

LPG FILLING STATION TYPE « SB » (Single, double filling scales, Autogas filling pod)



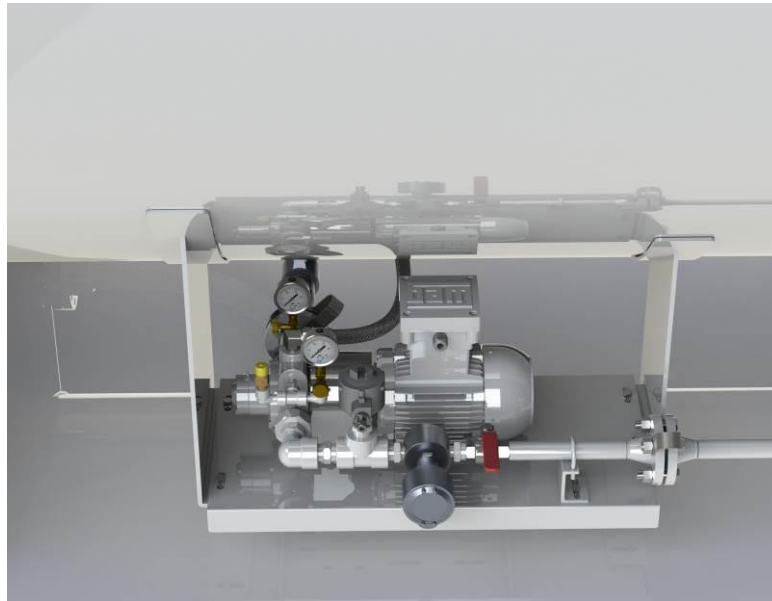
OBJECTIVES

EQUIP'FLUIDES has designed a basic and autonomous unit at low purchase and operating costs, easy to install, that enable professionals to fill on request Customers LPG cylinders ranging from 2.5 to 50kg capacity.

The filling station is a modular system with consist of a 5 or 10 tons LPG tank (type SB5R05 or SB5R10) to be filled with bulk LPG from trucks, an electrical pumping unit on skid (Type SB2A or SB2B) with transfers LPG to an enclosed filling unit on skid with 1 or 2 electronic scales (type SB1A or SB1B), an optional Autogas filling pod (type SB1A-AG) and an electrical cupboard (type SB03) to be installed outside of the dangerous area (office).

EQUIPMENT

PUMPING UNIT ON SKID TYPE SB2A & SB2B



SB2A pumping unit mounted under a 5 ton tank type SB5R05

The pumping skid consists of a Blackmer pump 1" directly driven by an ATEX electric motor mounted on skid. This unit has a capacity of 900 liters / hour of liquid LPG under a differential pressure of 8 bar. It is available for 400V tri-phased, 50Hz power supply (Type SB02A) or 220V single phase, 50Hz power supply (Type SB02B).

This pumping unit is fully equipped with:

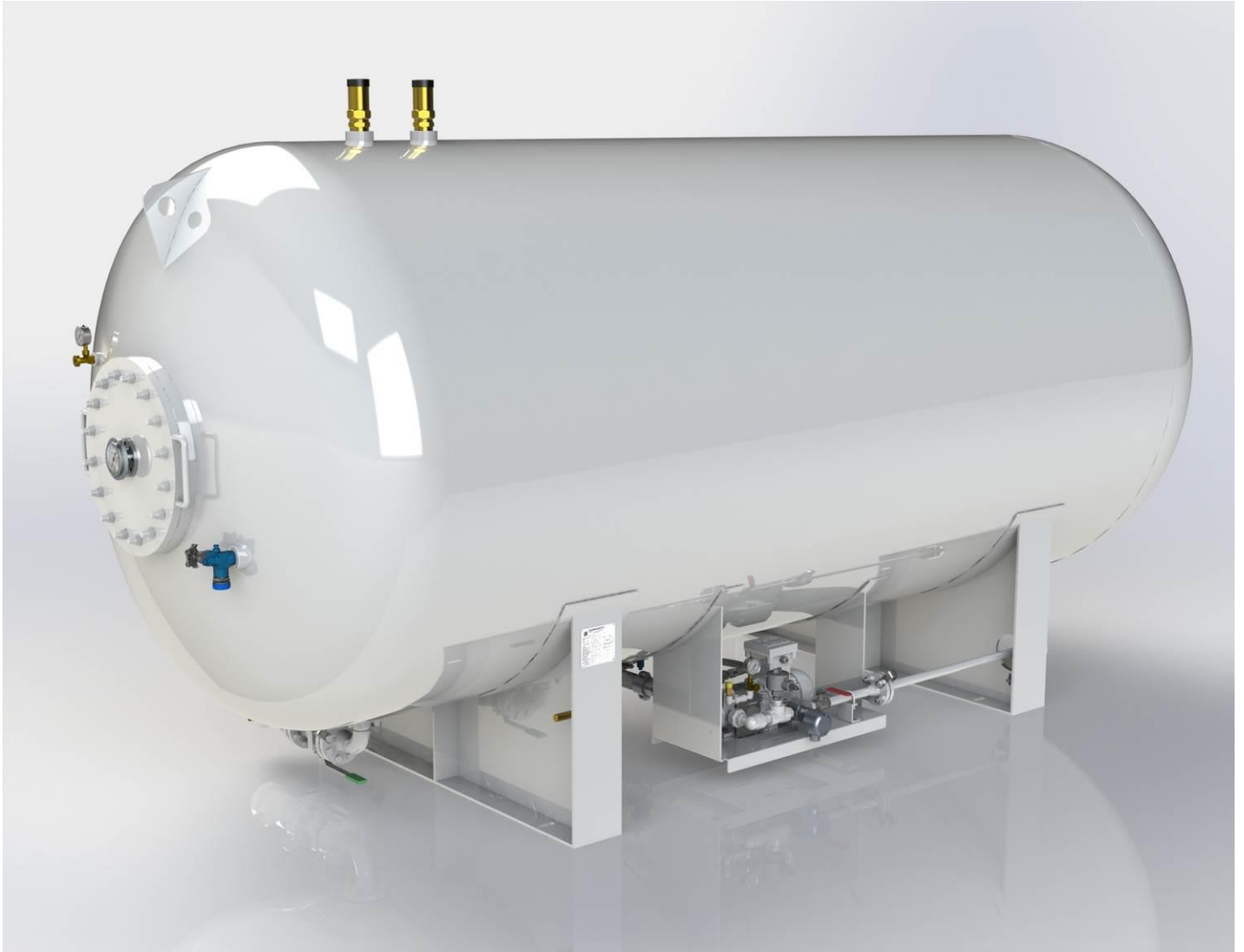
- 1 x Isolating valves
- 1 x Large filter with an 40 mesh and purge
- 1 x Hydrostatic ¼", 20 bar valve
- DN25 ASA300 flanges on inlet and outlet

As an option, the pumping skid can be supplied with:

- 1 x Electronic liquid detector (type SB6B) that automatically stops the pump in case of lack liquid LPG (in order to prevent the deterioration of the pump).
- 1 x volumetric meter (type SB6A) with a temperature sensor which allows to display the quantity of product discharged from the tank. This device is a good way to prevent from fraud by comparing total quantity of LPG transferred to the filling scale (in KG) with the total quantity of cylinders filled.

The pumping skid is designed to be installed on horizontal concrete foundations or directly on special fixations on the storage tank type SB05R05 or SB5R10.

STORAGE TANK TYPE SB05R05 or SB05R10



5 Tons tank SB5R05 with pumping unit type SB2A already installed.

This is bulk LPG storage of approximately 11500 Liters (SB05R05) or 22000 liters (SB05R10), fully equipped and specially designed to be connected to the pumping unit type SB2A or SB2B

Characteristics:

LPG elliptic cigar tank designed for the storage of butane, propane or LPG mixture, diameter 1900mm, (tanks of different capacities can be considered)

Working pressure: 16 bar

Test pressure: 24 bar

The tank is equipped with:

- Safety valves
- Maximum filling level (85%)
- Magnetic gauge
- Manhole and usual piping (liquid filling, return, liquid pumping, excess return, purge etc.)
- Special fixations to fix and connect the pumping unit type SB2A or SB2B
- 1 x large filter 40 mesh and purge

The storage skid will have to be installed on horizontal concrete foundations

EQUIP'FLUIDES – SA au capital de 481 080 euros
RCS : Meaux B313497828 - Code APE / 291D – Code TVA FR 233134497828
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SINGLE OR DOUBLE ENCLOSED CYLINDER FILLING SCALE SKID TYPE SB1A or SB1B



The enclosure can be closed or opened completely and is equipped with a foldable roof



SB1A filling skid (with 1 electronic scale)



SB1B filling skid (with 2 electronic scales)



SB1A (1 filling scale + 1 Autogas filling POD)

This skid consists of a steel frame and aluminium panels on hinges that can be padlocked for securing the following equipment:

- 1x Fluorescent light ATEX
- 1 or 2 Electronic cylinder filling scale with electronic program and display pad for filling of 2.5 to 50kg cylinders
- **NEW: 1 Electronic filling scale with electronic program and display pad for filling of 2.5 to 50kg cylinders, and 1 Autogas filling pod**
- 1 x Leak detector



Typical electronic scale

Electronic scale unit details

All cylinder sizes from 2.5 to 50kg capacity are filled on the base plate of the scale, however for convenience a higher folding tray can be used for the filling of the smaller cylinders (6kg and below).

One flexible hose fitted with a head for specific cylinder valve is available however a second optional hose can be installed with a different head to provide operating flexibility.

The software of the electronic calculator operates an electro valve and coil for an accurate filling of any cylinder programmed for filling.

For the filling the Operator only has to connect the cylinder, enter the tare, the filling will start and stop automatically; the Operator will then disconnect the cylinder and test for leaks.

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Electronic program and display pad



Each scales are equipped with electronic device on which the characteristics of the main types of cylinders that would be used locally can be entered.

By this way, different filling programs can be selected by the operator depending on the type of cylinder to fill.

This also allows the calculator to recognize the type of cylinder to be filled and to prevent over and under-filling.

The operator can preset the filling of the cylinder according to a desired price. Thus a customer can ask to fill his cylinder depending on the amount of money he has.

Autogas filling POD

Part number: SB1A-AG

This is a new development, available with SB1A configuration (1 filling scale) wich allows to fill either cylinders up to 50Kg or cars.



There is a filling mode selector on the control panel to choose between cylinder and car filling.

There are 2 filling programs for cars:

- Manual filling (Filling stops automatically when the tank of the car is full)
- Automatic filling (The operator enter a preselected volume, and the filling stops automatically when this volume is reached)

With these 2 programs, the final price is displayed.

The autogas filling POD also includes:

- 1x PD meter with air eliminator
- 1x Pressure gauge to display the pressure on the car filling line.
- 1x break-away coupling (to secure the installation in case of an unexpected movement of the car during filling).
- 1x flexible hose (DN13 Length 5m)
- 1x Autogas filling nozzle.



ELECTRICAL CUPBOARD TYPE SB3

This an electrical cupboard IP66 that must be installed in a building outside dangerous area witch includes:

- 1 x "Urgency STOP"
- 1 x white Led "in operation"
- 1 x red Led "Default"
- 1 x electrical relay
- 1 x fuse

ELECTRICAL WIRING KIT

Equipments listed before are not supplied with wirings as a standard.

We propose the following wiring kits to make electrical connections between the different units:

- SB7-71A: Electrical wiring kit between filing skid (SB1A) and electrical cupboard (SB3), 15 meters (other length available on request).
- SB7-72A or SB7-72B: Electrical wiring kit between pumping skid SB2A (400V) or SB2B (220V) and electrical cupboard (SB3),15 meters (other length available on request)
- SB7-76B: Electrical wiring kit between optional electronic liquid detector type (SB06B) and electrical cupboard (SB3) ,15 meters (other length available on request)
- SB7-76A: Electrical wiring kit between optional volumetric meter (type SB6A) and electrical cupboard (SB3), 15 meters (other length available on request)

PIPING KIT

Equipments listed before are not supplied with piping as a standard.

We propose the following piping kits to connect the pumping unit to the filling skid unit:

- SB4-12: Piping kit DN25 length: 12 meters
- SB4-18: Piping kit DN25 length: 18 meters