



Safe and cost-efficient storage and transportation solutions

Secure structural design of UAC fully metal transportation modules, coupled with our type IV low-weight pressure vessels, offers optimal safety and greater space utilization for on-road transportation of larger volumes of compressed CNG and biogas.

UAC type IV pressure vessels in fibre glass and epoxy resin materials are lightweight, robust and non-corrosive. Excellent damage resistance, wide temperature tolerances, high safety levels and price-competitiveness of our solutions prove to be an intelligent alternative to carbon fibre or steel tanks.

We supply standard configurations and tailored solutions to meet specific customer requirements and regulatory standards.

MAIN BENEFITS

- Larger gas volume
- Superior safety levels
- High-strength durability
- Extended service lifetime
- Reduced lifecycle cost

Design specifications

Container type	Hook load SS3021 or SFS4417 Galvanized steel frame with aluminum box	ISO Standard or High Cube Painted steel container with composite doors
Manifold connections	NGV 1&2, hose NGV 1&2, Din 477-1	Customized configurations
Pressure vessel size	600 - 2 400 (l)	600 - 2 400 (l)
Gas temperature tolerances	- 40°C / + 65°C	- 40°C / + 65°C
Approvals	EN 12245-3, ADR / TPED.	EN 12245-3, ADR / TPED. Containers can be delivered in compliance with CSC requirements.

Transportation modules overview

Container size	Unit	20' Hook MEGC	20' Hook MEGC standard	20' ISO standard	20' ISO high cube	40' ISO standard	40' ISO high cube	45' ISO standard	45' ISO high cube	Remarks
Number of cylinders	#	8	9	9	11	18	22	18	22	
Cylinder volume	l	1 650	1 650	1 650	1 650	1 700	1 700	1 925	1 925	
Total storage volume (Wc)	l	13 200	14 850	14 850	18 150	30 600	37 400	34 650	42 350	
Storage capacity (Wp 200 bar)	kg	2 371	2 667	2 667	3 260	5 497	6 718	6 224	7 607	@15C
Storage capacity (Wp 250 bar)	kg	2 799	3 149	3 149	3 849	6 489	7 931	7 348	8 981	@15C

Standard type IV pressure vessels

Working pressure (bar)	Water volume (liter)	Length (mm)	Diameter (mm)	CNG / Biogas capacity (kg)
200	1 650	5 720	708	296
250	1 650	5 720	728	350
300	1 650	5 720	739	396
350	1 650	5 720	750	422
200	1 700	5 860	708	305
250	1 700	5 860	728	361
300	1 700	5 860	739	406
350	1 700	5 860	750	434
200	1 925	6 600	708	346
250	1 925	6 600	728	408
300	1 925	6 600	739	460
350	1 925	6 600	750	492

UMOE Advanced Composites (UAC) is the leading global supplier of large fibre glass type IV pressure vessels and modules for containment, storage and transportation of CNG, biogas and hydrogen for land-based, marine and offshore applications.

Note: Modifications to specifications presented here may be made without notice.
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