Regulus

HEAT **ACCUMULATION**

- **thermal stores**
- **hot water storage tanks**
- **accessories**

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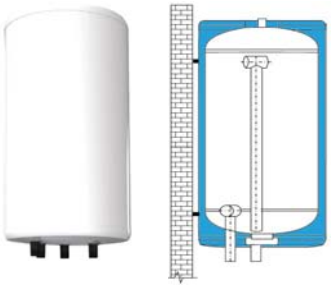
CONTENTS

THERMAL STORES

Thermal Stores are designed for storing and subsequent distribution of thermal energy from solid-fuel fired boilers, heat pumps, solar thermal collectors, electric boilers etc.

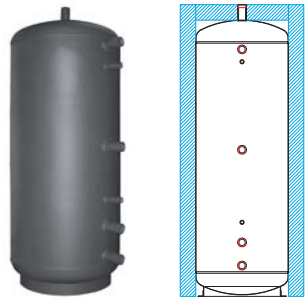
PS Z and ZC Wall Hung Thermal Stores, incl. insulation



4 bottom connections (G 1") to connect heating system and heat sources
1 bottom connection (G 6/4") to insert el. heating element
1 top connection (G 1/2") for air vent valve
2 sheaths (1 upper + 1 lower, G 3/8") to place temperature sensors

Model	Application	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	En. eff. class [2]	Code
PS 80 Z	heating	865	450	77	C	18754
PS 80 ZC	cooling, heating	865	450	77	-	18932

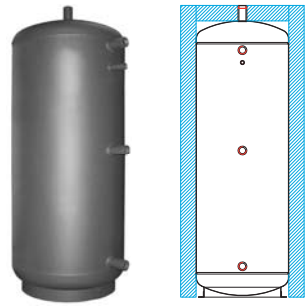
PS E+ Thermal Stores



4 side connections (G 6/4" F) to connect heating system and heat sources, or to insert el. heating elements
1 top connection (G 6/4" F) for air vent valve or flow line to heating system
2 side connections (G 1/2" F) to insert sheaths for temperature sensors

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	En. eff. class [2]	Code	Insulation code
PS 500 E+	1915	600	473	C	14754	19319
PS 750 E+	1975	750	756	-	15212	19309
PS 1000 E+	2080	800	927	-	15851	19313
PS 1100 E+	2080	850	1038	-	15215	19335
PS 1250 E+	2065	950	1260	-	15992	19324

PS ES+ Thermal Stores

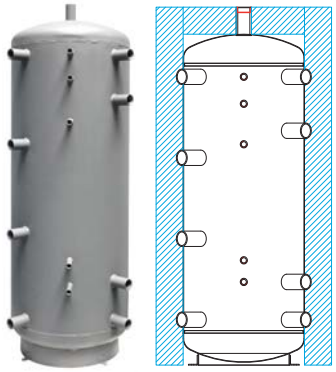


3 side connections (G 6/4" F) to connect heating system and heat sources, or to insert el. heating elements
1 top connection (G 6/4" F) for air vent valve or flow line to heating system
1 side connection (G 1/2" F) to insert sheath for temperature sensors

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	Code	Insulation code
PS 600 ES+	1935	650	560	15527	19310
PS 900 ES+	1975	790	860	15530	19301
PS 1100 ES+	2080	850	1037	15956	19315

[1] Diameter without connections, insulation.
[2] This shows the energy efficiency class of the thermal store with insulation. For thermal stores of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.

PS N+ Thermal Stores



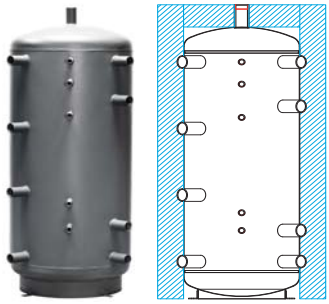
8 side connections (G 6/4” F, or G 2.5” for tanks marked N25) to connect heating system and heat sources, or to insert el. heating elements

1 top connection (G 6/4” F, or G 2.5” for tanks marked N25) for air vent valve or flow line to heating system

5 side connections (G 1/2” F) to insert sheaths for temperature sensors

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	En. eff. class [2]	Code	Insulation code
PS 200 N+	1351	450	181	C	14717	19295
PS 300 N+	1405	550	280	C	14720	19048
PS 400 N+	1905	550	397	C	13783	19304
PS 500 N+	1915	600	474	C	14723	19296
PS 500 N25	1915	600	476	C	19272	19274
PS 600 N+	1935	650	561	-	15135	19322
PS 700 N+	1955	700	656	-	15138	19316
PS 800 N+	1845	800	804	-	15141	19297
PS 900 N+	1975	790	860	-	15144	19298
PS 1000 N+	2080	800	927	-	15147	19049
PS 1000 N25	2080	800	929	-	19376	19378
PS 1100 N+	2080	850	1040	-	15150	19305
PS 1500 N+	1885	1100	1504	-	15153	19303
PS 1500 N25	1885	1100	1506	-	19379	19381
PS 2000 N+	1955	1250	2005	-	15156	19312
PS 2000 N25	1955	1250	2007	-	19370	19372
PS 3000 N25	2040	1500	3022	-	14454	16354
PS 4000 N25	2355	1600	3991	-	14457	19352
PS 5000 N25	2855	1600	4989	-	14331	19358

PS K+ Thermal Stores



8 side connections (G 6/4” F) to connect heating system and heat sources, or to insert el. heating elements

1 top connection (G 6/4” F) for air vent valve or flow line to heating system

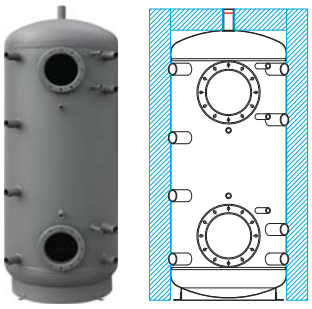
5 side connections (G 1/2” F) to insert sheaths for temperature sensors

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	En. eff. class [2]	Code	Insulation code
PS 400 K+	1665	600	403	C	15285	19338
PS 500 K+	1685	650	477	C	15288	19307
PS 600 K+	1705	700	560	-	15291	19314
PS 700 K+	1725	790	737	-	15294	19300
PS 900 K+	1765	850	861	-	15297	19326
PS 1100 K+	1815	950	1085	-	16119	19323

[1] Diameter without connections, insulation.
[2] This shows the energy efficiency class of the thermal store with insulation. For thermal stores of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.

PS2F N+ Thermal Stores with 2 flanged openings

Thermal Stores fitted with two welded flanged openings. Each of them can be fitted with a suitably sized tube heat exchanger depending on the application and heat output needed. For example the lower heat exchanger can be connected to a solar thermal system, while the upper one will serve for instantaneous DHW heating. No flange is included.



8 side connections (G 6/4" F, or G 2.5" for tanks marked N25) to connect heating system and heat sources, or to insert el. heating elements

1 top connection (G 6/4" F, or G 2.5" for tanks marked N25) for air vent valve or flow line to heating system

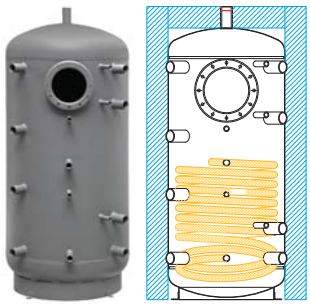
5 side connections (G 1/2" F) to insert sheaths for temperature sensors

2 flanged openings, 210mm inner diam. to install finned tube heat exchangers

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	En. eff. class [2]	Code	Insulation code
PS2F 300 N+	1405	550	285	C	14726	19349
PS2F 500 N+	1915	600	479	C	14729	19347
PS2F 800 N+	1845	800	809	-	15218	19348
PS2F 1000 N+	2080	800	932	-	15221	19340
PS2F 1500 N+	1885	1100	1509	-	15224	19344
PS2F 2000 N+	1955	1250	2010	-	15227	19351
PS2F 3000 N25	2040	1500	3027	-	14460	19359
PS2F 4000 N25	2355	1600	3966	-	14463	19356
PS2F 5000 N25	2855	1600	4994	-	14466	19360

PSWF N+ Thermal Stores with flanged opening and heat exchanger

Thermal Stores with a lower steel heat exchanger and an upper welded flanged opening that can be fitted with another tube heat exchanger. No flange is included. These Thermal Stores are suitable preferably to be combined with solar thermal systems.



8 side connections (G 6/4" F, or G 2.5" for tanks marked N25) to connect heating system and heat sources, or to insert el. heating elements

1 top connection (G 6/4" F, or G 2.5" for tanks marked N25) for air vent valve or flow line to heating system

5 side connections (G 1/2" F) to insert sheaths for temperature sensors

2 connections (G 1" F) to connect lower steel heat exchanger

1 flanged opening (210mm inner diam.) to install finned tube heat exchangers

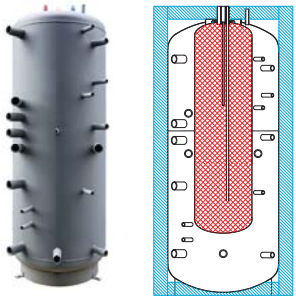
Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	HX surface area [m²]	En. eff. class [2]	Code	Insulation code
PSWF 300 N+	1405	550	280	1.5	C	14732	19342
PSWF 500 N+	1915	600	472	2.0	C	14735	19332
PSWF 800 N+	1845	800	807	2.7	-	15230	19343
PSWF 1000 N+	2080	800	930	3.2	-	15232	19325
PSWF 1500 N+	1885	1100	1498	4.0	-	15234	19350
PSWF 2000 N+	1955	1250	1996	4.5	-	15236	19355
PSWF 2000 N25	1955	1250	1997	4.5	-	20565	20602

[1] Diameter without connections, insulation.
[2] This shows the energy efficiency class of the thermal store with insulation. For thermal stores of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.

THERMAL STORES WITH DHW HEATING IN IMMERSED TANK

DUO N P Thermal Stores with stainless steel HW tank and separating metal sheet

Tanks for thermal energy accumulation, with an immersed stainless steel hot water tank, permitting installation of three electric heating elements and connection of further heat sources. The hot water tank is fitted with a magnesium anode rod. The tanks are fitted with a separating metal sheet that ensures better thermal stratification, and with a fourth connection in the bottom section intended for an electric heating element (designed to be preferably power supplied by surplus from a PV system).



Lower (thermal store) tank section:
5 [4] side connections (G 1“ or G 6/4“ F) to connect heating system and heat sources
3 side connections (6/4” F) to insert el. heating element
4 side connections (G 1/2“ F) to insert sheaths for temperature sensors, safety valve and pressure gauge

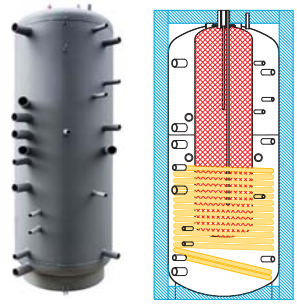
Upper tank section (DHW heating):
3 side connections (G 1“ F or G 6/4“ F) to connect heat sources
1 side connection (G 6/4“ F) to install el. heating element
3 side connections (G 1/2“ F) to insert sheaths for temperature sensors and thermometer
1 top connection (G 1/2“ F) for air vent valve

Immersed DHW tank:
3 top connections (G 3/4” F) for cold water inlet, DHW recirculation and DHW outlet
1 magnesium anode rod (G 3/4”)

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	DHW tank volume [l]	Volume of supplied hot water [l] [3]	En. eff. class [2]	Code	Insulation code
DUO 390/130 N P	1880	550	396	123	277	C	19131	19318
DUO 600/200 N P	1910	650	559	174	457	-	19147	19330
DUO 750/200 N P	1955	750	757	174	464	-	19141	19333
DUO 1000/200 N P	2055	800	903	174	538	-	19143	19334
DUO 1700/200 N P	2055	1100	1682	174	791	-	19137	19354

DUO N PR Thermal Stores with stainless steel HW tank w. separating metal sheet and solar heat exchanger

These tanks are moreover equipped with a heat exchanger for connecting a solar thermal system and pins for a pump station to be mounted on.



Lower (thermal store) tank section:
5 [4] side connections (G 1“ F or G 6/4“ F) to connect heating system and heat sources
2 side connections (G 1” F) to connect solar thermal system
2 side connections (6/4” F) to insert el. heating element
4 side connections (G 1/2“ F) to insert sheaths for temperature sensors, safety valve and pressure gauge

Upper tank section (DHW heating):
3 side connections (G 1“ or G 6/4“ F) to connect heat sources
1 side connection (G 6/4“ F) to install el. heating element
3 side connections (G 1/2“ F) to insert sheaths for temperature sensors and thermometer
1 top connection (G 1/2“ F) for air vent valve

Immersed DHW tank:
3 top connections (G 3/4” F) for cold water inlet, DHW recirculation and DHW outlet
1 magnesium anode rod (G 3/4”)

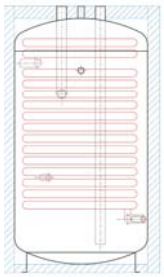
Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	DHW tank volume [l]	Volume of supplied hot water [l] [3]	HX surface area [m²]	En. eff. class [2]	Code	Insulation code
DUO 390/130 N PR	1880	550	396	123	277	1.5	C	19139	19293
DUO 600/200 N PR	1910	650	559	174	457	2.4	-	19133	19321
DUO 750/200 N PR	1955	750	757	174	464	2.5	-	19135	19327
DUO 1000/200 N PR	2055	800	903	174	538	3.2	-	19149	19329
DUO 1700/200 N PR	2055	1100	1682	174	791	4.0	-	19145	19357

[1] Diameter without connections, insulation.
[2] This shows the energy efficiency class of the thermal store with insulation. For thermal stores of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.
[3] The volume of supplied hot water, valid for tank heated to 60°C and inlet temperature of 40°C with flowrate of 8 l/min., no backup heating.
[4] DUO 390 models have 4 connections in the lower section. All connections of DUO 390 for connecting heat sources and heating systems have G 1” F thread.

THERMAL STORES WITH INSTANTANEOUS WATER HEATING

HSK TV Thermal Stores
only for continuous DHW heating in stainless steel heat exchanger

Thermal stores with a stainless-steel heat exchanger for continuous DHW heating, suitable for installations with heat pumps and a RegulusBOX indoor unit.

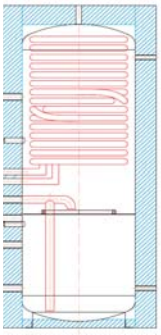


2 upper connections (G 1" F) to connect a heat source
2 side connections (G 1" M) for cold water inlet and DHW outlet from a 6sqm DHW heat exchanger
3 side connections (1/2" F) to place sheath for temperature sensor, thermometer and drain valve
1 top connection (G 1/2" F) for air vent valve

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	Volume of supplied hot water [l] [3]	HX surface area TV [m²]	En. eff. class [2]	Code	Insulation code
HSK 220 TV	1105	550	222	233	6	B	19617	19619

HSK PB Thermal Stores
with stainless steel DHW heat exchanger and tight separating metal sheet

Thermal Stores with a tight separating metal sheet and stainless-steel coil heat exchanger for continuous water heating are suitable for installations with heat pumps and RegulusBOX indoor unit. Thanks to a modified design and a tight separating metal sheet, just one zone valve is sufficient for diverting the heat between the upper and lower sections. The tight separating metal sheet contributes to the increase of SCOP of connected heat pumps.



Lower (thermal store) tank section:
3 side connections (G 1" F) to connect heating system and heat sources
2 side connections (G 1/2" F) to insert sheath for temperature sensor and safety valve
2 side connections (G 6/4") for ETT (not valid for HSK 350 K P-B)

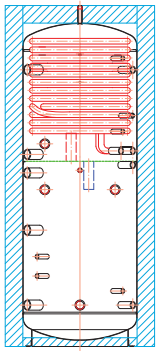
Upper tank section (DHW heating):
2 side connections (G 1" F) to connect heat sources
2 side connections (G 1" M) for cold water inlet and DHW outlet from a 6sqm DHW heat exchanger
2 side connections (G 1/2" F) to insert sheaths for temperature sensors and thermometer
1 top connection (G 1/2" F) for air vent valve
1 side connection (G 6/4") for ETT (not valid for HSK 350 K P-B)

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	Volume of supplied hot water [l] [3]	HX surface area TV [m²]	En. eff. class [2]	Code	Insulation code
HSK 250 PB	1850	450	260	210	6	C	20294	20296
HSK 350 K P-B	1655	550	340	229	6	C	18628	18837
HSK 650 PB	1725	750	625	337	6	C	19633	19635

[1] Diameter without connections, insulation.
[2] This shows the energy efficiency class of the thermal store with insulation. For thermal stores of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.
[3] The volume of supplied hot water, valid for tank heated to 60°C and inlet temperature of 40°C with flowrate of 8 l/min., no backup heating.

HSK P Thermal Stores
with stainless steel DHW heat exchanger and separating metal sheet

Thermal Stores with a separating metal sheet and stainless-steel coil heat exchanger for continuous water heating are designed to store heat from heat pumps, fireplace inserts and other sources. The tank permits installation of an electric heating element powered by surplus PV power, heating the entire tank volume. Besides that, traditional el. heating elements can be installed for space heating or just DHW heating.



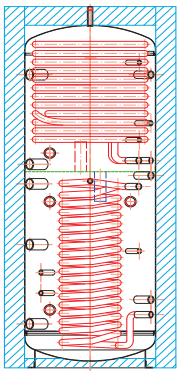
Lower (thermal store) tank section:
5 [4] side connections (G 1“ or G 6/4“ F) to connect heating system and heat sources
3 side connections (6/4” F) to insert el. heating element
4 side connections (G 1/2“ F) to insert sheaths for temperature sensors, safety valve and pressure gauge

Upper tank section (DHW heating):
3 side connections (G 1“ F or G 6/4” F) to connect heat sources
2 side connections (G 1” M) for cold water inlet and DHW outlet from a 6sqm DHW heat exchanger
1 side connection (G 6/4“ F) to install el. heating element
3 side connections (G 1/2“ F) to insert sheaths for temperature sensors and thermometer
1 top connection (G 1/2“ F) for air vent valve

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	Volume of supplied hot water [l] [3]	HX surface area TV [m²]	En. eff. class [2]	Code	Insulation code
HSK 400 P+	1905	550	408	321	6	C	19607	19609
HSK 600 P	1935	650	560	468	6	-	14175	18724
HSK 750 P	1975	750	760	548	6	-	14178	18840
HSK 1000 P	2080	800	925	592	6	-	14555	18843
HSK 1700 P	2075	1100	1687	1072	6	-	14558	18846

HSK PV Thermal Stores
with 2 stainless steel DHW heat exchangers and separating metal sheet

Thermal Stores with a separating metal sheet and 2 stainless-steel coil heat exchangers for continuous water heating. Hot water is heated in 2 stages, being preheated in the lower heat exchanger. The main heat source should be a heat pump combined with a PV system. The tank permits connection of other heat sources in various combinations. Besides a PV heating element located in the bottom part, also other electric heating elements can be installed into the tank, suitable for DHW and space heating.



Lower (thermal store) tank section:
5 side connections (G 1“ F or G 6/4“ F) to connect heating system and heat sources
3 side connections (G 6/4“ F) to install el. heating element
2 side connections (G 1“ M) for cold water inlet and preheated water outlet from a 3sqm heat exchanger
4 side connections (G 1/2“ F) to insert sheaths for temperature sensors, safety valve and pressure gauge

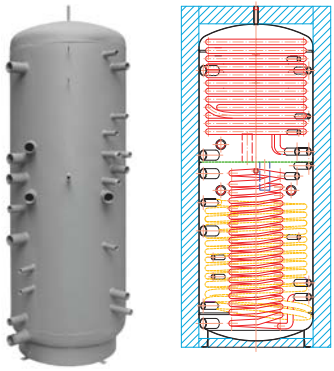
Upper tank section (DHW heating):
3 side connections (G 1“ F or G 6/4“ F) to connect heat sources
2 side connections (G 1“M) for cold water inlet and preheated water outlet from a 6sqm DHW heat exchanger
1 side connection (G 6/4“F) to install el. heating element
3 side connections (G 1/2“ F) to insert sheaths for temperature sensors and thermometer
1 top connection (G 1/2“ F) for air vent valve

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	Volume of supplied hot water [l] [3]	HX surface area [m²]		Code	Insulation code
					upper DHW	lower DHW		
HSK 600 PV	1935	650	557	669	6	3	16158	18839
HSK 750 PV	1975	750	757	784	6	3	16177	18842
HSK 1000 PV	2080	800	922	846	6	3	16180	18845
HSK 1700 PV	2075	1100	1684	1533	6	3	16183	18848

[1] Diameter without connections, insulation.
[2] This shows the energy efficiency class of the thermal store with insulation. For thermal stores of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.
[3] The volume of supplied hot water, valid for tank heated to 60°C and inlet temperature of 40°C with flowrate of 8 l/min., no backup heating.
[4] All connections of HSK 400 P+ for connecting heat sources and heating systems have G 1” F thread.

HSK PR Thermal Stores
with 2 stainless steel DHW heat exchangers, separating metal sheet and solar heat exchanger

Thermal Stores with a separating metal sheet, 2 stainless-steel coil heat exchangers for continuous water heating and a solar heat exchanger suitable for both DHW and support heating from solar collectors. The main heat source can be a heat pump, fireplace insert, gas-fired or another boiler. Besides that, also electric heating elements can be installed for space heating or just DHW heating. Tanks are fitted with 2 metal pins for a pump station to be mounted on.



Lower (thermal store) tank section:
5 [4] side connections (G 1“ or G 6/4“ F) to connect heating system and heat sources
2 side connections (G 1“F) to connect solar thermal system
2 side connections (G 6/4“ F) to install el. heating element
2 [4] side connections (G 1“ M) for cold water inlet and preheated water outlet from a 3sqm heat exchanger
4 side connections (G 1/2“ F) to insert sheaths for temperature sensors, safety valve and pressure gauge
2 M6 metal pins for pump station

Upper tank section (DHW heating):
3 side connections (G 1“ F or G 6/4“ F) to connect heat sources
2 side connections (G 1“ M) for cold water inlet and preheated water outlet from a 6sqm DHW heat exchanger
1 side connection (G 6/4“F) to install el. heating element
3 side connections (G 1/2“ F) to insert sheaths for temperature sensors and thermometer
1 top connection (G 1/2“ F) for air vent valve

Model	Height [mm]	Diam. [1] [mm]	Total tank volume [l]	Volume of supplied hot water [l] [3]	HX surface area [m²]			En. eff. class [2]	Code	Insulation code
					upper DHW	lower DHW	solar			
HSK 390 PR	1905	550	394	321	6	-	1.5	C	14172	18723
HSK 400 PR+	1905	550	394	404	6	-	1.5	C	19610	19612
HSK 600 PR	1935	650	553	669	6	3	2.4	-	14187	18838
HSK 750 PR	1975	750	753	784	6	3	2.5	-	14190	18841
HSK 1000 PR	2080	800	916	846	6	3	3.2	-	14012	18844
HSK 1700 PR	2075	1100	1676	1533	6	3	4.0	-	14013	18847

[1] Diameter without connections, insulation.
[2] This shows the energy efficiency class of the thermal store with insulation. For thermal stores of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.
[3] The volume of supplied hot water, valid for tank heated to 60°C and inlet temperature of 40°C with flowrate of 8 l/min., no backup heating.
[4] HSK 390 PR has only one 6 sqm stainless steel heat exchanger for DHW heating in the upper section. In the bottom section there are 4 connections to connect heating systems and heat sources. All have G 1” F thread.

ACCESSORIES TO THERMAL STORES

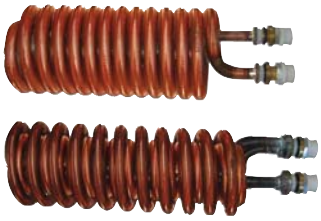
Electronic Anode Rods

Kit for DUO thermal stores – code 13793

Tube Heat Exchangers

These heat exchangers are designed to transfer heat in Thermal Stores. They are made of finned copper tubes. Tube finning provides a large surface area and ensures better heat transfer. They differ in the size of heat transfer area, length, connection size, manner of winding and number of tubes. Upon agreement (for larger orders) it is possible to manufacture heat exchangers according to customer requirements.

max. working pressure 10 bar
max. working temperature 95°C



Surface area [m²]	Coil length [mm]	Coil diam. [mm]	Connection	Number of tubes	Code
0.6	410	145	G 3/4“	1	6150
1.06	420	145	G 3/4“	1	6151
1.80	470	170	G 3/4“	1	6152
2.63	600	190	G 3/4“	1	6154
3.15	560	190	G 1“	2	6155
3.60	630	190	G 1“	2	6157
4.50	750	190	G 1“	2	6156

Flanges for PS2F a PSWF Thermal Stores

These are not included in thermal store package, they need to be ordered separately depending on the specific application.

blind flange, code 6230

G 3/4“ connection, code 6231

G 1“ connection, code 6232

Insulation (jacket)

Detachable 100mm thick fleece insulation is available for Thermal Stores. The inner „insulation“ part consists of fleece made of PE fibres, with white PUR leather on the surface. These insulations are detachable, with quick locks. The insulation kit involves also top and bottom insulations.

Thermal Stores installed in cooling systems can be supplied with special elastomeric insulation with a closed cell structure that prevents water vapor condensation.

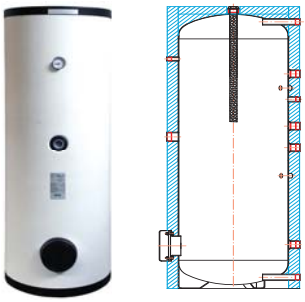
Expansion vessels

You can find an overview of expansion vessels on page 18.

HOT WATER STORAGE TANKS, NO HEAT EXCHANGERS

R0BC Hot Water Storage Tanks

Hot water storage tanks, enabling installation of an electric heating element. Their inner surface is enamelled according to standard DIN 4753. They are equipped with a magnesium anode rod.



Model	Total volume [l]	Height [mm]	Diam. [1] [mm]	Insulation thickness [mm]	En. eff. class [2]	Code
R0BC 200	212	1265	500	50	C	10586
R0BC 300	297	1710	500	55	C	10571
R0BC 400	420	1690	600	55	C	10587
R0BC 500	513	1780	650	55	-	8795
R0BC 750	763	1870	790	80	-	10364
R0BC 1000	885	2120	790	80	-	10365
R0BC 1500	1494	2285	1000	100	-	16715
R0BC 2000	2013	2550	1100	100	-	16716
R0BC 2500	2508	2680	1200	100	-	10501
R0BC 3000	2841	2980	1200	100	-	8901

The hot water tanks are supplied incl. non-detachable expanded polyurethane insulation.

HOT WATER STORAGE TANKS, ONE HEAT EXCHANGER

NBC Hot Water Storage Tanks in stainless steel

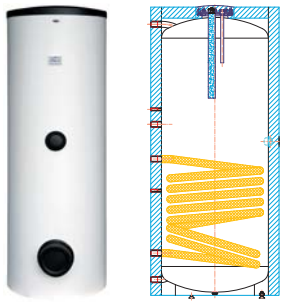
Hot water storage tanks in stainless steel, with upward connections, integrated inner heat exchanger and a drain valve. They are fitted with a magnesium anode rod.
These tanks are designed for use in sets with a heat pump and RegulusBOX indoor unit. They have no opening for an electric heating element.

Model	Total volume [l]	Height [mm]	Diam. with insulation [1] [mm]	Insulation thickness [mm]	HX surface area [m²]	En. eff. class [2]	Code
NBC 170 HP	170	1075	603	51.5	2	B	17615

The hot water tanks are supplied incl. non-detachable expanded polyurethane insulation.

RGC Hot Water Storage Tanks

Hot water storage tanks with one enamelled heat exchanger, enabling installation of an electric heating element. Their inner surface is enamelled according to standard DIN 4753. They are equipped with a magnesium anode rod.



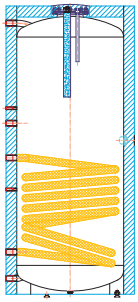
Model	Total volume [l]	Height [mm]	Diam. with insulation [mm]	Insulation thickness [mm]	HX surface area [m²]	En. eff. class [2]	Code
RGC 120	120	1075	565	54	1.4	C	19441
RGC 170	173	1030	715	57.5	1.6	B	19196
RGC 300 HP 2.5	283	1205	700	50	2.5	C	19856

Only the RGC 300 HP 2.5 hot water tank is equipped with a flange in the bottom section. Smaller tanks have their outlets upwards, they are designed to be installed under RegulusBOX unit.
The hot water tanks are supplied incl. non-detachable expanded polyurethane insulation.

[1] Diameter without connections, insulation.
[2] For hot water tanks of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.

RDC Hot Water Storage Tanks

Hot water storage tanks with one enamelled heat exchanger, enabling installation of an electric heating element. Their inner surface is enamelled according to standard DIN 4753. They are equipped with a magnesium anode rod.

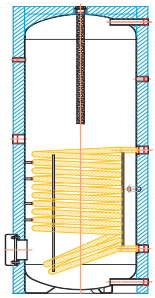


Model	Total volume [l]	Height [mm]	Diam. with insulation [mm]	Insulation thickness [mm]	HX surface area [m²]	En. eff. class [2]	Code
RDC 160	157	1074	584	42	0.8	C	12772
RDC 200	216	1380	584	42	1	C	12758
RDC 250	274	1557	584	42	1.5	C	15860
RDC 300	302	1790	597	48.5	1.5	C	12759

Only the RDC 300 hot water tank is equipped with a flange in the bottom section.
The hot water tanks are supplied incl. non-detachable expanded polyurethane insulation.

RBC Hot Water Storage Tanks

Hot water storage tanks with one enamelled heat exchanger, enabling installation of an electric heating element. Their inner surface is enamelled according to standard DIN 4753. They are equipped with a magnesium anode rod.

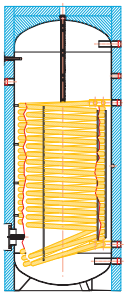


Model	Total volume [l]	Height [mm]	Diam. [1] [mm]	Insulation thickness [mm]	HX surface area [m²]	En. eff. class [2]	Code
RBC 200	214	1265	500	50	1.5	C	3252
RBC 300	297	1710	500	55	1.7	C	3253
RBC 400	408	1655	600	55	1.9	C	6479
RBC 500	515	1785	650	55	2.5	C	6480
RBC 750	767	1870	790	80	3.4	-	4037
RBC 1000	887	2120	790	80	3.5	-	4038
RBC 1500	1492	2285	1000	100	4.2	-	16710
RBC 2000	2006	2550	1100	100	4.5	-	16711
RBC 2500	2509	2680	1200	100	4.8	-	12420
RBC 3000	2841	2980	1200	100	5.2	-	8477

The hot water tanks are supplied incl. detachable expanded polyurethane insulation.

RBC HP Hot Water Storage Tanks with one enlarged heat exchanger

Hot water storage tanks with enlarged heat transfer surface area of the heating heat exchanger for water heating from low-temperature sources (heat pump, larger solar thermal system etc.). An electric heating element can be installed in these hot water tanks of volume up to 750 l. Their inner surface is enamelled according to standard DIN 4753. They are equipped with a magnesium anode rod.



Model	Total volume [l]	Height [mm]	Diam. [1] [mm]	Insulation thickness [mm]	HX surface area [m²]	En. eff. class [2]	Code
RBC 200 HP	205	1265	500	55	3	C	10534
RBC 300 HP 3.2	299	1710	500	52	3.2	C	18748
RBC 300 HP	299	1710	500	55	3.8	C	10535
RBC 400 HP	407	1655	600	55	5	C	10536
RBC 500 HP	509	1785	650	55	5.9	C	8546
RBC 750 HP	764	1870	790	80	7.5	-	10537
RBC 1000 HP	884	2120	790	80	10	-	7883
RBC 1500 HP	1516	2285	1200	100	11	-	16714

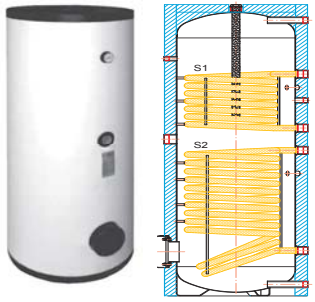
The hot water tanks are supplied incl. detachable expanded polyurethane insulation.

[1] Diameter without connections, insulation.
[2] For hot water tanks of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.

HOT WATER STORAGE TANKS, TWO HEAT EXCHANGERS

Hot water storage tanks with two enamelled heat exchangers, enabling installation of an electric heating element. Their inner surface is enamelled according to standard DIN 4753. They are equipped with a magnesium anode rod.

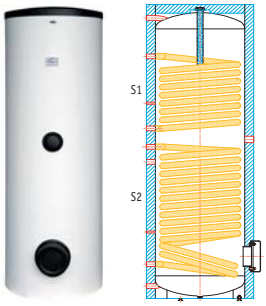
R2BC Hot Water Storage Tanks



Model	Total volume [l]	Height [mm]	Diam. [1] [mm]	Insulation thickness	HX surface area [m²]		En. eff. class [2]	Code
					lower	upper		
R2BC 200	212	1265	500	55	0.8	0.8	C	6481
R2BC 300	299	1710	500	55	1.5	0.9	C	6482
R2BC 400	420	1690	600	55	1.9	0.9	C	6483
R2BC 500	514	1780	650	55	1.9	0.9	C	6484
R2BC 750	762	1870	790	80	2.4	2.4	-	6485
R2BC 1000	883	2120	790	80	2.5	2.5	-	5758
R2BC 1500	1493	2285	1000	100	4.2	2.5	-	16712
R2BC 2000	2007	2550	1100	100	4.5	3	-	16713
R2BC 2500	2510	2680	1200	100	4.8	3.5	-	12432
R2BC 3000	2841	2980	1200	100	5.2	3.8	-	8474

The hot water tanks are supplied incl. detachable expanded polyurethane insulation.

R2DC Hot Water Storage Tanks



Model	Total volume [l]	Height [mm]	Diam. with insulation [mm]	Insulation thickness	HX surface area [m²]		En. eff. class	Code
					lower	upper		
R2DC 160	153	1074	584	42	0.8	0.7	C	13490
R2DC 200	216	1380	584	42	1	1	C	11351
R2DC 250	260	1560	584	42	1.5	1	C	12051
R2DC 300	293	1791	597	48.5	1.5	1	C	11352

Only the R2DC 300 hot water tank is equipped with a flange in the bottom section.
The hot water tanks are supplied incl. non-detachable expanded polyurethane insulation.

[1] Diameter without connections, insulation.
[2] For hot water tanks of storage volume over 500l the labelling requirements do not apply, see Commission Regulation 812/2013.

ACCESSORIES TO HOT WATER STORAGE TANKS

Electronic Anode Rods

Code	Kit for:
13793	DUO 390/130 - 1700/200, NBC 170 HP thermal stores
9173	RxDC 160, RxGC 300 K, RBC 200 hot water tanks
9174	RxDC 200-250, R0BC 200-500, RBC 300, R2BC 200-300 hot water tanks
17375	RBC 200-300 HP hot water tanks
17372	R0BC 750-1000 hot water tanks
17378	RxDC 300 hot water tanks (set of 2 anode rods)
17368	RBC 400-500, R2BC 400-500 hot water tanks (set of 2 anode rods)
17376	RBC 400-500 HP hot water tanks (set of 2 anode rods)
17369	RBC 750-1000, R2BC 750-1000 hot water tanks (set of 2 anode rods)
17377	RBC 750-1500 HP hot water tanks (set of 2 anode rods)
14429	RxBC 1500-2500, R0BC 3000 hot water tanks (set of 2 anode rods)
17371	RBC 3000, R2BC 3000 hot water tanks (set of 3 anode rods)

Tube Heat Exchanger

The heat exchanger is intended for use in RxBC and RxDC hot water tanks with a flange. They are designed for heat transfer from a solar thermal system or another heat source.

Code	Surface area	Coil length	Coil diameter	Connection
8377	0.94 m²	400 mm	110 mm	3/4“

Flanges

Flanges for tube heat exchangers:

A tube heat exchanger can be installed into bottom flanges of RxBC 200-300 and RxDC 300 hot water tanks.

Code	HW tank model
12706	RxDC 300
8375	RxBC 200-300

Flanges for electric heating elements:

An electric heating element can also be installed into the bottom flanges of RxBC 200-300 a RxDC 300 hot water tanks.

Code	HW tank model
12707	RxDC 300
17199	RxBC 200-300

When installing an electric heating element into the flange of a RBC 200 HP hot water tank or RxBC 400-3000 hot water tanks, it is necessary to replace the magnesium anode rods with electronic ones. Flanges for these hot water tanks feature a 6/4“ opening for a heating element and a 1/2“ opening for an anode rod and are supplied only in kits with suitable electronic anode rods; for more details see the Catalogue.

PTR Valves

Combined safety valves protect hot water tanks from exceeding the preset values of maximum pressure or temperature.

Code	Preset values
17240	7 bar, 92 °C
17241	10 bar, 92 °C

For an easier installation of PTR valves into hot water tanks, we offer also sets of suitable fittings:

Code	Kit for:
17525	RGC and RxDC hot water tanks
17524	R0BC 200-750 hot water tanks
17526	RBC 200-400 (HP), R2BC 200-400 hot water tanks
17528	RBC 500-1000 (HP), R2BC 500-1000 hot water tanks
17529	R0BC 1000, RxBC 1500-3000 (HP) hot water tanks

Safety Kits

The safety kit is designed to protect a hot water storage tank from exceeding the max. working pressure, to check the function of the check valve and to drain the hot water tank. It consists of a safety valve, check valve with function test, a ball valve, drain valve and a pressure gauge.

For hot water tanks of volume up to 200 l DHW:

Code	Safety valve
17387	6 bar
18272	7 bar
18288	8 bar
18274	10 bar

For hot water tanks of volume up to 1000 l DHW:

Code	Safety valve
18678	6 bar
18273	7 bar
18287	8 bar
18275	10 bar

Expansion Vessels

It is recommended to install a HW type expansion vessel of a suitable volume with the hot water tanks. The overview of expansion vessels can be found on the following pages.

EXPANSION VESSELS

The vessels are made of high quality steel sheet with anti-corrosion surface treatment, with a non-permeable highly elastic bladder, resistant to high temperatures. The bladder can be replaced in vessels of 50l volume and bigger.

All the expansion vessels are 100% tested and certified according to Directive 2014/68/EU of the European Parliament and of the Council concerning pressure equipment (PED).

Expansion Vessels for Heating Systems

Depending on their type, HS expansion vessels are designed to be operated in heating systems or in sealed cooling circuits, permitting to absorb heating fluid volume fluctuations caused by its temperature changes. They are preset to 1.5 bar pressure, their max. working temperature is 99°C.

Wall hung models

Code	Name	Volume	Connection	Max. working pressure
13731	HS005 expansion vessel	5	3/4“	6
13732	HS008 expansion vessel	8	3/4“	6
13734	HS012 expansion vessel	12	3/4“	6
13735	HS018 expansion vessel	18	3/4“	6
13736	HS025 expansion vessel	25	3/4“	6
13737	HS040 expansion vessel	40	3/4“	6

Floor standing models, with replaceable membrane

Code	Name	Volume	Connection	Max. working pressure
13738	HS035 expansion vessel*	35	3/4“	5
13739	HS050 expansion vessel	50	3/4“	6
13740	HS060 expansion vessel	60	1“	6
13741	HS080 expansion vessel	80	1“	6
13742	HS100 expansion vessel	100	1“	6
13743	HS150 expansion vessel	150	6/4“	6
13744	HS200 expansion vessel	200	6/4“	6
13745	HS250 expansion vessel	250	6/4“	6
13746	HS300 expansion vessel	300	6/4“	6
13747	HS400 expansion vessel	400	6/4“	6
13748	HS500 expansion vessel	500	6/4“	6
13749	HS600 expansion vessel	600	6/4“	6
13750	Expanzní nádoba HS700	700	6/4“	6

* HS035 expansion vessel has no replaceable membrane.

Expansion Vessels for Drinking Water

HW expansion vessels are designed to be operated in systems with DHW heating. Besides the volume fluctuations they also absorb water hammers, extending the service life and increasing the reliability of both hot water tanks and the entire system. They are preset to the pressure of 2 bar (floor standing) /3.5 bar (wall hung), their max. working temperature is 99°C.

Wall hung models

Code	Name	Volume	Connection	Max. working pressure
13752	HW016 expansion vessel	0.16	1/2“	15
13753	HW002 expansion vessel	2	1/2“	10
13754	HW005 expansion vessel	5	3/4“	8
13755	HW008 expansion vessel	8	3/4“	8
13756	HW012 expansion vessel	12	3/4“	8
13757	HW018 expansion vessel	18	3/4“	8
13758	HW025 expansion vessel	25	3/4“	8
13759	HW040 expansion vessel	40	3/4“	8

Floor standing models, with replaceable membrane

Code	Name	Volume	Connection	Max. working pressure
13760	HW060 expansion vessel	60	1“	10
13761	HW080 expansion vessel	80	1“	10
13762	HW100 expansion vessel	100	1“	10
13763	HW200 expansion vessel	200	6/4“	10
13764	HW300 expansion vessel	300	6/4“	10
13765	Expanzní nádoba HW400	400	6/4“	10

Service Valves

They are used for easy control of gas pressure in expansion vessels.
No need to drain the system for maintenance.

Main advantages:

- Simple installation
- Safety shut-off ball valve
- Integrated drain valve

Connecting thread	Code
G 3/4“	8770
G 1“	12295
G 6/4“	14492

Wall Brackets

In the Catalogue, you can find a selection from simple metal brackets, through brackets that contain a service valve, to mounting arms equipped with a safety valve, an air vent valve and a pressure gauge.

Multipurpose mounting arm for expansion vessels
It is fitted with a G 3/4“ F connection for an expansion vessel, G 3/4“ M connection for a heating system, a G 3/8“ F connection for an automatic air vent valve, G 1/2“ M connection for a safety valve and a G 1/4“ F connection for a pressure gauge.

Code: 10046

Wall bracket and connection kit for expansion vessels
Connection fittings (with a male and female G 3/4“ threads) with a double check valve, enabling quick and safe disconnection of an expansion vessel without leaks.

Code: 7766

The separate valve without the bracket can be ordered under code 19722.

Wall bracket
Code: 12174

ELECTRIC HEATING ELEMENTS

Hot water tanks and thermal stores can be equipped with electric heating elements; their overview and technical data can be found in a separate Catalogue. The table below shows max. lengths that can be installed in a specific hot water tank or a thermal store.

If a hot water tank or a thermal store is equipped with a flanged opening, an electric heating element can be installed also into the flange with anode rods. In this case, it is necessary to install into bigger hot water tanks also electronic anode rods instead of magnesium ones together with the heating element. For more details see the current Catalogue.

HW tank type	Max. heating element length in a connection [mm]	Number of connections for heating elements	Max. heating element length in a connection [mm]	Flange codes
HOT WATER TANKS				
R0BC 200	500	1	500	17199
R0BC 300	500	1	500	17199
R0BC 400	635	1	585	17432
R0BC 500	680	1	680	17432
R0BC 750	815	1	815	17428
R0BC 1000	815	1	815	17428
R0BC 1500	815	1	815	17435
R0BC 2000	815	1	815	17435
R0BC 2500	815	1	815	17435
R0BC 3000	815	1	815	17435
RBC 200 HP	500	1	370	17434
RBC 300 HP	500	1	370	17434
RBC 300 HP 3.2V	500	1	370	17432
RBC 400 HP	635	1	470	17434
RBC 500 HP	680	1	500	17434
RBC 750 HP	815	1	635	17428
RBC 1000 HP	-	0	635	17428
RBC 1500 HP	-	0	815	17435
RBC, R2BC 200	500	1	370	17199
RBC, R2BC 300	500	1	370	17199
RBC, R2BC 400	635	1	470	17432
RBC, R2BC 500	680	1	500	17432
RBC, R2BC 750	815	1	635	17433
RBC, R2BC 1000	815	1	635	17433
RBC, R2BC 1500	815	1	815	17435
RBC, R2BC 2000	815	1	815	17435
RBC, R2BC 2500	815	1	815	17435
RBC, R2BC 3000	815	1	815	17436
RxDC 160	500	1	-	-
RxDC 200	500	1	-	-
RxDC 250	500	1	-	-
RxDC 300	500	1	370	12707
RGC 120	370	1	-	-
RGC 170	500	1	-	-
RGC 300 HP 2.5	-	0	470	included
NBC 170 HP	-	0	-	-
HSK 220 TV	-	0	-	-

Thermal store type	Max. heating element length in a connection [mm]	Number of connections for heating elements
THERMAL STORES WITH DHW		
DUO 390/130 x	500	3[1]
DUO 600/200 x	500	3[1]
DUO 750/200 x	635	3[1]
DUO 1000/200 x	700	3[1]
DUO 1700/200 x	955	3[1]
HSK 250 PB	500	3[4]
HSK 350 K P-B	-	0
HSK 390 x	555	3[1]
HSK 400 x	635	3[4]
HSK 600 x	555	3[1]
HSK 650 PB	755	3[4]
HSK 750 x	700	3[1]
HSK 1000 x	755	3[1]
HSK 1700 x	955	3[1]

Thermal store type	Max. heating element length in a connection [mm]	Number of connections for heating elements
THERMAL STORES		
PSWF 300 N+	635	3
PSWF 500 N+	680	3
PSWF 800 N+	755	3
PSWF 1000 N+	755	3
PSWF 1500 N+	955	3
PSWF 2000 N+, N25	955	3[3]
PS 600 ES+	700	1[2]
PS 900 ES+	815	1[2]
PS 1100 ES+	815	1[2]
PS 500 E+	680	1
PS 750 E+	755	1
PS 1000 E+	815	1
PS 1100 E+	815	1
PS 1250 E+	955	1
PS 80 Z	585	1
PS 100 IZ	500	2
PS 200 IZ	500	2
PS 200 N+	500	5
PS, PS2F 300 N+	635	5
PS 400 N+	635	5
PS 500 Nx, PS2F 500 N+	680	5[3]
PS 600 N+	700	5
PS 700 N+	755	5
PS, PS2F 800 N+	815	5
PS 900 N+	815	5
PS 1000 Nx, PS2F 1000 N+	815	5[3]
PS 1100 N+	815	5
PS 1500 Nx, PS2F 1500 N+	955	5[3]
PS 2000 Nx, PS2F 2000 N+	955	5[3]
PSxx 3000 N25	955	5[3]
PSxx 4000 N25	955	5[3]
PSxx 5000 N25	955	5[3]
PS 400 K+	680	5
PS 500 K+	700	5
PS 600 K+	755	5
PS 700 K+	815	5
PS 900 K+	815	5
PS 1100 K+	955	5

[1] P and PV types have an extra 4th connection for a PV element

[2] the thermal store has only 4 connections for heat sources

[3] for N25 thermal stores, a reduction G 2,5“ M x G 6/4“ F is necessary

[4] in this type of HSK thermal store, it is not necessary to use elements with a longer non-heating end

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