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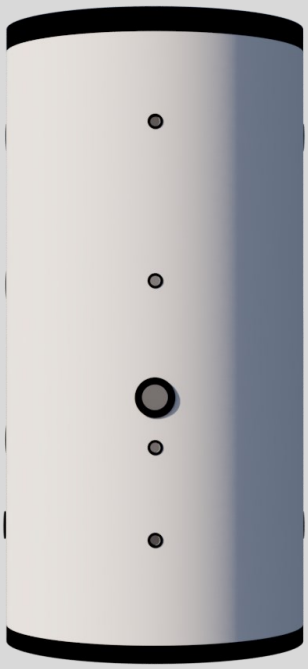
Pacetti

SCAMBIATORI - BOLLITORI - SERBATOI

TANKO ACS



COMBI BUFFER TANK FOR HOT WATER STORAGE
AND INSTANTANEOUS DHW PRODUCTION

COMBI BUFFER TANK FOR HOT WATER STORAGE AND INSTANTANEOUS DHW PRODUCTION

Combi buffer tank for hot water storage and production of instantaneous Domestic Hot Water.

TANKO ACS combines the excellent performance of a buffer tank, designed to suit any type of installation, with the high efficiency of a spiral finned copper coil for instantaneous DHW production, enusring huge water supply under all conditions of use.

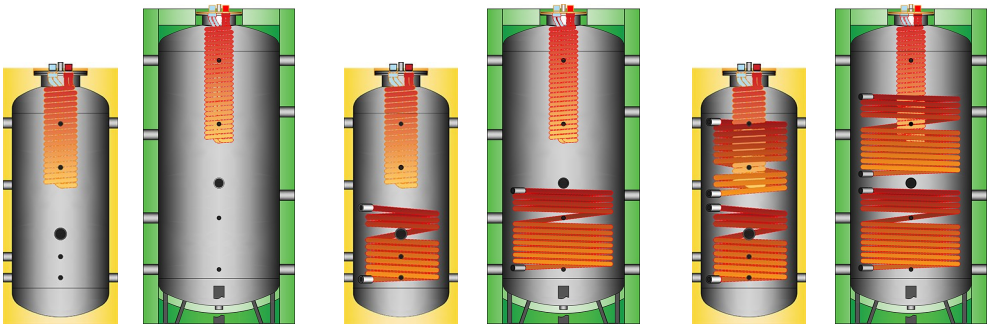
The thermal insulation of the tank guarantees minimum heat loss and allows limited variations in the temperature of the water stored, resulting in a reduced number of start-ups of the connected heating sources and saving of operating costs.

The TANKO-1 ACS and TANKO-2 ACS versions are equipped with fixed spiral coils to enable connection of 1 or 2 additional heating sources.

The on-demand DHW production is guaranteed by the high performance of the spiral finned copper coil placed vertically inside the buffer tank.

The positioning of the connections on the buffer tank shell is designed to achieve the maximum thermal stability of the DHW heat exchanger, ensuring highest flow-rates of DHW free from legionella.

CONSTRUCTION



	TANKO ACS	TANKO-1 ACS	TANKO-2 ACS
TANK MATERIAL	Carbon steel	Carbon steel	Carbon steel
FIXED COIL MATERIAL	—	Carbon steel	Carbon steel
DHW HEAT EXCHANGER MATERIAL	Finned copper	Finned copper	Finned copper
INTERNAL SURFACE TREATMENT	—	—	—
EXTERNAL SURFACE TREATMENT	Anti-rust primer	Anti-rust primer	Anti-rust primer
CAPACITY	200÷1000 L	200÷1000 L	300÷1000 L
VERSION	Vertical	Vertical	Vertical
CONNECTIONS	Threaded	Threaded	Threaded
INSULATION | 200÷500 L	Hard foam Polyurethane injected 50/55 mm	Hard foam Polyurethane injected 50/55 mm	Hard foam Polyurethane injected 50/55 mm
INSULATION | 800-1000 L	PLFH (HD Polyester fibre) 100 mm	PLFH (HD Polyester fibre) 100 mm	PLFH (HD Polyester fibre) 100 mm
CLADDING	PVC light grey RAL7035	PVC light grey RAL7035	PVC light grey RAL7035

PRODUCT FICHE - Reg. 812/2013 supplementing Directive 2010/30/EU & Reg 814/2013 implementing Directive 2009/125/EC

			Capacity	200	300	500	800	1000
TANKO ACS	Energy efficiency class			B	B	C	C	C
	Standing loss	S	W	53	65	85	111	121
	Storage volume	V	L	190	288	478	747	871
TANKO-1 ACS	Energy efficiency class			B	B	C	C	C
	Standing loss	S	W	53	65	85	111	122
	Storage volume	V	L	184	281	469	734	858
TANKO-2 ACS	Energy efficiency class				B	C	C	C
	Standing loss	S	W		65	85	111	122
	Storage volume	V	L		273	460	721	845

WORKING CONDITIONS

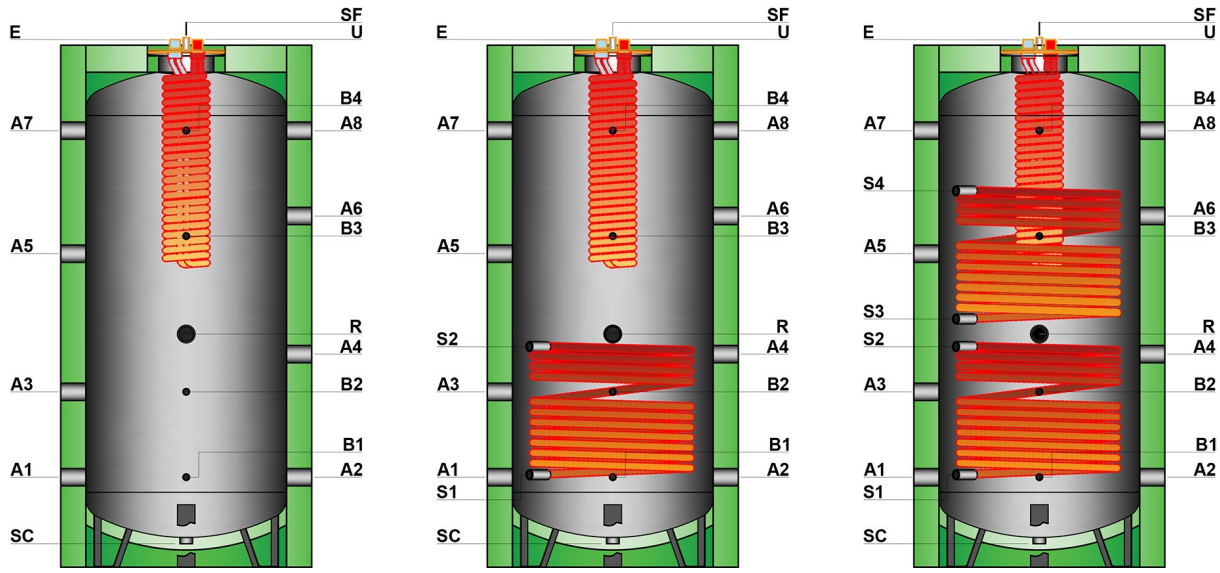
	Capacity	200	300	500	800	1000
Tank working pressure	bar	ATM÷8	ATM÷8	ATM÷6	ATM÷6	ATM÷6
Tank working temperature	°C	AMB÷99	AMB÷99	AMB÷99	AMB÷99	AMB÷99
DHW heat exchanger working pressure	bar	ATM÷12	ATM÷12	ATM÷12	ATM÷12	ATM÷12
DHW heat exchanger working temperature	°C	AMB÷99	AMB÷99	AMB÷99	AMB÷99	AMB÷99
Fixed coil working pressure	bar	ATM÷10	ATM÷10	ATM÷10	ATM÷10	ATM÷10
Fixed coil working temperature	°C	AMB÷110	AMB÷110	AMB÷110	AMB÷110	AMB÷110

REGULATORY COMPLIANCE

ErP - Reg. 812/2013 e Reg. 814/2013 | CE

European Pressure Equipment Directive (PED) 2014/68/UE | Sound Engineering Practice - Excluded from CE marking - Art. 4.3

D.M. 174/04 | Suitable for contact with water for human consumption

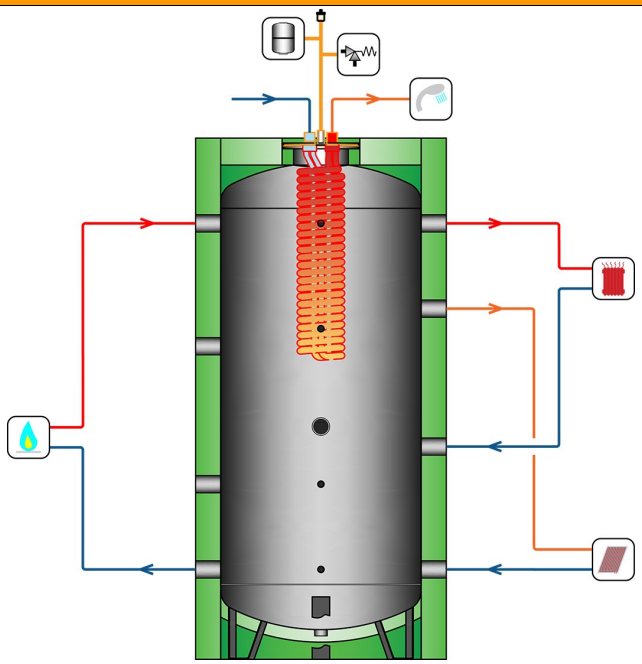


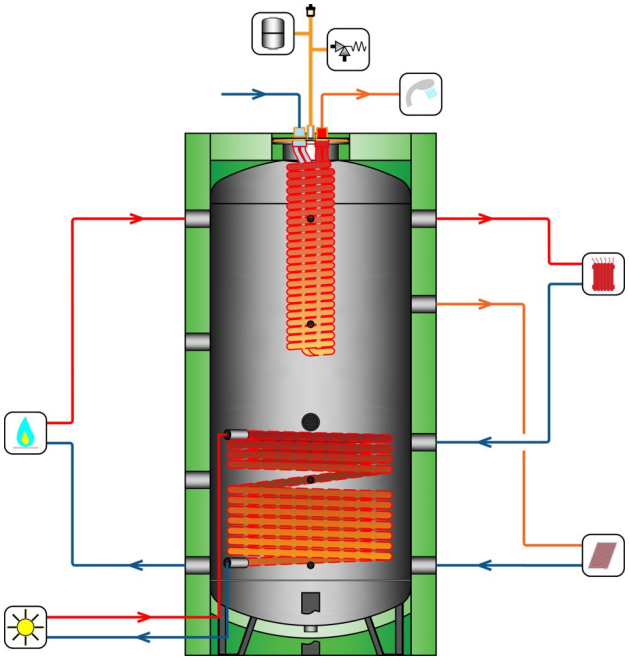
GENERAL CHARACTERISTICS

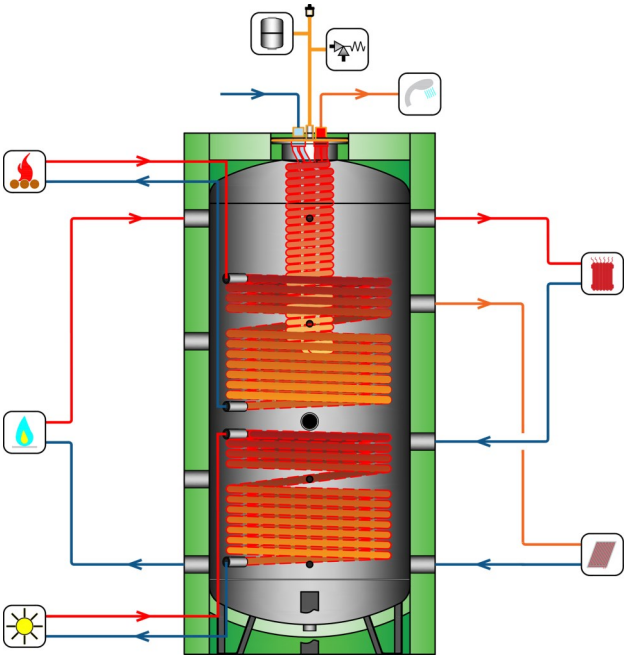
		Capacity	200	300	500	800	1000
DIMENSIONS							
Diameter without insulation		mm	450	550	650	800	800
Diameter with insulation		mm	550	650	760	1000	1000
Overall height		mm	1420	1463	1688	1828	2078
Overturning height with insulation | without insulation		mm	1523	1601	1847	1969 | 1838	2203 | 2083
CONNECTIONS							
A1-A2	Inlet / Outlet	mm | Ø	240 | 1"	265 | 1"¼	336 | 1"¼	358 | 1"½	358 | 1"½
A3	Inlet / Outlet	mm | Ø	360 | ½"	385 | 1"¼	586 | 1"¼	568 | 1"½	698 | 1"½
A4	Inlet / Outlet	mm | Ø	—	—	—	808 | 1"½	848 | 1"½
A5	Inlet / Outlet	mm | Ø	770 | 1"	795 | 1"¼	1036 | 1"¼	1038 | 1"½	1248 | 1"½
A6	Inlet / Outlet	mm | Ø	—	—	—	1278 | 1"½	1398 | 1"½
A7-A8	Inlet / Outlet	mm | Ø	1120 | 1"	1145 | 1"¼	1466 | 1"¼	1488 | 1"½	1738 | 1"½
B1	Sensor	mm | Ø	240 | ½"	265 | ½"	336 | ½"	358 | ½"	358 | ½"
B2	Sensor	mm | Ø	360 | ½"	385 | ½"	586 | ½"	568 | ½"	698 | ½"
B3	Sensor	mm | Ø	880 | ½"	895 | ½"	1076 | ½"	1148 | ½"	1318 | ½"
B4	Sensor	mm | Ø	1120 | ½"	1145 | ½"	1466 | ½"	1488 | ½"	1738 | ½"
R	Immersion electric heater	mm | Ø	615 | 2"	535 | 2"	736 | 2"	698 | 2"	928 | 2"
S1	Lower fixed coil return	mm | Ø	240 | 1"	255 | 1"	324 | 1"	368 | 1"	368 | 1"
S2	Lower fixed coil supply	mm | Ø	620 | 1"	665 | 1"	854 | 1"	878 | 1"	878 | 1"
S3	Upper fixed coil return	mm | Ø	—	745 | 1"	944 | 1"	968 | 1"	988 | 1"
S4	Upper fixed coil supply	mm | Ø	—	1155 | 1"	1474 | 1"	1478 | 1"	1498 | 1"
E-U	DHW heat exchanger supply / return	mm | Ø	1420 | ¾" M	1463 | 1"¼ M	1774 | 1"¼ M	1488 | 1"¼ M	2078 | 1"¼ M
SF	Air vent	mm | Ø	1420 | ½"	1463 | ½"	1774 | ½"	1488 | ½"	2078 | ½"
SC	Drain	mm | Ø	—	—	—	93 | 1"¼	93 | 1"¼
HEAT EXCHANGERS CAPACITY / PERFORMANCE							
DHW spiral finned copper coil heating surface area		m^2	**3,17**	**3,60**	**4,54**	**5,26**	**6,34**
DHW production at 45°C with storage temperature 50°C		l/h	485	551	708	800	973
DHW production at 45°C with storage temperature 60°C		l/h	772	877	1127	1273	1548
DHW production at 45°C with storage temperature 70°C		l/h	1018	1156	1445	1631	1940
DHW production at 45°C with storage temperature 80°C		l/h	1272	1445	1794	1999	2360
Lower fixed coil heating surface area		m^2	**1,3**	**1,5**	**2,3**	**2,8**	**3,0**
Lower coil capacity (Primary 80/60°C - Average storage temp. 60°C)		kW	12	14	21	26	28
Upper fixed coil heating surface area		m^2	**—**	**1,5**	**2,3**	**2,8**	**3,0**
Upper coil capacity (Primary 80/60°C - Average storage temp. 60°C)		kW	—	14	21	26	28
EMPTY WEIGHT							
DHW heat exchanger only	—> TANKO ACS	kg	60	74	98	129	145
DHW heat exchanger + 1 fixed coil	—> TANKO-1 ACS	kg	77	93	128	165	184
DHW heat exchanger + 2 fixed coils	—> TANKO-2 ACS	kg	—	105	158	201	223

Note: All the measurements of the connections are considered "from the ground" - The threads are female GAS type (unless otherwise specified)
The products higher than 2200mm will be packaged horizontally.

INSTALLATION DIAGRAM







The proposed diagrams are purely by way of example.

LOWER FIXED COIL PERFORMANCE

Primary temperature (coil) 80/60°C

Secondary temperature (buffer tank) 50/70°C

Buffer tank volume	Fixed coil heating surface area	Fixed coil capacity	Water flow	Hydraulic head	Water content
L	*m^2*	*kW*	*L/h*	*kPa*	*L*
200	1,3	**12**	515	1,7	6,5
300	1,5	**14**	600	2	7,5
500	2,3	**21**	920	4	11,5
800	2,8	**26**	1120	5	14
1000	3,0	**28**	1200	6	15

UPPER FIXED COIL PERFORMANCE

Primary temperature (coil) 80/60°C

Secondary temperature (buffer tank) 50/70°C

Buffer tank volume	Fixed coil heating surface area	Fixed coil capacity	Water flow	Hydraulic head	Water content
L	*m^2*	*kW*	*L/h*	*kPa*	*L*
300	1,5	**14**	600	2	7,5
500	2,3	**21**	920	4	11,5
800	2.8	**26**	1120	5	14
1000	3,0	**28**	1200	6	15

HOW TO ORDER

A0 → No fixed coil
A1 → 1 fixed coil
A2 → 2 fixed coil

6 → 6 bar
8 → 8 bar
0 → 10 bar

Capacity - L

TANKO	-	A0	-	V	8	G	H	B	/	0200

ACCESSORIES & SPARE PARTS

ITEM	PART NO.
THERMOMETER Ø65 mm | L=50 mm | *(0÷120)°C*	*TERMOMETRO-D65_S*
PROBE SOCKET Ø½" | L=50 mm | $Ø_{int}$ 10 mm	*POZZETTO_S*
THERMOSTAT Ø½" *(0÷90)°C*	*TERMOSTATO*


THERMOMETER


PROBE SOCKET


THERMOSTAT

1-3 PHASE IMMERSION ELECTRIC HEATER - STAINLESS STEEL 316l / INCOLOY TUBES
Threaded plug 2" | Aluminium box IP55 | V230/400

Capacity/	Capacity/L matching	Length	1-THERMOSTAT Temperature adjusting only	2-THERMOSTAT Temperature adj. & overheating protection
Watt	*L*	*mm*	*PART NO.*	*PART NO.*
2000	200÷1000	280	*RES020-200-L280-6-M*	*RES020-200-L280-6-B*
3000	200÷1000	380	*RES030-200-L380-6-M*	*RES030-200-L380-6-B*
5000	300÷1000	500	*RES050-200-L500-6-M*	*RES050-200-L500-6-B*
6000	300÷1000	600	*RES060-200-L600-6-M*	*RES060-200-L600-6-B*
9000	500÷1000	680	*RES090-200-L680-I-M*	*RES090-200-L680-I-B*
10000	500÷1000	680	*RES100-200-L680-I-M*	*RES100-200-L680-I-B*
12000	800÷1000	820	*RES120-200-L820-I-M*	*RES120-200-L820-I-B*

UPPER FLANGE SPARE PARTS

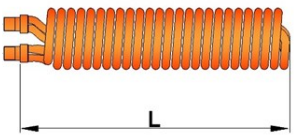
Item	Capacity/L matching	Diameter Int/.Ext.	
	L	*mm*	*PART NNO.*
PRIMARY CHEST Holes ¾", connection ½"	200	300	*PIASTRAN3001-RM*
PRIMARY CHEST Holes 1"¼ , connection ½"	300÷1000	300	*PIASTRAN3002-RM*
EPDM gasket without cross bar	200÷1000	220/300	*GUGOMEPDM300X220ST*


PRIMARY CHEST


EPDM gasket without cross bar

DHW HEAT EXCHANGERS - Spiral finned copper coils, removable type

Heating surface area	Conns	Diameter "D"	Length "L"	
m^2	Ø	*mm*	*mm*	*PART NO.*
3,17	¾"	190	665	*SSPI317*
3,60	1"¼	190	690	*SSPI360*
4,54	1"¼	190	780	*SSPI454*
5,26	1"¼	190	910	*SSPI526*
6,34	1"¼	190	960	*SSPI634*



DHW HEAT EXCHANGER SEALING KIT

Item	DHW copper coil heating surface area	
	m^2	*PART NO.*
SEALING KIT ¾"	3,17	*KIT034*
SEALING KIT 1"¼	3,60÷6,34	*KIT114*

INSULATIONS

Insulating material	Removable	Thickness	Density	Thermal conductivity coefficient at 45°C	Operating temperature	Fire reaction class Euroclass EN13501-1
PLFH High Density Polyester fibre	✓	100 mm	25 kg/m^3	λ = 0,034 W/mK	Amb. / +99°C	B-s2, d0
Hard foam Polyurethane	✗	50 ÷ 55 mm	40÷42 kg/m^3	λ = 0,019 W/mK	-10°C / +99°C	F

PLFH / PLF – Polyester fibre

- 100% recyclable
- Environmental friendly
- Lightweight
- Self-supporting
- Fire-retardant
- Rot-proof
- Resistant to mould, bacteria or rodents
- Hypoallergenic
- Water repellent

The raw materials consist of polyester fibres and heat-bonded co-polyester fibres, coming mainly from the recycling of plastic bottles obtained from urban waste collection.
It does not contain substances harmful to humans, may be handled and installed in complete safety, does not release powder, is hypoallergenic and cannot be attacked by microorganisms, mould and insects.
PLFH/PLF is a heat insulating product considered environmentally sustainable, even though it is not of natural origin: it is in fact recyclable and the quantity of embodied energy necessary to obtain it is extremely low.
The composition of the polyester fibre makes it an insulating material with an extremely low heat dispersion and its characteristics remain unaltered over time as it is not affected by humidity and its compact, flexible and resistant original structure is not modified.
Thanks to its characteristics, PLFH/PLF is an insulating material with the highest performance characteristics, which allows the requirements set by the severest technical standards to be satisfied, guaranteeing the maximum environmental compatibility for its entire life cycle.

Hard foam Polyurethane

Thermal and anti-condensation insulation made of hard closed cell polyurethane foam (PU), free from CFC and HCFC.
It is available in various thickness and can be injected directly to the shell of the tank to prevent it from condensation and provide the lower thermal dispersion. For some sizes it is pre-formed into half-shells to ease the insulation removal in case the tank has to pass through narrow doors.

CLADDINGS

PVC

External cladding made of coloured PVC with hinge closing, suitable for installations in locations protected against adverse weather conditions. The standard colours of each product are indicated in their construction characteristics, but different colours can be requested for each model as shown in the following table.

ITEM	*PART NO.*
PVC CLADDING YERLLOW RAL1023	*COVER-RAL1023*
PVC CLADDING OREANGE RAL2004	*COVER-RAL2004*
PVC CLADDING RED RAL3000	*COVER-RAL3000*
PVC CLADDING BLUE RAL5015	*COVER-RAL5015*
PVC CLADDING WHITE RAL9016	*COVER-RAL9016*
PVC CLADDING LIGHT GREY RAL7035	*COVER-RAL7035*
PVC CLADDING DARK GREY RAL7024	*COVER-RAL7024*
PVC CLADDING BLACK RAL9004	*COVER-RAL9004*

ALUMINIUM

External cladding made of embossed aluminium sheeting suitable also for outdoor installations. The insulations made with this type of cladding consist of panels joined together by means of rivets and extruded aluminium slats with an exclusive design, specifically designed to facilitate assembly even directly at the installation site.
The coverings and flange covers made of same material securely anchored to the insulation guarantee the same levels of quality in terms of duration and outside appearance and do not risk being damaged by the wind and adverse weather conditions.

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