

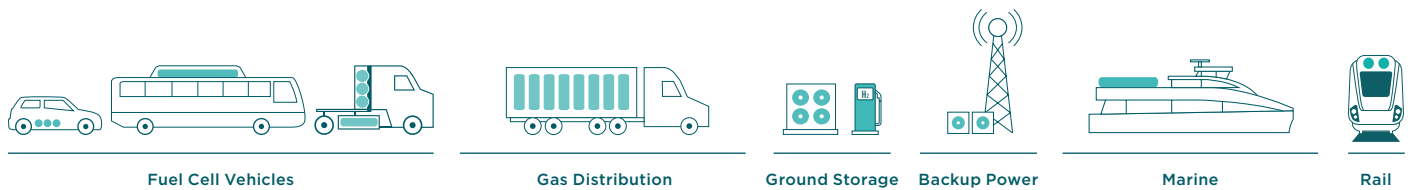


HYDROGEN STORAGE AND TRANSPORTATION SYSTEMS

TYPE 4 HYDROGEN CYLINDERS

Hexagon Purus, a wholly owned subsidiary of Hexagon Composites, is a globally leading supplier of Type 4 high-pressure composite cylinders and systems for storage and transport of various gases under pressure. Type 4 tanks are the best combination of safety, efficiency and durability available. Their lightweight construction improves vehicle range, payload and handling.

Hexagon Purus is well positioned across the hydrogen value chain with vehicle tanks for cars and buses, ground storage, transportation and backup power solutions. Development and production take place at modern facilities in Lincoln, Nebraska (USA) and Kassel (Germany).



FUEL CELL VEHICLES

Hexagon has developed high-pressure hydrogen cylinders for fuel cell vehicles, which are fueled by hydrogen and produce no harmful emissions when operating.

GROUND STORAGE

The introduction of fuel cell vehicles will drive the demand for hydrogen refueling stations (HRS). The fatigue-resistant cycling properties of composite pressure cylinders make them more suitable for storage than steel alternatives.

GAS DISTRIBUTION

Demand for hydrogen distribution solutions will grow strongly as a function of the demand for transportation of hydrogen from renewable sources. Hexagon's Mobile Pipeline® and X-STORE® solutions are certified for hydrogen distribution. Type 4 tanks allow more gas to be transported in a given trailer space.

BACKUP POWER

Hydrogen fuel cells are an efficient and emerging choice for low-emission, reliable backup power used for telecommunications, emergency services and in remote locations. Hexagon offers backup power solutions with lightweight hydrogen tanks that enhance system performance and payback.

MARINE AND RAIL

Hexagon is at the forefront of developing hydrogen solutions for the marine and rail industry.

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HEXAGON PURUS HYDROGEN TYPE 4 CYLINDER INFORMATION*

NOMINAL WORKING PRESSURE AT 15 [°] C MPa	OUTSIDE DIAMETER mm	OVERALL LENGTH mm	TANK WEIGHT kg	WATER VOLUME L	HYDROGEN CAPACITY kg	WEIGHT RATIO (hydrogen weight/ tank weight) %	SUITABLE FOR NECK MOUNT	APPROVAL
20	315	1 060	18	46	0.7	3.9		Planned
25	541	2 783	164	450	8.0	4.9	✓	TPED
25	503	2 342	94	350	6.3	6.7	✓	TPED
25	654	2 413	147	581	10.4	7.1	✓	ABS/US DOT
25	653	4 419	267	1 170	21.0	7.9	✓	ABS/US DOT
25	653	5 689	342	1 544	27.8	8.1	✓	ABS/US DOT
30	509	2 342	112	350	7.4	6.6	✓	TPED
35	420	3 190	101	312	7.5	7.4	✓	EC79/HVG2
35	509	2 342	112	350	8.4	7.5		EC79
50	565	3 277	280	530	16.5	5.9	✓	PED/US DOT
50	531	2 424	229	347	10.9	4.8		TPED
70	319	906	34	36	1.4	4.1	✓	EC79/R-134
70	238	1 600	29	39	1.6	5.5	✓	Planned
70	440	1 050	59	76	3.1	5.3	✓	R-134/GTR13
70	530	2 154	188	244	9.8	5.2	✓	HGV2
95	515	2 783	365	254	12.4	3.4	✓	PED/US DOT

* This list summarizes frequently built units, other sizes may also be available.

Per February 2019