Catalogue [2024]

VITREOUS ENAMELLED STEEL TANKS

DHW

TANKS AND EQUIPMENT

DOMESTIC HOT WATER PRODUCTION AND STORAGE

for individual and communal installation and industrial applications.

VITREOUS ENAMELLED STEEL TANKS

lapesa 60 1964-2024

DOMESTIC HOT WATER PRODUCTION AND STORAGE

Proven quality, excellence in surface protection and maximum storage capacity.

lapesa Solutions FOR YOUR COMFORT AND ECONOMY

DHW

VITREOUS ENAMELLED STEEL TANKS

TANKS

FOR DOMESTIC HOT WATER
PRODUCTION AND STORAGE
50 to 12000 litres
for individual and communal installation
and industrial applications

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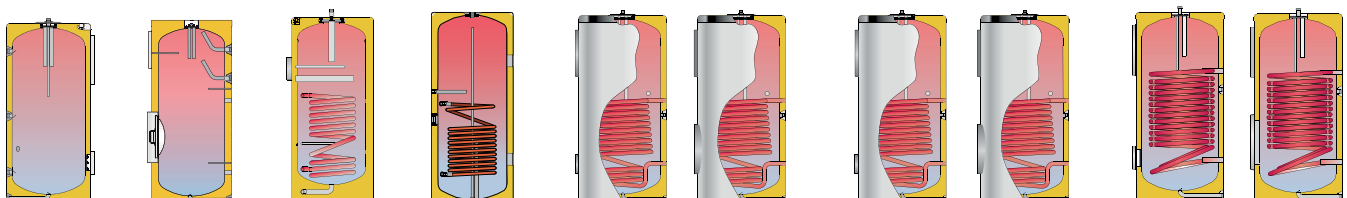
VITREOUS ENAMELLED STEEL TANKS

DHW PRODUCTION/STORAGE TANKS

SERIES	MODELS	CAPACITIES DHW / TOTAL (l.)	STEEL MATERIAL	STANDARD DHW PRODUCTION TYPE/SYSTEM	OPTIONAL DHW PRODUCTION SYSTEM
CORAL VITRO domestic range **80 to 1500 litres**	**CV-...-R**	200 to 1000	S275JR	STORAGE	PLATE EXCHANGER / ELECTRIC HEATING ELEMENTS
	CV-...-RB	800 to 1500	S275JR	STORAGE	PLATE EXCHANGER / ELECTRIC HEATING ELEMENTS
	CV-...-M1S	80 to 300	S275JR	COIL	ELECTRIC HEATING ELEMENTS
	CV-...-M1M	90 to 160	S275JR	COIL	ELECTRIC HEATING ELEMENTS
	CV-...-M1/M1B	200 to 1500	S275JR	COIL	ELECTRIC HEATING ELEMENTS
	CV-...-M2/M2B	300 to 1000	S275JR	2 COILS	ELECTRIC HEATING ELEMENTS
	CV-...-HL/HLB	200 to 1000	S275JR	OVERDIMENSIONED COIL	ELECTRIC HEATING ELEMENTS
	CV-...HLDUO	350	S275JR	OVERDIMENSIONED COIL	ELECTRIC HEATING ELEMENTS
	CV-...-P	150/600 to 200/1000	S275JR	DOUBLE WALL + COIL	ELECTRIC HEATING ELEMENTS
	CV-...-P-DUO	150/600 to 200/1000	S275JR	DOUBLE WALL + COIL	ELECTRIC HEATING ELEMENTS
	DHW PRODUCTION ELECTRIC HEATING REGULATION AND CONTROL THERMAL INSULATION CATHODIC PROTECTION / ACCESSORIES				
MASTER VITRO large capacity **1500 to 6000 litres**	**MVV-...-RB**	1500 to 6000	S275JR	ACCUMULATION	ÉCHANGEUR À PLAQUES / RÉSISTANCES ÉLECTRIQUES
	MVV-...-SB	1500 to 6000	S275JR	DETACHABLE COIL	ELECTRIC HEATING ELEMENTS
	MVV-...-SSB	1500 to 6000	S275JR	OVERDIMENSIONED DETACHABLE COIL	ELECTRIC HEATING ELEMENTS
	MVV-...-S2B	2000/3500/5000/6000	S275JR	2 DETACHABLE COILS	ELECTRIC HEATING ELEMENTS
	MVV-...-SS2B	2000/3500/5000/6000	S275JR	2 DETACHABLE COILS (LOWER ONE OVERDIMENSIONED)	ELECTRIC HEATING ELEMENTS
	DHW PRODUCTION ELECTRIC HEATING THERMAL INSULATION CATHODIC PROTECTION / ACCESSORIES FINISHES IN ALUMINIUM ALUNOX				
	INDUSTRIAL CAPACITY STORAGE TANKS IN COATED STEEL: 7000 to 12000 litres				



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APPLICABLE ENERGY SOURCE

HEAT PUMP	SOLAR COLLECTORS	GAS/FUEL OIL BOILER	SOLID FUELS BOILER	ELECTRIC HEATING ELEMENTS	SEVERAL COMBINED ENERGY SOURCES	PAGE
				•	•	10
				•	•	10
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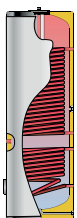

CV-HLDUO
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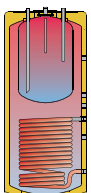

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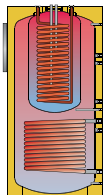

P/DUO
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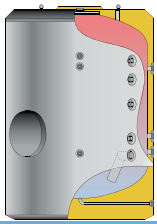

MVV-RB
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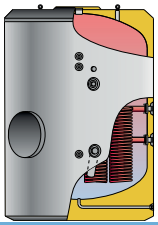

MVV-SB / SSB
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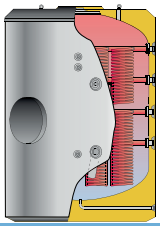

MVV-S2B / SS2B
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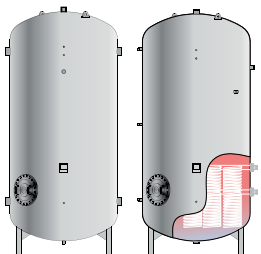

INDUSTRIAL CAPACITY
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CORAL VITRO - MASTER VITRO

Excellent surface protection!

VITREOUS ENAMELLING *(protective surface treatment of steel): Vitreous enamelling for domestic hot water storage tanks is by far the most suitable lining of all those that exist on the market for this type of product made of carbon steel that requires special protection of the metal surfaces in contact with water.*

MAXIMUM BONDING-MOLECULAR INTERACTION: Applying a sophisticated "surface treatment" to the metal surface together with an automated process for the application of the enamel, results in much more than just a good mechanical adherence of the lining. During the curing process a **molecular interaction** occurs between the steel surface and the enamel coat applied.
This **maximum bonding** of the enamel coat to the steel surface and the high degree of **impermeability of the vitreous enamelling**, guarantee the **durability of the product** and prevents the kind of deterioration that can occur with other types of coatings, such as the detachment or blistering of the protective coat.

FOOD GRADE: Vitreous enamelling is a food-quality, impermeable lining with a porcelain look that protects the metal surface of the storage tank in contact with water.
All internal linings in DHW tanks must, by law, be "food grade" (Royal Decree 891/2006 and EC Regulation 1935/2004).
Our vitreous enamelling, in addition to food grade certification at the test temperature specified in current regulations (22ºC), has **food grade certification at 120ºC**, which guarantees its maximum quality at extreme working temperatures.

MAXIMUM WORKING TEMPERATURE: It withstands the maximum DHW storage temperatures that these types of installation (95º) handle, without any deterioration or detachment thanks to its capacity of molecular interaction with the steel surface.
This treatment is carried out by applying an enamel (inorganic chemical product) by either a "dry" or "wet" method (depending on the type of tank and its internal geometry), and then carrying out curing in an oven at 850ºC.

DESIGN AND INTERNAL GEOMETRY: The design of our "CORAL VITRO" and "MASTER VITRO" storage tanks is based on the DIN/4753 T3 standard along with the company's own input based on **lapesa**'s extensive experience in this type of product.

SPECIFIC DESIGN: Design mainly focused on guaranteeing the optimum end quality of the vitreous enamelling treatment applied to the internal metal surface in contact with DHW to prevent any cause of defects in the lining.

THREADED CONNECTIONS: Threaded connections to the tank in our vitreous enamelled tanks are external or male thread connections in order to totally protect the inner surface of the hydraulic connections in contact with DHW.
A threaded bush with an internal or female thread could not be enamelled on its inner face as this is the thread face and part of the surface may be left unprotected and thus exposed to the effects of corrosion.

ANTI-LEGIONELLA DESIGN: Our "CORAL VITRO" and "MASTER VITRO" series of storage tanks with incorporated heat exchange systems are designed to prevent cold zones inside the storage tank and thus the possible proliferation of bacteria such as Legionella.

"CORAL VITRO" coil.

APPLICABLE DIRECTIVES AND STANDARDS:
Directive 2014/68/UE: European Pressure Equipment Directive.
Royal Decree 865/2003 that establishes hygiene-health criteria for the prevention and control of Legionnaires' disease.
Regulation on thermal installations in buildings (RITE) and its accompanying technical instructions.
UNE 100030:2005 IN STANDARD: Guide for the prevention and control of the proliferation and dissemination of legionella in installations.
UNE 112076:2004 IN STANDARD: Prevention of corrosion in water circuits.

APPLICATIONS

CORAL VITRO (80 TO 1500 LITRES):

- Individual installations for the production/storage of DHW
- Single-family homes
- Gymnasiums and sports centres
- Clinics and hospitals
- Laboratories
- Restaurants, cafeterias, bars
- Laundries
- Schools and universities
- Solar and other renewable energy installations
- DHW centralized systems (battery installation

MASTER VITRO (1500 TO 6000 LITRES):

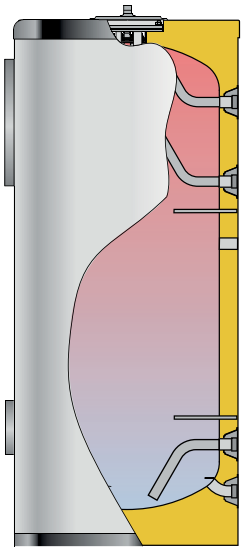
- Individual installations for production/storage with large DHW consumptions
- Collective housing
- Gymnasiums and sports centres
- Clinics and hospitals
- Laboratories
- Restaurants, cafeterias, bars
- Hotels
- Laundries
- Schools and universities
- Solar and other renewable energy installations
- Industrial installations (individual or battery installation)
- Large DHW consumptions (individual or battery installation)
- Centralized DHW systems in buildings (individual or battery installation)

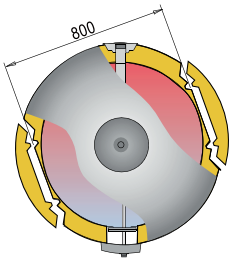
CORAL VITRO - VITREOUS ENAMELLED STEEL

STORAGE models, energy savings!

Designed to provide maximum energy storage capacity, with overdimensioned rigid, mould-injected PU thermal insulation, these models maintain the DHW storage temperature for a long time without the need for any additional energy input, affording users continued savings throughout the life of the storage tank.

STORAGE TANKS: Designed to provide an extraordinary storage capacity that translates directly into real savings.
The overdimensioned, rigid, mould-injected PU thermal insulation maintains the DHW storage temperature over long periods of time without requiring additional energy input. This means less start-ups and adjustments of external energy sources, which in turn translates to less energy consumption.
Storage tanks without their own heat exchange system, ready for the installation of plate heat exchangers and/or electric immersion elements as the heating source.





Detail of pre-cut insulation on 800 and 1000 litre tanks for access through 800 mm wide doors.

LONG-LASTING PRODUCT: VITREOUS ENAMELLED STEEL storage tank according to DIN 4753 T3: **Food grade impermeable** lining with a porcelain look that protects the metal surface of the storage tank in contact with water

EASY TO MAINTAIN: With access to tank interior through side and top holes, for inspection and cleaning. Models RB have a ND400 manhole on the side of the tank.

EASY TO INSTALL: Their dimensions facilitate access to enclosed spaces, even the models with capacities of 800 and 1000 litres, with a removable system for the insulation on the two opposite sides of the tank, allowing them access through 800 mm wide entrances.

CATHODIC PROTECTION: All of the CORAL VITRO models include cathodic protection which consists of magnesium anodes and an anode charge meter for control and maintenance purposes.
As an option these tanks can be fitted with "lapesa correx-up" permanent cathodic protection.

ELECTRIC HEATING: Ready to be fitted with Incoloy, low charge density electric immersion elements or with ceramic heating elements (see ELECTRIC HEATING chapter, page: 28)

MAXIMUM STORAGE CAPACITY: Extra thick, rigid, PU mould-injected insulation that minimizes heat losses of stored DHW (see HEAT INSULATION chapter, page:28)

lapesa *storage tanks have minimal heat losses and for this reason are considered to be one of the products with the greatest storage capacity on the market.*

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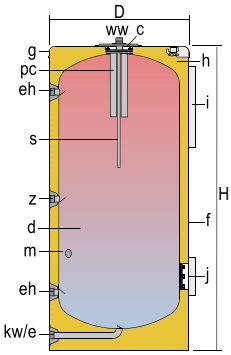
FEATURES COMMON TO ALL "CORAL VITRO" STORAGE MODELS:

- **VITREOUS ENAMELLED STEEL** DHW storage tanks according to **DIN 4753 T3**
- Capacities: **200, 300, 500, 800,1000 and 1500 litres**
- Maximum working pressure of DHW storage tank: **8 bar** (10 bar optional)
- Maximum working temperature of DHW storage tank: **90 ºC**
- Thermal insulation: **Rigid, mould-injected PU** (CFC/HCFC-free, 0.025 W/mºK)
- External lining: RAL 9016 WHITE padded PVC external lining with zip fastener, RAL 7045 GREY cover
- Cathodic protection: **Magnesium anodes** with anode **charge meter** on cover
- Tanks for VERTICAL installation on floor.

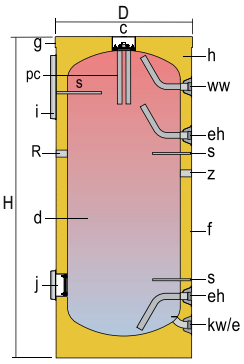
CORAL VITRO "R"

Tanks for DHW STORAGE. DHW production is by an external heat exchange system (plate heat exchanger) They can be fitted with immersion electric elements or ceramic electric elements. Tanks of 800 litre and 1000 litre capacities include an insulation system that allows access through 800 mm wide doors. Cathodic protection with magnesium anodes and anode charge meter.
Finish: RAL 9016 white padded external lining and RAL 7035 grey cover (1500 litre model - black cover)

EQUIPMENT: Control panel "T" with thermometer (except model CV1500R).



CV-200...500-R



CV-750/1000-R

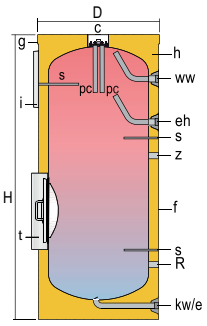
GENERAL CHARACTERISTICS		CV-200-R	CV-300-R	CV-500-R	CV-800-R	CV-1000-R	CV-1500-R
DHW capacity	l.	200	300	500	800	1000	1500
D: external diameter	mm.	620	620	770	950	950	1160
H: overall height	mm.	1205	1685	1690	1840	2250	2320
kw/e: cold water inlet / drain	" GAS/M	1	1	1	1 1/4	1 1/4	1 1/2
ww: DHW outlet	" GAS/M	1	1	1	1 1/2	1 1/2	1 1/2
z: recirculation	" GAS	1 1/4 M	1 1/4 M	1 1/4 M	1 1/2 H	1 1/2 H	1 1/2 M
m: Probe tube connection for sensors	" GAS/M	3/4	3/4	3/4	-	-	3/4
eh: plate exchanger connection	" GAS/M	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	2
R: side connection	" GAS	-	-	-	1 1/2 H	1 1/2 H	2M
Empty weight (approx.)	Kg	70	90	130	170	200	343

c - Top inspection hole
d - DHW tank
f - Outer lining
g - Cover
h - Thermal insulation
i - Control panel
j - Inspection hole
s - Probe tube for sensors
pc- Cathodic protection anode
e - Drain

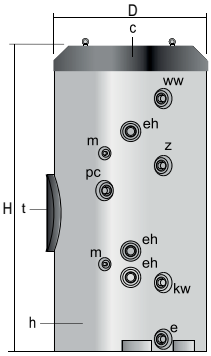
CORAL VITRO "RB"

Tanks for DHW STORAGE. DHW production is by an external heat exchange system (plate heat exchanger) The "RB" models include a **ND 400 side manhole.** They can be fitted with immersion electric elements or ceramic electric elements.
Tanks with a capacity of 800 and 1000 litres include an insulation system that allows access through 800 mm wide doors.
Cathodic protection with magnesium anodes and anode charge meter.
Finish: RAL 9016 white padded external lining and RAL 7035 grey cover (1500 litre model - black cover)

EQUIPMENT:
Control panel "T" with thermometer (except model CV1500RB).



CV-800/1000-RB



CV-1500-RB

GENERAL CHARACTERISTICS		CV-800-RB	CV-1000-RB	CV-1500-RB
DHW capacity	l.	800	1000	1500
D: external diameter	mm.	950	950	1160
H: overall height	mm.	1840	2250	2320
kw/e: cold water inlet / drain	" GAS/M	1 1/4	1 1/4	1 1/2
ww: DHW outlet	" GAS/M	1 1/2	1 1/2	1 1/2
z: recirculation	" GAS	1 1/2 F	1 1/2 F	1 1/2 M
m: Probe tube connection for sensors	" GAS/M	-	-	3/4
eh: plate exchanger connection	" GAS/M	1 1/2	1 1/2	2
R: side connection	" GAS/F	1 1/2	1 1/2	-
Side manhole	ND mm.	ND400	ND400	ND400
Empty weight (approx.)	Kg	170	230	373

c - Top inspection hole
d - DHW tank
f - Outer lining
g - Cover
h - Thermal insulation
i - Control panel
j - Side hole ND400
s - Probe tube for sensors
pc- Cathodic protection anode
e - Drain

CORAL VITRO

Service, comfort and savings,
with the best quality-price ratio.

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CORAL VITRO - VITREOUS ENAMELLED STEEL

Models with COIL, production and efficiency!

Tanks with high-efficiency, internal heat exchange coils for high DWH production demands at peak flow. Their overdimensioned, rigid, mould-injected PU thermal insulation maintains DHW storage temperature for long periods without the need for any additional energy input, providing users with continued savings throughout the life of the storage tank.

STORAGE TANKS WITH COIL: Tanks with high-efficiency, internal heat exchange coils for high DWH production demands at peak flow.
Models with one or two coils for the production of DHW using one or two energy sources, with the option of adding backup electric heating elements.
Overdimensioned, rigid, mould-injected PU thermal insulation maintains the DHW storage temperature over long periods of time without requiring additional energy input. This means less start-ups and adjustments of external energy sources, which translates to energy savings.

LONG-LASTING PRODUCT: VITREOUS ENAMELLED STEEL storage tank according to **DIN 4753 T3**
Food grade impermeable lining with a porcelain look that protects the metal surface of the storage tank in contact with water

DHW PRODUCTION/STORAGE TANKS
CORAL VITRO - **COIL**

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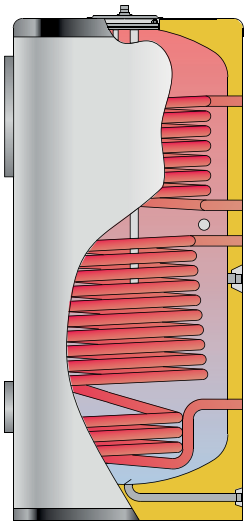

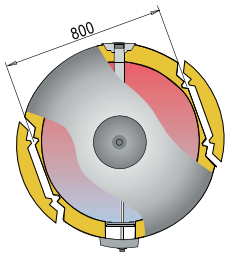

Detail of pre-cut insulation on 800 and 1000 litre tanks for access through 800 mm wide doors.

ANTI-LEGIONELLA DESIGN: High-efficiency coils designed to heat from the lowest zone in the storage tank preventing cold storage zones inside the tank and thus the possibility of the proliferation of bacteria such as Legionella.

EASY TO MAINTAIN: With access to tank interior through side and top ports, for inspection and cleaning. In models M1B/M2B there is a ND400 manhole on the side of the tank.

EASY TO INSTALL: Their dimensions facilitate access to enclosed spaces, even the models with capacities of 800 and 1000 litres, with a detachable system for the insulation on the two opposite sides of the tank, allowing access through 800 mm wide entrances.

ELECTRIC HEATING: Ready to be fitted with Incoloy, low charge density electric immersion elements or with ceramic heating elements, with integrated control and regulation units. (See ELECTRIC HEATING chapter, page: 28).

MAXIMUM STORAGE CAPACITY: Extra thick, rigid, PU mould-injected insulation that minimizes heat losses of stored DHW (see HEAT INSULATION chapter, page: 31).

lapesa *storage tanks have minimal heat losses and for this reason are considered to be one of the products with the greatest storage capacity on the market.*

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5 WARRANTY

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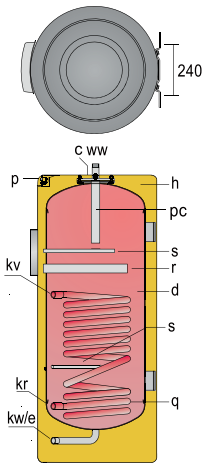
FEATURES COMMON TO ALL "CORAL VITRO" COIL MODELS:

- **VITREOUS ENAMELLED STEEL** DHW storage tank according to **DIN 4753 T3**
- Capacities: **200, 300, 500, 800, 1000 and 1500 litres**
- Maximum working pressure of DHW storage tank: **8 bar** (10 bar optional)
- Maximum working pressure of coil/s: **25 bar**
- Maximum working temperature of DHW storage tank: **90 °C**
- Maximum working temperature of coil/s: **200 °C**
- Thermal insulation: **Rigid, mould-injected PU** (CFC/HCFC-free, 0.025 W/m°K)
- External lining: RAL 9016 WHITE padded PVC external lining with zip fastener, RAL 7035 GREY cover
- Cathodic protection: **Magnesium anodes** with anode charge meter on cover
- Tanks for VERTICAL installation on floor.

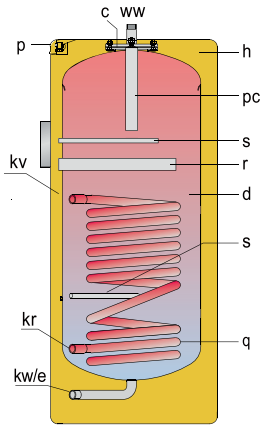
CORAL VITRO "M1S"

Storage tanks with **"ONE COIL"** for the production of DHW using an external energy source.
Specialy designed for **DISTRIBUTED SOLAR ENERGY** installations.
With sheath incorporated for backup ceramic electric heating element.
Cathodic protection with magnesium anode and anode charge meter.
Finish: RAL 9016 padded external lining and RAL 7035 grey cover.
Designed for wall mounting for models up to 150 litres capacity.

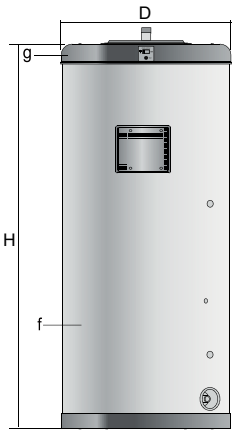
OPTIONAL EQUIPMENT:
KIT: ceramic heating element with dual control and safety thermostat for backup electric heating.
Brackets for wall mounting, up to model CV-150-M1S.



CV-80...150-M1S



CV-200/300-M1S



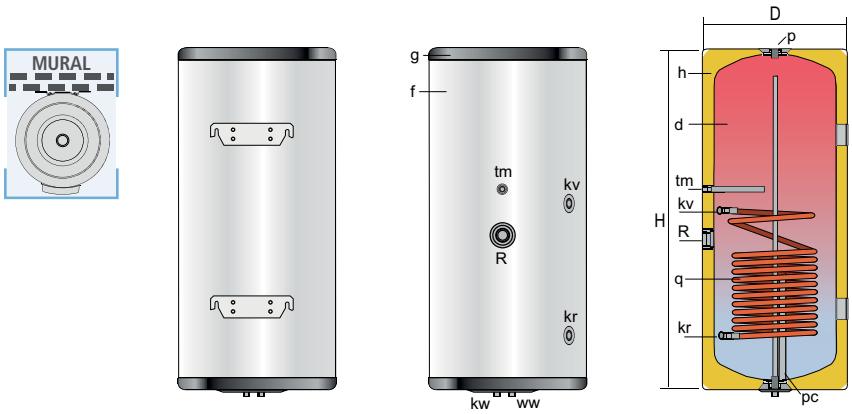
GENERAL CHARACTERISTICS		CV-80-M1S	CV-110-M1S	CV-150-M1S	CV-200-M1S	CV-300-M1S
DHW capacity	l.	80	110	150	200	300
D: external diameter	mm.	480	480	560	620	620
H: overall height	mm.	935	1155	1265	1205	1685
kw/e: cold water inlet / drain	" GAS/M	3/4	3/4	3/4	1	1
ww: DHW outlet	" GAS/M	3/4	3/4	3/4	1	1
kv: primary input	" GAS/F	1/2	1/2	1/2	1/2	1/2
kr: primary return	" GAS/F	1/2	1/2	1/2	1/2	1/2
Heating coil surface	m^2	0,3	0,5	0,6	0,8	1,3
Empty weight (approx.)	Kg	43	51	65	72	91

c - Top inspection hole
d - DHW tank
f - Outer lining
g - Cover
q - Heating coil
h - Thermal insulation
s - Probe tube for sensors
r - Electric element sheath
p - Anode meter
pc- Cathodic protection anode

CORAL VITRO "M1M" NEW

Storage tanks with **ONE COIL** for the production of DHW using an external energy source, such as a boiler or solar pannels.
ONLY WALL MOUNTING INSTALLATION, with connections on the lower part.
Cathodic protection with magnesium anode and anode charge meter.
Finish: RAL 9016 padded external lining and RAL 7035 grey cover.

EQUIPAMIENTO OPCIONAL:
Immersion electric heating element, 1500 W, with dual control and safety thermostat for backup electric heating.



CV-...-M1M

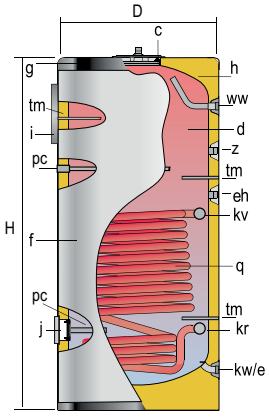
CARACTERÍSTICAS GENERALES		CV-90-M1M	CV-120-M1M	CV-160-M1M
DHW capacity	l.	90	110	150
D: external diameter	mm.	480	480	560
H: overall height	mm.	850	1155	1095
kw: cold water inlet / drain	" GAS/M	3/4	3/4	3/4
ww: DHW outlet	" GAS/M	3/4	3/4	3/4
kv: primary input	" GAS/H	1/2	1/2	1/2
kr: primary return	" GAS/H	1/2	1/2	1/2
R: connexion for electric heating element	" GAS/H	1-1/2	1-1/2	1-1/2
Heating coil surface	m^2	0,3	0,6	0,8
Empty weight (approx.)	Kg	43	51	65

c - Top inspection hole
d - DHW tank
f - Outer lining
g - Cover
h - Thermal insulation
p - Drain connexion
pc- Cathodic protection anode
q - Coil
R - Electric element connexion
tm- Probe tube for sensors

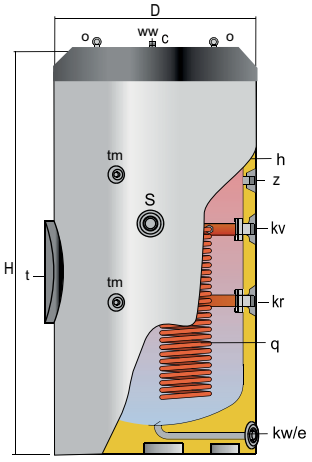
CORAL VITRO "M1"

Storage tanks with **"ONE COIL"** for the production of DHW using an external energy source (boiler, solar panels, heat pump, etc.).
They can be fitted with immersion electric elements or ceramic electric elements.
800 and 1000 litre capacity tanks include an insulation system that allows them to pass through 800 mm wide doors.
"M1B" models with ND400 side manhole.
Vertical WALL installation up to the 150 liter model.
Cathodic protection with magnesium anodes and anode tester (CV-110 ... 500-M1), or with direct contact magnesium anodes (CV-800 ... 1500-M1 / M1B).
Finishing consisting of a white RAL 9016 jacket and a gray RAL 7035 top cover fitted at the factory (except CV1500M1B model fitted with gray RAL 7042 jacket delivered separately).
Optionally, immersion or ceramic electrical heating elements (see p. 86) regulated by means of a control panel for the capacities below 1,000 liters (see p. 88) or a double thermostat for the CV1500M1B (see p.16).

EQUIPMENT:
Thermometer in "TS" side panel (except models CV1500M1 and CV1500M1B).
Brackets for wall mounting, up to model CV-150-M1



CV-800...1000-M1



CV-1500-M1B

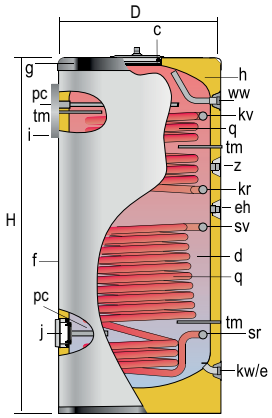
c - Top inspection hole
d - DHW tank
kw/e - Cold water inlet / drain
eh - Side connection
f - Outer lining
g - Cover
h - Thermal insulation
i - Control panel
j - Inspection hole
o - Lifting eyes
pc - Cathodic protection anode
q - Heating coil
t - Side manhole ND400
tm - Probe tube connection for sensors

GENERAL CHARACTERISTICS		CV 110-M1	CV 150-M1	CV 200-M1	CV 300-M1	CV 500-M1	CV 800-M1	CV 1000-M1	CV 1500-M1	CV 800-M1B	CV 1000-M1B	CV 1500-M1B
DHW capacity	l.	110	150	200	300	500	800	1000	1500	800	1000	1500
D: external diameter	mm.	480	560	620	620	770	950	950	1160	950	950	1160
H: overall height	mm.	1155	1265	1205	1685	1690	1840	2250	2320	1840	2250	2320
kw/e: cold water inlet / drain	" GAS/M	3/4	3/4	1	1	1	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/2
ww: DHW outlet	" GAS/M	3/4	3/4	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
z: recirculation	" GAS/M	_	_	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
eh: side connection	" GAS	_	_	_	2 M	2 M	1 1/2 H	1 1/2 H	2 M	1 1/2 H	1 1/2 H	2 M
kv: primary input	" GAS/F	1/2	1/2	1	1	1	1	1	1	1	1	1
kr: primary return	" GAS/F	1/2	1/2	1	1	1	1	1	1	1	1	1
Heating coil surface	m^2	0,6	0,8	1,4	1,8	2,0	2,7	3,3	4,0	2,7	3,3	4,0
Side manhole	ND mm.	-	-	-	-	-	-	-	-	ND400	ND400	ND400
Empty weight (approx.)	Kg	55	66	85	115	160	195	230	394	225	260	424

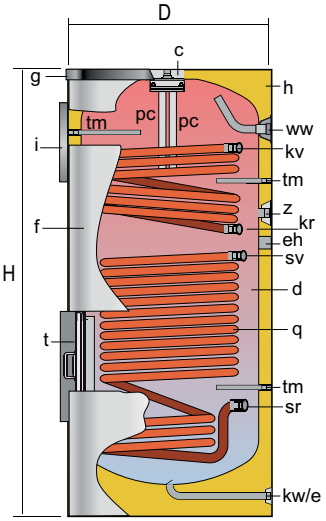
CORAL VITRO "M2"

Storage tanks with **"TWO COILS"** for the production of DHW using two combined external energy sources (boiler, solar panels, heat pump, etc.).
They can be fitted with immersion electric elements or ceramic electric elements.
The 800 and 1000 litre capacity tanks include an insulation system that allows them to pass through 800 mm wide doors. "M2B" models with ND400 side manhole.
Cathodic protection with magnesium anodes and anode tester (CV-300 ... 500-M2), or with direct contact magnesium anodes (CV-800 ... 1000-M2 / M2B).
Finishing consisting of a white RAL 9016 jacket and a gray RAL 7035 top cover fitted at the factory.
Optionally, immersion or ceramic electrical heating elements (see p. 28) regulated by means of a control panel for the capacities below 1,000 liters (see p. 30).

EQUIPMENT:
Thermometer in "TS" side panel (except models CV1500M2 and CV1500M2B).



CV-800...1000-M2



CV-800...1000-M2B

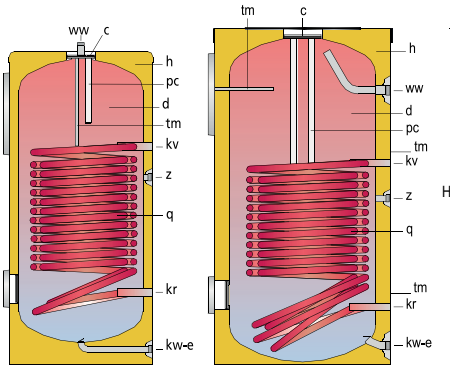
c - Top inspection hole
d - DHW tank
kw/e - Cold water inlet / drain
eh - Side connection
f - Outer lining
g - Cover
h - Thermal insulation
i - Control panel
j - Side hole
pc - Cathodic protection anode
q - Heating coil
t - Side manhole ND400
tm - Probe tube connection for sensors

GENERAL CHARACTERISTICS		CV-300-M2	CV-400-M2	CV-500-M2	CV-800-M2	CV-1000-M2	CV-1500-M2	CV-800-M2B	CV-1000-M2B	CV-1500-M2B
DHW capacity	l.	300	400	500	800	1000	1500	800	1000	1500
D: external diameter	mm.	620	770	770	950	950	1160	950	950	1160
H: overall height	mm.	1685	1475	1690	1840	2250	2320	1840	2250	2320
kw/e: cold water inlet / drain	" GAS/M	1	1	1	1 1/4	1 1/4	1 1/2	1 1/4	1 1/4	1 1/2
ww: DHW outlet	" GAS/M	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2
z: recirculation	" GAS/M	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	3/4
eh: side connection	" GAS	2 M	2 M	2 M	1 1/2 H	1 1/2 H	2 M	1 1/2 H	1 1/2 H	2M
kv, kr: upper coil connections	" GAS/F	1	1	1	1	1	1	1	1	1
sv, sr: lower coil connections	" GAS/F	1	1	1	1	1	1	1	1	1
Lower coil heating surface	m^2	1,8	1,5	2,0	2,7	3,3	4,0	2,7	3,3	3.4
Upper coil heating surface	m^3	0,7	0,7	1,2	1,3	1,3	1,3	1,3	1,3	1,3
Side manhole	ND mm.	-	-	-	-	-	-	ND400	ND400	ND400
Empty weight (approx.)	Kg	120	150	175	213	249	415	243	279	445

CORAL VITRO "HL"

Storage tanks with **ONE HIGH-PERFORMANCE COIL**, with a large heat exchange surface area for the production of DHW by means of low-temperature energy sources such as heat pumps or solar collectors with low solar radiation.
They can be equipped with flanged immersion electric heating elements in the side hole.
800 and 1000 litre capacity tanks include an insulation system that allows them to pass through 800 mm wide doors.
"HLB" models with ND400 side manhole.
Cathodic protection with magnesium anodes and anode charge meter.
Finish: RAL 9016 white padded external lining and RAL 7035 grey cover.

EQUIPMENT:
Thermometer in "TS" side panel..



CV-200...500-HL CV-750/1000-HL

c - Top inspection hole
d - DHW tank
f - Outer lining
g - Cover
h - Thermal insulation
i - Control panel
j - Side hole
q - High performance heating coil
tm- Probe tube connection for sensors
pc- Cathodic protection anode

GENERAL CHARACTERISTICS		CV-200-HL	CV-300-HL	CV-400-HL	CV-500-HL	CV-750-HL	CV-1000-HL	CV-800-HLB	CV-1000-HLB
DHW capacity	l.	200	300	400	500	750	1000	800	1000
D: external diameter	mm.	620	620	770	770	950	950	950	950
H: overall height	mm.	1205	1685	1475	1690	1840	2250	1840	2250
kw/e: cold water inlet / drain	" GAS/M	1	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4
ww: DHW outlet	" GAS/M	1	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2
z: recirculation	" GAS/M	1	1	1	1	1 1/2	1 1/2	1 1/2	1 1/2
kv: primary input	" GAS/F	1	1	1	1	1	1	1	1
kr: primary return	" GAS/F	1	1	1	1	1	1	1	1
Heating coil surface	m^2	2,4	3,1	4,8	4,8	5,7	6,1	5,7	6,1
Side manhole	ND mm.	-	-	-	-	-	-	ND 400	ND 400
Empty weight (approx.)	Kg	100	130	185	195	270	310	300	345

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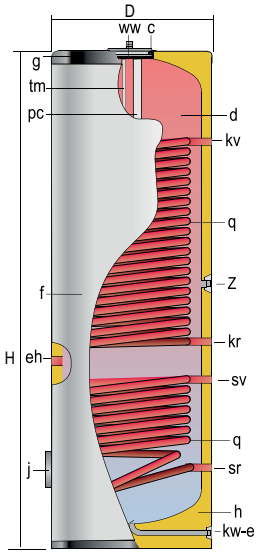
CORAL VITRO "HL-DUO" NEW

Storage tanks with **TWO HIGH PERFORMANCE COILS** for the production of DHW using two combined external low temperature energy sources solar panel and heat pump.
Cathodic protection with magnesium anodes and anode charge meter.
Finish: RAL 9016 white padded external lining and RAL 7035 grey cover.

EQUIPMENT:
They can be equipped with an immersion threaded electrical heating element.



CV-350HL/DUO

c - Top inspection hole
d - DHW tank
f - Outer lining
g - Cover
h - Thermal insulation
j - Side hole
q - High performance heating coil
tm- Probe tube connection for sensors
pc- Cathodic protection anode

GENERAL CHARACTERISTICS		CV-350 HL/DUO
DHW capacity	l.	350
D: external diameter	mm.	620
H: overall height	mm.	1935
kw: cold water inlet / drain	" GAS/M	1
ww: DHW outlet	" GAS/M	1
z: recirculation	" GAS/M	1
eh: side connection	" GAS/F	1 1/2
kv: primary input	" GAS/F	1
kr: primary return	" GAS/F	1
Heating coil surface	m^2	1.3
Upper coil heating surface	m^2	3.5
Empty weight (approx.)	Kg	164

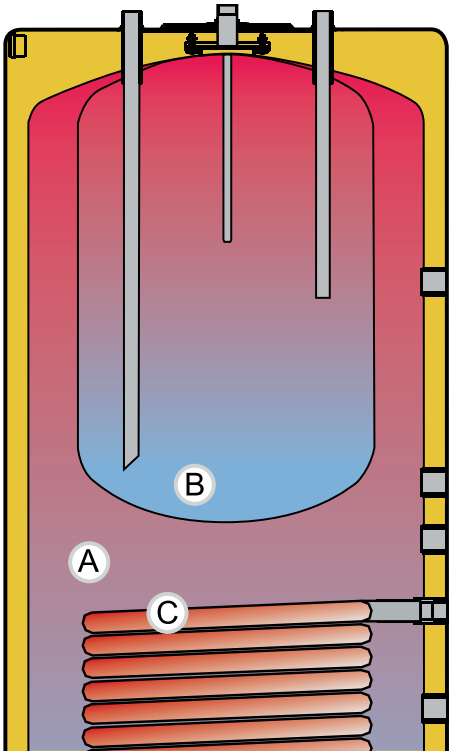
CORAL VITRO - VITREOUS ENAMELLED STEEL

DOUBLE-WALL models, multifunctional storage tanks!

The water contained in the surrounding or primary tank is heated by an external energy source (boiler, heat pump, solar collectors, etc.) that passes through this vessel and transmits its thermal energy to the water contained in the inner tank or DHW storage tank.

DOUBLE-WALL TANKS: The DOUBLE-WALL system basically consists of a combination of two tanks, one inside the other. DHW production takes place by the exchange of heat from the external or primary tank to the internal or secondary tank (DHW), through the tank's entire surface.
The water contained in the surrounding or primary tank is heated by an external energy source (boiler, heat pump, solar collectors, etc.) that passes through this vessel or through the solar coil and transmits its thermal energy to the water contained in the inner tank or DHW storage tank.

LONG-LASTING PRODUCT: VITREOUS ENAMELLED STEEL storage tank according to **DIN 4753 T3**. Food grade impermeable lining with a porcelain look that protects the metal surface of the storage tank in contact with water.



(A) BUFFER TANK. (B) DHW TANK. (C) SOLAR COIL.

DHW PRODUCTION/STORAGE TANKS
CORAL VITRO - **DOUBLE WALL**

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MULTIFUNCTIONAL: Multifunctional design allowing several energy sources to be combined at the same time. Large thermal energy storage capacity in primary heating circuit as an inertia buffer. An electric heating element can be incorporated in the primary circuit (surrounding tank), which is free of limescale or corrosion.

INERTIA BUFFER + DHW STORAGE TANK: The combination of an inertia buffer and DHW double wall production/storage tank in one single product. Ideal for installations with HEAT PUMPS, BIOMASS BOILERS OR SOLAR COLLECTORS, or the combination of several energy sources.

ANTI-LEGIONELLA DESIGN: Totally uniform DHW storage temperature, with no cold zones inside the storage tank. The surround heating of the DHW produces a uniform water storage temperature throughout the whole of the tank, which in turn allows it to be used to its full capacity.

EASY TO INSTALL: Their dimensions facilitate access to enclosed spaces (even the models with capacities greater than 800 litres), with a detachable system for the insulation on the two opposite sides of the tank, allowing them access through 800 mm wide entrances.

MAXIMUM STORAGE CAPACITY: Extra thick, rigid, PU mould-injected insulation that minimizes heat losses of stored DHW (see HEAT INSULATION chapter, page: 31)



CE

5 YEARS WARRANTY

enR

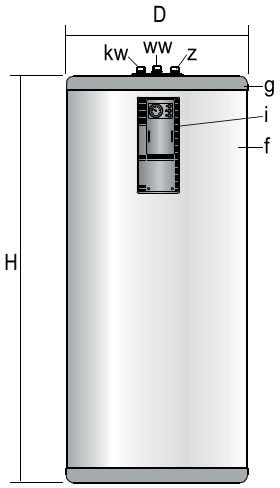
FEATURES COMMON TO ALL "CORAL VITRO" DOUBLE WALL MODELS:

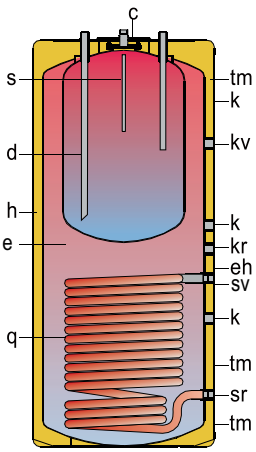
- **VITREOUS ENAMELLED STEEL** DHW storage tank according to **DIN 4753 T3**
- Capacities: **600/150, 800/150 and 1000/200 litres**
- Maximum working pressure of DHW storage tank: **8 bar** (10 bar optional)
- Maximum working temperature of DHW storage tank: **90 ºC**
- Maximum working pressure of surrounding tank (primary circuit): **3 bar**
- Maximum working temperature of surrounding tank (primary circuit): **110 ºC**
- Thermal insulation: **Rigid, mould-injected PU** (CFC/HCFC-free, 0.025 W/mºK)
- External lining: RAL 9016 WHITE padded PVC external lining with zip fastener, RAL 7045 GREY cover
- Cathodic protection: **Magnesium anodes** with anode charge meter on cover
- Tanks for VERTICAL installation on floor.

CORAL VITRO "P"

"DOUBLE-WALL" tanks termed **"MULTIFUNCTIONAL"** are known as such because several different energy sources can be installed for one single tank.
The production of DHW is carried out by heat exchange between the primary (external) circuit and the DHW (internal) tank via several external energy sources (boiler, solar panels, heat pump, electric heating element, etc.) simultaneously coupled to the tank.
These tanks have a large capacity primary circuit acting as a thermal inertia buffer (for solid fuel or biomass boilers and/or heat pump), which houses a coil with a large heat exchange surface, specially designed for solar energy.
The DHW tank is equipped with cathodic protection with magnesium anodes.
Prepared for the installation of an electric heating element in the primary circuit.
Finish: RAL 9016 padded external lining and RAL 7035 grey covers.

EQUIPMENT:
"TS" panel with DHW thermometer.
OPTIONAL: "TD", "TPA" control panels (see REGULATION AND CONTROL chapter, page: 30).





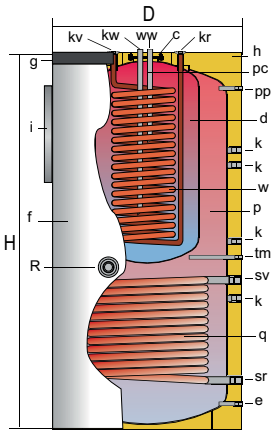
c - Top inspection hole
d - DHW tank
e - Primary tank
f - External lining
g - Cover
h - Thermal insulation
i - Thermometer
s - Probe tube for sensors
q - Solar coil
tm- Primary connection for sensors

GENERAL CHARACTERISTICS		CV-600-P	CV-800-P	CV-1000-P
Total capacity	l.	580	773	970
DHW capacity	l.	150	150	200
Primary HW capacity	l.	430	623	770
D: external diameter	mm.	770	950	950
H: overall height	mm.	1730	1840	2250
kw: cold water inlet	" GAS/M	1	1	1
ww: DHW outlet	" GAS/M	1	1	1
z: recirculation	" GAS/M	1	1	1
kv: primary input	" GAS/F	1 1/4	1 1/4	1 1/4
kr: primary return	" GAS/F	1 1/4	1 1/4	1 1/4
sv: coil inlet	" GAS/F	1	1	1
sv: coil return	" GAS/F	1	1	1
eh: side connection	" GAS/F	2	2	2
k: side connection	" GAS/F	1 1/4	1 1/4	1 1/4
tm: probe tube connection for sensors	" GAS/F	1/2	1/2	1/2
Coil surface	m^2	2,4	2,7	2,7
Control panel	model	TS	TS	TS
Empty weight (approx.)	Kg	170	260	290

CORAL VITRO "P/DUO" NEW

DOUBLE-WALL tanks termed **MULTIFUNCTIONAL** are known as such because several different energy sources can be installed on one single tank.
The production of DHW is carried out by heat exchange between the primary (external) circuit and the DHW (internal) tank via several external energy sources (boiler, solar panels, heat pump, electric heating element, etc.) simultaneously coupled to the tank.
These tanks have a large capacity primary circuit acting as a thermal inertia buffer (for solid fuel or biomass boilers and/or heat pump), which houses a coil with a large heat exchange surface, specially designed for solar energy.
The DHW tank is equipped with cathodic protection with magnesium anodes.
Prepared for the installation of an electric heating element in the primary circuit.
Finish: RAL 9016 padded external lining and RAL 7035 grey covers.

EQUIPMENT:
"T" panel with DHW thermometer.
OPTIONAL: "TD", "TPA", "TBC" control panels (see REGULATION AND CONTROL chapter, page: 30).



c - Top inspection hole
d - DHW tank
f - External lining
g - Cover
h - Thermal insulation
i - Control panel
p - Surrounding camera
pc- Cathodic protection
q - Solar coil
R - Electric heating element
w - Supporting coil

GENERAL CHARACTERISTICS		CV-800-P/DUO	CV-1000-P/DUO
Total capacity	l.	765	991
DHW capacity	l.	176	228
Surrounding tank capacity	l.	589	657
D: external diameter	mm.	950	950
H: overall height	mm.	1840	2250
kw: cold water inlet / drain	" GAS/M	1''	1''
ww: DHW outlet	" GAS/M	1''	1''
kv: primary input	" GAS/F	1''	1''
kr: primary return	" GAS/F	1''	1''
sv: coil inlet	" GAS/F	1''	1''
sr: coil outlet	" GAS/F	1''	1''
R: side connexion	" GAS/F	1-1/2''	1-1/2''
e: drain	" GAS/F	1/2''	1/2''
k: side connection	" GAS/F	1''	1''
pp: purge	" GAS/F	1/2''	1/2''
tm: sensor connexion	mm	Ø int 10 x 285	Ø int 10 x 285
Heating lower coil surface	m^2	2,4	2,4
Heating upper coil surface	m^2	1,3	1,3
Control panel	modelo	T	T
Empty weight (approx.)	Kg	260	290

CORAL VITRO - **COIL**, models **M1** y **M2** [Continuous flow DHW production (liters/hour) **10ºC - 45ºC**]

PRIMARY INPUT TEMPERATURE ºC		55 ºC		70 ºC		80 ºC		90 ºC	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
CV-110-M1	2	9	221	18	443	27	664	33	812
	3	10	246	21	517	29	714	36	886
	5	11	271	23	566	33	812	40	984
CV-150-M1	2	11	271	22	541	30	738	37	910
	3	12	295	24	591	32	787	40	984
	5	13	320	27	664	36	886	44	1083
CV-200-M1	2	14	344	29	714	39	960	48	1181
	3	15	369	33	812	44	1083	54	1329
	5	17	418	38	935	50	1230	62	1526
CV-300-M1/M2 * * lower coil	2	17	418	34	837	45	1107	57	1403
	4	19	468	43	1058	56	1378	70	1722
	6	21	517	48	1181	63	1550	77	1895
CV-400-M1/M2 * * lower coil	2	16	394	33	812	44	1083	55	1353
	4	19	468	42	1033	55	1353	67	1649
	6	20	492	47	1157	61	1501	75	1846
CV-500-M1/M2 * * lower coil	2	18	443	37	910	48	1181	61	1501
	4	21	517	47	1157	61	1501	75	1846
	6	23	566	52	1280	69	1698	84	2067
CV-800-M1/M2 * * lower coil	3	31	763	55	1353	71	1747	86	2116
	5	36	886	65	1599	83	2042	102	2510
	8	41	1009	73	1796	95	2338	116	2854
CV-1000-M1/M2 * * lower coil	3	35	861	64	1575	81	1993	98	2411
	5	42	1033	74	1821	96	2362	116	2854
	8	48	1181	84	2067	109	2682	133	3273
CV-1500-M1/M2 * lower coil	3	40	984	72	1772	94	2313	116	2854
	5	48	1181	85	2092	112	2756	138	3396
	8	55	1353	97	2387	129	3174	158	3888
CV-300/400-M2 ** * upper coil	2	9	221	19	468	25	615	32	787
	4	11	271	23	566	31	763	39	960
	6	12	295	25	615	34	837	43	1058
CV-500-M2 ** * upper coil	2	13	320	27	664	35	861	45	1107
	4	15	369	32	787	42	1033	54	1329
	6	17	418	36	886	47	1157	60	1476
CV-800/1000-M2 ** * upper coil	2	14	344	29	714	39	960	48	1181
	4	16	394	36	886	47	1157	58	1427
	6	17	418	40	984	52	1280	65	1599
CV-1500-M2 ** * upper coil	2	14	344	29	714	39	960	48	1181
	4	16	394	36	886	47	1157	58	1427
	6	17	418	40	984	52	1280	65	1599

CORAL VITRO - **COIL**, models **M1S** [Continuous flow DHW production (liters/hour) **10ºC - 45ºC**]

PRIMARY INPUT TEMPERATURE ºC		55 ºC		60 ºC		70 ºC		80 ºC	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
CV-80-M1S	0,2	3	74	4	98	5	123	7	172
	0,6	5	123	6	148	8	197	10	246
	1	6	148	7	172	10	246	12	295
CV-110-M1S	0,2	4	98	5	123	7	172	9	221
	0,6	6	148	8	197	11	271	15	369
	1	7	172	10	246	13	320	18	443
CV-150-M1S	0,2	4	98	6	148	8	197	10	246
	0,6	7	172	9	221	12	295	18	443
	1	8	197	11	271	15	369	21	517
CV-200-M1S	0,4	7	172	9	221	13	320	18	443
	1	10	246	12	295	18	443	25	615
	1,5	11	271	14	344	20	492	28	689
CV-300-M1S	0,4	9	221	12	295	16	394	21	517
	1	13	320	17	418	24	591	31	763
	1,5	15	369	20	492	27	664	36	886

NOTE: for further information, consult our technical product catalog.

CORAL VITRO - **COIL**, models **M1** y **M2** [Continuous flow DHW production (liters/hour) **10ºC - 60ºC**]

PRIMARY INPUT TEMPERATURE ºC		70 ºC		80 ºC		90 ºC	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
CV-110-M1	2	13	224	22	379	28	482
	3	15	258	24	413	30	517
	5	16	276	26	448	33	568
CV-150-M1	2	16	276	24	413	31	534
	3	17	293	26	448	34	586
	5	19	327	29	500	37	637
CV-200-M1	2	22	379	32	551	41	706
	3	25	431	36	620	46	792
	5	29	500	41	706	52	896
CV-300-M1/M2 * * lower coil	2	25	431	37	637	48	827
	4	31	534	45	775	59	1016
	6	34	586	49	844	65	1120
CV-400-M1/M2 * * lower coil	2	25	431	36	620	47	810
	4	30	517	43	741	57	982
	6	33	568	48	827	63	1085
CV-500-M1/M2 * * lower coil	2	27	465	39	672	52	896
	4	33	568	49	844	64	1102
	6	37	637	55	947	71	1223
CV-800-M1/M2 * * lower coil	3	35	603	52	896	68	1171
	5	42	723	61	1051	80	1378
	8	47	810	70	1206	92	1585
CV-1000-M1/M2 * * lower coil	3	38	655	56	965	74	1275
	5	45	775	66	1137	88	1516
	8	51	878	76	1309	101	1740
CV-1500-M1/M2 * lower coil	3	53	913	78	1344	100	1722
	5	61	1051	90	1550	118	2033
	8	69	1189	102	1757	132	2274
CV-300/400-M2 ** * upper coil	2	13	224	20	344	27	465
	4	16	276	24	413	33	568
	6	18	310	27	465	36	620
CV-500-M2 ** * upper coil	2	19	327	28	482	38	655
	4	23	396	34	586	45	775
	6	25	431	37	637	50	861
CV-800/1000-M2 ** * upper coil	2	21	362	31	534	41	706
	4	25	431	38	655	49	844
	6	28	482	42	723	54	930
CV-1500-M1/M2 ** * upper coil	2	21	362	31	534	41	706
	4	25	431	38	655	49	844
	6	28	482	42	723	54	930

CORAL VITRO - **COIL**, models **M1S** [Continuous flow DHW production (liters/hour) **10ºC - 60ºC**]

PRIMARY INPUT TEMPERATURE ºC		70 ºC		80 ºC		90 ºC	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
CV-80-M1S	0,2	4	69	6	103	-	-
	0,6	6	103	8	138	-	-
	1	7	121	10	172	-	-
CV-110-M1S	0,2	5	86	8	138	-	-
	0,6	8	138	12	207	-	-
	1	10	172	14	241	-	-
CV-150-M1S	0,2	6	103	9	155	-	-
	0,6	9	155	14	241	-	-
	1	11	189	17	293	-	-
CV-200-M1S	0,4	10	172	15	258	-	-
	1	13	224	20	344	-	-
	1,5	15	258	23	396	-	-
CV-300-M1S	0,4	12	206	17	292	-	-
	1	17	292	24	413	-	-
	1,5	19	327	27	465	-	-

DHW PRODUCTION - CORAL VITRO

CORAL VITRO - **COIL**, models **HL** [Continuous flow DHW production (liters/hour) **10°C - 45°C]**

PRIMARY INPUT TEMPERATURE °C		55 °C		70 °C		80 °C		90 °C	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
CV-200-HL	2	24	**591**	44	**1083**	57	**1403**	72	**1772**
	4	29	**714**	56	**1378**	74	**1821**	92	**2264**
	6	33	**812**	63	**1550**	84	**2067**	104	**2559**
CV-300-HL	2	29	**714**	54	**1329**	70	**1722**	88	**2165**
	4	37	**910**	70	**1722**	90	**2215**	115	**2830**
	6	42	**1033**	79	**1944**	102	**2510**	131	**3224**
CV-400-HL	2	37	**910**	68	**1673**	88	**2165**	107	**2633**
	4	50	**1230**	87	**2141**	115	**2830**	143	**3519**
	6	58	**1427**	98	**2411**	131	**3224**	164	**4036**
CV-500-HL	2	37	**910**	68	**1673**	88	**2165**	107	**2633**
	4	50	**1230**	87	**2141**	115	**2830**	143	**3519**
	6	58	**1427**	98	**2411**	131	**3224**	164	**4036**
CV-800-HL	3	53	**1304**	94	**2313**	117	**2879**	141	**3470**
	5	63	**1550**	116	**2854**	143	**3519**	169	**4159**
	8	72	**1772**	136	**3347**	167	**4109**	194	**4774**
CV-1000-HL	3	55	**1353**	99	**2436**	122	**3002**	147	**3617**
	5	65	**1599**	120	**2953**	148	**3642**	178	**4380**
	8	74	**1821**	140	**3445**	172	**4232**	206	**5069**

CORAL VITRO - **COIL**, models **HL** [Continuous flow DHW production (liters/hour) **10°C - 60°C**]

PRIMARY INPUT TEMPERATURE °C			70 °C		80 °C		90 °C	
tank model	primary pump flow (m^3/h)		KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
CV-200-HL	2		32	**551**	45	**775**	58	**999**
	4		42	**723**	58	**999**	76	**1309**
	6		47	**817**	67	**1152**	86	**1477**
CV-300-HL	2		47	**810**	60	**1033**	75	**1292**
	4		59	**1016**	78	**1344**	98	**1688**
	6		68	**1171**	88	**1516**	110	**1895**
CV-400-HL	2		50	**861**	67	**1154**	88	**1516**
	4		65	**1120**	86	**1482**	115	**1981**
	6		74	**1275**	98	**1688**	130	**2239**
CV-500-HL	2		50	**861**	67	**1154**	88	**1516**
	4		65	**1120**	86	**1482**	115	**1981**
	6		74	**1275**	98	**1688**	130	**2239**
CV-800-HL	3		74	**1275**	94	**1619**	118	**2033**
	5		90	**1550**	116	**1998**	141	**2429**
	8		105	**1809**	135	**2325**	165	**2842**
CV-1000-HL	3		75	**1292**	98	**1688**	120	**2067**
	5		94	**1619**	120	**2067**	149	**2567**
	8		110	**1895**	141	**2429**	172	**2963**

NOTE: for further information, consult our technical product catalog.

CORAL VITRO - **COIL** models - **M1** - (DHW production - **peak flow -**)

		CV110M1	CV150M1	CV200M1	CV300M1	CV400M1	CV500M1	CV800M1	CV1000M1	CV1500M1
Peak flow 40ºC	L/10'	170	230	435	605	835	1085	1625	1950	3140
Peak flow 45ºC	L/10'	145	200	370	520	715	930	1395	1670	2695
Peak flow 60ºC	L/10'	100	140	260	365	500	650	975	1170	1885
Peak flow 40ºC	L/60'	1060	1160	1810	2330	2505	2960	4105	4935	6665
Peak flow 45ºC	L/60'	885	975	1515	1960	2105	2490	3460	4160	5630
Peak flow 60ºC	L/60'	525	615	930	1185	1295	1555	2140	2440	3565
Continuous flow 40ºC	Ltrs/h	1070	1115	1650	2070	2005	2250	2975	3580	4230
Continuous flow 45ºC	Ltrs/h	890	930	1375	1725	1670	1875	2480	2985	3525
Continuous flow 60ºC	Ltrs/h	510	570	801	985	955	1085	1395	1525	2015
Heating time (from 10 to 75ºC)	Min	29	35	43	48	53	56	63	70	81
Primary flow	m^3/h	5	5	5	6	6	6	8	8	8

Primary input temperature 85ºC

CORAL VITRO - **COIL** models - **M2 / M2B** - (DHW production - **peak flow -**)

LOWER COIL		CV300M2	CV400M2	CV500M2	CV800M2	CV1000M2	CV1500M2	CV800M2B	CV1000M2B	CV1500M2B
Peak flow 40ºC	L/10'	605	835	1085	1625	1950	3140	1625	1950	3140
Peak flow 45ºC	L/10'	520	715	930	1395	1670	2695	1395	1670	2695
Peak flow 60ºC	L/10'	365	500	650	975	1170	1885	975	1170	1885
Peak flow 40ºC	L/60'	2330	2505	2960	4105	4935	6665	4105	4935	6665
Peak flow 45ºC	L/60'	1960	2105	2490	3460	4160	5630	3460	4160	5630
Peak flow 60ºC	L/60'	1185	1295	1555	2140	2440	3565	2140	2440	3565
Continuous flow 40ºC	Ltrs/h	2070	2005	2250	2975	3580	4230	2975	3580	4230
Continuous flow 45ºC	Ltrs/h	1725	1670	1875	2480	2985	3525	2480	2985	3525
Continuous flow 60ºC	Ltrs/h	985	955	1085	1395	1525	2015	1395	1525	2015
Heating time (from 10 to 75ºC)	Min	48	53	56	63	70	81	63	70	81
Primary flow	m^3/h	6	6	6	8	8	8	8	8	8

Primary input temperature 85ºC

CORAL VITRO - **COIL** models - **HL / HLB** - (DHW production - **peak flow -**)

		CV200HL	CV300HL	CV400HL	CV500HL	CV800HL	CV1000HL	CV800HLB	CV1000HLB
Peak flow 40ºC	L/10'	435	605	835	1085	1625	1950	1625	1950
Peak flow 45ºC	L/10'	370	520	715	930	1395	1670	1395	1670
Peak flow 60ºC	L/10'	260	365	500	650	975	1170	975	1170
Peak flow 40ºC	L/60'	2750	3470	4455	4705	6065	6605	6065	6605
Peak flow 45ºC	L/60'	2295	2910	3730	3945	5095	5550	5095	5550
Peak flow 60ºC	L/60'	1355	1785	2140	2290	3080	3415	3080	3415
Continuous flow 40ºC	Ltrs/h	2775	3440	4345	4345	5330	5585	5330	5585
Continuous flow 45ºC	Ltrs/h	2310	2865	3620	3620	4440	4655	4440	4655
Continuous flow 60ºC	Ltrs/h	1314	1705	1965	1965	2525	2696	2525	2696
Heating time (from 10 to 75ºC)	Min	26	32	35	39	45	54	45	54
Primary flow	m^3/h	6	6	6	6	8	8	8	8

Primary input temperature 85ºC

CORAL VITRO - **DOUBLE WALL** models - **P / C** - (DHW production - **peak flow -**)

		CV600P	CV800P	CV1000P	CV600C	CV800C	CV1000C
Peak flow 40ºC	L/10'	315	315	420	315	315	420
Peak flow 45ºC	L/10'	270	270	360	270	270	360
Peak flow 60ºC	L/10'	185	185	255	185	185	255
Peak flow 40ºC	L/60'	1160	1160	1490	1160	1160	1490
Peak flow 45ºC	L/60'	970	970	1245	970	970	1245
Peak flow 60ºC	L/60'	585	585	765	585	585	765
Continuous flow 40ºC	Ltrs/h	1015	1015	1285	1015	1015	1285
Continuous flow 45ºC	Ltrs/h	840	840	1060	840	840	1060
Continuous flow 60ºC	Ltrs/h	480	480	615	480	480	615
Heating time (from 10 to 75ºC)	Min	45	45	55	45	45	55
Primary flow	m^3/h	5	5	5	5	5	5

Primary input temperature 85ºC

CORAL VITRO "DOUBLE WALL" (models P y C)

Threaded immersion electric heating elemens, specific for primary heating circuit.

electric element model	KW	V	Ceramic electric heating elements	optional application to tank models
RI 4/2-22	2,2	230 / 400	260	CV-600-...-1000P/C
RI 4/2-54	5,4	400	345	CV-600-...-1000P/C
RI 4/2-72	7,2	400	445	CV-600-...-1000P/C
RI 4/2-90	9,0	400	505	CV-600-...-1000P/C
RI 4/2-120	12,0	400	680	CV-600-...-1000P/C

CORAL VITRO "SINGLE WALL" (STORAGE and COIL tank models)

All CORAL VITRO DHW tanks, can be equipped with flanged electric heaters, whether for main DHW production as for backup heating. Applications of the heating elements with respect to the different tank models are summarized in the following table:

Incoloy, **flanged immersion electric heating elements**

electric element model	KW	V	length L*	optional application to tank models
RB-25	2,5	230	310	CV-200...1000-R/M1/HL | CV-300...1000-M2
RB-50	5	230/400	310	CV-200...1000-R/M1/HL | CV-300...1000-M2
RB-75	7,5	230/400	440	CV-200...1000-R | CV-800/1000-M1/M2/HL
RB-100	10.0	230/400	580	CV-500...1000-R

Ceramic electric heating elements

electric element model	KW	V	length L*	optional application to tank models
RCER-12	1,2	230/400	300	CV-80...300-M1S
RCER-15	1,5	230/400	300	CV-80...300-M1S

Ceramic electric heating elements, sheathed in enamelled steel plate. Enamelled steel plate set + ceramic electric element, for side hole mounting

electric element model	KW	V	length L*	optional application to tank models
RCER-12	1,2	230/400	300	CV-110...1000-R/M1/M2/HL
RCER-15	1,5	230/400	300	CV-110...1000-R/M1/M2/HL
RCER-20	2,0	230/400	400	CV-200...1000-R | CV-400...1000-M1/M2/HL
RCER-24	2,4	230/400	400	CV-200...1000-R | CV-400...1000-M1/M2/HL

ceramic electric heating elements	enamelled plate with 2 sheaths - ref.	heating elements amount	KW
RCER-12	PLV2V	2	2,4
RCER-15	PLV2V	2	3,0
RCER-20	PLV2V	2	4,0
RCER-24	PLV2V	2	4,8

Incoloy, **threaded immersion electric heating elements**

electric element model	KW	V	IP	Thread	length L*	optional application to tank models
RA3/2-25	2,5	230	40	1 1/2"M	540	CV-800...1500-M1/M2/RB
RA3/2-25T(*)	2,5	230	65	1 1/2"M	350	CV-800...1500-M1/M2/RB
RA3/2-50	5,0	230/400	40	1 1/2"M	690	CV-800...1500-M1/M2/RB

(*) Model RA 3/2-25T, incorporates regulation and safety thermostat in an IP65 head.

CORAL VITRO "SINGLE WALL" (models **"RB"**, with side manhole ND400)

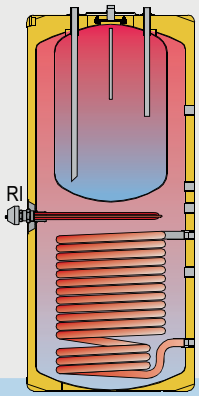
Incoloy threaded immersion electric heating elements for ND400 side manhole on models GX-800/1000-RB. ND400 stainless steel plate set with 2"F bushings + selected type and number of electric elements. Number of electric elements per plate on side manhole ND400: 3,4,5,6,7 or 8 units.

electric element model	KW	V	IP	Thread	length L*	optional application to tank models
RA4/2-60	6,0	230/400	40	2"	797	CV-800...1500-RB
RA4/2-120D	12,0	230/400	40	2"	680	CV-800...1500-RB

Ceramic electric heating elements sheathed in stainless steel plate for ND400 side manhole on models GX-800/1000-RB. Stainless steel plate set with sleeves for ceramic electric elements + selected number of electric elements. Number of electric elements per plate on side manhole ND400: 3,4,5,6,7 or 8 units.

electric element model	KW	V	length L*	optional application to tank models
RCER-45	4,5	230/400	800	CV-800...1500-RB

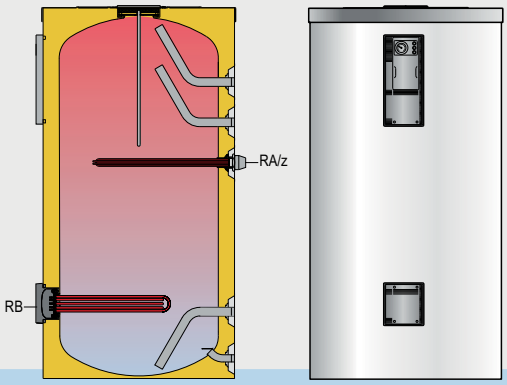
"RI" HEATING ELEMENTS: Threaded immersion heating elements for primary heating circuit, in CORAL VITRO "DOUBLE-WALL" models.



Electric heating in CORAL VITRO "DOUBLE-WALL", STORAGE and COIL models.

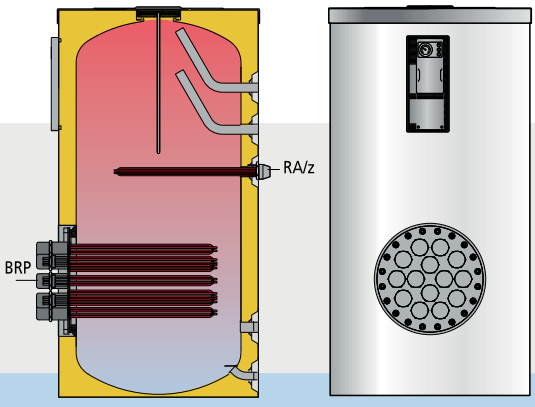
"RB" HEATING ELEMENTS: Flanged heating element for CORAL VITRO "SINGLE-WALL", STORAGE AND COIL models.

SHEATHED "RCER" HEATING ELEMENTS ON FLANGED PLATE: Flanged ceramic heating element for CORAL VITRO "SINGLE WALL", STORAGE AND COIL models.
Sheathed **ceramic** heating elements on vitreous enamelled steel plate for side hole. Vitreous enamelled steel plate + ceramic heating elements for mounting in side hole.



Electric heating in CORAL VITRO "SINGLE-WALL", STORAGE and COIL models.

"RA" HEATING ELEMENTS: Threaded heating elements for back-kup heating in CORAL VITRO "SINGLE- WALL", STORAGE and COIL models



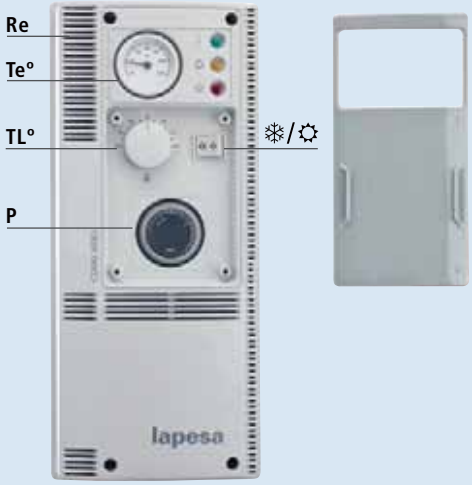
Electric heating in CORAL VITRO "SINGLE-WALL", STORAGE models with manhole ND400

REGULATION AND CONTROL - CORAL VITRO

"**lapesa**" control panels are integrated into the different types of tanks in the **"CORAL VITRO"** series.
They are supplied fully wired and mounted on the tank.
The panels include all the necessary components to control the temperature of the DHW stored in the tank and for the thermostatic control of the installation's heating equipment.
Any of the standard control panels fitted in tanks can be replaced by another type of control panel, if the installation so requires.

CONTROL PANEL COMPONENTS:

- [**Te°**] Thermometer: 0 - 120°C
- [**TL°**] Control thermostat: 0 - 75°C
- [**TL°**] Safety thermostat: 90°C
- ❄/☼ Switch: winter - summer
- Power on LED: green
- Primary pump LED: amber
- Electric heating element LED: red
- [**P**] Analog time switch: electric heating element.



COMPONENTS ON CONTROL PANELS

CONTROL PANEL	INCORPORATED COMPONENTS								
Denomination	**Thermometer**	**Regulation thermostat**	**Safety thermostat**	**Switch ON/OFF**	**SWITCH SUMMER/ WINTER**	**LEDS**	**Analog time switch**	**Regulation**	**Standard installed** on tank models **"CORAL VITRO"**
"T" PANEL	YES								CV-...-R/RB/P/HL
"TS" PANEL	YES	YES						hydraulic primary circuit	CV-...-M1/M2
"TD" PANEL	YES	YES	YES	YES	YES	YES		hydraulic primary circuit / electric heating element	(*)
"TPA" PANEL	YES	YES	YES	YES	YES	YES	YES	hydraulic primary circuit / electric heating element with time programming	(*)

(*) Optional: Any of the standard control panels fitted in tanks can be replaced by another type of control panel, if the installation so requires.

The **"CORAL VITRO"** series are thermally insulated at the factory by direct mould-injection with CFC- and HCFC-free PU material.
This system guarantees a perfectly regular insulation thickness with optimum material density. The thicknesses indicated in the table refer to the circular tank body, but the insulation is much thicker on the top part (up to four times greater). Because the top part of the tank has better thermal protection, heat losses are much lower than those specified by the most stringent regulations, such as the DIN 4753/8 standard.

Rigid, mould-injected PU insulating material

- *Minimal heat loss!*
- *For hot and cold water!*
- *No condensation on tank body!*
- *Compact block, no joints!*

TABLE OF THERMAL INSULATION: SERIE CORAL VITRO

Serie	Model	Thermal insulation k= 0.025 W/m ºK	Insulation thickness PU (mm.)	Static heat losses EN 12897 (W)	ErP (EU 812/2013)	Minimum thickness of equivalent insulation with other insulating materials (mm)		
						Flexible polyurethane foam* k= 0,040 W/m ºK	Rockwool* k= 0,034 - 0,042 W/m ºK	Fiberglass* k= 0,035 - 0,046 W/m ºK
CORAL VITRO	**CV-80-M1S**	PU	45	46	B	75	65 - 80	65 - 90
CORAL VITRO	**CV-110-M1/M1S**	PU	45	46	B	75	65 - 80	65 - 90
CORAL VITRO	**CV-150-M1/M1S/GS**	PU	55	44	B	90	75 - 95	75 - 110
CORAL VITRO	**CV-200-R/M1/M1S/M2/HL/GS**	PU	50	56	B	80	70 - 85	70 - 95
CORAL VITRO	**CV-300-R/M1/M1S/M2/HL/GS**	PU	50	67	B	80	70 - 85	70 - 95
CORAL VITRO	**CV-400-M2/HL**	PU	50	88	C	80	70 - 85	70 - 95
CORAL VITRO	**CV-500-R/M1/M2/HL/GS**	PU	50	93	C	80	70 - 85	70 - 95
CORAL VITRO	**CV-600-P/C**	PU	50	105	C	80	70 - 85	70 - 95
CORAL VITRO	**CV-800-R/M1/M2/HL/P/C**	PU	80	89	B	130	110 - 140	115 - 160
CORAL VITRO	**CV-800-RB/M1B/M2B/HLB**	PU	80	97	B	130	110 - 140	115 - 160
CORAL VITRO	**CV-1000-R/M1/M2/HL/P/C**	PU	80	115	C	130	110 - 140	115 - 160
CORAL VITRO	**CV-1000-RB/M1B/M2B/HLB**	PU	80	125	C	130	110 - 140	115 - 160
CORAL VITRO	**CV-1500-R/M1/M2**	PU	80	156	C	130	110 - 140	115 - 160
CORAL VITRO	**CV-1500-RB/M1B/M2B**	PU	80	169	C	130	110 - 140	115 - 160

(*) Detachable systems can lose up to 25% of the insulating capacity overall, so that in that case the insulation thickness will increased proportionally

CATHODIC PROTECTION - CORAL VITRO

CATHODIC PROTECTION SYSTEM IN "CORAL VITRO" SERIES.

The CORAL VITRO series of tanks include, as a standard feature, a cathodic protection unit comprising magnesium anodes and an anode charge meter. In cathodic protection systems with sacrificial anodes, the anodes must be checked periodically for wear and replaced if necessary. The anode charge meter is a simple, convenient system for users to check the state of the anode. All you have to do is to check if the dial indicator is in the green zone (anode with sufficient charge) or the red zone (anode with insufficient charge = the anode needs to be replaced).

All DHW tanks made of carbon steel with an inner lining should be equipped with the cathodic protection system (DIN 4753)
Cathodic protection units differ in terms of size and number of anodes depending on the model, the geometry and the capacity of the "CORAL VITRO" storage tank.

"LAPESA CORREX-UP" PERMANENT CATHODIC PROTECTION SYSTEM.

Totally automatic! **"lapesa correx-up"**, cathodic protection system comprises special titanium anodes that emit the necessary current for the metal surface to be protected by means of an automatic potentiostat connect to the mains power supply.

Maintenance free! This cathodic protection system is permanent which means that, unlike sacrificial anodes, there is no wear and the anodes do not need to be replaced.

"lapesa correx-up" permanent cathodic protection system: Maintenance-free permanent cathodic protection unit. These anodes do not wear out and they emit the necessary electric current automatically, providing the tank with cathodic protection via an individual potentiostat for each anode, connected to the mains electricity.

ACCESSORIES - CORAL VITRO

EXTERNAL LINING:

External linings for "CORAL VITRO" tanks. Padded PVC lining with zip fastener, B2 class according to DIN 4102-1. Standard external lining: WHITE / RAL. Rest of colours OPTIONAL, according to availability and the quantities of product ordered.

WHITE: RAL 9016

GREY: RAL 7045

BLUE: RAL 5015

ALUNOX EXTERNAL LINING

External aluminium sheet lining. ALUNOX external lining is supplied ready-mounted on the tank, over the PU insulation.

SAFETY GROUP

Safety group set at 7 bar and 3/4" connection.
Set of safety valve, non-return valve, stop-cock and connection from trap to drain.
3/4" valve KIT
1" valve KIT

ELECTRIC HEATING ELEMENT, DOUBLE-WALL MODELS.

Electric element in AISI 321 specifically for "CORAL VITRO" DOUBLE-WALL tanks, **"P"** and **"C"** models
Characteristics and power range: page: 28 -ELECTRIC HEATING-

THREADED ELECTRIC HEATING ELEMENT, STORAGE AND COIL MODELS.

Low charge density, threaded immersion electric element in Incoloy for "CORAL VITRO" STORAGE and COIL tanks, **"R"**, **"RB"**, **"M1"** and **"M2"** models.
Characteristics and power range: page: 28 -ELECTRIC HEATING-

FLANGED ELECTRIC HEATING ELEMENT, STORAGE AND COIL MODELS.

Low charge density, flanged immersion electric element in Incoloy for "CORAL VITRO" STORAGE and COIL tanks, **"R"**, **"M1"** and **"M2"** models.

CERAMIC ELECTRIC HEATING ELEMENT, STORAGE AND COIL MODELS.

Sheathed ceramic electric element for "CORAL VITRO" STORAGE and COIL tanks, **"R"**, **"M1"** and **"M2"** models.
Characteristics and power range: page:28 -ELECTRIC HEATING-

"LAPESA CORREX-UP" CATHODIC PROTECTION SYSTEM.

"lapesa correx-up" permanent cathodic protection unit for "CORAL VITRO" tanks

CATHODIC PROTECTION SYSTEM "MAGNESIUM ANODES WITH CHARGE METER"

Cathodic protection by magnesium anodes for "CORAL VITRO" tanks.

REGULATION AND CONTROL PANELS.

"CORAL VITRO" tanks.
Characteristics / applications:
page: 30 -REGULATION AND CONTROL-

MASTER VITRO - VITREOUS ENAMELLED STEEL

STORAGE models, energy savings!

Tanks designed to provide an extraordinary energy storage capacity that directly translates into real savings. - Capacities from 1500 to 6000 litres.

LARGE CAPACITY STORAGE TANKS: Designed to provide an extraordinary storage capacity that translates directly into real savings.

- CAPACITIES from 1500 to 6000 litres -

Storage tanks ready for installation with plate heat exchanger and/or electric immersion heating elements as the heating source.

ELECTRIC HEATING: Ready for installation with Incoloy, low charge density electric immersion elements or with sheathed ceramic heating elements (see ELECTRIC HEATING chapter, page: 48).

LONG-LASTING PRODUCT: VITREOUS ENAMELLED STEEL storage tank according to **DIN 4753 T3.**
Food grade impermeable lining with a porcelain look that protects the metal surface of the storage tank in contact with water.

FOOD GRADE LINING: Food grade lining according to Royal Decree 891/2006 and EC regulation 1935/2004. Lapesa has further certification of the food grade of the lining at 120ºC.

MAXIMUM WORKING TEMPERATURE: It withstands maximum continuous working temperatures handled by this type of installation (95ºC), without any deterioration or alteration to the lining.

EASY TO HANDLE AND TRANSPORT: Our "Master" storage tanks are designed for easy handling and transport to the place of installation.
They have an integrated system for handling and transporting by forklift truck, which facilitates handling operations enormously, as there is no need to palletize the product which, given its weight and size, would make handling difficult.
The tanks are also equipped with lifting eyebolts on the top part so that if they have to be placed in a high area they can be lifted with an overhead hoist.

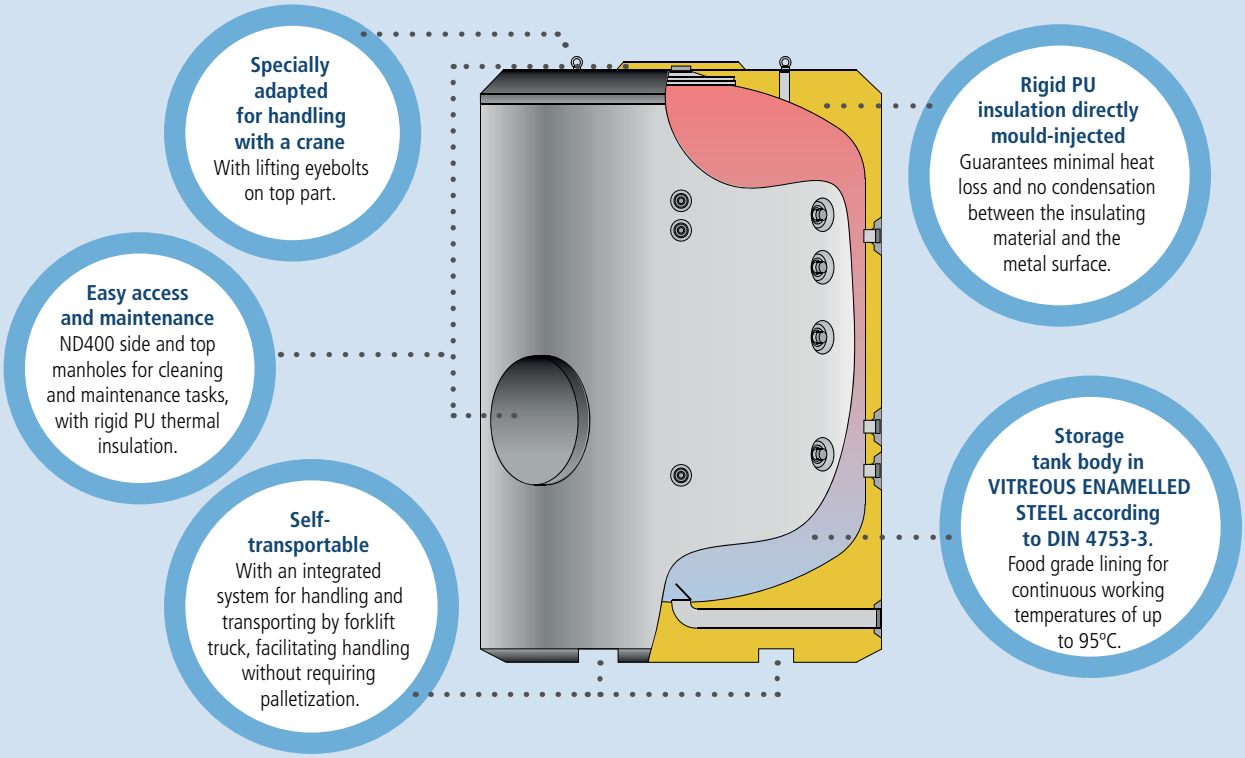
TRANSPORT SYSTEM: Openings/ducts under the tank to facilitate handling with pallet trucks (from 1500 litres onward).

MASTER VITRO - **STORAGE**

EASY TO MAINTAIN: With access to interior via two ND400 manholes, one in the side and the other on the top part, for inspection, cleaning and maintenance tasks.

MAXIMUM STORAGE CAPACITY: Extra thick, rigid, PU mould-injected insulation that minimizes heat losses of stored DHW(see HEAT INSULATION chapter, page: 50).

MAIN ADVANTAGES - MASTER VITRO - **STORAGE**



lapesa *storage tanks have minimal heat losses and for this reason are considered to be one of the products with the greatest storage capacity on the market.*

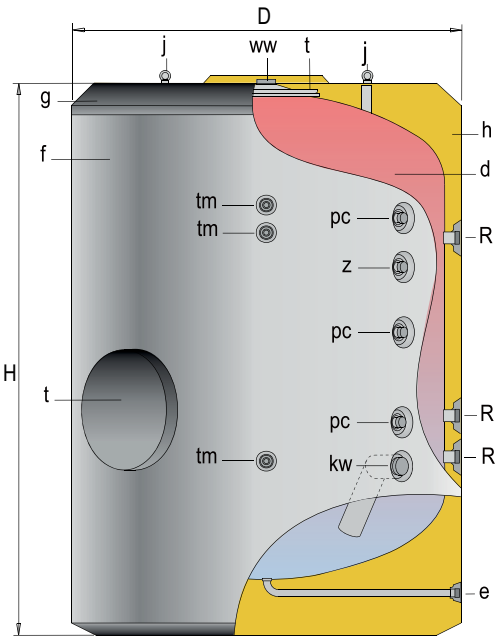
FEATURES COMMON TO ALL "MASTER VITRO" STORAGE MODELS:

- **Vitreous enamelled steel** DHW storage tanks according to **DIN 4753/3**
- Capacities: **1500, 2000, 2500, 3000, 3500, 4000, 5000 and 6000 litres**
- Maximum working pressure of DHW storage tank: **8 bar** (10 bar optional)
- Maximum working temperature of DHW storage tank: **95 ºC**
- Thermal insulation: **Rigid, mould-injected PU** (CFC/HCFC-free, 0.025 W/mºK)
- Tanks for VERTICAL installation on floor. (HORIZONTAL position - optional, please consult us)

MASTER VITRO "RB"

DWH **"STORAGE"** tanks, from **1500** to **6000** litre capacity.
DHW production is by an external heat exchange system (plate heat exchanger).
They can be fitted with immersion electric elements or ceramic electric elements as the main and/or backup heating system.
With side and top ND400 manholes to access the interior of the storage tank for inspection, cleaning and maintenance tasks.
Thermally insulated with rigid, mould-injected, 80 mm-thick, PU polyurethane foam, with insulating piece in same material on the ND400 side manhole.

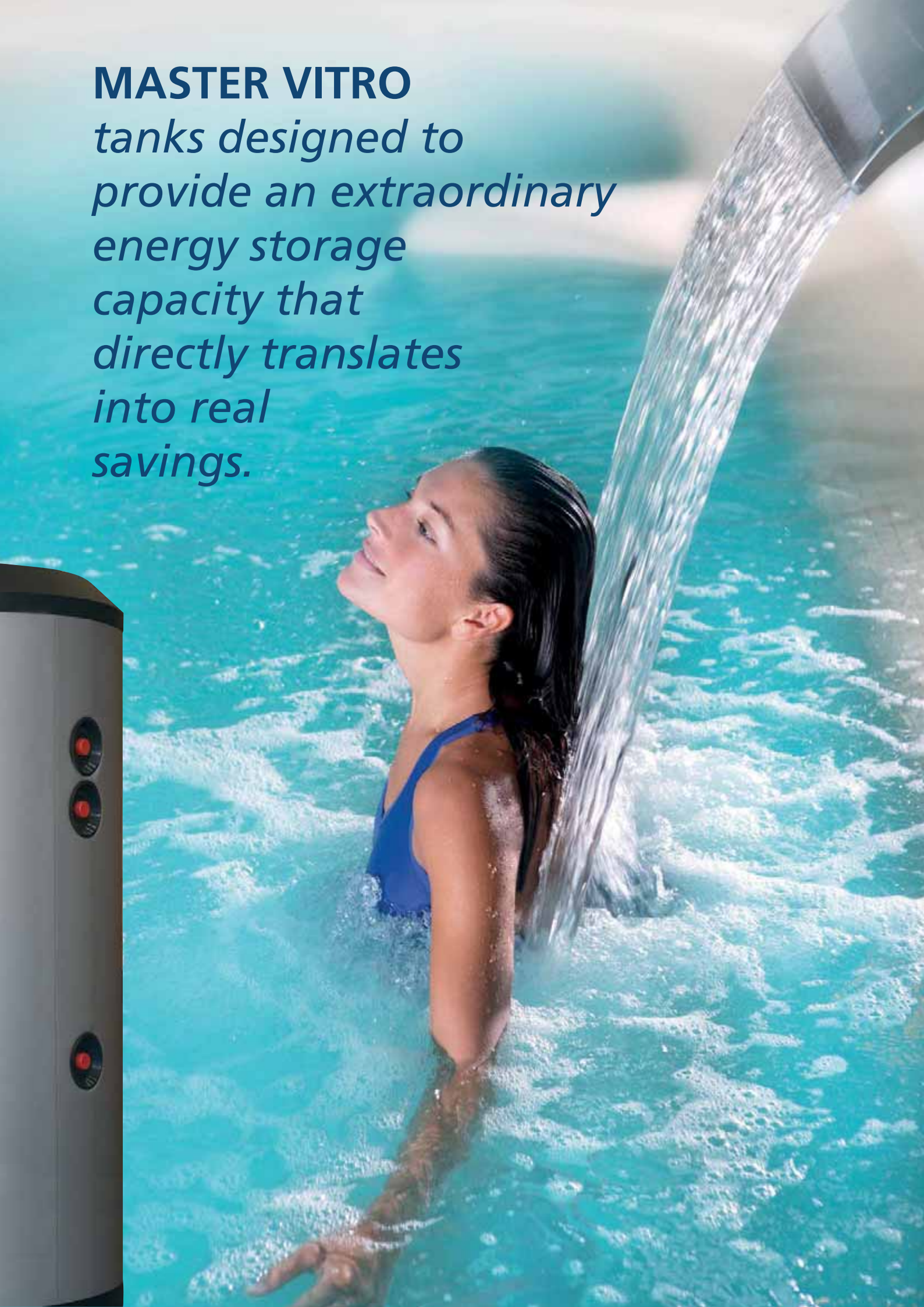
EQUIPMENT:
"lapesa correx-up", permanent cathodic protection unit.
Optional: cathodic protection unit with magnesium anodes and anode charge meter.
Optional supply of PVC padded external lining and set of trims or ALUNOX aluminium sheet lining (page: 51).



t - Manhole ND400
d - DHW tank
f - Outer lining
g - Top cover
h - Thermal insulation
j - Lifting eyes

GENERAL CHARACTERISTICS		MVV-1500-RB	MVV-2000-RB	MVV-2500-RB	MVV-3000-RB	MVV-3500-RB	MVV-4000-RB	MVV-5000-RB	MVV-6000-RB
DHW capacity	l.	1500	2000	2500	3000	3500	4000	5000	6000
D: external diameter	mm.	1360	1360	1660	1660	1660	1910	1910	1910
H: overall height	mm.	1830	2280	2015	2305	2580	2310	2710	3210
Diagonal	mm.	2281	2655	2611	2841	3068	2998	3316	3735
kw: cold water inlet	" GAS/M	2	2	3	3	3	3	3	3
ww: DHW outlet	" GAS/M	2	2	3	3	3	3	3	3
z: recirculation	" GAS/M	1 1/2	1 1/2	2	2	2	2	2	2
e: drain	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2
R: side connection	" GAS/M	2	2	2	2	2	2	2	2
pc: "lapesa correx up" connection	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
tm: probe tube connection for sensors	" GAS/M	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
Empty weight (approx.)	Kg	400	460	635	705	755	915	1030	1134

Note: The 6000 litre model includes support legs



MASTER VITRO

tanks designed to provide an extraordinary energy storage capacity that directly translates into real savings.

MASTER VITRO - VITREOUS ENAMELLED STEEL

Models with COILS, production and efficiency!

Storage tanks that incorporate an exclusive heat exchange system comprising a set of collectors and coils in stainless steel that are detachable from the inside of the storage tank, for DHW production via an external energy source.

LARGE CAPACITY TANKS FOR DWH PRODUCTION AND STORAGE: Storage tanks with the exclusive, high-efficiency **"lapesa"** DHW production system.

- CAPACITIES from 1500 to 6000 litres -

The overdimensioned, rigid, mould-injected PU thermal insulation maintains the DHW storage temperature over long periods of time without requiring additional energy input. This means less start-ups and adjustments of external energy sources, which in turn translates to less energy consumption.
Storage tanks that incorporate an exclusive heat exchange system comprising a set of collectors and coils that are detachable from the inside of the storage tank, for DHW production via an external energy source (see DHW PRODUCTION chapter, page: 104).

LONG-LASTING PRODUCT: VITREOUS ENAMELLED STEEL storage tank according to **DIN 4753 T3**
Food grade impermeable lining with a porcelain look that protects the metal surface of the storage tank in contact with water.

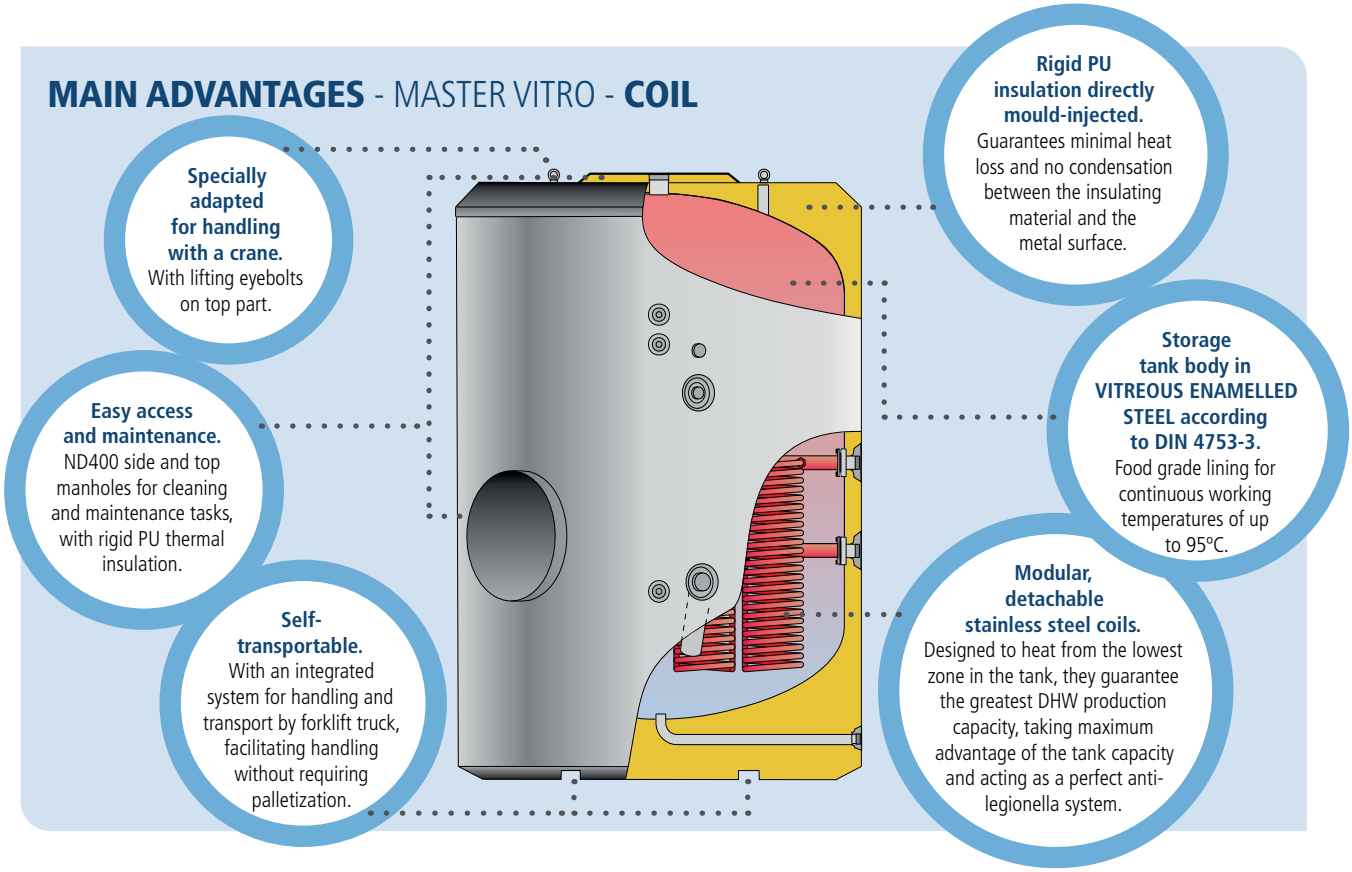
FOOD GRADE LINING: Food grade lining according to Royal Decree 891/2006 and EC regulation 1935/2004. Lapesa has additional certification of the food grade of the lining at 120ºC.

MAXIMUM WORKING TEMPERATURE: It withstands maximum continuous working temperatures handled by this type of installation (95ºC), without any deterioration or alteration to the lining.

ANTI-LEGIONELLA DESIGN: The design of the complete range of "MASTER VITRO" tanks adheres to all of the "Treatment and Prevention of Legionellosis" criteria specified in current UNE standards and EC Directives and, in particular, in the R.D. 865/2003 and the RITE (Regulations on Thermal Installations in Buildings).
The anti-legionella design applies to the storage tank unit and its internal DHW production system.

LARGE DHW PRODUCTION CAPACITY: A set of separate collectors and coils, made of STAINLESS STEEL, are fitted inside the storage tank, allowing the heat exchange surface to be dimensioned in accordance with the power required (up to 10 m^2 in the 6000 litre model), adapted to traditional energy sources or to the use of renewable energies.
This exclusive lapesa DHW production system for large capacity tanks, saves on installation space and allows total or partial maintenance of the unit, guaranteeing the continuous service of the installation.

MAIN ADVANTAGES - MASTER VITRO - **COIL**



lapesa's *exclusive modular stainless steel coils system for LARGE CAPACITY tanks allows the unit to be adapted to the thermal output required, also enabling interventions separate from the storage tank.*

Modular coils "MASTER VITRO"

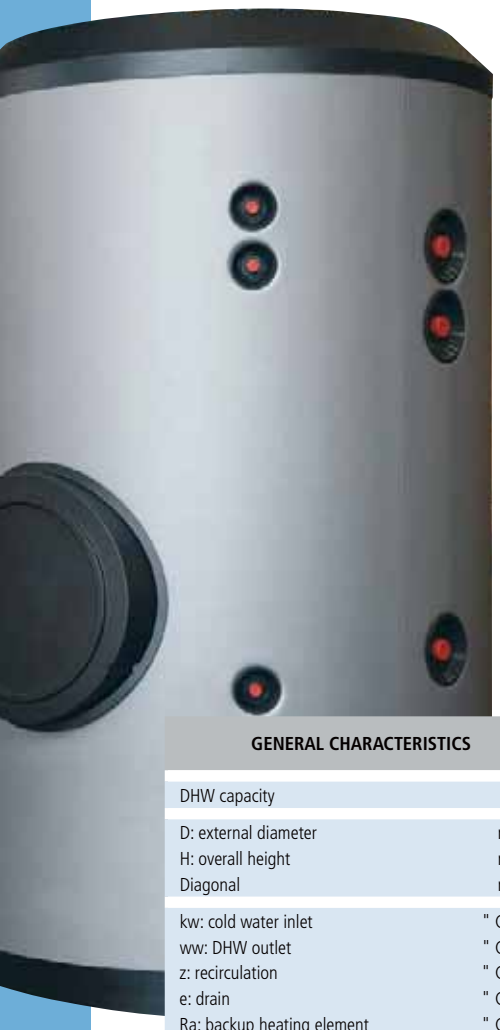
FEATURES COMMON TO ALL "MASTER VITRO" MODELS WITH COILS:

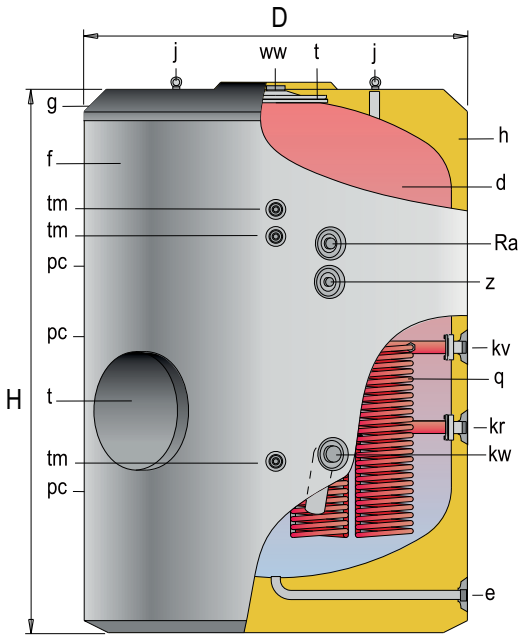
- **Vitreous enamelled steel** DHW storage tanks according to **DIN 4753/3**
- Capacities: **1500, 2000, 2500, 3000, 3500, 4000, 5000 and 6000 litres**
- Maximum working pressure of DHW storage tank: **8 bar** (10 bar optional)
- Maximum working temperature of DHW storage tank: **90 ºC**
- Maximum pressure of set of coils: **25 bar**
- Maximum temperature of set of coils: **110 ºC** (up to 200 ºC with special high temperature seals)
- Thermal insulation: **Rigid, mould-injected PU** (CFC/HCFC-free, 0.025 W/mºK)
- Tanks for VERTICAL installation on floor (option of HORIZONTAL position - please consult us)

MASTER VITRO "SB"

DWH **PRODUCTION/STORAGE** tanks, from **1500** to **6000** litre capacity.
With **detachable coils system** for DHW production via an external energy source.
They can be fitted with immersion electric elements or ceramic electric elements on the top part of the tank, as backup heating.
With side and top ND400 manholes to access the interior of the storage tank for inspection, cleaning and maintenance tasks.
Thermally insulated with rigid, mould-injected, 80 mm-thick, PU polyurethane foam, with insulating piece in same material on the ND400 side manhole.

EQUIPMENT:
"lapesa correx-up" permanent cathodic protection unit.
Optional: cathodic protection unit with magnesium anodes and anode charge meter.
Optional supply of PVC padded external lining and set of trims or ALUNOX aluminium sheet lining (page: 51).





t - Manhole ND400
d - DHW tank
f - Outer lining
g - Top cover
h - Thermal insulation
j - Lifting eyes
q - Detachable coils system

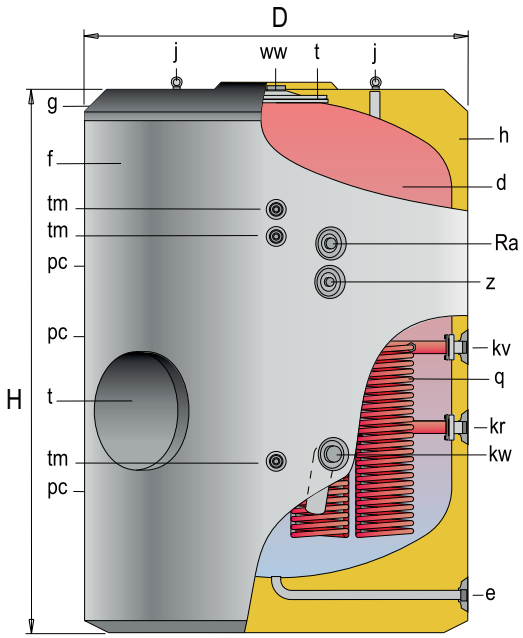
GENERAL CHARACTERISTICS		MVV-1500-SB	MVV-2000-SB	MVV-2500-SB	MVV-3000-SB	MVV-3500-SB	MVV-4000-SB	MVV-5000-SB	MVV-6000-SB
DHW capacity	l.	1500	2000	2500	3000	3500	4000	5000	6000
D: external diameter	mm.	1360	1360	1660	1660	1660	1910	1910	1910
H: overall height	mm.	1830	2280	2015	2305	2580	2310	2710	3210
Diagonal	mm.	2281	2655	2611	2841	3068	2998	3316	3735
kw: cold water inlet	" GAS/M	2	2	3	3	3	3	3	3
ww: DHW outlet	" GAS/M	2	2	3	3	3	3	3	3
z: recirculation	" GAS/M	1 1/2	1 1/2	2	2	2	2	2	2
e: drain	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2
Ra: backup heating element	" GAS/M	2	2	2	2	2	2	2	2
pc: "lapesa correx up" connection	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
tm: probe tube connection for sensors	" GAS/M	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
kv: primary input	" GAS/M	2	2	2	2	2	2	2	2
kr: primary return	" GAS/M	2	2	2	2	2	2	2	2
Coils set heating surface	m2	2,8	3,4	4,8	5	6,7	6,7	8,4	8,4
Empty weight (approx.)	Kg	430	495	675	740	810	980	1110	1216

Note: The 6000 litre model includes support legs

MASTER VITRO "SSB"

DWH **PRODUCTION/STORAGE** tanks, from **1500** to **6000** litre capacity.
Set of **OVERDIMENSIONED detachable coils system** for DHW production, specifically designed for the application of RENEWABLE ENERGIES, in particular, **SOLAR ENERGY.**
Heat exchange surfaces in the whole range comply with RITE requirements for SOLAR installations.
They can be fitted with immersion electric elements or ceramic electric elements on the top part of the tank, as backup heating.
With side and top ND400 manholes to access the interior of the storage tank for inspection, cleaning and maintenance tasks.
Thermally insulated with rigid, mould-injected, 80 mm-thick, PU polyurethane foam, with insulating piece in same material on the ND400 side manhole.

EQUIPMENT:
"lapesa correx-up" permanent cathodic protection unit.
Optional: cathodic protection unit with magnesium anodes and anode charge meter.
Optional supply of PVC padded external lining and set of trims or ALUNOX aluminium sheet lining (page: 51).



t - Manhole ND400
d - DHW tank
f - Outer lining
g - Top cover
h - Thermal insulation
j - Lifting eyes
q - Detachable coils system

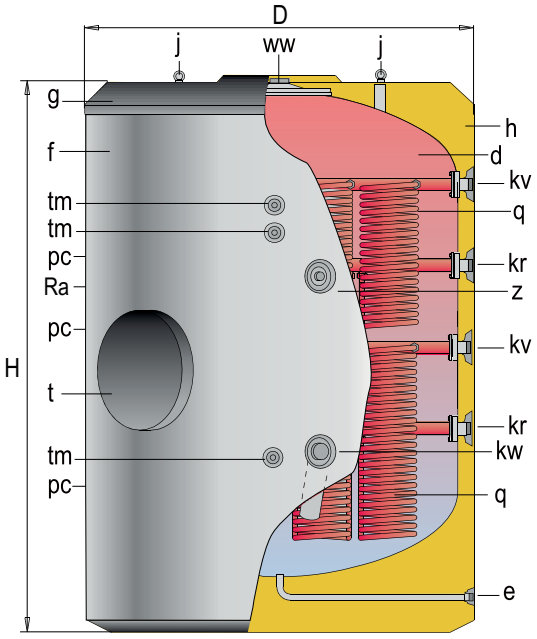
GENERAL CHARACTERISTICS		MVV-1500-SSB	MVV-2000-SSB	MVV-2500-SSB	MVV-3000-SSB	MVV-3500-SSB	MVV-4000-SSB	MVV-5000-SSB	MVV-6000-SSB
DHW capacity	l.	1500	2000	2500	3000	3500	4000	5000	6000
D: external diameter	mm.	1360	1360	1660	1660	1660	1910	1910	1910
H: overall height	mm.	1830	2280	2015	2305	2580	2310	2710	3210
Diagonal	mm.	2281	2655	2611	2841	3068	2998	3316	3735
kw: cold water inlet	" GAS/M	2	2	3	3	3	3	3	3
ww: DHW outlet	" GAS/M	2	2	3	3	3	3	3	3
z: recirculation	" GAS/M	1 1/2	1 1/2	2	2	2	2	2	2
e: drain	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	2
Ra: backup heating element	" GAS/M	2	2	2	2	2	2	2	2
pc: "lapesa correx up" connection	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
tm: probe tube connection for sensors	" GAS/M	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
kv: primary input	" GAS/M	2	2	2	2	2	2	2	2
kr: primary return	" GAS/M	2	2	2	2	2	2	2	2
Coils set heating surface	m2	4,2	5,0	6,1	8,4	8,4	8,4	10,0	10,0
Empty weight (approx.)	Kg	445	510	685	765	825	995	1120	1228

Note: The 6000 litre model includes support legs

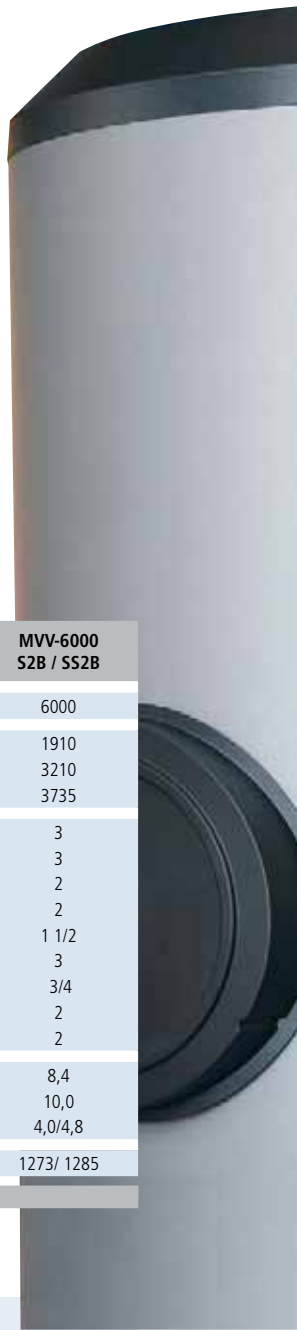
MASTER VITRO "S2B / SS2B"

DWH **PRODUCTION/STORAGE** tanks, **2000**, **3500**, **5000** and **6000** litre capacity.
"SB" and SSB" base models with **TWO detachable coils systems** for DHW production via two combined external energy sources.
With ND400 side manhole for access to interior of tank for inspection, cleaning treatments and maintenance.
Thermally insulated with rigid, mould-injected, 80 mm-thick, PU polyurethane foam, with insulating piece in same material on the ND400 side manhole.

EQUIPMENT:
"lapesa correx-up" permanent cathodic protection unit.
Optional: cathodic protection unit with magnesium anodes and anode charge meter.
Optional supply of PVC padded external lining and set of trims or ALUNOX aluminium sheet lining (page: 51).



d - DHW tank
f - Outer lining
g - Top cover
h - Thermal insulation
j - Lifting eyes
t - Manhole ND400



GENERAL CHARACTERISTICS		MVV-2000 S2B / SS2B	MVV-3500 S2B / SS2B	MVV-5000 S2B / SS2B	MVV-6000 S2B / SS2B
DHW capacity	l.	2000	3500	5000	6000
D: external diameter	mm.	1360	1660	1910	1910
H: overall height	mm.	2280	2580	2710	3210
Diagonal	mm.	2655	3068	3316	3735
kw: cold water inlet	" GAS/M	2	3	3	3
ww: DHW outlet	" GAS/M	2	3	3	3
z: recirculation	" GAS/M	1 1/2	2	2	2
e: drain	" GAS/M	1 1/2	1 1/2	1 1/2	2
pc: "lapesa correx up" connection	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2
Ra: side connection	" GAS/M	3	3	3	3
tm: probe tube connection for sensors	" GASM	3/4	3/4	3/4	3/4
kv: primary input	" GAS/M	2	2	2	2
kr: primary return	" GAS/M	2	2	2	2
Lower coils set heating surface "S2B"	m^2	3,4	6,7	8,4	8,4
Lower coils set heating surface "SS2B"	m^2	5,0	8,4	10,0	10,0
Upper coils set heating surface "S2B" / "SS2B"	m^2	1,7/3,1	3,2/4,0	4,0/4,8	4,0/4,8
Empty weight (approx.) "S2B" / "SS2B"	Kg	524 / 544	855 / 870	1140 / 1160	1273/ 1285

Note: The 6000 litre model includes support legs

MASTER VITRO

The best investment for your installation!

- unbeatable storage capacity
- high-performance service
- guarantee of quality

The large capacity tank that pays for itself!

lapesa Solutions

MASTER VITRO - **COILS - SB** [Continuous flow DHW production (liters/hour) **10°C - 45°C**]

PRIMARY INPUT TEMPERATURE °C		55 °C		70 °C		80 °C		90 °C	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
MVV-1500-SB	3	39	**960**	72	**1772**	98	**2411**	119	**2928**
	5	46	**1132**	85	**2092**	118	**2904**	143	**3519**
	8	52	**1280**	98	**2411**	137	**3371**	166	**4085**
MVV-2000-SB	3	44	**1083**	86	**2116**	109	**2682**	136	**3347**
	5	51	**1255**	104	**2559**	133	**3273**	165	**4060**
	8	58	**1427**	121	**2977**	154	**3789**	191	**4700**
MVV-2500-SB	3	53	**1304**	92	**2264**	119	**2928**	146	**3593**
	5	63	**1550**	113	**2781**	147	**3617**	180	**4429**
	8	72	**1772**	132	**3248**	172	**4232**	211	**5192**
MVV-3000-SB	3	61	**1501**	107	**2633**	141	**3470**	174	**4282**
	5	74	**1821**	134	**3297**	178	**4380**	220	**5414**
	8	86	**2116**	158	**3888**	212	**5217**	262	**6447**
MVV-3500-SB	3	71	**1747**	132	**3248**	181	**4454**	224	**5512**
	5	87	**2141**	165	**4060**	228	**5610**	284	**6988**
	8	102	**2510**	196	**4823**	270	**6644**	340	**8366**
MVV-4000-SB	3	71	**1747**	132	**3248**	181	**4454**	224	**5512**
	5	87	**2141**	165	**4060**	228	**5610**	284	**6988**
	8	102	**2510**	196	**4823**	270	**6644**	340	**8366**
MVV-5000-SB	3	83	**2042**	156	**3839**	211	**5192**	263	**6472**
	5	102	**2510**	197	**4848**	268	**6595**	337	**8293**
	8	120	**2953**	234	**5758**	321	**7899**	406	**9990**
MVV-6000-SB	3	83	**2042**	156	**3839**	211	**5192**	263	**6472**
	5	102	**2510**	197	**4848**	268	**6595**	337	**8293**
	8	120	**2953**	234	**5758**	321	**7899**	406	**9990**

MASTER VITRO - **COILS - SSB** [Continuous flow DHW production (liters/hour) **10°C - 45°C**]

PRIMARY INPUT TEMPERATURE °C		55 °C		70 °C		80 °C		90 °C	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
MVV-1500-SSB	3	53	**1304**	92	**2264**	119	**2928**	146	**3593**
	5	63	**1550**	113	**2781**	147	**3617**	180	**4429**
	8	72	**1772**	132	**3248**	172	**4232**	211	**5192**
MVV-2000-SSB	3	61	**1501**	107	**2633**	141	**3470**	174	**4282**
	5	74	**1821**	134	**3297**	178	**4380**	220	**5414**
	8	86	**2116**	158	**3888**	212	**5217**	262	**6447**
MVV-2500-SSB	3	64	**1575**	119	**2928**	161	**3962**	199	**4897**
	5	78	**1919**	149	**3666**	204	**5020**	251	**6176**
	8	90	**2215**	177	**4355**	243	**5979**	299	**7357**
MVV-3000-SSB	3	83	**2042**	156	**3839**	211	**5192**	263	**6472**
	5	102	**2510**	197	**4848**	268	**6595**	337	**8293**
	8	120	**2953**	234	**5758**	321	**7899**	406	**9990**
MVV-3500-SSB	3	83	**2042**	156	**3839**	211	**5192**	263	**6472**
	5	102	**2510**	197	**4848**	268	**6595**	337	**8293**
	8	120	**2953**	234	**5758**	321	**7899**	406	**9990**
MVV-4000-SSB	3	83	**2042**	156	**3839**	211	**5192**	263	**6472**
	5	102	**2510**	197	**4848**	268	**6595**	337	**8293**
	8	120	**2953**	234	**5758**	321	**7899**	406	**9990**
MVV-5000-SSB	3	100	**2461**	177	**4364**	243	**5973**	301	**7401**
	5	125	**3076**	226	**5569**	314	**7715**	392	**9657**
	8	148	**3642**	271	**6677**	379	**9319**	477	**11732**
MVV-6000-SSB	3	100	**2461**	177	**4364**	243	**5973**	301	**7401**
	5	125	**3076**	226	**5569**	314	**7715**	392	**9657**
	8	148	**3642**	271	**6677**	379	**9319**	477	**11732**

NOTE: for further information, consult our technical product catalog.

MASTER VITRO - **COILS - SB** [Continuous flow DHW production (liters/hour) **10ºC - 60ºC**]

PRIMARY INPUT TEMPERATURE ºC		70 ºC		80 ºC		90 ºC	
tank model	primary pump flow (m³/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
MVV-1500-SB	3	46	**792**	73	**1257**	94	**1619**
	5	55	**947**	89	**1533**	114	**1964**
	8	64	**1102**	103	**1774**	132	**2274**
MVV-2000-SB	3	55	**947**	80	**1378**	107	**1843**
	5	67	**1154**	98	**1688**	131	**2256**
	8	78	**1344**	114	**1964**	152	**2618**
MVV-2500-SB	3	59	**1016**	87	**1499**	115	**1981**
	5	72	**1240**	108	**1860**	143	**2463**
	8	85	**1464**	128	**2205**	168	**2894**
MVV-3000-SB	3	68	**1171**	104	**1791**	137	**2360**
	5	86	**1481**	131	**2256**	174	**2997**
	8	102	**1757**	157	**2704**	209	**3600**
MVV-3500-SB	3	85	**1464**	133	**2291**	177	**3049**
	5	106	**1826**	168	**2894**	226	**3893**
	8	126	**2170**	200	**3445**	270	**4651**
MVV-4000-SB	3	85	**1464**	133	**2291**	177	**3049**
	5	106	**1826**	168	**2894**	226	**3893**
	8	126	**2170**	200	**3445**	270	**4651**
MVV-5000-SB	3	100	**1722**	155	**2670**	208	**3583**
	5	127	**2188**	198	**3411**	268	**4616**
	8	151	**2601**	238	**4100**	323	**5564**
MVV-6000-SB	3	100	**1722**	155	**2670**	208	**3583**
	5	127	**2188**	198	**3411**	268	**4616**
	8	151	**2601**	238	**4100**	323	**5564**

MASTER VITRO - **COILS - SSB** [Continuous flow DHW production (liters/hour) **10ºC - 60ºC**]

PRIMARY INPUT TEMPERATURE ºC		70 ºC		80 ºC		90 ºC	
tank model	primary pump flow (m³/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
MVV-1500-SSB	3	59	**1016**	87	**1499**	115	**1981**
	5	72	**1240**	108	**1860**	143	**2463**
	8	85	**1464**	128	**2205**	168	**2894**
MVV-2000-SSB	3	68	**1171**	104	**1791**	137	**2360**
	5	86	**1481**	131	**2256**	174	**2997**
	8	102	**1757**	157	**2704**	209	**3600**
MVV-2500-SSB	3	76	**1312**	118	**2040**	157	**2697**
	5	96	**1654**	151	**2595**	199	**3429**
	8	114	**1969**	180	**3107**	238	**4103**
MVV-3000-SSB	3	100	**1722**	155	**2670**	208	**3583**
	5	127	**2188**	198	**3411**	268	**4616**
	8	151	**2601**	238	**4100**	323	**5564**
MVV-3500-SSB	3	100	**1722**	155	**2670**	208	**3583**
	5	127	**2188**	198	**3411**	268	**4616**
	8	151	**2601**	238	**4100**	323	**5564**
MVV-4000-SSB	3	100	**1722**	155	**2670**	208	**3583**
	5	127	**2188**	198	**3411**	268	**4616**
	8	151	**2601**	238	**4100**	323	**5564**
MVV-5000-SSB	3	113	**1948**	179	**3077**	238	**4094**
	5	144	**2477**	232	**3992**	312	**5368**
	8	172	**2964**	281	**4833**	380	**6540**
MVV-6000-SSB	3	113	**1948**	179	**3077**	238	**4094**
	5	144	**2477**	232	**3992**	312	**5368**
	8	172	**2964**	281	**4833**	380	**6540**

MASTER VITRO - **UPPER COIL(1) - S2B / SS2B** [Continuous flow DHW production (liters/hour) **10ºC - 45ºC**]

PRIMARY INPUT TEMPERATURE ºC		55 ºC		70 ºC		80 ºC		90 ºC	
tank model	primary pump flow (m^3/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
MVV-2000-S2B/SS2B	3	36	**886**	70	**1722**	92	**2264**	115	**2830**
	5	42	**1033**	83	**2042**	110	**2707**	136	**3347**
	8	48	**1181**	95	**2338**	127	**3125**	155	**3814**
MVV-3500-S2B/SS2B	3	50	**1230**	92	**2264**	119	**2928**	147	**3617**
	5	60	**1476**	112	**2756**	145	**3568**	179	**4405**
	8	69	**1698**	131	**3224**	169	**4159**	208	**5118**
MVV-5000-S2B/SS2B	3	58	**1427**	103	**2535**	136	**3347**	168	**4134**
	5	71	**1747**	129	**3174**	170	**4183**	210	**5167**
	8	82	**2018**	152	**3740**	202	**4971**	250	**6152**

(1) DHW productions for the lower coils of S2B models correspond to the productions of the SB models, see page 44.

MASTER VITRO - **UPPER COIL(2) - S2B / SS2B** [Continuous flow DHW production (liters/hour) **10ºC - 60ºC**]

PRIMARY INPUT TEMPERATURE ºC			70 ºC		80 ºC		90 ºC	
tank model	primary pump flow (m^3/h)		KW	DHW (l/h)	KW	DHW (l/h)	KW	DHW (l/h)
MVV-2000-S2B/SS2B	3		43	**741**	67	**1154**	88	**1516**
	5		53	**913**	82	**1412**	108	**1860**
	8		62	**1068**	96	**1654**	126	**2170**
MVV-3500-S2B/SS2B	3		58	**999**	86	**1481**	114	**1964**
	5		72	**1240**	106	**1826**	141	**2429**
	8		84	**1447**	125	**2153**	165	**2842**
MVV-5000-S2B/SS2B	3		66	**1137**	100	**1722**	132	**2274**
	5		83	**1430**	125	**2153**	167	**2877**
	8		98	**1688**	150	**2584**	199	**3428**

(2) DHW productions for the lower coils of SS2B models correspond to the productions of the SSB models, see page 45.

NOTE: for further information, consult our technical product catalog

MASTER VITRO - **COILS** models - **SB** - (DHW production - **peak flow -**)

		MVV1500 SB	MVV2000 SB	MVV2500 SB	MVV3000 SB	MVV3500 SB	MVV4000 SB	MVV5000 SB	MVV6000 SB
Peak flow 40ºC	L/10'	2925	3900	4875	5850	6825	7800	9750	11800
Peak flow 45ºC	L/10'	2500	3325	4175	5000	5850	6675	8350	10050
Peak flow 60ºC	L/10'	1750	2325	2925	3500	4075	4675	5850	7075
Peak flow 40ºC	L/60'	6675	8150	9625	11675	14240	15200	18500	20550
Peak flow 45ºC	L/60'	5600	6850	8125	9825	12055	12875	15625	17340
Peak flow 60ºC	L/60'	3400	4225	5050	6125	7450	8000	9750	10990
Continuous flow 40ºC	Ltrs/h	4500	5100	5700	7000	8900	8900	10500	10500
Continuous flow 45ºC	Ltrs/h	3725	4250	4750	5800	7450	7450	8750	8750
Continuous flow 60ºC	Ltrs/h	2000	2300	2550	3150	4000	4000	4700	4700
Heating time (from 10 to 75ºC)	Min	77	88	100	97	100	102	109	117
Primary flow	m³/h	8	8	8	8	8	8	8	8

Primary input temperature 85ºC

MASTER VITRO - **COILS** models - **SSB** - (DHW production - **peak flow -**)

		MVV1500 SSB	MVV2000 SSB	MVV2500 SSB	MVV3000 SSB	MVV3500 SSB	MVV4000 SSB	MVV5000 SSB	MVV6000 SSB
Peak flow 40ºC	L/10'	2925	3900	4875	5850	6825	7800	9750	11775
Peak flow 45ºC	L/10'	2500	3325	4175	5000	5850	6675	8350	10370
Peak flow 60ºC	L/10'	1750	2325	2925	3500	4075	4675	5850	7150
Peak flow 40ºC	L/60'	7675	9725	11550	14600	15575	16550	18900	20940
Peak flow 45ºC	L/60'	6450	8150	9735	12275	13125	13950	16000	18040
Peak flow 60ºC	L/60'	3875	4950	5930	7400	7975	8575	10000	11320
Continuous flow 40ºC	Ltrs/h	5700	7000	8010	10500	10500	10500	11000	11000
Continuous flow 45ºC	Ltrs/h	4750	5800	6675	8750	8750	8750	9200	9200
Continuous flow 60ºC	Ltrs/h	2550	3150	3605	4700	4700	4700	5000	5000
Heating time (from 10 to 75ºC)	Min	60	65	65	65	76	87	102	110
Primary flow	m³/h	8	8	8	8	8	8	8	8

Primary input temperature 85ºC

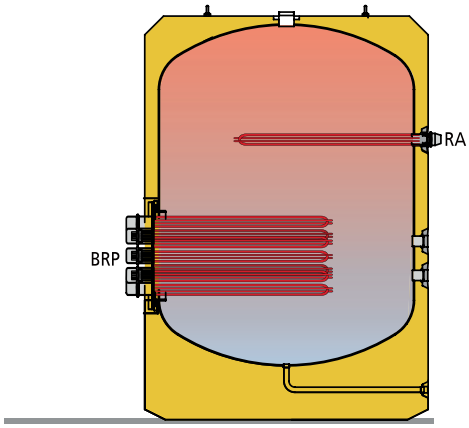
MASTER VITRO - **COILS** models - **S2B / SS2B** - (DHW production - **peak flow -**)

LOWER COIL		MVV2000 S2B	MVV3500 S2B	MVV5000 S2B	MVV6000 S2B	MVV2000 SS2B	MVV3500 SS2B	MVV5000 SS2B	MVV6000 SS2B
Peak flow 40ºC	L/10'	3900	6825	10840	12790	3900	6825	10840	12790
Peak flow 45ºC	L/10'	3325	5850	9235	10910	3325	5850	9235	10910
Peak flow 60ºC	L/10'	2325	4075	6325	7500	2325	4075	6325	7500
Peak flow 40ºC	L/60'	8150	14240	21740	23690	9725	15575	21740	23690
Peak flow 45ºC	L/60'	6850	12055	18010	19680	8150	13125	18010	19680
Peak flow 60ºC	L/60'	4225	7405	11065	12240	4950	7975	11065	12240
Continuous flow 40ºC	Ltrs/h	5100	8900	13080	13080	7000	10500	13080	13080
Continuous flow 45ºC	Ltrs/h	4250	7450	10530	10530	5800	8750	10530	10530
Continuous flow 60ºC	Ltrs/h	2300	4000	5690	5690	3150	4700	5690	5690
Heating time (from 10 to 75ºC)	Min	88	98	102	110	65	76	102	110
Primary flow	m³/h	8	8	8	8	8	8	8	8

Primary input temperature 85ºC

The MASTER VITRO models can be fitted with electric heating elements:

- "RB/EB" STORAGE models:
  MAIN ELECTRIC HEATING
  and/or BACKUP ELECTRIC HEATING
- Models with "SB/SSB" COILS :
  BACK-UP ELECTRIC HEATING



MASTER "VITRO" threaded immersion heating elements, in INCOLOY, for electric heating:

Electric heating element model	KW	V	Thread	Integrated control	IP	Length L*	MAIN HEATING and/or BACKUP HEATING	BACKUPHEATING
RA4/2-60H	6,0	230/400	2" M	-	40	797	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-90H	9,0	230/400	2"M	-	40	1115	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-120DH	12,0	230/400	2"M	-	40	680	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-120DHT	12,0	230/401	2"M	Regulation and safety thermostat*	65	680	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-125DHT	12,5	230/400	2"M	Regulation and safety thermostat*	65	680	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-150DH	15,0	230/400	2"M	-	40	820	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-150DHT	15,0	230/400	2"M	Regulation and safety thermostat*	65	820	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-250DH	25,0	230/400	2"M	-	40	1200	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB
RA4/2-250DHT	25,0	230/400	2"M	Regulation and safety thermostat*	65	1200	MVV1500-...6000-RB/EB	MVV1500-...6000-SB/SSB

(*) Regulation thermostat: o - 75ºC (adjusted to 60 ºC) / Safety thermostat: 90 ºC

HIGH ELECTRIC POWERS:

If high electric power storage tanks have to be installed, the electric heating elements can be grouped together in the ND400 manhole.
The "RB" models can be fitted with up to 8 immersion elements in the ND400 side manhole, to obtain a maximum power of 200 KW For the 2000, 3500, 5000 and 6000 litre models an optional second ND400 manhole can be included to group together up to 16 electric heating elements, for a maximum power of 400 KW.

SPECIAL MANUFACTURE: The "SB" and "SSB" models can only incorporate electric heating elements in the ND400 if it is moved to the top part of the storage tank, above the set of coils. In this case the electric heating would act as backup heating. As an option, the 2000, 3500, 5000 and 6000 litre models can also include a second ND400.

In all of the cases the system is supplied with a protective box for the set of heating elements in stainless steel, with a lid.

MVV "RB" models with threaded immersion heating elements, in MH ND400

LOWER MANHOLE main heating		**UPPER MANHOLE** backup heating
Tank models MVV "RB"	Number of heating elements on MH ND400	Number of heating elements on MH ND400 **(OPTIONAL)**
MVV1500RB	3, 4, 5, 6, 7 u 8	-
MVV2000RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV2500RB	3, 4, 5, 6, 7 u 8	-
MVV3000RB	3, 4, 5, 6, 7 u 8	-
MVV3500RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV4000RB	3, 4, 5, 6, 7 u 8	-
MVV5000RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV6000RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8

MVV "SB/SSB" models with threaded immersion heating elements, in MH ND400

(ONLY BACKUP HEATING)
(OPTION 1) Manhole moved to top part of tank.
(**OPTION 2)** Second manhole on top part of tank

Tank models MVV "SB/SSB"	Number of heating elements on MH ND400 **(OPTION 1)**	Number of heating elements on 2nd MH ND400 **(OPTION 2)**
MVV1500SB/SSB	3, 4, 5, 6, 7 u 8	-
MVV2000SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV2500SB/SSB	3, 4, 5, 6, 7 u 8	-
MVV3000SB/SSB	3, 4, 5, 6, 7 u 8	-
MVV3500SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV4000SB/SSB	3, 4, 5, 6, 7 u 8	-
MVV5000SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV6000SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8

MASTER "VITRO" sheathed CERAMIC HEATING ELEMENTS on stainless steel plate for MH ND400

ND400 stainless steel plate with sheaths for ceramic heating elements + no. of heating elements selected. NUMBER OF HEATING ELEMENTS per plate in MH ND400: 3, 4, 5, 6, 7 or 8

				Optional application on models MVV	
Electric element model	KW	V	Length L*	MAIN and/or BACKUP HEATING	BACKUP HEATING
RCER-45	4,5	230/400	800	MVV1500-...6000-RB	MVV1500-...6000-SB/SSB
RCER-60	6,0	230/400	1000	MVV1500-...6000-RB	MVV1500-...6000-SB/SSB

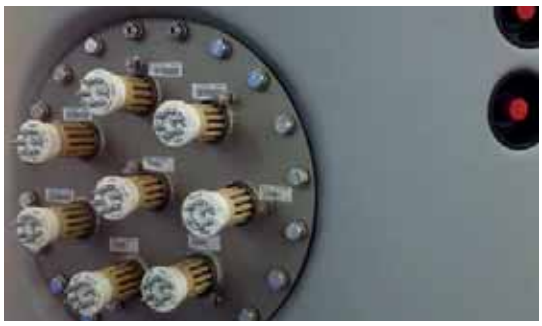
ELECTRIC HEATING WITH CERAMIC HEATING ELEMENTS. "DRY" SYSTEM

With the **"dry"** system with ceramic electric heating elements there is no need to drain the storage tank when fitting/removing or replacing the heating elements.
This system consists of a ND400 stainless steel plate with blind sheaths in the same material that house the ceramic heating elements.
With a maximum of 8 units per ND400 plate, this system provides a maximum of 48 KW of electric power.
As an option, the storage tank can be equipped with a second ND400 manhole. In this case, maximum installable power would be 96 KW (only valid for 2000, 3500, 5000 and 6000 litre "RB" models).

In all of the cases the system is supplied with a protective box for the set of heating elements in stainless steel, with a lid.

MVV "RB" models with ceramic electric heating elements, in ND400 MANHOLE

LOWER MANHOLE main heating		**UPPER MANHOLE** backup heating
Tank models MVV "RB"	Number of heating elements on MH ND400	Number of heating elements on 2nd MH ND400 **(OPTIONAL)**
MVV1500RB	3, 4, 5, 6, 7 u 8	_
MVV2000RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV2500RB	3, 4, 5, 6, 7 u 8	_
MVV3000RB	3, 4, 5, 6, 7 u 8	_
MVV3500RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV4000RB	3, 4, 5, 6, 7 u 8	_
MVV5000RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV6000RB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8



MVV "SB/SSB" models with ceramic electric heating elements, in ND400 MANHOLE

(BACKUP HEATING ONLY)
(OPTION 1) Manhole moved to top part of tank.
(**OPTION 2)** Second manhole on top part of tank

Tank models MVV "SB/SSB"	Number of heating elements on MH ND400 **(OPTION 1)**	Number of heating elements on 2nd MH ND400 **(OPTION 2)**
MVV1500SB/SSB	3, 4, 5, 6, 7 u 8	_
MVV2000SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV2500SB/SSB	3, 4, 5, 6, 7 u 8	_
MVV3000SB/SSB	3, 4, 5, 6, 7 u 8	_
MVV3500SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV4000SB/SSB	3, 4, 5, 6, 7 u 8	_
MVV5000SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8
MVV6000SB/SSB	3, 4, 5, 6, 7 u 8	3, 4, 5, 6, 7 u 8

In all of the cases the system is supplied with a protective box for the set of heating elements in stainless steel, with a lid..

THERMAL INSULATION - MASTER VITRO

The **"MASTER VITRO"** series of tanks are thermally insulated at the factory by direct mould-injection with PU material CFC- and HCFC-free.
This system guarantees a perfectly regular insulation thickness with optimum material density. The thicknesses indicated in the table refer to the circular tank body, but the insulation is much thicker on the top part (up to four times greater). Because the top zone of the tank has better thermal protection, heat losses are much lower than those specified by the most stringent regulations, such as the DIN 4753/8 standard.

Rigid, mould-injected PU insulating material.

- *Minimal heat loss!*
- *For hot and cold water!*
- *No condensation on tank body!*
- *Compact block, no joints!*

TABLE OF THERMAL INSULATION: MASTER VITRO SERIES

Serie	Type	Model	Thermal insulation k= 0.025 W/m °K	Insulation thickness PU (mm.)	Static heat losses EN 12897 (W)	ErP (EU 812/2013)	Minimum thickness of equivalent insulation with other insulating materials (mm)		
							Flexible polyurethane foam* k= 0,040 W/m °K	Rockwool* k= 0,034 - 0,042 W/m °K	Fiberglass* k= 0,035 - 0,046 W/m °K
MASTER VITRO	COIL STORAGE	**MVV-1500-RB/SB/SSB**	PU	80	154	C	130	110 - 140	115 - 155
MASTER VITRO		**MVV-2000-RB/SB/SSB/S2B/SS2B**	PU	80	174	C	130	110 - 140	115 - 155
MASTER VITRO		**MVV-2500-RB/SB/SSB**	PU	80	194	C	130	110 - 140	115 - 155
MASTER VITRO		**MVV-3000-RB/SB/SSB**	PU	80	215	C	130	110 - 140	115 - 155
MASTER VITRO		**MVV-3500-RB/SB/SSB/S2B/SS2B**	PU	80	232	C	130	110 - 140	115 - 155
MASTER VITRO		**MVV-4000-RB/SB/SSB**	PU	80	245	C	130	110 - 140	115 - 155
MASTER VITRO		**MVV-5000-RB/SB/SSB/S2B/SS2B**	PU	80	266	C	130	110 - 140	115 - 155
MASTER VITRO		**MVV-6000-RB/SB/SSB/S2B/SS2B**	PU	80	280	C	130	110 - 140	115 - 155

(*) Detachable systems can lose up to 25% of the insulating capacity overall, so that in that case the insulation thickness will increased proportionally.

"LAPESA CORREX-UP" PERMANENT CATHODIC PROTECTION SYSTEM.

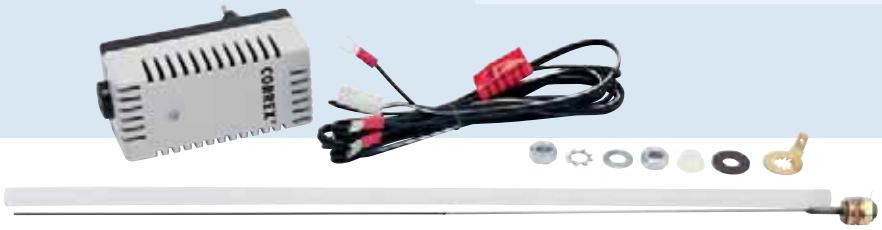
MASTER VITRO tanks include a **"lapesa correx-up"** cathodic protection unit as a **standard feature.**

Totally automatic! **"lapesa correx-up"**, cathodic protection system comprises special titanium anodes that emit the necessary current for the metal surface to be protected by means of an automatic potentiostat connect to the mains power supply.

Maintenance free! This cathodic protection system is permanent which means that, unlike sacrificial anodes, there is no wear and the anodes do not need to be replaced.

All DHW tanks made of carbon steel with an inner lining should be equipped with the cathodic protection system (DIN 4753)

KIT C.P. lapesa correx-up	Applicable to MASTER VITRO tanks models
KITPCTIMV1A	MVV-1500/2000-RB/SB/SSB/EB
KITPCTIMV2A	MVV-2500...5000-RB/SB/SSB/EB



"lapesa correx-up" permanent cathodic protection system: Maintenance-free permanent cathodic protection unit. These anodes do not wear out and they emit the necessary electric current automatically providing the tank with cathodic protection via an individual potentiostat for each anode, connected to the mains electricity.

STANDARD CATHODIC PROTECTION SYSTEM IN "MASTER VITRO" SERIES.

Optional in all "MASTER VITRO" models.

Cathodic protection units differ in terms of size and number of sacrificial Magnesium anodes depending on the model, the geometry and the capacity of the "MASTER VITRO" storage tank.

ACCESSORIES - MASTER VITRO

EXTERNAL LINING

External lining for "MASTER VITRO" tanks with top cover, ND400 side manhole cover and trims for hydraulic connections. Standard external lining: GREY / RAL 7042.

Capacity (l)	Standard (KIT reference)	Fireproof (KIT reference)	Weatherproof (KIT reference)
1500	**FME1500**	**FME1500/M0**	**FME1500/EX**
2000	**FME2000**	**FME2000/M0**	**FME2000/EX**
2500	**FME2500**	**FME2500/M0**	**FME2500/EX**
3000	**FME3000**	**FME3000/M0**	**FME3000/EX**
3500	**FME3500**	**FME3500/M0**	**FME3500/EX**
4000	**FME4000**	**FME4000/M0**	**FME4000/EX**
5000	**FME5000**	**FME5000/M0**	**FME5000/EX**
6000	**FME6000**	**FME6000/M0**	**FME6000/EX**

ALUNOX EXTERNAL LINING

External aluminium sheet lining. ALUNOX external lining is supplied ready-mounted on the tank, over the PU insulation.

Capacity (l)	Aluminium lining ALUNOX - Ref.
1500	**FME1500/ALUNOX-B**
2000	**FME2000/ALUNOX-B**
2500	**FME2500/ALUNOX-B**
3000	**FME3000/ALUNOX-B**
3500	**FME3500/ALUNOX-B**
4000	**FME4000/ALUNOX-B**
5000	**FME5000/ALUNOX-B**

2" M THREADED ELECTRIC HEATING ELEMENT.

Low charge density, threaded, immersion electric element in Incoloy for **"MASTER VITRO" STORAGE and COIL** tanks.
Characteristics and powers: page: 108 -ELECTRIC HEATING-

Electric element model	KW	V	Thread	Integrated control
RA4/2-60	6,0	230/400	2"M	-
RA4/2-90	9,0	230/400	2"M	-
RA4/2-120D	12,0	230/400	2"M	-
RA4/2-120DT	12,0	230/401	2"M	Regulation and safety thermostat
RA4/2-125DT	12,5	230/400	2"M	Regulation and safety thermostat
RA4/2-150D	15,0	230/400	2"M	_
RA4/2-150DT	15,0	230/400	2"M	Regulation and safety thermostat
RA4/2-250D	25,0	230/400	2"M	-
RA4/2-250DT	25,0	230/400	2"M	Regulation and safety thermostat

(*) Regulation thermostat 0 -75 ºC (adjusted to 60 ºC) / Safety thermostat 90 ºC

CERAMIC ELECTRIC HEATING ELEMENT, STORAGE AND COIL MODELS.

Sheathed ceramic electric heating element for "MASTER VITRO" STORAGE and COIL tanks, models "RB"
Characteristics and powers: page: 48 -ELECTRIC HEATING-

Electric element model	KW	V
RCER-45	4,5	230/400
RCER-60	6,0	230/400

ND 400 PLATES FOR INSTALLATION OF ELECTRIC HEATING ELEMENTS IN ND400 SIDE MANHOLE.

ND 400 plate and protective hood in stainless steel, with 2" threaded connections to install immersion electric heating elements in ND400 side manhole.

ND400 plate set
TBH2CONEX
TBH4CONEX
TBH5CONEX
TBH6CONEX
TBH7CONEX
TBH8CONEX

(*) Heating elements not included

ND 400 PLATES FOR INSTALLATION OF ELECTRIC HEATING ELEMENTS IN ND400 SIDE MANHOLE.

ND 400 plate and protective hood in stainless steel, for installation of sheathed ceramic electrical heating elements ("dry" system) in ND400 side manhole.

ND400 plate set
TBH2VAINAS
TBH4VAINAS
TBH5VAINAS
TBH6VAINAS
TBH7VAINAS
TBH8VAINAS

(*) Heating elements not included

DUAL CONTROL AND SAFETY THERMOSTAT

Kit comprising dual control 0-75ºC (set at 60ºC) and safety (95ºC) thermostat, with 1/2" x 100 mm threaded sheath and 3/4"-1/2" reduction

KIT
KIT MASTER double thermostat

0-120ºC THERMOMETER

KIT comprising 0-120ºC thermometer with 1/2 " x 100 mm threaded sheath and 3/4"-1/2" reduction

KIT
KIT pressure gauge

0-16 BAR PRESSURE GAUGE

KIT comprising 0-16 bar pressure gauge with 3/4"-1/2" reduction and 1/2"-1/4" reduction

KIT
KIT pressure gauge

P & T PRESSURE AND TEMPERATURE SAFETY VALVE

P & T pressure and temperature safety valve, 8 bar, 92ºC

KIT
3/4" P&T valve KIT
1 1/4" P&T valve KIT

PLATE EXCHANGERS

COMPACT PLATE EXCHANGERS	
Max. working temperature	135 / 155ºC(1)
Max working pressure	16 / 25 bar (2)
Applications	Fluid/Fluid
Chassis	AISI 316
Plates	AISI 316
Connections	AISI 316
Additional features	Thermal Insulation

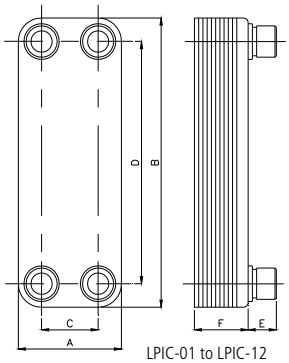
Ref.	Number of plates	Flow rate at 50ºC (l/h)	Power (kW)(3)	Pressure drop (meters H_2O)	A x B x F mm	E mm	C mm	D mm	Connections
LPIC-01	20	1.000	45	< 3	73 x 192 x 42,32	20,1	40	154	3/4"
LPIC-02	20	2.000	90	< 6	73 x 315 x 42,32	20,1	40	278	3/4"
LPIC-03	20	3.000	140	< 6	119 x 289 x 48,8	45	72	243	1"
LPIC-04	30	4.000	185	< 6	119 x 289 x 71,2	45	72	243	1"
LPIC-05	40	5.000	235	< 6	119 x 289 x 93,6	45	72	243	1"
LPIC-07	40	7.000	325	< 8	119 x 376 x 93,6	45	63	320	1-1/4"
LPIC-10	60	10.000	465	< 8	119 x 376 x 136,4	45	63	320	1-1/4"
LPIC-12	70	12.000	560	< 8	119 x 376 x 160,8	45	63	320	1-1/4"

(1) Maximum working temperature for LPIC-01 and LPIC-02 models 135ºC, for rest of models 155ºC

(2) Maximum working pressure for LPIC-01 and LPIC-02 models 16 bar, for rest of models 25 bar

(3) Power defined according to: Primary 90/60ºC and secondary 10/50ºC

Optional: Other pressures, temperatures or fluids



LPIC-01 to LPIC-12

DETTACHABLE PLATE EXCHANGERS	
Max. working temperature	110ºC
Max. working pressure	10 bar
Applications	Fluid/Fluid
Chassis	Carbon steel
Plates	AISI 316
Connections	AISI 316
Gaskets	EPDM
Additional features	Thermal Insulation Support leg (4)

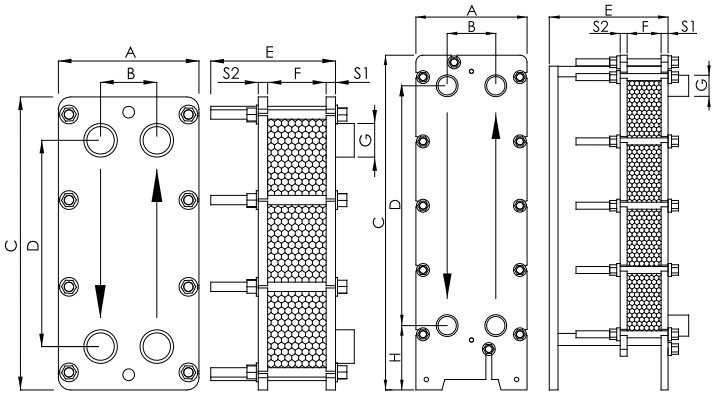
Ref.	Number of plates	Flow rate at 50ºC (l/h)	Power (kW)(3)	Pressure drop (meters H_2O)	A x C x F mm	E(max) mm	B mm	D mm	H mm	G mm
LPID-00	5	1.000	48	< 3	204 x 490 x 13,25	290	86	381	-	1-1/4"
LPID-01	7	1.300	60	< 3	204 x 490 x 18,55	290	86	381	-	1-1/4"
LPID-02	11	2.600	120	< 3	204 x 490 x 29,15	290	86	381	-	1-1/4"
LPID-03	13	3.200	148	< 3	204 x 490 x 34,45	290	86	381	-	1-1/4"
LPID-04	17	4.200	195	< 3	204 x 490 x 45,05	290	86	381	-	1-1/4"
LPID-05	21	5.200	240	< 3	204 x 490 x 55,65	290	86	381	-	1-1/4"
LPID-07	27	6.600	305	< 3	204 x 490 x 71,55	290	86	381	-	1-1/4"
LPID-10	37	8.600	400	< 3	204 x 490 x 98,05	290	86	381	-	1-1/4"
LPID-12	45	10.000	465	< 3	204 x 490 x 119,25	290	86	381	-	1-1/4"
LPID-21	23	15.700	725	< 3	312 x 963 x 80,5	960	140	690	185	2"
LPID-22	29	20.500	950	< 3	312 x 963 x 101,5	960	140	690	185	2"
LPID-23	35	25.000	1155	< 3	312 x 963 x 122,5	960	140	690	185	2"

(3) Power defined according to: Primary 90/60ºC and secondary 10/50ºC

(4) For models LPID-00 to LPID-12

Optional: Other pressures, temperatures or fluids

Chassis and plates in AISI-304, AISI-316 or Titanium



LPID-00 to LPID-12 LPID-21 to LPID-23

DATA REQUIRED TO PROVIDE A QUOTE FOR A CUSTOM PLATE EXCHANGER

To provide a specific offer of the most suitable plate heat exchanger for each particular case, the following details on the primary and secondary circuits are required:

- Primary and secondary circuit flows
- Input/output temperatures of the primary and secondary circuits
- Physical properties of the liquids (if they are neither water nor steam), density and specific heat.
- Required working pressure
- Pressure drop

INDUSTRIAL CAPACITY DHW STORAGE TANKS 7000 to 12000 litres

lapesa *has a range of DHW storage tanks with capacities of more than 7000 litres for special installations and industrial applications, made in STAINLESS STEEL or COATED STEEL.*

lapesa has a range of DHW storage tanks with capacities of **more than 7000 litres** for special installations and industrial applications. DHW storage and production tanks made in **STAINLESS STEEL** or **COATED STEEL.**

This range of tanks can be fitted with our system of detachable stainless steel coils, adapting the heat exchange area to the installation's thermal power.

They are also designed to incorporate electric heating elements, both for back-up heating and as main heating. Our "dry" electric heating system with ceramic heating elements can be integrated in the ND400 side manhole, allowing the heating elements to be replaced without having to drain the storage tank.

The main options available for these storage tanks are **"lapesa correx-up"** permanent cathodic protection units or detachable insulation in 50 or 100 mm-thick glassfibre with PVC external lining (separate supply).

EQUIPMENT

WITH COILS:

MXV and **MV** models can be fitted with one or two sets of **lapesa** detachable stainless steel coils, up to 10 m^2 of exchange area per set, adapting to the thermal power of the external source and the requirements of the installation.

EQUIPMENT

WITH ELECTRIC HEATING ELEMENTS:

The ND400 side manhole can be fitted with low charge density Incoloy electric heating elements to achieve a maximum power of 200 Kw.
The equipment option with our "dry" system with ceramic heating elements allows to achieve a maximum power of 48 Kw.
As a special manufacturing option, this range of storage tanks can include a second ND400 side manhole to obtain up to 400 Kw with immersion heating elements and 96 Kw electric power with ceramic heating elements.

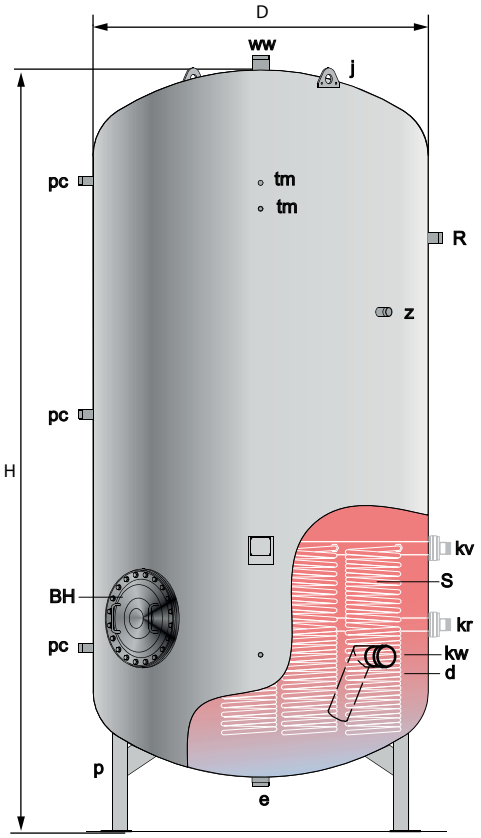
APPLICATIONS

INDUSTRIAL CAPACITY STORAGE TANKS 7000 to 12000 litres

- Industrial applications
- Food industry
- Textile industry
- Large storage volume facilities
- Centralized DHW facilities
- Energy management centres
- Specific projects

DHW TANKS: **COATED STEEL**

- Capacity: **7000 to 12000 litres.**
- Material: **S275JR carbon steel.**
- Interior treatment: SA 2 ½ interior shotblasting with 400 micra food grade **epoxy coating**.
- Working pressure: **8 bar** (optional: 10, 12 bar).
- Maximum working temperature: **75°C**.
- **ND400** side manhole.
- External treatment: rust prevention primer.
- Installation: vertical (horizontal as an option).
- OPTIONAL: Lapesa detachable coils system for DHW production.
- OPTIONAL: "lapesa correx-up" permanent cathodic protection.
- OPTIONAL: immersion or ceramic electric heating elements.
- OPTIONAL: thermal insulation, flexible PVC external lining with 50 or 100 mm thick glass fibre, supplied separately.



BH - Manhole ND400
d - DHW tank
j - Lifting lugs
p - Support legs
S - Heating coils (OPTIONAL)

GENERAL CHARACTERISTICS		MV-7000-RB	MV-8000-RB	MV-10000-RB	MV-12000-RB
DHW capacity	l.	7000	8000	10000	12000
D: external diameter	mm.	1750	1750	1750	1750
H: overall height	mm.	3633	4058	4808	5808
kw: cold water inlet / drain	" GAS/M	3	3	3	3
ww: DHW outlet	" GAS/M	3	3	3	3
z: recirculation	" GAS/M	2	2	2	2
e: drain	" GAS/M	2	2	2	2
R: side connection	" GAS/F	2	2	2	2
pc: "lapesa correx up" connection	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2
tm: probe tube connection for sensors	" GAS/F	3/4	3/4	3/4	3/4
Empty weight (approx.)	Kg	1010	1057	1205	1437
Side manhole	ND	ND400	ND400	ND400	ND400
COILS OPTION (heat exchange surface 10 M²)		MV-7000-SB	MV-8000-SB	MV-10000-SB	MV-12000-SB
kv: primary input	" GAS/M	2	2	2	2
kr: primary return	" GAS/M	2	2	2	2
Empty weight (approx.)	Kg	1113	1160	1308	1540

INDUSTRIAL CAPACITY

STORAGE TANKS

lapesa Solutions

GENERAL TERMS AND SALES CONDITIONS

All offers and agreements shall be based exclusively on the following conditions; any other conditions by customers shall not be binding unless expressly agreed in writing.

GENERAL
Agreements shall only be binding if confirmed in writing by Lapesa.
The customer shall be responsible for the accuracy of the documentation that he provides, especially that of samples and drawings.
Data, drawings, representations and descriptions of performances that appear in our catalogues, price lists or documentation pertaining to the offer, give approximate values usual within the sector unless it is specifically indicated in the order confirmation that they are binding. Conditions specified by buyers in orders that are not in accordance with our general sales conditions or, if relevant with the special conditions for each product shall be deemed invalid unless they have been agreed to by us and express mention is made of them in the written order acceptance. Orders that have been accepted may not be cancelled by customers if said orders are special productions and the materials required to produce them have been acquired; nor may they be cancelled after 5 working days from our acceptance of the order or if the materials have been dispatched.

DELIVERY TIMES AND DELIVERY TERMS
Delivery times are considered to be approximate unless a firm date of delivery has been indicated. The delivery time shall be counted from the date on which the order confirmation is sent or the date on which the deposit payment, if required, is received and shall be considered to have been fulfilled when the merchandise leaves our factory or warehouse on the date agreed or when its availability for dispatch to the customer has been notified. In the event that the contract were to be subsequently modified by the customer in such a way that this were to affect the delivery date, it may be prolonged in a reasonably correlative way.
In the case of supplies for which prior notification must be given, these must be collected or their delivery authorised within a period of 15 days from our notification to the customer indicating that the material is available, otherwise the material will be incorporated into Lapesa's stocks and may be used as required by Lapesa. Lapesa shall inform customers of the conditions and the period in which the merchandise can be supplied.
Delays in delivery due to force majeure or deriving from extraordinary or unforeseen causes that cannot be avoided by Lapesa will not give rise to any type of penalty nor the cancellation by the customer of the order that has involuntarily been delayed.
The buyer may not reject partial supplies.
Delivery is carried out ex Lapesa works or ex Lapesa warehouse provided that no other agreement has been made and without any commitment regarding the most economical way of carrying out the delivery. Unloading operations are for the customer's account unless otherwise agreed.
In the event of supplies that are sent carriage forward the risks are transferred to the customer at the time that the merchandise is handed over to the person responsible for transporting it.

PRICE
The prices that are shown in our price list are ex-works or ex-warehouse, plus the corresponding value added tax in force at the time, delivery and packaging costs, if a different type of packaging to that usually provided is required.
The prices in the price tariffs may be modified by Lapesa at any time. Said modification shall affect all those orders pending delivery at the date of the modification. If the customer were not to accept the new price he shall be entitled to cancel the order within the 10 days following the notification of the price increase.
Any discount that is agreed presupposes on-time fulfilment of all obligations to us, including those deriving from other contracts.

PAYMENT TERMS
All invoices shall be paid at sight, upon delivery of the merchandise, unless the buyer has been allowed credit, in which case they shall be paid in the periods expressly indicated.
If a buyer is allowed credit payment shall be carried out by accepted domiciled letter of exchange, except in the case of special agreements.
If the date of payment is exceeded Lapesa shall add the corresponding interests to the unpaid amount as well as the com arising from non-payment or the bill return.
The first sales operations with a customer will always be at sight terms.
If after signing a contract, Lapesa were to come to know facts that imply a substantial worsening in the financial conditions of the customer and which could endanger its right to good consideration, Lapesa may suspend delivery of the goods unless the customer pays first.

GUARANTEE
Our products are guaranteed against all manufacturing defects for the period, and according to the conditions, expressly indicated for each product in its corresponding catalogue or guarantee, provided that they are used and installed in normal conditions, in accordance with the regulations in force or the specific installation and usage instructions issued by Lapesa.
Our guarantee only covers manufacturing defects, never operating or installation defects and thus replacement of material free of charge for the buyer will be carried out within the terms established in current legislation and the terms specified in the product guarantee.

OWNERSHIP
Lapesa reserves the right of ownership of the merchandise supplied up to the time that all of the obligations deriving from the commercial relationship have been fulfilled, including the obligations that may arise in the future from the same contract or from other contracts signed with the customer.

RETURNS
No returns are allowed without our prior consent.
If a return is authorised the merchandise shall be sent by the customer carriage paid to the factory or warehouse specified by Lapesa.
All costs of reception of materials, inspection and testing and repair if relevant shall be discounted from the amount to be paid into the customer's account, deducting an amount of no less than 10%.

CUSTOMER SERVICE
All claims and communications indicating the intention to return merchandise, other than those covered by the guarantee, must be notified to Lapesa's customer service department within 10 days from the data of delivery of the materials. Once Lapesa has decided on the admissibility or inadmissibility of such claims, it will proceed accordingly.

JURISDICTION
The place in which the contracting parties shall comply with their obligations will be Zaragoza.
The competent jurisdiction for all types of discrepancies arising from the contract or concerning its validity provided that this are licit shall be the local courts or tribunals of Zaragoza.
The law in force at the site of our registered offices shall be applicable.

MARKETS

EUROPA
ANDORRA
GERMANY
ARMENIA
AUSTRIA
BELGIUM
BULGARIA
FINLAND
FRANCE
HOLLAND
IRELAND
ITALY
NORWAY
POLAND
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BANGLADESH
MONGOLIA
SRI LANKA
VIETNAM

OCEANIA
AUSTRALIA
NEW ZELAND

SOUTH POLE
ANTARCTICA

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lapesa Solutions

ICON LEGEND:


HEAT PUMP


SOLAR COLLECTORS


GAS/OIL-FIRED BOILER


SOLID FUEL BOILER


ELECTRIC HEATING ELEMENTS


SEVERAL COMBINED ENERGY SOURCES


REGULATION AND CONTROL


THERMAL INSULATION


CATHODIC PROTECTION


ACCESSORIES

lapesa catalog: VITRO CACS-EN-1223-17

DHW lapesa Solutions

VITREOUS ENAMELLED STEEL TANKS

lapesa

Lapesa Grupo Empresarial
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