TUFFSHELL® all-composite Type 4 CNG cylinders





Features and benefits



Lightweight

TUFFSHELL all-composite Type 4 cylinders combined with aluminum construction offer the lightest weight per unit volume of any CNG fuel system. Weighing only 30% of the weight of steel cylinders, they improve vehicle range, payload, handling, and fuel efficiency



Long cycle life

Type 4 composite cylinders have a plastic liner that does not experience corrosion or metal fatigue after repeated fill and discharge cycles



Maintenance-free

Designed to be maintenance-free with reduced inspection costs



Global

TUFFSHELL all-composite cylinders are used in over 50% of European and 80% of North America CNG commercial vehicles



Durable

High-strength, super-tough construction reduces impact damage and fatigue. Type 4 composite cylinders have built-in dome protection against abrasions and scuffs



Leak-free

Precision-machined valve interface ensures leak-free operation



Compact

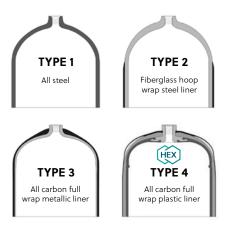
Wide range of standard sizes available in strap mount, boss mount, and mixed mount designs for maximum packaging efficiency



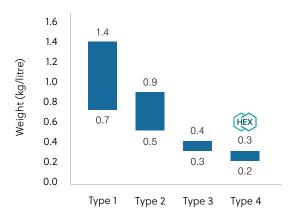
Vocation

Installed in a variety of commercial vehicles, including transit and coach buses, heavy goods vehicles, refuse collection vehicles, concrete mixers, and delivery trucks

Cylinder types comparison



Weight per unit volume by type



Hexagon Agility's rigorous testing



All Hexagon Agility cylinders undergo extensive tests, including those required for certification and additional tests designed by Hexagon Agility to ensure durability and safety over the long haul

Required tests:

Drop test Bonfire test Penetration test Accelerated stress rupture test

Gas cycling **Additional Hexagon Agility tests:**

Acid exposure Weld strength Fast blow down

Flaw tolerance test Pneumatic cycling test Leak before break test Permeation test

Cold fast fill

Hexagon Agility cylinder certifications



Hexagon Agility's cylinders are designed, manufactured, tested, and qualified according to the requirements of the U.S. Department of Transportation (US DOT), National Highway Traffic Safety Administration (NHTSA), Federal Motor Vehicle Safety Standard (FMVSS) 304, Compressed Natural Gas Fuel Container Integrity. They also meet the requirements of ANSI/NGV 2 (2016), Basic Requirements for Compressed Natural Gas Vehicle (NGV) Fuel Containersa. Our cylinders exported globally meet ISO 11439, ECE R110, India CCOE, ADR/TPED, Russian GOST, Korean KGSC, and many other national standards

Specifications

Part #	Mount	Diameter	Length	Empty weight	Full weight	Water volume	Nominal capacity	Working pressure
			mm	kg	kg		kg	bar
240248-020A	Boss	457	1,819	75	112	217	37	200
240249-001A	Strap	384	1,684	46	73	156	27	200
240249-002A	Boss	384	1,775	62	73	156	27	200
240355-002A	Boss	401	2,540	62	114	247	52	250
240382-041A	Boss	403	3,307	89	146	338	57	200
240382-042A	Boss	403	3,094	84	138	315	54	200
240385-001A	Boss	403	3,675	101	165	376	64	200
240404-006A	Boss	694	2,042	136	258	580	122	250
240404-008A	Boss	695	1,496	101	185	399	84	250