

## STORAGE OF LIQUID FUELS AND CHEMICAL PRODUCTS

(Fuel oil, diesel oil, aviation fuel, bio-fuel,  
Ethanol, Methanol, E85, Ad-blue,  
Pentane, Sulphuric acid ...)



## SERVICE STATIONS AND OWN CONSUMPTION

All capacities  
Single wall, Steel-Steel double wall and steel-HDPE double wall tanks  
Buried or above ground installation  
Compartmented tanks  
Small requirements  
Leak detection



# lapesa

|   |    |
|---|----|
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|  |   |
|--|---|
| <b>CONTENTS</b>                            | <p>Consult all requirements. We have inside finishes and/or steels that are compatible with different products:</p> <ul style="list-style-type: none"> <li>• Fuels: <ul style="list-style-type: none"> <li>- Fuel oil, diesel oil, aviation fuel, bio-fuel, ad-blue ...</li> </ul> </li> <li>• Water: <ul style="list-style-type: none"> <li>- Cold water (food quality or non food quality), hot water...</li> </ul> </li> <li>• Chemical products: <ul style="list-style-type: none"> <li>Sulphuric acid, methanol, ethanol, E85...</li> </ul> </li> </ul>  |
| <b>COMMON CONSTRUCTION CHARACTERISTICS</b> | <p>The tanks are built according to the following standards:</p> <p>Spanish Standards (UNE):</p> <ul style="list-style-type: none"> <li>• Tanks with a capacity of more than 3,000 litres: <ul style="list-style-type: none"> <li>- UNE 62350-1: Single wall tanks</li> <li>- UNE 62350-2: Horizontal double wall steel tanks</li> <li>- UNE 62350-3: Horizontal double wall steel-polyethylene tanks.</li> </ul> </li> <li>• Tanks with a capacity of up to 3,000 litres: <ul style="list-style-type: none"> <li>- UNE 62351-1: Single wall tanks</li> <li>- UNE 62351-2: Double wall steel tanks</li> <li>- UNE 62351-3: Double wall steel-polyethylene tanks</li> </ul> </li> <li>• Parallelepipedic above ground tanks with capacities of up to 2,000 litres: <ul style="list-style-type: none"> <li>- UNE 62352.</li> </ul> </li> </ul> <p>European Standard (EN)</p> <ul style="list-style-type: none"> <li>• Buried tanks: UNE-EN 12285-1</li> <li>• Above ground tanks: UNE-EN 12285-2</li> </ul> <p>(The characteristics of this catalogue correspond to tanks according to the Spanish UNE standard. Consult us for tanks according to European Standards, other standards, vertical tanks...)</p> <p>The tanks are built with rolled steel plate, according to EN 10025. The ends are in one single piece with diameters of up to 2,500 mm.</p> <p>They include reinforcement, under the inspection mouth, to protect from impacts with measuring rod.</p> <p>Compartmentation of tanks of any diameter.</p> |
| <b>CERTIFICATION</b>                       | <p>LAPESA supplies all of its tanks with inspection certificates according to UNE standards. At the customer's request a coating porosity test certificate, issued by LAPESA, can be provided.</p>  |
| <b>SURFACE FINISHES TO ORDER</b>           | <p>To order, we can supply our thick polyurethane finish for buried tanks in thicknesses of up to 2 mm.</p> <p>Also to order we can supply inner finishes for aggressive contents.</p> <p>Special treatment for storage of ad-blue.</p>   |
| <b>OPTIONS</b>                             | <p>Our catalogue shows a wide range of models with capacities from 1,000 to 120,000 litres, with different options and accessories for each of them.</p> <p>If you have any other specific requirements please consult us.</p>  |
| <b>ACCESSORIES</b>                         | <p>We have a series of accessories available, among which are access chambers, covers, cathodic protection anodes, leak detectors, level control equipment, prefabricated access chambers, double-locking foot valve (own design), anchorages, transfer equipment, etc. to facilitate and complete the installation.</p>  |
| <b>TRANSPORT</b>                           | <p>We have our own fleet of trucks, of various capacities, all of which are equipped with cranes for unloading and are handled by highly specialised personnel to guarantee the best service for the transport and handling of the tank.</p> <p>We can place the tank inside the pit if the surrounding terrain allows the truck to position correctly.</p> <p>To protect the tank coating, support wedges are included to prevent it rubbing on ground and the trucks do not have high sides.</p>  |
| <b>INSTALLATION</b>                        | <p>In no case does LAPESA install tanks.</p> <p>Installation should be carried out by a fitter, according to the following standards:</p> <ul style="list-style-type: none"> <li>- UNE 109500 IN: Installation of non-buried parallelepipedic steel tanks.</li> <li>- UNE 109501 IN: Installation of steel tanks above ground or in pit.</li> <li>- UNE 109502 IN: Installation of buried steel tanks.</li> </ul> <p>The location of the anchoring bolts should be checked against the tank. The bolts should never be embedded without checking previously against the tank.</p>   |
| <b>TOLERANCES</b>                          | <p>According to applicable construction norms</p>   |

# ATMOSPHERIC TANKS

## SINGLE WALL tanks for buried installation

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### LF\*\*\* Models

#### Tanks built in steel plate

- Dimensions and features in accordance with EN 12285
- High mechanical strength steel according to EN 10025 Standard (carbon steel or stainless steel to order)
- Zinc-plated steel bolts at inspection manholes

#### Standard surface finishes

Exterior:

- Blasting to SA 2-1/2 grade.
- Thick polyurethane coating, minimum thickness 600 microns which guarantees electric test voltage >15 KV.
- Coating is highly resistant to corrosion of any origin and to liquid fuel spillages.
- This type of finish gives the tank an unbeatable external appearance.
- External protection can be increased by the use of cathodic protection anodes (see accessories)

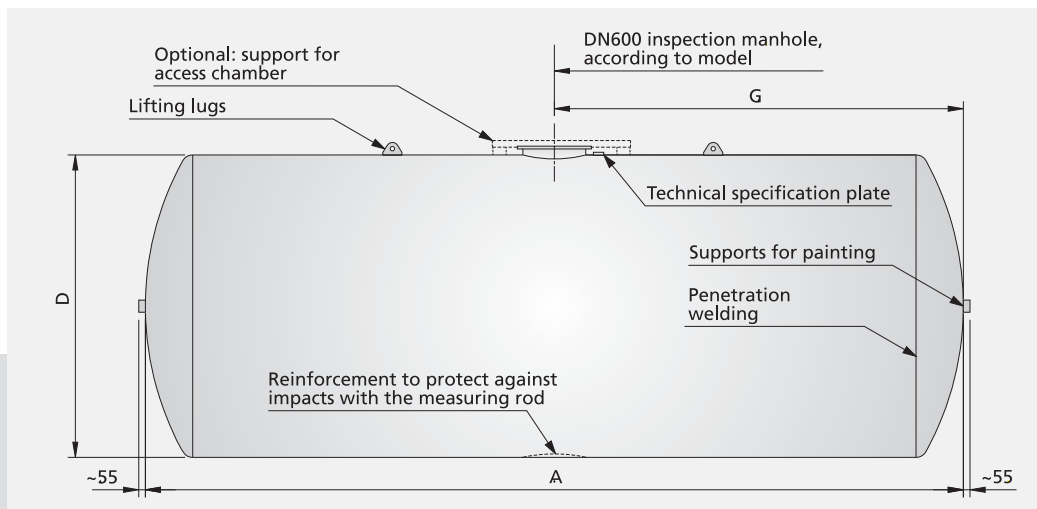
Interior:

- Clean

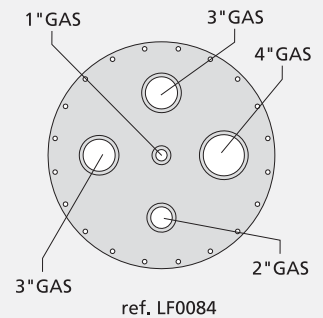
Other executions (to order):

- Storage tank in stainless steel.

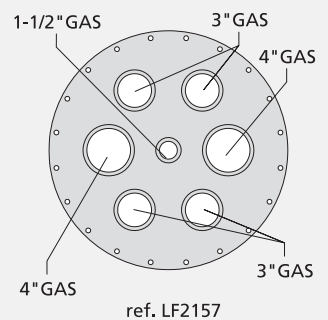
Interior finishes for specific contents: ad-blue, methanol, ethanol, aviation fuel, sulphuric acid, food quality cold water...



STANDARD MANHOLE COVER, NOMINAL DIAMETER 600



STANDARD INSPECTION MANHOLE COVER, NOMINAL DIAMETER 600



#### Characteristics Table

| Rated capacity (litres) | Model Ref.  | Approximate empty weight (Kg) | D    | Dimensions (mm.)<br>A | G    |
|-------------------------|-------------|-------------------------------|------|-----------------------|------|
| 1000                    | LF 1000 (*) | 160                           | 856  | 1900                  | 630  |
| 1500                    | LF 1500 (*) | 220                           | 1200 | 1500                  | 750  |
| 2000                    | LF 2000 (*) | 280                           | 1200 | 1900                  | 950  |
| 3000                    | LF 3000     | 430                           | 1500 | 1990                  | 1000 |
| 5000                    | LF 5000     | 740                           | 1750 | 2340                  | 1170 |
| 7500                    | LF 7500     | 950                           | 1750 | 3400                  | 1170 |
| 10000                   | LF 10       | 1200                          | 1750 | 4550                  | 1170 |
| 15000                   | LF 15       | 1850                          | 2200 | 4300                  | 3370 |
| 20000                   | LF 20       | 2250                          | 2500 | 4600                  | 1940 |
| 25000                   | LF 25       | 2650                          | 2500 | 5580                  | 2790 |
| 30000                   | LF 30       | 3000                          | 2500 | 6580                  | 3290 |
| 40000                   | LF 40       | 3800                          | 2500 | 8560                  | 3930 |
| 50000                   | LF 50       | 4650                          | 2500 | 10740                 | 5370 |
| 60000                   | LF 60       | 5500                          | 2500 | 12720                 | 5900 |
| 80000                   | LF 80       | 8550                          | 3000 | 12090                 | 6520 |
| 100000                  | LF 100      | 10550                         | 3000 | 14840                 | 7420 |
| 120000                  | LF 120      | 12250                         | 3000 | 17590                 | 9270 |

Other options:

- Covers with special connections.
- Additional inspection manhole.
- Tanks with several interior compartments.
- Other coating thicknesses (up to 2 mm.)

Transport:

To protect the coating of the tanks support wedges are used to prevent rubbing on ground and the trucks do not have high sides.



# ATMOSPHERIC TANKS

## DOUBLE WALL STEEL-STEEL tanks for buried installation

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### LFD\*\*\* Models

#### Interior and exterior tank in carbon steel (tank with spill containment included)

- Internal tank according to page 3.
- Dimensions and features in accordance with EN12285
- Zinc-plated steel bolts and screws at inspection manholes.
- Vacuum chamber between both walls to detect leaks (See detection devices).
- No civil works required for leak-proof containment. The double wall acts as a containment means.
- Tank built in EN 10025 standard steel (carbon steel or stainless steel to order) with high mechanical and deformation strength that enables it to absorb impacts, vibrations (transit of vehicles, etc.) or moderate earth movements. Adequate resistance to modern additives (alcohols, etc.)

#### Standard surface finishes

##### Exterior:

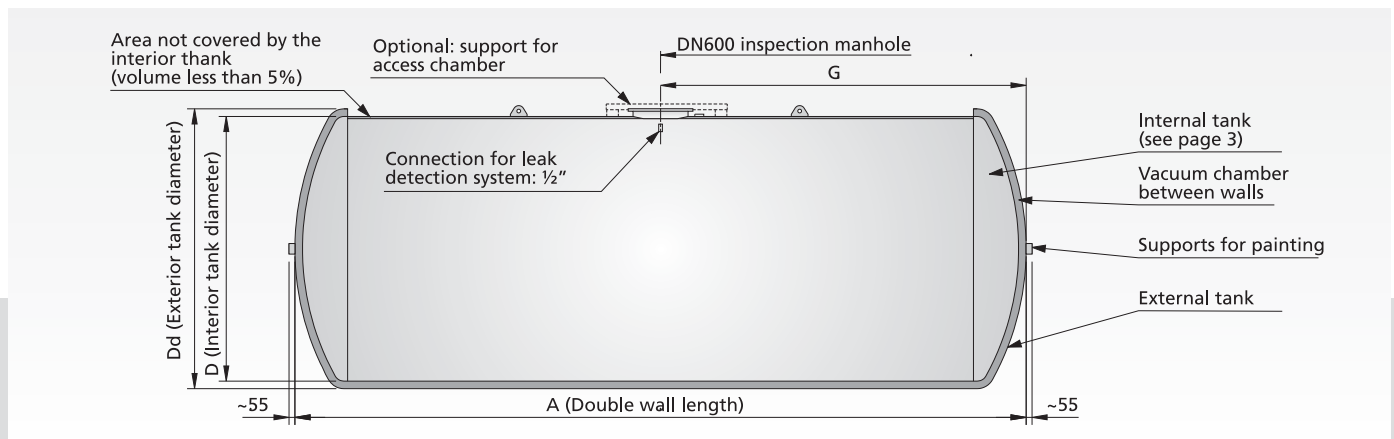
- Blasting to SA 2-1/2 grade.
- Thick polyurethane coating, minimum thickness 600 microns which guarantees electric test voltage >15 KV.
- Coating is highly resistant to corrosion of any origin and to liquid fuel spillages.
- This type of finish gives the tank an unbeatable external appearance.
- External protection can be increased by the use of cathodic protection anodes (see accessories)

##### Interior:

- Clean.

##### Other executions (to order):

- Storage tank in stainless steel.
- Interior finishes for specific contents: ad-blue, methanol, ethanol, aviation fuel, sulphuric acid, food quality cold water.



#### Characteristics table

| Rated capacity (litres) | Model Ref. | Approximate empty weight (Kg) | D    | Dimensions (mm.)<br>A | G    |
|-------------------------|------------|-------------------------------|------|-----------------------|------|
| 1500                    | LFD 1500   | 350                           | 1200 | 1510                  | 760  |
| 2000                    | LFD 2000   | 450                           | 1200 | 1910                  | 960  |
| 3000                    | LFD 3000   | 700                           | 1500 | 2000                  | 1000 |
| 5000                    | LFD 5000   | 1100                          | 1750 | 2350                  | 1170 |
| 7500                    | LFD 7500   | 1500                          | 1750 | 3410                  | 1170 |
| 10000                   | LFD 10     | 1900                          | 1750 | 4560                  | 1170 |
| 15000                   | LFD 15     | 3000                          | 2200 | 4310                  | 3380 |
| 20000                   | LFD 20     | 3700                          | 2500 | 4610                  | 1950 |
| 25000                   | LFD 25     | 4550                          | 2500 | 5590                  | 2790 |
| 30000                   | LFD 30     | 5000                          | 2500 | 6590                  | 3290 |
| 40000                   | LFD 40     | 6250                          | 2500 | 8580                  | 3930 |
| 50000                   | LFD 50     | 7800                          | 2500 | 10750                 | 5370 |
| 60000                   | LFD 60     | 9050                          | 2500 | 12730                 | 5910 |
| 80000                   | LFD 80     | 13300                         | 3000 | 12110                 | 6520 |
| 100000                  | LFD 100    | 15850                         | 3000 | 14860                 | 7430 |
| 120000                  | LFD 120    | 18150                         | 3000 | 17610                 | 9270 |

**Standard supply:** see Single wall tanks, page 3

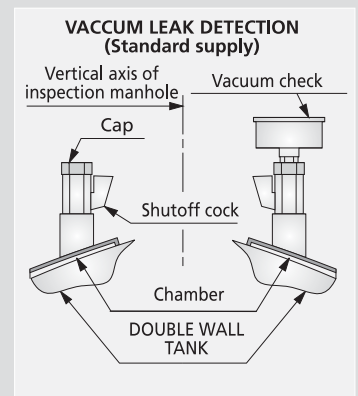
**Other options:** see page 3

##### Leak detection:

- Standard supply: as shown in diagram, for vacuum detection of leaks
    - Vacuum carried out at factory.
    - Accessories fitted (compound gauge and shutoff cock)
  - Optional supplies:
    - Chamber filled with glycol mix (for liquid leak detection)
- Vacuum, pressure or liquid leak detection equipment. (See page 10)

##### Transport:

To protect the coating of the tanks support wedges are used to prevent rubbing on ground and the trucks do not have high sides.



# ATMOSPHERIC TANKS

## DOUBLE WALL STEEL-POLYETHYLENE tanks for buried installation

**lapesa**

### LFP\*\*\* Models

#### Interior tank in steel and exterior tank in Polyethylene (tank with spill containment included)

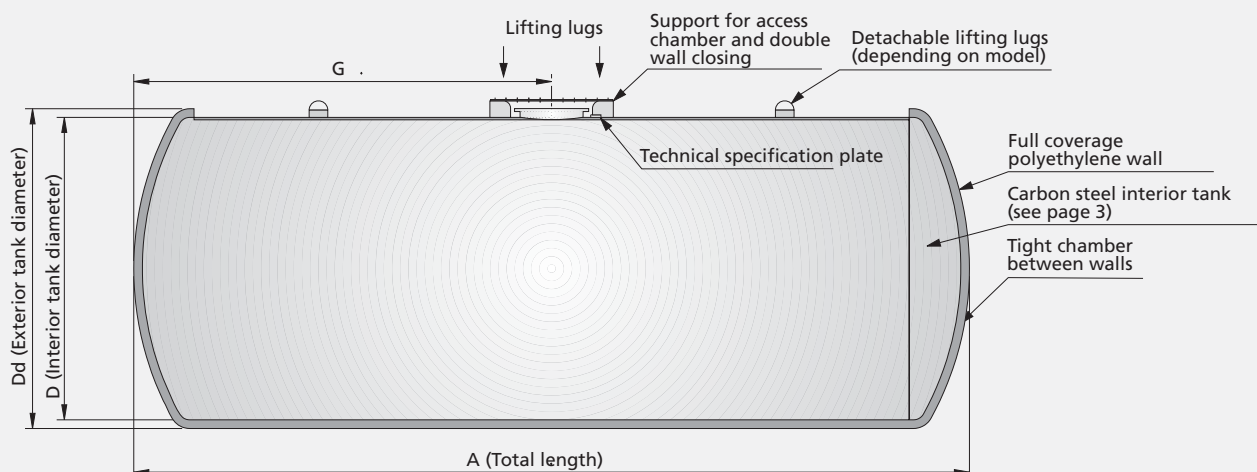
- Exterior tank built with polyethylene (PE) sheet. Interior tank in steel, according to page 3.
- Dimensions and features according to UNE 62350-3 Standard.
- Zinc-plated steel bolts and screws at inspection mouths and at the pit access chamber support.
- Tank is coated with PE sheets.
- Between both walls there is a tight chamber that allows the detection of leaks (see detection devices).
- No civil works required for leak-proof containment. The double wall acts as a containment means.

#### Steel interior tank:

- Tank built in EN 10025 standard steel (carbon steel or stainless steel to order) with high mechanical and deformation strength that enables it to absorb impacts, vibrations (transit of vehicles, etc.) or moderate earth movements. Adequate resistance to modern additives (alcohols, etc.)

#### Polyethylene (PE) jacket:

- The polyethylene material of the exterior tank:
  - acts as a safety containment means.
  - is a barrier to corrosion of any origin due to its high chemical stability.
  - completely covers the interior tank (except for the access area) thus preventing corrosion of the steel.
  - is resistant to liquid fuel spillages, to soils, water and many acids and bases.
  - is a dielectric material.
  - is a semi-rigid material allowing deformation without fracturing.
  - is resistant to impacts and vibrations (road traffic)
  - is made from laminated sheets and thus, is totally free of inner pores which may be present in other processes.



### Characteristics Table

| Rated capacity (litres) | Model Ref. | Approximate empty weight (Kg) | D    | Dimensions (mm.) |      | Thickness (mm.) |            |                   |                |
|-------------------------|------------|-------------------------------|------|------------------|------|-----------------|------------|-------------------|----------------|
|                         |            |                               |      | A                | G    | Jacket Collar   | Jacket End | Inner tank Collar | Inner tank End |
| 15000                   | LFP 15     | 1900                          | 2500 | 3520             | 1760 | 3               | 6          | 6                 | 6              |
| 20000                   | LFP 20     | 2350                          | 2500 | 4620             | 2310 | 3               | 6          | 6                 | 6              |
| 25000                   | LFP 25     | 2750                          | 2500 | 5600             | 2630 | 3               | 6          | 6                 | 6              |
| 30000                   | LFP 30     | 3150                          | 2500 | 6600             | 3310 | 3               | 6          | 6                 | 6              |
| 40000                   | LFP 40     | 3950                          | 2500 | 8590             | 4290 | 3               | 6          | 6                 | 6              |
| 50000                   | LFP 50     | 4900                          | 2500 | 10760            | 5390 | 3               | 6          | 6                 | 6              |
| 60000                   | LFP 60     | 5800                          | 2500 | 12740            | 5610 | 3               | 6          | 6                 | 6              |

**Standard cover:** see Single Wall tanks, page 3

**Access chamber support:** square 1000x1000 (890x890 clearance). For the installation of a prefabricated access chamber: see page 9

**Other options:** see page 3

#### Leak detection:

- Standard supply: as shown in diagram, for vacuum detection of leaks
  - Vacuum carried out at factory.
  - Accessories fitted (compound gauge and shutoff cock)

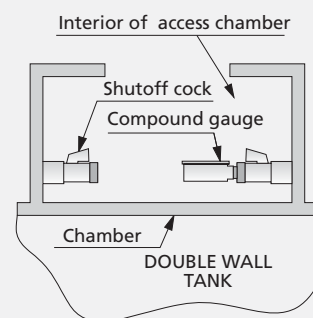
#### -Optional supplies:

- Vacuum, pressure or liquid leak detection equipment. (See page 10)

#### Transport:

To protect the coating of the tanks support wedges are used to prevent rubbing on ground and the trucks do not have high sides..

#### VACUUM LEAK DETECTION (Standard supply)



# ATMOSPHERIC TANKS

**SIMPLE and DOUBLE WALL STEEL-STEEL tanks for above ground installation**

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## LF\*\*\*P and LFD\*\*\*P Models

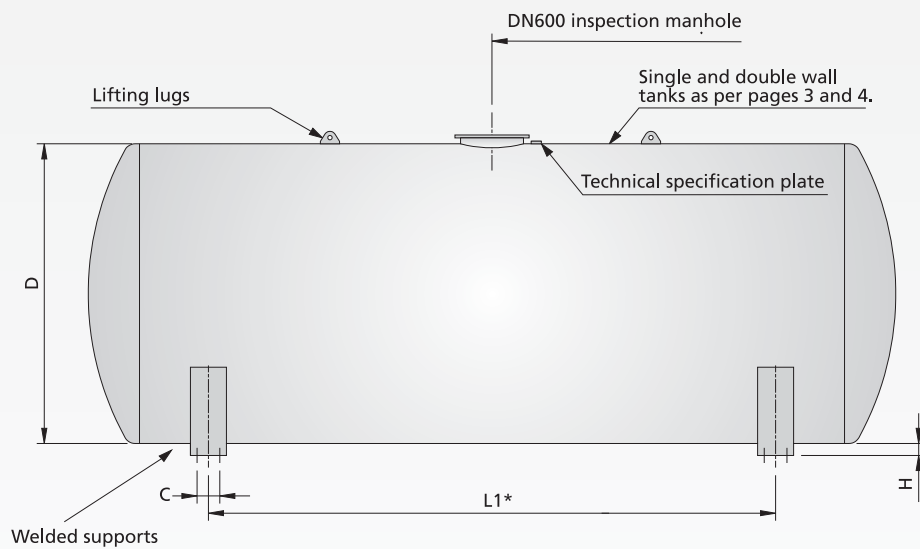
### Tanks built in steel plate

The tanks are of the same dimensions and construction characteristics as the models for buried installations and they have supports for their above ground installation.  
The supports are welded to the tank body and have the same surface finish.  
The figure below shows supports according to EN12285

### Standard surface finishes

Exterior:

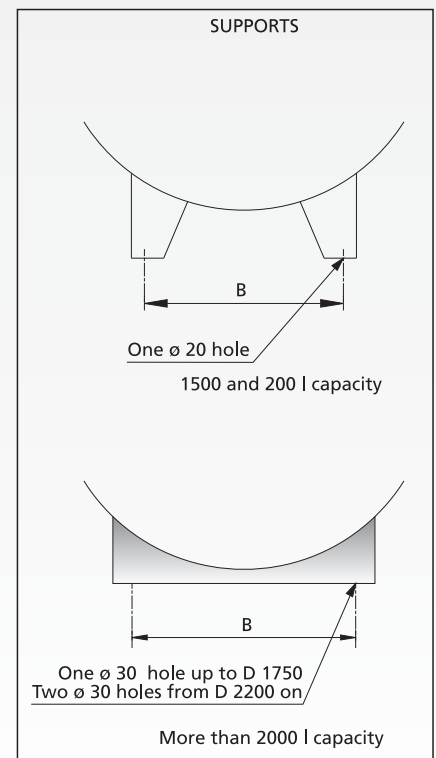
- Blasting to SA 2-1/2 grade.
- Anti-corrosion primer paint.
- White polyurethane finish.



#### IMPORTANT:

Place the tank anchoring bolts after the tanks has been installed on the baseplate.

\*L1 sizes to be confirmed by Lapesa before manufacturing



### Single wall

### Double wall

| Rated capacity (litres) | Nominal diameter D | Model Ref. | Dimensions (mm.) L1 | Model Ref. | Dimensions (mm.) L1 | H   | Dimensions (mm.) B | C   |
|-------------------------|--------------------|------------|---------------------|------------|---------------------|-----|--------------------|-----|
| 1500                    | 1200               | LF 1500 P  | 1020                | LFD 1500 P | 1020                | 100 | 740                | -   |
| 2000                    | 1200               | LF 2000 P  | 1420                | LFD 2000 P | 1420                | 100 | 740                | -   |
| 3000                    | 1500               | LF 3000 P  | 1300                | LFD 3000 P | 1300                | 75  | 1000               | -   |
| 5000                    | 1750               | LF 5000 P  | 1400                | LFD 5000 P | 1400                | 100 | 1200               | -   |
| 7500                    | 1750               | LF 7500 P  | 2300                | LFD 7500 P | 2300                | 100 | 1200               | -   |
| 10000                   | 1750               | LF 10 P    | 3400                | LFD 10 P   | 1700                | 100 | 1200               | -   |
| 15000                   | 2200               | LF 15 P    | 3000                | LFD 15 P   | 3000                | 100 | 1800               | 150 |
| 20000                   | 2500               | LF 20 P    | 3200                | LFD 20 P   | 3200                | 100 | 2000               | 150 |
| 25000                   | 2500               | LF 25 P    | 3700                | LFD 25 P   | 3700                | 100 | 2000               | 150 |
| 30000                   | 2500               | LF 30 P    | 5150                | LFD 30 P   | 2575                | 100 | 2000               | 150 |
| 40000                   | 2500               | LF 40 P    | 7100                | LFD 40 P   | 3550                | 100 | 2000               | 150 |
| 50000                   | 2500               | LF 50 P    | 9300                | LFD 50 P   | 3100                | 100 | 2000               | 150 |
| 60000                   | 2500               | LF 60 P    | 5450                | LFD 60 P   | 3400                | 100 | 2000               | 150 |
| 80000                   | 3000               | LF 80 P    | 10300               | LFD 80 P   | 4500                | 100 | 2500               | 200 |
| 100000                  | 3000               | LF 100 P   | 6425                | LFD 100 P  | 4200                | 100 | 2500               | 200 |
| 120000                  | 3000               | LF 120 P   | 7800                | LFD 120 P  | 3900                | 100 | 2500               | 200 |

Standard cover: see single wall tanks, page 3

Other options: see page 3



# ATMOSPHERIC TANKS

Above ground tanks for **SMALL REQUIREMENTS** and **AUTONOMOUS UNITS** **lapesa**

## LFT\*\*\* and LFDUA\*\*\* Models

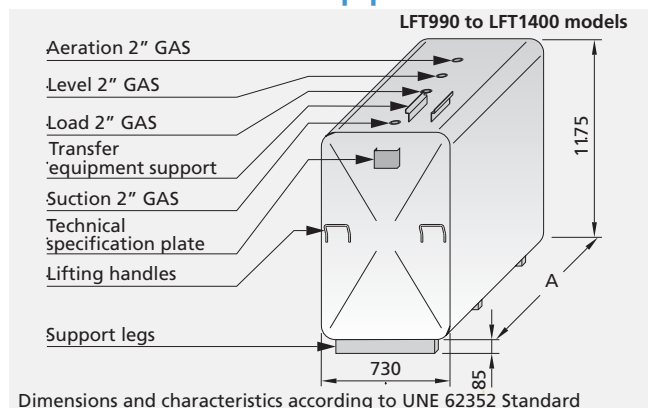
**LFT Models;** Tanks specially designed to connect transfer equipment in installations for own consumption.

- Tanks built in steel plate according to EN 10025 Standard.

SURFACE FINISHES: -Exterior

- Primer coat.
- White polyurethane finish.

### LFT Models - Parallelepipedic



### Characteristics table

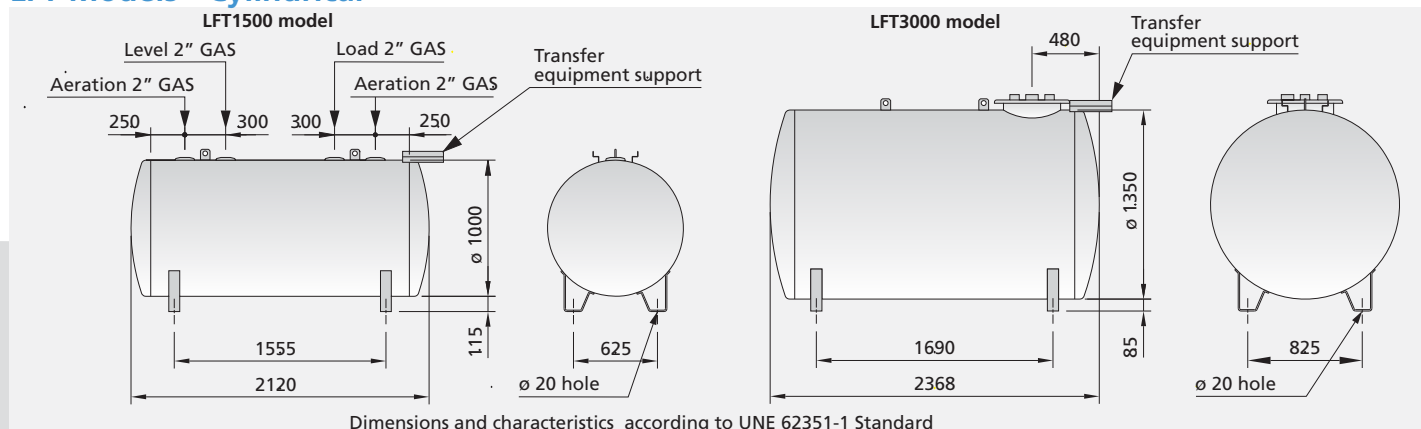
#### Parallelepipedic models

| Rated capacity (litres) | Model Ref. | Approximate empty weight (Kg) | Dimensions (mm.) A | Thickness (mm.) Collar | End |
|-------------------------|------------|-------------------------------|--------------------|------------------------|-----|
| 990                     | LFT 990    | 120                           | 1250               | 2                      | 2   |
| 1200                    | LFT 1200   | 135                           | 1500               | 2                      | 2   |
| 1400                    | LFT 1400   | 150                           | 1700               | 2                      | 2   |

#### Cylindrical models

| Rated capacity (litres) | Model Ref. | Approximate empty weight (Kg) | Thickness (mm.) Collar | End |
|-------------------------|------------|-------------------------------|------------------------|-----|
| 1500                    | LFT 1500   | 190                           | 2,5                    | 3   |
| 3000                    | LFT 3000   | 360                           | 3                      | 3,5 |

### LFT Models - Cylindrical

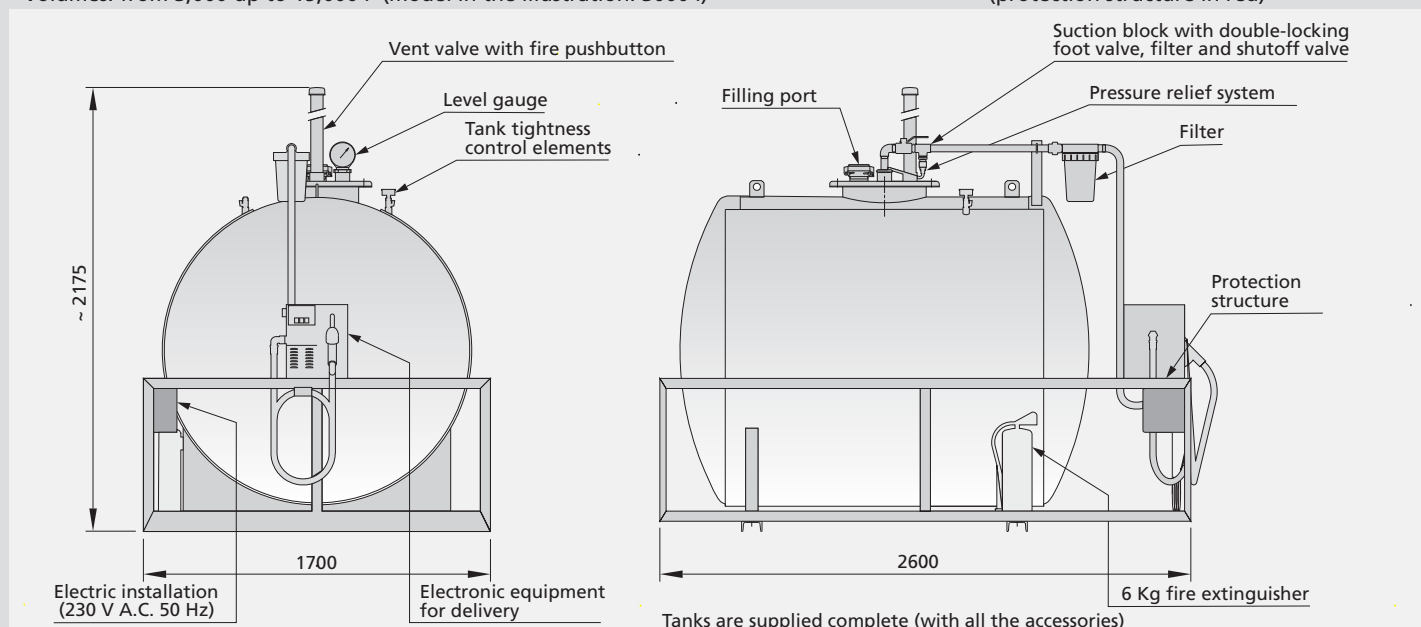


**LFDUA Models;** Double wall steel tanks with protection structure and service equipment for diesel oil.

- Exterior steel tank according to page 3.
- Dimensions and characteristics according to UNE 62350-2 Standard (Larger than 3,000 l. And UNE 62351-2 (up to 3,000 l))
- Volumes: from 3,000 up to 15,000 l (model in the illustration: 3000 l)

SURFACE FINISHES: -Exterior.

- Primer coat.
- White polyurethane finish. (protection structure in red)



# ATMOSPHERIC TANKS

## VERTICAL tanks

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### LF\*\*\*V Models

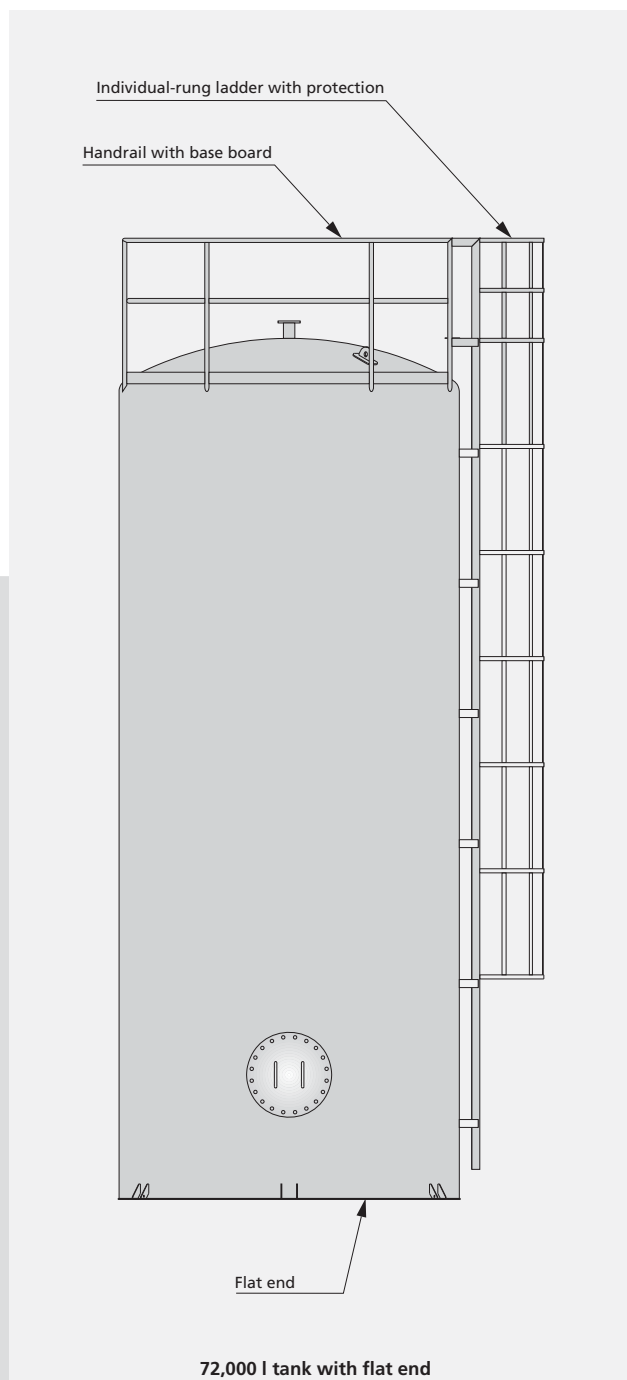
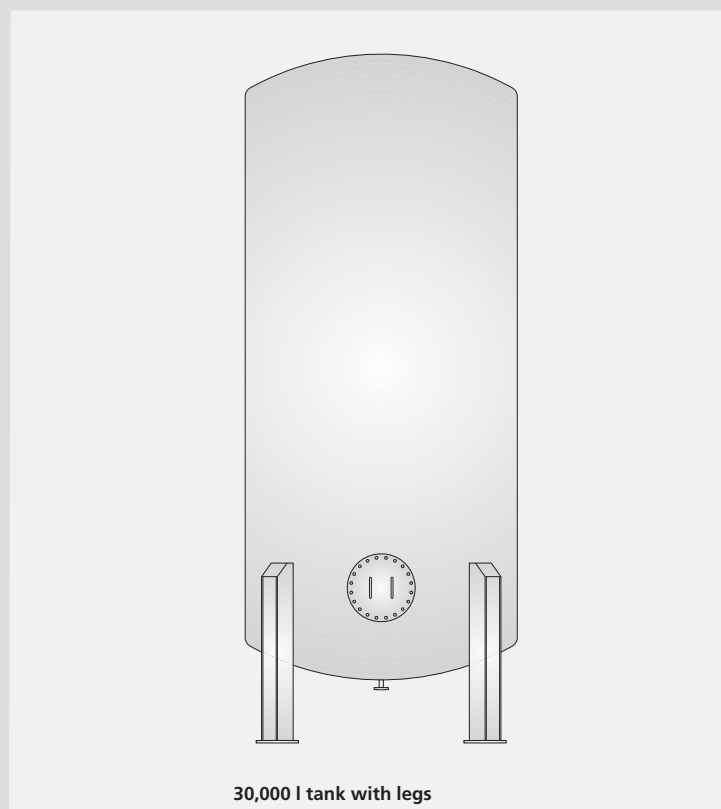
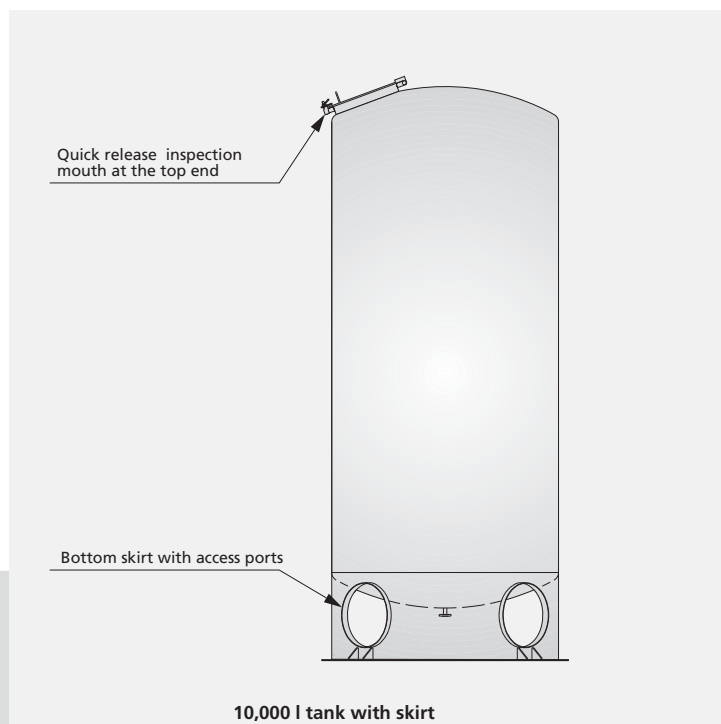
#### Single wall tanks for vertical installation.

We can adapt to your needs, let us know your requirements:

- Carbon steel or stainless steel .
- A range of interior and exterior finishes.
- Capacity up to 200 m<sup>3</sup>.
- Accessories (ladders, handrails, platforms..)
- Different constructive possibilities (see examples)

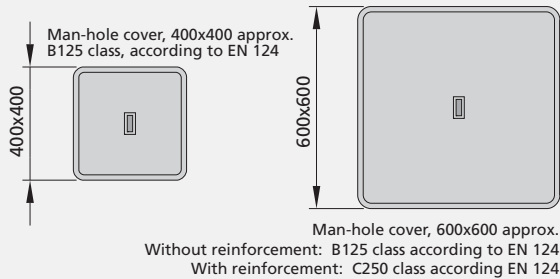
**SURFACE FINISHES:** -Exterior

- Primer coat.
- Polyurethane finish.

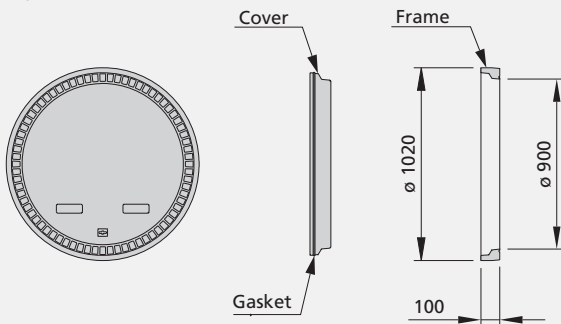


For an easier and faster installation

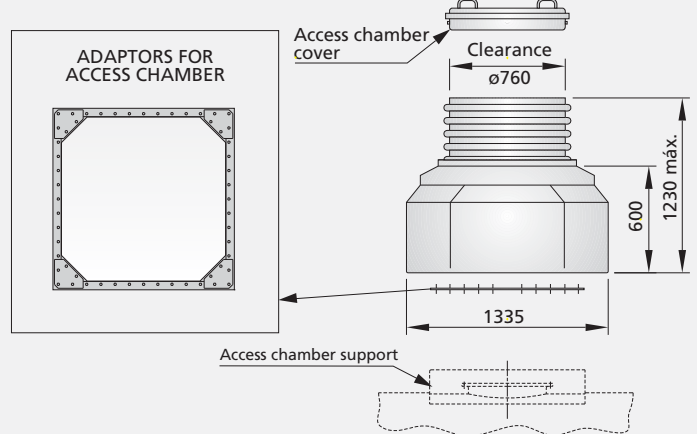
### MAN-HOLES WITH COVER (cast iron)



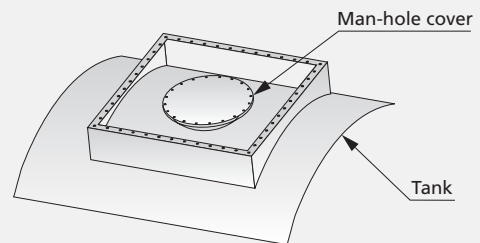
### FRP COVER WITH FRAME FOR PIT ACCESS CHAMBER (According to EN 124 European Standard, D400 class requirements) FRP: Fiberglass reinforced plastic.



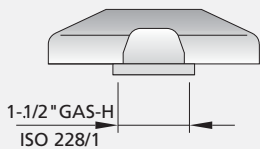
### REINFORCED POLYETHYLENE ACCESS CHAMBER



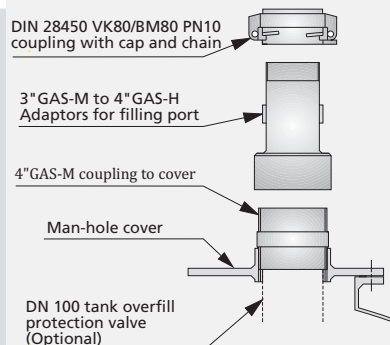
### SUPPORT FOR BOLTING THE PE ACCESS CHAMBER



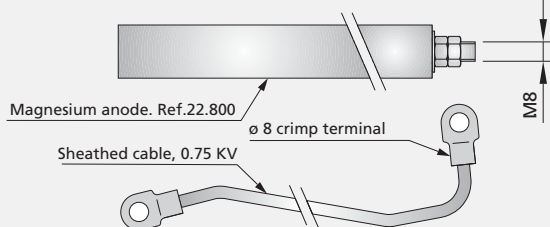
### AERATION "TEE" Tank aeration "tee" with grids at the inlets



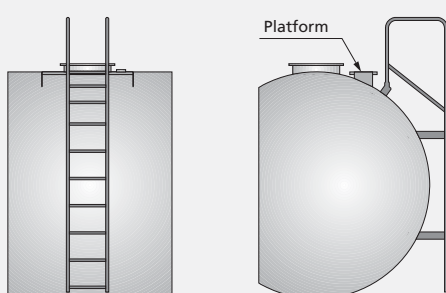
### FILLING PORT ADAPTORS Quick coupling for connection to discharge hose



### ANODES AND CONNECTION CABLES FOR CATHODIC PROTECTION



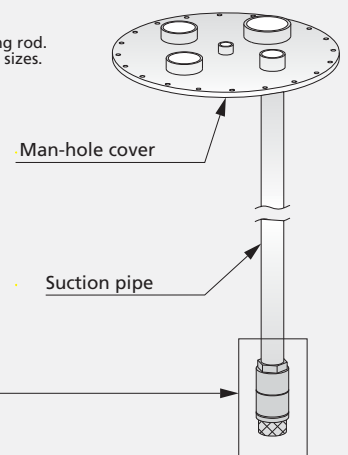
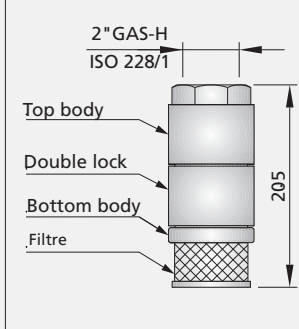
### DETTACHABLE LADDER AND PLATFORMS



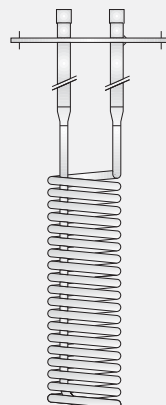
### EQUIPMENT FOR MAN-HOLES AND PORTS

- Equipped with complete suction elements
- Different number of suction elements.
- Discharge pipe and guide pipe for measuring rod.
- Covers for man-holes and ports of different sizes.

### DOUBLE LOCKING FOOT VALVE

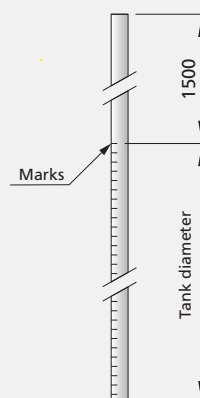


### COVER WITH COIL

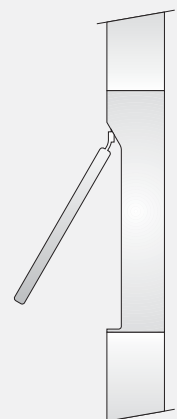


### MEASURING RODS (Aluminium)

Marks every one centimetre, with separate table for volumetric readings  
Marks



### OVERFILL PROTECTION VALVE Limit at 90%, it includes top and bottom pipes.



# ATMOSPHERIC TANKS

## LEVEL CONTROL and LEAK DETECTION unit

**lapesa**

### FUGALARM leak detector

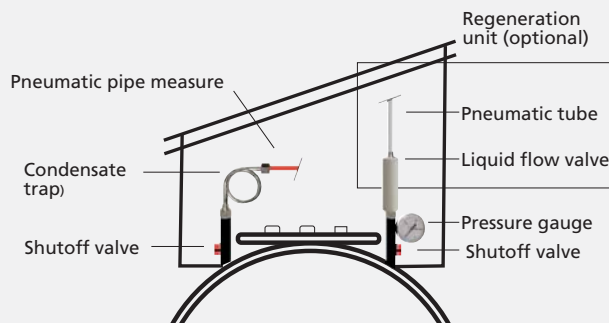


#### Models

- Fugalarm-V, Vacuum model
- Fugalarm-P, Pressure model

#### System features

- Complies with EN 13160 and has EC certification.
- Bleepers and lights to indicate system state.
- Large-format display screen showing degree of pressure or vacuum in the interstitial chamber, in absolute values.
- Test and stop buttons for alarms as well as for accessing menu options.
- Switched relays for remote alarm signalling.
- Zener barrier incorporated
- Size: 110 x 215 x 40



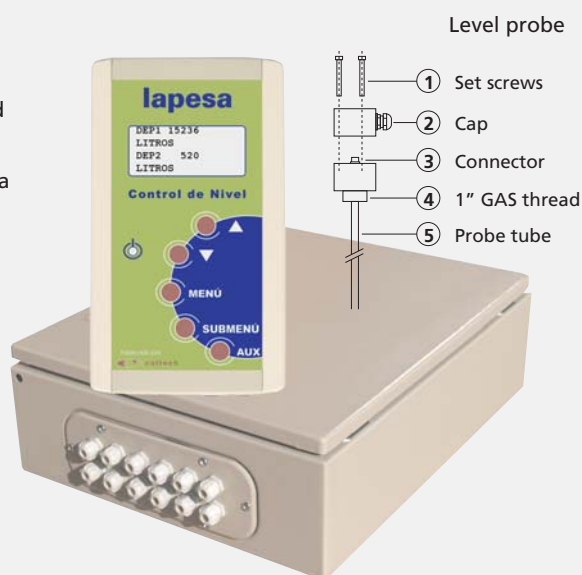
**OPTION:** pressure or vacuum maintenance unit can be supplied.

### Level control. Model NV2000

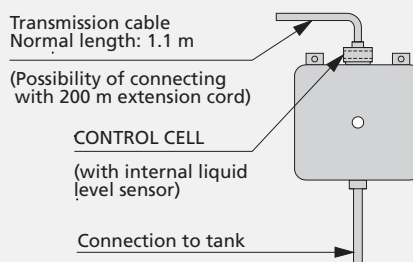
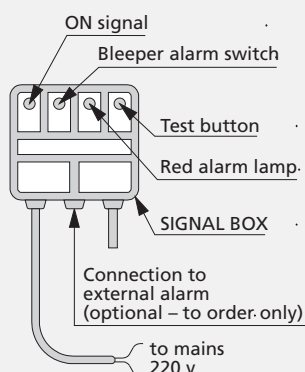
#### System features

- Electro-pneumatic level control system that enables 10 tanks to be measured by just one unit.
- Relative density of contained product must be less than 1.1.
- Units for denser products can be supplied to order.
- Electricity-free probes, with 1" GAS connection, 2500 mm long and made of brass and copper. Optional in stainless steel or plastic and lengths of up to 3,000 mm.
- Equipped with a control panel and display screen, keyboard for data input and relay to activate external alarms. It can be connected to LAN networks by TCP/IP protocol.

| Model  | Nº of tank |
|--------|------------|
| NV1001 | 1          |
| NV1002 | 2          |
| NV1003 | 3          |
| NV1004 | 4          |
| NV2005 | 5          |
| NV2006 | 6          |
| NV2007 | 7          |
| NV2008 | 8          |
| NV2009 | 9          |
| NV2010 | 10         |



### BASIC LEAK DETECTION SYSTEM BY LIQUID LEVEL



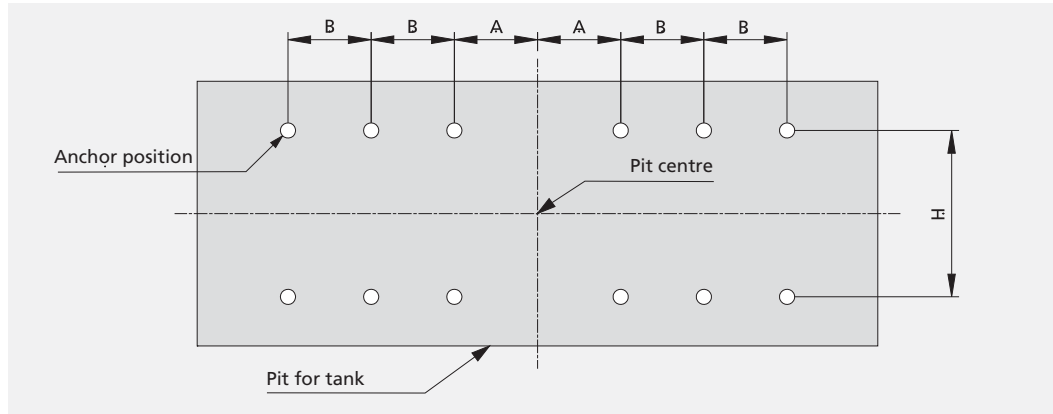
**OPTION: Tank chamber filled with antifreeze liquid (up to -20°C)**  
\* This equipment should only be fitted in DOUBLE-WALL STEEL tanks.

The following indications are valid for:

- Single or double-wall steel tanks or double-wall polyethylene tanks.
- 10 ton-capacity polyester tie-downs.
- Lapesa standard tanks.

### Number of tie-downs and position

The following shows the standard positions and number of anchors to be used for LAPESA tanks.



The way to proceed to fit the anchors is as follows:

1. Find the centre of the space in which the tank is to be installed.
2. To the right of the centre, position an anchor at distance A (see table).
3. Measuring from the last anchor, the following must be placed at distance B.
4. If the table indicates 3 x 1000 this means that 3 anchors must be fitted at a distance of 1000 mm from each other.
5. Repeat points 2 to 4 to the left of the centre.

Distance H will be calculated bearing in mind the diameter of the tank and the chosen installation criterion (standards, regulations..). If distance H is greater than the tank diameter, the anchors must be placed at an angle so that the tie-downs pull in the anchoring direction.

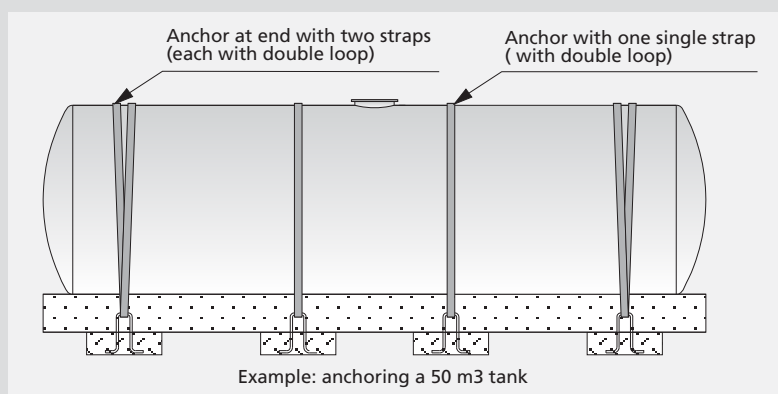
### Layout of tie-downs

| Rated capacity (litres) | Model Ref. | Diameter (mm) | Nº. pairs of anchors | Nº. tie-downs | Dimensions (mm) |        |
|-------------------------|------------|---------------|----------------------|---------------|-----------------|--------|
|                         |            |               |                      |               | A               | B      |
| 3000                    | LF 3000    | 1500          | 2                    | 2             | 675             | --     |
| 5000                    | LF 5000    | 1750          | 2                    | 2             | 560             | --     |
| 7500                    | LF 7500    | 1750          | 2                    | 2             | 920             | --     |
| 10000                   | LF 10      | 1750          | 2                    | 2             | 1625            | --     |
| 15000                   | LF 15      | 2200          | 2                    | 2             | 1450            | --     |
| 20000                   | LF 20      | 2500          | 2                    | 2             | 1720            | --     |
| 25000                   | LF 25      | 2500          | 2                    | 4             | 2210            | --     |
| 30000                   | LF 30      | 2500          | 2                    | 4             | 2710            | --     |
| 40000                   | LF 40      | 2500          | 4                    | 4             | 1250            | 2450   |
| 50000                   | LF 50      | 2500          | 4                    | 6             | 1790            | 3000   |
| 60000                   | LF 60      | 2500          | 4                    | 6             | 1880            | 3900   |
| 80000                   | LF 80      | 3000          | 6                    | 8             | 1050            | 2x2150 |
| 100000                  | LF 100     | 3000          | 8                    | 10            | 1075            | 3x1925 |

As can be seen in the table, more tie-downs than anchors can be fitted, with two straps coinciding at the same anchor point. In this case, you must bear in mind that the tie-down straps have to be fitted as vertically as possible, without one mounting on top of another and without them tangling. Special care must be taken when tensing them.

The position of the tie-downs must be symmetrical in relation to the centre of the tank (there must not be more tie-downs on one side of the tank than the other).

Anchors with two tie-down straps must be at the end of the tank.





### PRODUCTS FOR LPG:

- Tanks for LPG, all capacities
- Tanks for propane service stations
- Tankers for the transport and transfer of LPG
- Vaporizers

### TANKS FOR LIQUID FUELS AND CHEMICALS

- Single wall tanks for underground installation
- Double wall steel-steel tanks for underground installation
- Double wall steel-polyethylene tanks for underground installation
- Single and double wall steel-steel tanks for aboveground installation
- Aboveground tanks for small consumption.

### TANKS FOR DHW STORAGE AND PRODUCTION

- Stainless steel tanks: double wall, heating coil and storage.
- Vitrified steel tanks: heating coil and storage.
- Special tanks for solar energy.
- Large capacity tanks for community and industrial use.
- Inertia tanks for cooling and heating circuits.

### PRESSURE TANKS

- Tanks for compressed air
- Tanks for nitrogen and oxygen (20 bar and 40 bar pressure)

### CYLINDERS AND TANKERS FOR TRANSPORT OF DANGEROUS GOODS

### CRYOGENIC TANKS FOR LNG

### SPECIAL BOILERMAKING

- Tanks for gases
- Tanks for corrosive liquids
- Tanks for ammonia, chlorine, refrigerant gases...



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