



Flexitank VS - VS1 - VS3 - VS DN



Water Heater / Storage Tank for domestic hot water production or storage

Enamelled steel construction ensures long durability at a low cost

Please note: Stainless steel buffers or water heaters should be used in Scotland, south-west and north-west of England and the west of Wales where water is **particularly soft**. Please see our stainless range

Option of adding "U" bundle high capacity heat exchange coils the VS1, VS3 or VS DN units - making them a domestic hot water heater.

Alternatively, immersion heaters can be fitted to the flanges for direct heating applications

VS-VS1-VS3 - Water heater or storage tank made of high quality steel, glass lined (enamelled) with 0, 1 or 3 inspection flanges $\varnothing$ 290/220 mm.

VS DN - Water heater made of high quality steel, glass lined (enamelled) with one inspection flange $\varnothing$ 480/400 mm.

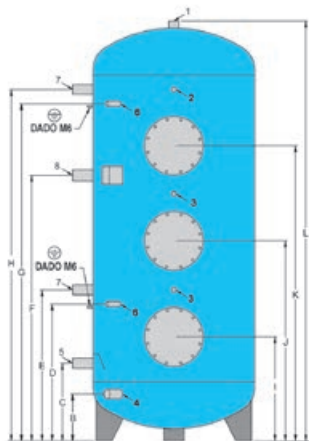
"SMALGLASS" option: water heater or storage tank made of high quality steel, complete with anodic protection, with internal enamelled treatment according to norm DIN 4753-3 and UNI 10025 - models 200 to 3000 Litres

"SMALVER" option - water heater or storage tank made of high quality steel, complete with anodic protection, with internal lining of synthetic resin for water temperatures **maximum 70C** - models 1,500 to 5,000 Litres

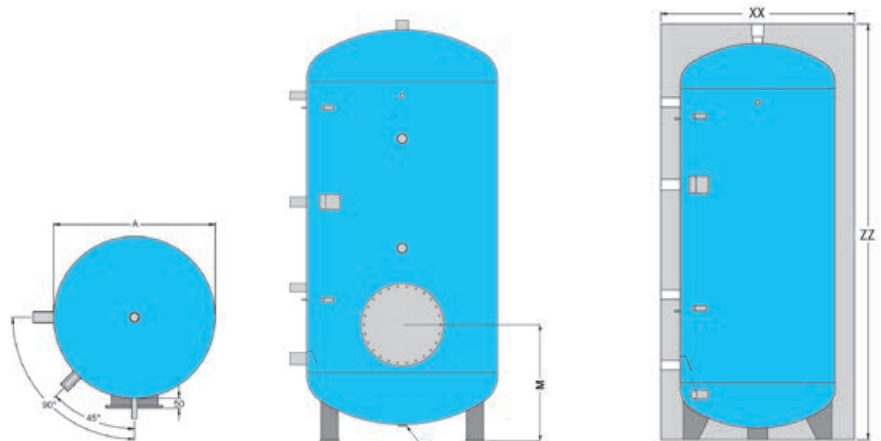
VS "DN" **SMALTECH**: Resin-ceramic nanotechnology internal treatment (models 1,500 to 5,000) for water temperatures up to **80C maximum**.

Insulation: Polyester fibre 100 mm on all options

VS3



VS DN



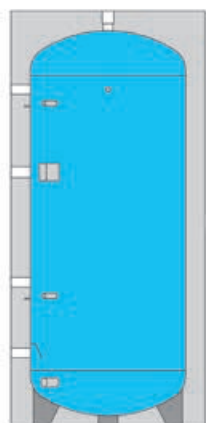
	Model	A	B	C	D	E	F	G	H	I	J	K	L	M
SMALGLASS	200	500	140	245	415	485	725	895	965	345	765	-	1215	-
	300	500	140	235	480	540	1010	1315	1375	345	810	1205	1615	-
	500	650	165	285	525	595	1065	1325	1395	395	865	1265	1690	-
	800	790	240	350	600	670	1130	1430	1500	470	940	1320	1810	560
	1000	790	240	350	690	760	1295	1760	1830	470	1075	1610	2140	560
	1500	1000	280	435	730	800	1300	1650	1720	545	1075	1505	2120	695
	2000	1100	250	410	750	820	1345	1920	1990	555	1085	1670	2425	670
	2500	1250	235	440	765	835	1295	1710	1780	550	1060	1515	2250	640
SMALVER / SMALTECH	3000	1250	235	440	765	835	1425	2110	2180	550	1130	1800	2650	705
	1500	1000	180	395	710	780	1295	1680	1750	530	1000	1525	2105	600
	2000	1100	180	410	750	820	1345	1920	1990	555	1085	1670	2425	615
	2500	1250	190	425	770	840	1290	1690	1760	580	1065	1525	2200	640
	3000	1250	190	475	795	865	1455	2195	2265	580	1165	1860	2700	640
	4000	1500	260	470	855	925	1470	2070	2140	650	1195	1805	2600	695
	5000	1600	250	460	855	925	1480	2160	2230	645	1200	1900	2690	715

		SMALGLASS									SMALVER / SMALTECH					
Flexitank VS-VS1-VS3-VS DN		200	300	500	800	1000	1500	2000	2500	3000	1500	2000	2500	3000	4000	5000
Storage volume	l	208	285	490	749	955	1430	1990	2346	2848	1430	1990	2346	2959	4043	4854
Energy class - Standing loss- polyester fibre	100 mm	77 W	95 W	115 W	130 W	142 W	162 W	186 W	325 W	344 W	162 W	186 W	325 W	344 W	421 W	455 W
Tank height with insulation	ZZ mm	1275	1675	1755	1875	2205	2185	2470	2280	2680	2155	2470	2230	2730	2650	2760
Diagonal / Tipping dimension	mm	1275	1660	1760	1920	2200	2200	2520	2335	2725	2200	2520	2380	2810	2800	2950
Tank diameter with 100 mm polyester fibre insulation	XX ø mm	700	700	850	990	990	1200	1300	1450	1450	1200	1300	1450	1450	1700	1800
Clean out / Inspection flange	VS-VS1-VS3 ø mm	290/220 (no SMALTECH)														
	VS DN ø mm	-			480/400											
Weight empty	kg	70	91	135	190	207	321	405	490	587	298	351	435	587	546	696
Maximum working pressure of the tank	bar	10					8				6					
Maximum working temperature of the tank	°C	95									70 SMALVER 80 SMALTECH					

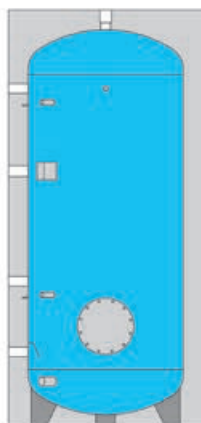
N°	CONNECTOR TYPE	MODEL					
		200-500	800-1000	1500	2000	3000	4000-5000
1.	Domestic hot water outlet	1" 1/4	1" 1/2	1" 1/2	2"	2"	3"
2.	Thermometer tapping	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
3.	Sensor tapping	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
4.	Drain point -VS1 and VS3 models	1"	1"	1" 1/4	1" 1/4	1" 1/4	1" 1/4
5.	Cold water inlet	1" 1/2	1" 1/2	1" 1/2	2"	2"	3"
6.	Electronic anode connection	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
7.	Anode - sacrificial	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4	1" 1/4
8.	Electric immersion heater or re-circulation tapping	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2	1" 1/2
9.	VS - "DN" model only Drain	-	1"	1" 1/4	1" 1/4	1"	1"

AVAILABLE VERSIONS

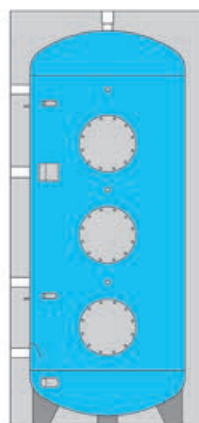
VS



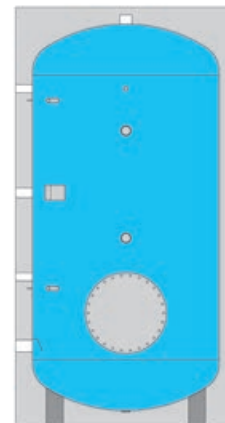
VS1



VS3

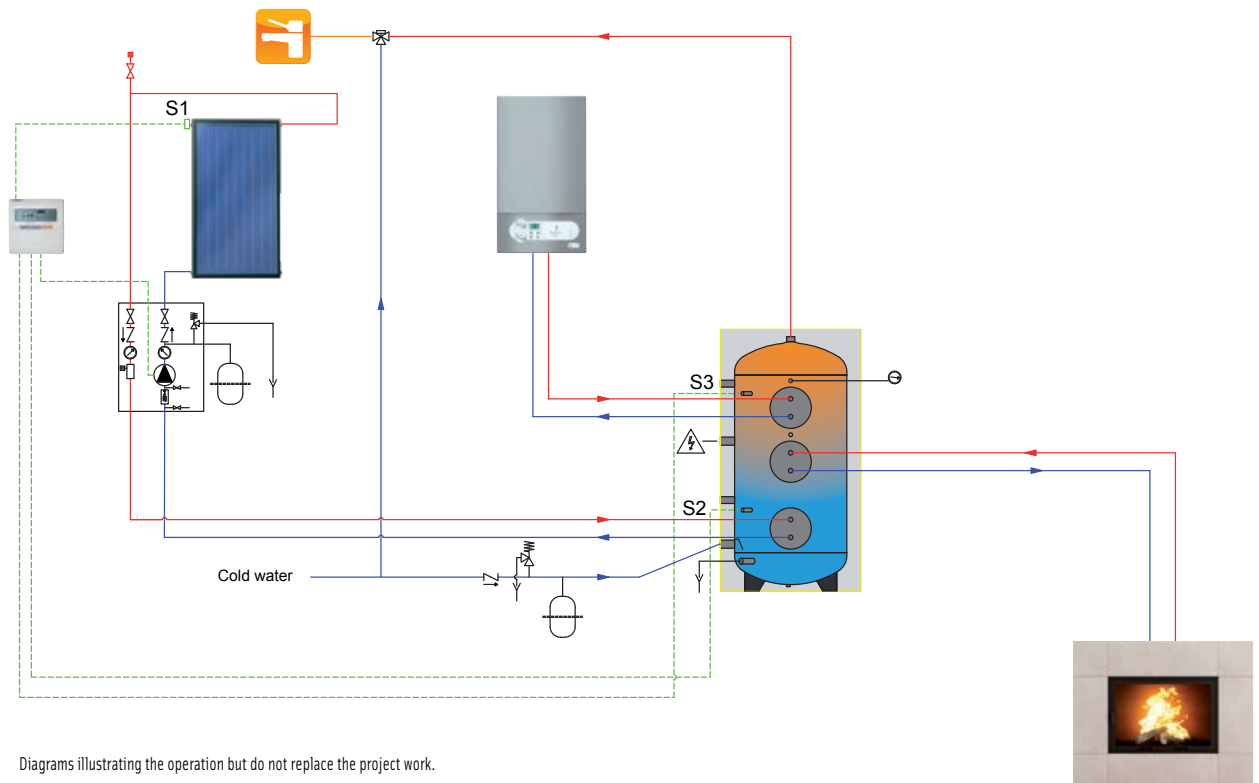


VS DN

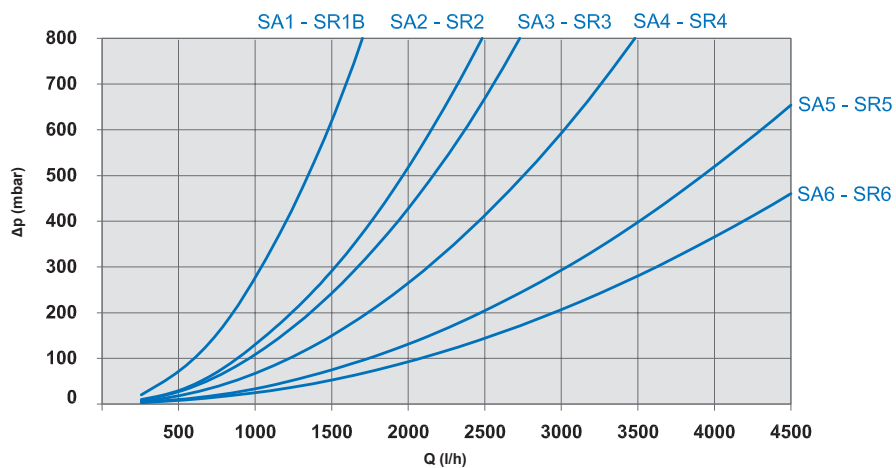
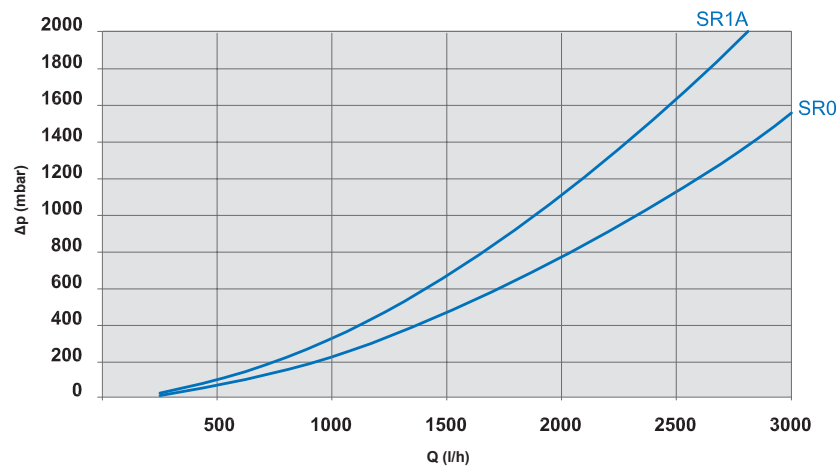


Flexitank VS - VS1 - VS3 - VS DN

PLANT SCHEME SANITARY

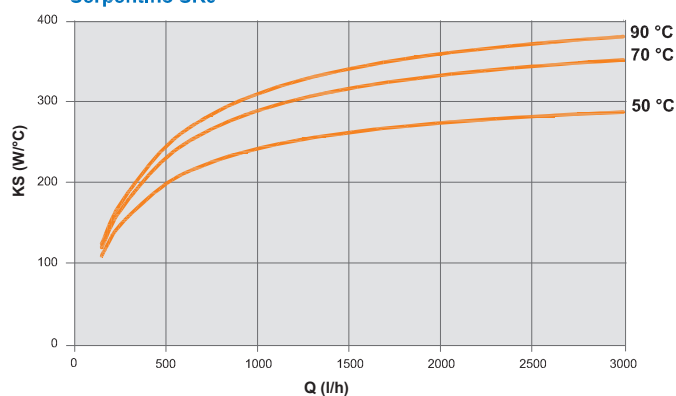


EXCHANGERS PRESSURE DROPS

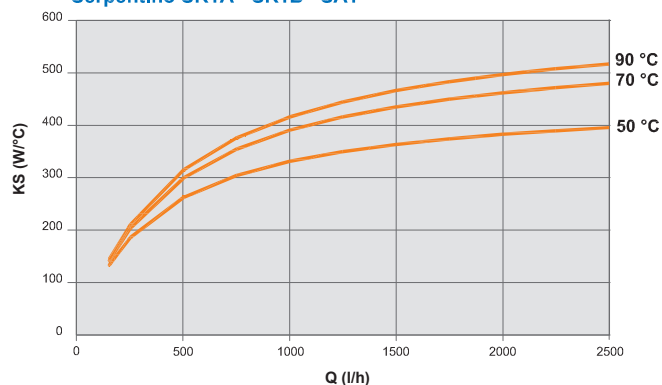


DIAGRAMS OF SPECIFIC POWER IN FUNCTION OF THE INLET TEMPERATURE OF THE EXCHANGER

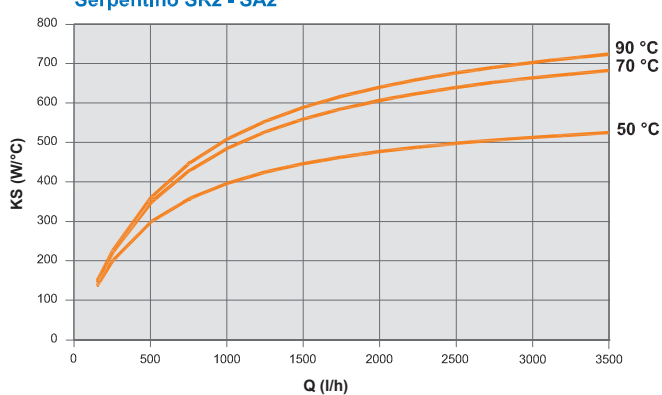
Serpentino SR0



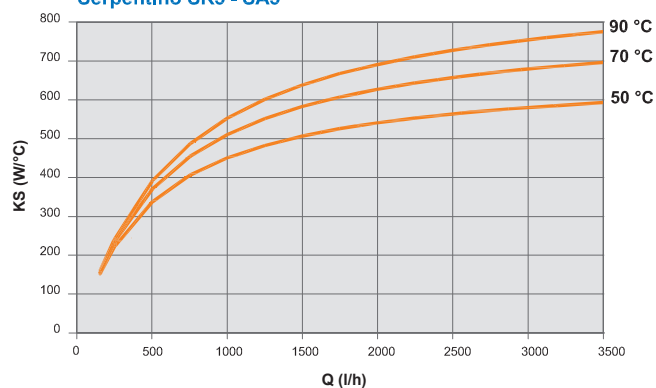
Serpentino SR1A - SR1B - SA1



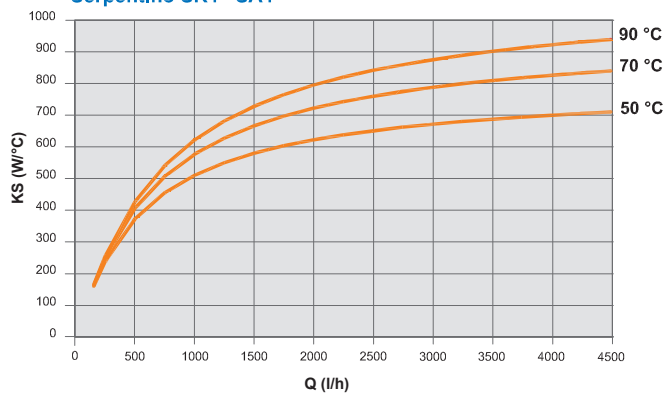
Serpentino SR2 - SA2



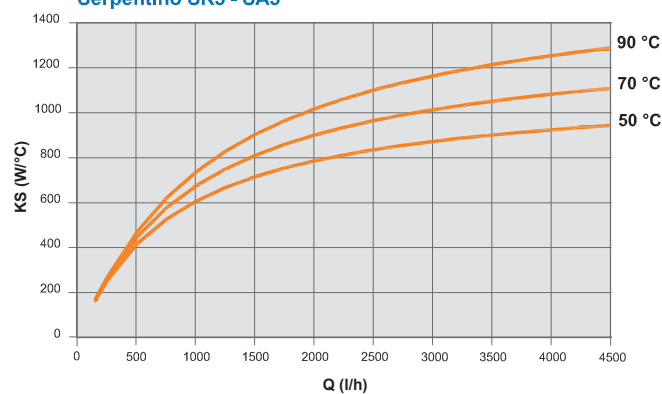
Serpentino SR3 - SA3



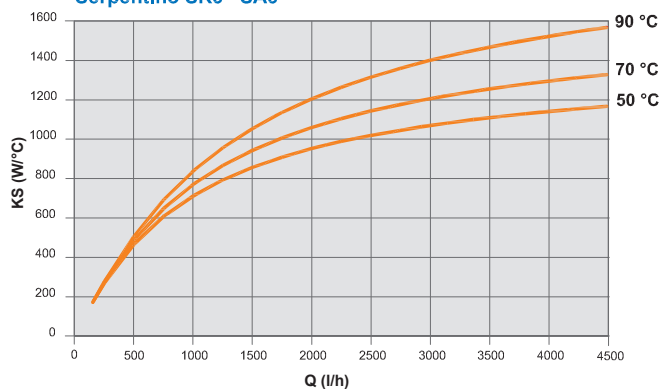
Serpentino SR4 - SA4



Serpentino SR5 - SA5



Serpentino SR6 - SA6



Calculation power transmitted to the tank (q)

$$q = KS \cdot (T_i - T_a) [W]$$

T_i = Temperature inlet exchanger

T_a = Medium temperature between T Cold water inlet and T top part Tank





smalglass
(mod. 200-3000)



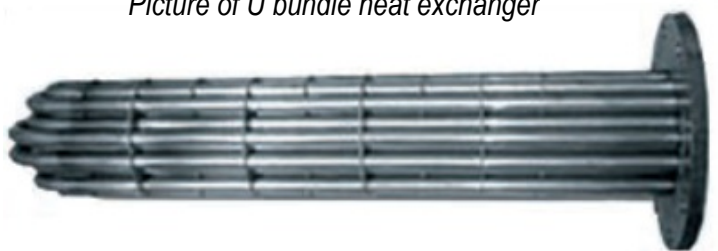
smalver
(mod. 1500-5000)



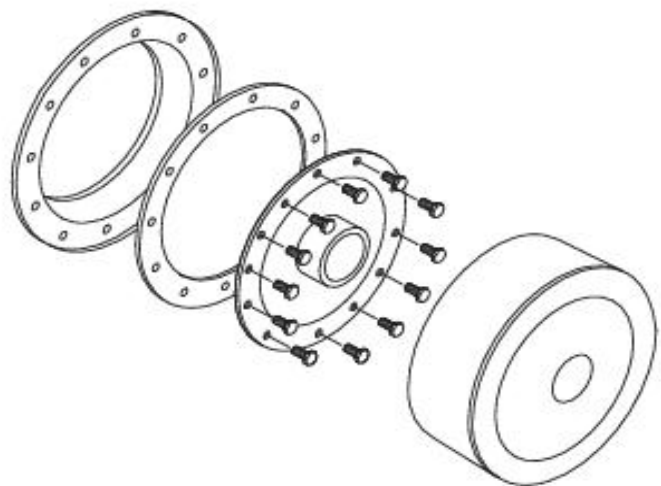
smaltech
(mod. 1500-5000)

Model		polyester fibre 100 mm
		codice
SMALGLASS	VS	200
		300
		500
		800
		1000
		1500
SMALVER	VS	1500
		2000
		2500
		3000
		4000
		5000
SMALGLASS	VS1	200
		300
		500
		800
		1000
		1500
		2000
		2500
		3000
		1500
SMALVER	VS1	2000
		2500
		3000
		4000
		5000
		800
SMALGLASS	VS3	1000
		1500
		2000
		2500
		3000
		1500
SMALVER	VS3	2000
		2500
		3000
		4000
		5000
		800
SMALGLASS	VS DN	1000
		1500
		2000
		2500
		3000
		1500
SMALVER	VS DN	2000
		2500
		3000
		4000
		5000
		1500
SMALTECH	VS DN	2000
		2500
		3000
		4000
		5000
		1500

Picture of U bundle heat exchanger



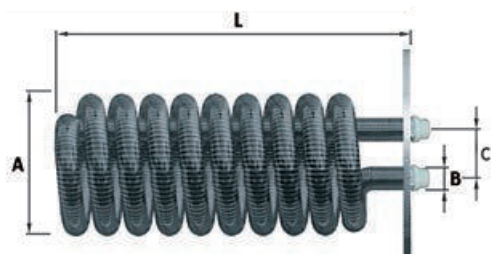
Inspection flange with 1 1/2" tapping for an additional immersion heater



EXTRACTABLE HEAT-EXCHANGER KIT FOR VERSION VS1 - VS3

Complete with bored flange, copper heat exchanger, upper cap for flange and nuts and bolts:

SR - Spiral finned copper coil-tinned (tank for sanitary water)

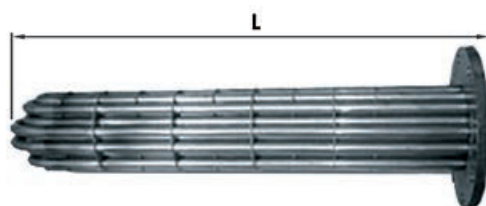


Art.	kW	m ²	A	B	C mm	L mm	kg	cod.
SR1B	36	1,21	DN 200	3/4"	80	420	10,0	4000607
SR2	43	1,80	DN 200	3/4"	80	470	11,7	4000608
SR3	62	2,63	DN 200	3/4"	80	580	14,9	4000609
SR4	75	3,20	DN 200	3/4"	80	660	17,0	4000610
SR5	108	4,54	DN 200	1"	80	750	21,1	4000611
SR6	150	6,34	DN 200	1"	80	980	29,0	4000612

N.B. - The length of the coil must be at least **10 cm shorter than the diameter of the cylinder.**

STAINLESS STEEL "U" BUNDLE EXCHANGER KIT FOR VERSION VS1 - VS3 - VS DN (FOR SMALGLASS, SMALTECH, SMALVER)

Complete with galvanized head with connections, gaskets and bolts



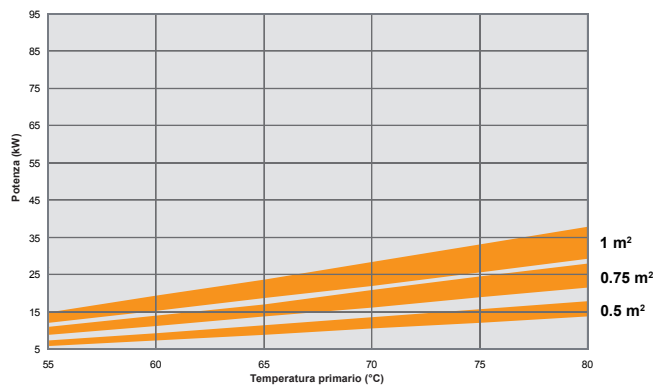
OPTIONS FOR STEAM page 122

								EPOXY FLANGE		STAINLESS FLANGE	
Exchanger surface m ²	Flange ø mm	Length L mm	Weight kg	Flange bores n°	Connections	Connections wheelbase mm	To install on model	Art.	code.	Art.	code.
0.5	290	450	10	12	1"	115	VS1 - VS3	FT050	9Z150002	FT050A	9Z150002A
0.75	290	440	12	12	1"	115	VS1 - VS3	FT075	9Z150003	FT075A	9Z150003A
1	290	475	14	12	1"	115	VS1 - VS3	FT100	9Z150004	FT100A	9Z150004A
1,5	290	635	17	12	1"	115	VS1 - VS3	FT150	9Z150005	FT150A	9Z150005A
2	290	755	19	12	1"	115	VS1 - VS3	FT200	9Z150006	FT200A	9Z150006A
2	480	600	38	26	2"	200	VS DN	FT201	9Z150007	FT201A	9Z150007A
3	480	720	45	26	2"	200	VS DN	FT300	9Z150008	FT300A	9Z150008A
4	480	735	53	26	2"	200	VS DN	FT400	9Z150009	FT400A	9Z150009A
5	480	750	61	26	2"	200	VS DN	FT500	9Z150010	FT500A	9Z150010A
6	480	700	69	26	2"	200	VS DN	FT600	9Z150011	FT600A	9Z150011A
8	480	915	84	26	2"	200	VS DN	FT800	9Z150012	FT800A	9Z150012A
10	480	1140	100	26	2"	200	VS DN	FTA00	9Z150013	FTA00A	9Z150013A

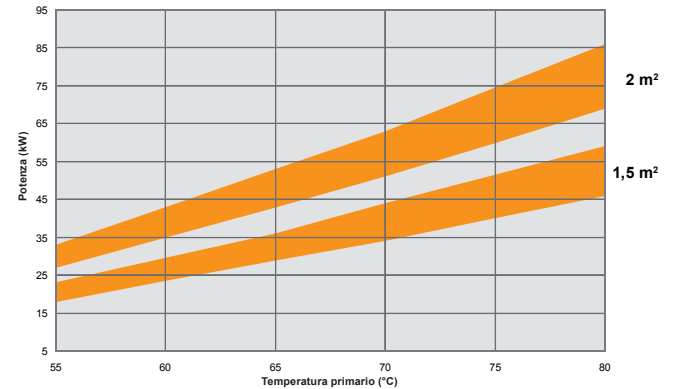
Flexiheat VS - VS1 - VS3 - VS DN

"U" BUNDLE EXCHANGER OUTPUT POWER

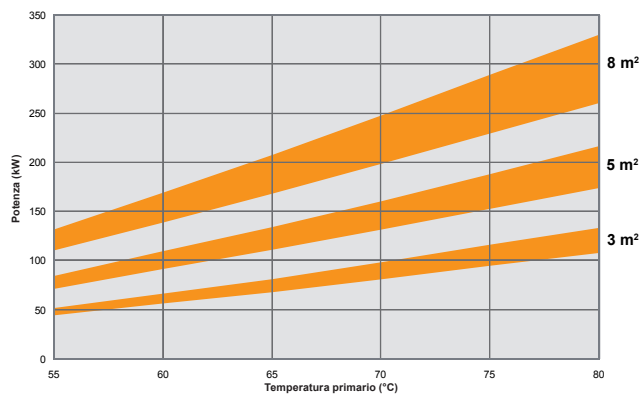
DIAGRAMS OF SPECIFIC POWER IN FUNCTION OF THE TEMPERATURE AND FLOW OF THE EXCHANGER INLET



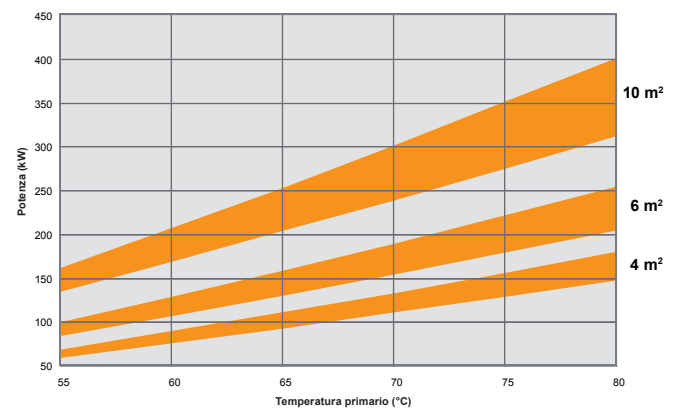
"U" bundle exchanger	0.5 m ²	0.75 m ²	1 m ²
Primary flow	m ³ /h	m ³ /h	m ³ /h
	< 1	< 1.5	< 2
	> 2	> 3	> 4



"U" bundle exchanger	1.5 m ²	2 m ²
Primary flow	m ³ /h	m ³ /h
	< 3	< 5
	> 6	> 10

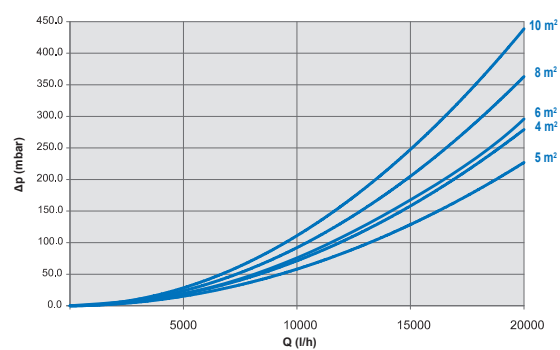
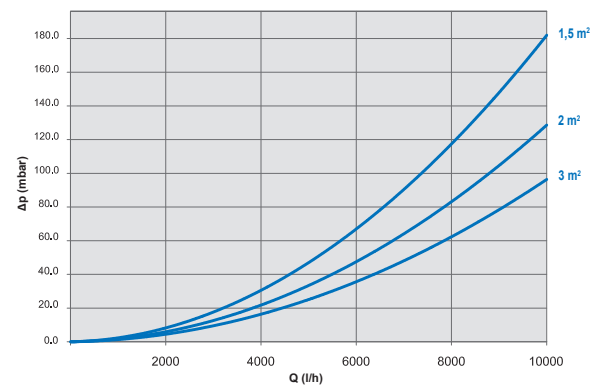
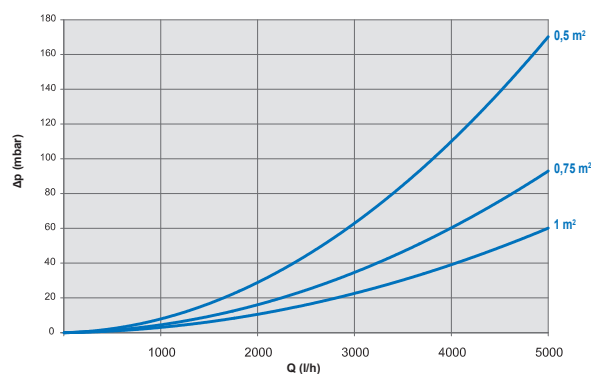


"U" bundle exchanger	3 m ²	5 m ²	8 m ²
Primary flow	m ³ /h	m ³ /h	m ³ /h
	< 7.5	< 10	< 10
	> 15	> 20	> 20



"U" bundle exchanger	4 m ²	6 m ²	10 m ²
Primary flow	m ³ /h	m ³ /h	m ³ /h
	< 10	< 10	< 10
	> 20	> 20	> 20

"U" BUNDLE EXCHANGERS PRESSURE DROPS





Water Heater / Storage Tank for domestic hot water production or storage

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Option of adding "U" bundle high capacity heat exchange coils the VS1, VS3 or VS DN units - making them a domestic hot water heater.

Alternatively, immersion heaters can be fitted to the flanges for direct heating applications

VSR DN Water heater with reduced height, made in quality steel with inspection flange $\varnothing$ 480/400 mm and anodic protection.

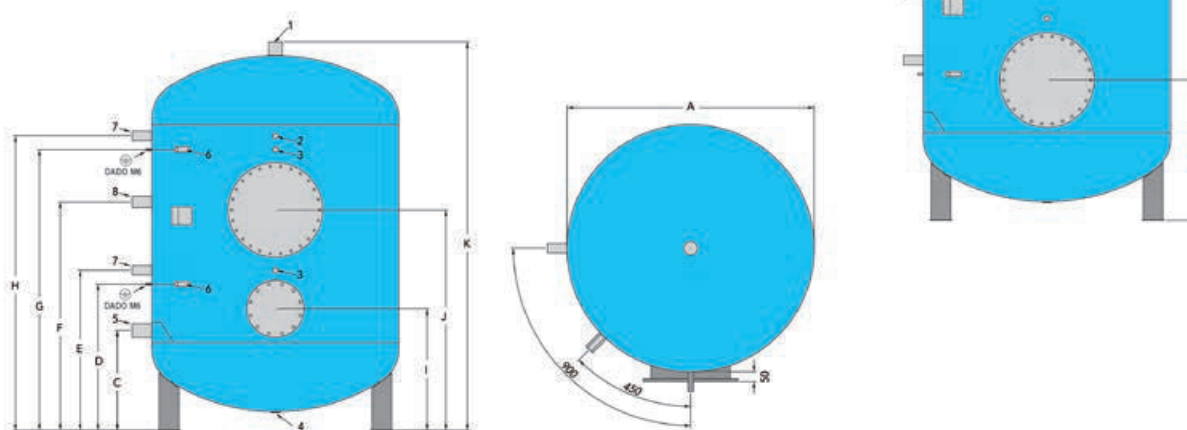
VSR DN+290 Water heater with reduced height, made in quality steel with one inspection flange $\varnothing$ 480/400 mm and one flange $\varnothing$ 290/220 mm to assemble heat exchanger, and anodic protection.

SMALVER: Inside treatment lining synthetic resin (mod. 2000-4000).

SMALTECH: Resin-ceramic nanotechnology internal treatment (mod. 2000-5000).

Insulation: Polyester fibre 100 mm.

VSR DN+290



		A	B	C	D	E	F	G	H	I	J	K	L
SMALVER / SMALTECH	Model												
	2000	1250	-	505	740	810	1155	1420	1490	615	1115	1965	710
	2500	1400	-	505	820	890	1235	1440	1510	605	1105	1965	695
	3000	1500	-	510	820	890	1140	1425	1495	605	1105	1945	715
	4000	1600	-	525	875	945	1360	1700	1770	625	1185	2230	735
	5000	1800	-	550	880	950	1350	1685	1755	650	1210	2230	740