



In the past 30 years, AETHER CT has accumulated and developed high pressured gas vessel manufacturing technologies and knowhow. We cover various industrial fields such as semiconductor gas, hydrogen, natural gas and industrial gas transportation & storage systems. As a 'World-Class Product of Korea' company, certified by the Korean government, we are positioning ourselves as a world-class high-pressure vessel maker for the international market. Based on the belief that 'Energies' and 'Values' can be 'Safely' stored in the highest quality products, we will grow into a trusted company in the global market.




www.aetherct.com



AETHER **CT**

HYDROGEN TUBE TRAILER / INDUSTRIAL GAS(H_2 / He / N_2 ,etc.) / CNG / ULTRA HIGH PURITY GAS(SiH_4 / NF_3 / SF_6 / N_2O ,etc.)
TON-TANK / HYDROGEN STORAGE / ASME STORAGE / AIR PRESSURE VESSEL / COMPOSITE TUBE



SPECIAL INTERNAL GRINDING
Internal Roughness : 3S
Moisture Level : Below 1.0 ppm available



| HYDROGEN TUBE TRAILERS

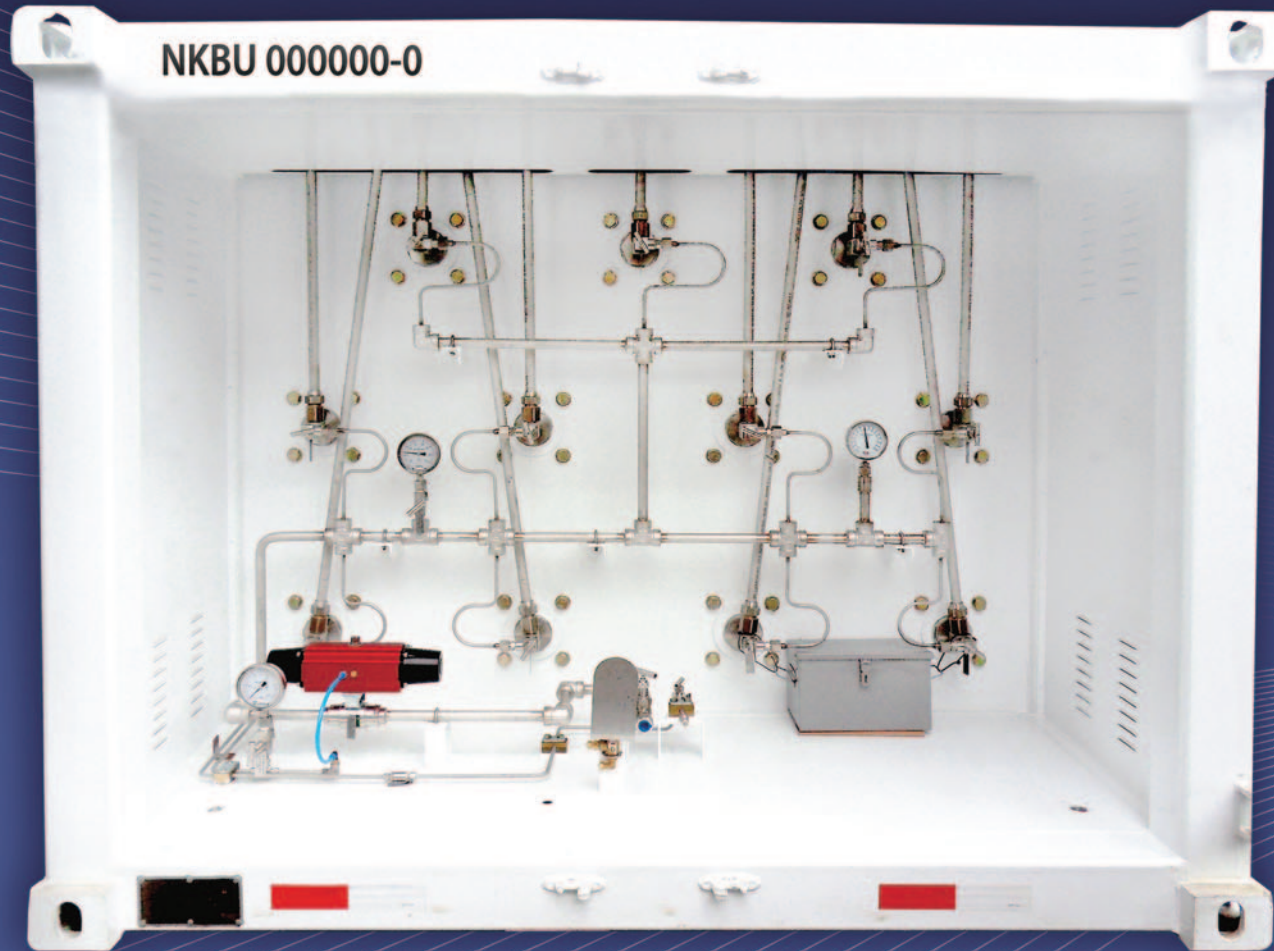
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HYDROGEN TUBE TRAILERS

Skid Length	Item	Tube Q'ty	Working Pressure (bar)	Total Water Capacity (liter)	Total Gas Capacity (H ₂ /kg)
32 ft / Bundle Type	TT08-1690	8	200	13,520	195
40 ft / Bundle Type	TT10-2290	10	200	22,900	338



Hydrogen tube trailers, supplied to hydrogen filling stations, are 40'ft or 32'ft integrated types and can be manufactured conforming to our customers' national standards and various customer requirements.



I HYDROGEN / HELIUM
INDUSTRIAL GAS (H₂/He/N₂, etc.)

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INDUSTRIAL GAS (H₂/He/N₂, etc.)

Skid Length	Item	Tube Q'ty	Working Pressure (bar)	Total Water Capacity (liter)	Total Gas Capacity (H ₂ /m ³)	Total Gas Capacity (H ₂ /kg)
20 ft	TS08-1045	8	200	8,360	1,472	120
	TS12-1045	12	200	12,540	2,208	181
32 ft	TS11-1610	11	200	17,710	3,122	255
	TS10-1795	10	200	17,950	3,164	259
	TS11-1690	11	200	18,590	3,377	268
	TS08-2250	8	200	18,000	3,173	260
40 ft	TS09-2250	9	200	20,250	3,528	299
	TS10-2250	10	200	22,500	3,980	332
	TS11-2250	11	200	24,750	4,363	357
	TS12-2455	12	200	29,460	5,336 (He/m ³)	872 (He/kg)

* TS12-2455 : non-embrittlement gas use only

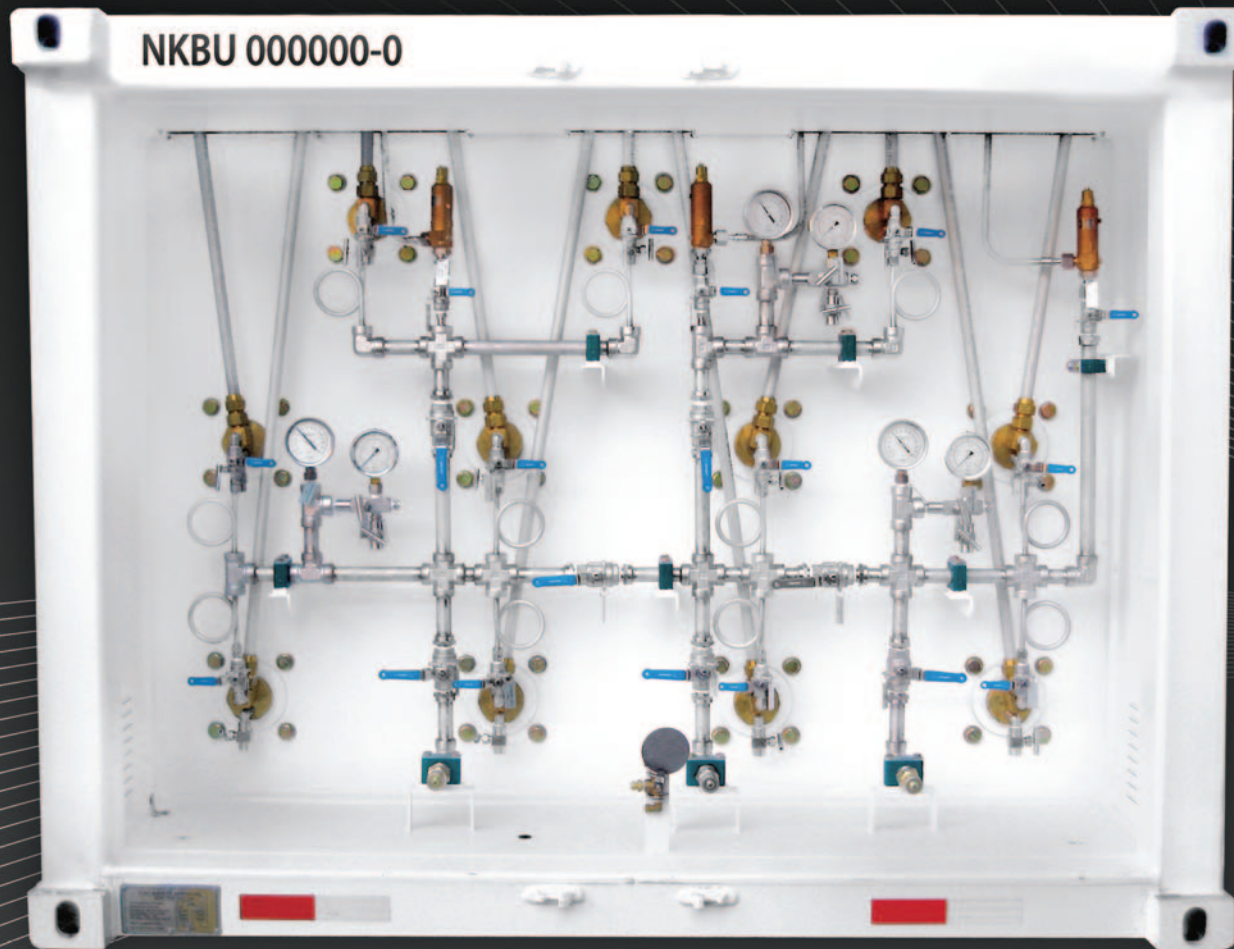


INDUSTRIAL GAS TUBE SKIDS

AETHER CT provides various industrial Gas Tube Skids such as Hydrogen (H₂), Helium (He), Neon (Ne), Nitrogen (N₂) and Argon (Ar), as well as CNG.

The working pressure is set to national requirements or customer's demands such as 166 bar, 200 bar, or 250 bar.

The color of the jumbo tubes and skid frames follows ISO color codes, or the designations of customers.



CNG

(Compressed Natural Gas)

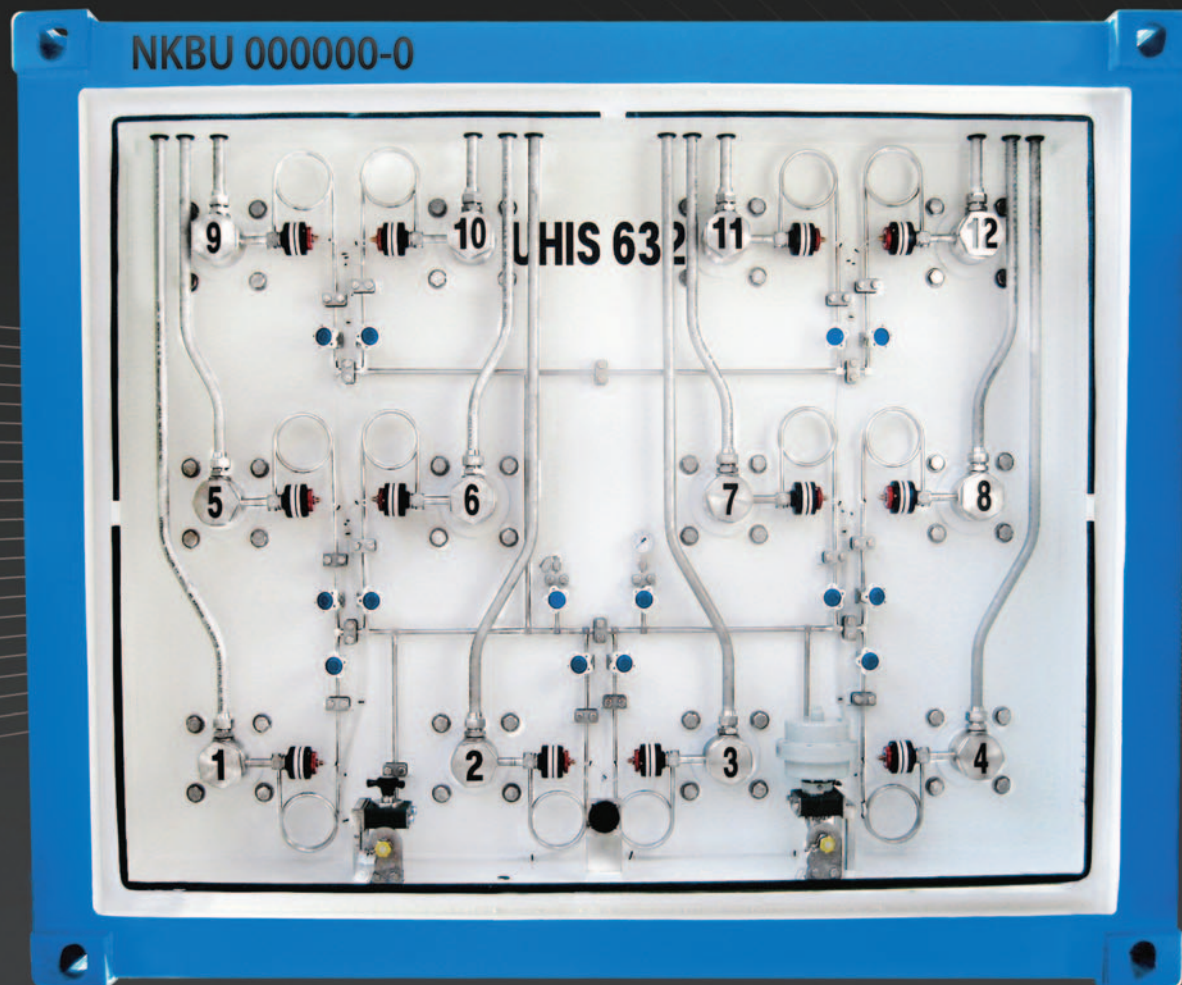
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CNG (Compressed Natural Gas)

Skid Length	Item	Tube Q'ty	Working Pressure (bar)	Total Water Capacity (liter)	Total Gas Capacity (m ³)
20 ft	TS08-1045CNG	8	250	8,360	2,486
	TS12-1045CNG	12	250	12,540	3,729
32 ft	TS11-1795CNG	11	250	19,745	5,528
40 ft	TS08-2240CNG	8	250	17,920	5,330
	TS11-2240CNG	11	250	24,640	7,362
	TS08-2420CNG	8	250	19,360	5,760
40 ft / Lighter	TS10-2420CNG	10	250	24,200	7,200
	TS11-2420CNG	11	250	26,620	7,918



Compressed Natural Gas (CNG) movable vessels are most useful for transporting large volumes of natural gas to areas where there is no infrastructure of natural gas supply. The vessels can store gases to a high pressure of 250 bar. After the several vessels are combined into one module, a large quantity of gas can be stored and transported. In particular, CNG vessels are very efficient in taking the place of long-distance gas pipelines in large countries like China, India and Russia, and in The Middle East. The demand for the tube skids is globally increasing. We continuously develop new models and methods of modularizing vessels for optimum usages. As the demand for natural gas is constantly increasing in every country in the world as an alternative energy, the role of AETHER CT for movable natural gas charging vehicles will be further expanded.



ULTRA HIGH PURITY GAS
(SiH_4 / NF_3 / SF_6 / N_2O , etc.)

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ULTRA HIGH PURITY GAS (SiH₄/NF₃/SF₆/N₂O, etc.)

Skid Length	Item	Tube Q'ty	Working Pressure (bar)	Total Water Capacity (liter)	Total Gas Capacity (air/m ³)
20 ft	TS08-1045 SiH ₄	8	200	8,360	1,617
	TS12-1045 NF ₃	12	200	12,540	2,426
	TS08-1100 SiH ₄	8	166	8,800	1,439
	TS12-1100 SiH ₄	12	166	13,200	2,159
40 ft	TS09-2250 NF ₃	9	200	20,250	3,918
	TS08-2310 SiH ₄	8	166	18,480	3,022
	TS05-2330 SF ₆	5	166	11,650	1,905
	TS08-2330 NF ₃	8	166	18,640	3,048
	TS06-2330 N ₂ O	6	166	13,980	2,286



IMDG MEGC

These are specially designed for transportation of toxic gases in both ocean and land areas.

AETHER CT has type-approval of global inspection classes for MEGC and provides MEGC with certificates in compliance with CSC, TIR, UIC, ADR, RID, IMDG, TPED, SELO, KGS, DOT, ISO. Toxic gases, such as Silane (SiH₄), Nitrogen Trifluoride (NF₃), Sulphur Hexafluoride (SF₆), Ammonia (NH₃), Nitrous Oxide (N₂O), etc. must be contained in IMDG certified MEGC tubes for ocean transportation. For high purity gases such as SiH₄ and NF₃, AETHER CT provides internal-polished tubes to a grade of 3S, 25S, etc. depending on customer's requirements. AETHER CT's tubes keep moisture levels below 1 ppm or 3 ppm by a heated vacuuming process so that gas quality can be maintained at high purity level.



1 TON-TANK

AETHER CT

TON-TANK

Tube O.D	Item	Gas	Total Water Capacity (liter)	Working Pressure (bar)	Gas Capacity (air/m ³)
24 in	440L	SiH ₄ , PH ₃ , NH ₃ , SF ₆ , NF ₃ , N ₂ O	440	166	73
	470L		470	166	78



Ton tanks (Y-ton) are designed to deliver Ultra High Purity and ordinary industrial gases to semiconductor fabs, or any manufacturers who have demand for small quantity of gases. AETHER CT is qualified to produce quality ton tanks in compliance with international codes such as DOT3AA, DOT3AAX, SELO and KGS as per customer's demands.



I HYDROGEN STORAGE

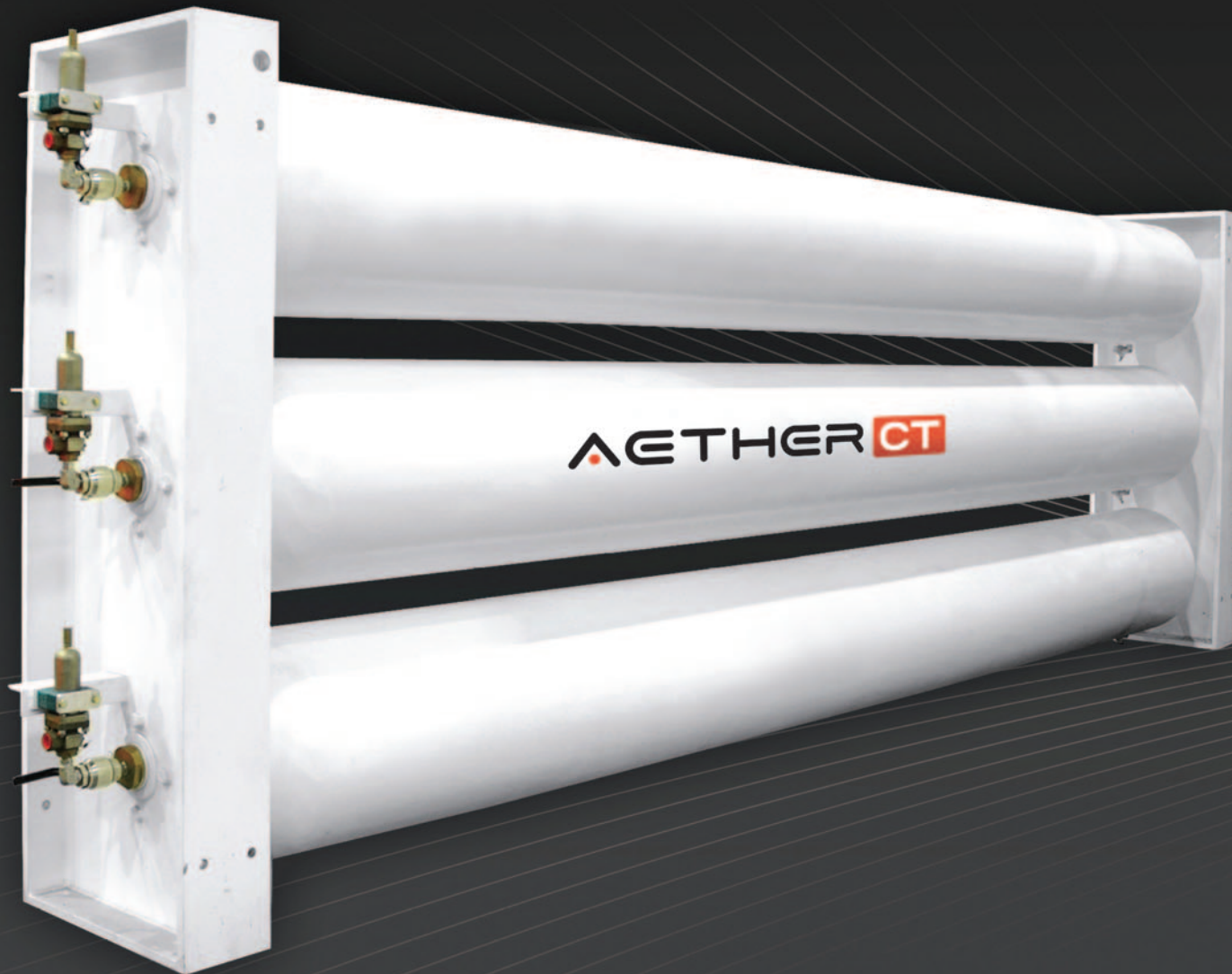
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HYDROGEN STORAGE

Item	Tube Length (mm)	Working Pressure (bar)	Design Pressure (bar)	Gas Capacity (kg)
ASME 560	11,200	875	1,020	25
ASME 350	6,505	875	990	15
ASME 1000	7,000	500	555	31
ASME 1300	6,250	248	275.8	23



H₂ storage vessels are offered with high pressure (FP 400~500 bar) and ultra-high pressure (FP 875 bar) products to hydrogen filling stations and can be manufactured as two-stage or three-stage cascades.

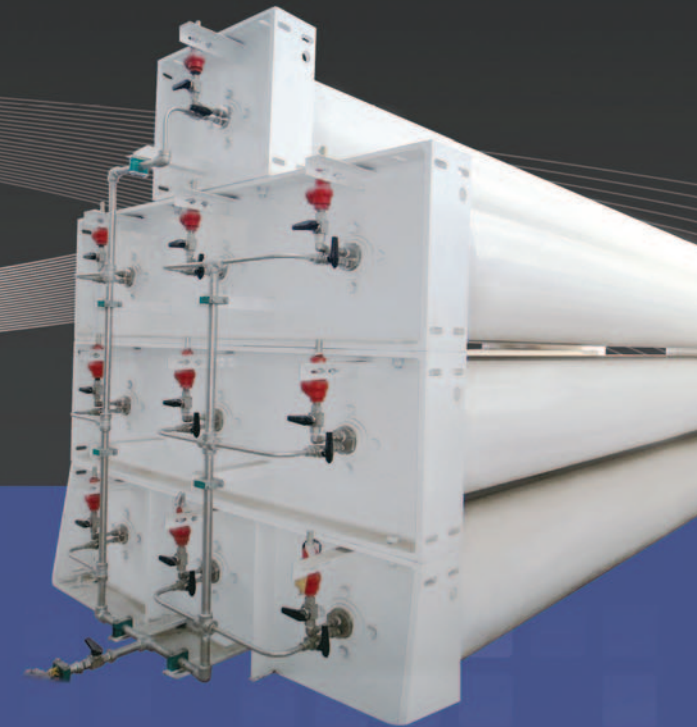


| ASME STORAGE

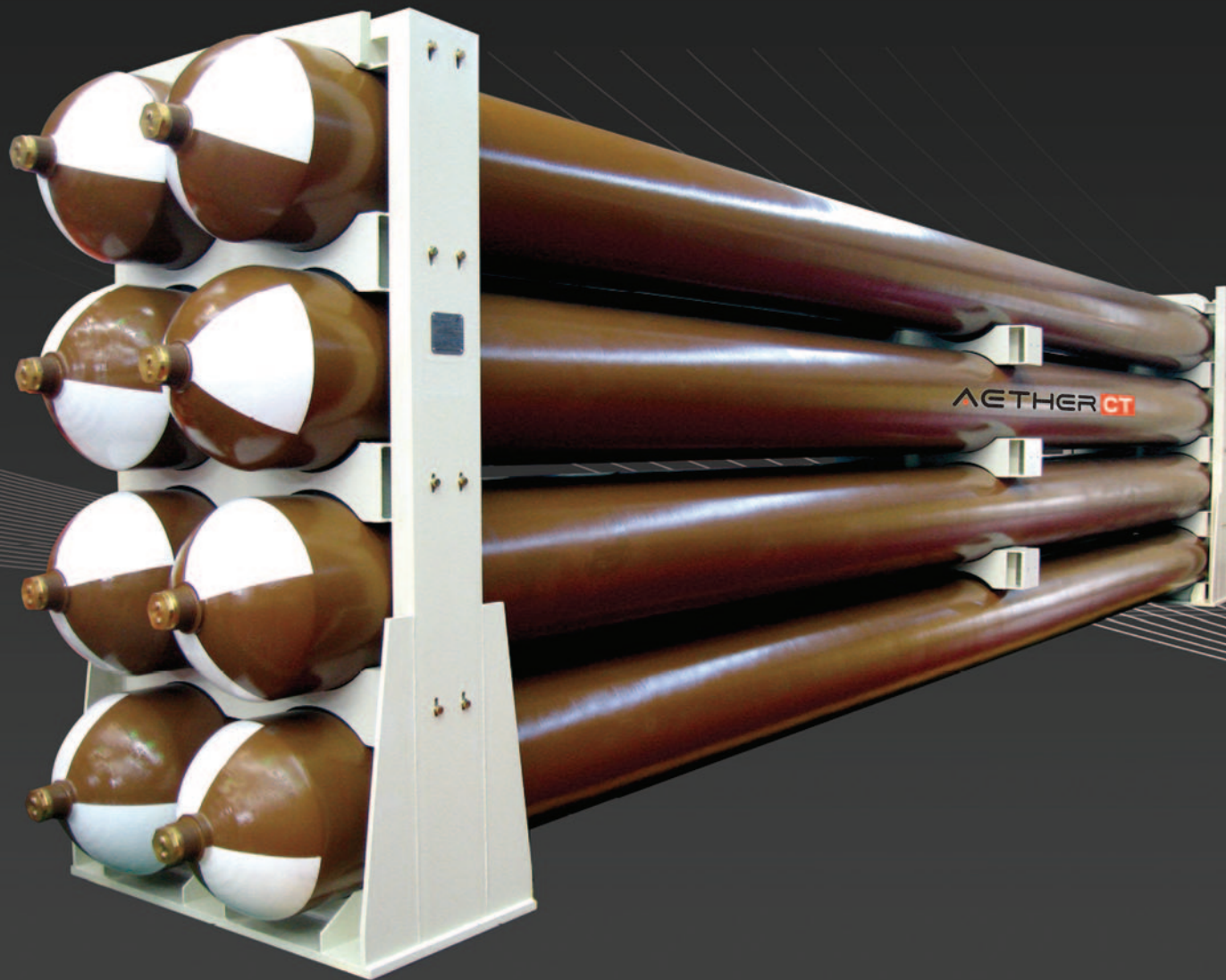
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ASME STORAGE

Item	Gas	Tube Length (mm)	Working Pressure (bar)	Water Capacity (liter)	Gas Capacity (CNG/m ³)
ASME 585	H ₂ , CNG & Industrial Gases	3,125	248	585	173
ASME 1000		4,890	248	1,000	296
ASME 1300		6,250	248	1,300	385
ASME 1400		7,350	350	1,400	370
ASME 1000		6,555	400	1,000	380



These storage vessels are mainly used for H₂ and CNG, industrial factories and ships. Usually three vessels of 1,300 liters for content volume are combined into one module. In the case of large storage stations, several modules can be installed together. The specifications for vessel design, manufacture and inspection comply with the ASME standard of the USA, as well as the standard of the Korea Gas Safety Corporation. These vessels are manufactured and exported to countries all over the world.



AIR PRESSURE VESSEL
FOR DIVING SYSTEM

AETHER CT

DIVING SYSTEM SPECIFICATION

Gas Type	Breathing air, Heliox
Working Pressure	200 bar ~ 400 bar
Class Approval	ISO 11120, Lloyd, DNV & KR
Tube Length	5,335 mm ~ 11,675 mm
Water Volume	1,045 L ~ 2,900 L
Out Diameter	558.8 mm ~ 609.6 mm



The storage Vessel is designed to store breathing gas for diving system. AETHER CT is qualified to manufacture this storage vessel and the specifications for vessel design, manufacture and inspection comply with DNV and ISO.



| AIR PRESSURE VESSEL
FOR DRILLSHIP

AETHER CT

AIR PRESSURE VESSEL

Class Approval	DNV, ABS, etc.
Code	EN ISO 11120, DNV-OS-E101, ABS+CDS
Type	Horizontal, Vertical
Pressure	100 bar ~ 400 bar
Capacity	440 L ~ 2210 L
Tube O.D	500 mm ~ 622 mm
Tube Length	2,000 mm ~ 10,000 mm
Main Valve	2 in up to class 2500 (413 bar) 3 in up to class 1500 (255 bar)



AETHER CT has delivered various Air Pressure Vessels to customers in order to obtain constant tension in the marine drilling riser. Air Pressure Vessel is connected to the Piston accumulators air-side in Marine riser tensioner system. This means that the riser tensioner unit acts like a hydro/pneumatic spring by using the compressed air from Air Pressure Vessel. These ultra high pressure vessels have also special demands from aerospace centers for rocket launching program.

HYDROGEN TUBE SKID

Skid Length	Item	Tube Q'ty	Working Pressure (bar)	Total Water Capacity (liter)	Total Gas Capacity (H ₂ /kg)
40 ft	TS18-1710	18	400	30,780	822
40 ft	TS22-1710	22	400	37,620	1,005



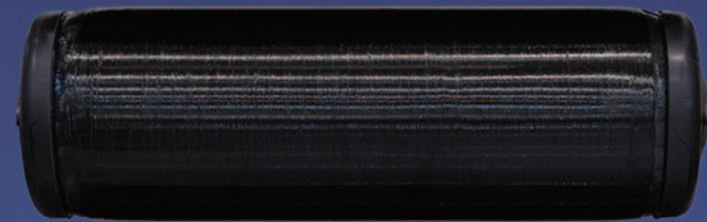
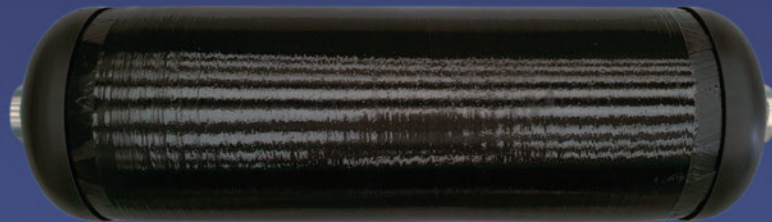
Compressed Hydrogen (H₂) movable vessels are most useful for transporting large volumes of hydrogen gas to areas where there is no infrastructure of hydrogen gas supply. The vessels can store gases to a high pressure of 400bar. After the several vessels are combined into one module, a large quantity of gas can be stored and transported. The demand for the tube skids is globally increasing. We continuously develop new models and methods of modularizing vessels for optimum usages. As the demand for hydrogen gas is constantly increasing in every country in the world as an alternative energy. The role of AETHER CT for movable hydrogen charging vehicles will be further expanded.

I COMPOSITE TUBE

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COMPOSITE TYPE4 VESSEL

Working Pressure (Bar)	Gas	Water Volume(L)	Diameter (mm)	Mounting	Certificate	Remarks
200	H ₂ , CNG	190	458	Body	ISO11119-3	Gas transportation
350	H ₂ , CNG	190	472	Body	ISO11119-3	Gas transportation
350	H ₂	9.3	178	Neck & Body	ISO11119-3 TPED, DOT, KGS	FCE Drone
700	H ₂	40	293	Body	ECE R 134, KGS	FCE Vehicle
700	H ₂	55	320	Neck & Body	ECE R 134, KGS	FCE Vehicle



AETHER CT provides various size & volume of fuel vessels for fuel cell electric mobility. The working pressure is set to national requirements or customer's demands such as 200bar, 350bar or 700bar. These vessels are manufactured and exported to countries all over the world.

DELIVERING VALUE WITH THE BEST OF
BREED QUALITY & SAFETY



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