

# Cartridges CO<sup>2</sup> / 68°C

Technical File  
T03003 B

## CARDE680020 to CARDE930150-01

### Description - General information

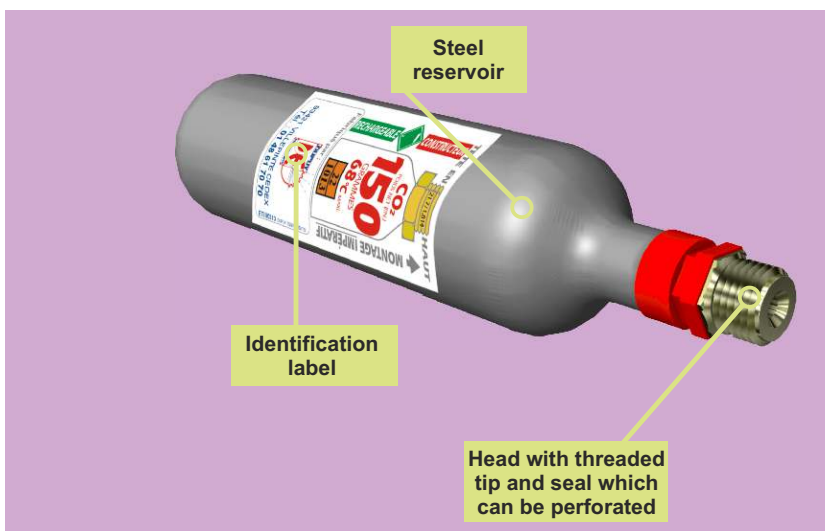
Single use Pneumatic Safety Circuits (PSC).

After percussion, the cartridge releases its entire contents ensuring the activation of one or more Smoke and Heat Exhaust Ventilator (SHEV) systems.

The cartridges of compressed carbon dioxide have been designated as "CO<sup>2</sup> bottles for single use" in the NF EN 12101-10 norm. They meet norm NF EN 12205.

The carbon dioxide is compressed at 60 bar, at about 20°C, equilibrated between liquid phase and gas phase.

They are used primarily in automatic control devices which need an intrinsic energy, for example : Thermofuses.



### Two types of cartridge

- **WITHOUT** plunger tube  
up to and including 150 g.  
Mounted head upwards or head downwards.
- **WITH** plunger tube  
**150g**  
Mounted head upwards only

Reference	Mass CO <sub>2</sub>	Length L + or - 5 mm	∅
CARDE680020	20 g.	110	30
CARDE680080	80 g.	190	35
CARDE680150	150 g.	291	40
CARDE680150-01	150 g.	291	40

With plunger tube  
Without plunger tube

### Technical Characteristics

- Material : Steel resistant at 528 bar.
- Protection : Paint: RAL7037.
- Seal : Breaking under a pressure of between 350 and 450 bar.
- Threading : 21.7 x 1.814.
- Content : CO<sub>2</sub>.
- Temperature during use : + 68°C maximum
- Identification : Engraving and labelling.
- Charge rate : 0.71
- Grammage : 20, 80, 150 g.
- Precautions : Stock and install away from bad weather conditions.

Example of marking



VOLUMES RELEASED BY THE CO <sub>2</sub> CARTRIDGES				
in litres				
PRESSURE in bar	20 g	80 g	150 g	150 g
	WITHOUT PLUNGER TUBE			WITH PLUNGER TUBE
25	0.23	0.93	1.74	2.28
22	0.28	1.11	2.08	2.72
20	0.32	1.27	2.39	3.12
18	0.37	1.46	2.74	3.59
15	0.46	1.78	3.35	4.38
12	0.57	2.27	4.25	5.56
10	0.69	2.75	5.15	6.74
8	0.87	3.47	6.51	8.51



When they are mounted on the thermofuses, cartridges must be screwed in place manually.

All the values on the table above are approximate values :

The results, based on Van der Walls equation, are obtained from our spreadsheet certified by APRAGAZ and crosschecked by many internal measures. The values on the table above are for a room temperature of 20°C.

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