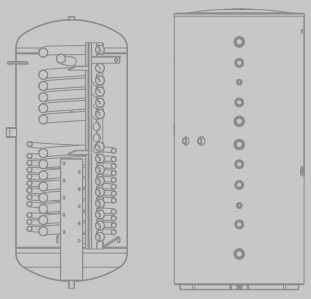
05/2022
27009419 – rev. 2 EN

Thermal solar and cylinders

Riello 7200 KombiSolar^{2S}

Combined storage systems

Combined storage system
Instant production of domestic hot water



RIELLO
Energy For Life

Riello 7200 KombiSolar^{2S}

PRODUCT DESCRIPTION

Riello 7200 KombiSolar2S is a combined double-coil solar storage system for the instant production of domestic hot water and heating integration: lower coil for the solar circuit and AISI 316L stainless steel corrugated coil (bacteriologically inert) for fast, efficient and convenient production of domestic hot water.
The storage system is specifically designed to maximise installation flexibility and, thanks to the integrated diffusion pipe, allow an effective stratification along the storage height. CFC-free polyurethane insulation obtained through direct foam injection in the interspace. Possibility of matching with integrative heating elements.
5-year warranty.

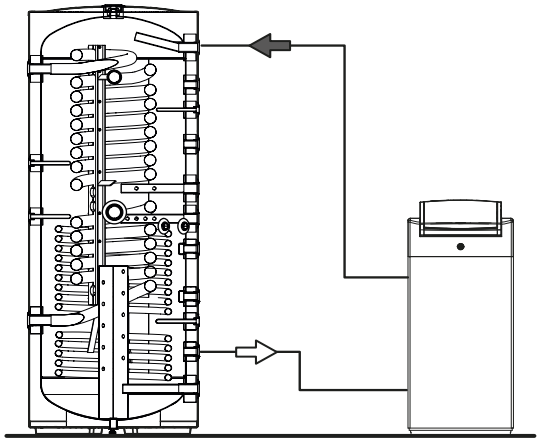
TECHNICAL DATA

MODELS RIELLO 7200 KOMBISOLAR		430 2S	550 2S	750 2S	1000 2S
Type of inertial storage		non-glazed	non-glazed	non-glazed	non-glazed
Inertial storage layout		vertical	vertical	vertical	vertical
Exchanger layout		vertical	vertical	vertical	vertical
Lower coil		smooth steel tube	smooth steel tube	smooth steel tube	smooth steel tube
DHW coil		AISI 316L stainless steel corrugated pipe	AISI 316L stainless steel corrugated pipe	AISI 316L stainless steel corrugated pipe	AISI 316L stainless steel corrugated pipe
Inertial storage capacity	l	415	528	742	908
Diameter with insulation	mm	755	755	1000	1000
Diameter without insulation	mm	-	-	790	790
Height	mm	1635	1985	1845	2170
Insulation thickness	mm	50	50	100	100
sensor-holder pocket diameter (boiler and solar system)	Ø mm	16	16	16	16
Diameter of thermal sensor-holder pocket	Ø mm	16	16	16	16
Thermometer holder pocket diameter	Ø mm	10	10	10	10
Lower primary coil water content	l	11.0	12.8	17.4	19.8
DHW coil water content	l	23.6	23.6	30.4	30.4
Lower primary coil exchange surface	m²	1.8	2.1	2.9	3.34
DHW coil exchange surface	m²	4.5	4.5	5.8	5.8
Lower primary coil absorbed power (*)	kW	28	32	45	52
Maximum operating temperature for inertial storage tank	°C	99	99	99	99
Maximum operating pressure for inertial storage tank	bar	3	3	5	5
Maximum primary coil operating pressure	bar	10	10	10	10
Maximum operating temperature for primary coils	°C	99	99	99	99
Maximum DHW coil operating pressure	bar	6	6	6	6
Maximum operating temperature for DHW coil	°C	99	99	99	99
Recommended solar collector surface	m²	6	8	12	14
Net weight	kg	155	177	218	248
Dissipation according to EN 12897:2006 T=45 °C	W	78	85	93	98
Thermal dissipation UNI TS 11300	W/K	1.733	1.889	2.067	2.178
Energy efficiency class			B		

(*) With ΔT= 35°C and primary circuit temperature = 80°C.
Performance obtained with load circulation pump set at 3000 l/h and using generators of adequate capacity.

COMBINED STORAGE SYSTEM PERFORMANCE

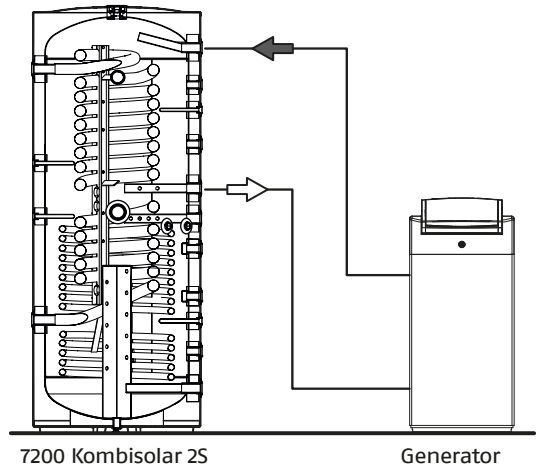
CONFIGURATION A



MODELS RIELLO 7200 KOMBISOLAR		430 2S	550 2S	750 2S	1000 2S
Domestic hot water production (*)	l/h	3050	3300	3150	3200
Domestic hot water production (**)	l/h	1970	2115	1980	2250
Withdrawal in 10' with average ΔT 35°C and primary storage at:					
90°C	l	600	670	800	800
80°C	l	425	470	670	670
70°C	l	370	400	570	570
60°C	l	220	280	285	285
Non-solar usable volume (Vbu)	l	330	440	575	730

(*) With ΔT= 35°C and primary circuit temperature = 80°C.
Performance obtained with a generator of adequate power set for a flow rate of 3000 l/h.
(**) With ΔT= 35°C and primary circuit temperature = 80°C.
Performance obtained with a generator of adequate power set for a flow rate of 1500 l/h.

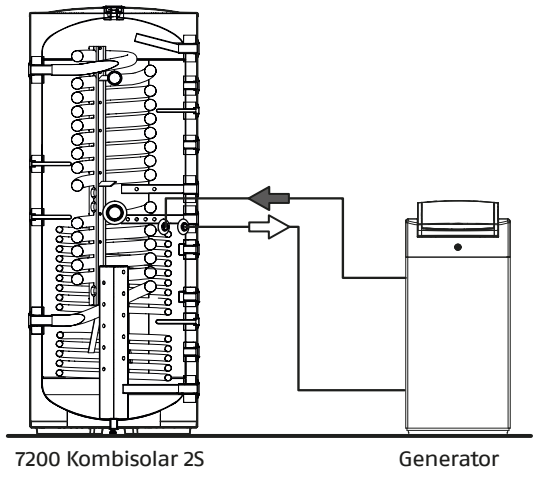
CONFIGURATION B



MODELS RIELLO 7200 KOMBISOLAR		430 2S	550 2S	750 2S	1000 2S
Domestic hot water production (*)	l/h	2300	2400	2600	2650
Domestic hot water production (**)	l/h	1650	1750	1900	1950
Withdrawal in 10' with average ΔT 35°C and primary storage at:					
90°C	l	350	400	420	560
80°C	l	260	310	350	470
70°C	l	200	220	285	350
60°C	l	130	160	200	240
Non-solar usable volume (Vbu)	l	165	220	290	385

(*) With ΔT= 35°C and primary circuit temperature = 80°C.
Performance obtained with a generator of adequate power set for a flow rate of 3000 l/h.
(**) With ΔT= 35°C and primary circuit temperature = 80°C.
Performance obtained with a generator of adequate power set for a flow rate of 1500 l/h.

CONFIGURATION C

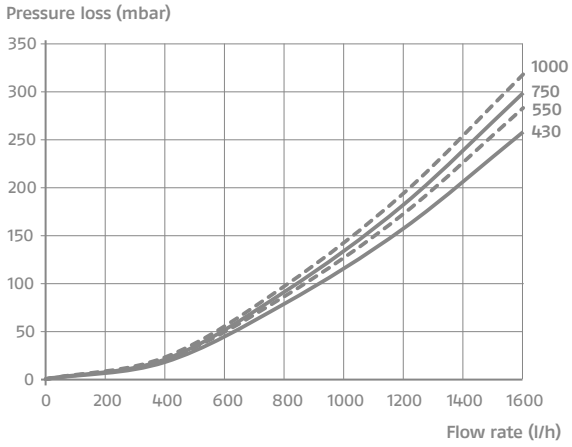


MODELS RIELLO 7200 KOMBISOLAR		430 2S	550 2S	750 2S	1000 2S
Domestic hot water production (*)	l/h	690	790	1100	1270

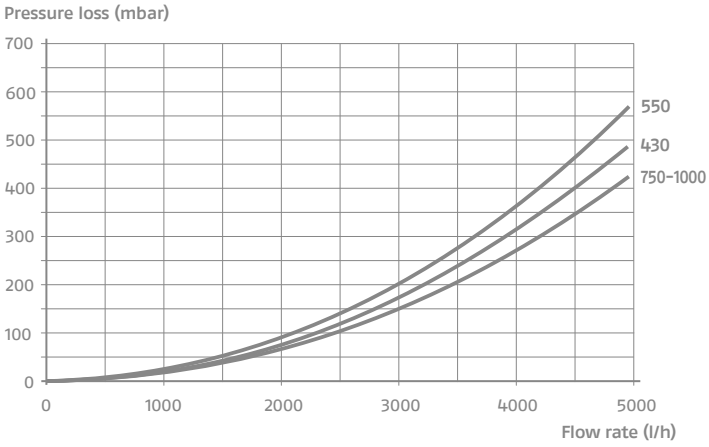
(*) With ΔT= 35°C and primary circuit temperature = 80°C.
Performance obtained with a generator of adequate power set for a flow rate of 3000 l/h.

PRESSURE LOSSES

RIELLO 7200 KOMBISOLAR2S LOWER COIL

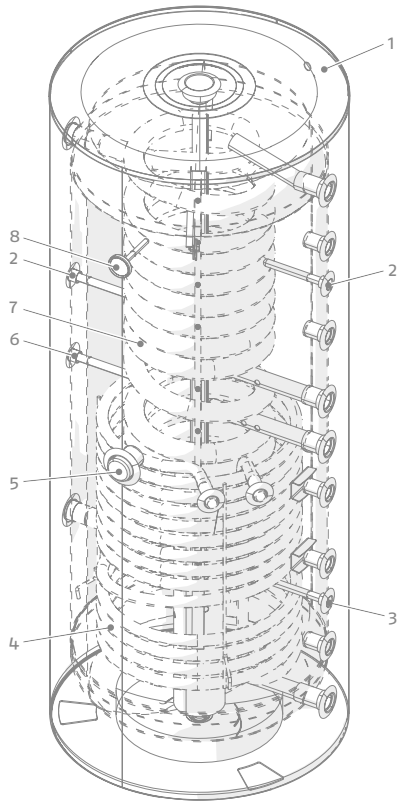


RIELLO 7200 KOMBISOLAR2S DHW COIL

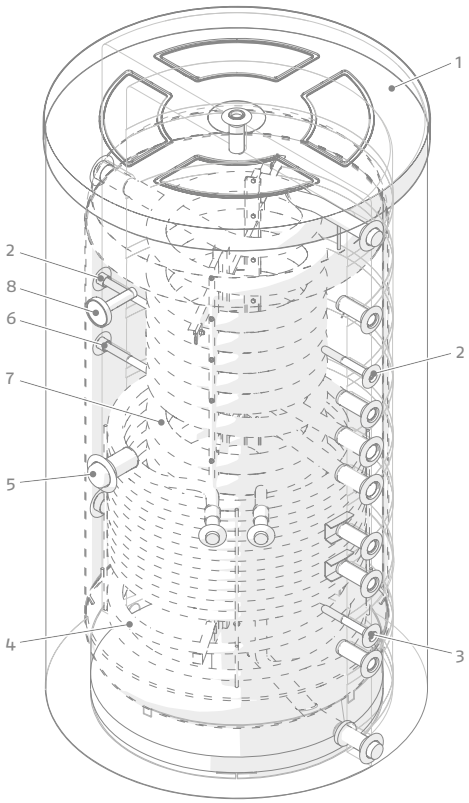


STRUCTURE

MODELS 430 ÷ 550



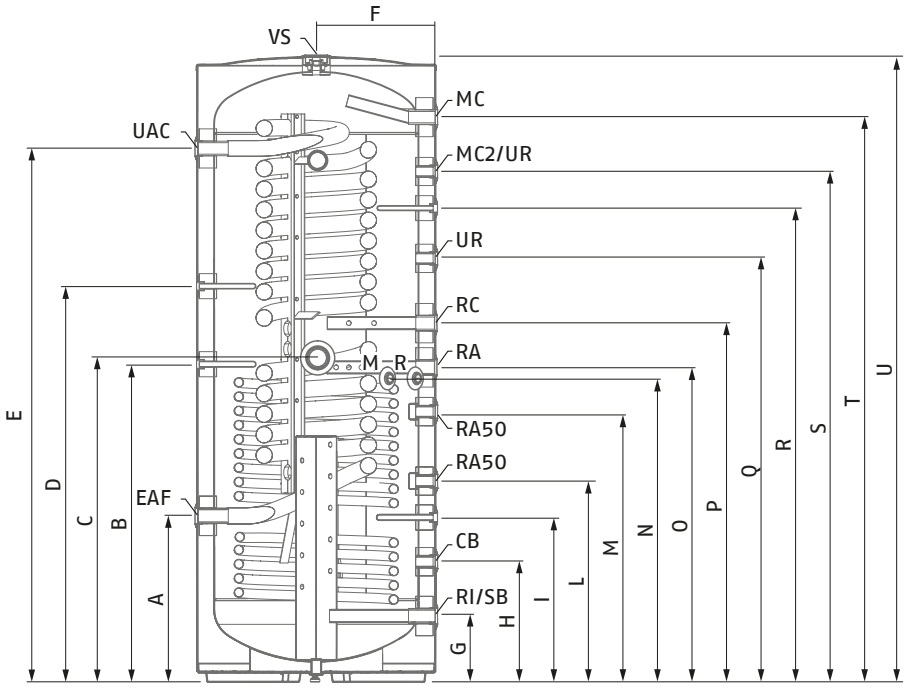
MODELS 750 ÷ 1000



1 Storage
2 Boiler sensor pocket
3 Solar regulator sensor pocket
4 Lower coil
5 Sleeve for heating element (not supplied)
6 Auxiliary pocket
7 Auxiliary coil
8 Storage thermometer

HYDRAULIC CONNECTIONS

MODELS 430 ÷ 550

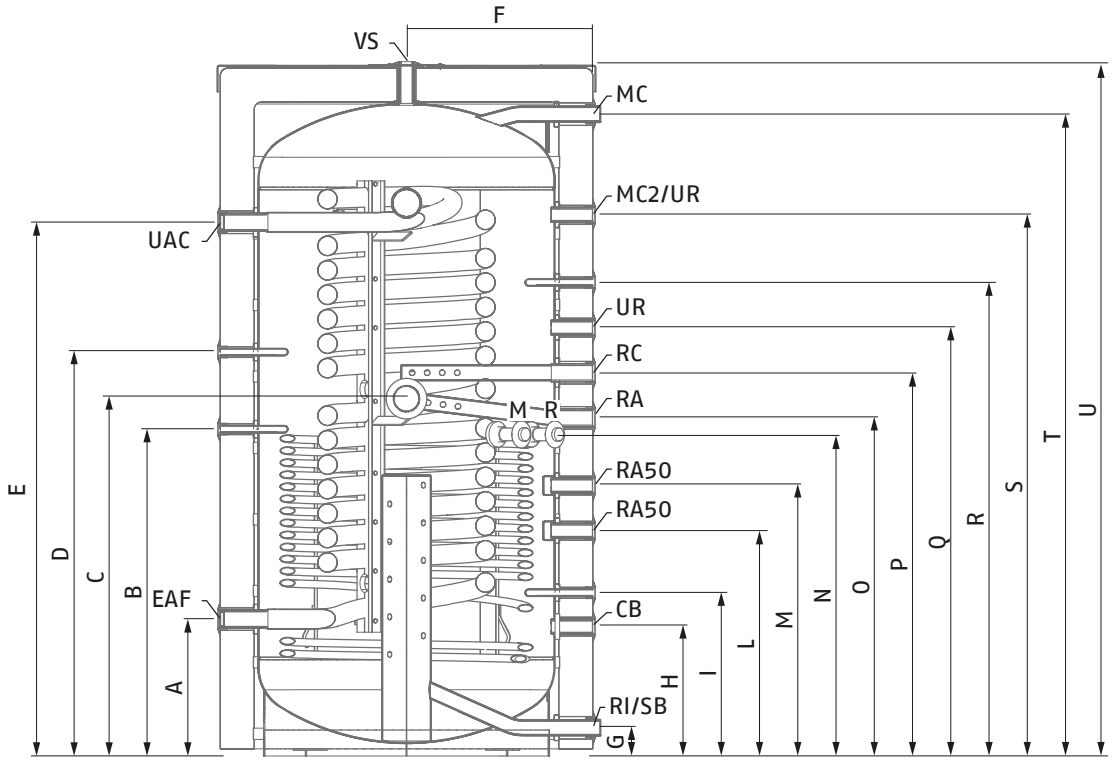


MODELS RIELLO 7200 KOMBISOLAR		430 2S	550 2S
A	mm	307	525
B	mm	815	1005
C	mm	945	1025
D	mm	1042	1252
E	mm	1343	1688
F	mm	377	377
G	mm	208	208
H	mm	380	380
I	mm	490	520
L	mm	610	635
M	mm	730	855
N	mm	865	920
O	mm	845	995
P	mm	980	1135
Q	mm	1090	1340
R	mm	1208	1499
S	mm	1320	1615
T	mm	1442	1787
U	mm	1635	1985

UAC	Domestic hot water outlet (Ø 1"1/4 F)
EAF	Domestic cold water inlet (Ø 1"1/4 F)
M	Collector delivery line (Ø 1" M)
R	Collector return line (Ø 1" M)
MC	Boiler delivery line (Ø 1"1/4 F)
MC2/UR	Second boiler delivery line/ Heating system outlet (Ø 1" F)
UR	Heating system outlet (Ø 1" F)
RC	Boiler return line (Ø 1"1/4 F)
RA	Water return line (Ø 1"1/4 F)
RA50	50°C water return line (Ø 1" F)
CB	Inertial storage system load (Ø 1" F)
RI/SB	Heating system return line / Inertial storage system drain (Ø 1"1/4 F)
VS	Vent valve connection (Ø 1" F)

It is recommended to install shut-off valves in the delivery and return lines.
When filling/loading the cylinder, check that the seals are properly sealing.

MODELS 750 ÷ 1000



MODELS RIELLO 7200 KOMBISOLAR		750 2S	1000 2S
A	mm	307	525
B	mm	815	1005
C	mm	945	1025
D	mm	1042	1252
E	mm	1343	1688
F	mm	377	377
G	mm	208	208
H	mm	380	380
I	mm	490	520
L	mm	610	635
M	mm	730	855
N	mm	865	920
O	mm	845	995
P	mm	980	1135
Q	mm	1090	1340
R	mm	1208	1499
S	mm	1320	1615
T	mm	1442	1787
U	mm	1635	1985

UAC	Domestic hot water outlet (Ø 1"1/4 F)
EAF	Domestic cold water inlet (Ø 1"1/4 F)
M	Collector delivery line (Ø 1" M)
R	Collector return line (Ø 1" M)
MC	Boiler delivery line (Ø 1"1/4 F)
MC2/UR	Second boiler delivery line/ Heating system outlet (Ø 1" F)
UR	Heating system outlet (Ø 1" F)
RC	Boiler return line (Ø 1"1/4 F)
RA	Water return line (Ø 1"1/4 F)
RA50	50°C water return line (Ø 1" F)
CB	Inertial storage system load (Ø 1" F)
RI/SB	Heating system return line / Inertial storage system drain (Ø 1"1/4 F)
VS	Vent valve connection (Ø 1" F)

It is recommended to install shut-off valves in the delivery and return lines.
When filling/loading the cylinder, check that the seals are properly sealing.

RIELLO 7200 KOMBISOLAR2S DESCRIPTION

CONSTRUCTION DESCRIPTION FOR CONCISE SPECIFICATIONS

Combined "pipe-in-tank" storage system for the production of domestic hot water and heating integration using solar energy or another renewable energy source, with a total volume of 430 (415 effective), 550 (528 effective), 750 (742 effective) or 1000 (908 effective) litres.
Stratification pipe at the bottom (to which the system return lines are to be connected) to maximise the stratification and yields of the connected renewable source systems.
Internal corrugated DHW coil ("bain-marie" installation) with high exchange surface, in stainless steel AISI 316 L for the instant production of domestic hot water without danger of legionella.

CONSTRUCTION DESCRIPTION FOR SPECIFICATIONS

The combined storage system for domestic hot water production and heating integration in solar systems (or with other renewable sources) is characterised by:

- "Pipe-in-tank" structure with 2 coils (DHW and renewable source)
- Steel construction with vertical development to facilitate stratification and maximise the performance of the solar system or other connected renewable energy source
- Stratification pipe at the bottom (to which the system return lines are to be connected) that releases water at different heights depending on the density of the system return water in order to maximise the stratification and yields of the connected renewable source systems.
- Internal corrugated DHW coil ("bain-marie" installation) with high exchange surface, in stainless steel AISI 316 L for the instant production of domestic hot water free from any possible formation of legionella. Exchange surface of the DHW coil equal to 4.5 m^2 for 430 and 550 models and 5.8 m^2 for 750 and 1000 models
- Lower coil with increased surface (to maximise the heat exchange and optimise the solar system efficiency) of 1.80 m^2 for the model 430, 2.10 m^2 for the model 550, 2.90 m^2 for the model 750 and 3.34 m^2 for the model 1000.
- Multi-level sensor-holder pockets
- Connections for heating integration with several heat generators
- Auxiliary sleeve for 1"1/2 F electric heater (optional)
- Maximum coil operating pressure 6 bar and maximum operating temperature 99°C
- Maximum inertial storage operating pressure of 3 bar for 430 and 550 models and 5 bar for 750 and 1000 models, with maximum operating temperature of 99°C
- Insulation made of 50 mm closed-cell polyurethane foam injected in the interspace between the aesthetic shell and the steel shell for models 430 and 550 and 4 self-supporting interlocking segmented cupels (supplied already disassembled to facilitate positioning in the heating plant and passage through doors), easily installable on site without the need for straps, with a total thickness of 100 mm for models 750 and 1000
- Covering with ABS RAL9006 embossed shell (rigidly foamed for models 430 and 550, supplied disassembled and easy to install on site thanks to the interlocking flaps for models 750 and 1000)
- Diameter compatible for passage through doors with a useful width of 800 mm
- Energy class "B" for all models with the following dissipation values:
  - 78 W (1.733 W/K) for models 430
  - 85 W (1.889 W/K) for model 550
  - 93 W (2.067 W/K) for model 750
  - 98 W (2.178 W/K) for model 1000
- Compliant with:
  - DIN 4753-3
  - UNI EN 12897
  - European regulation 813:2013

MATERIAL SUPPLIED

- Instruction manual
- Warranty certificate and barcode label
- Spare parts catalogue
- Energy label

RIELLO S.p.A.
Via Ing. Pilade Riello, 7
37045 Legnago (VR) Italy
tel. +39 0442 630111
www.riello.com

The company is constantly working to perfect its entire production range, so the design and size characteristics, technical data, equipment and accessories may vary.

RIELLO