

SOLAR SYSTEMS

FLAT PLATE
SOLAR
COLLECTORS

DHW
SOLAR SYSTEMS



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COLLECTORS

DHW
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FOR YOUR COMFORT AND ECONOMY



LP SUN SOLAR COLLECTORS DESIGN AND QUALITY

Solar Thermal Energy installations demand high quality products that are designed to meet the requirements of each location.

NEW RANGE OF SOLAR PANELS

The new LP SUN range includes 2 m² and 2.5 m² collector panels that can be installed both vertically and horizontally.

HIGH EFFICIENCY

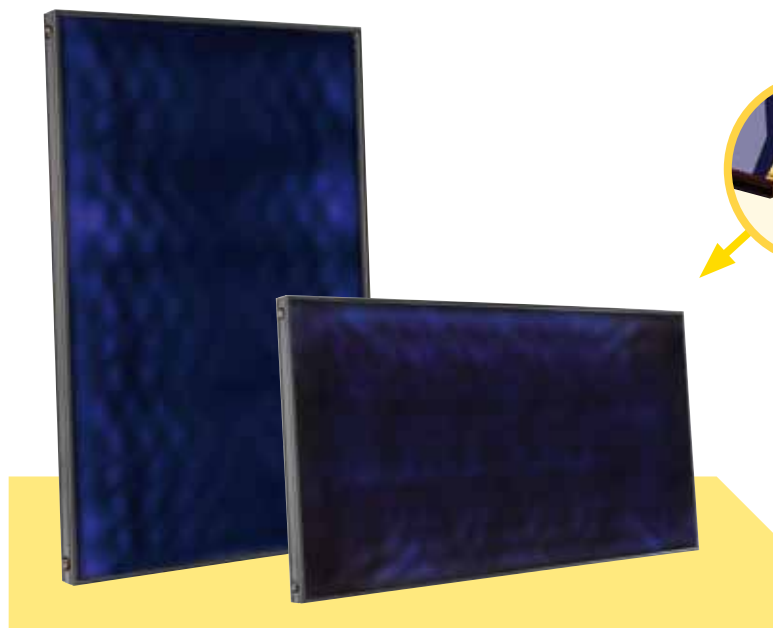
They integrate the latest technological advances employed in the sector. The highly selective absorber provides optimal absorbance and emittance during the collector panel's entire lifetime to obtain the greatest energy performance. The absorbent surface has been laser welded to the internal hydraulic coil.

QUICK AND EASY ASSEMBLY

LP SUN solar panels are designed to reduce installation time as much as possible. Based on a system of quick connections, they also make it possible to reduce the effects of contraction and expansion due to temperature changes in the panels.

ADAPTED FOR ANY TYPE OF BUILDING

Large variety of aluminium support structures that are very easy to assemble. They can be installed on both flat and pitched



Highly selective solar collectors with a gross surface area of 2.5 m². The LP SUN 250 model is for vertical installation and the LP SUN 250 H is for horizontal installation. It is possible to install up to 10 collector panels per row connected in parallel.

ABSORBER WITH HIGHLY SELECTIVE COATING: 0.4 mm aluminium sheet. Absorption capacity 95%, Emittance 5%.

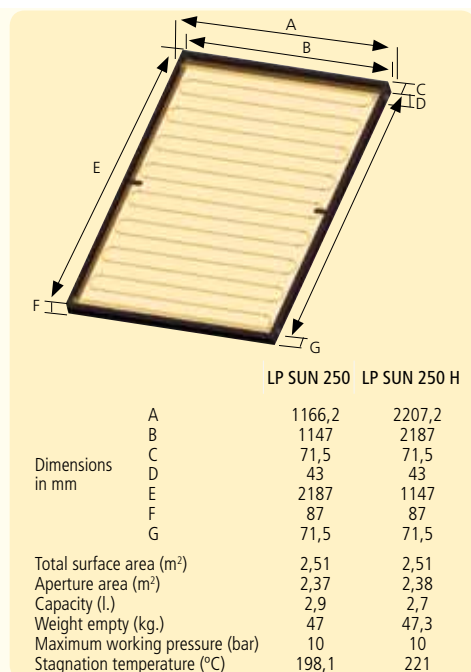
HYDRAULIC COIL CIRCUIT: Laser welded to the absorber.

SOLAR GLASS: 3.2 mm thick textured and self-cleaning coating.

INSULATION: 40 mm of black fibreglass mat on the back. 50 mm of black fibreglass mat on the side.

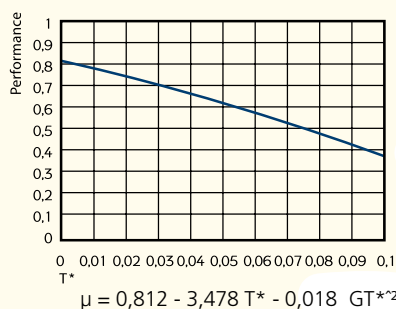
CASING: Grey aluminium RAL7016.

DIMENSIONS AND TECHNICAL SPECIFICATIONS

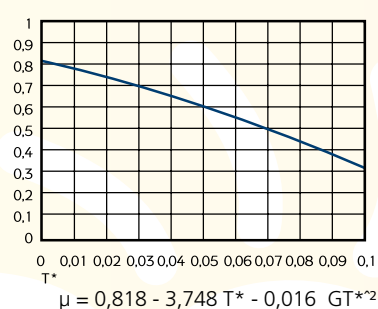


DELIVERY: In a single package. The four connections are protected by expanded polystyrene corner pieces to avoid any incidents during transportation. Shrink wrapped in micro-perforated transparent film to avoid condensation building up inside the collector panel.

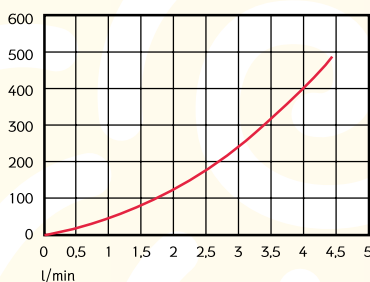
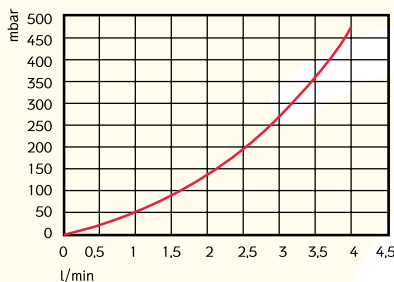
Performance curves
LP SUN 250



LP SUN 250 H



Pressure drop





Highly selective solar collectors with a gross surface area of 2 m². The LP SUN 200 model is for vertical installation. It is possible to install up to 10 collector panels per row connected in parallel.

ABSORBER WITH HIGHLY SELECTIVE COATING: 0.4 mm aluminium sheet. Absorption capacity 95%, Emittance 5%.

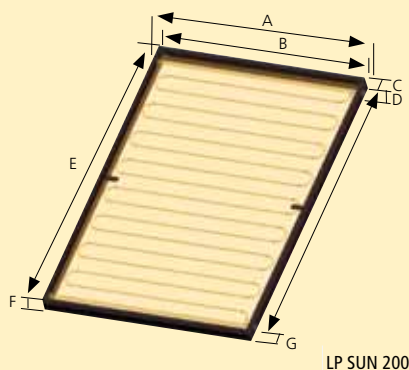
HYDRAULIC COIL CIRCUIT: Laser welded to the absorber.

SOLAR GLASS: 3.2 mm thick textured glass.

INSULATION: 40 mm of black fibreglass mat on the back.

CASING: Grey aluminium RAL7016.

DIMENSIONS AND TECHNICAL SPECIFICATIONS

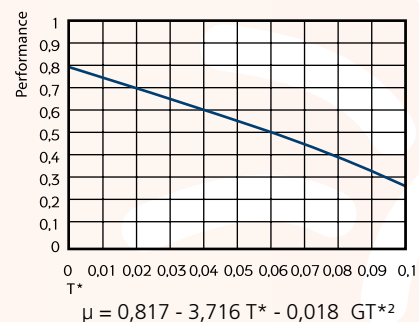


LP SUN 200

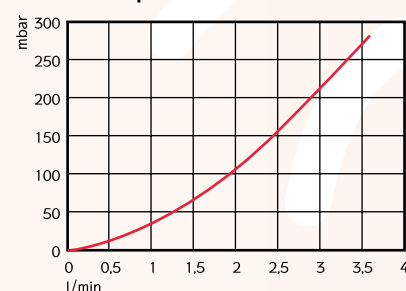
	A	1166,2
	B	1147
	C	71,5
	D	43
Dimensions in mm	E	1753
	F	87
	G	71,5
Total surface area (m ²)		2,01
Aperture area (m ²)		1,89
Capacity (l.)		1,9
Weight empty (kg.)		34,3
Maximum working pressure (bar)		10
Stagnation temperature (°C)		213

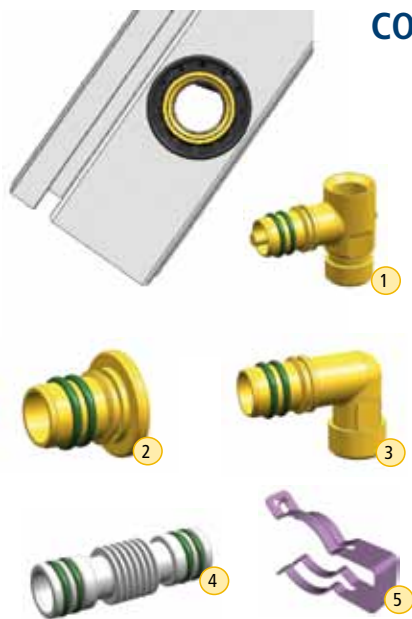
DELIVERY: In a single package. The four connections are protected by expanded polystyrene corner pieces to avoid any incidents during transportation. Shrink wrapped in micro-perforated transparent film to avoid condensation building up inside the collector panel.

Performance curves
LP SUN 200



Pressure drop





COUPLING FOR LP SUN SOLAR COLLECTORS

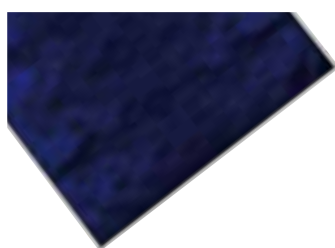
LP SUN solar collectors are designed to be easy and safe to install. The tube terminal design makes it possible to use quick connection couplings.

The couplings are adapted to all LP SUN collector models.

COUPLING FOR LP SUN SOLAR COLLECTORS

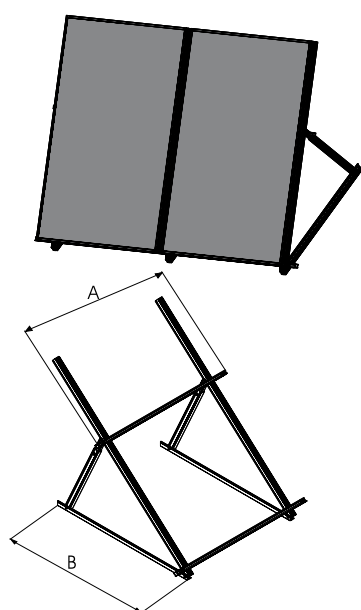
Coupling kit for two collector panels.

POSITION	DESCRIPTION	2 COLLECTORS QUANTITY	INTER-COLLECTORS QUANTITY
1	Collector return connection with integrated probe pocket and manual drain valve	1	
2	22 mm diameter compression fitting cap	2	
3	Collector feed elbow	1	
4	Inter-collector union fitting	2	2
5	Fixing clip for Positions 1, 2 and 3	4	



MOUNTING KITS AND ACCESORIES

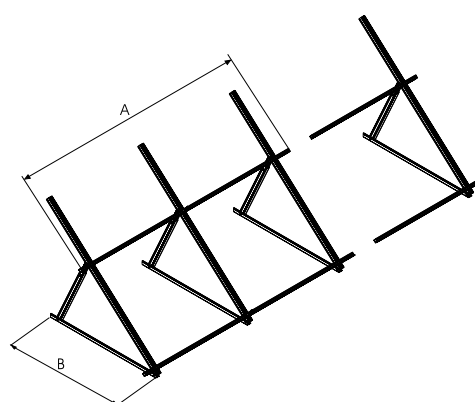
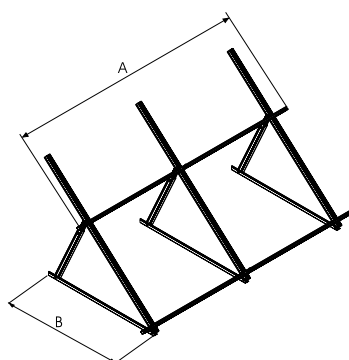
The range of mountings for the LP SUN collector panels have been designed for the quickest possible assembly. They are made of aluminium which ensures their long-term durability.



FLAT ROOF KIT

Allows the inclination to be changed from between 30° and 55°.

Rows of more than two collector panels require extensions to be assembled from the third collector panel on. For example, a row of 5 collector panels requires the assembly of two collector panel mountings and three extensions.



MODELS	1 COLLECTOR		2 COLLECTORS	
	A	B	A	B
LP SUN 200	1.234	1.525	2.468	1.525
LP SUN 250	1.234	1.525	2.468	1.525
LP SUN 250 H	2.237	848	4.474	848

DELIVERY: In a box with all the components.

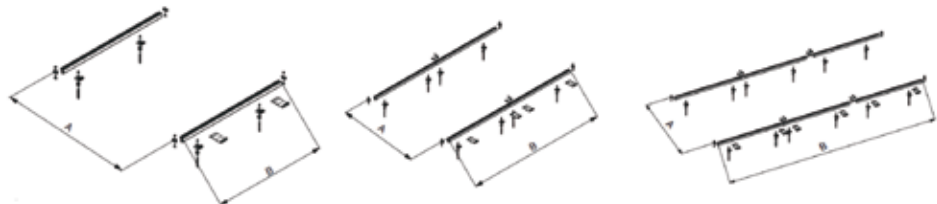


ON ROOF KITS

Rows of more than two collector panels require extensions to be assembled from the third collector panel on. For example, a row of 5 collector panels requires the assembly of two collector kit and three extensions.

Under-tile mounting kit

The fixing kit makes it possible to install the on roof kit mounting without having to make holes in the tiling. It has been designed to be installed on any type of tiling.



MODELS	1 COLLECTOR		2 COLLECTORS		3 COLLECTORS	
	A	B	A	B	A	B
LP SUN 200	1.450	1.187	1.450	2.374	1.450	3.561
LP SUN 250	1.900	1.187	1.900	2.374	1.900	3.561
LP SUN 250 H	850	2.227	850	4.450	850	6.681

DELIVERY: In a box with all the components.

SOLAR SYSTEMS FOR SINGLE-FAMILY HOMES

Solar energy is an excellent alternative energy for producing domestic hot water for daily use.

Simple, practical and completely guaranteed, you can have an installation that provides between 60 and 80% of the energy necessary to heat the water used every day.

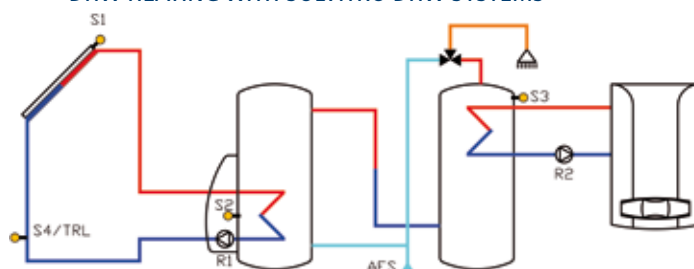
Heating swimming pools is another great use for solar collectors. Considerable savings can be achieved, meaning pools can be used almost all year round.

Finally, you can make savings of over 25% with low temperature heating installations that support existing.

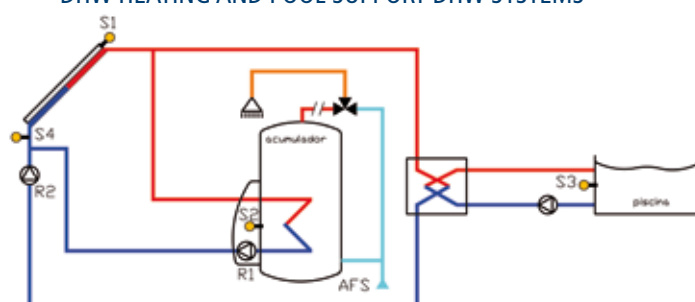


INSTALLATION DIAGRAMS

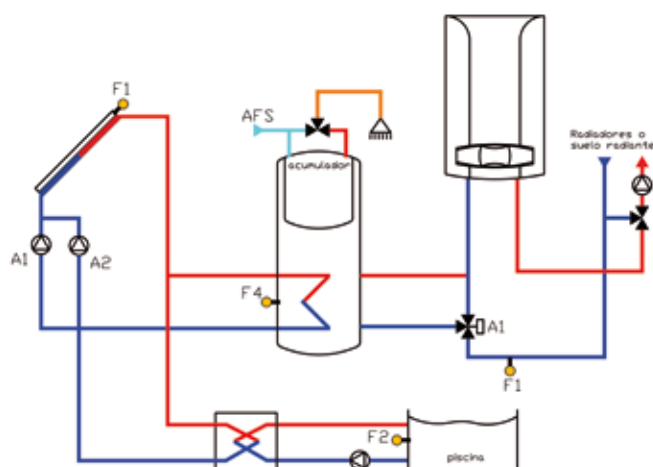
DHW HEATING WITH SOLVITRO DHW SYSTEMS



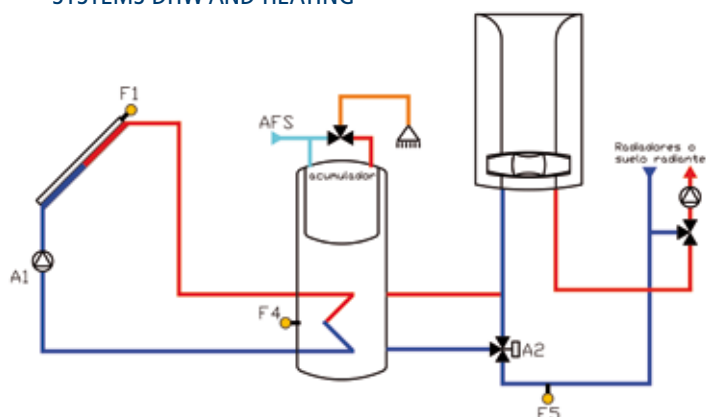
DHW HEATING AND POOL SUPPORT DHW SYSTEMS



DHW, POOL AND SUPPORT HEATING MULTIFUNCTIONAL SYSTEMS DHW SYSTEM, HEATING AND POOL



DHW, HEATING AND POOL SUPPORT MULTIFUNCTIONAL SYSTEMS DHW AND HEATING



SOLVITRO SYSTEMS

The range of SOLVITRO systems represent a new and revolutionary plug&play concept which is designed to make the most of thermal solar energy.

They integrate the hydraulic group, expansion vessel and regulation unit into the smallest of spaces. Fully connected and wired to form a single unit.

The range is formed of 17 different systems combining cylinders of 150, 200, 300, 400, 500 and 750 litres with LP SUN 200 and LP SUN 250 collector panels.

Only the piping from the cylinder to the solar collectors need to be connected:

- No height limitations.
- No vertical or horizontal pipe length limitations.
- No additional worries about the pipe inclination.
- No need to install systems to remove surplus heat. Nocturnal recirculation system pre-programmed on the control unit for removing surplus heat. Additionally, the vessel is the right size for almost any installation.
- Ice and overheating protection systems pre-programmed on the control unit.



CYLINDER FEATURES	CV150GS	CV200GS	CV300GS	CV400GS	CV500GS	CV750GS
DHW volume (l.)	150	200	300	400	500	750
Maximum pressure (bar)	8	8	8	8	8	8
Maximum temperature (°C)	90	90	90	90	90	90
Heat exchanger surface (m²)	0.5	0.8	1.1	1.5	1.5	2.3
ErP (EU 812/2013)	B	B	B	C	C	B

COMPACT HYDRAULIC KIT

- It includes all the components necessary to install it in the smallest space.
- Installation is very simple; you only have to connect the feed and return pipes to the solar collectors.
- It does not require any device to remove surplus heat since it has an 18 litre expansion vessel that is oversized for most installations and a control unit pre-programmed for nocturnal recirculation.
- No extra worries or limitations when installing the solar system.



CYLINDERS	CV150GS	CV200GS	CV300GS	CV400GS	CV500GS	CV750GS
COLLECTOR PANELS	1 x LP SUN 200	1 x LP SUN 200	2 x LP SUN 200	3 x LP SUN 200	3 x LP SUN 200	4 x LP SUN 200
	1 x LP SUN 250	2 x LP SUN 200	3 x LP SUN 200	4 x LP SUN 200	4 x LP SUN 200	5 x LP SUN 200
	-	1 x LP SUN 250	2 x LP SUN 250	3 x LP SUN 250	4 x LP SUN 250	5 x LP SUN 250

MULTIFUNCTIONAL SYSTEMS HEATING AND POOL

MULTIFUNCTIONAL AND HEATING systems are composed of all the components necessary to install solar DWH and heating support.

MULTIFUNCTIONAL, HEATING AND POOL systems are composed of all the components necessary to install solar DWH with heating and pool support. They include the plate heat exchanger and regulation necessary for heating a pool.

The set has a tank-in-tank cylinder, i.e. a double cylinder in which the lower part is used as a hot water buffer tank and the upper tank for the production of DHW.

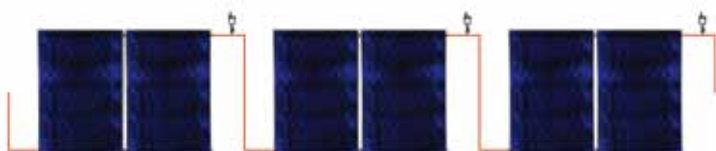
The control unit controls all the installation's components, such as the solar circuit (starts and stops the cylinder and solar collector according to the temperature), the heating circuit's three port valve (opens and closes the flow to the cylinder and from the heating) and the pool support's circulator pump.

No need to install a system to remove surplus heat. Nocturnal recirculation system pre-programmed on the control unit for removing surplus heat and oversized expansion vessel.

Ice and overheating protection systems pre-programmed on the control unit.

ASSEMBLY SOLAR COLLECTORS

Solar collectors should be assembled in series and in pairs. This way a suitable temperature for the heating system can be reached.



CYLINDER FEATURES	GX6 P600 4 LP SUN 200	GX6 P800 6 LP SUN 200	GX6 P1000 8 LP SUN 200
DHW volume (l.)	215	200	250
Heating volume (l.)	390	570	720
Number of collector panels	4	6	8
Expansion vessel volume (l.)	25	35	50
Control unit	CS10	CS10	CS10
3 port valve	VZ 1"	VZ 1"	VZ 1"
Coil surface (m²)	2,4	2,7	2,7
ErP (EU 812/2013)	C	B	C

SOLVITRO SYSTEMS:
the ideal solution for harnessing thermal solar energy.

Complete solar hydraulic equipment with an electronic solar regulation and control unit.



CS ELECTRONIC SOLAR CONTROL UNIT



The range of CS electronic control units has been designed to obtain the highest performance from your hot water installation. using solar energy. The range comprises 2 models: CS-1 (basic version) and CS-10 (full version).

CS-1 ELECTRONIC SOLAR CONTROL UNIT

- Instantaneous data on the state of the installation's components.
- Only monitors and regulates the temperature of the solar collector and the DHW solar pre-heating tank.
- Monitors and regulates individual pre-heating in residential buildings.
- Regulates two types of installations.
- IP40 protection and class II according to DIN EN 6029 and DIN 60730 respectively.

CS-10 ELECTRONIC SOLAR CONTROL UNIT

- Instantaneous data on the state of the installation's components.
- Monitors and regulates the temperature of solar collector and DHW solar pre-heating and support tanks.
- Monitors and regulates the auxiliary support generator.
- Anti-legionella function.
- Regulates up to nine different types of installations.
- Over-heating protection.
- IP40 protection and class II according and DIN 60730 respectively.

SOLAR ENERGY INSTALLATION ACCESSORIES

The range of CS electronic control units has been designed to obtain the highest performance from your hot water installation. using solar energy. The range comprises 2 models: CS-1 (basic version) and CS-10 (full version).

OUR RANGE IS COMPLETED BY A SERIES OF ACCESSORIES DESIGNED ESPECIALLY FOR SOLAR ENERGY INSTALLATIONS:



- 1. VASOFLEX SOLAR.** Our range comprises 18, 25, 35, 50 and 80L models.
- 2. FLAMCOVENT AIR SEPARATOR.** The presence of air in the installation is an important cause of underperformance. It is recommended to install this device to remove air that entered the system while it was being filled.
- 3. 1/2" SUPER FLEXVENT AIR VENT VALVE.** It is recommended that it is installed in every row or set of solar collectors.
- 4. 1/2", 3/4" AND 1" SAFETY VALVE.** Required in all installations without the Solar Hydraulic set.
- 5. M 10 H PLATE HEAT EXCHANGER.** Designed especially for solar energy installations using removable corrugated AISI 316 stainless steel plates.
- 6. 2 AND 3 WAYS VALVE.** It is necessary in installations where each home has an individual cylinder to regulate energy use.
- 7. 3/4" AND 1" S THERMASTATIC MIXING VALVE.** In periods with no or reduced DHW consumption, these installations can store hot water at temperatures above 60°C. It is therefore essential to include a thermostatic mixing valve to protect the installation's users.
- 8. SOLAR LIQUID.** This is the heat transfer fluid produced in the installation. It is also essential for protecting the installation from potential freezing and for maintaining the performance and extending the life of the installation's components.
- 9. 10 and 15 m DN16 and CN20 STAINLESS STEEL FLEXIBLE TUBES.** The tubes and probe wiring are supplied correctly insulated according to standards to help make the installation of the solar device easier. Four anchoring brackets are also supplied.

SOLAR HYDRAULIC PUMP STATION



The Solar Hydraulic range of pump stations is a small and compact solution that includes all the components necessary to quickly, easily and comfortably install your thermal solar energy system.

- Solar Hydraulic 10 and Solar Hydraulic 15 Double valve pump station that includes: Solar circulator, flow and return thermometers, safety valve, manometer, flowmeter and fill and drain valves.
- Solar Hydraulic 10 Simple and Solar Hydraulic 15 Simple: Single valve pump station that includes: Solar circulator, thermometer, safety valve, manometer and flowmeter.
- Expansion vessel mounting: Accessory for mounting the expansion vessel of the solar circuit. Includes mounting and flexible tubes.

QUANTUM ECO PUMPS



Quantum Eco 32

The range of Quantum Eco high efficiency pumps, can be adapted to a many different types of solar installations. Furthermore, they have been designed with practical installation and energy savings as priority features.

ALL THIS IS ENDORSED BY OUR COMMITMENT TO THE ENVIRONMENT:

ECOLOGICAL PAINT: The body and motor have been painted with water-soluble paint.

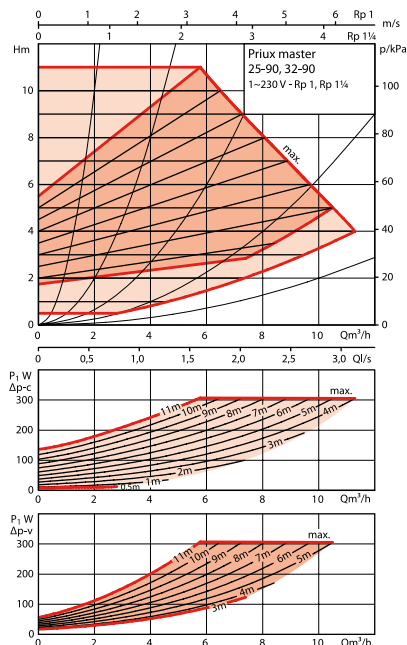
PACKAGING: Made from recycled cardboard.

ISO 14001: The production facility of both these models has obtained.

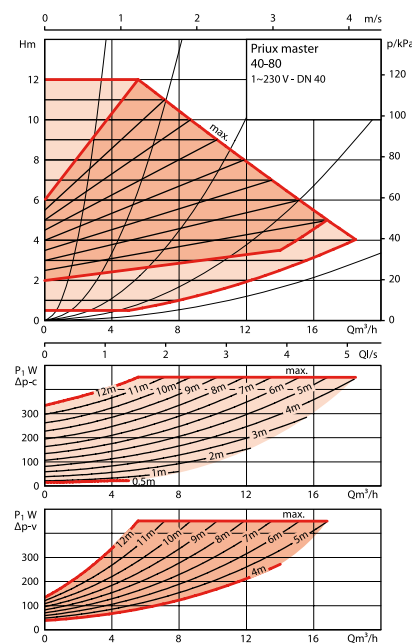
ISO 14 001: Environmental Management Certification.

QUANTUM ECO RANGE CHARACTERISTIC CURVE

Quantum Eco 32H



Quantum Eco 40



Quantum Eco 40

SOLAR SYSTEMS FOR RESIDENTIAL BUILDINGS

Nowadays solar systems have become an integral part of hot water installations. The current and future challenge is to continue to design equipment and systems that provide the greatest comfort and ensure that solar energy is captured efficiently.

OUR COMMITMENT IS BASED ON:

EFFICIENCY: as a result of ongoing R&D work, new solutions are created that provide the greatest energy efficiency and reduce the emission of gaseous pollutants.

SAVINGS: Our boilers integrate systems that reduce consumption based on the temperature of the incoming water. This is the only way in which we can guarantee the greatest energy savings while operating with DHW pre-heating systems that use solar energy.

WARRANTY: The strict quality controls applied during the manufacture of our range of solar collectors certify the durability of their service over time and allow us to offer long warranty periods.

It is also important to remember that easy assembly and installation are fundamental design features of our new products.

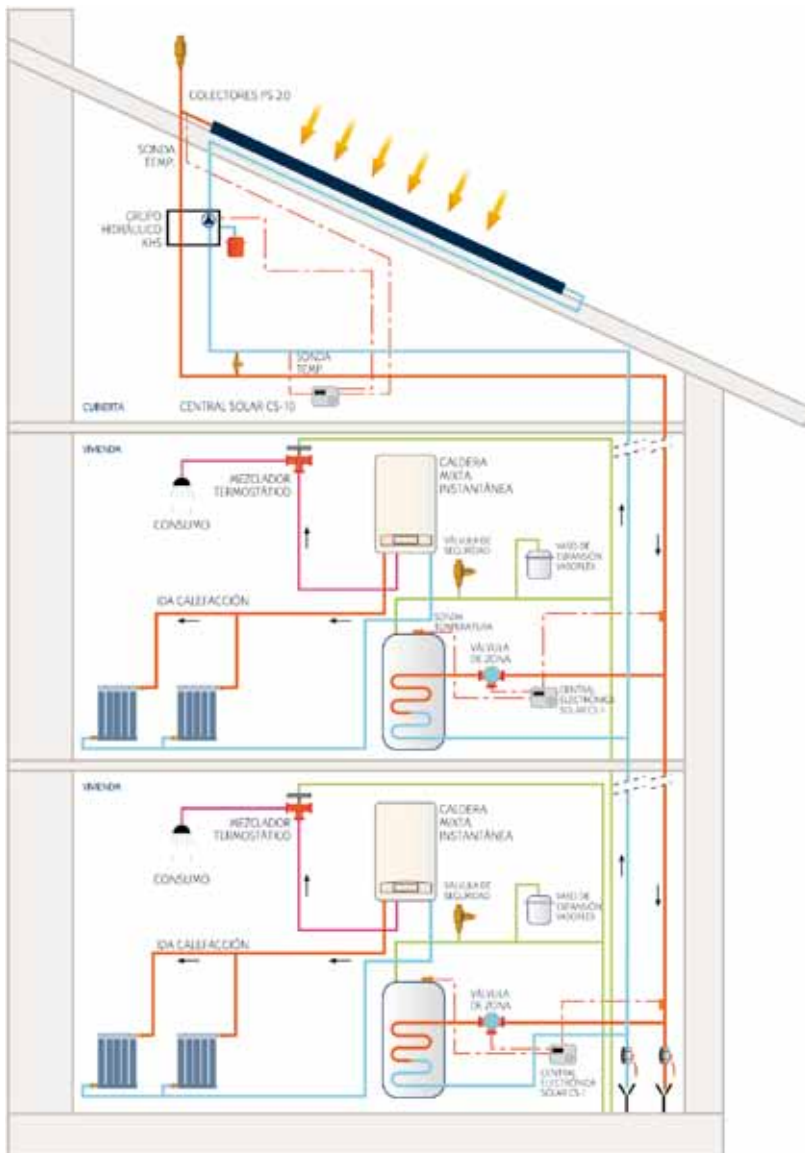
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INDIVIDUAL SOLAR ACCUMULATION AND INDIVIDUAL GAS BOILER

The installation accumulates individually collected solar energy in an individual pre-heating water tank in each flat. A 2 or 3 port zone valve, depending on the thermostat located in the storage cylinder, controls the regulation in the flat that allows it to be pre-heated whenever it dips below the set temperature. It is possible to install more advanced regulation systems such as balancing valves or specific regulation equipment for controlling this valve, although these require a bigger investment.

FEATURES

- Excellent solar energy collection.
- The temperature probe and flowmeter included in our wide range of wall-mounted boilers guarantee overall energy savings.
- Simple hydraulic installation.
- It is not necessary to have a common area inside the building.
- Minimal communal maintenance costs.
- Storage cylinder located inside the flat.



Basic illustration of the installation



GEISER INOX TWIN COIL "M2"

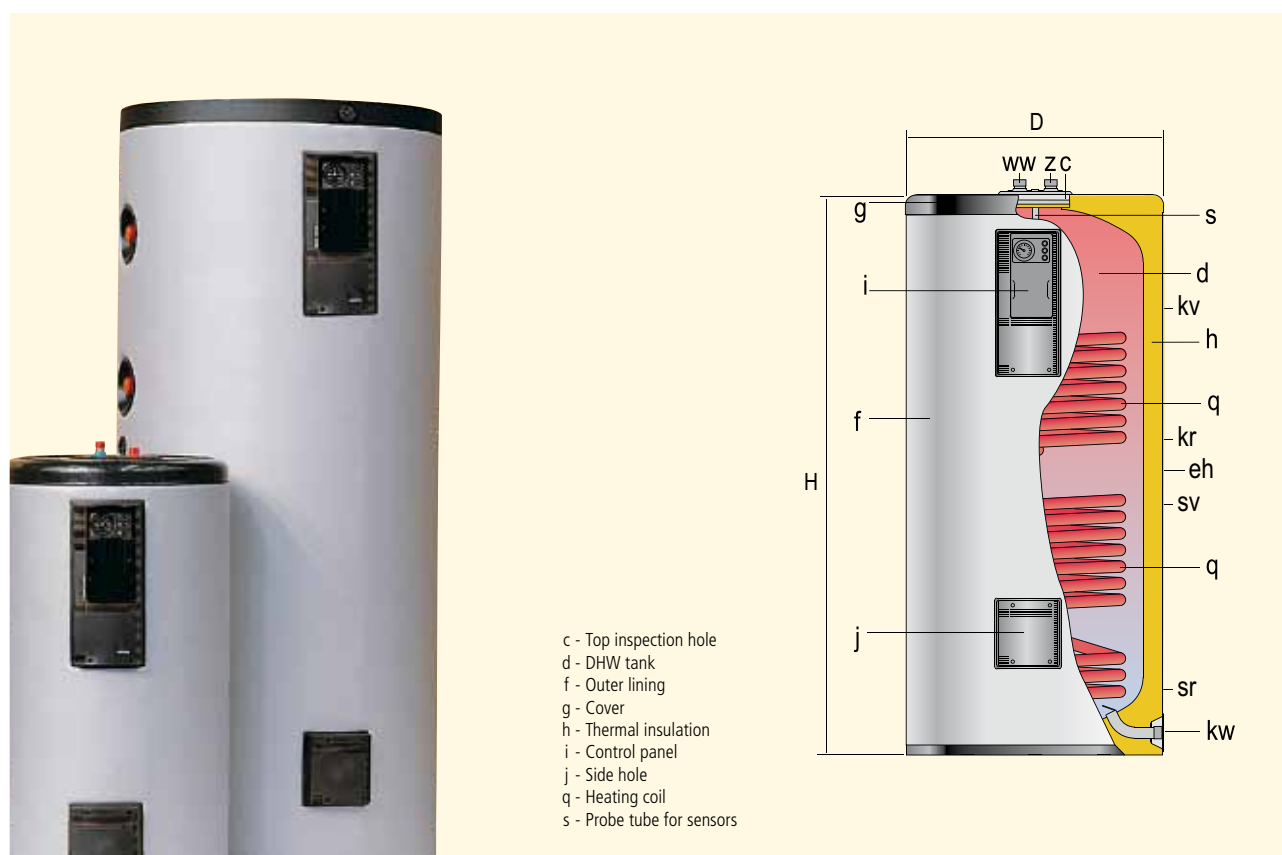
Storage tanks with **"TWO COILS"** for the production of DHW using combined external energy sources (boiler, solar panels, heat pump, etc.).

They can be fitted with immersion electric elements or ceramic electric elements.

800 and 1000 l. tank models, include an insulation system that allows them to pass through 800 mm wide doors.

Tank models M2B include a ND400 side manhole.

Finish: RAL 9016 white external lining and RAL 7021 grey cover.



GENERAL CHARACTERISTICS		GX-300-M2	GX-400-M2	GX-500-M2	GX-800-M2	GX-1000-M2	GX-800-M2B	GX-1000-M2B
DHW capacity	l.	300	400	500	800	1000	800	1000
D: external diameter	mm.	620	770	770	950	950	950	950
H: overall height	mm.	1685	1525	1690	1840	2250	1840	2250
kw: cold water inlet / drain	" GAS/M	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4
ww: DHW outlet	" GAS/M	1	1	1	1 1/2	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
eh: side connection	" GAS/M	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
kv, kr: upper coil connections	" GAS/M	1	1	1	1	1	1	1
sv, sr: lower coil connections	" GAS/M	1	1	1	1	1	1	1
Upper coil heating surface	m ²	1,1	0,9	1,2	1,3	1,3	1,3	1,3
Lower coil heating surface	m ²	1,4	1,8	1,8	2,8	3,4	2,8	3,4
Empty weight (approx.)	Kg	93	120	126	175	200	206	231
ErP (EU 812/2013)		B	B	B	B	C	B	C

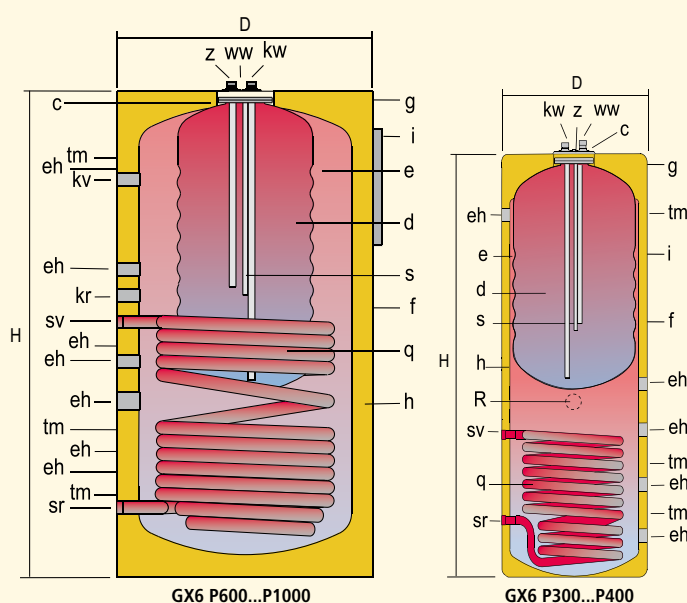
NOTE: M2B models, with side manhole ND400

GEISER INOX MULTIFUNCTION "P"

"**DOUBLE-WALL**" tanks termed "**MULTIFUNCTIONAL**" are known as such since several different energy sources can be installed for one single tank. Just like in the previous systems, DHW production 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 that acts 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. Tanks for VERTICAL installation on floor.

Finish: RAL 9016 white external lining and RAL 7021 grey cover.



c - inspection hole
d - DHW tank
e - heating chamber
f - external lining
g - cover
h - thermal insulation
s - probe tube for sensors
q - solar coil
tm - Probe tube connection for sensors

GENERAL CHARACTERISTICS		GX6 P300	GX6 P400	GX6 P600	GX6 P800	GX6 P1000
Total capacity	l.	244	341	605	770	970
DHW capacity	l.	116	147	215	200	250
Primary HW capacity	l.	128	194	390	570	720
D: external diameter	mm.	560	620	770	950	950
H: overall height	mm.	1770	1725	1730	1840	2250
kw: cold water inlet / drain	" GAS/M	3/4	1	1	1	1
ww: DHW outlet	" GAS/M	3/4	1	1	1	1
z: DHW recirculation	" GAS/M	3/4	1	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	1	1
sr: coil return	" GAS/F	1	1	1	1	1
eh: side connection	" GAS/F	1 1/4	1 1/4	1 1/4	1 1/4	1 1/4
R: electric element connection	" GAS/F	2	2	2	2	2
Heat exchange surface	m ²	1,7	1,8	2,4	2,7	2,7
Control panel	model	S	S	S	S	S
Empty weight (approx.)	Kg	88	127	185	245	290
ErP (EU 812/2013)		B	C	C	B	C

CORAL VITRO TWIN COIL "M2"

Storage tanks with **"TWO COILS"** for the production of DHW using two combined external energy sources (boiler, solar panels, heat pump, etc.).

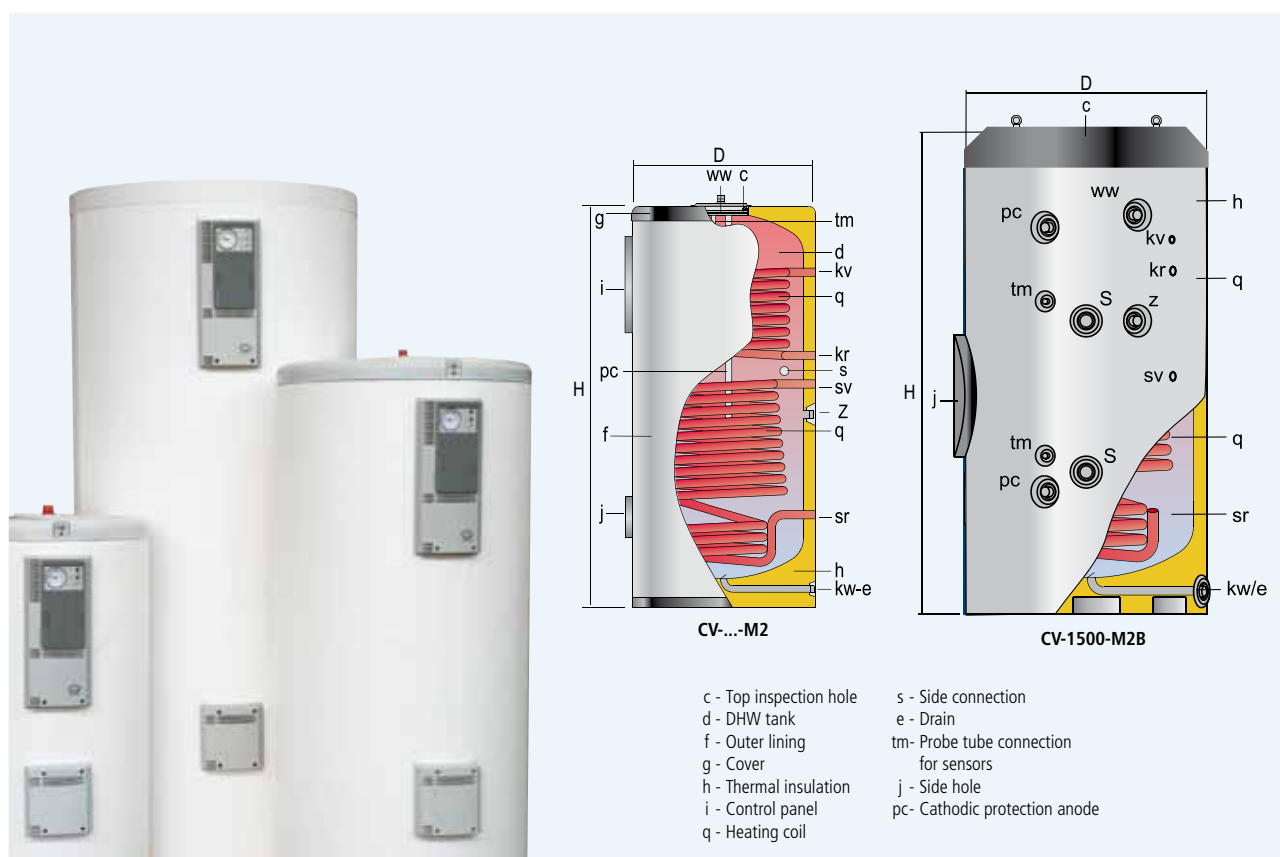
They can be fitted with immersion electric elements or ceramic electric elements.

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 charge meter.

Finish: RAL 9016 white padded external lining and RAL 7035 grey cover.



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: 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	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	2 M	1 1/2 H	1 1/2 H	2 M	1 1/2 H	1 1/2 H	2 M
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	m²	1,8	1,5	2,0	2,7	3,3	4,0	2,7	3,3	4,0
Upper coil heating surface	m²	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
ErP (EU 812/2013)		B	C	C	B	C	C	B	C	C

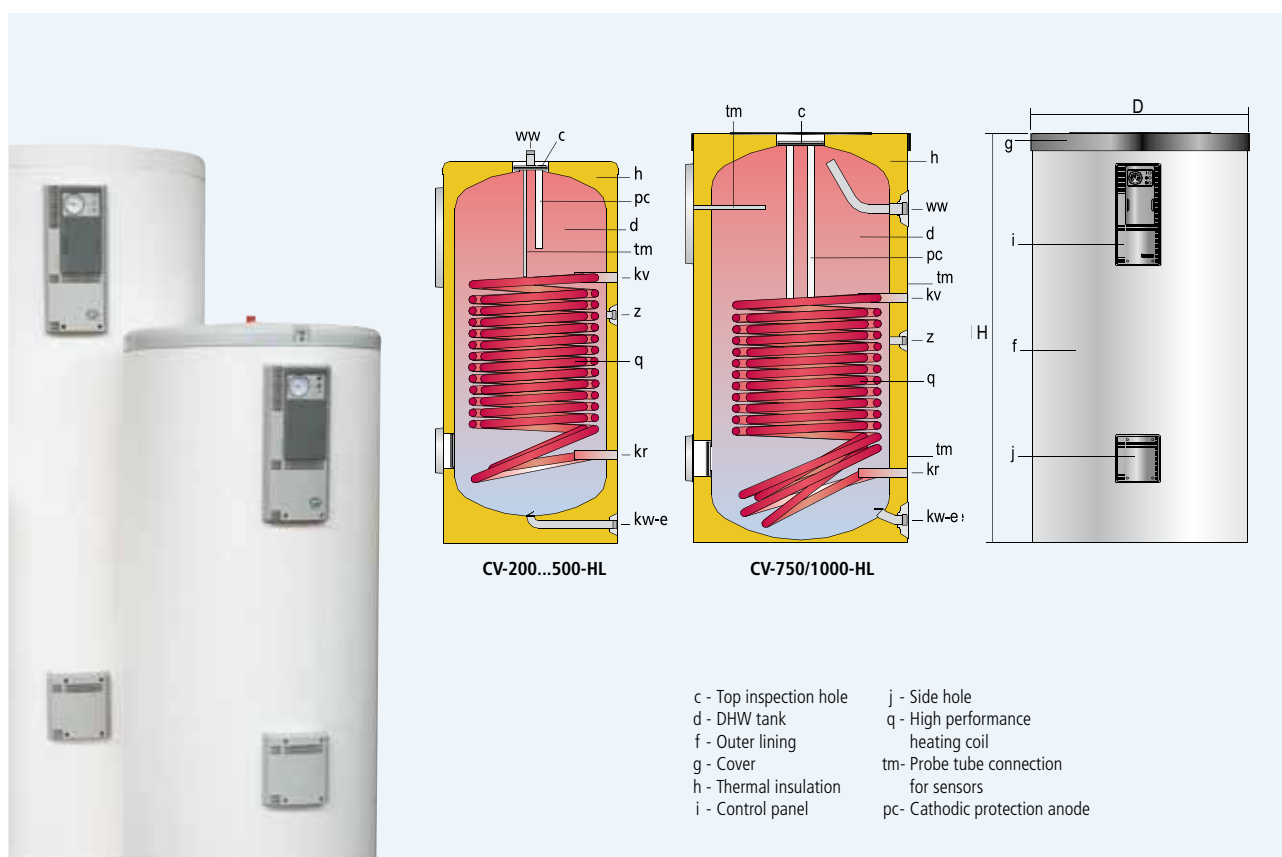
CORAL VITRO HIGH PERFORMANCE "HL"

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.



GENERAL CHARACTERISTICS		CV-200-HL	CV-300-HL	CV-400-HL	CV-500-HL	CV-800-HL	CV-1000-HL	CV-800-HLB	CV-1000-HLB
DHW capacity	l.	200	300	400	500	800	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: 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	290	335
ErP (EU 812/2013)		B	B	C	C	B	C	B	C

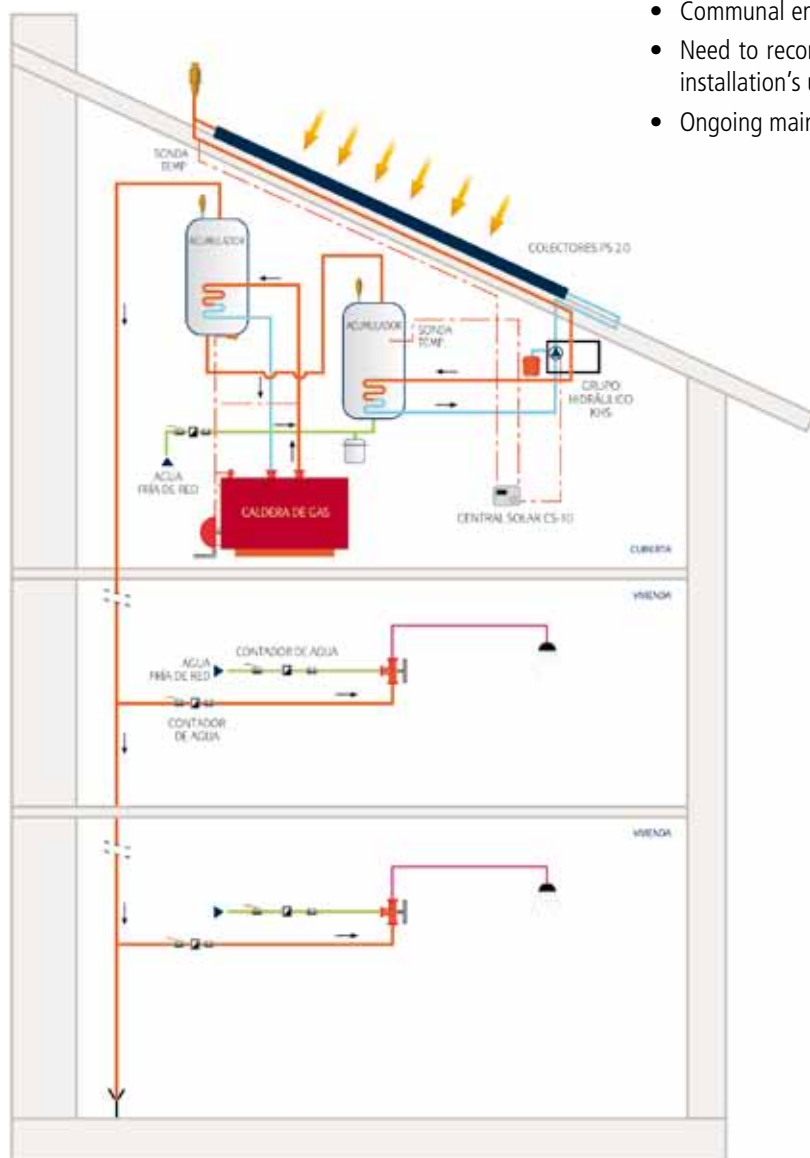
COLLECTIVE SOLAR ACCUMULATION AND COMMUNAL GAS OR OIL BOILER



The installation accumulates solar energy collected by the system in one or more storage cylinders in a communal area of the building. Other storage cylinder(s), connected in series with the solar cylinder system, will be supported by a conventional energy auxiliary generator whenever it is necessary to guarantee the supply of hot domestic water in the comfortable conditions required by the user. In this type of installation it is absolutely necessary to install devices that read and record the water and energy consumption of each one of the installation's users.

FEATURES

- Excellent overall performance of the installation.
- Great DHW system performance.
- Lower installation costs.
- Communal energy consumption.
- Need to record consumption and share the costs between the installation's users.
- Ongoing maintenance and monitoring.



Basic illustration of the installation

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 INOX "SSB"

DHW PRODUCTION/STORAGE tanks, from **1500** to **5000** litre capacity.

Set of OVERDIMENSIONED coils for DHW production, specifically designed for the application of RENEWABLE ENERGIES, in particular, **SOLAR ENERGY**.

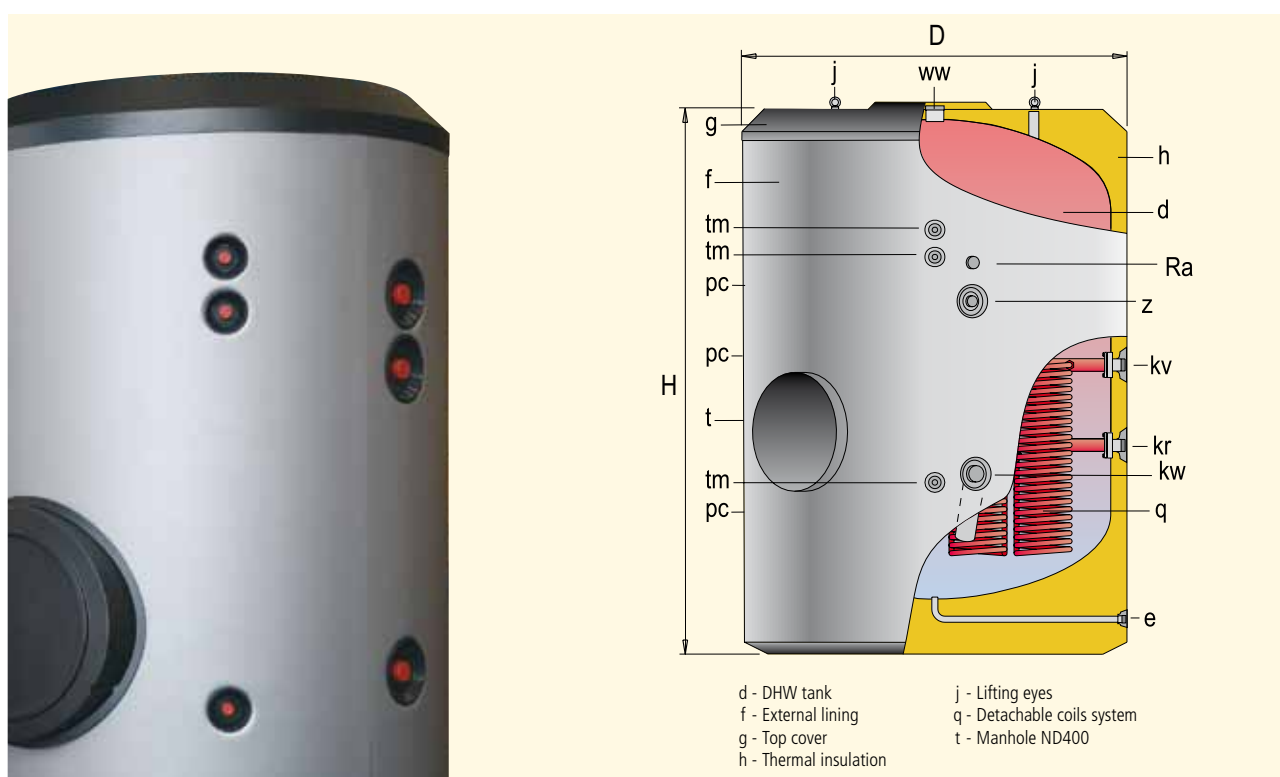
Heat exchange surfaces in the whole range comply with RITE requirements for SOLAR installations.

They can be fitted with immersion electric elements or ceramic electric elements on the top part of the tank, as backup heating.

With 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.

Optional supply of PVC padded external lining and set of trims, special lining for exterior or ALUNOX aluminium sheet lining.



GENERAL CHARACTERISTICS		MXV-1500-SSB	MXV-2000-SSB	MXV-2500-SSB	MXV-3000-SSB	MXV-3500-SSB	MXV-4000-SSB	MXV-5000-SSB
DHW capacity	l.	1500	2000	2500	3000	3500	4000	5000
D: external diameter	mm.	1360	1360	1660	1660	1660	1910	1910
H: overall height	mm.	1830	2280	2015	2305	2580	2310	2710
Diagonal	mm.	2281	2655	2611	2841	3068	2998	3316
kw: cold water inlet	" GAS/M	2	2	2	2	3	3	3
ww: DHW outlet	" GAS/M	2	2	3	3	3	3	3
z: recirculation	" GAS/M	1 1/2	1 1/2	2	2	2	2	2
e: drain	" GAS/M	1	1	1	1	1	1	1
R: side connection	" GAS/F	2	2	2	2	2	2	2
pc: "lapesa correx up" connection	" GAS/F	3/4	3/4	3/4	3/4	3/4	3/4	3/4
tm: probe tube connection for sensors	" GAS/F	1/2	1/2	1/2	1/2	1/2	1/2	1/2
kv: primary input	" GAS/M	2	2	2	2	2	2	2
kr: primary return	" GAS/M	2	2	2	2	2	2	2
Coils set heating surface	m ²	4,2	5,0	6,1	8,4	8,4	8,4	10,0
Empty weight (approx.)	Kg	315	365	500	565	590	665	745
ErP (EU 812/2013)		C	C	C	C	C	C	C

MASTER VITRO "SSB"

DHW **PRODUCTION/STORAGE** tanks, from **1500** to **5000** litre capacity.

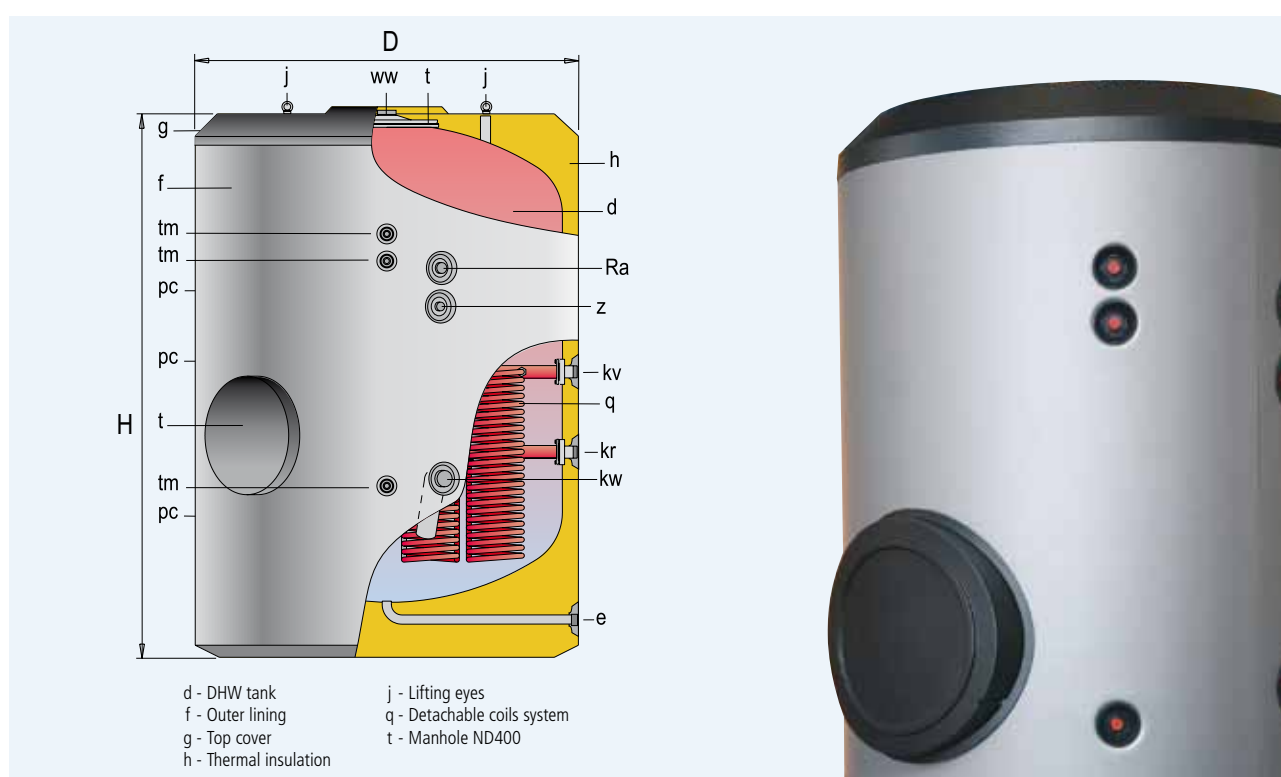
Set of **OVERDIMENSIONED detachable coils system** for DHW production, specifically designed for the application of RENEWABLE ENERGIES, in particular, **SOLAR ENERGY**.

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.



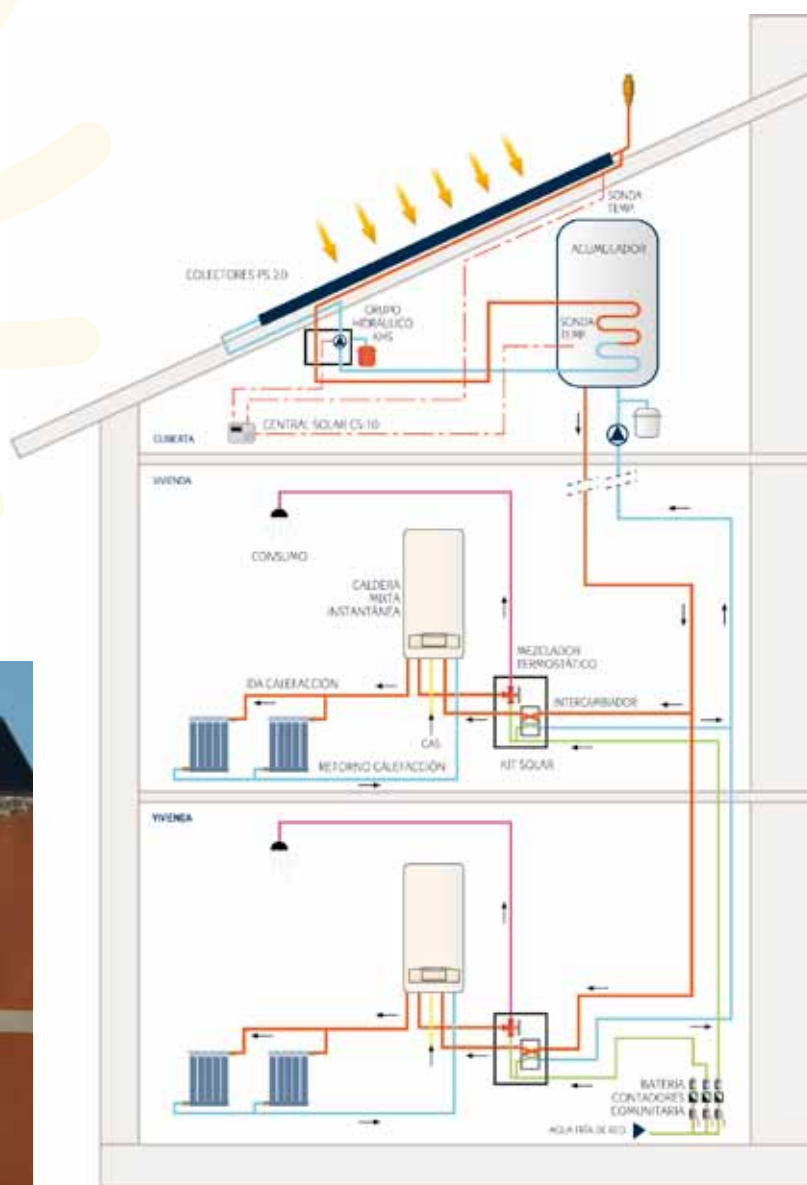
GENERAL CHARACTERISTICS		MVV-1500-SSB	MVV-2000-SSB	MVV-2500-SSB	MVV-3000-SSB	MVV-3500-SSB	MVV-4000-SSB	MVV-5000-SSB
DHW capacity	l.	1500	2000	2500	3000	3500	4000	5000
D: external diameter	mm.	1360	1360	1660	1660	1660	1910	1910
H: overall height	mm.	1830	2280	2015	2305	2580	2310	2710
Diagonal	mm.	2281	2655	2611	2841	3068	2998	3316
kw: cold water inlet	" GAS/M	2	2	3	3	3	3	3
ww: DHW outlet	" GAS/M	2	2	3	3	3	3	3
z: recirculation	" GAS/M	1 1/2	1 1/2	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
Ra: backup heating element	" GAS/M	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
tm: probe tube connection for sensors	" GAS/M	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
kr: primary return	" GAS/M	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
Empty weight (approx.)	Kg	445	510	685	765	825	995	1120
ErP (EU 812/2013)		C	C	C	C	C	C	C

COLLECTIVE SOLAR ACCUMULATION AND INDIVIDUAL GAS BOILER

The installation accumulates energy gathered by the solar collectors in the form of hot water in a storage tank located in a common area of the building (roof, basement, etc.). From here, this accumulated energy is distributed to each home through a closed circuit, using a heat exchanger included in the solar kit.

FEATURES

- Maximum solar energy collection.
- The temperature probe and flowmeter included in our wide range of wall mounted boilers guarantee an overall energy saving.
- It is not necessary to have a space for an individual solar pre-heating storage tank inside the home.
- Automatic/manual solar kit that can be integrated into the boiler.
- No risk of legionella thanks to the heat exchanger included in the solar kit and that separates the solar accumulation circuit from the consumption circuit.
- Temperature settings are changed from the boiler's control panel (option available with automatic solar kit).
- A space in a communal area of the building is required to locate the solar water pre-heating tank(s).



Basic illustration of the installation

INERTIA BUFFER TANKS

with stratification
system for
the efficient
energy
management!

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GEISER INERTIA "LW"

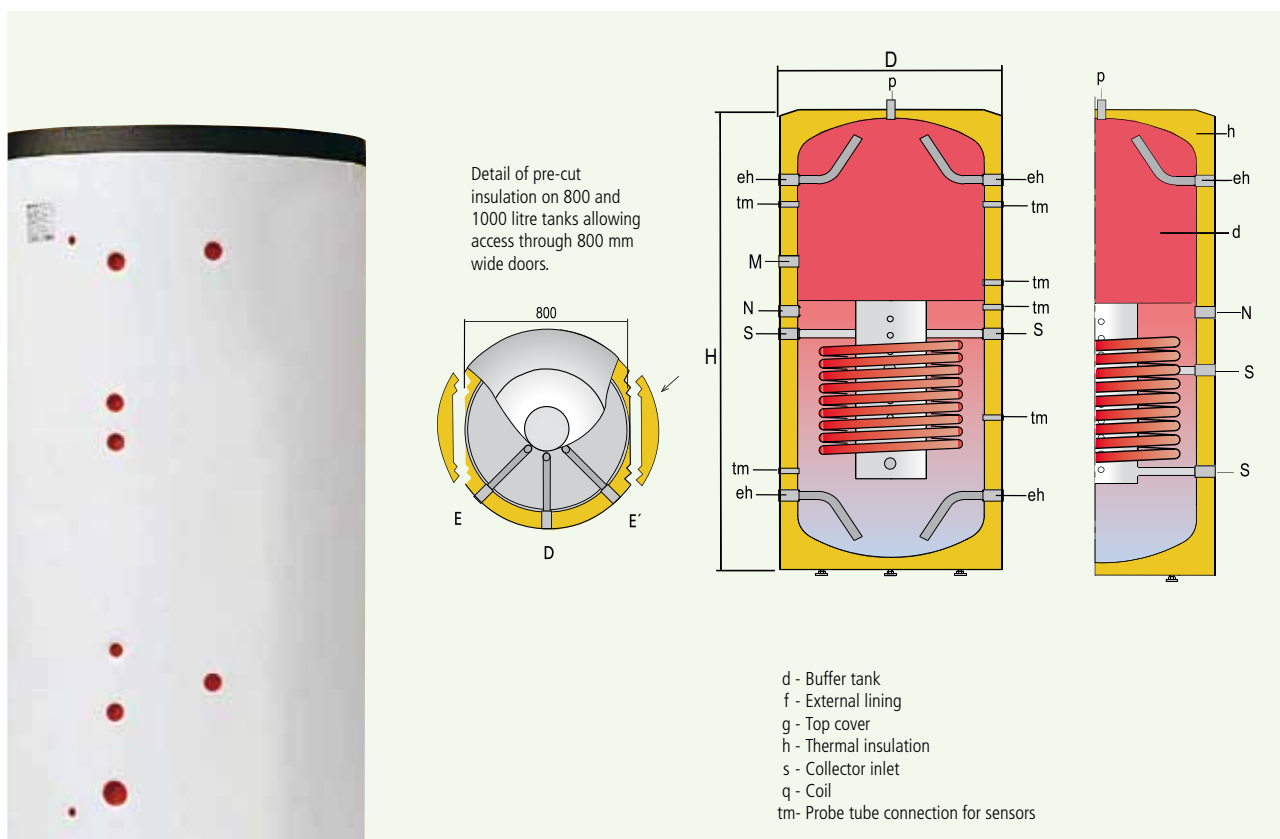
INERTIA buffer tanks from **800** to **1500** litres capacity, for closed heating circuits, with integrated **THERMAL STRATIFICATION** system and **SOLAR COIL**.

Tanks for VERTICAL installation on floor.

Up to 1000 litre model, standard finish with RAL 5015 blue padded external lining and RAL 7021 grey cover.

The 800 and 1000 litre capacity tanks include an insulation system that allows them to pass through 800 mm wide doors.

Optional supply of aluminium sheet lining ALUNOX.



GENERAL CHARACTERISTICS		G-800-LW	G-1000-LW	G-1500-LW
Capacity	l.	800	1000	1500
D: external diameter	mm.	950	950	1160
H: overall height	mm.	1840	2250	2320
eh: side connection	" GAS/F	1 1/2	1 1/2	1 1/2
R: side connection	" GAS/F	2	2	2
N: side connection	" GAS/F	1 1/2	1 1/2	1 1/2
p: upper connection	" GAS/F	3/4	3/4	3/4
tm: probe tube connection for sensors	" GAS/F	1/2	1/2	1/2
S: collector connection	" GAS/F	1 1/2	1 1/2	1 1/2
sv, sr: coil connections	" GAS/F	1	1	1
Empty weight (approx.)	Kg	245	295	365
ErP (EU 812/2013)		B	C	C

MASTER INERTIA "ISB"

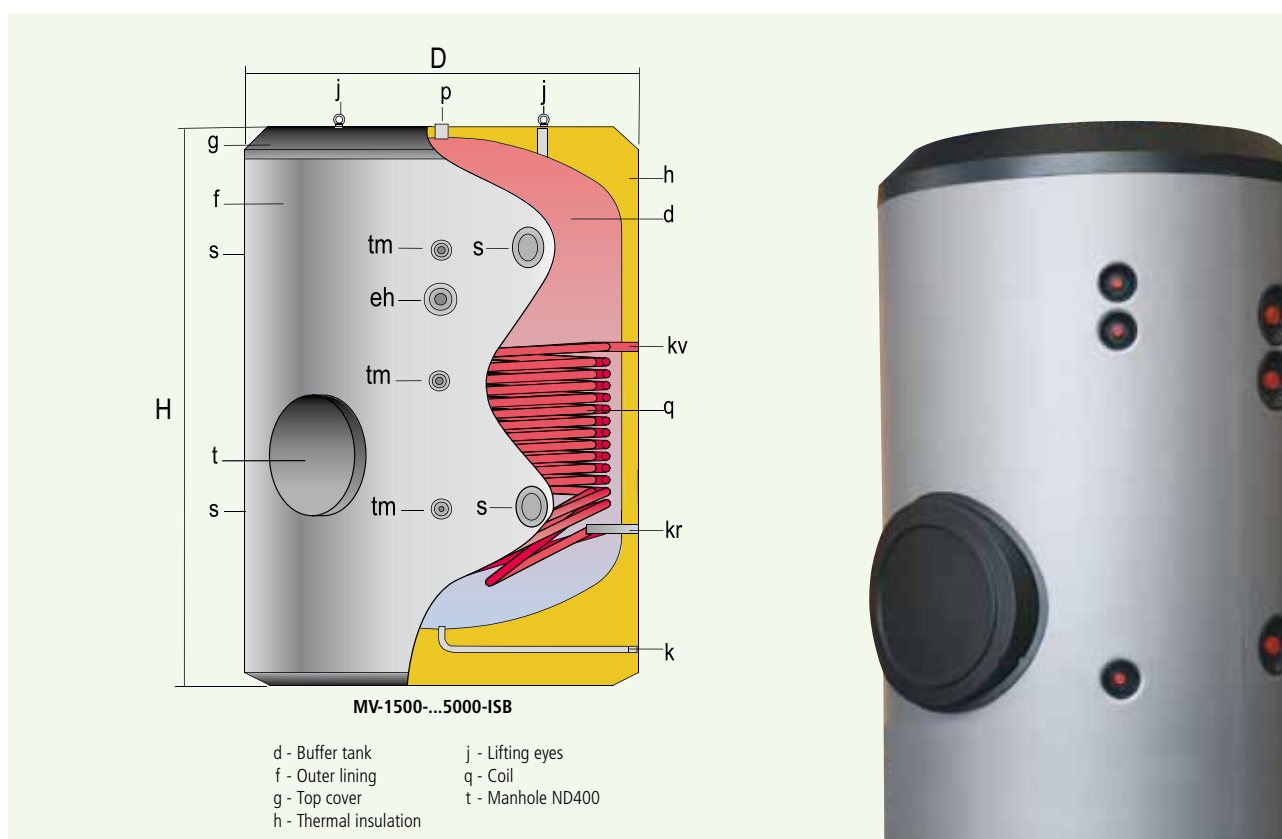
INERTIA buffer tanks, **1500** to **5000** litre capacity, for closed heating or cooling circuits, with integrated intermediate heating **COIL**.

Ready to be fitted with an electric immersion element for backup heating.

Thermally insulated with rigid, mould-injected, 80 mm-thick, PU polyurethane foam. Models ISB, with insulating piece in same material on the ND400 side manhole.

With side ND400 manhole to access the interior of the storage tank for inspection, cleaning and maintenance tanks.

Optional supply of PVC padded external lining and set of trims or ALUNOX aluminium sheet lining.



GENERAL CHARACTERISTICS		MV-1500-ISB	MV-2000-ISB	MV-2500-ISB	MV-3000-ISB	MV-3500-ISB	MV-4000-ISB	MV-5000-ISB
Capacity	l.	1500	2000	2500	3000	3500	4000	5000
D: external diameter	mm.	1360	1360	1660	1660	1660	1910	1910
H: overall height	mm.	1830	2280	2015	2305	2580	2310	2710
Diagonal	mm.	2281	2655	2611	2841	3068	2998	3316
s: side connection	" GAS/F	4	4	4	4	4	4	4
eh: electric element connectio	" GAS/F	2	2	2	2	2	2	2
p: upper connectionr	" GAS/F	2	2	2	2	2	2	2
k: drain connection	" GAS/M	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/F	1/2	1/2	1/2	1/2	1/2	1/2	1/2
kv, kr: coil connections	" GAS/F	1	1	1	1	1	1	1
Heating coil surface	m ²	3,1	3,1	5,7	5,7	6,1	6,1	6,1
Empty weight (approx.) "IS / ISB"	Kg	344 / 369	388 / 423	565 / 590	601 / 626	640 / 665	953 / 978	1030 / 1055
Side hole	DN	ND400	ND400	ND400	ND400	ND400	ND400	ND400
ErP (EU 812/2013)		C	C	C	C	C	C	C

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 date 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 is 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
FRANCE
HOLLAND
IRELAND
ITALY
POLAND
PORTUGAL
UNITED KINGDOM
RUSSIA
SWITZERLAND

AMERICA

ARGENTINA
BOLIVIA
CHILE
COLOMBIA
CUBA
GUADALUPE ISLAND
MEXICO
PERU
DOMINICAN REP.

AFRICA

ALGERIA
ANGOLA
BENIN
CAMEROON
CHAD
IVORY COAST
GABON
REUNION ISLAND
KENYA
MADAGASCAR
MOROCCO
MAURITANIA
NAMIBIA
NIGER
NIGERIA
SOUTHAFRICA
TUNISIA

MIDDLE EAST

SAUDI ARABIA
EMIRATES
KUWAIT
LEBANON
OMAN
QATAR

ASIA

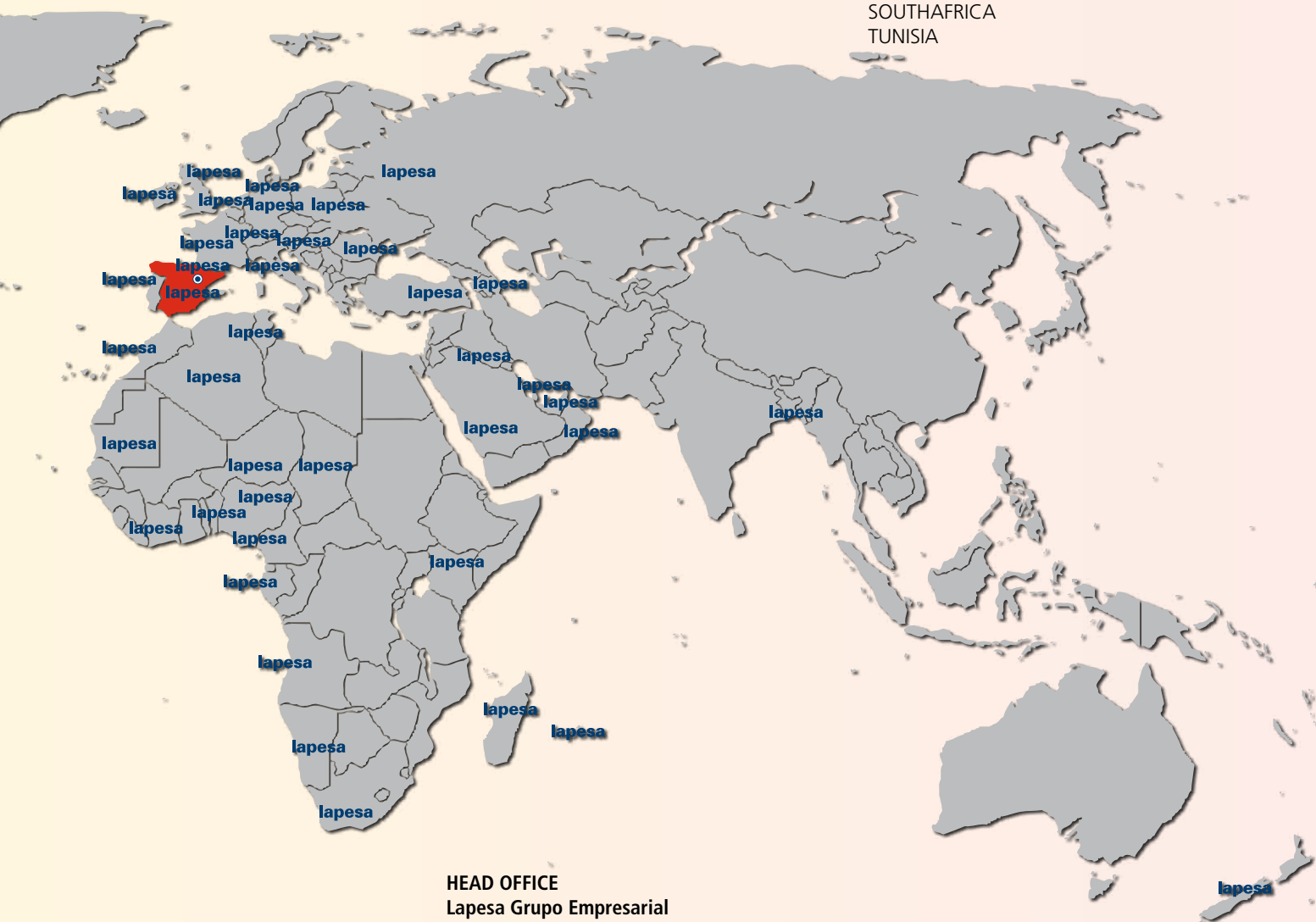
BANGLADESH

OCEANIA

NEW ZELAND

SOUTH POLE

ANTARCTICA



HEAD OFFICE

Lapesa Grupo Empresarial

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Tel.: 976 465 180 / Fax: 976 574 393

e-mail: lapesa@lapesa.es * www.lapesa.com

lapesa

more than 50 years serving our clients

PRODUCTION PROGRAMME



DHW

DOMESTIC HOT WATER



LPG

**LIQUEFIED PETROLEUM GAS
STORAGE TANKS**



LNG

**CRYOGENIC
STORAGE TANKS**



LFD

**LIQUID FUEL (LPD)
STORAGE TANKS**



SPE

OTHER GASES AND FLUIDS

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Solutions FOR YOUR COMFORT AND ECONOMY

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SOLAR SYSTEMS

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