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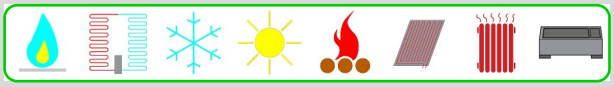
Pacetti

SCAMBIATORI - BOLLITORI - SERBATOI



TANKO Q

BUFFER VESSEL FOR HOT AND COLD WATER STORAGE

ENERGY EFFICIENCY CALSS A

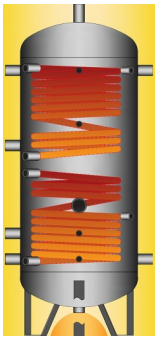
BUFFER VESSEL FOR HOT AND COLD WATER STORAGE - ENERGY CLASS A

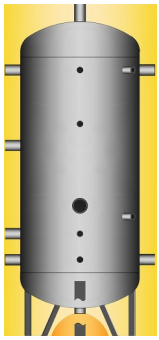
Buffer vessels for hot and cold water storage, designed to increase the thermal inertia in heating and inverter air conditioning systems connected to heat pump of the very latest generation.
The insulation of the new **Q** range, made of rigid injected polyurethane with oversized thickness, enables the strict conditions to fall within energy efficiency class A of the ErP standard to be fully satisfied. Thanks to the excellent insulation properties, these buffer vessels can be installed in the most advanced and demanding systems to obtain the highest output from the connected heating sources, thus increasing the standard of the thermal system to the maximum level in terms of quality, versatility and cost saving.
The **TANKO-1 Q** and **TANKO-2 Q** versions are equipped with fixed spiral coils to enable connection of 1 or 2 additional heating sources.
Available in raw carbon steel, galvanized steel or Stainless Steel 316L. The outer cladding is made of PVC for indoor installation or Aluminium for indoor & outdoor installation.

High performance insulation to achieve energy efficiency class A

CONSTRUCTION







	TANKO-G Q	TANKO-1 Q	TANKO-2 Q	TANKO-Z Q	TANKO-X Q
TANK MATERIAL	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Stainless Steel AISI 316L
COIL MATERIAL	—	Carbon steel	Carbon steel	—	—
INTERNAL SURFACE TREATMENT	—	—	—	Hot dip galvanizing	—
EXTERNAL SURFACE TREATMENT	Anti-rust primer	Anti-rust primer	Anti-rust primer	Hot dip galvanizing	Pickling
CAPACITY	50÷500 L	200÷500 L	300-500 L	50÷500 L	100÷500 L
VERSION	Vertical	Vertical	Vertical	Vertical	Vertical
CONNECTIONS	Threaded	Threaded	Threaded	Threaded	Threaded
INSULATION | 50 L	**Hard foam PU** 30 mm	—	—	**Hard foam PU** 30 mm	—
INSULATION | 100 L	**Hard foam PU** 50 mm	—	—	**Hard foam PU** 50 mm	**Hard foam PU** 50 mm
INSULATION | 200-300 L	**Hard foam PU** 80 mm	**Hard foam PU** 80 mm	**Hard foam PU** 80 mm	**Hard foam PU** 80 mm	**Hard foam PU** 80 mm
INSULATION | 500 L	**Hard foam PU** 105 mm	**Hard foam PU** 105 mm	**Hard foam PU** 105 mm	**Hard foam PU** 105 mm	**Hard foam PU** 105 mm
CLADDING	• PVC light grey RAL 7035 • Aluminium	• PVC light grey RAL 7035 • Aluminium	• PVC light grey RAL 7035 • Aluminium	• PVC light grey RAL 7035 • Aluminium	• PVC light grey RAL 7035 • Aluminium

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

				Capacity	50	100	200	300	500
	Energy efficiency class				**A**	**A**	**A**	**A**	**A**
TANKO-G Q	Standing loss	S	W		29	35	42	46	52
	Storage volume	V	L		51	94	191	288	478
	Energy efficiency class						**A**	**A**	**A**
TANKO-1 Q	Standing loss	S	W				43	47	53
	Storage volume	V	L				184	281	470
	Energy efficiency class							**A**	**A**
TANKO-2 Q	Standing loss	S	W					48	53
	Storage volume	V	L					274	461
	Energy efficiency class				**A**	**A**	**A**	**A**	**A**
TANKO-Z Q	Standing loss	S	W		29	35	42	46	52
	Storage volume	V	L		51	94	191	288	478
	Energy efficiency class				**A**	**A**	**A**	**A**	**A**
TANKO-X Q	Standing loss	S	W		29	35	42	46	52
	Storage volume	V	L		51	94	191	288	478

WORKING CONDITIONS

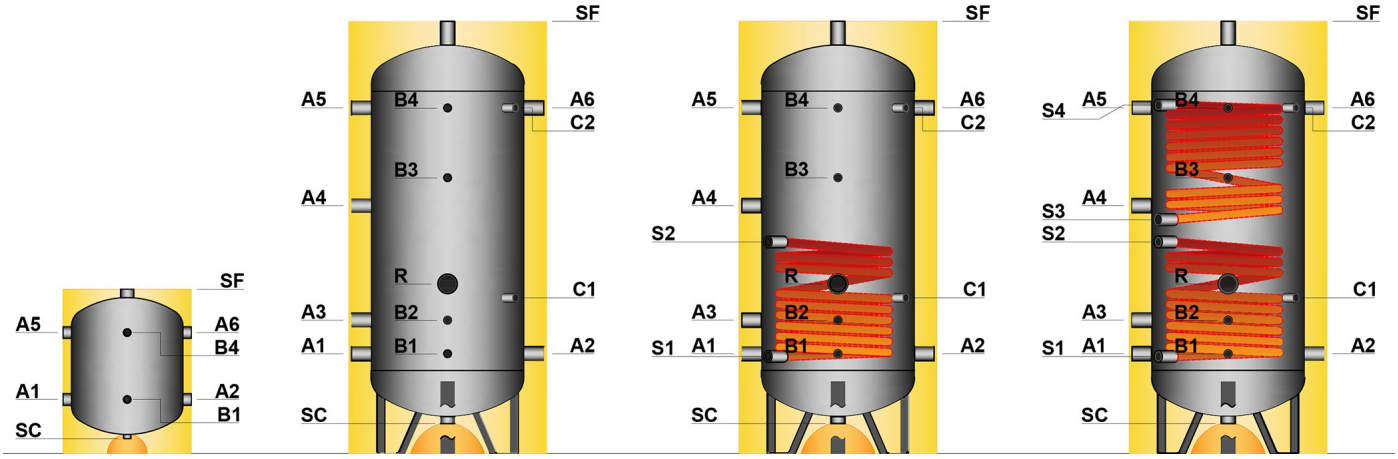
	Capacity	50	100	200	300	500
Tank working pressure (carbon steel and galvanized steel)	bar	ATM÷10	ATM÷8	ATM÷8	ATM÷8	ATM÷6
Tank working pressure (Stainless Steel)	bar	—	ATM÷10	ATM÷10	ATM÷10	ATM÷8
Tank working pressure (carbon steel and Stainless Steel)	°C	-10÷99	-10÷99	-10÷99	-10÷99	-10÷99
Tank working pressure (galvanized steel)	°C	-10÷95	-10÷95	-10÷95	-10÷95	-10÷95
Coil working pressure	bar	—	—	ATM÷10	ATM÷10	ATM÷10
Coil working temperature	°C	—	—	AMB÷110	AMB÷110	AMB÷110

REGULATORY COMPLIANCE

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

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

BUFFER VESSEL FOR HOT AND COLD WATER STORAGE - ENERGY CLASS A



GENERAL CHARACTERISTICS

		Capacity	50	100	200	300	500
DIMENSIONS							
Diameter without insulation		mm	400	400	450	550	650
Diameter with insulation		mm	460	510	610	710	860
Overall height		mm	590	915	1415	1550	1776
Overturning height		mm	748	1048	1541	1704	1973
CONNECTIONS							
A1-A2	Inlet / Outlet	mm | Ø	195 | 1"	200 | 1"	240 | 1"	360 | 1"¼	336 | 1"¼
A3	Inlet / Outlet	mm | Ø	—	320 | 1"	360 | 1"	480 | 1"¼	586 | 1"¼
A4	Inlet / Outlet	mm | Ø	—	555 | 1"	770 | 1"	890 | 1"¼	1036 | 1"¼
A5-A6	Inlet / Outlet	mm | Ø	435 | 1"	705 | 1"	1120 | 1"	1240 | 1"¼	1466 | 1"¼
B1	Sensor	mm | Ø	195 | ½"	200 | ½"	240 | ½"	360 | ½"	336 | ½"
B2	Sensor	mm | Ø	—	—	360 | ½"	480 | ½"	586 | ½"
B3	Sensor	mm | Ø	—	555 | ½"	880 | ½"	990 | ½"	1076 | ½"
B4	Sensor	mm | Ø	435 | ½"	705 | ½"	1120 | ½"	1240 | ½"	1466 | ½"
C1	Spare	mm | Ø	—	—	440 | ¾"	560 | ¾"	786 | ¾"
C2	Spare	mm | Ø	—	—	1120 | ¾"	1240 | ¾"	1466 | ¾"
R	Immersion electric heater	mm | Ø	—	350 | 2"	615 | 2"	630 | 2"	736 | 2"
S1	Lower coil return	mm | Ø	—	—	240 | 1"	350 | 1"	326 | 1"
S2	Lower coil supply	mm | Ø	—	—	860 | 1"	760 | 1"	856 | 1"
S3	Upper coil return	mm | Ø	—	—	—	840 | 1"	946 | 1"
S4	Upper coil supply	mm | Ø	—	—	—	1250 | 1"	1476 | 1"
SF	Air vent	mm | Ø	590 | 1"¼	915 | 1"¼	1380 | 1"¼	1550 | 1"¼	1776 | 1"¼
SC	Drain	mm | Ø	55 | ½"	—	—	110 | 1"¼	101 | 1"¼
FIXED COIL PERFORMANCE - (Primary 80/60°C - Average storage temperature 60°C)							
Lower coil heating surface area		m^2	—	—	1,3	1,5	2,3
Lower coil capacity		kW	—	—	12	14	21
Upper coil heating surface area		m^2	—	—	—	1,5	2,3
Upper coil capacity		kW	—	—	—	14	21
EMPTY WEIGHT							
No coil —> TANKO-G Q | TANKO-Z Q | TANKO-X Q		kg	19	22	45	62	90
1 coil —> TANKO-1 Q		kg	—	—	62	81	120
2 coils —> TANKO-2 Q		kg	—	—	—	100	150

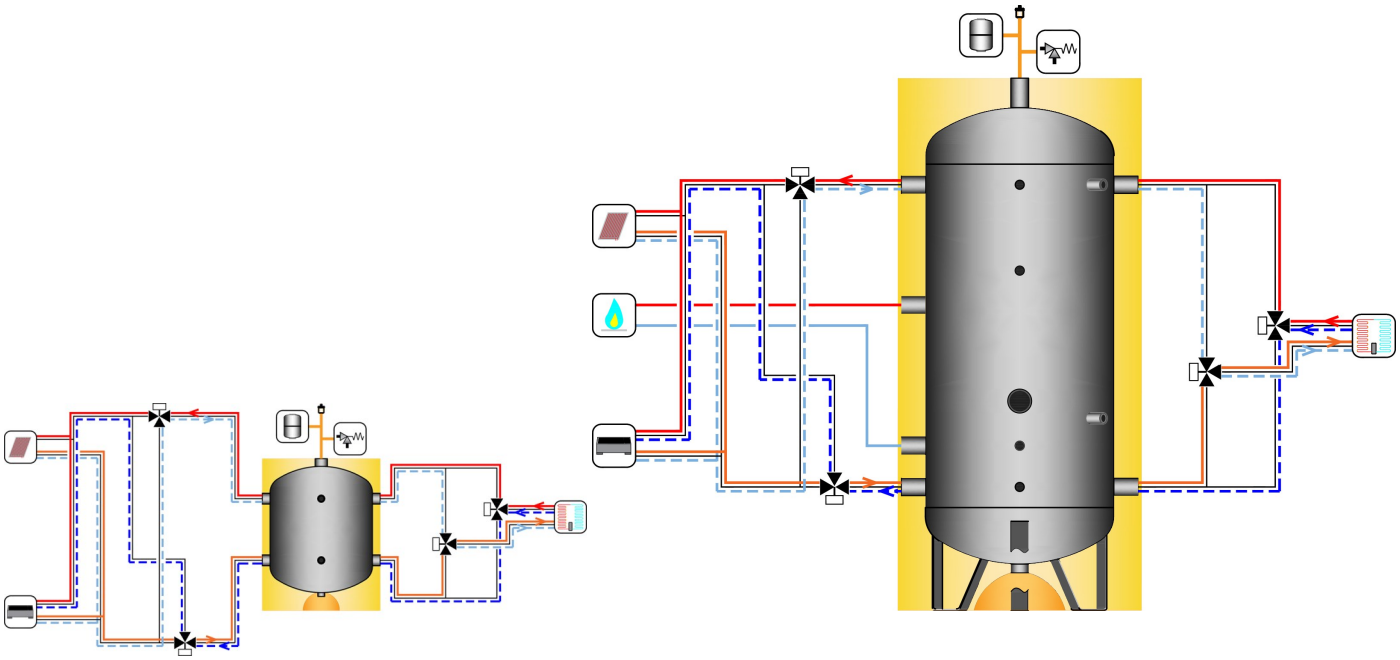
FIXED COIL PERFORMANCE

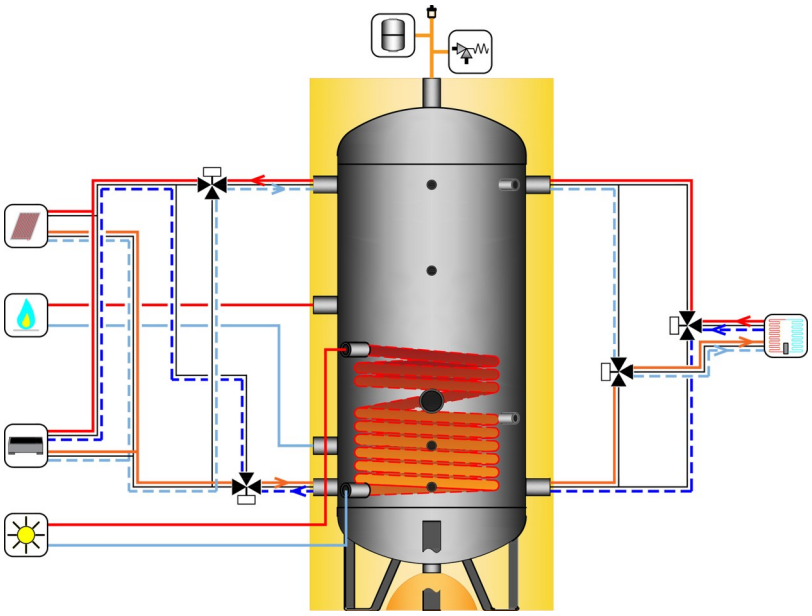
Primary (80-60)°C | Secondary (50-70)°C

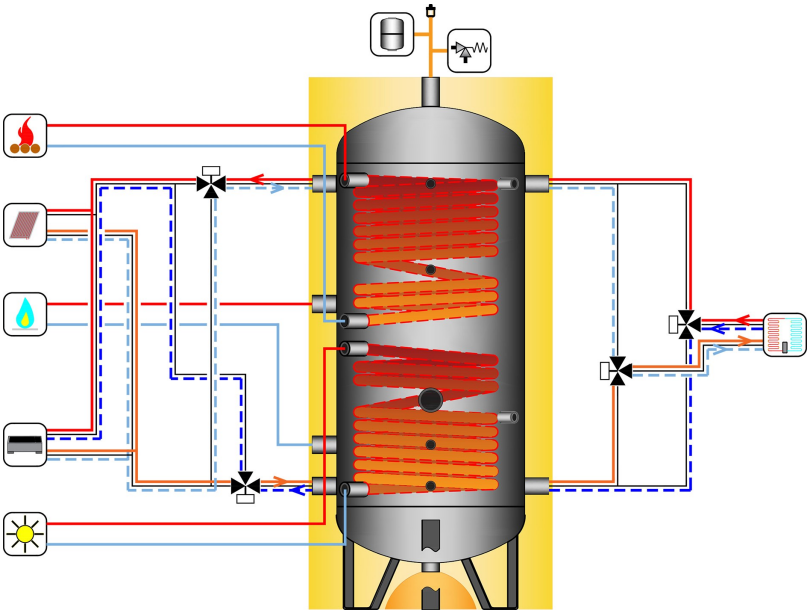
				SECONDARY SIDE	
Storage volume	Fixed coil heating surface area	Capacity	Primary flow	Hydraulic head	Water content
L	*m^2*	*kW*	*L/h*	*kPa*	*L*
200	1,3	12	516	1,8	6,5
300	1,5	14	602	2	7,5
500	2,3	21	903	4	11,5

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. In this case, should the cladding be Aluminium type, it will come disassembled to avoid transportation damages.

INSTALLATION DIAGRAM







The proposed diagrams are purely by way of example.

BUFFER VESSEL FOR HOT AND COLD WATER STORAGE - ENERGY CLASS A

HOW TO ORDER

TANKO	-	0	-	V	8	G	Q	B	/	0300

- 0 → No coil; 1 → 1 coil; 2 → 2 coils
- 6 → 6 bar; 8 → 8 bar; 0 → 10 bar
- G → Raw carbon steel; Z → Galvanized steel; X → Stainless Steel AISI 316L
- B → PVC cladding; A → Aluminium cladding
- Capacity - L

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*
WALL FIXING BRACKET (50 L only)	*KIT_STAFFA_SOST_MURO*


THERMOMETER


PROBE SOCKET


THERMOSTAT


WALL FIXING BRACKET

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	100÷500	280	*RES020-200-L280-6-M*	*RES020-200-L280-6-B*
3000	100÷500	380	*RES030-200-L380-6-M*	*RES030-200-L380-6-B*
5000	300-500	500	*RES050-200-L500-6-M*	*RES050-200-L500-6-B*
6000	300-500	600	*RES060-200-L600-6-M*	*RES060-200-L600-6-B*
9000	500	680	*RES090-200-L680-I-M*	*RES090-200-L680-I-B*
10000	500	680	*RES100-200-L680-I-M*	*RES100-200-L680-I-B*

ANTI-CORROSION PROTECTION STEEL TREATMENT

PROTECTIVE TREATMENTS FOR CARBON STEEL TANKS

Hot dip galvanizing

The corrosion treatment by hot dip galvanizing in accordance with UNI EN ISO 1461 is carried out by immersion of the tank in a bath of liquid zinc at a temperature of approximately 450°C.

PROTECTIVE TREATMENTS FOR STAINLESS STEEL TANKS

Pickling

Buffer vessels made of Stainless Steel 316L are treated with full immersion pickling procedures

INSULATIONS

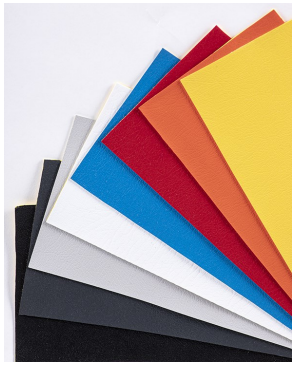
Insulating material	Removable	Thickness	Density	Thermal conductivity coefficient at 45°C	Operating temperature	Fire reaction class Euroclass EN13501-1
Hard foam Polyurethane injected	✗	50 ÷ 55 mm	40÷42 kg/m^3	λ = 0,019 W/mK	-10°C / +99°C	F

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.

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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