



Shandong AUYAN New Energy Technology Co.,Ltd

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SHANDONG AUYAN NEW ENERGY TECHNOLOGY CO.,LTD

To become the world's leading
green new energy innovative enterprise

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ABOUT US

Established in 2011, located in Weifang City, Shandong Province, Shandong AUYAN New Energy Technology Co., Ltd is an innovative enterprise specialized in manufacturing cryogenic equipment and providing technical services, the main products are LNG vehicle supply system, CNG/CHG vehicle supply system, H2 vehicle supply system, Gas station, Welded insulated cylinder and Biological tank . AUYAN is one of the leaders in the Chinese new energy industry.

Abides by the core values of "Respect, Unity, Integrity, Innovation" and takes "building the company to be a happiness platform with all staff, to create, share and realize the ideal of life, and contributing to social development and human progress" for the mission, AUYAN continues breaking through and innovating, insists on sustainable development, determines to become the leader in global new energy revolutionary.



MISSION

Building the company to be a happiness platform with all staff, to create, share and realize the ideal of life, and contributing to the social development and human progress.

VISION

To become the world's leading green new energy innovative enterprise

VALUES

Respect, Unity, Integrity, Innovation



RESEARCH AND DEVELOPMENT

There are 50 people in AUYAN technology research and development center, among them there are one doctor, five masters, three senior engineers and twenty of them has middle class title of technical post or above. It is a multi-disciplinary and complementary research team. AUYAN technology center has R&D room, physical and chemical labs, mechanical property lab, and vibration lab. There are complete instruments and equipment and infrastructure condition. The test center covers an area of 3200 square meters and is equipped with vibration test table, direct-reading spectrometer, fatigue tester, tensile tester, impact tester, gas analyzer, high performance liquid chromatography, low temperature test table etc.



R & D INNOVATION

Innovation management RDIM system; product innovation mechanism runs through the whole process and life cycle.

R & D INVESTMENT

R&D investment \geq 4% of sales revenue, continue to increase R&D investment, and technological innovation drives future development.

R & D STRENGTH

The R&D team has 7% doctors, 18% graduate students, and 18% middle and senior engineers. Adhere to high-end talents to build core competitiveness.

EVENTS

LNG commercial vehicle gas supply system production
 Electric power communication equipment manufacturing
 LNG vehicle gas supply system enters the top three in the industry

Establish academician workstation
 Established the new production workshop.
 Hydrogen cylinder and H2/CNG/LNG gas station equipment R&D and production.

2011-2013

Commercial vehicle intelligent equipment, cryogenic equipment
 and technical, gas storage and high-pressure equipment sales

2014-2016

2017-2018

Participate in the formulation of standards by the General Administration of Quality
 Supervision, Inspection and Quarantine

2019-2022

SOCIAL WELFARE

AUYAN takes social responsibilities as part of the enterprise's core values. As a global enterprise, AUYAN puts its social responsibility into company strategy. Through long-term cooperation with the government and other industries, it is to innovate, set up brand image, and raise enterprise reputation. It is to assure the success and future of our company through social approval and enterprise leadership.

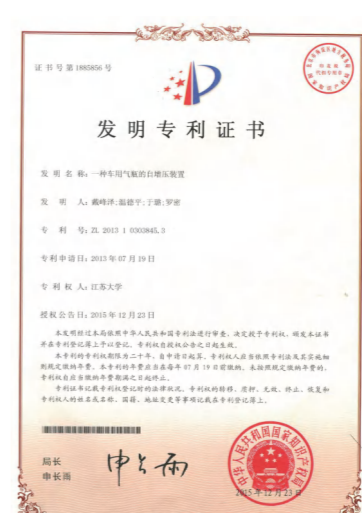
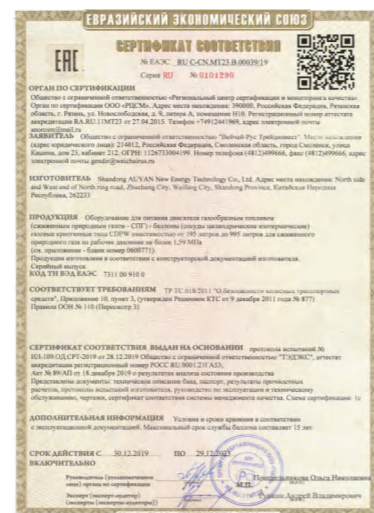
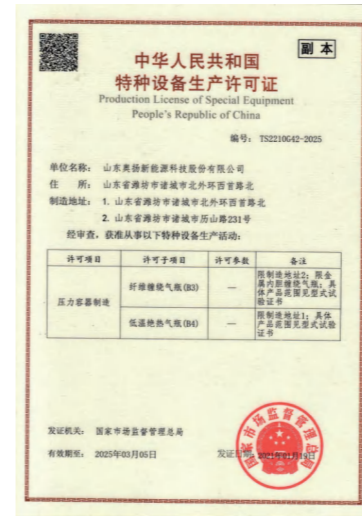
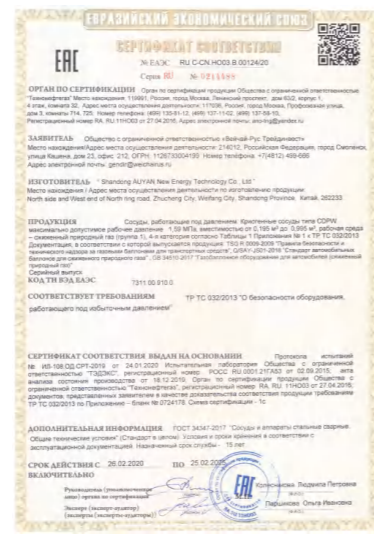
AUYAN always takes the idea of "from society and return to society". We stick to operating by law and in good faith. While making a profit and being responsible for the shareholders, we pay attention to the economic, social, and environmental effects caused by our operation; take part in the public welfare work, and give back to society. Meanwhile, AUYAN aims to change the future of human beings' energy and create a better world with the new energy; benefit mankind and be an excellent Chinese enterprise citizen.



CERTIFICATE

Until now, AUYAN produce has passed ISO/TS 16949 QMS certification, European Union CE certification, United States ASME certification, and Russian EAC Certification.

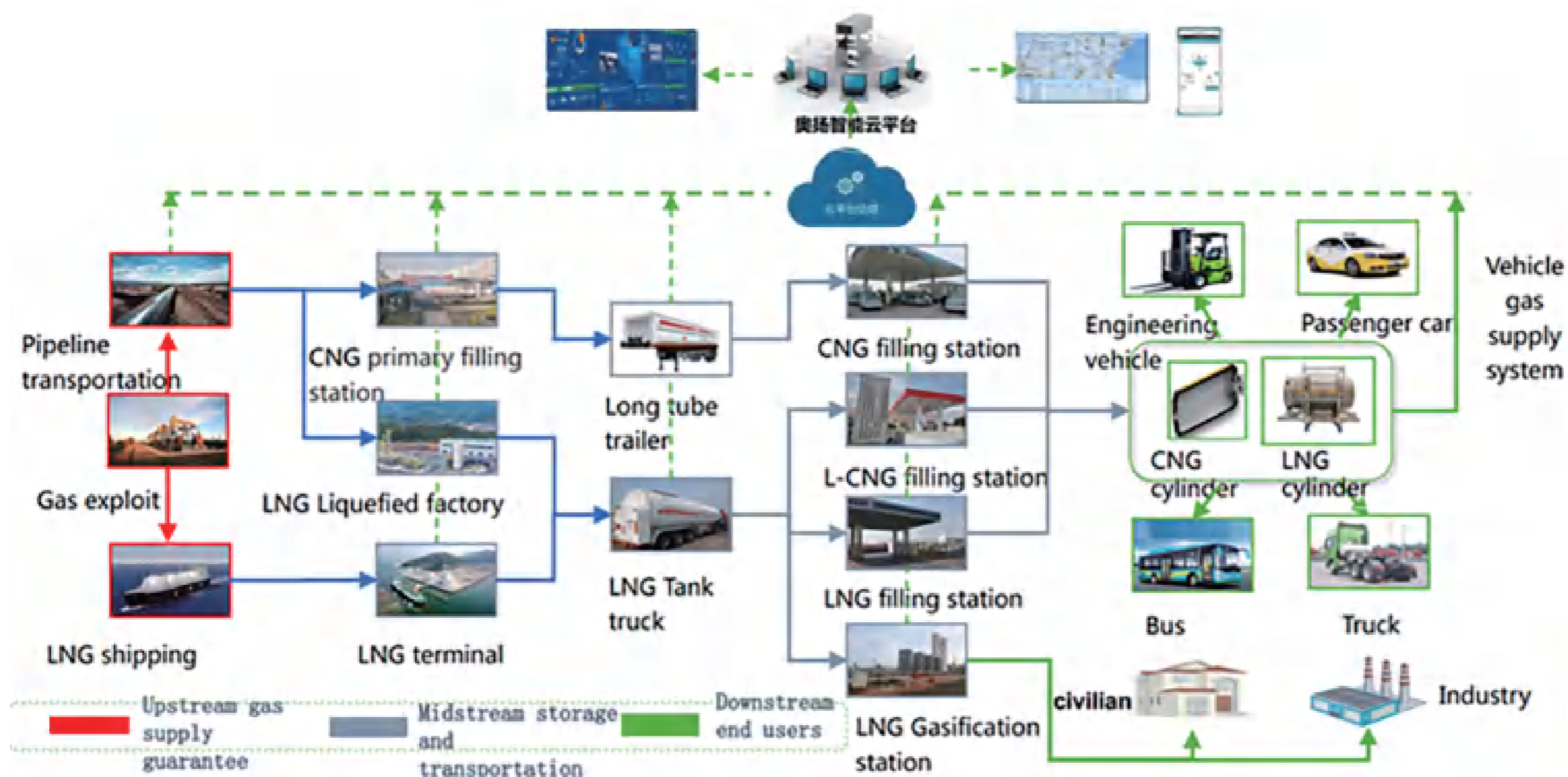
So far, AUYAN has obtained thirteen national utility model patents and about one hundred honorary awards, and was named innovative model enterprises and high-tech enterprises in 2019. AUYAN get Level B3 and B4 (vehicle CNG/LNG cylinder) pressure container design, manufacture and install license issued by AQSIIQ and special vehicle production qualification released by MIIT255 announcement.



BUSINESS SCOPE

AUYAN integrates upstream and downstream industry chains to provide cryogenic liquid storage equipment, transportation equipment, small gas supply system and various types of gas filling stations.

AUYAN is committed to the R&D and manufacturing of intelligent power supply systems for new energy vehicles (LNG, CNG, H2), energy storage and transportation equipment systems, and new energy power generation equipment systems. The company has been focusing on the vehicle-mounted LNG gas supply system industry and has accumulated a number of patents and core technologies in R&D, design, and production, covering product design, processing technology, and other fields. The company has overseas R&D institutions in North America, Germany, etc., and has introduced a professional R&D team for Type 4 bottles with an American doctor as the chief expert to enhance innovation capabilities and overcome technical difficulties.



LNG VEHICLE SUPPLY SYSTEM

In accordance with the different requirements from different customers, AUYAN, cooperation with the customers, constantly improve the process and technology upgrading and it aims to produce the most cost saving and most suitable LNG gas cylinder.



PRODUCT ADVANTAGES:

01

COMPLETE PRODUCTS

Full range of models with specifications available. (200 + models with certification)

02

HIGH SAFETY

There is no leakage while using. It is not dangerous when being baked in fire for 40 mins, dropping down from 10 m height, hit by 100km/h.

03

HIGH STABILITY

The gas cylinder output pressure in the gas supply system and matching degree of the valves is more stable.

04

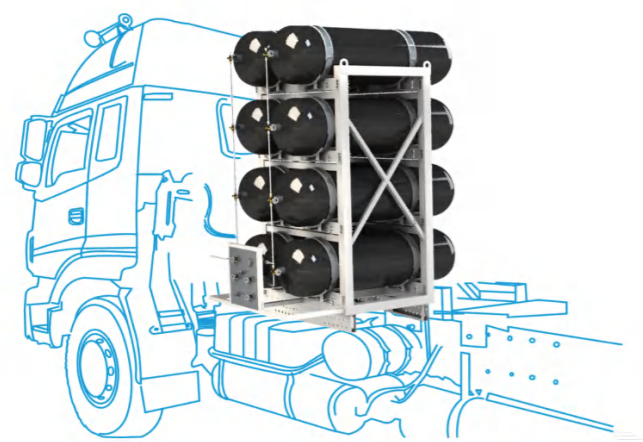
PROFESSIONAL CUSTOMIZATION

Products tend to be lightweight, standardized and customized.

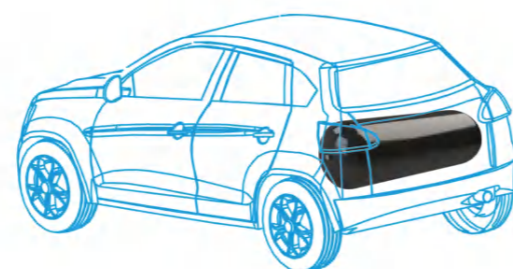
No.	Model	Nominal Volume/L	Effective Volume/L	Diameter/mm	Length/mm	Net Weight/Kg	Max Filling weight/Kg
1	CDPW450-160-1.59	160	144	458	1305	127	61.3
2	CDPW500-150-1.59	150	135	558	1201	173	57.5
3	CDPW600-530-1.59	530	477	658	2303	273	203.2
4	CDPW650-375-1.59	375	337.5	708	1581	227	143.8
5	CDPW700-580-1.59	580	522	758	1851	327	222.4
6	CDPW750-350-1.59	350	315	808	1274	235	134.2
7	CDPW800-750-1.59	750	675	858	1919	420	287.5
8	CDPW850-450-1.59	450	405	908	1280	302	172.5
9	CDPW900-950-1.59	950	855	958	1998	488.6	364.2
10	CDPW950-1350-1.59	1350	1215	1008	2425	618.4	517.6
11	CDPW1000-1350-1.59	1350	1215	1058	2239	631.3	517.6

CNG/CHG VEHICLE SUPPLY SYSTEM

AUYAN Technology's intelligent equipment division has a variety of CNG/CHG cylinder models of 52L-220L and 80L-320L. And undergoing certification.



Commercial vehicle rear 8-cylinder gas supply system



Single bottle gas supply system for passenger cars

PRODUCT ADVANTAGES:

- 01 MORE SAFETY**
It has excellent anti-fatigue performance, the fatigue life can reach more than 20,000 times, and the safety failure mode of leakage before blasting.
- 02 MORE ECONOMICAL**
Gas cylinders are reinforced with high-strength composite materials, which can reduce weight by more than 30% and reduce vehicle energy consumption.
- 03 STRONGER ENDURANCE**
High calorific value and stronger endurance.
- 04 CLEANER**
Good performance and environmental protection.

Type	Item	Model	Parameters of High Pressure Gas Cylinder				
			Work Pressure/MPA	Cylinder outer diameter/mm	The length/mm	The water volume/L	Weight/Kg
III Type Cylinder	140L Gas Cylinder	CHG3-346-140-35S/A	35	376	1800	140	78
	140L Gas Cylinder	CHG3-345-140-35S/A	35	375	1790	140	75
	170L Gas Cylinder	CHG3-383-170-35S/A	35	415	1790	170	88
	190L Gas Cylinder	CHG3-383-190-35S/A	35	415	1950	190	96
	210L Gas Cylinder	CHG3-383-210-35S/A	35	415	2140	210	105
	385L Gas Cylinder	CHG3-529-385-35S/A	35	580	2050	385	165
IV Type Cylinder	235L Gas Cylinder	CNG4-C-450-235-20S	20	450	1880	235	58
	265L Gas Cylinder	CNG4-C-450-265-20S	20	450	2070	265	65
	305L Gas Cylinder	CNG4-C-450-305-20S	20	450	2400	305	75
	230L Gas Cylinder	CHG4-C-460-230-35S	35	460	1900	230	76
	260L Gas Cylinder	CHG4-C-460-260-35S	35	460	2100	260	90
	66L Gas Cylinder	CHG4-C-356-66-70T	70	410	965	66	45

H2 VEHICLE SUPPLY SYSTEM

AUYAN mainly focuses on the two application routes of high-pressure gaseous hydrogen and liquid hydrogen, carries out R&D layout from various links such as hydrogen production, hydrogen liquefaction, hydrogen storage and transportation and the construction of hydrogen refueling station, and builds an intelligent chemical plant from a high starting point to lead the construction of hydrogen energy application ecosystem.



PRODUCT ADVANTAGES:

01

HIGH SAFETY

The hydraulic burst pressure of the gas cylinder is above 110MPa, far exceeding the requirements of the national standard ($\geq 78.75\text{MPa}$).

02

LONG LIFE

The gas cylinder has excellent anti-fatigue performance, and the number of pressure cycles at room temperature is more than 20,000 times.

03

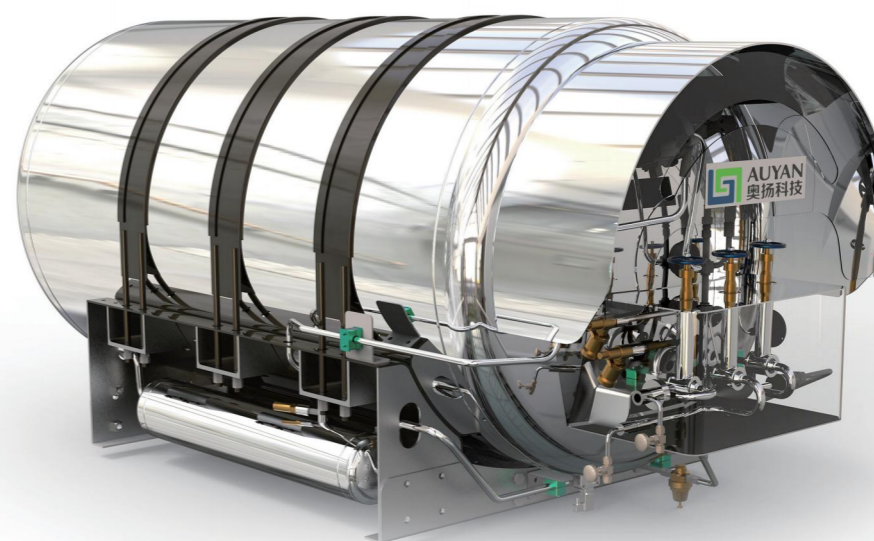
MORE ECONOMICAL

the weight is reduced by 20-40%, the cost is reduced by 15-35%, and the service life is longer.

04

MORE ADVANCED

Subvert the existing gas cylinders and meet the future technical needs of hydrogen fuel cell vehicles.



GAS STATION

AUYAN provides LNG, CNG, and H2 gas station manufacture and service, and has accumulated a number of patents and core technologies in R&D, design, and production, covering product design, processing technology, and so on.

PRODUCT ADVANTAGES:

01

RICH EXPERIENCE

AUYAN has rich experience in gas station construction, investment and operation.

02

COMPREHENSIVE SERVICE

AUYAN can provide individualized, systematic, and modular natural gas vehicle filling station solutions and all-around one-stop service for gas station investment operators according to different scales, different regions, and different environmental and resource conditions.



WELDED INSULATED CYLINDER

Welded insulated cylinder include vertical model and horizontal model from 175L to 499L. The lowest heat conduction design and high vacuum heat insulation interlayer make sure the products have an outstanding insulating property. It brings a new solution with high purity and low cost for the customers. It is widely used in the economic field such as machinery, shipbuilding, hospital, chemical industry, electronic industry, medicine, material, energy, scientific research and etc.

Welded Insulated Cylinder technical parameter								
Model	Vertical						Horizontal	
	175MP	195MP	210MP	175HP	195HP	210HP	499MP	499HP
Working Pressure (Mpa)	1.6	1.6	1.6	2.3	2.3	2.3	1.6	2.3
Volume								
Nominal Volume (L)	175	195	210	175	195	210	499	499
Valid Volume (L)	161	179.4	193.2	161	179.4	193.2	459.1	459.1
Size and Weight								
D (mm)	506	506	506	506	506	506	706	706
H (mm)	1504	1631	1721	1504	1631	1721	2050	2050
* Hw (Kg)	168	185	199	168	185	199	249	249
Storage Capacity								
LO (Kg)	183.5	204.5	220.2	183.5	204.5	220.2	523.4	523.4
LN (Kg)	130.1	145.0	156.1	130.1	145.0	156.1	370.9	370.9
LA (Kg)	225.4	251.2	270.5	225.4	251.2	270.5	642.7	642.7
Valve Setting Pressure (Mpa)	1.72	1.72	1.72	2.41	2.41	2.41	1.72	2.41
Pressure Adjustable Range (Mpa)	0.34-1.2	0.34-1.2	0.34-1.2	1.0-2.4	1.0-2.4	1.0-2.4	0.34-1.2	1.0-2.4
Daily Evaporation (LA) : %/d	2.1	2.0	2.0	2.1	2.0	2.0	1.9	1.9

* Net Weight is based on the weight on name plate.

PRODUCT ADVANTAGES:

01

MORE CHOICES

Different volume and pressure but more choices.

02

LOWER LOSS

Reliable quality accessories and low thermal lose property.

03

HIGHER IMPACT RESISTANCE

Rubber damping ring base with high anti-impact resistance.

04

LONGER SERVICE LIFE

High vacuum insulated system with 3 years lifetime.



BIOLOGICAL TANK

Ultra-low temperature liquid nitrogen biological container is a product developed for the needs of the biomedical industry. It adopts advanced technologies such as updated high-vacuum multi-layer insulation, electronic temperature control and liquid nitrogen dispersion to make the intelligent cooling and constant temperature process uniform and stable.



PRODUCT ADVANTAGES:

01**MORE ECONOMICAL**

larger capacity design, lower static evaporation loss rate, saving storage space and liquid nitrogen consumption for users.

02**SMARTER**

The advanced intelligent control system allows users to save worry and effort during use.

03**SAFER**

The unique manufacturing process ensures product quality and ensures long-term storage safety of samples.



SERVICES AND APPLICATIONS

Europe and America

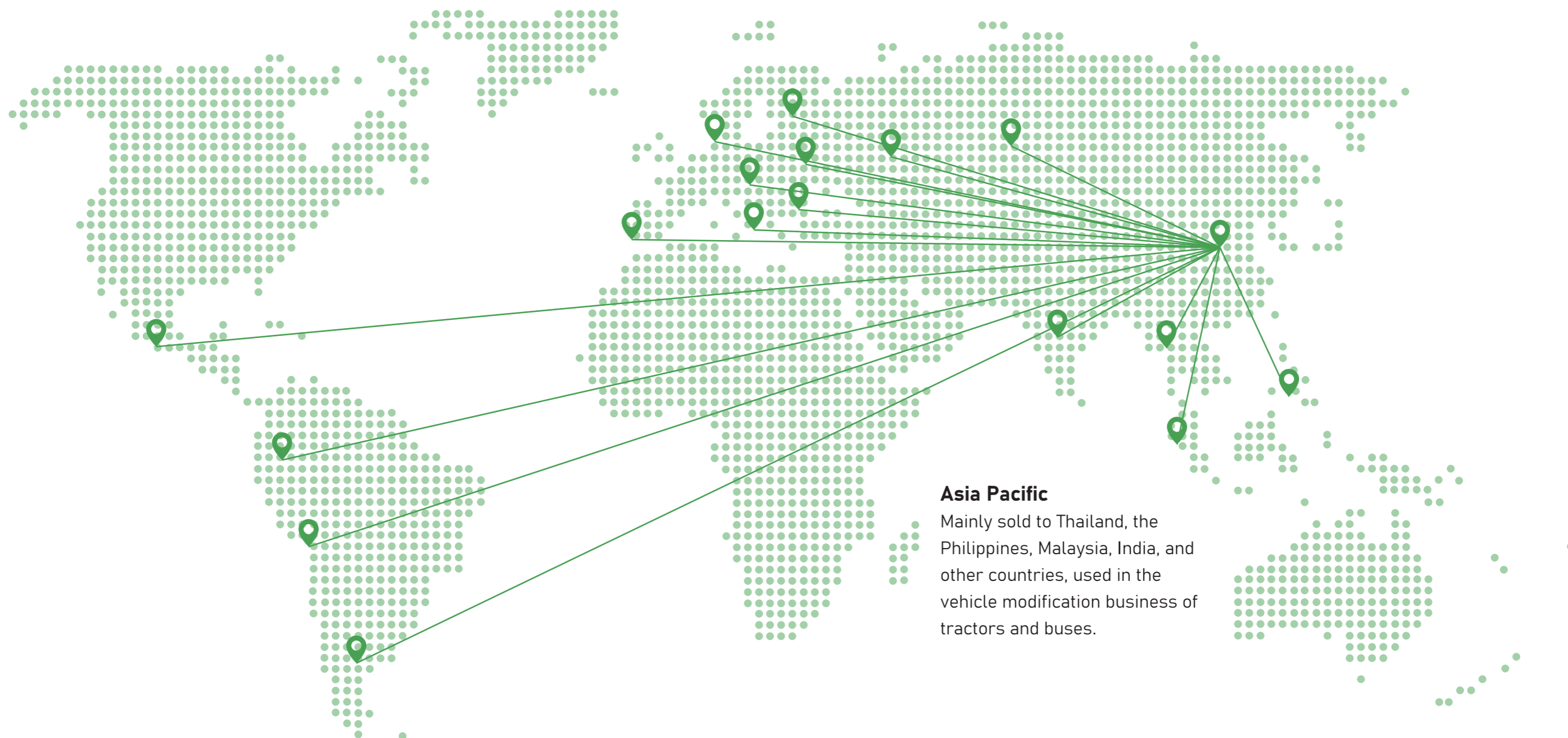
The products have been sold to Portugal, the United Kingdom, Finland, Poland, Italy, Mexico, Argentina, Chile, Brazil and other countries, and are used in the vehicle modification business.

Pan-Russian Region

Mainly sold to Russia and Belarus, the products are widely used in vehicle manufacturer and vehicle modification plants, with a market share of over 90%.

Asia Pacific

Mainly sold to Thailand, the Philippines, Malaysia, India, and other countries, used in the vehicle modification business of tractors and buses.



PRODUCT APPLICATION

VEHICLE MANUFACTURER PROJECT

Tractor, 530 gas cylinder assembly on both sides, double filling and return ports, the middle connecting bridge is connected with a hard pipe, and others are connected with a hose.



PRODUCT APPLICATION

VEHICLE MANUFACTURER PROJECT

Mining truck, 850+500 (500+500) + IPS gas cylinder assembly, water bath 300Nm³/h, currently operating condition well.



PRODUCT APPLICATION

VEHICLE MODIFICATION PLANT PROJECT

tractor, rear-mounted full frame 1000L, with thermostat, protective net outside the frame, currently in good condition, no after-sales problems have been reported, and customers satisfaction is high.



PRODUCT APPLICATION

VEHICLE MODIFICATION PLANT PROJECT

Tractor, left/right-200L/285L/335L/375L gas cylinder assembly, product in good condition, no feedback on after-sales problems, and high customer satisfaction.



PRODUCT APPLICATION

BUS PROJECT

Buses, 170L gas supply system. Lightweight, high bulk density ratio, good bottle strength, more advantages in the field of transportation.



PRODUCT APPLICATION

GAS STATION PROJECT

Cases of construction and operation of domestic gas stations in China, providing safe and reliable one-stop solutions.

