

## STOP GAS SYSTEM – The “190 grams” safe

### Function device

Safety device (Fig. 1) is made by a rubber gasket mounted on a spring in tinplate, shaped so as to systematically adapt to the two different operating positions (opening or closing).

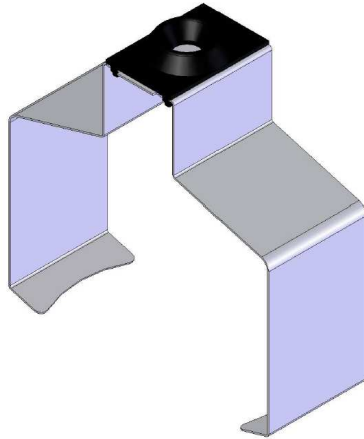


Figure 1: Detail of Safety device (called Spring system STOP GAS).

Below (Fig 2) two sections of the new cartridge with the safety device (called spring system STOP GAS) inside.

- In Fig.2a safety device is in the open position.
- In Fig.2b safety device is in the closed position.

The needle of user-device, piercing the cartridge, compresses the spring and moves downward in the open position, allowing the correct flow of the gas (see blue arrows Fig. 2a)  
When the device is unscrewed or removed (due to an accidental impact or incorrect use by final user) the spring, forced by internal pressure, returns to its closed position, no longer receiving needle's thrust, resetting the gasket seal and stopping the gas leakage (Fig. 2b)

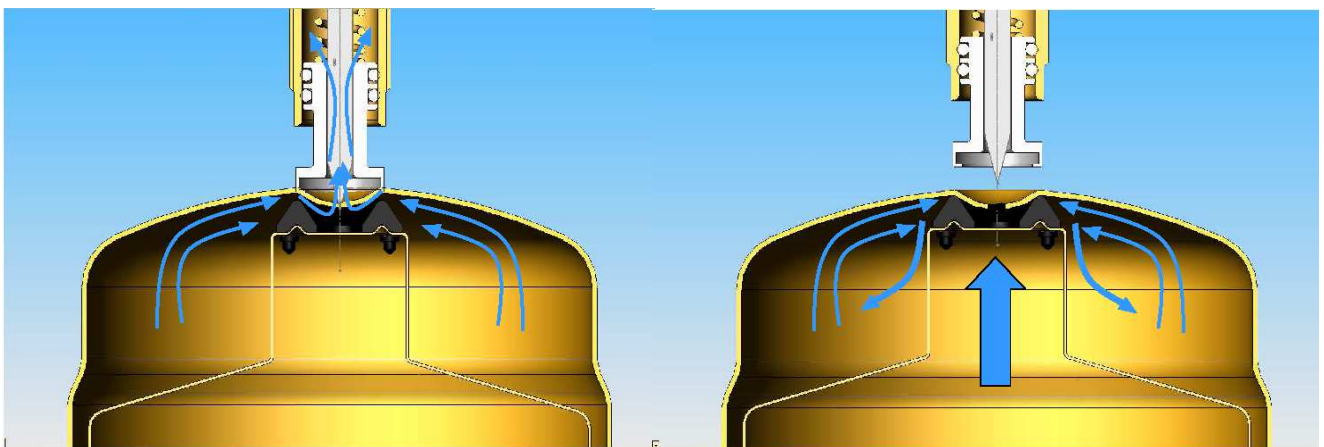
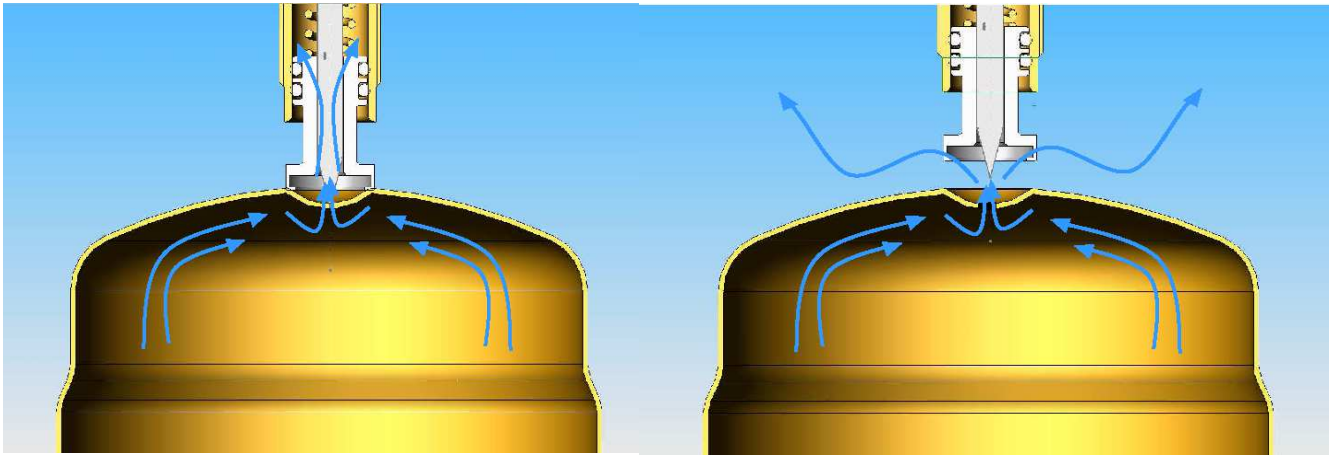


Figure 2a

Figure 2b

In Fig.3 is shown a cartridge WITHOUT spring in which is performed the same dangerous operation



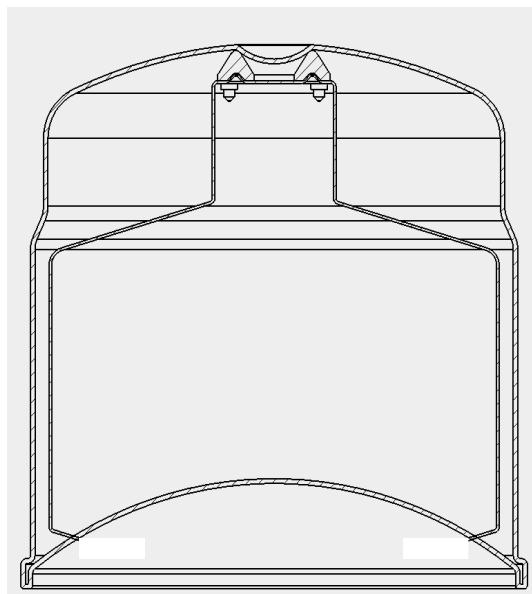
**Figure 3a**

**Figure 3b**

The cartridge according to the old standard (in Fig 3a-3b) does not present any limitation device for the gas leakage. Until the user remains connected the system runs correctly (Fig. 3a) but, when the device is removed, since there are no devices that contain gas (Fig. 3b) the cartridge lets out a large amount of gas by exposing the user to a potential accident.

This new cartridge is completely interchangeable with the old-one. Security is therefore guaranteed even on old equipment.

The cartridge, in fact, is a standard and therefore maintains its external dimensions also reported in the previous rule 2003:EN417 with the addition of the safety device (Fig. 4).



**Figure 4: Section of cartridge with safety device**