



Distribution



Medium- and heavy-duty vehicles



Bus



Light-duty vehicles



Rail



Maritime



Aerospace



Aviation



Ground storage

Hydrogen distribution systems in standard execution

X-STORE® containers

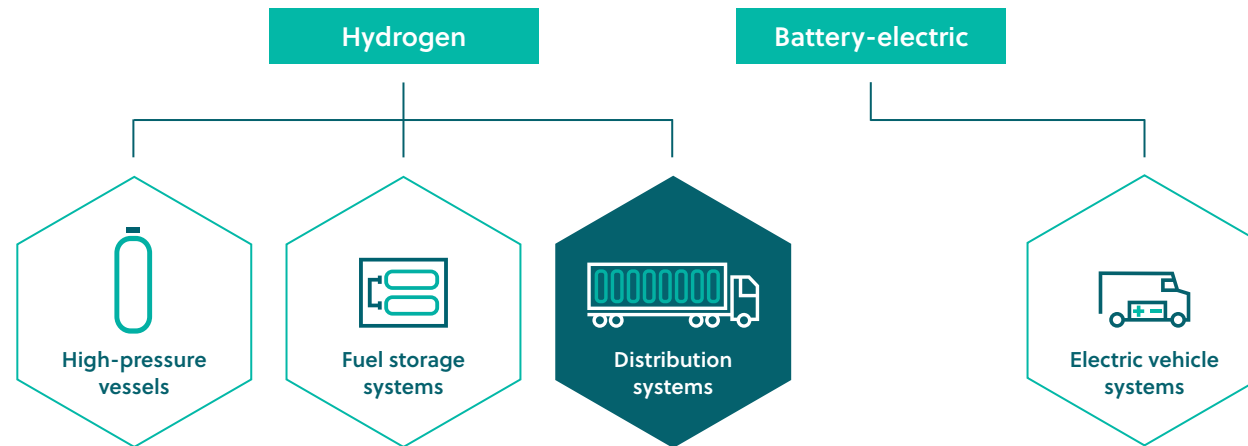
Hexagon Purus is a globally leading supplier of Type 4 high-pressure composite cylinders and systems for storage and transport of gases under pressure. Type 4 cylinders are the best combination of safety, efficiency and durability available. Their lightweight construction improves vehicle range, payload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

Hexagon Purus is well positioned across the hydrogen value chain with cylinders and systems for cars, trucks and buses, ground storage, transportation, maritime and rail. Development and production take place at modern facilities in Canada, Germany and the USA.

Distribution

Hydrogen from renewable resources is the energy carrier of the future. An efficient distribution network is required to transport it to the end user. Our X-STORE® container and trailer solutions are ideal for road, rail and maritime distribution. They use our leading Type 4 cylinder technology and provide the highest payloads in the market.

Product areas





EN 17339
300 bar

X-STORE® distribution systems in standard execution

ADR version for hydrogen

		X-STORE® 10 ft	X-STORE® 20 ft	X-STORE® 30 ft	X-STORE® 40 ft	X-STORE® 45 ft
Approval	Cylinders	According to EN 17339				
	System	Leak tested according to DIN EN 1779				
	Container	According to ISO 668 including CSC approval				
	Corner castings	According to ISO 668				
Container (length x width x height)	mm	3,048 x 2,438 x 2,743	6,058 x 2,438 x 2,743	9,087 x 2,483 x 2,743	12,192 x 2,438 x 2,743	13,176 x 2,438 x 2,743
Hydraulic capacity, approx.	l	8,400	18,900	29,400	39,900	45,150
Nominal H2 mass (15°C) ¹⁾	kg	178	401	624	847	958
Net weight container, approx. ²⁾	kg	4,130	8,470	12,720	16,825	18,930
Total container weight + H2 ¹⁾²⁾	kg	4,308	8,871	13,344	17,672	19,888
Quantity cylinders, 350 l	pcs	24	54	84	114	129
Minimum residual pressure (15 °C)	MPa (bar)	2 (20)				
Operating pressure (15 °C)	MPa (bar)	30 (300)				
Max. developed pressure (65 °C)	MPa (bar)	35.4 (354)				
Burst pressure, min.	MPa (bar)	70.8 (708)				
Cylinder operating temperature min./max.	°C	-40 / +65				
Cylinder marking		TC_500_11				
Cylinder type		Type 4				
Cylinder design		Full carbon				
Cylinder liner material		High-density polyethylene (HDPE)				
Service lifetime		Unlimited				
Inspection standards		ISO 11623				

¹⁾ The filling process underlies the complex physical laws of fluid mechanics. The actual filling volume depends on several factors: ambient temperature, filling speed and inlet temperature which in turn depend on the equipment of the compressor station (compressors, chillers, piping, valves and fittings). Therefore an exact statement about the real filling volume cannot be given.

²⁾ +1 % tolerance due to manufacturing reasons



EN 17339
318 bar

X-STORE® distribution systems in standard execution

ADR version for hydrogen

		X-STORE® 10 ft	X-STORE® 20 ft	X-STORE® 30 ft	X-STORE® 40 ft	X-STORE® 45 ft
Approval	Cylinders	According to EN 17339				
	System	Leak tested according to DIN EN 1779				
	Container	According to ISO 668 including CSC approval				
	Corner castings	According to ISO 668				
Container (length x width x height)	mm	3,048 x 2,438 x 2,743	6,058 x 2,438 x 2,743	9,087 x 2,483 x 2,743	12,192 x 2,438 x 2,743	13,176 x 2,438 x 2,743
Hydraulic capacity, approx.	l	8,400	18,900	29,400	39,900	45,150
Nominal H2 mass (15°C) ¹⁾	kg	187	421	655	889	1,005
Net weight container, approx. ²⁾	kg	4,130	8,470	12,720	16,825	18,930
Total container weight + H2 ¹⁾²⁾	kg	4,317	8,891	13,375	17,714	19,935
Quantity cylinders, 350 l	pcs	24	54	84	114	129
Minimum residual pressure (15 °C)	MPa (bar)	2 (20)				
Operating pressure (15 °C)	MPa (bar)	31.8 (318)				
Max. developed pressure (65 °C)	MPa (bar)	37.5 (375)				
Burst pressure, min.	MPa (bar)	75 (750)				
Cylinder operating temperature min./max.	°C	-40 / +65				
Cylinder marking		TC_500_11				
Cylinder type		Type 4				
Cylinder design		Full carbon				
Cylinder liner material		High-density polyethylene (HDPE)				
Service lifetime		Unlimited				
Inspection standards		ISO 11623				

¹⁾ The filling process underlies the complex physical laws of fluid mechanics. The actual filling volume depends on several factors: ambient temperature, filling speed and inlet temperature which in turn depend on the equipment of the compressor station (compressors, chillers, piping, valves and fittings). Therefore an exact statement about the real filling volume cannot be given.

²⁾ +1 % tolerance due to manufacturing reasons



EN 17339
381 bar

X-STORE® distribution systems in standard execution

ADR version for hydrogen

		X-STORE® 10 ft	X-STORE® 20 ft	X-STORE® 30 ft	X-STORE® 40 ft	X-STORE® 45 ft
Approval	Cylinders	According to EN 17339				
	System	Leak tested according to DIN EN 1779				
	Container	According to ISO 668 including CSC approval				
	Corner castings	According to ISO 668				
Container (length x width x height)	mm	3,048 x 2,438 x 2,743	6,058 x 2,438 x 2,743	9,087 x 2,483 x 2,743	12,192 x 2,438 x 2,743	13,176 x 2,438 x 2,743
Hydraulic capacity, approx.	l	8,400	18,900	29,400	39,900	45,150
Nominal H2 mass (15°C) ¹⁾	kg	217	487	758	1,029	1,164
Net weight container, approx. ²⁾	kg	4,560	9,440	14,230	18,875	21,250
Total container weight + H2 ¹⁾²⁾	kg	4,777	9,927	14,988	19,904	22,414
Quantity cylinders, 350 l	pcs	24	54	84	114	129
Minimum residual pressure (15 °C)	MPa (bar)	2 (20)				
Operating pressure (15 °C)	MPa (bar)	38.1 (381)				
Max. developed pressure (65 °C)	MPa (bar)	45 (450)				
Burst pressure, min.	MPa (bar)	90 (900)				
Cylinder operating temperature min./max.	°C	-40 / +65				
Cylinder marking		HC_500_5				
Cylinder type		Type 4				
Cylinder design		Full carbon				
Cylinder liner material		High-density polyethylene (HDPE)				
Service lifetime		Unlimited				
Inspection standards		ISO 11623				

¹⁾ The filling process underlies the complex physical laws of fluid mechanics. The actual filling volume depends on several factors: ambient temperature, filling speed and inlet temperature which in turn depend on the equipment of the compressor station (compressors, chillers, piping, valves and fittings). Therefore an exact statement about the real filling volume cannot be given.

²⁾ +1 % tolerance due to manufacturing reasons