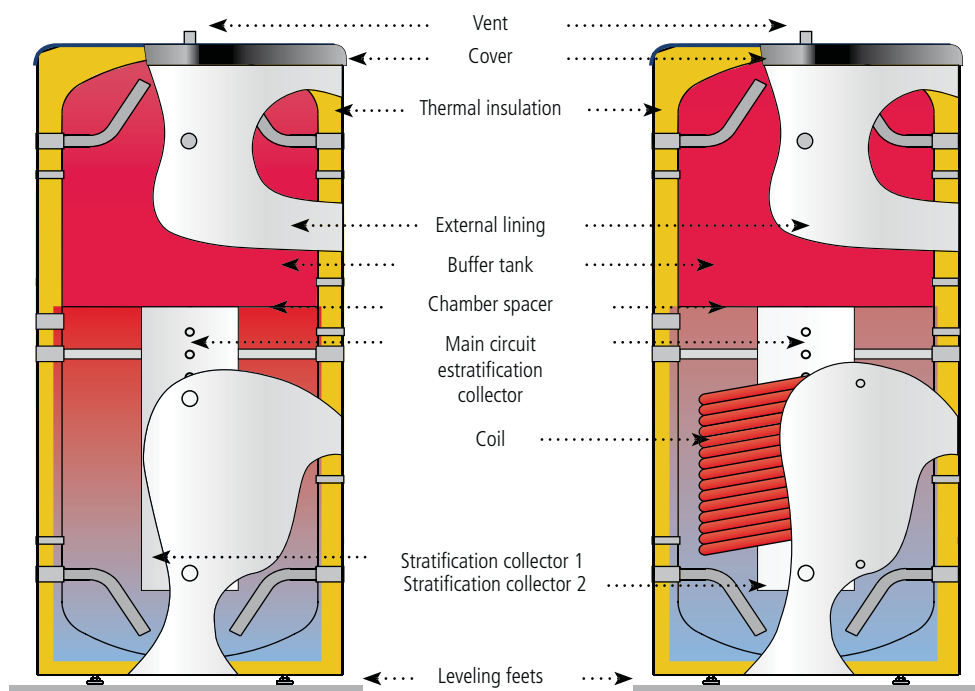


### GEISER/MASTER INERTIA - STORAGE

## INERTIA BUFFER TANKS with THERMAL STRATIFICATION energy management!



**PRIMARY CIRCUIT BUFFER TANKS** Energy buffer tanks from **800** to **5000** litres capacity, for closed heating circuits, with integrated **THERMAL STRATIFICATION** system.

For installations that require correct energy management, especially for systems that use renewable energy sources such as: **BIOMASS, HEAT PUMP or SOLAR ENERGY**, or several simultaneously combined energy sources.

Models with coil (LW) as the intermediate heat exchange system.

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 any additional energy input. This means less start-ups and adjustments of external energy sources, with less energy consumption and a more economical cost.

**THERMAL STRATIFICATION SYSTEM:** Integrated thermal stratification system to install up to three different energy sources simultaneously. Three separate stratification collectors take the hot water returns to the corresponding temperature levels inside the buffer tank.

**MULTIFUNCTIONAL:** Stratification allows different water temperature levels to be used directly for different purposes. The top zone of the tank is kept at the maximum temperature for instant domestic hot water production or to heat radiators, whilst at the same time the water at a lower temperature can be used for underfloor heating systems.

**MAXIMUM STORAGE CAPACITY:** Extra thick, rigid, PU mould-injected insulation that minimizes heat losses of stored DHW (see HEAT INSULATION chapter, page: 126).

Lapesa buffer 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.

**EASY TO HANDLE AND TRANSPORT:** Our "MASTER INERTIA" buffer 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. The 800 and 1000 litre models are designed with a detachable insulation system on the two opposite sides of the tank to allow them to pass through 800 mm wide accesses.



*Thermal stratification of water stored in inertia buffer tanks allows correct management of energy, taking maximum advantage of it for each specific case and at the lowest economic cost!*



### FEATURES COMMON TO ALL MODELS:

#### "GEISER INERTIA / MASTER INERTIA STRATIFICATION":

- **Carbon steel** inertia buffer tanks.
- GEISER INERTIA capacities: **800, 1000 and 1500 litres.**
- MASTER INERTIA capacities: **2000, 2500, 3000, 3500, 4000 and 5000 litres.**
- Maximum working pressure of buffer tank: **6 bar**
- Maximum working pressure, coil ("LW" models): **25 bar**
- Maximum working temperature of buffer tank: **110 °C**
- Maximum working temperature, coil ("LW" models): **200 °C**
- Thermal insulation: **Rigid, mould-injected PU** (CFC/HCFC-free, 0.025 W/m<sup>2</sup>K)
- Tanks for VERTICAL installation on floor.

### GEISER INERTIA "L"

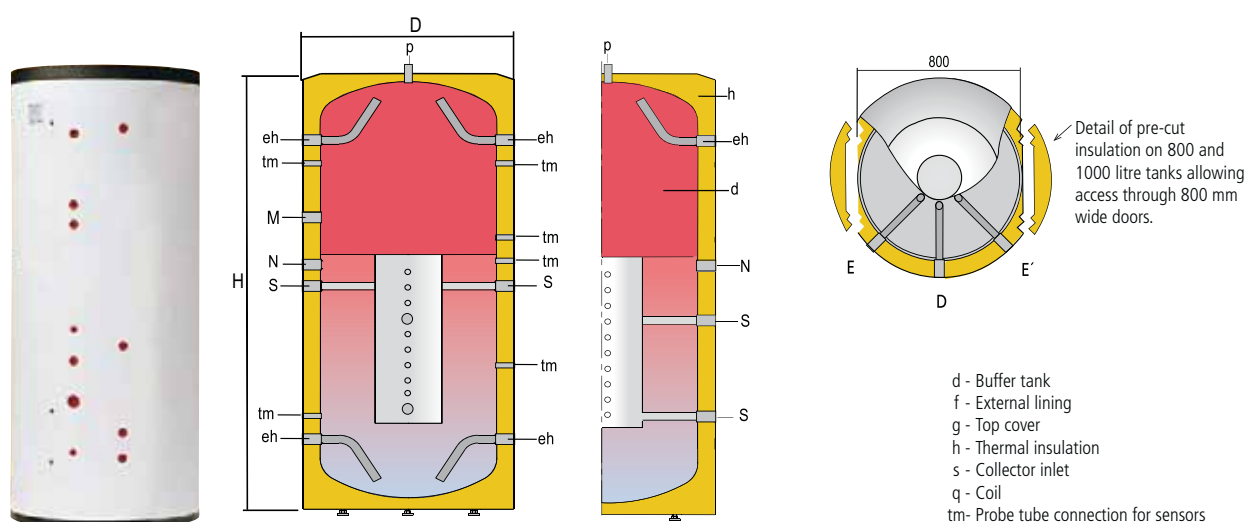
**INERTIA** buffer tanks from **800** to **1500** litres capacity, for closed heating circuits, with integrated **THERMAL STRATIFICATION** system.

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 (see chapter ACCESSORIES, page: 127).



GENERAL CHARACTERISTICS		G-800-L	G-1000-L	G-1500-L
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
Empty weight (approx.)	Kg	175	200	260

# BUFFER TANKS FOR PRIMARY CIRCUITS

## GEISER INERTIA - **STRATIFICATION**

**lapesa**

### GEISER INERTIA "LW"

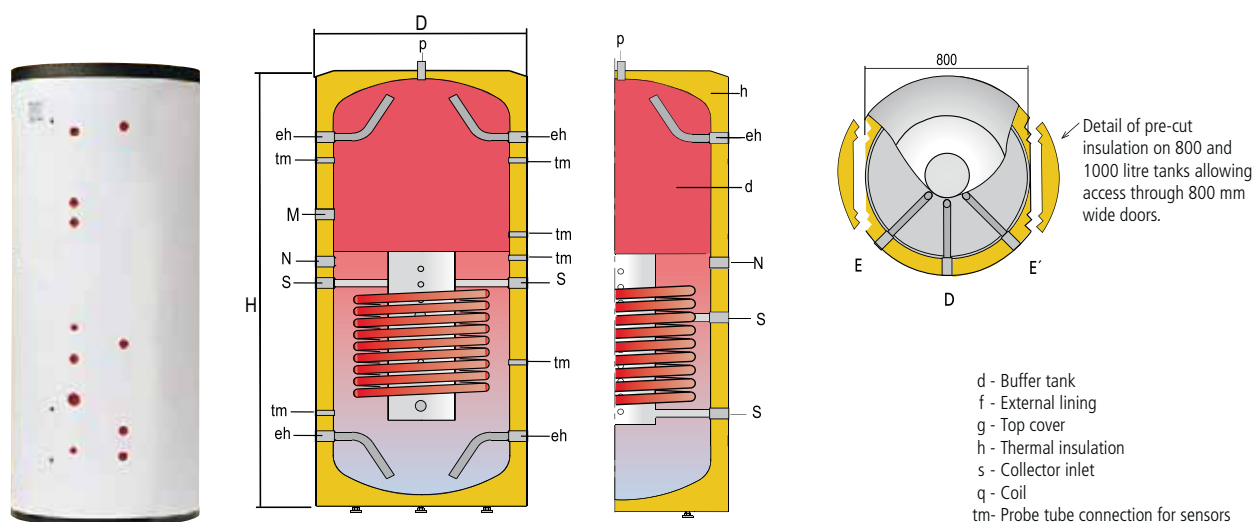
**INERTIA** buffer tanks from **800** to **1500** litres capacity, for closed heating circuits, with integrated **THERMAL STRATIFICATION** system and **SOLAR COIL**.

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 (see chapter ACCESSORIES, page: 127).



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

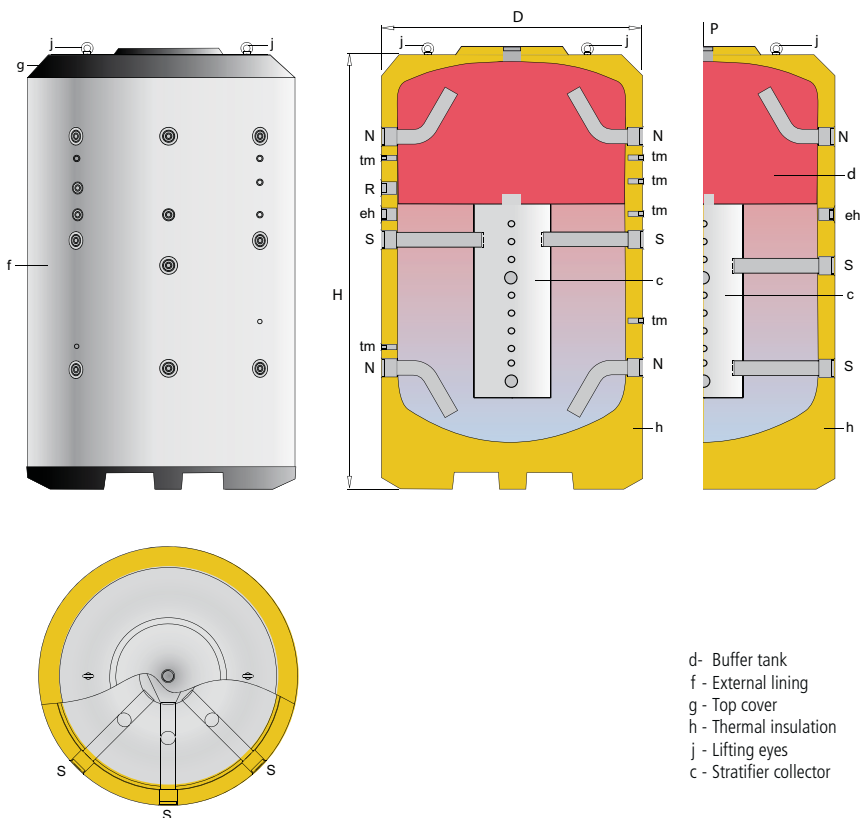
**lapesa**  
Solutions

### MASTER INERTIA "L"

**INERTIA** buffer tanks from **2000** to **5000** litres capacity, for closed heating circuits, with integrated **THERMAL STRATIFICATION** system.

Thermally insulated with rigid, mould-injected, 80 mm-thick, PU polyurethane foam.

Optional supply of PVC padded external lining and set of trims or ALUNOX aluminium sheet lining (see ACCESSORIES chapter, page: 127).

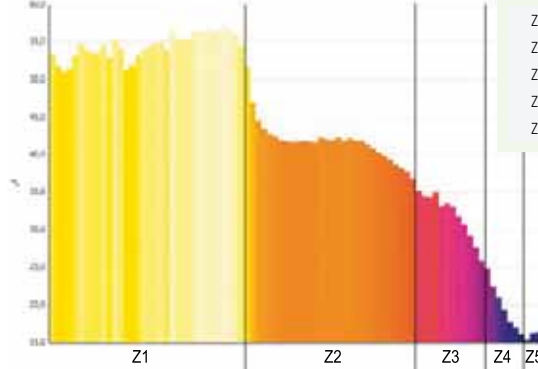
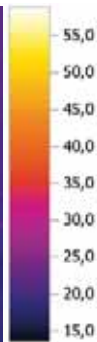
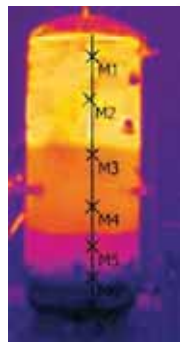
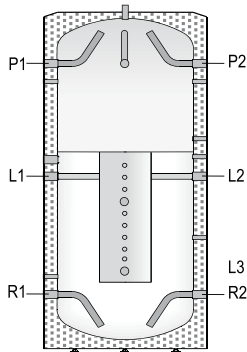


d- Buffer tank  
f - External lining  
g - Top cover  
h - Thermal insulation  
j - Lifting eyes  
c - Stratifier collector

GENERAL CHARACTERISTICS		MV-2000-L	MV-3000-L	MV-4000-L	MV-5000-L
DHW capacity	l.	2000	3000	4000	5000
D: external diameter	mm.	1360	1660	1910	1910
H: overall height	mm.	2280	2305	2310	2710
Diagonal	mm.	2655	2841	2998	3316
eh: side connection	" GAS/F	2	2	2	2
R: side connection	" GAS/F	2	2	2	2
N: side connection	" GAS/F	3	3	3	3
p: upper connection	" GAS/F	2	2	2	2
tm: probe tube connection for sensors	" GAS/F	1/2	1/2	1/2	1/2
S: collector connection	" GAS/F	3	3	3	3
Empty weight (approx.)	Kg	428	616	965	1080

Thermal camera images comparing an "L" buffer tank with thermal stratification and a normal inertia model. Independent tests.

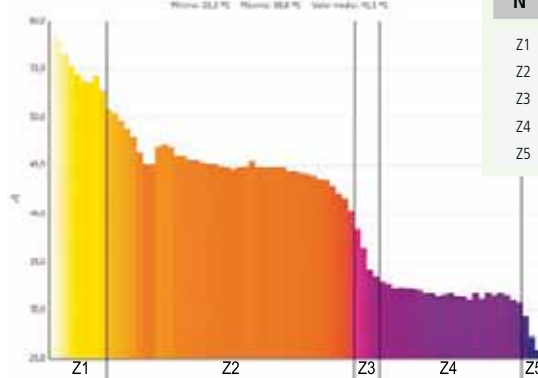
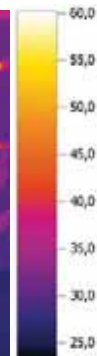
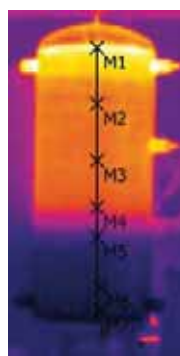
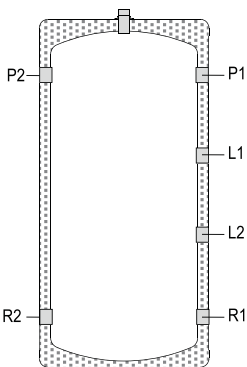
## Inertia buffer tank (L) **WITH** integrated thermal stratification



N°	Temp. (°C)	%
Z1	60,0	39
Z2	45,0	33
Z3	35,0	15
Z4	25,0	7
Z5	20,0	6

- Input of water to L2 tank: 40 °C
- Extraction of water from R1 tank: 15 °C
- Continuous flow during test: 500 l/h
- Volume of water during test: 140 litres

## Inertia buffer tank **WITHOUT** integrated thermal stratification

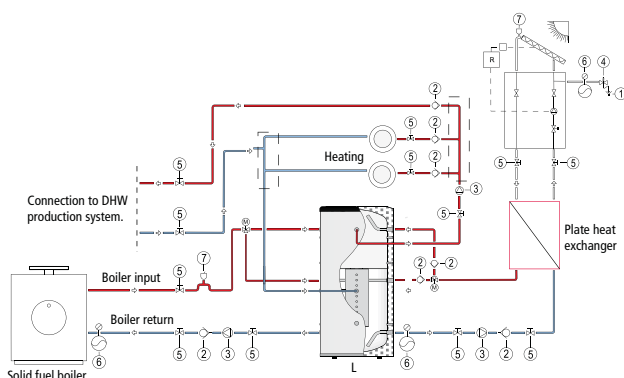


N°	Temp. (°C)	%
Z1	60,0	11
Z2	45,0	50
Z3	35,0	6
Z4	25,0	28
Z5	20,0	6

- Input of water to L2 tank: 40°C
- Extraction of water from R1 tank: 15°C
- Continuous flow during test: 500 l/h
- Volume of water during test: 140 litres

### BUFFERING ENERGY CENTER (L)

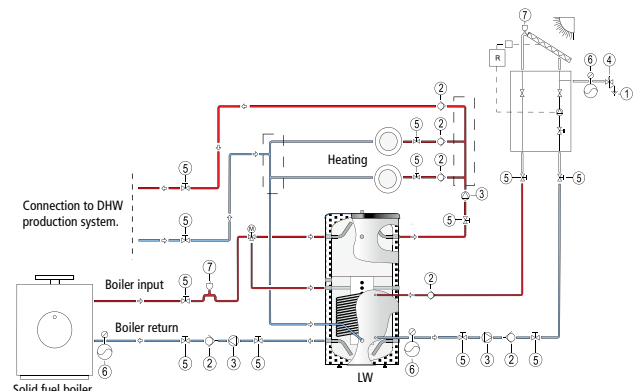
Connection to DHW production system through plate heat exchanger or DHW tank.



- 1 - Drain
- 2 - Non-return valve
- 3 - Pump
- 4 - Safety valve
- 5 - Shut-off valve
- 6 - Expansion vessel
- 7 - Vent

### BUFFERING ENERGY CENTER (LW)

Connection to DHW production system through plate heat exchanger or DHW tank.



- 1 - Drain
- 2 - Non-return valve
- 3 - Pump
- 4 - Safety valve
- 5 - Shut-off valve
- 6 - Expansion vessel
- 7 - Vent