

Lightness of CTS S.p.A. cylinders

In the international market, there are four types of cylinders and they are distinguishable by the following characteristics:

- Type 1 cylinders: completely made of metal.
- Type 2 cylinders: metallic liner, partially reinforced with a continuous resin-impregnated filament fibre.
- Type 3 cylinders: metallic liner, totally reinforced with a continuous resin-impregnated filament fibre.
- Type 4 cylinders: non-metallic liner, totally reinforced with a continuous resin-impregnated filament fibre.

The following table compares the weights of the four types of cylinders according to their geometric capacity (volume).

Table: Comparison of weights as a function of geometric capacity and type.

GEOMETRIC CAPACITY [Litres]	CYLINDER WEIGHT WITH OPERATING PRESSURE 300 bar* [kg]			
	TYPE 1	TYPE 2	TYPE 3	CTS S.p.A. TYPE 4
2.0	3.8	2.6	1.3	1.2
3.0	5.3	3.7	1.8	1.4
6.0	9.8	6.9	3.4	2.5
6.8	11.1	7.7	3.9	2.7
7.2	11.7	8.2	4.1	2.8
9.0	14.4	10.1	5.0	3.8
13.0	20.5	14.3	7.2	5.2

* Listed weights are the average of measurements of cylinders of different manufacturers.

At equal capacity, CTS cylinders are the lightest cylinders on the market, with approximately 30% less weight than Type 3 cylinders (composite cylinders with aluminium liner) and 4 times lighter than Type 1 cylinders (steel cylinders).