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 (22°C), has **food grade certification at 120°C**, which guarantees its maximum quality at extreme working temperatures.

MAXIMUM WORKING TEMPERATURE: It withstands the maximum DHW storage temperatures that these types of installation (95°) 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 850°C.

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

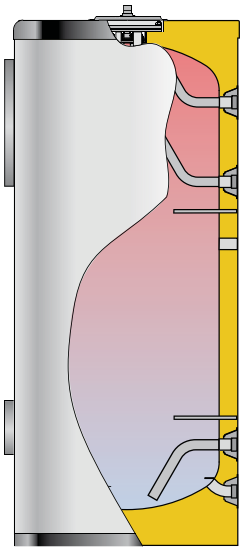
STORAGE models, energy savings!

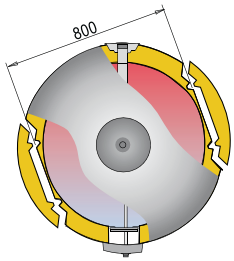
Designed to provide maximum energy storage capacity, with overdimensioned rigid, mould-injected PU thermal insulation, these models maintain the DHW storage temperature for a long time without the need for any additional energy input, affording users continued savings throughout the life of the storage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

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

lapesa





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: 86)

MAXIMUM STORAGE CAPACITY: Extra thick, rigid, PU mould-injected insulation that minimizes heat losses of stored DHW (see HEAT INSULATION chapter, page: 89)

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.*

CE

5 WARRANTY

enR

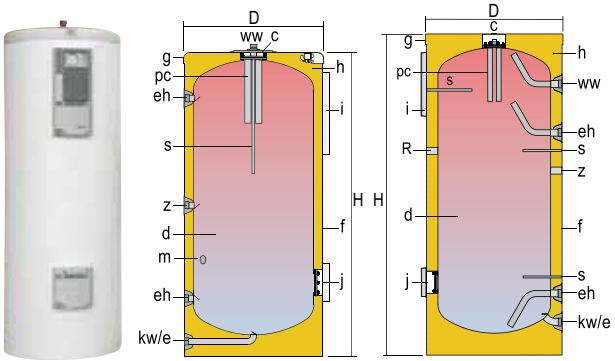
FEATURES COMMON TO ALL "CORAL VITRO" STORAGE MODELS:

- **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

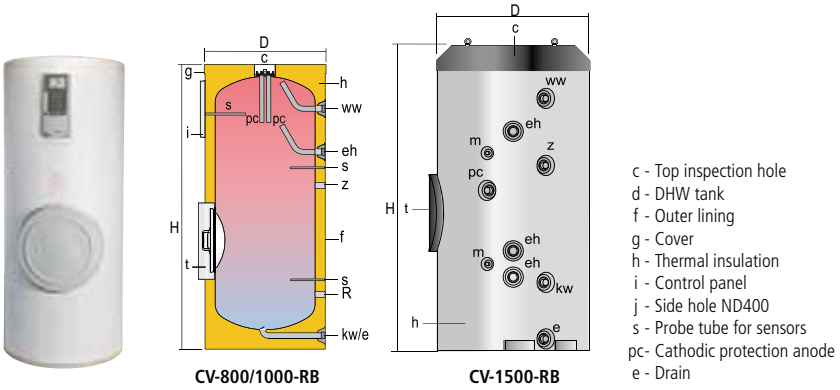
GENERAL CHARACTERISTICS		CV-200-R	CV-300-R	CV-500-R	CV-800-R	CV-1000-R	CV-1500-R
DHW capacity	l.	200	300	500	800	1000	1500
D: external diameter	mm.	620	620	770	950	950	1160
H: overall height	mm.	1205	1685	1690	1840	2250	2320
kw/e: cold water inlet / drain	" GAS/M	1	1	1	1 1/4	1 1/4	1 1/2
ww: DHW outlet	" 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

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

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

CORAL VITRO

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

lapesa Solutions