1000
Tilt height	1820	1975	2185	2275	2380
a	1650	1780	1990	2005	2080
b	1270	1450	1530	1620	1630
c	1160	1340	1420	1510	1520
d	1050	1200	1300	1330	1400
e	940	1060	1160	1160	1210
f	830	920	1000	980	1030
g	640	660	710	720	790
h	340	370	380	425	450
i	260	280	280	340	355
j	240	260	265	325	340
k	380	380	380	440	440
l	480	500	500	560	580
m	710	730	780	900	920
n	910	1040	1140	1140	1160
o	1160	1340	1420	1510	1510
p	1350	1500	1610	1640	1660
q	-	1600	1710	1760	1790
r	1570	1690	1900	1910	1970
s	1650	1780	1990	2010	2065
t	1540	1680	1900	1890	1950
t1	-	-	1680	-	-
u	1150	1170	1170	1280	1370
v	720	725	725	775	860
w	270	350	350	350	350
x	260	270	270	335	350
y	660	770	870	935	950
z	1200	1275	1350	1400	1470
β	1500	1625	1800	1800	1870

Sleeve assignment

No.	Dimension	Use	Comment
2	Rp 1"	Hot water connection (stainless steel)	Possibly with circulation lance
3	Rp ½"	Exhaust pipe	fill and drain valve required
4	Rp 1½"	Feed heat source	Depending on hydraulic schematic
5	Di 6 mm	Sensor sleeve	Measuring point for secondary heating
6	Rp 1½"	Feed heating circuits	Depending on hydraulic schematic
7	Rp 2"	Sleeve for E-heating element	Extension sleeve necessary
8	Rp 1½"	Return secondary heating	Depending on hydraulic schematic
9	Rp 1½"	Return high-temperature heating circuits	Depending on hydraulic schematic
10	Rp 1½"	Return low-temperature heating circuits	Depending on hydraulic schematic
11	Di 6 mm	Sensor sleeve	Measuring point for solar system
12	Rp 1½"	Return secondary heat /high-temperature heating circuits	Optional
13	Rp 1"	Cold water connection (stainless steel)	
15	Rp ½"	Sleeve for boiler thermometer	Optional
16	Di 6 mm	Sensor sleeve	Depending on hydraulic schematic
17	Di 6 mm	Sensor sleeve	Depending on hydraulic schematic
18	Di 6 mm	Sensor sleeve	Depending on hydraulic schematic
19	Di 6 mm	Sensor sleeve	Depending on hydraulic schematic
20	Rp ½"	Drainage	fill and drain valve required
21	Di 6 mm	Sensor sleeve	Depending on hydraulic schematic
22	G 1"	Connection solar system feed (hot)	Flat sealing
23	G 1"	Connection solar system return (cold)	Flat sealing
24	G 1"	Connection solar system feed (hot)	Flat sealing
25	G 1"	Connection solar system return (cold)	Flat sealing
30a	Rp 1½"	Sleeve for volume expansion	Possibly with priority flap
30b	Rp 1½"	Sleeve for volume expansion	Possibly with priority flap
31	Rp 1½"	Sleeve for volume expansion	
32	Rp 1½"	Sleeve for volume expansion	
33	Rp 1½"	Sleeve for volume expansion	