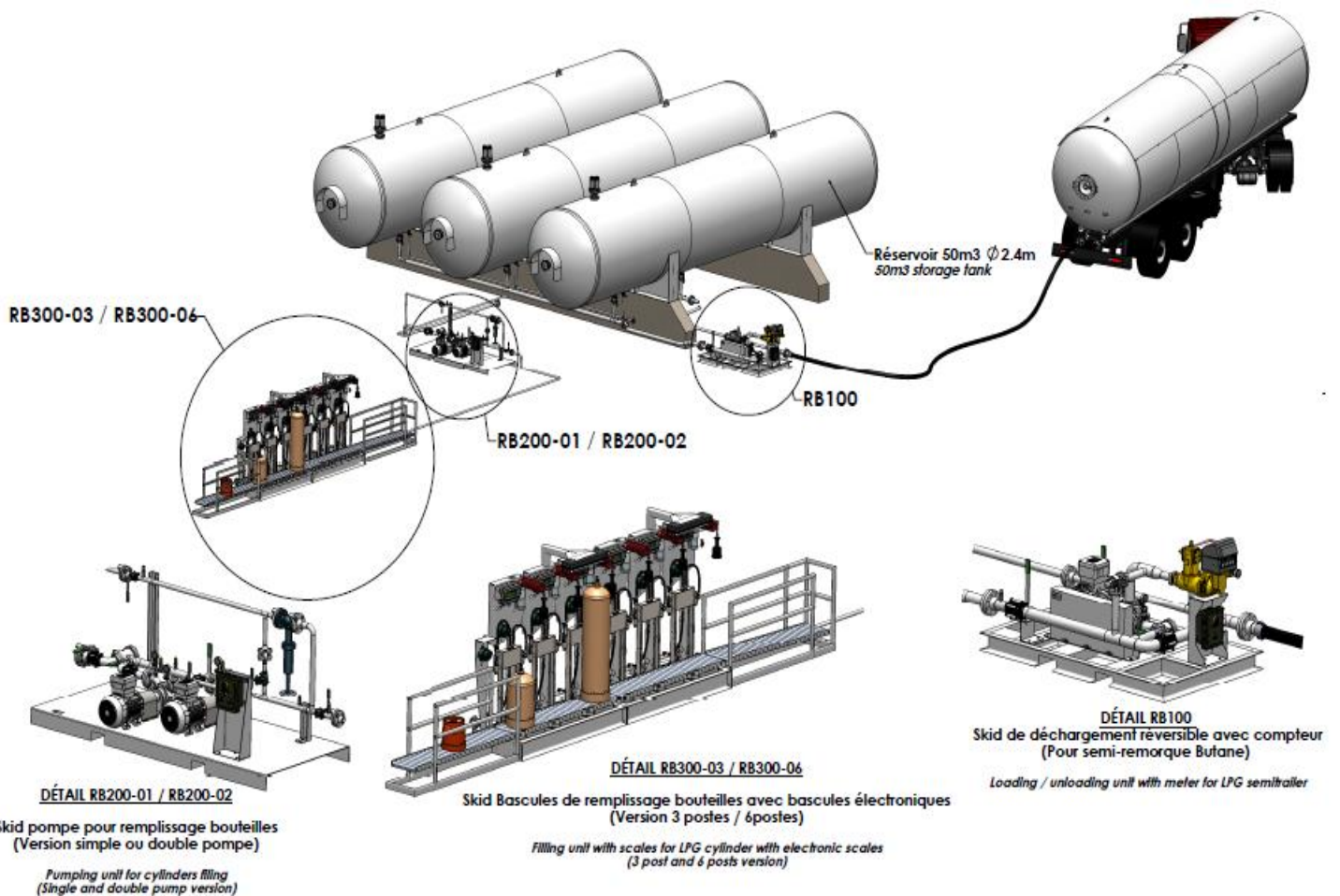


LPG FILLING CENTER « RB »



OBJECTIVES

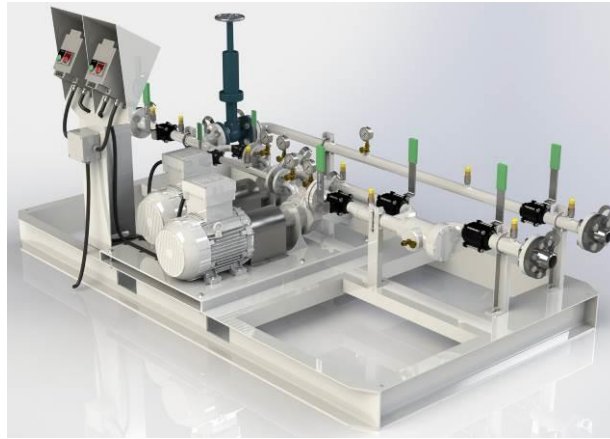
EQUIP'FLUIDES has designed a complete plant that enables professionals to fill LPG cylinders ranging from 2.5 to 50kg capacity.

The filling plant is a modular system which consist of a LPG tank to be filled with bulk LPG from trucks, an electrical pumping unit on skid (Type RB200) witch transfers LPG to filling unit on skid with multiple electronic scale (type RB300) and reversible pumping unit on skid (type RB100) which allows to fill the storage tank with bulk LPG from truck or to load trucks with LPG contained in the storage tank.

The center can be supplied with equipped storage tanks (type RB500).

EQUIPMENTS

PUMPING UNIT ON SKID TYPE RB200-01 and RB200-02

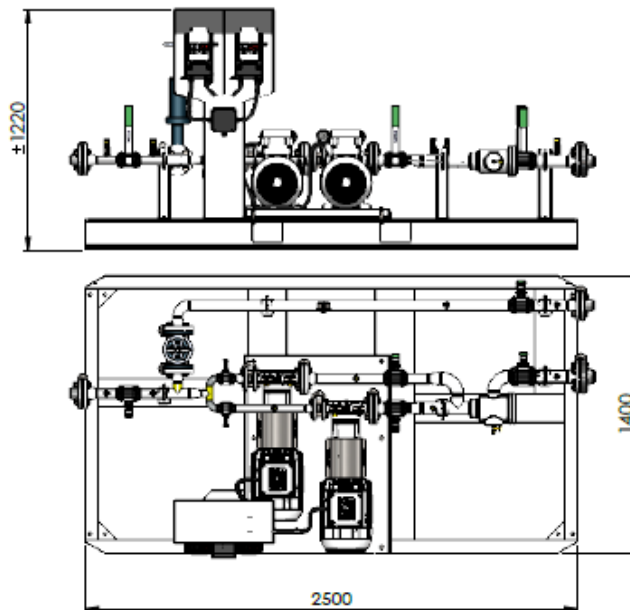


This pumping skid is designed to transfer LPG from the storage tanks to the filling unit RB300. It exists on 2 versions: Single or double Corken pumps directly driven by a 400V ATEX electric motor. The single pump version (RB200-01) has a capacity of 85 liters / minute of liquid LPG under a differential pressure of 10 bar. The double pump version (RB200-02), the second pump is used when increasing flow capacity is needed. In this case, the capacity is increased to 170 liters / minute under a differential pressure of 10 bars.

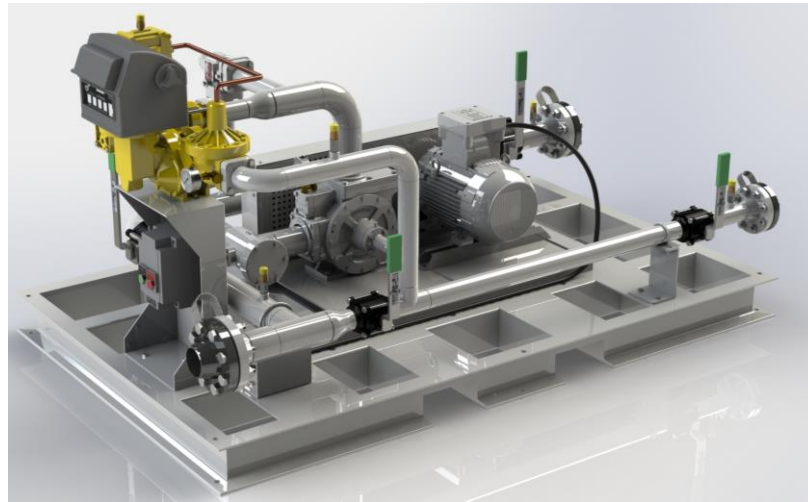
This pumping unit is fully equipped with:

- Isolating valves
- Large filter with an 40 mesh and purge
- Hydrostatic ¼", 20 bar valve
- ASA300 flanges on inlet and outlet
- ATEX Electric panel with on/off switches.

The pumping skid will have to be installed on horizontal concrete foundations and piping to connect this pumping unit to the filling unit type RB300 and electric wirings are not supplied.



REVERSIBLE PUMPING UNIT ON SKID TYPE RB100



This reversible pumping unit is designed to transfer LPG from the truck to the storage tank or from the storage tank to the truck.
The capacity is 22m³/hr.

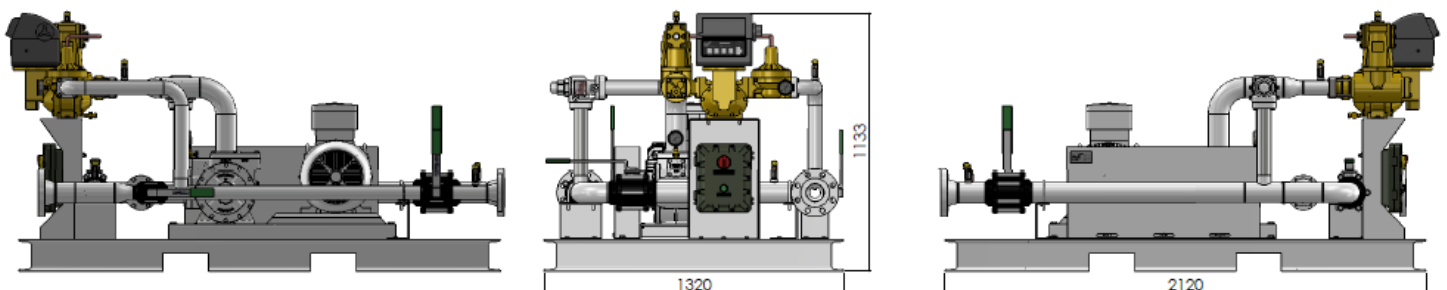
This pumping unit is fully equipped with:

- Isolating valves
- Large filter with an 40 mesh and purge
- Hydrostatic ¼", 20 bar valve
- ASA300 flanges on inlet and outlet
- Atex Electric panel with on/off switches.
- Corken volumetric pump
- Atex electric engine 400V
- Volumetric meter (Liquid-Control)

This pumping unit can be equipped with a mechanical ticket printer on the meter as an option.

3" flexible hose with ball valve and WECO 3" coupling to connect this skid to the truck can be supplied as an option.

The pumping skid will have to be installed on horizontal concrete foundations and piping to connect this pumping unit to the storage tank and electric wirings are not supplied.



STORAGE TANK RB500

This is 1, 2 or 3 bulk LPG storage of approximately 49m³ capacity, supplied with our without equipment's.

Characteristics:

LPG elliptic cigar tank designed for the storage of butane, propane or LPG mixture, designed to be transported into a 40 feet container).

Working pressure: 16 bar

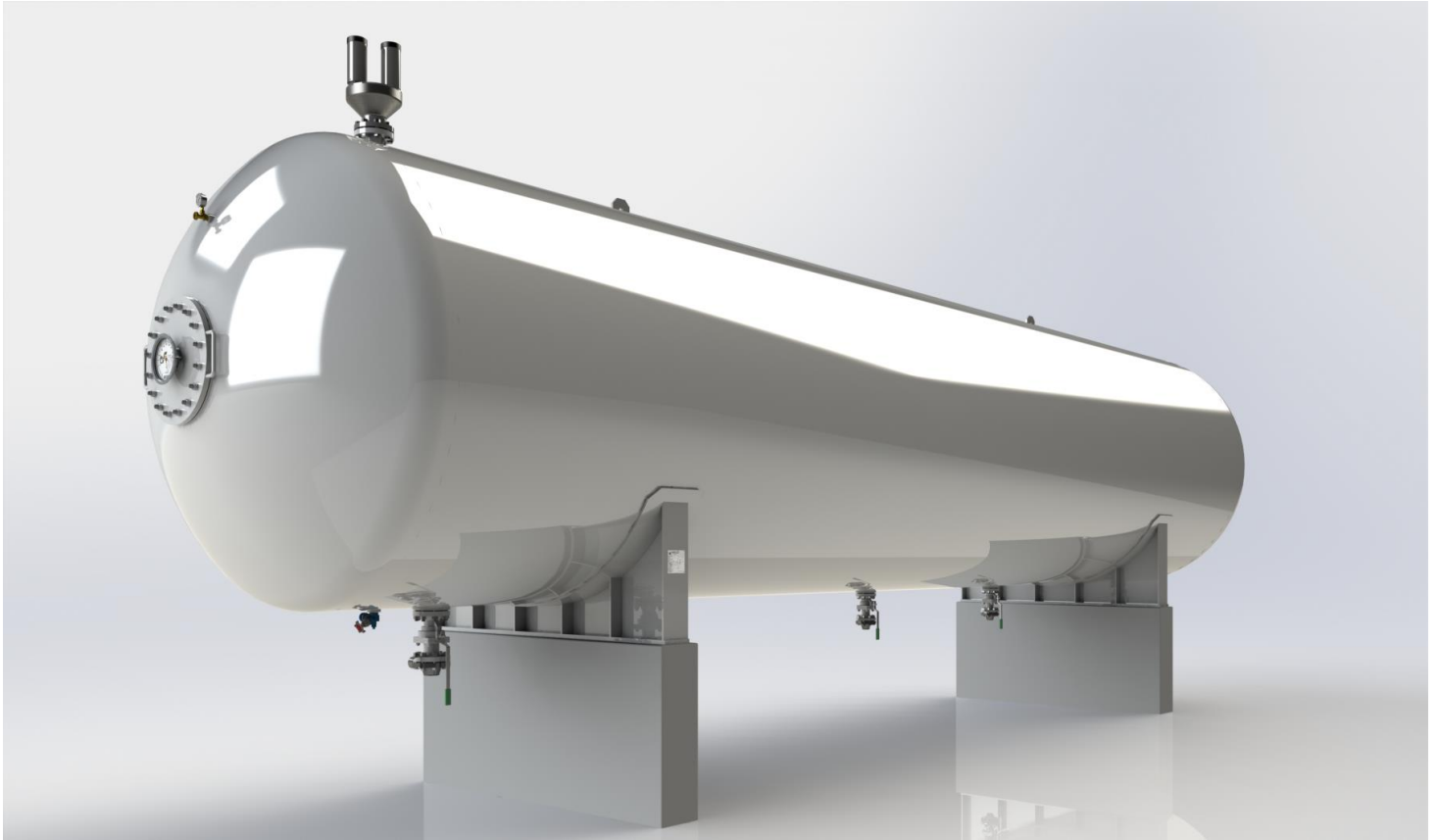
Test pressure: 24 bar

As an option, the tank(s) can be fully equipped with:

- Safety valves
- Maximum filling level (85%)
- Magnetic gauge
- Manhole and usual piping (liquid filling, return, liquid pumping, excess return, purge etc.)
- Large filter 40 mesh and purge

The tank(s) will have to be installed on horizontal concrete foundations

Piping to connect the tank(s) to the other units and electric wirings are not supplied.



With 3 scales **REF : RB300-3** With 6 scales **REF : RB300-6**



RB300-4

This skid is made of :

- 1 ATEX electrical panel with emergency stop and lighting control.
- 3, 4 ou 6 electronic scales to fill LPG cylinders from 2.5 to 50 kg
- Loading and unloading roller conveyors.
- 1 or 2 ATEX neon lights.

ELECTRONIC SCALE



- The scale is designed to fill cylinders from 2.5 to 50Kg.
- It is equipped with :
 - 1 main weighing plate, on the bottom, to fill heavy cylinders (50Kg).
 - 1 secondary foldable weighing plate, to fill small cylinders (6Kg and lower).
- Filling cylinders with the scales is performed thanks to a flexible hose connected to a nozzle and suitable for the type of valve mounted on the cylinder. Each scale can be equipped with up to 2 flexible hoses. Each flexible hose can be equipped with different types of nozzles, depending on the of valves mounted on the cylinders. (Ex. 1 nozzle for camping gas valves, another one for hand wheel valves, etc. ...)
- 1 Electronic programmable calculator wich controls filling sequence et operate a piezzo valve to start and stop automaticaly the filling.
- 1 Manually operated leakage detector. Simple and reliable, it allows to control any leakage on the valve of the cylinders after filling.

FILLING ELECTRONIC CALCULATOR



It is mounted on each scale of the skid RB300.

This programmable calculator has in memory many filling programs corresponding to the characteristics of the different type of cylinders to fill.

Depending on selected program, the device will check if :

- The cylinder on the weighing plate is empty or not ?
- The selected program is suitable for the type of cylinder on the weighing plate (prevent for any over filling).

The operator only has to :

- Position the cylinder and connect it with the filling nozzle.
- Select the filling program corresponding to the cylinder.
- Enter the tare weight marked on the cylinder.
- Start the filling sequence. The sequence will stop automatically when the cylinder is 85% full.

The purpose of these programs is to prevent from any over filling (dangerous) or under filling (not efficient). It also possible to select a max filling level according a price. In fact, if the customer only has a small amount of money with him, the operator can enter this price in the calculator. The calculator will fill the quantity of gas corresponding to this amount of money into the cylinder. A security prevent from any over filling.

The calculator also has a reporting screen with filling statistics. This allows the manager to check the statistics of each scales every days, weeks, month or years. The following data are shown :

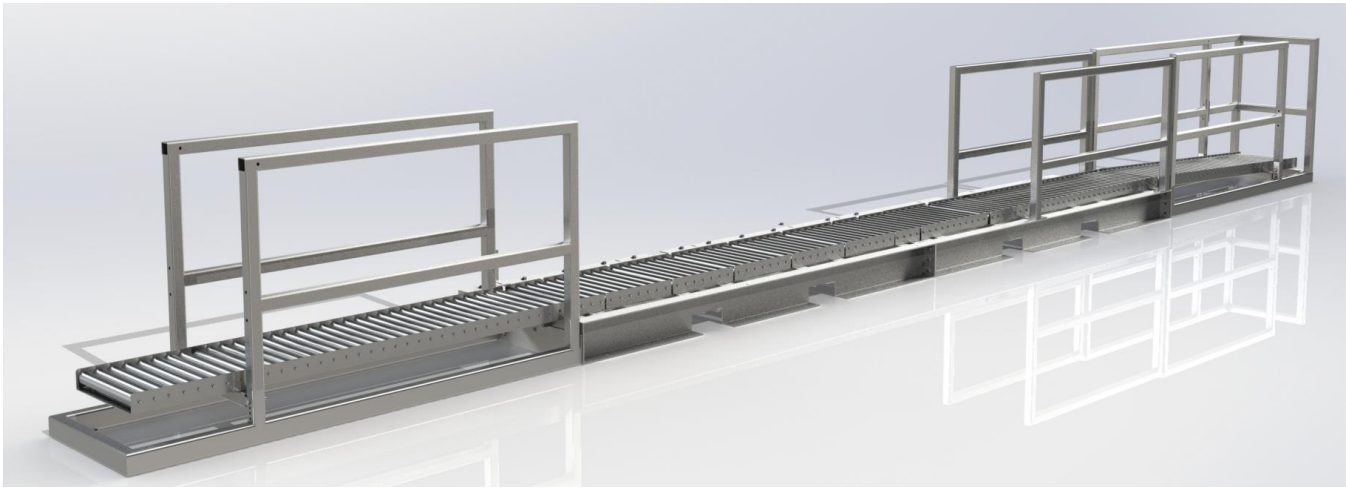
- Quantity and type of cylinders filled
- Quantity of LPG filled
- ...

LEAKAGE DETECTION DEVICE



A bell with a gasket is linked with a hose to bottle filled with water. At the end of the filling, the operator will cover the valve of the cylinder with the bell during a few seconds. In case of leakage, the pressure under the bell will grow and small bubbles of gas will appear on the bottle of water. This indicates there is a leakage

ROLLER CONVEYORS



Designed to convey manually the cylinders.

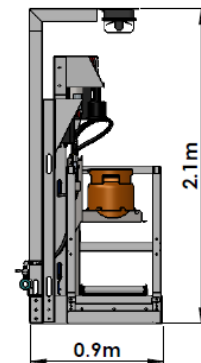
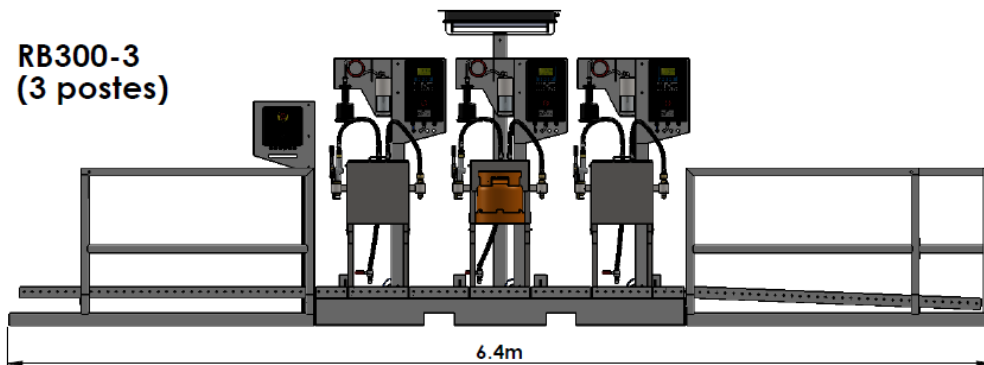
It is equipped with loading and unloading ramps, on the inlet and outlet of the skid.

These ramps are reclining to facilitate handling of the cylinders.

The conveyor is equipped with 157 rollers Ø50 with roller bearings (18 rollers/meter).

DIMENSIONS

RB300-3
(3 postes)



RB300-4 - 6
(4 à 6 postes)

