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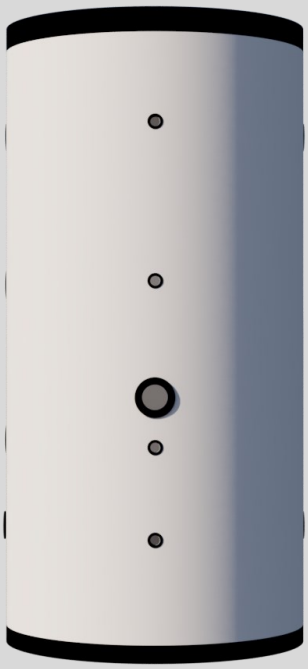
Pacetti

SCAMBIATORI - BOLLITORI - SERBATOI

TANKO MIX

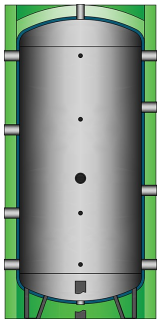
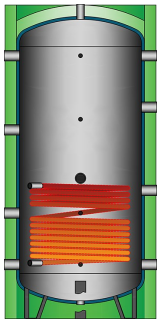
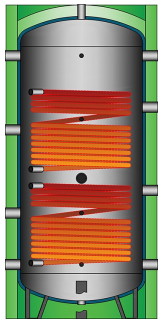
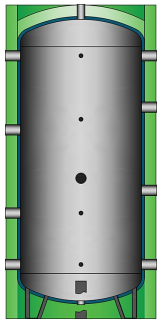
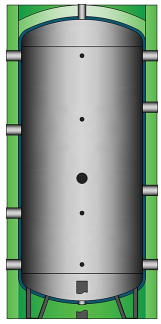


BUFFER VESSEL FOR HOT AND COLD WATER STORAGE

BUFFER VESSEL FOR HOT AND COLD WATER STORAGE

Buffer vessels for hot and cold water storage, designed to increase the thermal inertia in heating and inverter air conditioning systems connected to heat pumps.
The dual-function insulation protects against heat loss and condensation, making this tank suitable for any purpose in both heating and cooling systems.
Minimum dispersions and reduced variations in the temperature of the water stored are guaranteed thanks to the insulation performance.
The compressor start-ups are also reduced, thus achieving the maximum efficiency and greater reliability of the heat pump.
TANKO-1 *MIX* and **TANKO-2 *MIX*** series are provided with built-in coils to be connected to one or two 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.

CONSTRUCTION

	TANKO-G *MIX*	TANKO-1 *MIX*	TANKO-2 *MIX*	TANKO-Z *MIX*	TANKO-X *MIX*
TANK MATERIAL	Carbon steel	Carbon steel	Carbon steel	Carbon steel	Stainless Steel AISI 316L
FIXED 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	300÷5000 L	300÷3000 L	300÷3000 L	300÷5000 L	300÷5000 L
VERSION	Vertical	Vertical	Vertical	Vertical	Vertical
CONNECTIONS	Threaded	Threaded	Threaded	Threaded	Threaded
INSULATION | 300-500 L	**Hard foam Polyurethane** injected 50/55 mm	**Hard foam Polyurethane** injected 50/55 mm	**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	**Hard foam Polyurethane** injected 70 mm	**Hard foam Polyurethane** injected 70 mm	**Hard foam Polyurethane** injected 70 mm	**Hard foam Polyurethane** injected 70 mm	**Hard foam Polyurethane** injected 70 mm
INSULATION | 1500-2000 L	Closed cell **Elastomer** 20 mm + **PLFH** (HD Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLFH** (HD Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLFH** (HD Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLFH** (HD Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLFH** (HD Polyester fibre) 75 mm
INSULATION | 2500÷5000 L	Closed cell **Elastomer** 20 mm + **PLF** (Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLF** (Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLF** (Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLF** (Polyester fibre) 75 mm	Closed cell **Elastomer** 20 mm + **PLF** (Polyester fibre) 75 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	300	500	800	1000	1500	2000
TANKO-G *MIX*	Energy efficiency class				**C**	**C**	**B**	**B**	**C**	**C**
TANKO-Z *MIX*	Standing loss	S	W		71	93	91	101	157	183
TANKO-X *MIX*	Storage volume	V	L		288	478	747	872	1471	1974
	Energy efficiency class				**C**	**C**	**B**	**B**	**C**	**C**
TANKO-1 *MIX*	Standing loss	S	W		72	93	92	100	156	183
	Storage volume	V	L		281	469	734	859	1448	1951
	Energy efficiency class				**C**	**C**	**B**	**B**	**C**	**C**
TANKO-2 *MIX*	Standing loss	S	W		72	93	92	100	156	183
	Storage volume	V	L		274	460	721	845	1426	1929

WORKING CONDITIONS

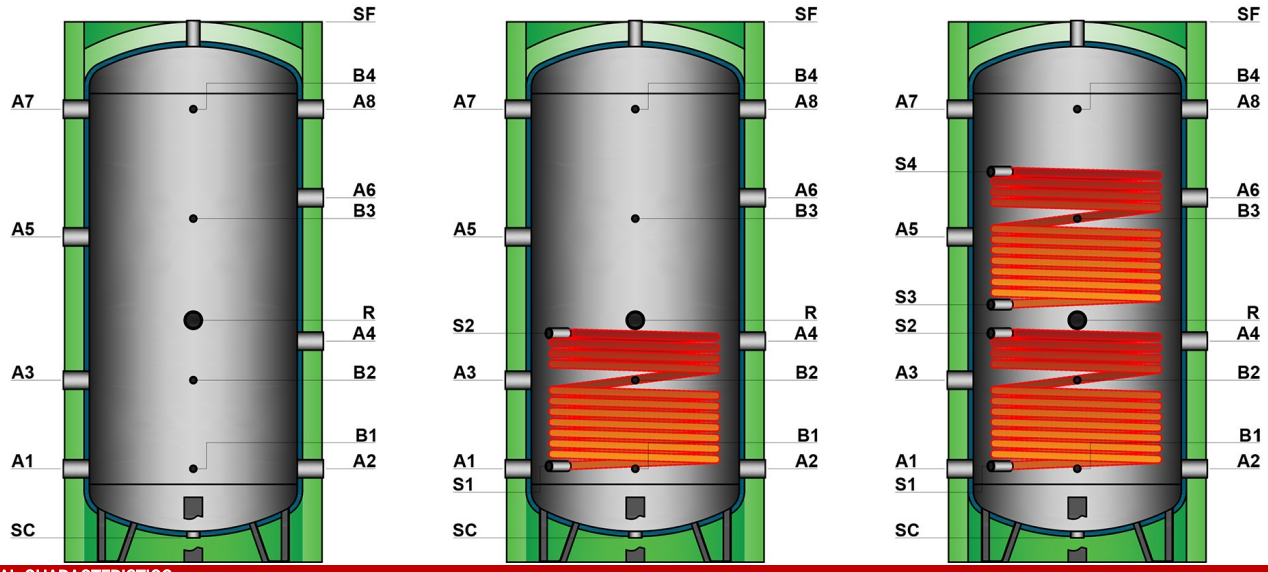
	Capacity	300	500	800	1000	1500	2000	2500	3000	4000	5000
Tank working pressure (carbon steel)	bar	ATM÷8	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6
Tank working pressure (galvanized steel)	bar	ATM÷8	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6	ATM÷6
Tank working pressure (Stainless Steel)	bar	ATM÷10	ATM÷8	ATM÷8	ATM÷8	ATM÷8	ATM÷8	ATM÷8	ATM÷6	ATM÷6	ATM÷6
Tank working temperature (carbon Steel)	°C	-10÷99	-10÷99	-10÷99	-10÷99	-10÷90	-10÷90	-10÷90	-10÷90	-10÷90	-10÷90
Tank working temperature (galvanized steel)	°C	-10÷95	-10÷95	-10÷95	-10÷95	-10÷90	-10÷90	-10÷90	-10÷90	-10÷90	-10÷90
Tank working temperature (Stainless Steel)	°C	-10÷99	-10÷99	-10÷99	-10÷99	-10÷90	-10÷90	-10÷90	-10÷90	-10÷90	-10÷90
Fixed coil working pressure	bar	ATM÷10	ATM÷10	ATM÷10	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	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

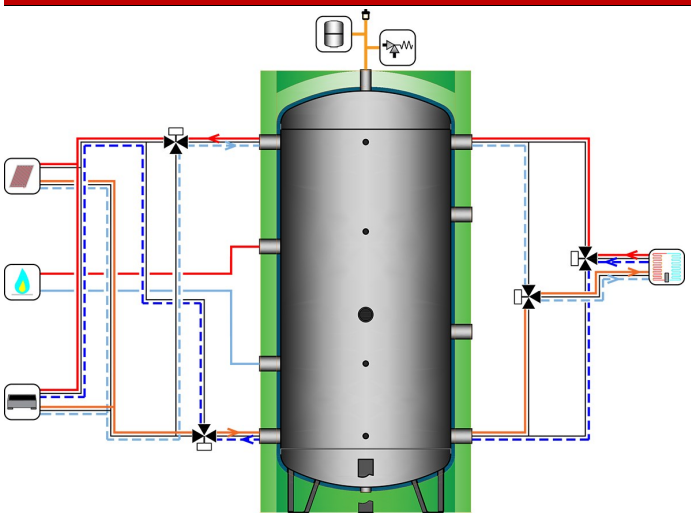


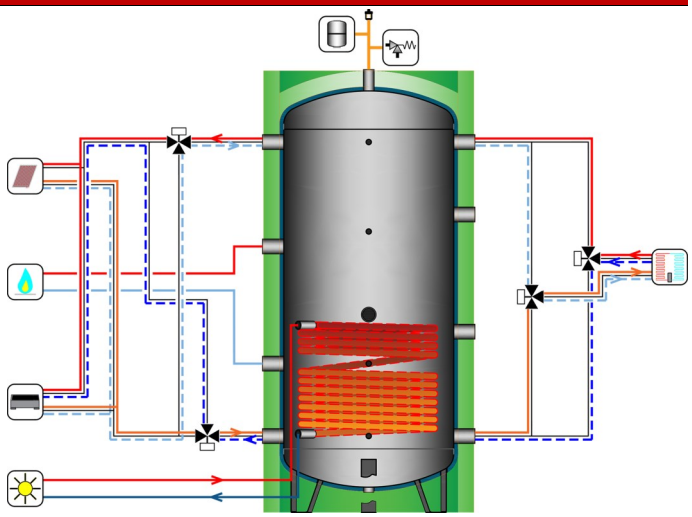
GENERAL CHARACTERISTICS

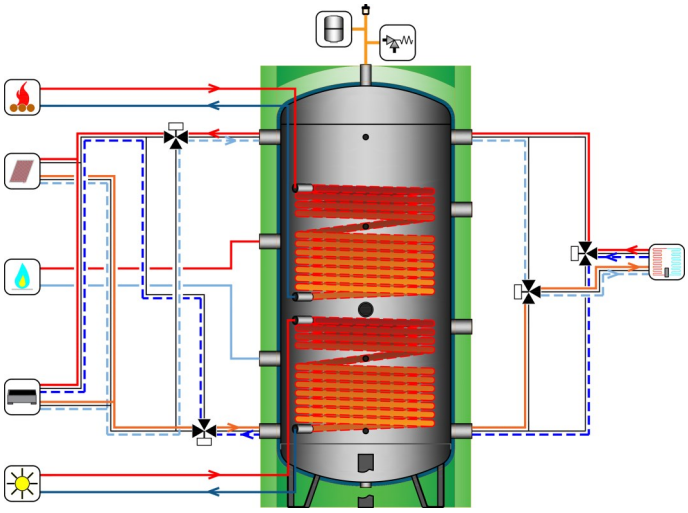
		Capacity	300	500	800	1000	1500	1500 (SS)	2000	2000 (SS)	2500	3000	4000	5000
DIMENSIONS														
VERTICAL STANDARD HEIGHT	Diameter w/o insulation	mm	550	650	800	800	950	1000	1100	1200	1200	1250	1400	1600
	Diameter w/insulation	mm	650	760	940	940	1150	1200	1300	1400	1400	1450	1600	1800
	Overall height	mm	1420	1640	1798	2048	2490	2245	2495	2164	2620	2820	2900	2990
	Overturning height w/insulation	mm	1562	1803	2029	2236	2628	2409	2668	2393	2812	3015	3127	3273
	Overturning height w/o insulation	mm	—	—	—	—	2509	2267	2518	2194	2645	2846	2928	3027
VERTICAL LOW HEIGHT	Diameter w/o insulation	mm	—	—	—	—	1100	1100	1250	1250	1400	1400	1600	1800
	Diameter w/insulation	mm	—	—	—	—	1290	1290	1440	1440	1590	1590	1790	1990
	Overall height	mm	—	—	—	—	2015	2015	2090	2090	2170	2420	2510	2500
	Overturning height w/insulation	mm	—	—	—	—	2209	2209	2335	2335	2454	2672	2826	2917
	Overturning height w/o insulation	mm	—	—	—	—	2024	2024	2106	2213	2215	2435	2559	2591
VERTICAL EXTRA-LOW HEIGHT	Diameter w/o insulation	mm	—	—	—	—	—	—	—	—	—	1500	1700	2000
	Diameter w/insulation	mm	—	—	—	—	—	—	—	—	—	1690	1890	2190
	Overall height	mm	—	—	—	—	—	—	—	—	—	2180	2240	2170
	Overturning height w/insulation	mm	—	—	—	—	—	—	—	—	—	2513	2621	2668
	Overturning height w/o insulation	mm	—	—	—	—	—	—	—	—	—	2224	2298	2227
CONNECTIONS														
A1-A2	Inlet / Outlet	mm | Ø	285 | 2"½	270 | 3"	378 | 3"	378 | 3"	455 | 3"	480 | 3"	475 | 3"	504 | 3"	540 | 3"	535 | 3"	589 | 4"	650 | 4"
A3	Inlet / Outlet	mm | Ø	415 | 1"¼	500 | 1"¼	568 | 2"	698 | 2"	775 | 2"	750 | 2"	795 | 2"	754 | 2"	840 | 2"	865 | 2"	899 | 2"	960 | 2"
A4	Inlet / Outlet	mm | Ø	—	—	808 | 2"	848 | 2"	975 | 2"	900 | 2"	995 | 2"	904 | 2"	1040 | 2"	1085 | 2"	1119 | 2"	1180 | 2"
A5	Inlet / Outlet	mm | Ø	795 | 1"¼	950 | 1"¼	1038 | 2"	1248 | 2"	1575 | 2"	1400 | 2"	1545 | 2"	1294 | 2"	1640 | 2"	1805 | 2"	1819 | 2"	1880 | 2"
A6	Inlet / Outlet	mm | Ø	—	—	1278 | 2"	1398 | 2"	1775 | 2"	1550 | 2"	1745 | 2"	1444 | 2"	1840 | 2"	2005 | 2"	2059 | 2"	2120 | 2"
A7-A8	Inlet / Outlet	mm | Ø	1125 | 2"½	1360 | 3"	1468 | 3"	1718 | 3"	2095 | 3"	1820 | 3"	2065 | 3"	1694 | 3"	2140 | 3"	2335 | 3"	2349 | 4"	2410 | 4"
B1	Sensor	mm | Ø	265 | ½"	250 | ½"	358 | ½"	358 | ½"	455 | ½"	480 | ½"	475 | ½"	504 | ½"	540 | ½"	535 | ½"	589 | ½"	650 | ½"
B2	Sensor	mm | Ø	385 | ½"	500 | ½"	568 | ½"	698 | ½"	775 | ½"	750 | ½"	795 | ½"	754 | ½"	840 | ½"	865 | ½"	899 | ½"	960 | ½"
B3	Sensor	mm | Ø	895 | ½"	990 | ½"	1148 | ½"	1318 | ½"	1675 | ½"	1475 | ½"	1645 | ½"	1374 | ½"	1740 | ½"	1905 | ½"	1939 | ½"	2000 | ½"
B4	Sensor	mm | Ø	1145 | ½"	1380 | ½"	1488 | ½"	1738 | ½"	2095 | ½"	1820 | ½"	2065 | ½"	1694 | ½"	2140 | ½"	2335 | ½"	2349 | ½"	2410 | ½"
R	Immersion electric heater	mm | Ø	535 | 2"	650 | 2"	698 | 2"	928 | 2"	1240 | 2"	1030 | 2"	1245 | 2"	1074 | 2"	1305 | 2"	1365 | 2"	1399 | 2"	1460 | 2"
S1	Lower coil return	mm | Ø	255 | 1"	240 | 1"	368 | 1"	368 | 1"	435 | 1"	—	455 | 1"	—	500 | 1"	495 | 1"	—	—
S2	Lower coil supply	mm | Ø	665 | 1"	770 | 1"	878 | 1"	878 | 1"	1145 | 1"	—	1165 | 1"	—	1210 | 1"	1295 | 1"	—	—
S3	Upper coil return	mm | Ø	745 | 1"	860 | 1"	968 | 1"	988 | 1"	1305 | 1"	—	1375 | 1"	—	1420 | 1"	1495 | 1"	—	—
S4	Upper coil supply	mm | Ø	1155 | 1"	1390 | 1"	1478 | 1"	1498 | 1"	2015 | 1"	—	2085 | 1"	—	2130 | 1"	2205 | 1"	—	—
SF	Air vent	mm | Ø	1420 | 1"¼	1640 | 1"¼	1798 | 1"¼	2048 | 1"¼	2490 | 1"¼	2245 | 1"¼	2495 | 1"¼	2164 | 1"¼	2620 | 1"¼	2820 | 1"¼	2899 | 1"¼	2990 | 1"¼
SC	Drain	mm | Ø	n/a	n/a	93 | 1"¼	93 | 1"¼	135 | 1"¼	130 | 1"¼	120 | 1"¼	109 | 1"¼	135 | 1"¼	125 | 1"¼	114 | 1"¼	145 | 1"¼
FIXED COIL CAPACITY / PERFRORMANCE (Primary 80/60°C - Average storage temperature 60°C)														
Lower coil heating surface area		**m²**	**1,5**	**2,3**	**2,8**	**3,0**	**4,5**	**—**	**4,5**	**—**	**4,5**	**6,0**	**—**	**—**
Lower coil capacity		kW	14	21	26	28	42	—	42	—	42	56	—	—
Primary flow		L/h	602	903	1099	1178	1767	—	1767	—	1767	2356	—	—
Hydraulic head		kPa	2,0	4,0	4,9	5,4	8,1	—	8,1	—	8,1	10,8	—	—
Water content		L	7,5	11,5	14,0	15,0	22,5	—	22,5	—	22,5	30,0	—	—
Upper coil heating surface area		**m²**	**1,5**	**2,3**	**2,8**	**3,0**	**4,5**	**—**	**4,5**	**—**	**4,5**	**4,5**	**—**	**—**
Upper coil capacity		kW	14	21	26	28	42	—	42	—	42	42	—	—
Primary flow		L/h	602	903	1099	1178	1767	—	1767	—	1767	1767	—	—
Hydraulic head		kPa	2,0	4,0	4,9	5,4	8,1	—	8,1	—	8,1	8,1	—	—
Water content		L	7,5	11,5	14,0	15,0	22,5	—	22,5	—	22,5	22,5	—	—
EMPTY WEIGHT														
No coil —>	TANKO-G MIX TANKO-Z MIX TANKO-X MIX	kg	53	74	108	120	215	204	253	229	287	321	476	564
1 coil —>	TANKO-1 MIX	kg	72	104	144	159	273	—	311	—	345	348	—	—
2 coil —>	TANKO-2 MIX	kg	84	134	180	198	331	—	369	—	403	456	—	—

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.

HOW TO ORDER

TANKO	-	M0	-	V	6	G	H	B	/	0800

- M0 → No coil; M1 → 1 coil; M2 → 2 coil
- V → Vertical; R → Low-height; X → X-Low height
- 6 → 6 bar; 8 → 8 bar; 0 → 10 bar
- G → Raw carbon steel; Z → Galvanized steel; X → Stainless Steel AISI 316L
- H → ErP compliant (300÷2000 L); J → Not subject to ErP (2500÷5000L)
- B → PVC cladding; A → Aluminium cladding
- Capacity - L

ACCESSORIES & SPARE PARTS

ITEM	*PART NO.*
THERMOMETER Ø65 mm | L=150 mm | *(0÷120)°C*	*TERMOMETRO-D65_L*
THERMOMETER Ø100 mm | L=150 mm | *(0÷120)°C*	*TERMOMETRO-D100*
PROBE SOCKET Ø½" | L=150 mm | $Ø_{int}$ 10 mm	*POZZETTO_L*
THERMOSTAT Ø½" *(0÷90)°C*	*TERMOSTATO*


THERMOMETER


PROBE SOCKET


THERMOSTAT

1-3 PHASE IMMERSION ELECTRIC HEATER - STAINLESS STEEL 316I / 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	300÷5000	280	*RES020-200-L280-6-M*	*RES020-200-L280-6-B*
3000	300÷5000	380	*RES030-200-L380-6-M*	*RES030-200-L380-6-B*
5000	300÷5000	500	*RES050-200-L500-6-M*	*RES050-200-L500-6-B*
6000	300÷5000	600	*RES060-200-L600-6-M*	*RES060-200-L600-6-B*
9000	500÷5000	680	*RES090-200-L680-I-M*	*RES090-200-L680-I-B*
10000	500÷5000	680	*RES100-200-L680-I-M*	*RES100-200-L680-I-B*
12000	800÷5000	820	*RES120-200-L820-I-M*	*RES120-200-L820-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
PLF Polyester fibre	✓	75 mm	20 kg/m³	λ = 0,037 W/mK	Amb. / +99°C	B-s2, d0
PLFH High Density Polyester fibre	✓	75 mm	25 kg/m³	λ = 0,034 W/mK	Amb. / +99°C	B-s2, d0
Hard foam Polyurethane injected	✗	50 ÷ 70 mm	40÷42 kg/m³	λ = 0,019 W/mK	-10°C / +99°C	F
Closed cell elastomer foam	✗	20 mm	30 kg/m³	λ = 0,032 W/mK	-10°C / +90°C	C-s3, d0

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.

Closed cell elastomer foam

Insulation with high anti-condensation properties made of closed cell elastomer, CFC-free, asbestos free, odourless.
It is resistant to the diffusion of water vapour, chemical agents, mould, parasites, ozone, adverse weather conditions and UV rays.

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.

www.pacetti.it

MADE IN ITALY

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