

INNOVATION ACHIEVING FUTURE
INTTEGRITY CASTING BRILLIANCE
COMMITTED TO BETTER
ENERGY RETAIL TERMINAL

FUREN

PRODUCT MANUAL

FuRen
Jiangyin Furun High-Tech Co., Ltd.



CONTENTS

ABOUT FUREN HIGH-TECH	01
FUEL-SERVICING EQUIPMENT	
Zhifu Series Fuel Dispensers	09
Zhiren Series Fuel Dispensers	11
Zhigao Series Fuel Dispensers	22
Other Special - Purpose Fuel Dispensers Series	24
Major Components of Fuel Dispensers	26
Explosion - isolation and explosion - proof skid - mounted refueling device	27
LNG EQUIPMENT	
LNG Refueling Equipment	35
LNG skid mounted refueling equipment	37
LNG pump sled	39
HYDROGENATION EQUIPMENT	
Hydrogen Dispenser	42
Core Hydrogen Refueling Equipment	44
Hydrogen production and hydrogenation integrated skid	49
Hydrogen refueling station construction	51
METHANOL EQUIPMENT	
Methanol Dispenser	53
Methanol integrated skid	55
CHARGING EQUIPMENT	
EV Charging Station Series	58
Main components of charging equipment	74
TANK EQUIPMENT	
S&F Double-ayer Tank	79
F&F Double-layer Tank	80
S&S Double- layer Tank	82
Retrofit for tank anti - leakage prevention	82

OIL PRODUCT CONVEYANCE AND INTELLIGENT MANAGEMENT & CONTROL SYSTEM	
Gas Station Intelligent Power Distribution Cabinet	84
Submersible pump	88
Level instrument	88
Probe	89
Control system of filling station	89
AUS32 REFUELING EQUIPMENT	
Urea Solution Refueling Machine for Vehicles	92
Main parts of refueling equipment	95
Urea solution storage and refueling integrated machine	96
CAR WASH EQUIPMENT	
Reciprocating car washing machine	99
Tunnel type 14 brush car washing machine	100
sewage treatment system	101
Core accessories	102
IoT HMI function introduction	102
Smart vehicle Service Cloud Ecosystem Products	104
PLATFORM SYSTEM	
Urea Solution Refueling Machine for Vehicles	107
Nengjiajia Charging Operation Platform	110
SERVICE	113

ABOUT FUREN HIGH-TECH

CORPORATE VISION

Dedicated to Better Energy Retail Terminals

CORPORATE PHILOSOPHY

Innovation Shapes the Future, Integrity Forges Glory

BUSINESS PHILOSOPHY

Committed to Energy Services, Adhering to Independent Innovation, Ensuring Honest Consumption, and Abiding by Safety and Environmental Protection



Founded in
2001

Occupied Area
89000m²

Employee
500+

R&D Staff
80+



Jiangyin Furen High-Tech Co., Ltd. has long been committed to the energy retail terminal. As a national high-tech enterprise, it focuses on the R&D, sales, promotion, and application of refueling and storage equipment for oil, gas, hydrogen, electricity, and alcohol, as well as system integration, comprehensive utilization, and intelligent applications. It deeply integrates manufacturing and service industries and has been awarded the title of "Demonstration Enterprise of Service-Oriented Manufacturing".

The company has two independent R&D teams in its headquarters and Nanjing, and has established a national CNAS laboratory.

HIGH-TECH

DEVELOPMENT HISTORY

2001 - 2004

Foundation Laying Ceremony

The first-generation 'Haosheng' tax-controlled fuel dispenser prototype was successfully developed.

The first-generation IC card tax-controlled fuel dispenser was successfully developed.

2005 - 2011

The first domestic SF double-layer storage tank was successfully launched in Furen High-Tech.

The new general assembly workshop is put into operation.

Jiangyin Furen High-Tech Co., Ltd. was officially established and inaugurated.

2012 - 2015

Furen High-Tech's first gas dispenser was launched into the market.

Signed an EPC cooperation project with XIEGOLD Gas.

The new explosion-proof barrier skid-mounted refueling device was successfully launched into the market.

2022 - 2025

2016 - 2021

Furen High-Tech Celebrates the 15th Anniversary of Its Establishment

Furen High-Tech successfully developed the third-generation 'full-screen smart fuel dispenser'.

Warmly Celebrate the 20th Anniversary of Furen High-Tech's Establishment

The first domestic high-altitude outdoor explosion-proof refueling robot settles in Tibet.

Furen High-Tech's brand-new product series made its debut at the 3rd Science and Technology Festival.

The first-generation charging pile series was launched into the market.

The AI refueling robot won the French Design Award: Gold Award for Product Design.

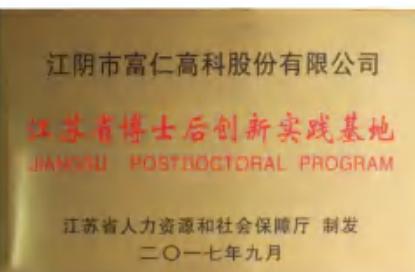
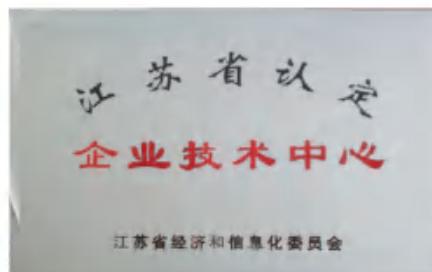
Furen High-Tech's brand-new product series made its debut at the 4th Science and Technology Festival.

China's first batch of DC charging piles certified with 3C!

2001 - 2025

CORPORATE HONORS

100+



ENTERPRISE QUALIFICATION



PATENTS AND WORKS

International Patent

1

Utility Model Patent

280+

Invention Patent

90+

Software Copyright

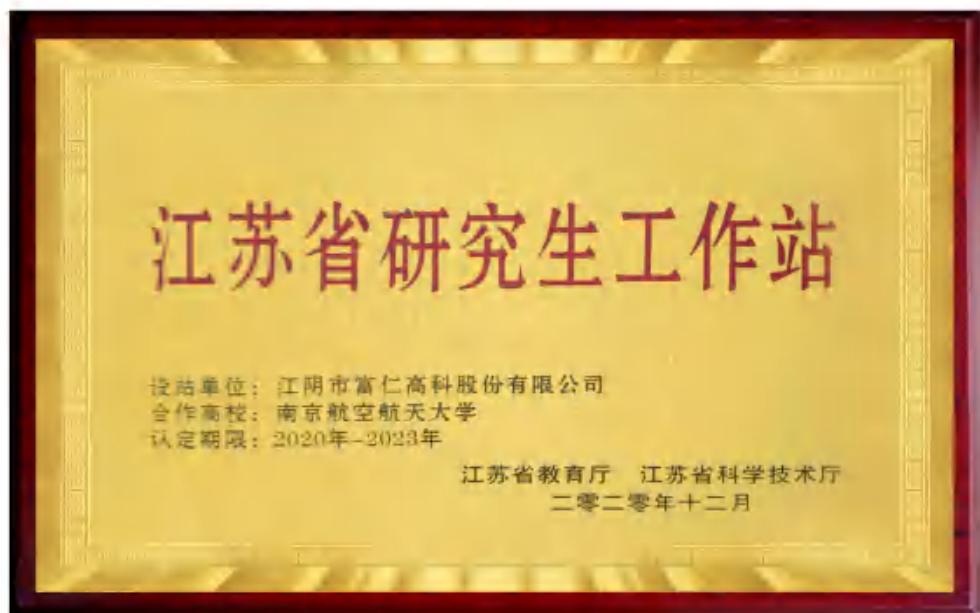
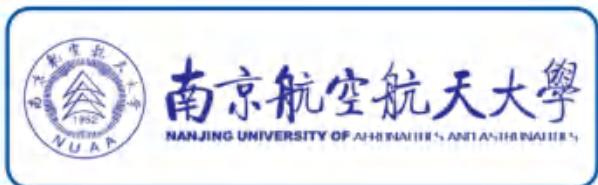
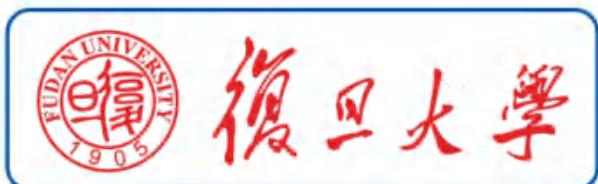
25+

Design Patent

20+



UNIVERSITY-INDUSTRY-RESEARCH BASE



01

FUEL-SERVICING EQUIPMENT

- Zhifu Series Fuel Dispensers
- Zhiren Series Fuel Dispensers
- Zhigao Series Fuel Dispensers
- Other Special-Purpose Fuel Dispensers Series
- Major Components of Fuel Dispensers
- Insulating explosion-proof skid mounted refueling device



PRODUCT SPECIFICATIONS OF INTELLIGENT TANKER



light guidance function

Guide customers to complete self-service operations to ensure safe operation



Automatic Rubber Hose Recovery

The telescopic effective length is greater than 2 meters, can hover at any position, with self-locking function



Colored Low Sulfur Hose

Different oil products can be clearly identified



lightweight carburetor

Adopt the lightest oil gun in the industry to reduce labor intensity to the greatest extent



Smart Fuel Nozzle

Equipped with oil gun setting, starting and stopping functions, and employee ID identification function



Multiple payment methods

Adopts AI recognition technology to support license plate sensorless payment, license plate verification and other verification methods.

ZHIFU SERIES FUEL DISPENSERS



SECOND
GENERATION
SMART FUEL
DISPENSER

Integrated with ergonomics, blended big data, cloud computing and the Internet of Things technology, ZF-2 is fashionable, convenient, sensitive, interactive, versatile and has automatic hose recovery. It meets modern gas stations' needs for intelligent fuel dispensers. It supports 2 guns, 4 guns, 6 guns and 8 guns.

ZF-4



H-TYPE SMART FUEL DISPENSER

The new appearance design is based on ergonomics and integrates big data, cloud computing, and Internet of Things technologies. It has the characteristics of novel appearance, convenient operation, intelligent oil gun, environmental perception, intelligent interaction, and diverse payment, which meets the needs of modern smart gas stations for intelligent fuel dispensers. Customized needs, supported models: double guns, four guns, six guns, eight guns.



SMART FUEL DISPENSER

Based on the second-generation Furen Hi-Tech smart machine, it has been upgraded and iterated. The overall shape is square and round, with a rich sense of layering. The product appearance incorporates the main design elements of the 2022 version of Sinopec's new image, with white background and red embellishments, oblique arcs, laminated structure, fluid lighting design, large LED digital display of oil products, integrated shape display, and overall echo, integrating technological design and Environmental aesthetics are integrated into one, and the whole is transparent and bright.

The large-screen split-screen technology integrates modern "multiple payment" support and shopping guide, promotions, activities and other technologies. It is compatible with "Internet of Things+" technology and brings customers an updated sense of experience and technology.



IOT-INTEGRATED AI FUEL DISPENSER

The IoT-integrated digital AI fuel dispenser is an intelligent refueling device that integrates IoT, AI technology, and digital virtual human service technology, featuring 5G IoT management and control, AI-precise metering, touchless payment (license plate recognition/RFID/APP scanning), smart energy management, upgraded safety protection, hardware integration optimization, and AI voice interaction (supported by DeepSeek large language model), applicable to smart gas stations.

ZF-10



SMART FUEL DISPENSER

The fuel dispenser is designed based on the appearance concept of the fuel island in "China National Petroleum's New Image", adopting a streamlined integrated body structure with a round and full shape, integrating an intelligent large screen and excellent human-computer interaction experience. Through the contrast and collision of folded lines and soft curved surfaces, it creates a new-generation energy equipment image that combines industrial strength and technological affinity, while being compatible with the development trends of IoT and internet technologies, applicable to CNPC gas stations.

FUEL DISPENSER MODELS AND TECHNICAL PARAMETERS

Fuel Dispenser Name	Second generation smart fuel dispenser	H-type smart fuel dispenser	Smart Tanker	IoT-integrated AI Fuel Dispenser	Smart Tanker		
Dimensions	1530×630×2380 32inch screen	1250×650×2380 1490×650×2380 32inch screen	1600×600×2380 32inch screen	1565×600×2380 32inch screen	1590×710×2380 32inch screen		
Overall Dimensions (mm)	32inch: 738.0×433.0mm			15inch: 326.5×253.5mm			
Smart screen screen resolution	32inch: 1920×1080			15inch: 1024×768			
Oil quantity	<input type="radio"/> 1 <input type="radio"/> 2 <input type="radio"/> 3 <input type="radio"/> 4	Gasoline Quantity_____		Diesel Quantity_____			
Number of oil guns	<input type="radio"/> 2 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8						
pump type	<input type="radio"/> Submersible pump			<input type="radio"/> Self-priming pump			
Hose Type	<input type="radio"/> Normal type			<input type="radio"/> Oil vapor recovery type			
Fuel Nozzle Type	<input type="radio"/> Normal type			<input type="radio"/> Oil vapor recovery type			
Applicable media	Light fuels such as automotive gasoline, automotive ethanol gasoline, diesel, automotive methanol gasoline (M15 and below), kerosene, etc.						
Measurement performance	Maximum allowable error: no more than $\pm 0.3\%$ Repeatability error: no more than 0.10%						
flow range	Ordinary flow tanker: (5~50) L/min Ordinary large flow tanker: (5~90) L/min						
Minimum measurand	Ordinary flow tanker: 5L		Ordinary large flow tanker: 10L				
Display range	Amount: 6 digits (0.01-9999.99 yuan) Refueling volume: 6 digits (0.01-9999.99 liters) Unit price: 4 persons (0.01-99.99 yuan/liter) Cumulative amount: 10 digits (0.01-99999999.99)						
Environmental adaptability	Temperature: (-25~+55)° C Atmospheric pressure: 86kPa~106kPa			Humidity: not more than 95%			
Power adaptability	Voltage: AC 220V/380V (-15%~+10%) Frequency: 50Hz±1Hz						
noise	Night ≤ 55dB (A), day ≤ 70dB (A)						
Pump inlet vacuum	≥ 54kPa(self-priming pump)						
Pump outlet working oil pressure	≤ 0.3MP(self-priming pump)						
Explosion-proof Rating	Ex db ib mb II A T3 Gb						

FUNCTIONAL OPTIONAL CONFIGURATION TABLE OF FUEL DISPENSER

Fuel Dispenser Name	ZF-2 Smart Fuel Dispenser	ZF-4 Smart Fuel Dispenser	ZF-8 Smart Fuel Dispenser	ZF-9 Smart Fuel Dispenser	ZF-10 Smart Fuel Dispenser
light guidance function	○	—	○	○	○
voice guidance system	●	●	●	●	●
oil confirmation button	○	○	○	○	○
Automatic Rubber Hose Recovery	●	—	●	●	●
Smart interactive screen(15 inches)	—	○	—	—	—
Smart interactive screen(32 inches)	●	○	●	●	●
Touch operation guide	○	○	○	○	○
Panel Human Induction	○	○	○	○	○
Voice intercom	○	○	○	○	○
Color marking hose	○	○	○	○	○
Lightweight Fuel Nozzle	○	○	○	○	○
Multiple payment methods	○	○	○	○	○
Smart Fuel Nozzle	○	○	○	○	○
printer	○	○	○	○	○
QR code scanner	○	○	○	○	○
ID card recognition	○	○	○	○	○
face recognition	○	○	○	○	○
Oil and gas recovery closed loop	○	○	○	○	○
National Cryptographic Keyboard	○	○	○	○	○
IoT Function	○	○	○	○	○
Self-heating function	○	○	○	○	○
Combustible gas detector	○	○	○	○	○

● Standard Configuration ○ Selection Configuration — No Configuration

DOUBLE-ARMED AI REFUELING ROBOT



DOUBLE-
ARMED AI
REFUELING
ROBOT

With the design tenets of "full - machine explosion - proof, high - tech sense, safety and efficiency", the Double - armed AI refueling robot combines high appearance value, and features high efficiency, stability and safety. It adopts a human - like, fully automated design concept, integrating both appearance and function.

Product Specifications

Dual-camera recognition and positioning

Integrating planar cameras and depth cameras, combining precise positioning with auxiliary positioning, taking into account the advantages of active imaging and passive imaging, effectively ensuring the safety and stability of operations.

Core technology driven

Driven by core technologies such as AI recognition, machine learning, motion control algorithms, and intelligent monitoring, it enables intelligent operations.

Intelligent monitoring and exception handling

Equipped with intelligent monitoring and voice prompt services, it can automatically trigger the exception mechanism in case of process abnormalities, oil output abnormalities, personnel intrusion, etc., and support automatic or manual recovery.

Dual robotic arm design

According to the bionic concept, it imitates the work of human arms. One arm is responsible for identifying and opening the fuel tank cap, and the other arm is responsible for refueling. The two work together to complete the refueling process without cutting the fuel tank cap strap.

Three-dimensional platform foundation

Based on the 3 + 2 + 2 three-dimensional architecture, it features movement degrees of freedom in three directions: up - down, front - back, and left - right. Via the precise coordination of transmission systems like guide rails, screw slides, motors, and reducers, it boasts a wide operating range and eases the difficulty of vehicle positioning.

Intelligent software system

It comes with intelligent operation software, supporting one-button start, pause commands and manual control, enabling easy operation.

Convenient APP service

The mobile APP provides registration and payment services for car owners. Car owners can place orders with one click on the "CPC Hospitality e-Station" APP, without getting off the car, and enjoy unmanned refueling services. At the same time, the WeChat applet "Nengjiajia" also provides convenient registration and payment services for car owners.

TECHNICAL PARAMETERS

Essential Information			
Equipment	JH1A Robot refueling device	Working efficiency	2 min
Dimensions	1730*1230*2470 mm	Protection level	IP54
Working range	400 mm	Ambient temperature	-20° C~55° C
Fuel filling	92#/95#/98#	Ambient humidity	5%~90%
Filling direction	Left/right (single side)	Altitude	<4000 m
Flow range	5~50 L/min	Explosion-proof mark	Ex db eb mb IIIB T4 Gb
Operation accuracy	±2 mm	Power supply voltage	220V

ZHIREN SERIES TANKER



ZR-1

H Type Fuel Dispenser

Integrated with ergonomics, blended big data, cloud computing and the Internet of Things technology, ZF-2 is fashionable, convenient, sensitive, interactive, versatile and has automatic hose recovery. It meets modern gas stations' needs for intelligent fuel dispensers. It supports 2 guns, 4 guns, 6 guns and 8 guns.

Product Selection list

Series	Series no.	Classification	Overall dimensions
ZR	ZR-1	H type fuel dispenser 2 guns	900×650×2380mm
		H type fuel dispenser 4 guns	1250×650×2380mm
		H type fuel dispenser 6 guns, 8 guns	1490×650×2380mm

Features

- 1.The complete tax control function has passed the national tax control function test and obtained the qualified tax control function test report.
- 2.Complete explosion-proof function: complete machine explosion-proof mark ExdibmbjIAT3Gb
- 3.Linkage function of card and machine is equipped with IC card terminal conforming to relevant standards of The People's Bank of China and Petrochina to allow linkage of card and machine and various payment functions.
- 4.The communication networking function conforms to the interface specification of CNPC card connection.
- 5.The self-service function can be equipped with cash payment system, voice system, card machine connection system, card payment system and electrostatic discharger.
- 6.Environmental protection function can be equipped with oil and gas recovery system.
- 7.Anti-cheating function meets the requirements of the nation and Petrochina.

Main Parts

Self priming pump
Submersible pump
Flow meter
Solenoid valve
Custom - made Tax - controlled Computer
Oil gun
Encoder
Breakaway coupling

Technical Parameters

Item Name	Technical Indicators
Flow Range	Normal flow fuel dispenser: (5 ~50)L/min; Normal large flow fuel dispenser: (5 ~90)L/min
Ambient temperature	(-25~+55) °C
Noise of the whole machine	Night ≤ 55dB (A), day ≤ 70dB (A)
Metering Performance	Max. Permissible error of the fuel dispenser is ± 0.30% and its repeatability is no more than 0.10%
Working Environment	Relative humidity no more than 95%
Working voltage	220V/380V(-15% ~ +10%) 50Hz±1 Hz

CHICCO SERIES FUEL DISPENSER



Unit Combination Series Fuel Dispenser

Unit Combination Series refueling system sets different units of the fuel dispenser separately according to management and operation habits. It divides the fuedispenser into electrical control unit, oil dispensing unit, flow measurement and conversion unit and multimedia self-service unit. Each unit can be combined together accordingto the actual situation of the gas station to achieve the optimized installation, thusreducing the manufacturing and operating costs, and improving the refueling efficiency



Features

The effect of the whole station: the split design is different from the traditional fuel dispenser and improves the image of the whole station.

Intelligent: According to the filling level, the human-computer interaction experience is good, consumers do not interfere with each other, and customer privacy is protected.

Efficiency improvement: The oil gun hose components are placed on the outside of the column, effectively expanding the refueling range and increasing sales.

Non-oil pre-marketing: Non-oil sales and interaction, realize oil product promotion, and enhance business atmosphere.

Technical Parameters

Item Name	Technical Indicators
Applicable Medium	Vehicle gasoline, vehicle ethanol gasoline, kerosene, vehicle methanol gasoline (below M15) and diesel etc.
Metering Performance	Max, Permissible error of the fuel dispenser is $\pm 0.30\%$ and its repeatability error is no more than 0.10%
Flow Range	Ordinary flow fuel dispenser:(5 ~50)L/min, Ordinary large flow fuel dispenser:(5 ~90)L/min
Min. measured quantity	Normal flow fuel dispenser: 5L, Normal large flow fuel dispenser: 5L
Display Range	Amount of money: 6 digits (0.01-9999.99 RMB) Refueling volume: 6 digits (0.01-9999.99 Liter) Unit price: 4 digits (0.01-99.99 RMB/Liter) Accumulative volume: 10 digits (0.01-99999999.99)
Environmental Adaptability	Temperature: (- 25 ~ + 55) °C, Humidity: not more than 95% Atmospheric pressure: 86kPa~106kPa
Power Supply Adaptability	Voltage: AC 220V / 380V (- 15% ~ + 10%) Frequency: 50Hz ± 1 Hz
Noise	Night ≤ 55dB (A), daytime ≤ 70dB (A)
Explosion Proof Certificate No.	CCRI 23.1157X



OTHER SPECIAL TYPE TANKER



ZY-1

Large Flow Fuel Dispenser

Large - Flow Fuel Dispensers

I. Large - Flow Fuel Dispenser Features

1. Specialized large - flow fuel dispensers (10 - 120 L/min) and ultra - high - flow fuel dispensers (20 - 200 L/min) effectively improve refueling efficiency and boost fuel sales at gas stations.
2. Ultra - high - flow fuel dispensers offer fast refueling, time - saving operation, and high reliability.
3. Primarily applied to vehicles with large fuel reception volumes, locomotives in locomotive depots, and ships. Different flow rates can meet the needs of various customers.

Technical Parameters

Item Name	Technical Indicators
Flow Range	120 liter fuel dispenser:(10~120) L/min 200 liter fuel dispenser:(20~200) L/min
Ambient temperature	(-25~+55) °C
Metering Performance	Max. Permissible error of the fuel dispenser is ±0.30% and its repeatability is no more than 0.10%
Working Environment	Relative humidity no more than 95%
Working voltage	220V/380V(-15% ~ +10%) 50Hz±1 Hz

Features

1. Accurate measurement data, high precision (level 0.2) large flow meter, large flow range, stable operation, low noise and good repeat ability.
2. Impact resistance explosion-proof double-flow solenoid valve especially for large flow effectively solves the problem of large flow over shoot.
3. The mature control system ensures that the operation of the refueling process is simple, comfortable, safe and reliable.
4. Refueling can be either quantitative or non-quantitative.
5. The safety function of the entire machine is reliable: strong and weak electricity is separated and safely partitioned. All electrical components meet the national explosion-proof standard.
6. Data input and extraction is concise and reliable. Refueling data can be stored for a long time.

Product Selection List

Series	Series No.	Classification	Overall dimensions
ZY	ZAP11C, ZAS11C	10-120L	1250×605×2380mm
	ZAS11D, ZAS22D	20-200L	1250×605×2380mm

Main part

High - Flow Pump

Large flow flowmeter

Large flow rubber hose

Large flow oil gun

Additional Functions

1. Electrostatic oil spill prevention device
2. Static elimination device



ZY-3

On-board Fuel Dispenser

Features

1. Furen vehicle-mounted refueling machine is a vehicle-mounted refueling machine that is installed on various oil tank trucks, oil tank trucks, and vehicles that transport fuel, and uses the battery on the chassis of the car to provide power to pump and measure fuel.
2. It is used in ports, mountainous areas, mines, etc. It is difficult for vehicles to enter and exit, there are many engineering vehicles, it is inconvenient to move, the road is impassable or other reasons cannot or cannot go to the gas station to refuel normally, it is necessary to use a tanker or the company's own vehicle To supply oil, in order to facilitate extraction and counting, it is necessary to install a vehicle-mounted refueling machine on the refueling truck or self-provided oil transport vehicle.
3. The oil tank connection distance is 3m - 5m, and it can be integrated with the oil tank or operated independently.
4. It has the function of ordinary refueling;
5. It has functions of printing, emergency stop, and wireless transmission of refueling data.

Technical Parameters

Item Name	Technical Indicators
Vacuum degree at pump inlet	≥54kPa
Working oil pressure at pump outlet	≤0.3MPa
Metering Performance	Max. Permissible error of the fuel dispenser is ±0.30% and its repeatability is no more than 0.10%"
Payment amount error	Less than the minimum payment variable
Flow range	Standard flow machine: (5-50) L/min
Display range	Amount of money: 6 digits (0.01-9999.99 RMB) Refueling volume: 6 digits (0.01-9999.99 Liter) Unit price: 4 digits (0.01-99.99 RMB/Liter) Accumulative volume: 10 digits (0.01-99999999.99)
Environmental adaptability	Temperature: (-25 → +55)°C; Relative humidity: no more than 95%; Atmospheric pressure: 86kPa~106kPa
Power supply environment Adaptability	Voltage: DC12V/DC24V
Noise	Night ≤ 55dB (A), day ≤ 70dB (A)
Computer Head reliability	No less than 6000 hours
Explosion-proof mark	Exdeibmb IIAT3Gb

MAIN PARTS OF FUEL DISPENSERS



PA5-2

Pa5-2 integrated gear pump consists of gear pump and oil and gas separator. Its main function is to supply oil and separate gas. It is the power source of the hydraulic system. It converts mechanical energy into the pressure energy of the oil, sucks up the oil from the underground oil tank and discharges it at a certain pressure and flow rate.

Self priming pump



FM1

To measure the output oil volume and convert the output oil volume into the angular displacement of the flowmeter shaft.

flow measurement transducer



Vapor Recovery
Oil Gun



Anti-terror oil and
gas recovery oil gun



Intelligent oil and
gas recovery gun



measurement controlling
board



Payment Mainboard

transfer

To transfer the oil from the fuel dispenser to the container and control it.

Gas station computer

It is a small microcomputer system equipped with fuel dispenser application software. It has counting, calculation and communication control functions. It is the command center of the fuel dispenser.



Large Screen Controller

High - resolution, high - contrast, industrial - grade TFT screen, anti - glare, visible in sunlight. The brightness can be automatically adjusted according to external light. It supports interactive refueling operations and can play dynamic advertisements.

Smart interactive screen

INSULATING EXPLOSION-PROOF SKID MOUNTED REFUELING DEVICE

Product Introduction

Insulating explosion-proof skid-mounted oil (gas) refueling device is a ground refueling system integrating fire and explosion-proof storage tank, oil (gas) refueling machine and automatic fire extinguisher. It is mainly used to block explosion-proof technology-related liquefied petroleum (gas), inflammable and explosive dangerous chemicals storage and transportation devices and equipment. Barrier explosion-proof products have independent intellectual property rights and independent product patents.

The design, manufacture, installation and service of the insulating explosion-proof skid-mounted refuelling devices are completed independently.

The explosion - isolation and explosion - proof skid - mounted refueling device is a ground - based refueling device that integrates a load - bearing skid base, an explosion - proof storage tank, an explosion - proof electrical control system, an unloading oil circuit system, an oil and gas recovery system, a fuel dispenser and a refueling pipeline control system, an electrostatic grounding elimination system, an automatic fire - fighting system, and a monitoring and control system. It is a new scientific and technological product that is economical and practical, safe and explosion - proof, environmentally friendly and energy - saving, easy to move, and has all the operation functions of a general gas station. Insulating explosion-proof skid-mounted refueling device is equipped with explosion-proof support steel frame structure. It is a double layer storage tank filled with explosion-proof materials. It has liquid level measuring (high and low level alarm automatic parking), anti-overflow valve, a top emergency pressure relief devices ontop of the tank, lightning protection and anti-static device, tank leak monitoring device in the interlayer. The refueling device supports many ways of refueling and is set to automatic fuel cut-off protection when the temperature is too high. Functions of skid-mounted refueling device include: oil storage, oil measurement, oil filling primary and secondary oil and gas recovery, storage tank cleaning and residual oil discharge etc. It integrates a variety of functions in one. The unit standard design and modularized combination design allow the refueling device to be compatible with various oil supply environments and meet the different needs of customers.



Skid-mounted Refueling Device Naming

FQ 1-10-001Q-2 A

Product Selection List

GB 50156-2012	Design and Construction Specifications for Automobile Refueling and Gas - Filling Stations
SH/T 3134-2002	Technical Specification for Automobile Refueling Stations Using Skid - Mounted Refueling Devices
AQ 3001-2005	Technical requirements for automotive refueling (gas) stations, light fuel and LPG vehicle tanks using insulating explosion-proof tanks
AQ 3002-2005	Technical requirements for explosion - isolation and explosion - proof skid-mounted oil (gas) refueling device
Q/32028LANW06-2016	Storage tanks
GB 20952-2007	Air pollutant discharge standard for gas stations
GB 150	Steel pressure vessel
GB 8163	Seamless steel tubes for conveying liquids
GB_T25198-2010	Pressure vessel head
JB_T4712.1~4712.4-2007	Container support
GB/T 9081-2008	Motor vehicle fuel dispenser

1. Product categories are represented by letters and numbers in Part I:
FQ1 - Semi-enclosed Furen skid-mounted refueling device; FQ2 - Fully enclosed Furen skid-mounted refueling device;

2. The types of insulating explosion-proof materials are represented by the corresponding Roman numerals in Part II:

I^{type} represents the size of the geometric structure with side length of 4 mm
II^{type} represents the size of the geometric structure with side length of 5 mm
III^{type} represents the size of the geometric structure with side length of 5.5 mm
IV^{type} represents the size of the geometric structure with side length of 6 mm
V^{type} represents the size of the geometric structure with side length of 7 mm

3. The nominal volume is represented by the number in Part III:
10-10mm³; 20-20m³; 25-25m³; 30-30m³; 35-35m³; 40-40m³;
45-45m³; 50m-50m³

4. The types of storage media are represented by the letters in Part IV:
D represents small single variety models, S represents small double varieties models,
N represents small multiple varieties models:

Examples of models:

(1), FQ1 - IV - 50 - S: semi-closed Furen skid-mounted refueling device - type IV
Insulating materials - 50 m³ -double varieties

(2), FQ2 - IV - 50 - N: fully enclosed Furen skid-mounted refueling device - type IV
insulating materials - 50 m³ -multiple varieties

iv. Series modeling Table:

See product selection list

Diagram of skid-mounted refueling device





skid-mounted fuel dispenser(Haosheng)



SS double oil tank



stainless steel solenoid valve



manhole cover(emergency air exhausting device included)



suspended automatic dry powder fire extinguishing device



T-type three-way square flange ball valve



explosion-proof tube



square flange ball valve



bellows



flameproof light



explosion-proof fire-resistance respiration valve



explosion-proof sealing box



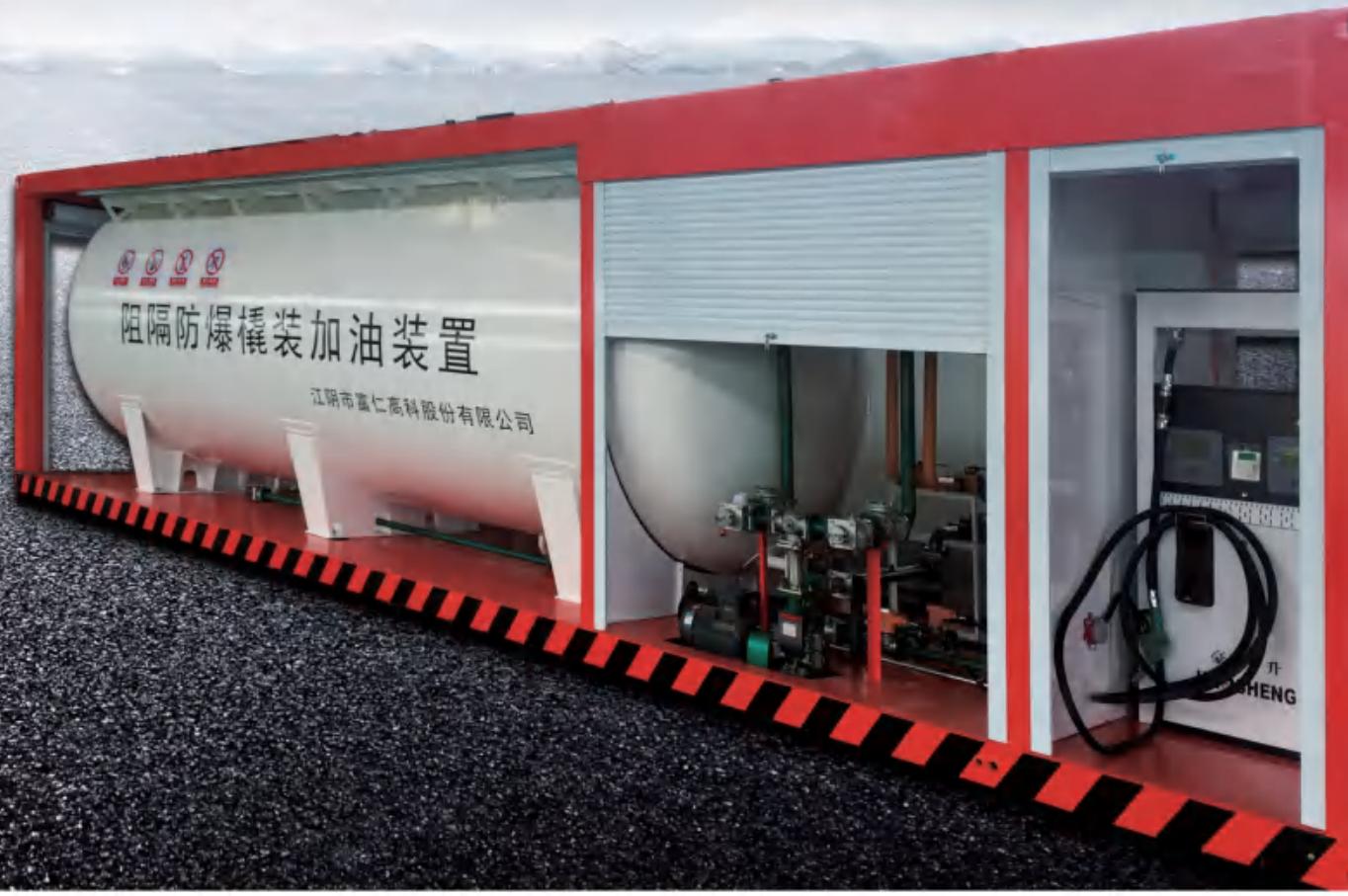
explosion-proof material IV



explosion-proof control cabinet



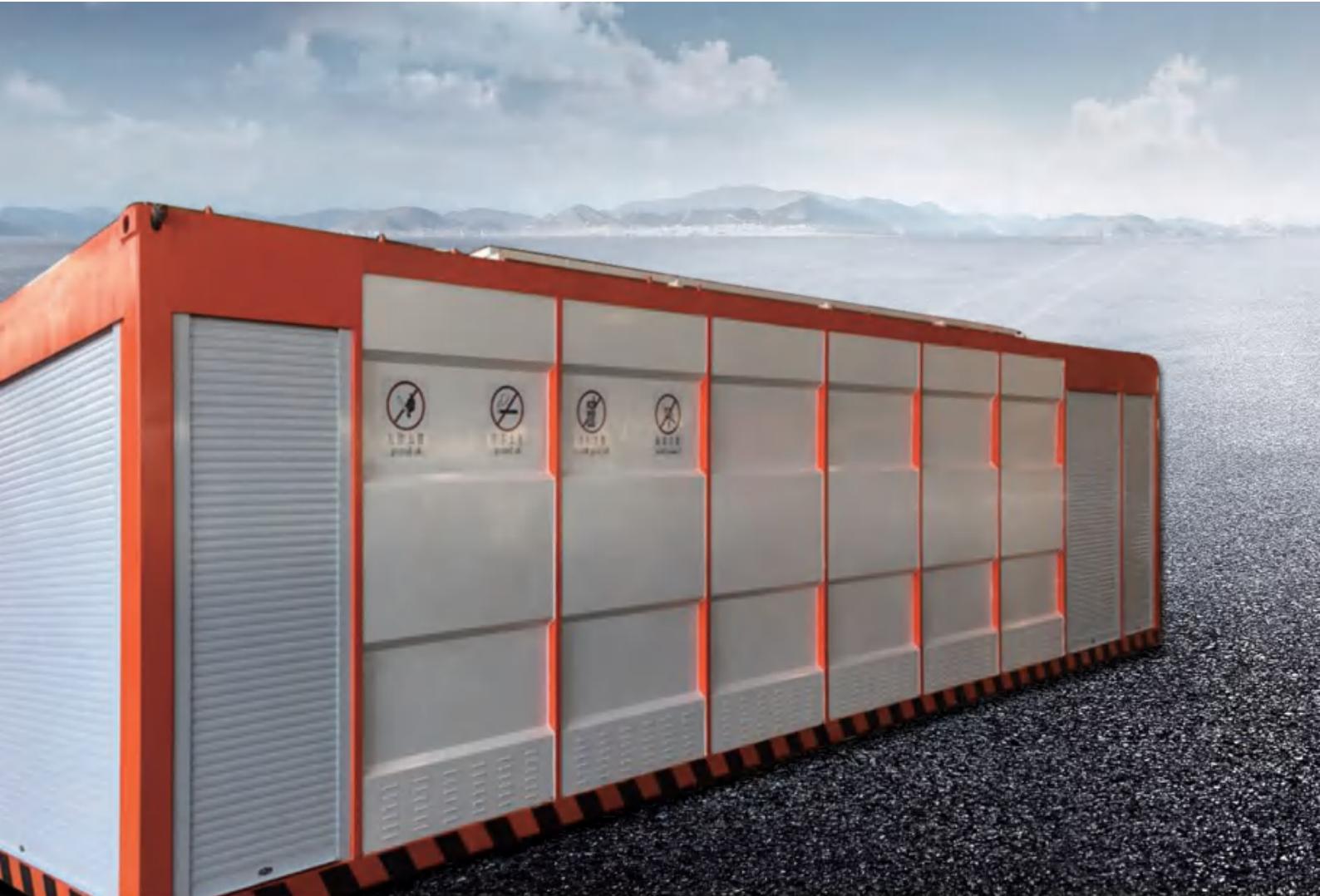
refueling and unloading pipeline



SEMI-ENCLOSED STRUCTURE SKID-MOUNTED REFUELING DEVICE

Main Models and Technical Parameters of Semi-enclosed Structure Skid-mounted Refueling Device

	FQ1-IV-10-D	FQ1-IV-20-S(D)	FQ1-IV-30-S(D)	FQ1-IV-40-S(D)	FQ1-IV-50-S(D, N)
External size (excluding guardrail and other accessories)	9000mm×2400mm×2700mm (Length×width×height)	11000mm×2600mm×2700mm (Length×width×height)	12000mm×2800mm×3100mm (Length×width×height)	13000mm×3000mm×3200mm (Length×width×height)	14800mm×3000mm×3200mm (Length×width×height)
Nominal volume	10m ³	20m ³	30m ³	40m ³	50m ³
Net Weight	10000kg	12800kg	14500kg	17500kg	20000kg
Environmental adaptability	Temperature :(-20~55) °C Humidity: <95% (+25) °C Atmospheric pressure: 86~106KPa				
Manhole diameter	500mm				
Breather valve	Negative pressure -1.5~2KPa positive pressure 2~3KPa				
Emergency pressure relief valve	21-32KPa				
Liquid level instrument parameters	Range: 0.2~2.6m Output: standard 4~20mA Response time: less than 1 second Resolution: <0.05%FS Nonlinearity: W0.05%FS Repeatability: <0.05%FS Hysteresis: < 0.05% FS Output temperature drift: 50ppm/°C				
Number of fuel dispensers	1 ~ 2 sets				
Measuring performance	The maximum permissible error is: ±0.3% Measurement repeatability error does not exceed 0.15%				
Flow range	Regular flow fuel dispenser :(5-50) L/min Regular flow fuel dispenser :(5-90) L/min				
Minimum measurand	5L				
Display range	Amount of money: 6digits (RMB0.01-9999.99) Refueling volume: 6 digits (0.01-9999.99L) Unit Price: 4 persons (RMB 0.01-99.99 /L) Accumulative volume : 10 bits (0-99999999.99)				
Insulating explosion-proof material	IV Type				
Paint	2 coats of epoxy zinc-rich primer+2 coats of polyurethane acrylic topcoat				
Working voltage	220V/380V(-15% ~+10%) 50Hz±1Hz				
power	12 ~ 18kW				
Generator set (optional)	Power generation oils are available upon request				
Awning (optional)	Can be designed according to customer requirements				
Central platform module (optional)	①Support controlling information processing of 10-20 sites. ②Support all-purpose card(the card can be used at all the sites mentioned above) Excluding central platform hardwares, communication equipment and programming				
Single terminal module (including explosion-proof camera)	①Support purchase sales data report ②Support on-site refueling status monitoring ③Includes stand-alone industrial computer and power control system				
Remote management module (optional)	①Support power remote control ②Support mobile terminal operation ③Support remote control				
Monitoring module (including explosion-proof camera) (optional)	①Support liquid level monitor ②Support video monitoring				
Technical specifications	1. Number of fuel dispenser: 1~2 2. Power: 12 - 18kW 3. Operating voltage: 220V/380V(-15% ~ +10%) 50Hz±1Hz 4. Flow Range:Regular l flow fuel dispenser :(5-50) L/min Regular flow fuel dispenser :(5-90) L/min 5. Hose length: can be customized (standard 5 meters) 6. Background control of fuel dispenser, background control system of skid-mounted equipment, awning and generator set can be selected and matched according to customer requests. 7. Customize customer LOGO label stickers.				



FULLY-ENCLOSED STRUCTURE SKID-MOUNTED REFUELING DEVICE

Main Models and Technical Parameters of Fully Enclosed Structural Skid - mounted Refueling Device

	FQ1-IV-10-D	FQ1-IV-20-S(D)	FQ1-IV-30-S(D)	FQ1-IV-40-S(D)	FQ1-IV-50-S(D, N)
External size (excluding guardrail and other accessories)	9000mm×2400mm×2700mm (Length×width×height)	11000mm×2600mm×2700mm (Length×width×height)	12000mm×2800mm×3100mm (Length×width×height)	13000mm×3000mm×3200mm (Length×width×height)	14800mm×3000mm×3200mm (Length×width×height)
Nominal volume	10m ³	20m ³	30m ³	40m ³	50m ³
Net Weight	10000kg	12800kg	14500kg	17500kg	20000kg
Environmental adaptability	Temperature :(-20~55) °C Humidity:<95% (+25) °C Atmospheric pressure: 86~106KPa				
Manhole diameter	500mm				
Breather valve	Negative pressure -1.5~2KPa positive pressure 2~3KPa				
Emergency pressure relief valve	21-32KPa				
Liquid level instrument parameters	Range: 0.2~2.6m Output: standard 4~20mA Response time: less than 1 second Resolution: <0.05%FS Nonlinearity: W0.05%FS Repeatability: <0.05%FS Hysteresis: < 0.05% FS Output temperature drift: 50ppm/°C				
Number of fuel dispensers	1 ~ 2 sets				
Measuring performance	The maximum permissible error is: ±0.3% Measurement repeatability error does not exceed 0.15%				
Flow range	Regular flow fuel dispenser :(5-50) L/min Regular flow fuel dispenser :(5-90) L/min				
Minimum measurand	5L				
Display range	Amount of money: 6digits (RMB0.01-9999.99) Refueling volume: 6 digits (0.01-9999.99L) Unit Price: 4 persons (RMB 0.01-99.99 /L) Accumulative volume : 10 bits (0-99999999.99)				
Explosion - isolation and explosion - proof material	IV Type				
Paint	2 coats of epoxy zinc-rich primer+2 coats of polyurethane acrylic topcoat				
Working voltage	220V/380V(-15% ~+10%) 50Hz±1Hz				
power	12 ~ 18kW				
Generator set (optional)	Power generation oils are available upon request				
Awnning (optional)	Can be designed according to customer requirements				
Central platform module (optional)	①Support controlling information processing of 10-20 sites. ②Support all-purpose card(the card can be used at all the sites mentioned above) Excluding central platform hardwares, communication equipment and programming				
Single terminal module (including explosion-proof camera)	①Support purchase sales data report ②Support on-site refueling status monitoring ③Includes stand-alone industrial computer and power control system				
Remote management module (optional)	①Support power remote control ②Support mobile terminal operation ③Support remote control				
Monitoring module (including explosion-proof camera) (optional)	①Support liquid level monitor ②Support video monitoring				
Technical specifications	1. Number of fuel dispenser: 1-2 2. Power: 12 - 18kW 3. Operating voltage: 220V/380V(-15% ~ +10%) 50Hz±1Hz 4. Flow Range:Regular I flow fuel dispenser :(5-50) L/min Regular flow fuel dispenser :(5-90) L/min 5. Hose length: can be customized (standard 5 meters) 6. Background control of fuel dispenser, background control system of skid-mounted equipment, awning and generator set can be selected and matched according to customer requests. 7. Customize customer LOGO label stickers.				

02

LNG EQUIPMENT

- LNG Refueling Equipment
- LNG skid mounted refueling equipment
- LNG pump sled

LNG REFUELING EQUIPMENT



LNG LIQUID FILLING MACHINE

Liquefied Natural Gas (LNG) dispenser is a low - temperature metering device that dispenses the liquefied natural gas from an LNG filling station into LNG vehicles. It features a high degree of automation and is easy to operate. It dynamically monitors the liquid flow during the dispensing process. Meanwhile, by adopting the non - contact IC card mode, it realizes the automation of charging, sales and settlement at LNG filling stations, overcoming the drawbacks such as heavy manual workload, high production cost, high error rate and big management loopholes in book - keeping or cash transactions. The electrical and instrumentation system is designed with explosion - proof features, ensuring safety and reliability. With a good cold insulation design that utilizes vacuum insulation, the product structure can be divided into single - gun and double - gun types.

Product Functions

The system offers a range of functions including density setting, single-shift liquid addition accumulation, total liquid addition accumulation, quota and fixed-quantity liquid addition, sequential and non-sequential liquid addition, liquid addition status query, IC card and non-IC card liquid addition, remote control liquid addition, LNG cylinder expiration verification, online printing, gas station site management, gas station network management, pull-off protection, pressure limiting and overpressure suppression, emergency shutdown, card machine linkage, multiple payment methods, and anti-cheating.

LNG REFUELING EQUIPMENT PARAMETERS

Fuel Dispenser Name	LNG Refueling Equipment
Dimensions	Single-nozzle: 1250*840*2380 Dual-nozzle: 1350*940*2380
Flowmeter	Emerson Flowmeter/E+H/Domestic
Applicable media	LNG
Flow Range	1~80kg/min
Measurement Accuracy	±1.5%
Maximum Working Pressure	1.6Mpa
Design Pressure	2.5Mpa
Ambient Temperature	-25°C ~ 55°C
Refueling Time per Vehicle	5 分钟 (min)
Pre-cooling Time of Refueling Machine	≤ 20 秒 (s)
Control Mode	Computer automatic control

LNG SKID MOUNTED REFUELING EQUIPMENT



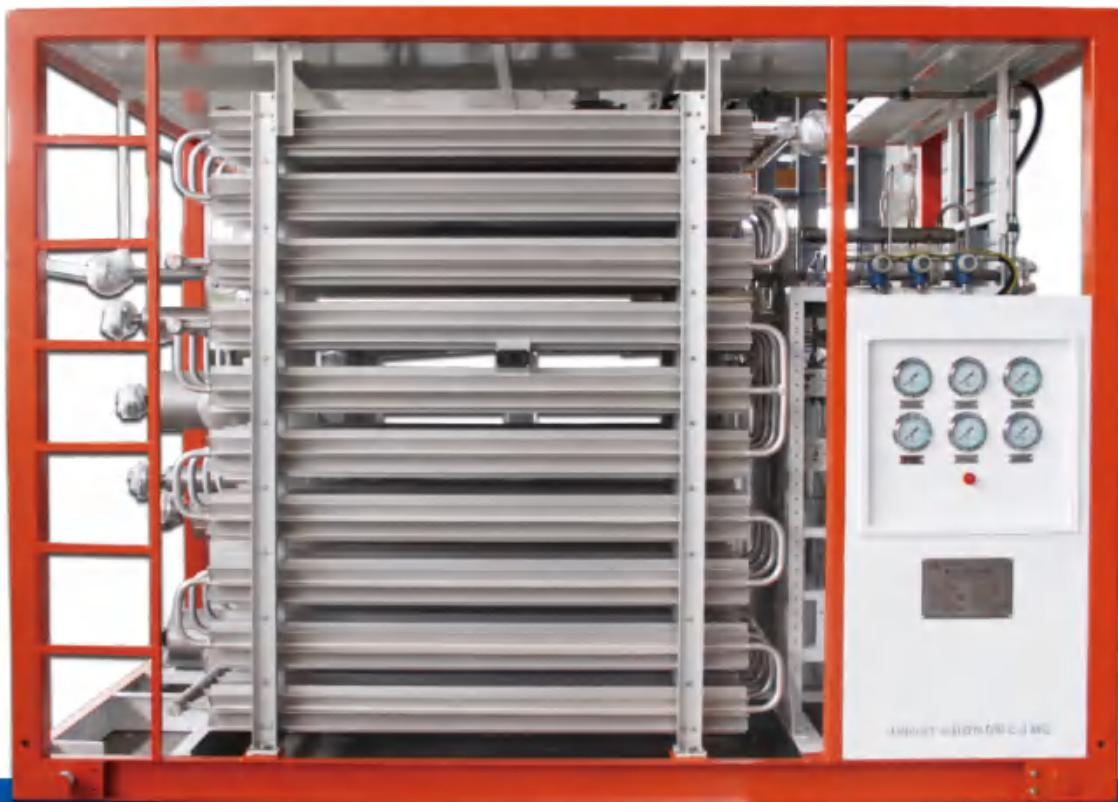
LNG SKID MOUNTED REFUELING EQUIPMENT

The adoption of a highly modular design and full-process integration not only significantly reduces investment and transportation costs, but also greatly simplifies the installation process - no complex pipeline construction is required on site, transportation and hoisting are quick, and the equipment can be put into use by simply and quickly connecting the gas filling machine integrated into the equipment to the LNG storage tank or tank container, which greatly shortens the installation and put - into - production cycle. It has a compact structure, occupies a small area, and requires little on-site installation work.



The equipment uses high-quality key components, and the electrical instrument system strictly complies with explosion-proof design specifications to ensure safe and reliable operation. Equipped with a self-developed PLC control system, it provides both automatic and manual operation modes, with the advantages of simple operation, high reliability, low failure rate and convenient maintenance. In addition, the product structure configuration is flexible, and users can freely choose a single pump or dual pump system according to their needs.

LNG PUMP SLED



LNG PUMP SLED

Featuring a highly integrated, space-saving design with minimal installation time and rapid deployment, this product offers exceptional mobility for easy transport and relocation. It utilizes imported original key components and an explosion-proof electrical system ensuring maximum safety and reliability. Its optimized piping minimizes precooling time while accelerating refueling speed. Equipped with a self-developed PLC control system supporting both automated and manual operation, it delivers user-friendly controls, robust reliability, low failure rates, and easy maintenance, complemented by a flexible structure allowing free selection of single or dual pumps.

EQUIPMENT PARAMETERS

Device Name	LNG skid mounted refueling equipment	LNG pump sled
Dimensions	Single pump: 3800*2440*2400 Dual pump: 3300*2440*2400	
Submersible Pump	ACD/Cryostar/Domestic	
Frequency Inverter	ABB/Schneider	
Maximum Working Pressure	1.6Mpa	
Design Temperature	-196°C ~50°C	
Refueling Time per Vehicle	5 分钟 (min)	
Flow Rate of LNG Submersible Pump	340L/min	
Tank Unloading Booster	300Nm ³ /h	
EAG Heater	100Nm ³ /h	
Control Mode	PLC Programmable Automatic Control	
Daily Refueling Capacity	10000~15000Nm ³	

03

HYDROGENATION UNIT

- Hydrogen Dispenser
- Core Hydrogen Refueling Equipment
- Hydrogen production and hydrogenation integrated skid
- Hydrogen refueling station

HYDROGEN DISPENSER



L/H-TYPE HYDROGEN DISPENSER

Hydrogen metering settlement and refueling, mainly including high-pressure pipelines, valves, hydrogen refueling guns, metering, and pricing display systems, etc.

- (1) Hydrogen leakage monitoring, alarm, and interlocking cut-off;
- (2) Pressure and temperature monitoring, alarm, and interlocking cut-off;
- (3) Static grounding alarm and anti-false connection;
- (4) Emergency interlocking shutdown;
- (5) Automatic flow control;
- (6) Install a breakaway valve to prevent accidental detachment during hydrogen refueling;
- (7) Pipeline system purging, replacement, and safe release of high-pressure gas;
- (8) Explosion-proof safety.

HYDROGEN DISPENSER TECHNICAL PARAMETERS

Hydrogen Dispenser	35Mpa Hydrogen Dispenser	70Mpa Hydrogen Dispenser
Dimensions	L-type: 1800×560×2380 H-type: 1256×800×2395	
Hydrogen Dispenser Model	HF2-NC-35- I / II	HF2-CO-70- I / II
Medium: Hydrogen	Hydrogen	
Environmental temperature	-40~50°C	
Humidity	20~95%RH	
Atmospheric pressure	80~110KPa	
Inlet pressure	≤ 45MPa	≤ 90MPa
Working pressure	35MPa	70MPa
Maximum working pressure	43.8MPa	87.5MPa
Design pressure	48.2MPa	96.3MPa
Hydrogenation flow rate	0.2~3.6 kg /min	
Hydrogenation interface	TK16、TK25	TK17
Measurement accuracy	0.5%	
Measurement repeatability error	≤ 1%	
Measurement unit	kg	
Minimum graduation value of degree	0.01 kg、0.01rmb	
Single counting range	0.00kg ~ 999.99kg or 0.00rmb ~ 9999.99rmb	
Unit price setting range	0.01 rmb/kg ~ 999.99 rmb/Kg	
Power	0.2Kw	
Voltage	24VDC	
Explosion proof grade	Ex db eb ib mb Ic T4 Gb	

CORE HYDROGEN REFUELING EQUIPMENT



Dehydrogenation column

The hydrogen offloading skid is installed at the unloading station, connected to the hydrogen tube trailer, and delivers high-purity hydrogen from the trailer to the hydrogen compressor for pressurization, ensuring safety and accuracy.

Product Specifications:

- (1) Hydrogen filtration;
- (2) Hydrogen metering;
- (3) Safe release;
- (4) Emergency interlocking emergency stop;
- (5) High and low pressure emergency shutdown;
- (6) Purge and replace the hydrogen pipeline system.



Diaphragm compressor skid

The hydrogen gas from the hydrogen unloading process enters the compressor for pressurization, and then goes through closed cooling to the sequential control panel.

Product Specifications:

- (1) Hydrogen pressurization;
- (2) Hydrogen cooling, compressor head cooling, and oil circuit cooling;
- (3) Purge and replace hydrogen pipeline;
- (4) Emergency interlocking shutdown;
- (5) Emergency shutdown of the skid-mounted unit, plus remote control, monitoring, and fault alarm interlocking.

Product Specifications

Brand	Furen	Exhaust temperature	< 45°C
Product model	HM-45-500/I	Exhaust capacity	500 kg /d@12h, 12.5MPa
Head brand	Howden	Cooling method	water cooling
Working medium	hydrogen	Total power	55Kw
Inlet pressure	5~20MPa	Explosion proof grade	Ex d e mb IIC T4 Gb
Rated outlet pressure	45MPa	Hydrogen pipeline inlet/outlet connection method	double ferrule joint/C&T threaded joint
Inlet temperature	< 30°C	Nominal diameter	3/4 "



Dimensions
4800×2450×2800

Liquid driven hydrogen compressor skid

The hydrogen gas from the hydrogen unloading process enters the compressor for pressurization, and then goes through closed cooling to the sequential control panel.

Product Specifications:

- (1) Hydrogen pressurization;
- (2) Hydrogen, compressor head, oil circuit cooling;
- (3) Purge and replace hydrogen pipelines;
- (4) Emergency interlocking emergency stop;
- (5) Skid mounted equipment process operation, remote control, monitoring, and fault alarm interlocking.

Product Specifications

Brand	Furen	Exhaust temperature	< 45°C
Product model	HY-90-500/I	Exhaust capacity	500 kg
Unit type	liquid driven oil-free piston hydrogen compressor	Cooling method	water cooling
Working medium	hydrogen	Total power	65Kw
Inlet pressure	5~20MPa	Explosion proof grade	Ex d e mb IIC T4 Gb
Rated outlet pressure	90MPa	Hydrogen pipeline inlet/outlet connection method	double ferrule joint/C&T threaded joint
Inlet temperature	< 30°C	Nominal diameter	3/4 " — 9/16 "



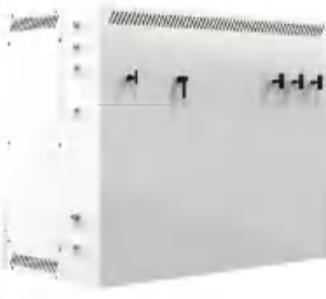
Hydrogenation machine heat exchanger

Hydrogen inlet connection sequence control panel, outlet connection hydrogen refueling machine; The inlet and outlet of the cooling water pipeline are connected to the inlet and outlet of the hydrogen refueling chiller unit.

Product Specifications: Cool the hydrogen gas injection.

Product Specifications

Structural form	sleeve type, coil type, microchannel type	Design pressure	49.5MPa/1.6MPa
Working medium	hydrogen/cooling water	Connection method	C&T threaded joint/G threaded pipe joint
Heat exchange capacity	> 50Kw	Nominal diameter	9/16 " /1 1/2 "
Maximum working pressure	45MPa/0.45MPa		



Dimensions

1570×850×1900

Sequential control panel

The inlet is connected to a skid mounted compressor, and the outlet is connected to a hydrogen storage bottle group and hydrogen refueling equipment. During hydrogen storage, it is divided into three paths through a sequential control panel to enter the high, medium, and low fixed hydrogen storage bottle groups. During hydrogen refueling, gas is taken from the hydrogen storage bottle group in low, medium, and high pressure order through the sequential control panel. After reaching the set pressure difference value, the bottle group sequence is automatically switched to ensure the refueling speed.

Product Specifications

(1) Electromagnetic valve control, PLC interlocking; (2) Purge and replace the hydrogen pipeline system.

Product Specifications

Product model	FRGK-SXKZP- I	FRGK-SXKZP- II
Working medium	hydrogen	hydrogen
Inlet pressure	≤ 45MPa	≤ 90MPa
Design pressure	49.5MPa	99MPa;
Inlet/outlet connection method	C&T threaded joint	C&T threaded joint
Inlet/outlet nominal diameter	3/4 "	9/16-3/18 "

Main Technical Parameters

Design pressure	87.5MPa		
Maximum filling pressure	70 MPa		
Minimum bursting pressure	105MPa		
Hydrogen storage density per unit mass	>5.0wt%		
Service temperature	-40° C~ 85° C		
Service life	15 years		
Finished productdiameter (mm)	Φ400	Φ400	Φ400
Effective volume	64L	140L	300L
Total lengthof container (mm)	1003	1843	3668
Application scenarios	Passenger car	Commercial vehicle	For transportation or hydrogen refueling stations



Type IV high pressure hydrogen storage bottle



Hydrogen storage bottle group

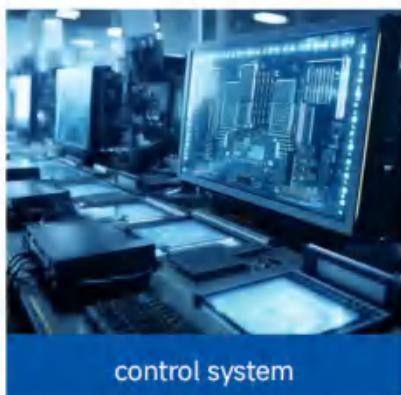
It is divided into three groups: high, medium, and low. The inlet and outlet are connected to the sequential control panel through the same nozzle, receiving hydrogen gas supplied by the compressor and providing hydrogen gas required by the hydrogenation machine.

Product Specifications

- (1) Hydrogen storage;
- (2) Hydrogen buffering;
- (3) Reduce the frequency of compressor start and stop;
- (4) Remote monitoring, control, and fault alarm interlocking of hydrogen gas in bottle groups;
- (5) Purge and replace the bottle group and hydrogen pipeline system.

Product Specifications

Working medium	hydrogen	hydrogen
Water volume	9m ³	2m ³
Working pressure	45MPa	90MPa
Design pressure	49.5MPa	99MPa
Working temperature	-40~85°C	-40~85°C
Design temperature	-40~85°C	-40~85°C
Connection method	C&T threaded joint	C&T threaded joint
Inlet/outlet nominal diameter	3/4	9/16



control system

The hydrogen refueling station control system collects important operating parameters of on-site remote instruments, hydrogen compressors, hydrogen refueling machines, and other equipment, performs data processing, completes remote centralized monitoring, operation, control, and management of the hydrogen refueling station, and visually displays the computer interface. Mainly composed of starting cabinet, PLC control cabinet, upper computer system, on-site instruments, communication modules and other equipment.

Product Specifications

(1) Process control function

- a) Pressure monitoring is collected by the pressure transmitter, the signal is output to the monitoring system instrument cabinet, and then uploaded to the host computer.
- b) Temperature monitoring is collected by the temperature transmitter, the signal is output to the monitoring system instrument cabinet, and then uploaded to the host computer.
- c) Hydrogen compressor control, the gas unloading column provides the gas source. According to the pressure of the hydrogen storage bottle group, the compressor, compressor skid chiller, and control valve are started and stopped to achieve the functions of hydrogen compression and storage.
- d) Hydrogen filling control: according to the signal provided by the hydrogenation machine, start and stop the hydrogenation machine chiller and control valve, control the rise of hydrogen temperature during the hydrogenation process, and fill the hydrogenation vehicle with hydrogen.
- e) Emergency shutdown of hydrogenation station equipment, emergency shutdown of the power supply of the entire station equipment based on pressure, temperature changes, hydrogen leakage concentration of the hydrogenation station, flame alarm conditions, emergency stop signals, etc.

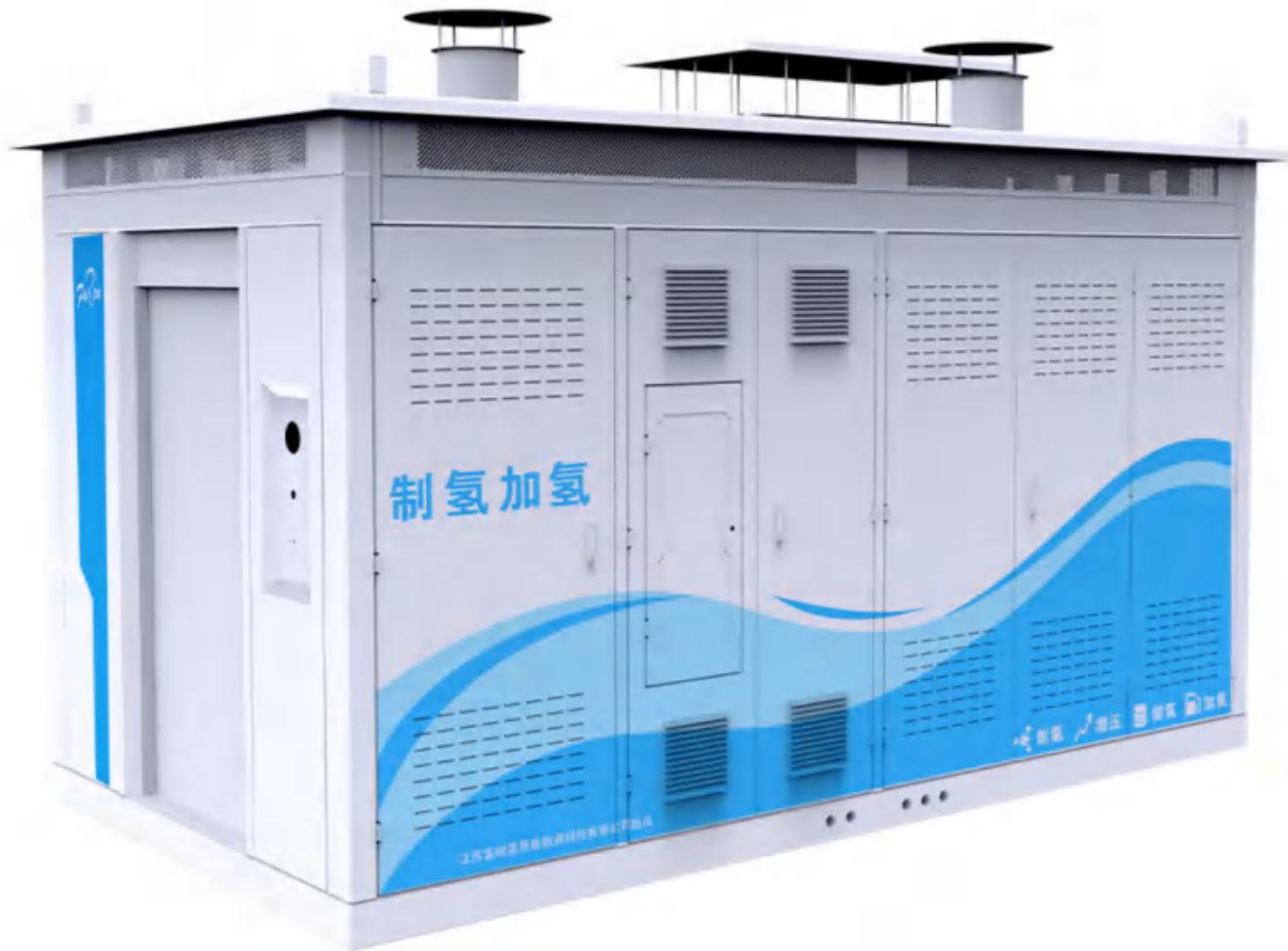
(2) Safety protection function

- a) Whole station ESD manual button
- b) ESD command of station control HMI
- c) Main equipment failure ESD trigger command

(3) Functions of the upper computer module

- a) Real-time display of the operating status of the hydrogen refueling station equipment and the data of each process module
- b) Data storage and processing
- c) Alarm display and handling
- d) Data calculation
- e) Logic control
- f) Report printing

HYDROGEN PRODUCTION AND HYDROGENATION INTEGRATED SKID



HYDROGEN PRODUCTION AND HYDROGENATION INTEGRATED SKID

The integrated hydrogen production and storage skid integrates hydrogen production and compressed hydrogen storage into a movable modular device. It has functions such as efficient hydrogen production, high-pressure hydrogen storage (35-70MPa), and intelligent control. It is suitable for scenarios such as hydrogen refueling stations and new energy storage, and has the advantages of being compact, safe, and quickly deployed.

Product Specifications

Easily accessible raw materials: Methanol and water are widely available as raw materials, ensuring low system operating costs and sustainability.

Efficient hydrogen production technology: Based on methanol steam reforming technology, the system produces hydrogen with a purity of 99.99% and a methanol-to-hydrogen production capacity of 10 Nm³/h, achieving efficient and stable hydrogen production.

Integrated design: Hydrogen production, purification, storage, compression, and refueling are integrated into a single skid-mounted module, operating in a temperature range of -40 ° C to 55 ° C, facilitating rapid deployment and use.

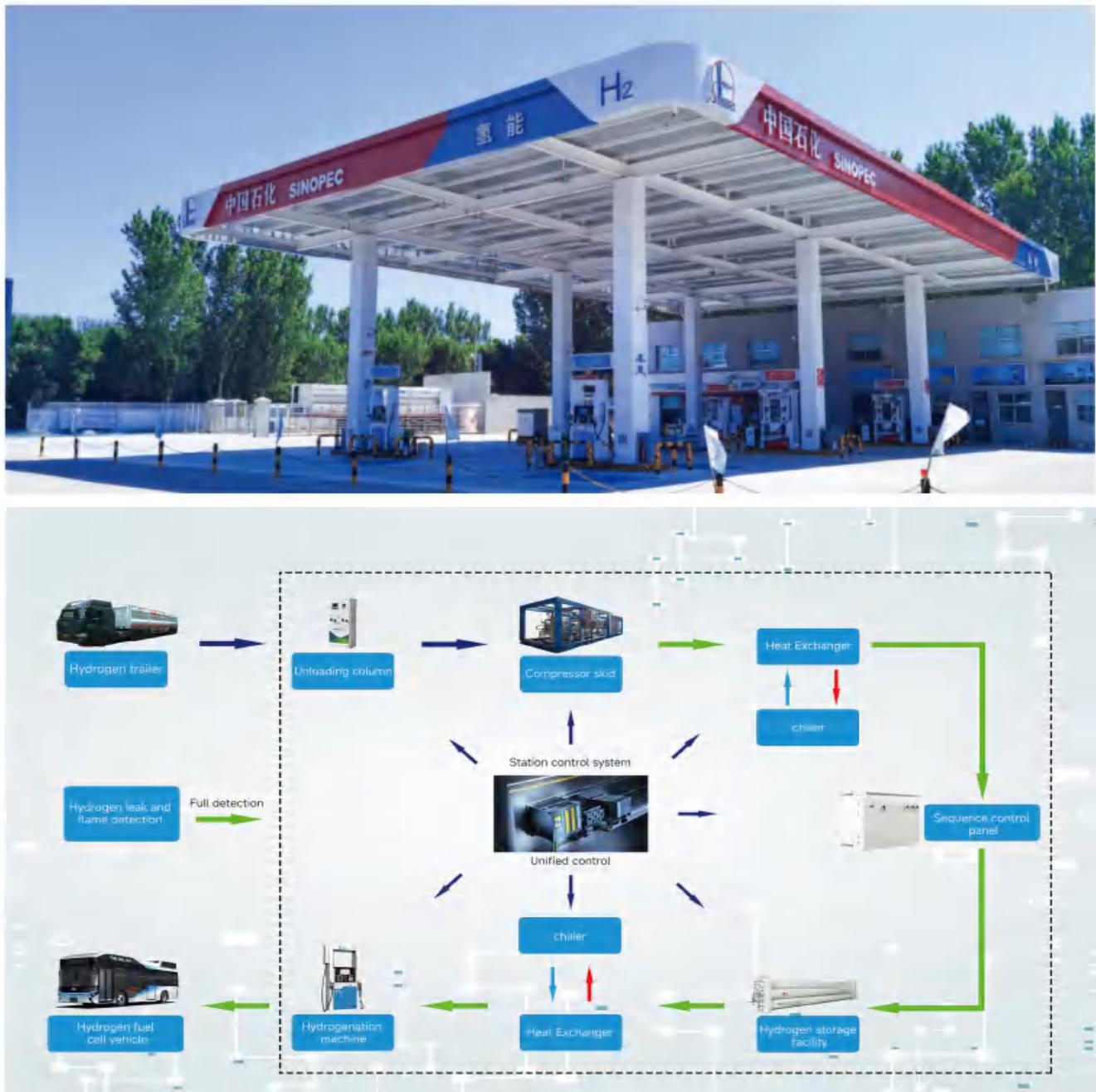
Safe and Reliable: Equipped with explosion - proof Class II C design, hydrogen leak detection, automatic pressure relief, flame arrestors, an emergency shut - off system, and water cooling technology. The system is designed with a strong emphasis on safety, ensuring stable operation across diverse scenarios and mitigating operational risks.

Widely Applicable: Suited for small - to - medium - scale hydrogen energy demand scenarios, including distributed energy stations, hydrogen refueling points for drones/small vehicles, and laboratory hydrogen supply.

HYDROGEN PRODUCTION AND HYDROGENATION INTEGRATED SKID TECHNICAL PARAMETERS

Dimensions	4500×2400×3128
Hydrogen production raw material	methanol water
Methanol hydrogen production capacity	10 Nm ³ /h
Hydrogen purity	≥ 99.999%
Hydrogen production output pressure	0.5 MPa
Inlet pressure	0.5MPa
Exhaust pressure	40 MPa
Compressor displacement	10 Nm ³ /h
Hydrogen storage capacity	140 L
Hydrogen storage pressure	35 MPa
Total Power Consumption	25 kW
Ambient temperature range	-40°C ~ 55°C
Hydrogenation temperature	<25°C
Hydrogenation cooling method	water cooling

HYDROGEN REFUELING STATION CONSTRUCTION



HYDROGEN REFUELING STATION CONSTRUCTION

- ① Process planning design
- ② Project management and purchase of complete sets of equipment
- ③ Equipment installation and debugging
- ④ Delivery and training
- ⑤ Hydrogen refueling station construction, operation and maintenance

04

METHANOL EQUIPMENT

- Methanol Dispenser
- Methanol integrated skid

METHANOL DISPENSER



METHANOL
DISPENSER

The methanol dispenser features a sleek and intuitive exterior design, delivers precision metering mechanisms, and embodies eco-compatibility throughout its overall framework.

Product Specifications

Structural Design Rationale: Based on ergonomics for intuitive operation

Precision Specifications:

Maximum Allowable Error: $\leq \pm 0.3\%$

Repeatability Error: $\leq 0.10\%$

Operating Temperature: -45°C to $+55^{\circ}\text{C}$

Integrated Safety Protections:

Alcohol Vapor Recovery System

Suppresses methanol evaporation to reduce atmospheric pollution

Auto-adjustable vapor-to-liquid ratio ensuring safe fueling conditions

Emergency Shutoff System

Automatically seals fuel lines during nozzle disconnection or dispenser tip-over

Prevents hazardous fuel leakage

Static Electricity Elimination

Neutralizes human-body static during operation

Ensures spark-free safety compliance

Explosion-Proof Construction

Certified: Ex db ib mb II A T3 Gb per ATEX/IECEx standards

Smart Connectivity:

IoT-enabled real-time monitoring (equipment status/inventory levels)

Remote diagnostics & OTA firmware upgrades

Reduced maintenance downtime

Adaptive Performance:

Compatibility: Vehicle/marine/stationary refueling

Modular architecture for flexible deployment

Stable performance across extreme temperatures

Fuel Compatibility:

Certified for M85 & M100 methanol fuels

Durability Engineering:

Corrosion/aging-resistant materials (chemically inert to methanol)

Long-term operational integrity guarantee

Polar-region deployment capability

TECHNICAL SPECIFICATIONS OF METHANOL DISPENSER

Dimensions	915×638×2200
Ambient temperature	-25°C — $+55^{\circ}\text{C}$, high-cold areas -45°C — $+55^{\circ}\text{C}$
Relative humidity	$\leq 95\%$
Atmospheric pressure	86kPa—106kPa
Power adaptability	AC380V or AC220V ($-15\%—+10\%$): $50\pm 1\text{ Hz}$
Flow rate range	Flow range: 5—50L/min
Adder error	$\leq \pm 0.30\%$
Repeatability error	$\leq 0.10\%$
Noise	$\leq 70\text{dB}$
Unit price range	0.01—99.99 yuan/liter
Single count range	Volume: 0.01—9999.99 liters, amount: 0.01—9999.99 yuan
Cumulative count range	Volume: 0.01—9999999.99 liters, amount: 0.01—9999999.99 yuan

METHANOL INTEGRATED SKID



METHANOL
INTEGRATED
SKID

The methanol skid is an integrated system combining storage, refueling, alcohol vapor recovery, and control systems.

Product Specifications

Easy to move and reduce site construction costs. The methanol filling skid adopts a modular design, integrating storage, filling, metering and control, achieving rapid deployment, shortening the installation cycle and saving floor space.

Accuracy level: $\leq \pm 0.30\%$. Equipped with a high-precision mass flow meter and an AI dynamic calibration system, data is uploaded to the cloud in real time to effectively avoid human errors.

Passed explosion - proof certification, with an operating temperature range of -25°C to $+55^{\circ}\text{C}$. Methanol is liquid at room temperature and features dual leakage monitoring, automatic cut-off, and nitrogen protection systems. These ensure the safety of the filling process, leading the industry in safety performance.

Apply remote monitoring and fault self-diagnosis technology. Support mobile terminal management, greatly reduce operation and maintenance costs, and be compatible with filling needs in various scenarios such as vehicles, ships and industries.

Ultra-low emissions. Install a VOCs recovery device to reduce volatile losses and contribute to the goal of carbon neutrality.

Customizable. Customized according to the specific needs of users, flexibly configure the storage tank capacity of 1KL~50KL and the adapter pump flow to meet a variety of filling scenarios and usage requirements.

Suitable for application and promotion in methanol new energy ecological refueling market.

TECHNICAL SPECIFICATIONS FOR INTEGRATED METHANOL SKID

Rated capacity	1~50KL	Operating voltage	220V 50Hz±1Hz
Operating temperature	$-25^{\circ}\text{C} \sim +55^{\circ}\text{C}$	Display Range	Amount: 6 digits (0.01-999999 yuan)
Humidity	<95%(+25) $^{\circ}\text{C}$		Filling volume: 6 digits (0.01-999999 liters)
Atmospheric pressure	86~106KPa		Unit price: 4 digits (0.01-9999 yuan/liter)
Output type	4~20mA		Cumulative volume: 10 digits (0-9999999.99)
Response time	< 1s	Dimensions (Length × Width × Height)	1KL 2285*1040*2240mm
Hysteresis	<0.05%		2KL 2905*1040*2240mm
Maximum allowable error	$\leq \pm 0.3\%$		3KL 3525*1040*2240mm
Repeatability error	$\leq \pm 0.10\%$		4KL 4145*1040*2240mm
Filling flow	5~50L/min		5KL 4765*1040*2240mm
Minimum measured value	5L		20KL 8760*2460*2850mm
			30KL 10000*2800*3050mm
			40KL 11000*2900*3250mm
			50KL 13000*2900*3250mm

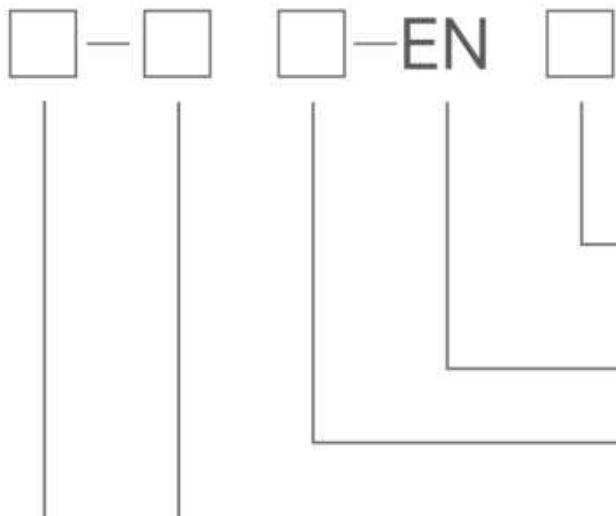
05

CHARGING EQUIPMENT

- EV Charging Station Series
- Main components of charging equipment

Charging pile model and name

DC charging pile for electric vehicles



Power: 15kW, 20kW, 30kW, 40kW, 80kW, 120kW, 160kW, 180kW, 240kW, 320kW...

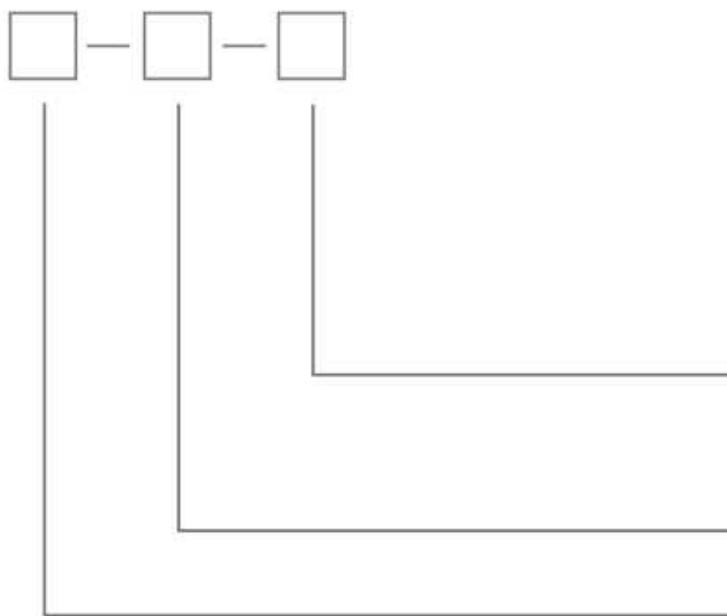
EN: European standard; no indication means national standard

Style: 01...

Current form: DC

Code: FRGK;

Electric vehicle on-board charger(Split units (stacks))



YL: liquid cooling; no suffix default air cooling;
CN: storage integration

Power: 240kW, 360kW, 400kW, 480kW...

Code: FR;

Charging pile model and name

Electric vehicle on-board charger(Separate terminals)



YL: liquid cooling; FL: air cooling;

Single gun terminal: ZDD;
double gun terminal: ZDS;

Code: FR;

Electric vehicle on-board charger(Mobile storage and charging)



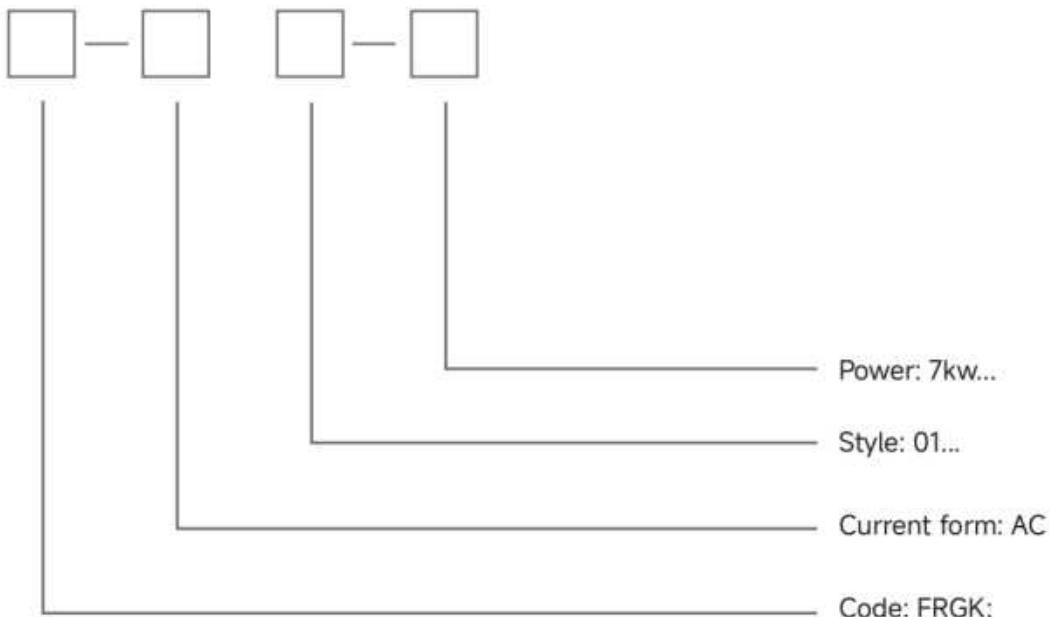
Power: 150kW, 240kW, 360kW, 400kW,
480kW...

M: shift

Code: FR;

Charging pile model and name

AC charging pile for electric vehicles



ZHIYUAN SERIES CHARGING PILES



ZHIYUAN SERIES CHARGING PILES

The Zhiyuan series all-in-one devices feature a low-noise design, operating at a volume of less than 55dB. Equipped with an intelligent cooling system, they ensure nighttime charging without disturbing others. They combine efficient charging with a quiet experience, enhancing user comfort.

Product Specifications

Ultra-quiet Operation - Night-Friendly

80~360kW, fanless design or high-efficiency silent fan, noise level <55dB, allowing for undisturbed nighttime charging, ideal for quiet locations like residential communities and hotels.

Energy - Saving & Environmental Protection - Low - Carbon Certified

Low - power standby mode enhances energy utilization efficiency, meeting green building standards and supporting carbon neutrality initiatives.

Adaptive noise reduction--smart experienceThe intelligent dynamic module adjusts the heat dissipation power, and automatically entersthe silent mode when the temperature is low and the load is low. The user can switch morecomfortably without feeling

Dual-mode intelligent heat dissipation-stable and efficient Natural convection combined with high - thermal - conductivity materials for coordinated heat dissipation. Achieves both quiet operation and high efficiency, ensuring long - term equipment stability even in high - temperature environments.

Minimalist aesthetic design-space adaptationIntegrated compact body, save floor space, integrated with modern architectural aestheticsspecially designed for high-end residential and commercial areas.

24/7 Safety protection-no fear of the environmentLp55, dustproof and waterproof + overvoltage and overcurrent protection, service life extendedby 20%, stable operation in extreme weather.

TECHNICAL SPECIFICATIONS FOR ZHIYUAN SERIES CHARGING PILES

Product Model	FRGK-DC01-360kW		
Essential Information		Output Characteristic	
Dimensions (length*width*height)	750*750*1880mm	Output Voltage 200-1000Vdc	
Way To Install	On-site installation	Current Stability Accuracy ≤±1%	
System Efficiency	Maximum efficiency 97%	Stabilization Accuracy ≤±0.5%	
Power Rating	80-240kW	Environmental Specifications	
Heat Dissipation Method	forced air cooling	Working Temperature -35°C →+50°C	
Protection Class	IP55	Storage Temperature -35°C →+70°C	
Supported Charging Connectors	Two guns	Above Sea Level ≤ 2000m	
Communication Interface	4G, network cable	Relative Humidity 5%RH~95%RH	
Input Characteristics		Noise Level ≤ 55 dB (25°C standard mode)	
Input Voltage	380Vac±15%, three-phase five-wire system	Operative Norm	
Incoming Frequency	45Hz ~ 66Hz	Product Specifications	GB/T18487.1,NB/T33001,NB/T33008.1,GB/T27930,JGJ149-
Power Factor	≥ 0.99 (load ≥ 50%)		
Harmonic Wave	≤ 5% (load ≥ 50%)	Water Depth	≤ 100mm (water depth)

INDEPENDENT AIR CHANNEL SERIES CHARGING PILE



INDEPENDENT
AIR CHANNEL
SERIES
CHARGING PILE

The independent duct-type charging pile adopts an isolated heat dissipation design, which is dustproof and waterproof, low noise, efficient heat dissipation, extends the life of the equipment, and is suitable for high-power fast charging scenarios.

Product Specifications

Efficient Zoned Heat Dissipation

Independent Air Duct Design: The charging module, power supply, and control unit utilize independent heat dissipation paths to prevent heat accumulation.

Intelligent Temperature Control: Automatically adjusts fan speed based on internal temperature, balancing heat dissipation and energy consumption.

High Protection Rating: IP55 protection for the entire device, IP65 protection for the charging module: Suitable for harsh outdoor environments such as rain, snow, and dust.

Corrosion-Resistant Materials: The housing is constructed of galvanized steel or flame-retardant engineering plastic, extending service life.

Ultra-Low-Noise Operation: Brushless Silent Fan: Noise is kept below 55dB (equivalent to a whisper).

Air Duct Optimization and Noise Reduction: A streamlined air duct design reduces airflow turbulence and noise.

Intelligent Management and Safety: Remote Monitoring: Supports app/cloud platform monitoring of device status and heat dissipation.

Multiple Safety Protections: Overvoltage, overcurrent, short circuit, and leakage protection, along with self-diagnosis.

Lightning Protection: Suitable for areas prone to lightning.

Modular Maintenance: Quick-Remove Filter: Easy to clean, preventing dust from clogging the air duct. Easy maintenance design: key components (such as fans and power modules) can be quickly replaced.

TECHNICAL PARAMETERS OF INDEPENDENT AIR DUCT SERIES CHARGING PILES

Product Model		FRGK-DC01-160kW	
Essential Information		Output Characteristic	
Dimensions (length*width*height)	800*590*1780mm	Output Voltage	200~1000Vdc
Way To Install	On-site installation	Current Accuracy	≤±1%
System Efficiency	Maximum efficiency 95.5%	Stabilization Accuracy	≤±0.5%
Power Rating	80~160kW	Environmental Specifications	
Heat Dissipation Method	forced air cooling	Working Temperature	-35°C ~+50°C
Protection Grade	IP55	Storage Temperature	-35°C ~+70°C
Supported Charging Connectors	Two guns	Above Sea Level	≤2000m
Communication Interface	4G, network cable	Relative Humidity	5%RH~95%RH
Input Characteristics		Noise Level	
Input Voltage	380Vac±15%, three-phase five-wire system	≤ 55 dB (25°C standard mode)	
Incoming Frequency	45Hz ~ 66Hz	Operative Norm	
Power Factor	≥ 0.99 (load ≥ 50%)	Product Specifications	GB/T18487.1/NB/T33001/NB/T33008.1/GB/T27930/JG1149
Harmonic Wave	≤ 5% (load ≥ 50%)	Water Depth	≤ 100mm (water depth)

ZHIGAO SERIES CHARGING PILE



ZHIGAO SERIES CHARGING PILE

The Smart Charge series breaks through the traditional industrial design, with "technology + humanization" as the core, and creates a new generation of charging equipment with both high appearance and practicality, suitable for high-end commercial areas, residential communities, brand 4S stores and other scenes with high image requirements.

Product Specifications

A polished look

The 7 - inch color touch screen and LED ambient lighting integrate seamlessly with the charger's performance, resulting in an overall structure that's rational, cost - effective, aesthetically pleasing and modern - looking.

Safe guarding

The product has anti-tilt, water immersion, smoke alarm safety function, static electricity safety detection function to ensure safe operation.

The structure is clever

Overall structure, convenient for users to install; Interface operation, debugging is convenient; Visualize and combine operations with APP, multiple payment methods, convenient for customers. The external frame structure and size of the product are close to similar products on the market. The integration of humanization and intelligence, the current aesthetic flow and technological elements give people a sense of beauty.

TECHNICAL PARAMETERS OF ZHIGAO SERIES CHARGING PILE

Product Model		FRGK-DC01-320kW	
Essential Information		Output Characteristic	
Dimensions (length*width*height)	800*645*1880mm	Output Voltage	200-1000Vdc
Way To Install	On-site installation	Current Stability Accuracy	≤ ±1%
System Efficiency	Maximum efficiency 95.5%	Stabilization Accuracy	≤ ±0.5%
Power Rating	80-320kW	Environmental Specifications	
Heat Dissipation Method	forced air cooling	Working Temperature	-35°C ~+50°C
Protection Grade	IP55	Storage Temperature	-35°C ~+70°C
Supported Charging Connectors	Two guns	Above Sea Level	≤ 2000m
Communication Interface	4G, network cable	Relative Humidity	5%RH-95%RH
Input Characteristics		Noise Level	≤ 55 dB (25°C standard mode)
Input Voltage	380Vac±15%, three-phase five-wire system	Operative Norm	
Incoming Frequency	45Hz ~ 66Hz	Product Specifications	GB/T18487, NB/T33001, NB/T33008, GB/T27930, JJG1149
Power Factor	≥ 0.99 (load ≥ 50%)	Water Depth	≤ 100mm (water depth)
Harmonic Wave	≤ 5% (load ≥ 50%)		

INTELLIGENT STORAGE INTEGRATED CHARGING PILE



INTELLIGENT
STORAGE
INTEGRATED
CHARGING PILE

The integrated energy storage and charging device is an intelligent device that integrates energy storage and charging functions. It supports photovoltaic/grid energy storage and rapid charging and discharging. It has intelligent scheduling, peak load shifting, and V2G interaction functions. It adapts to the fast charging needs of electric vehicles, improves grid stability, is highly efficient and energy-saving, and has flexible deployment.

Product Specifications

Integrated Design

Combining energy storage and charging functions saves space and operation and maintenance costs, flexibly adapting to diverse scenarios, including industrial, commercial, and public facilities.

Smart Energy Management

PV-storage integration and peak-valley electricity price arbitrage dynamically optimize charging and discharging strategies, reducing electricity costs and increasing energy returns.

Ultra-Fast Charging Experience

High power output, four-charge parallel fast charging, compatible with mainstream vehicle models, eliminating user wait times.

Smart IoT Dispatch

Lithium iron phosphate batteries + intelligent temperature control system, IP55 protection + fire and explosion-proof design, with a lifespan exceeding 10 years and stable operation in extreme environments.

Emergency Power Supply Guarantee

AI algorithms + remote monitoring platform support V2G vehicle-grid interaction, automatically respond to grid peak-shaving needs, and empower a smart microgrid ecosystem.

TECHNICAL PARAMETERS OF INTELLIGENT STORAGE INTEGRATED CHARGING PILE

Product Model	FR-240kW-CN		
Essential Information		Environmental Specifications	
Dimensions (length*width*height)	1350*1050*2120mm	Working Temperature	-35°C →+50°C
Way To Install	On-site installation	Storage Temperature	-35°C →+70°C
System Efficiency	Maximum efficiency 95.5%	Above Sea Level	≤ 2000m
Power Rating	160-240kW	Relative Humidity	5%RH-95%RH
Heat Dissipation Method	Air conditioning refrigeration	Noise Level	≤ 55 dB (25°C standard mode)
Protection Grade	IP55	Energy Storage & Charging Unit	
Supported Charging Connectors	Four guns	Energy Storage & Charging Unit	44.5kWh
Communication Interface	4G, network cable	Maximum Output	80kW
Input Characteristics		Output Voltage Range	200-750VDC
Input Voltage	380Vac±15%, three-phase five-wire system	Output Current Range	0-250A
Incoming Frequency	45Hz ~ 66Hz	Efficiency	>95%
Power Factor	≥ 0.99 (load ≥ 50%)	Charging Output Interface	National standard DC charging gun
Harmonic Wave	≤ 5% (load ≥ 50%)	Charging Cable Length	5M (customizable)
Output Characteristic		Operative Norm	
Output Voltage	200-1000Vdc	The Charging System Implements The Standards	GB/T18487.1, GB/T18487.2, GB/T27930, GB/T34657.1 and GB/T 34658
Current Current Stability Accuracy	≤±1%	Battery Safety Compliance Standards	GBT20234.1 and GBT20234.3
Voltage Current Stability Accuracy	≤±0.5%	Product Specifications	GB/T18487.1,NB/T33001, NB/T33008.1,GB/T27930,JGJ149
		Water Depth	≤100mm (water depth)

HIGH-POWER SUPER CHARGER SERIES



HIGH-POWER SUPER CHARGER SERIES

The high-power supercharging series charging pile is specially designed for high-speed service areas, bus hubs, logistics parks, high-end business districts and other scenarios. It supports ultra-high power output of 200kW-960kW, realizing rapid energy replenishment in 10-15 minutes, and solving the charging efficiency pain points of electric vehicles for long-distance travel and commercial vehicles.

Product Specifications

High efficiency heat dissipation system

Liquid cooling cycle system (flagship model): Compared with traditional air cooling, the heatdissipation efficiency is increased by 50% and the noise is reduced by 30%.

High compatibility and intelligence

Wide voltage range: 200V-1000V adaptive, compatible with mainstream electric vehicle brands.

Plug and Plug - and - charge + seamless payment: supports automatic deduction via APP/VIN code.

Remote monitoring and operation: real-time monitoring of equipment status, fault warning,support for OTA upgrade.

High reliability, adapt to harsh environmentIndustrial components: high temperature resistant, corrosion resistant, 7x24 hours continuous operation.

Intelligent load reduction protection: automatically adjust power in high temperature and lowtemperature environment to extend the service life of equipment.

Super-fast charging

It covers 200kW to 960kW power and is suitable for 800V high-voltage platform models (such asPorsche Taycan, Xiaopeng G9, etc.).Liquid-cooled charging gun + cable: support high current (500A+), charge for 10 minutes, andincrease the range by 300km+.

大功率超充系列充电桩技术参数

Product Model		FR-720kW	
Essential Information		Output Characteristic	
Dimensions (length*width*height)	Charger:1200*1000*2000mm Terminal:500*315*1652mm	Output Voltage	200-1000Vdc
Way To Install	On-site installation	Current Stability Accuracy	≤±1%
System Efficiency	Maximum efficiency 95.5%	Stabilization Accuracy	≤±0.5%
Power Rating	720kW	Environmental Specifications	
Heat Dissipation Method	forced air cooling	Working Temperature	-35°C ~+50°C
Protection Grade	IP55	Storage Temperature	-35°C ~+70°C
Supported Charging Connectors	4-12 guns (single and double guns, liquid-cooled guns can be freely combined)	Above Sea Level	≤ 2000m
Communication Interface	4G, network cable	Relative Humidity	5%RH~95%RH
Input Characteristics		Noise Level	≤ 55 dB (25°C standard mode)
Input Voltage	380Vac±15%, three-phase five-wire system	Compliance Standards	
Incoming Frequency	45Hz ~ 66Hz	Product Specifications	GB/T18487.1,NB/T33001,NB/T33008.1,GB/T27930,JGJ149
Power Factor	≥ 0.99 (load ≥ 50%)	Water Depth	≤ 100mm (water depth)
Harmonic Wave	≤ 5% (load ≥ 50%)		

720KW FULL LIQUID COOLING SUPERCHARGE



720KW
FULL LIQUID
COOLING
SUPERCHARGE

The FR-720KW model is a liquid-cooled supercharging device developed by Furen Hi-Tech for charging new energy vehicles. Compared with traditional air-cooled integrated charging piles, it uses new liquid cooling technology and a DC bus architecture. It consists of two charging parts: a charger and a charging terminal. The host is used to realize energy conversion and power distribution. It supports a maximum power output of 720kw and a maximum of 12 gun line outputs. The terminal is optional and supports liquid cooling and air cooling terminals.

Product Specifications

Module Expansion, Future Empowerment

Modular design supports power and interface expansion, seamless upgrade, and is suitable for future needs such as electric heavy trucks and flying cars.

Intelligent Control For Energy Saving, Safe And Worry-Free

AI temperature control to prevent overheating, energy consumption reduced by 20%, 7x24 hours of safe operation, so the failure rate is close to zero.

Lightweight And Easy To Deploy, Versatile In Scenarios

The liquid-cooled cable reduces the weight by 50%+, flexibly adapts to high-power scenarios such as high-speed supercharging stations and heavy truck power change, and doubles the deployment efficiency.

Extreme Cold, Long-Term Stability

The whole liquid cooling system has no fan design to reduce noise by 40dB, and precise temperature control to ensure the core life, and reliability is increased by 30%.

Ultra-Fast Charging, Breakthrough Efficiency

The ultra-high power of 720kW+ is suitable for high-voltage vehicle models with 1000V platform, which shortens the charging time and opens the era of "charging as refueling".

Intelligent Drive, Full Dimensional Compatibility

Remote control + power adaptive, intelligent matching of mainstream models such as Tesla and BYD, compatible with global 20+ charging protocols.

TECHNICAL PARAMETERS OF 720kW FULLY LIQUID-COOLED ULTRA-FAST CHARGING SYSTEM

Product Model		FR-720kW(liquid cooling)	
Essential Information		Output Characteristic	
Dimensions (length*width*height)	2400*1100*2395mm	Output Voltage	200-1000Vdc
Way To Install	On-site installation	Current Stability Accuracy	≤ ±1%
System Efficiency	Maximum efficiency 95.5%	Voltage Current Stability Accuracy	≤ ±0.5%
Power Rating	720kW	Environmental Specifications	
Heat Dissipation Method	liquid cooling	Working Temperature	-35°C ~+50°C
Protection Grade	IP55	Storage Temperature	-35°C ~+70°C
Supported Charging Connectors	4-12 guns	Above Sea Level	≤ 2000m
Communication Interface	4G, network cable	Relative Humidity	5%RH~95%RH
Input Characteristics		Noise Level	
Input Voltage	380Vac±15%, three-phase five-wire system	≤ 55 dB (25°C standard mode)	
Incoming Frequency	45Hz ~ 66Hz	Product Specifications	
Power Factor	≥ 0.99 (load ≥ 50%)	GB/T18487.1,NB/T33001,NB/T33008.1,GB/T27930,JGJ1149	
Harmonic Wave	≤ 5% (load ≥ 50%)		
Input Power Distribution	AC 800A × 3P circuit breaker		

TECHNICAL PARAMETERS OF 720KW FULLY LIQUID-COOLED ULTRA-FAST CHARGING SYSTEM

Terminal	Single Gun Liquid Cooling Terminal	Single Gun Air-Cooled Terminal
Essential Information		
Dimensions (length*width*height)	500*315*1652mm	500*315*1652mm
Number Of Charging Guns	1	1
Charging Cable Length	3.5m	5m
Way To Install	On-site installation	On-site installation
Protection Grade	IP55	IP55
Heat Dissipation Method	Liquid cooling	Natural cold
Environmental Specifications		
Working Temperature	-35°C ~+50°C	-35°C ~+50°C
Storage Temperature	-35°C ~+70°C	-35°C ~+70°C
Above Sea Level	≤ 2000m	≤ 2000m
Relative Humidity	5%RH-95%RH	5%RH-95%RH
Noise Level	≤ 55 dB (25°C standard mode)	≤ 55 dB (25°C standard mode)
Output Characteristic		
Output Voltage	200-1000Vdc	200-1000Vdc
Charging Current	Maximum 600A	250A
Product Specifications		
GB/T18487.1,NB/T33001,NB/T33008.1,GB/T27930,JG1149		
Safety Function		
Overvoltage protection, short circuit protection, continuous detection of protective grounding, overtemperature protection, emergency stop protection, leakage protection, insulation detection, door opening protection, power failure protection, battery reverse connection protection, contactor adhesion protection, low liquid level alarm		

Main components of charging equipment

DC charging gun

It has a high degree of adaptability, safety and durability, is suitable for various electric vehicle charging needs, and can operate reliably under different environmental conditions.

Funciton Features

Voltage adaptability: The charging gun can adapt to different models and brands of electric vehicles, providing greater charging flexibility

Excellent insulation performance: Boasts high insulation resistance and a 3500V AC withstand voltage, ensuring a safe and reliable charging process

Durability: The charging gun offers exceptional durability, withstanding over 10,000 cycles (no - load conditions), ideal for long-term use

Easy plug-in and pull-out: The plug-in and pull-out force is less than 140N, making it convenient for users to connect and disconnect the charging gun, improving convenience of use.

Protection level IP55: The charging gun is dustproof and waterproof, suitable for various environments

Wide operating temperature range: adaptable to a wide temperature range, from minus 30°C to plus 50°C, suitable for use under various climate conditions

High flame retardancy: Complies with UL94V-0 flame retardant rating, providing excellent fire resistance at high temperatures and enhancing safety

Electromagnetic lock mechanism: The electromagnetic lock mechanism is used to ensure a firm connection and avoid accidental disconnection during charging.

Comply with international standards: The charging gun complies with international standards, ensuring compatibility with various electric vehicles worldwide



Liquid cooled charging gun

This liquid-cooled charging gun combines high performance, high safety and adaptability, making it suitable for fast charging of large-capacity electric vehicles while providing reliable electronic locking and protection levels.

Funciton Features

High rated voltage and current: With a rated voltage of 1000V DC and a rated current of up to 600A, it can provide large-capacity power supply.

Excellent insulation performance: Under normal temperature conditions, it has an insulation resistance of more than 500MΩ, helping to ensure safe charging operations.

Adaptable to a wide range of environments: It can work normally in the temperature range of -30°C to 50°C, and complies with the standards under hot and humid conditions (GB/T 11918.1-2014).

High protection level: IP55 protection level ensures good protection performance under the socket interface state.

Reliable plugging and unplugging performance: The plugging and unplugging force is between 80N and 140N, and the plugging and unplugging life reaches 10,000 times (no load), ensuring reliability for long-term use.

Electronic lock function: Built-in electronic lock, rated voltage is 12V DC, current range is 1.5-2A, power is 18-24W, which can provide additional security protection.

Cooling system: Equipped with liquid cooling function, the coolant capacity is 600mL, which effectively reduces the conductor heating power and ensures efficient cooling.

Wide range of applications: Suitable for charging large-capacity electric vehicles with sufficient power and performance.

Reliable withstand voltage performance: able to withstand 3500V AC withstand voltage test between phase lines, phase lines and ground wires.

Environmentally friendly coolant: Silicone oil is used as the coolant medium to ensure environmentally friendly performance.



Charging IOT control module

The charging IoT control module is a highly integrated and highly Internet-based charging controller integrating TCU, CCU, IMD, and ELK. It has rich operating resources and rich hardware interfaces. In addition to realizing basic charging control and metering in addition to the billing function, it can also realize functions such as remote diagnosis of charging piles, providing technical support for stable operation and low-cost maintenance of charging piles.

Function Features

01. The functions are highly concentrated, the charging pile system is simple and easy to maintain
02. Powerful performance, intelligent operation and maintenance, suitable for various usage scenarios of charging piles
03. Rich networking functions, truly realize remote diagnosis and remote maintenance
04. The scheme is flexible and can be used for charging systems such as integrated single/double guns and charging piles
05. Charging safety guard, black box function



DC energy meter

It has a variety of functions, is suitable for different power measurement and monitoring needs, and has a high degree of reliability and performance.

Function Features

- Complies with multiple technical specs to ensure performance & quality compliance
- Compact and micro-intelligent design, easy to install and network
- It has multiple functions and can perform operations such as forward and reverse DC energy measurement, time-of-use measurement and data storage.
- Equipped with dual RS485 communication interfaces, supporting remote data interaction and uploading various electrical parameters and event data
- LCD display and buttons provide convenient parameter display and reading functions
- Provides electrical pulse output proportional to electrical energy to meet relevant standards
- Adaptable to a wide temperature range with good insulation properties and immunity



Main components of charging equipment

charging module

The charging module adopts the world's leading power supply technology and technology, and is specially designed for power conversion equipment for electric vehicle charging, with an ultra-wide constant power output voltage range. It has the characteristics of active power factor correction, high efficiency, high reliability, intelligent control and beautiful appearance. The module adopts intelligent cooling and heat dissipation method, with high power density and small space occupation. It has hot-swappable and battery backfeed functions. Protective function.

Function Features

- Ultra-small output voltage ripple, peak-to-peak ripple ≤1%
- Standby power consumption ≤10W
- Complete protection and alarm functions: input over/voltage, output overvoltage, overcurrent, over-temperature protection, output voltage alarm, output short-circuit protection
- The LED panel is used for easy human-machine operation and can display voltage, current, group, protocol, address, manual/automatic and fault information
- Supports CAN bus communication function and software group control
- Adopts DSP digital control and supports voltage and current adjustment function
- Built-in anti-battery current backfeed protection circuit, supports hot swapping
- Added automatic address recognition and verification functions, eliminating the need for manual settings
- Built-in output voltage bleeder circuit



30kWDC charging module



40kWDC charging module

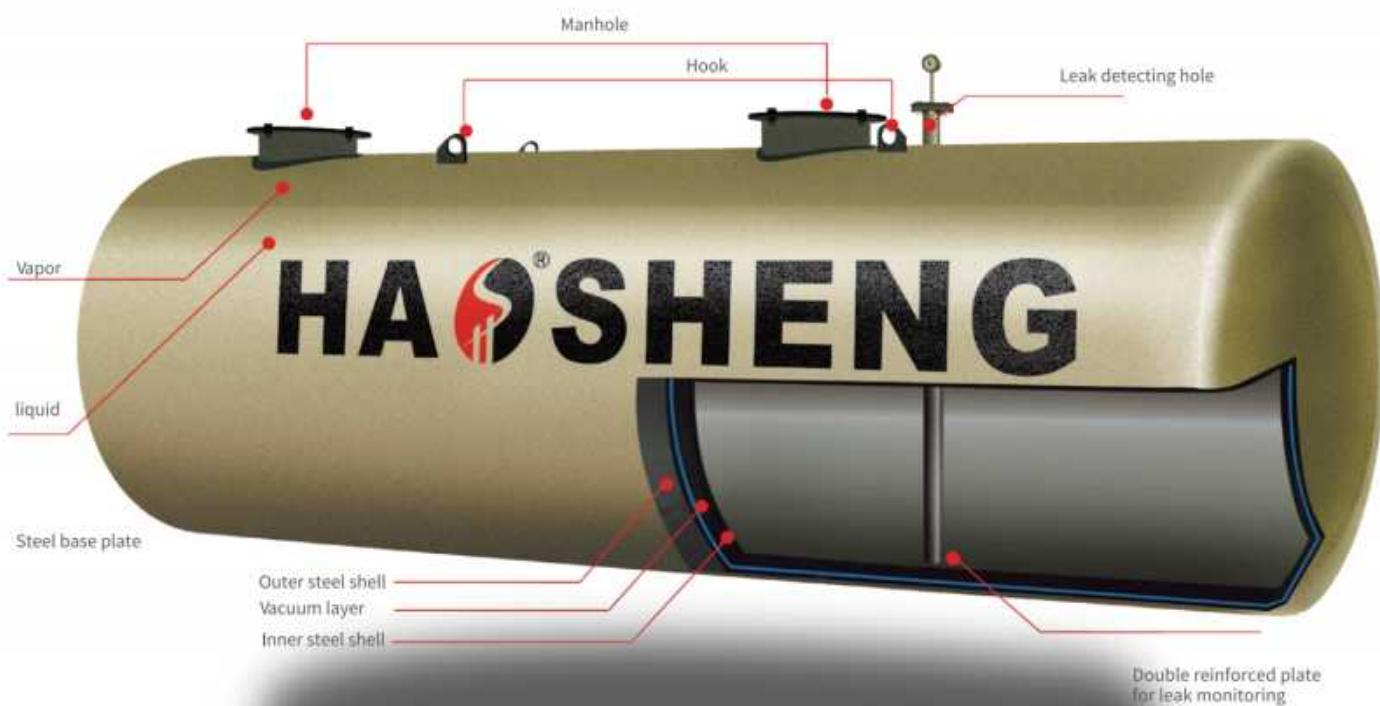
06

TANK EQUIPMENT

- S&F Double-layer tank
- F&F Double-layer tank
- S&S Double-layer tank
- Retrofit for tank leakage prevention

TANK EQUIPMENT

As an indispensable part of the whole site construction of gas stations, S&FDouble-wall tank-product of Haosheng series of Furen High-tech Co., Ltd.-isbecoming a new economic growth point for the company. Currently we have FUKOKUmicro-type automatic edge milling machine, FRP spraying equipment and coating machine, pinhole mea.surement, thickness measurement of film thickness and other advanced processing andmeasuring equipment imported from Japan. A leak detector is installed in our S&FDouble-wall tank so that 24 hour monitoring can be achieved. The tank is made strictly according to the national standards with reference to some internationalstandards. And now we have a production scale of above 5000 sets per year.



Product Introduction

The main steel body of S&F Double-layer tank (with the full name of "steel reinforced fiber-glass double-layer tank") is called "inner shell", and the FRP protective and detecting layer is called "outer shell". When S&F Double-layer tank is buried underground, inner shell endures the pressure from earth and stone mainly. Although outer pressure acts on outer shell directly, it transfers to the inner shell synchronously. Therefore, the outer shell isn't the main part to keep the structural strength.

Standards for Product Implementation

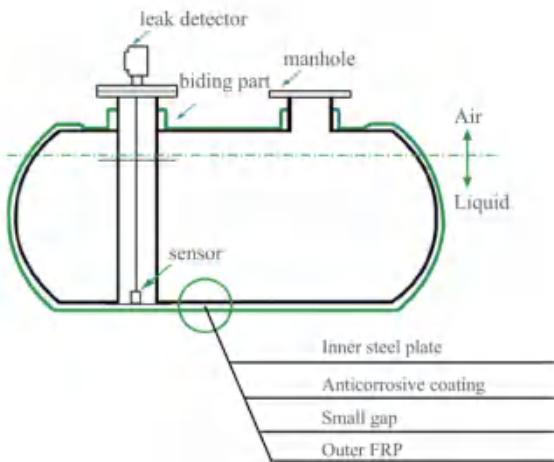
- ◆ GB50156-2012 Design and construction standards of automobile gasoline and gas refueling station.
- ◆ NB/T47003.1-2009 steel welded normal pressure vessel
- ◆ JB/T4709-2007 regulations of steel welded pressure vessel
- ◆ GB985-2008 Basic Forms and Sizes of Grooves for Arc Welding, Gas Welding and Gas Cutting
- ◆ JB4730-2005 Nondestructive Testing of pressure vessel
- ◆ UL-58
- ◆ UL-1476

Product Specification

Standard volume	Diameter	Tank length	Anchor number	Band number
20	2400	5053	2	2
30	2400	7080	4	4
30	2600	6192	4	4
40	2600	8050	4	4
40	2800	7190	4	4
50	2600	10100	6	6
50	2800	8700	4	4

Product Structure

S&F double-wall product structure



SF product Features

safety

Inner layer-double layer structure manufacturing, compared with the regular 5mm thickness single layer tank, the strength is greatly improved.

Outer layer - A reinforced glass fiber layer with a thickness exceeding 2.5m, featuring excellent crush and seismic resistance. It also has high corrosion resistance and electric erosion resistance.

Unique technology is used to create a 0.1m gap between the inner and outer layers and eliminate the hidden trouble from the root.

Advanced leaking detector 24-hour real-time monitoring to eliminate the hidden security risks caused by leakage.

Environmental Protection

Double-layer structure, with 0.1mm gap inside, the outer FRP ensures that the leakage material will not directly leak and pollute the soil and water.

The outer FRP will not cause electrolytic corrosion with ground water, brine, etc.

The outer FRP will not corrode with gasoline, diesel oil and leaded gasoline.

Leak detectors provide 24/7 monitoring to eliminate potential pollution hazards.

Leaking detection system is easy to detect and maintain, protects the ecological environment of soil and water.

Effective protection of the environment, avoiding the high environmental protection cost.

Economy

The service life of SF double-deck tank is 5-10 times of regular tanks, which can guarantee safe service for at least 30 years.

Convenient installation greatly shortens the construction period and reduces cost input.

The remote monitoring system allows routine and regular detection, digital control, and eliminates complicated manual operation.

The protection requirement of SF double-deck tank is 1/10 of regular tanks, which greatly reduces the maintenance cost.

SF double-layer tank is better used than regular tanks, which ensures the equipment efficiency and high cost performance.

SF double-layer tank is highly efficient and economical, has high environmental protection performance, and can effectively protect energy, avoiding the serious harm and loss caused by energy leakage.



Product Introduction

The structure of F&F double tank (full name of glass fiber reinforced plastic double tank) is made of glass fiber reinforced plastics. The "inner shell" in contact with oil products includes the structure layer of conductive electrostatic layer, anti-corrosion layer and anti-seepage layer, while the "outer shell" in contact with soil includes the structure layer of anti-corrosion layer, and the intermediate test layer is between the "inner shell" and the "outer shell". The whole tank is made of injection and winding composite process.

Standards for Product Implementation

- ◆ GB/T 32380-2015 glass fiber reinforced plastics for petroleum products and ethanol gasoline underground storage tank
- ◆ SH/T 3177-2015 Technical Specification for buried glass fiber reinforced plastic double-layer tank for gas Stations
- ◆ GB/T 1446 General test method of fiber reinforced plastics
- ◆ GB/T 1447 Tensile property test method of fiber reinforced plastics
- ◆ GB/T 1448 Compression performance test method of fiber reinforced plastics
- ◆ GB/T 1449 Bending property test method of fiber reinforced plastics
- ◆ GB 1589 Road vehicle outline size, axle load and mass limits
- ◆ GB/T 1843 - Determination of impact strength of plastic cantilever beams
- ◆ GB/T 3854 Reinforced Plastics - Barker hardness Test Method
- ◆ GB/T 8237 liquid unsaturated polyester resin for fibre reinforced plastics
- ◆ GB 17470 glass fiber chopped strand mat and continuous strand mat
- ◆ GB/T 18369 alkali-free glass fiber roving
- ◆ GB/T 18370 alkali-free glass fiber woven roving
- ◆ GB/T 30040 double layer tank leakage detecting system
- ◆ GB 50156 Specification for design and construction of gas stations
- ◆ GB 50461 Code of Acceptance for petrochemical equipment installation and engineering construction
- ◆ JB/T 4730 Nondestructive testing for pressure-bearing equipment
- ◆ SH 3097 Specification for petrochemical electrostatic grounding design
- UL -1316 underground storage tanks for petroleum products, alcohols and alcohol-gasoline mixtures

Product specification

Nominal capacity	Geometric volume	Nominal diameter DN	Tank length
20	20.04	2600	4600
25	25.50	2600	5800
30	30.08	2600	6700
35	35.58	2600	7900
40	40.05	2600	8900
45	45.69	2600	10000
50	50.03	2600	11000

Product structure

Glass fiber reinforced plastic double-layer structure; a patented method is applied in producing between the internal shell and the external reinforced fiberglass layer, creating a gap between the inner and outer layers. It ensures the hazardous substance only flow in the gap and not leak outside to pollute the environment even if there is a leakage in the inner shell.

Inner Shell

Inner shell - composite fiberglass layer with a thickness of over 5.5mm. Considering the anti-corrosion and anti-seepage against gasoline and diesel function of the inner layer, inner lining layer shall be added.

The inner shell is carefully designed. It is composed of anti-corrosion layer (resin content above 90%), fiberglass spray impervious barrier layer, fiberglass winding structure layer from the inside out.

Each layer plays its own role to achieve high anti-seepage capacity and structural strength. In addition, U-shaped stiffener made by vacuum lead-in process is placed inside the load-bearing storage tank. Due to the process characteristics of vacuum lead-in, the stiffness of the whole tank is greatly improved. The main raw materials include UL certified Shanghai Huachang unsaturated benzene - type polyester resin and Jushi fiberglass.

Outer Shell

Outer Shell – composite fiberglass layer with a thickness of more than 5mm. Considering the cleanliness and the corrosion resistance of the soil, a non-twist roving spraying layer is added to the outer layer.

The outer shell is also carefully designed. It is consisted of fiberglass winding structure layer and fiberglass spray impervious barrier layer from the inside out.

Considering the structural strength, the main structure layer of FRP tank is made using the winding process. The inner and outer layers are wound and sprayed together to ensure the strength of the tank. The outer spray coating is to increase the friction between the outer shell and soil, and to improve the stability of the buried tank. The stability of the load bearing tank when it is constantly loaded is extremely important. No matter the load-bearing tank or the non-load-bearing tank, U-shaped stiffener made by vacuum lead-in process is placed on the outer shell, which not only improves the overall stiffness, but also serves the dual purpose of lifting lug support and binding fixation.



SF&FFComparison and Analysis

产品	S&F	F&F
Leak detection safety	SF double-layer tank generally adopts a three-level leak detection method, namely a sandwich sensor system. When the external tank leaks, problems can only be found when the lower water level in the field of the tank is higher than the leakage point of the external wall. Once both inside and outside of the tank are leaking, it is possible that the oil will leak directly to the environment without flowing through the sandwich sensor.	The FF tank adopts the two-level leakage detection method, namely the liquid-medium leakage detection system, which can ensure that the leakage on the inner wall or outer wall of the double layer tank can be monitored under any circumstances. Since the pressure of the leakage detection medium is always higher than that of the oil product, it can ensure that the oil product does not leak to the external environment, and it is superior to the SF double-layer tank in the safety of leakage detection.
Corrosion resistance	Under low sulfur conditions, microorganisms rapidly grow and produce acetic acid, which corrodes the steel tank. The designed life is 20 years.	The inner and outer layers of FF - type oil tank are made of FRP materials, which is much superior in corrosion resistance. The designed life is 30 years
The intensity of	Inner steel tank is heavy. It is normally buried with the cement saddle and the construction period is long.	Lightweight, high comprehensive strength, directly buried, fast and simple construction.

Double layer tank features

Security

- 1.The inner and outer layers of storage tanks are wound with glass fiber reinforced plastic technology to ensure the overall stiffness and strength of storage tanks.
- 2.Add a lining layer to the inner layer and a short-cut spraying layer to the outer layer to ensure the anti-corrosion and anti-seepage performance of the storage tank to gasoline, diesel and soil.
- 3.The middle layer has a gap of 3.5-5mm, and brine is injected in the middle, which can effectively monitor the leakage and use of liquid in the storage tank.

Structural Stability

- 1.Lightweight and high comprehensive strength. Through the combination of 3D composite technology and FRP technology, it produces a new 3D FF double-layer storage tank. Due to the lightweight, strong rigidity, corrosion resistance and other characteristics of 3D glass fiber fabric, the 3D glass fiber fabric in 3D FF double oil tanks is similar to the pillar in architectures. It connects the inner and outer wall, making the inner layer, middle layer and outer layer as a whole. Combined with integrated stiffener, it effectively increases the thickness of the oil tank structure and comprehensive strength.
- 2.Strong corrosion resistance. Because inside and outside layers of 3D FF double oil tank are made of FRP material, it won't be affected by the electrochemical corrosion and microbial induced corrosion. It has extremely strong corrosion resistance and no other anticorrosive measures need to be taken, which effectively ensures the oil quality, greatly increases the tank service life, and avoids the possibility of oil tank corrosion perforation.

Maintenance

The FF type double-layer tank has a much longer warranty period than SF tank. When the tank is buried underground, there is almost no need for other maintenance except regular internal tank cleaning, and the designed life can reach 30 years.

Process Assemblability

External stiffeners are compatible with lifting lugs and binding structure; short construction period, quick and simple construction.

Compatibility

Because the corrosion resistance of FRP is much better than steel, it can store other chemicals such as ethanol and methanol in addition to gasoline and diesel. The lining layer resin model can be adjusted for specific acids and alkali resistance solution.

The production of FRP tank requires a mold. Under the same diameter, it can make storage tanks of different volumes by changing the number of mold splicing.

Installation Convenience

1.Quick and easy construction. The tank foundation and anti-floating ring needs to be standard product provided by the manufacturer. The backfill soil around the tank can be compacted with sand and gravel. Short construction period, fast and simple construction.

Maintenance: The FF type double-layer tank has a much longer warranty period than SF tank. When the tank is buried underground, there is almost no need for other maintenance except regular internal tank cleaning, and the designed life can reach 30 years.

S&S DOUBLE-WALL TANK

Product introduction

S&S double-wall tanks consist of an inner shell (6mm - thick steel plate) and an outer shell (4mm - thick steel plate). Meanwhile, a 4mm gap is created between the two shells for leak detection. S&S double-wall tanks are mainly used in open-yard scenarios. Their double - wall steel plate structure can withstand impacts. They can also be supported by leak detectors and other auxiliary equipment to ensure tank security.

Standards for product implementation

- ◆ GB50156-2012 Specification for design and construction of gas stations
- ◆ NB/T47003.1-2009 steel welded normal pressure vessel
- ◆ JB/T4709-2007 regulations of steel welded pressure vessel
- ◆ GB985-2008 basic form and size of air welding, manual welding, gas welding and weld groove
- ◆ JB4730-2005 Nondestructive Testing of pressure vessel
- ◆ NO. 66 Standards for about FPR double layer tank application by Japan Fire Department
- ◆ UL-58
- ◆ UL-1476

Product specification

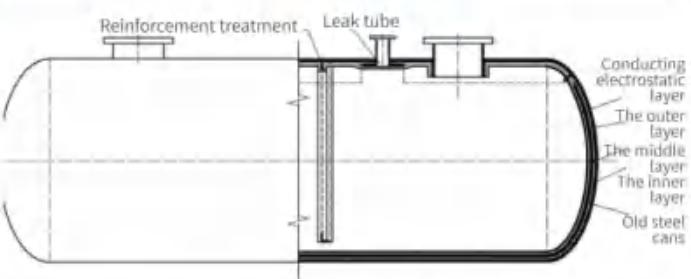
Standard volume	Diameter	Tank Length	Anchor number	Band number
20	2400	5053	2	2
30	2400	7080	4	4
30	2600	6192	4	4
40	2600	8050	4	4
40	2800	7190	4	4
50	2600	10100	6	6
50	2800	8700	4	4

Retrofit for tank leakage prevention Process introduction

Oil tank anti - seepage renovation is an inner - lining modification technology. A double - layer glass fiber - reinforced inner lining is directly fabricated on the inner surface of the original single - layer oil tank. It consists of three layers: inner glass fiber - reinforced plastic, middle gap layer, and outer glass fiber - reinforced plastic, with a total thickness of 11-15mm.

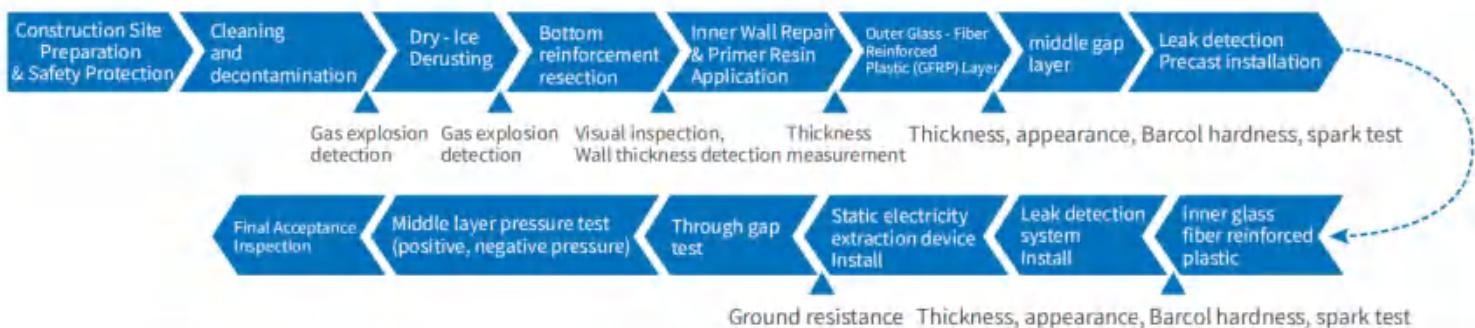
After structural strength calculation and lay - up design, the renovated double - layer glass fiber - reinforced plastic inner lining replaces all functions of the original steel oil tank. It serves to bear loads, store oil products, and resist corrosion.

Renovate the structure



The inner, middle and outer structures of the oil tank seepage prevention modification are all made of fiberglass. The "outer layer" in contact with the oil product is a multilayer structure with conductive electrostatic layer, resin rich layer and structural layer etc.; while the "inner layer" in contact with the original steel tank is a multilayer structure with bonding reinforcement layer, resin rich layer and structural layer. The intermediate test layer is between the "inner layer" and the "outer layer". The whole lining structure is made of spray and hand molding technology.

Flow chart



07

OIL PRODUCT CONVEYANCE AND INTELLIGENT MANAGEMENT & CONTROL SYSTEM

- Gas Station Intelligent Power Distribution Cabinet
- Submersible pump
- Levelinstrument
- Sonde
- Control system of filling station

GAS STATION INTELLIGENT POWER DISTRIBUTION CABINET



"The power distribution cabinet is dedicated to the gas station, which allows centralized control of all the electric terminal equipment of the gas station, and provides measuring data, real - time reflection of the power quality through the display unit, and it is uploaded to the background control system through digital communication, and sent to the mobile phone or computer software through the internet. It monitors the entire gas station's power distribution system real - time and effectively manages and controls the operation quality. This is an intelligent power distribution cabinet integrated with the gas station information management system. It integrates switching and logic control, realizing a new - type information system - managed power distribution cabinet with mechanical - electrical integration. This technology applies to power distribution systems under normal operating conditions, with a rated insulation voltage of up to 660V, a rated frequency of 50Hz, and a rated voltage of up to 380V. The cabinet is equipped with:

ZTSQ2 series dual - current automatic transfer switches,

NSX200A main switches (safe and reliable for automatic transfer between mains power and self - contained power),

LCD2 series electric operating mechanisms (enabling remote automatic closing, opening, re - latching operations, and emergency stop functions),

A manual - automatic transfer function (with manual button start/stop control, automatic touch - screen control, and backend operation control).

It is safe, reliable, and convenient."

Product Features

Centralized Management: In future gas station construction, the power supply for all terminal electrical equipment and signals from various detection devices will be centralized in the distribution room. These will connect to the intelligent distribution cabinet for centralized, unified control—replacing previously scattered control boxes (e.g., submersible oil pump control boxes and switch cabinets).

Remote Operation: The intelligent power distribution cabinet is typically installed in the gas station's power distribution room. The front - office computer connects to the cabinet via a network cable, allowing staff to operate the cabinet through the computer interface—without entering the distribution room. This ensures safety and timely operation. Individual devices can also be controlled separately. For non - remote operation, manual control is available via the cabinet door.

Remote Monitoring: The front - office computer can not only operate the distribution cabinet but also monitor the operational status of each terminal device connected to it. Some devices also support fault detection.

Safety Protection: For selected gas station equipment (e.g., submersible oil pumps), the cabinet incorporates overload protection. If equipment current exceeds safe limits, the circuit automatically disconnects to prevent pump damage from overload.

Mobile App Support: The cabinet supports mobile app functionality, which syncs the front - office computer's device status, fault alerts, and gas station energy consumption reports to users' mobile phones.

Emergency Shutdown: Emergency shutdown buttons for the main power supply are available on both the cabinet door and the front - office computer interface. In an emergency, staff can quickly start or cut off the main power. A prominent emergency stop button on the cabinet door also enables instant main power cutoff with a single press.

Multi - Function Meter: The cabinet features a multi - function meter that monitors and displays grid voltage, current, and frequency. It measures active/reactive power, shows total energy consumption, and generates time - segmented energy reports. Data (reports and real - time energy monitoring) transmits via RS485 to the front - office computer or mobile app for display."

Instruction Before Operation

1. Please communicate with our pre-sales engineer carefully and fill in the feedback form before purchasing.
2. All the wires that need to be controlled in the station should be connected to the power distribution room during construction in order to be easily connected to our distribution cabinet.
3. The power lines come through the bottom of the distribution cabinet.
4. The distribution cabinet is connected under the outlet cabinet and metering cabinet provided by the regional power grid service provider.
5. The electricity consumption charge of the gas station shall be subject to the data of the metering cabinet provided by the power grid service provider.

Product Service Conditions

1. Ambient air temperature should be no higher than +40 °C or lower than -10°C. The average temperature within 24h should be no higher than +35°C.
2. Indoor installation and installation site's height is not more than 4000M above sea level.
3. The ambient air relative humidity shall not exceed 50% at the maximum temperature of +40°C. Higher relative humidity is allowed at lower temperatures (e.g., 90% at +20°C). Account for potential condensation due to temperature fluctuations.
4. The inclination between equipment and vertical surface shall not exceed 5% during installation.
5. Equipment should be installed in places without severe vibration or impact, and places where the electrical components are not corroded.
6. If customers have special requirements, they can negotiate with the manufacturer.

Main Technical Parameters

Name	Parameter
Rated operating voltage (Ue)	380V
Rated insulation voltage (Ui)	660V
Main bus-bar (horizontal bus-bar) Rated Current (InA)	200A~10A
Main bus-bar (horizontal bus-bar) Rated Short-Time withstand current (Iew)	10kA
Protection grade	IP30
Frequency	50Hz
Indoor/outdoor type	Indoor type

PRODUCT STRUCTURE



Main components of intelligent power distribution cabinet

Dual power automatic transfer switch

The dual power automatic transfer switch is used in the emergency power supply system. When one power supply fails, it can automatically complete the switch between the common and backup power supplies without manual operation, so as to ensure the reliability of power supply for important users.



Electric operating mechanism

It is an electric actuator mainly used to control the main circuit breaker for automatic or remote control closing or opening.



Siemens 200 series PLC

The PLC has powerful functions, realizes the program control of each contact point in the control cabinet, and supports LAN network function, and is stable and reliable.



Application Scope



Submersible pump

Main Function

The submersible pump converts mechanical energy into the pressure energy of the oil to suck up the oil in the underground tank and discharge it at a certain pressure and flow rate. The work of the oil pump is driven by the motor to rotate the impeller. Through pressurizing the multi-stage impeller, the oil is pushed upward along the tubing to the pump head through the oil channel between the stator and the outer wall. The submersible oil pump can push the oil to the fuel dispenser.

American REDJACKET Submersible pump mainly consists three parts: pump motor module (pump tail), pump head and connecting pipe.

UMP complete set of motor and pump

expansion joint to extend the pump

4-inch vertical pipe

delivery joint

vertical pipe with conduit inside

branch pipe

pump head

relief valve

vacuum source

2-inch leak detector port

functional element

condenser room

junction box

wire yoke

Level Instrument

Main Function

Main functions: Monitoring display information; oil height, water height, temperature, oil volume, water volume

Alarm information: max. liquid level, min. liquid level, oil spill, high water level

External communication function: Connect printer, modem and computer (software) Can monitor 6 tanks simultaneously, supports LPG tank measurement, supports tank leak detection function

VGA graphic display, touch screen operation, Chinese display

Automatic fuel intake report generation function

Front panel LED two-color acousto-optic alarm

Lightweight, the general graphical Chinese menu is convenient for query, setup and diagnosis

Display and print: real-time inventory report, shift inventory report, leak test report, oil intake report, alarm report and diagnostic report.



VR TLS-2 level instrument console



Red jacket submersible oil pump

Probe

Main Function

The magnetostrictive probe, specialized for gas station liquid level gauges, is widely used for level measurement of gasoline, ethanol-blended gasoline, diesel, LPG, and alcohol. It features reliable quality, precise measurement, and safe, stable long-term operation.



Water Float Valve

"Floats are categorized by outer diameter into 2-inch and 3-inch types. Each set includes an oil float and a water float: Oil floats: Compatible with all petroleum products.

Water floats: Available for gas (LPG) and diesel applications."



Filling Station Management & Control System

The Furen Filling Station Management & Control System is an upgraded version built on previous iterations, developed by Furen Hi-Tech as a high-performance fuel/LPG station management platform. It is compatible with communication protocols of Sinopec and PetroChina fuel/LPG dispensers, and offers comprehensive station management capabilities to fully support daily operations. Leveraging insights from leading international fuel/LPG station management systems, the Furen system enhances management efficiency, aiming to meet all user requirements and ensure satisfaction.

Function Features

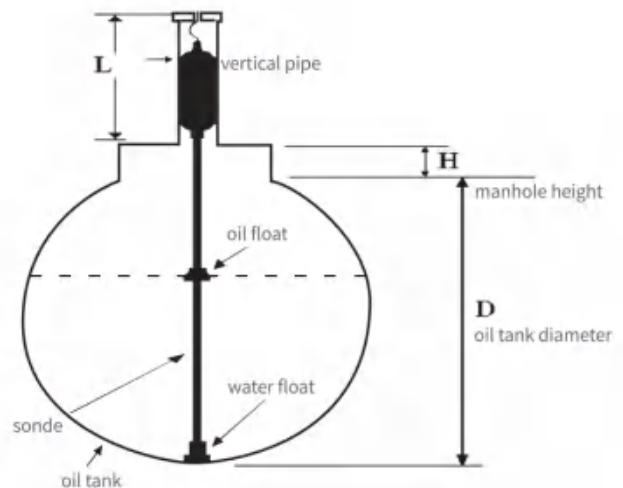
Built on a modular software architecture with excellent scalability and compatibility, enabling easy customization for clients.

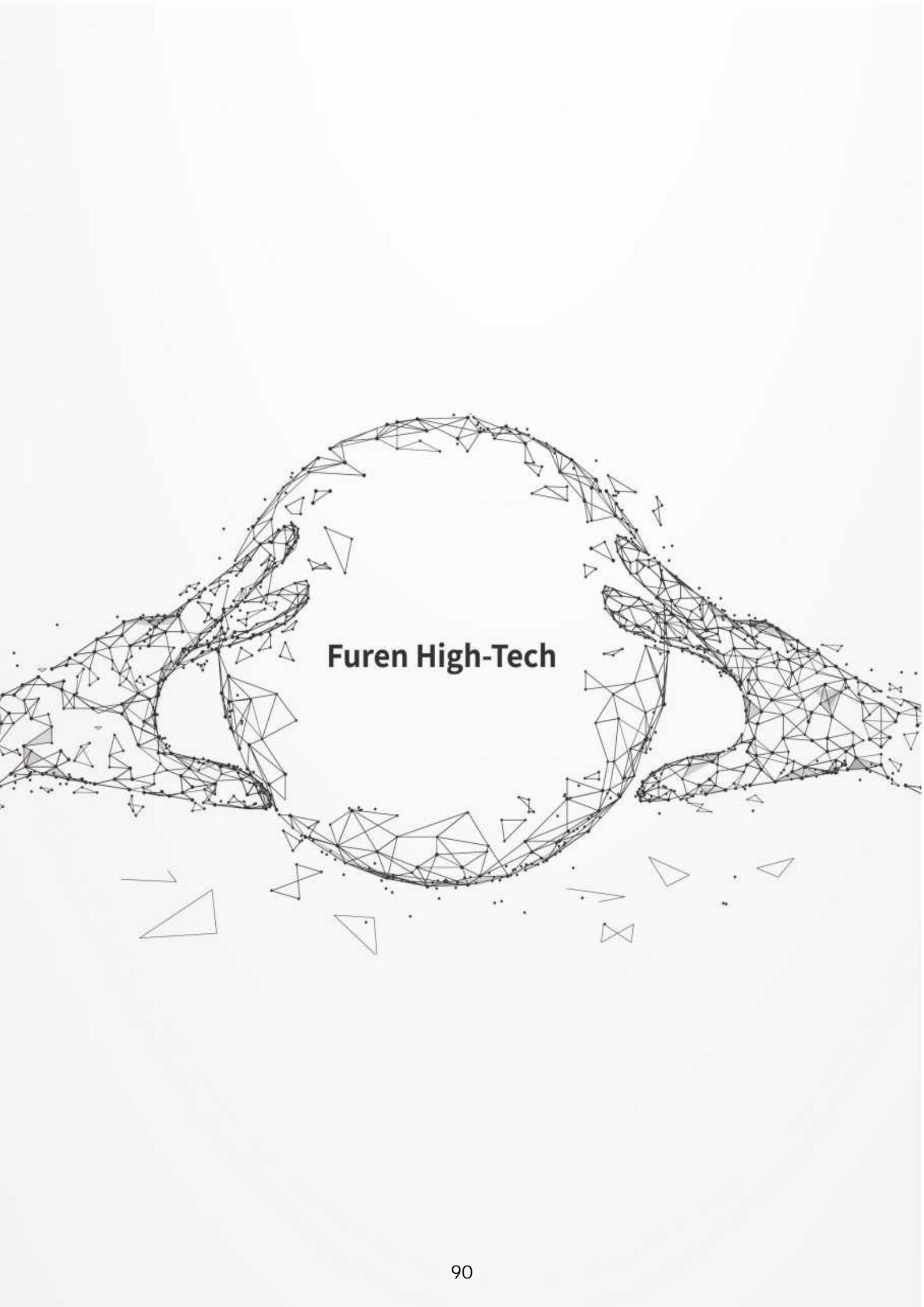
Easy operation and clear interface

Comprehensive statistics of various analysis reports to meet customer needs

Product Functions

1. Membership card issuance, value storage and other functions.
2. It has the function of oil purchase, sale and storage, and non-oil sales.



The background features a complex, abstract geometric pattern composed of numerous small triangles and dots, forming a stylized, flowing shape that resembles a wave or a ribbon. The pattern is primarily black on a white background. Scattered throughout the pattern are several larger, hollow white triangles.

Furen High-Tech

08

AUS 32 REFUELING EQUIPMENT

- Urea Solution Refueling Machine for Vehicles
- Main parts of refueling equipment
- Urea solution storage and refueling integrated machine

Function Features

In addition to standard refueling functions, the Furen refueling machine includes the following notable features

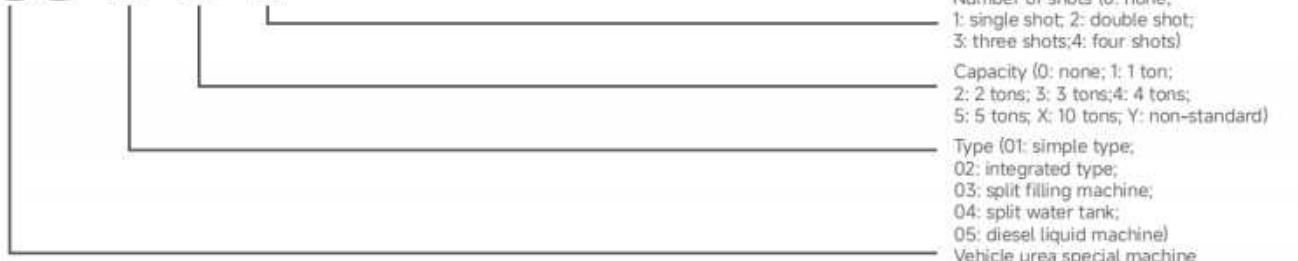
1) Complete explosion-proof function: complete machine explosion-proof mark ExdmibiblBT3

2) In addition to standard refueling functions, the Furen refueling machine includes the following notable features

3) Self - Service Capabilities: Configurable with cash payment systems, voice prompts, authorized payment systems, card payment systems, and electrostatic discharge units.

Naming of urea machine filling device

AUS-□-□-□



1. Product type is indicated by the letter of the first part: AUS-Vehicle Urea refueling machine

2. Urea refueling machine model is indicated by the first and second number:

01 Basic Urea Refueling Machine for Vehicles

02 Urea tank integrated machine

03 Urea refueling machine

04 Urea storage tank

05 Tax control gas refueling machine (Diesel Urea Integrated machine)

3. The capacity of urea storage tank is indicated by the third number:

(1) indicates a urea storage tank with a capacity of 1 ton,
(2) indicates a urea storage tank with a capacity of 2 tons,
And so on (10 is replaced by X)

4. The number of refilling guns is indicated by the fourth number:
1: one gun, 2: double guns, 4: four guns

5. Examples of Names

AUS211—Integrated 1-ton water tank vehicle single-gun urea filling machine;

AUS0430—Separate 3-ton vehicle urea water tank.



Urea Solution Refueling Machine for Vehicles

The vehicle urea solution dispenser (hereinafter referred to as "urea dispenser") is equipment that dispenses urea solution. It reduces NOx in diesel vehicle exhaust to N₂ and H₂O via Selective Catalytic Reduction (SCR) technology.

Function Features

1. Accurate, stable and highly reliable;
2. The overcurrent parts are made of 304 stainless steel or other materials in accordance with GB29518 standards, which will not affect the quality of vehicle urea solution.
3. The entire machine is explosion-proof, and can be used in gas stations and other dangerous areas.



Filling machine technical parameters

Function	Voice	<input checked="" type="radio"/>
	Printing	<input checked="" type="radio"/>
	Emergency stop	<input checked="" type="radio"/>
	Electrostatic release	<input type="radio"/>
	Heating	can be customized for northern areas
Parameters	Maximum allowable error	±0.30%
	Repeatability	0.10%
	Flow Range	(5 ~ 30) L/min
	Weight(Kg)	150KG
	Ambient temperature	Normal temperature Low temperature
	Relative humidity	Not more than 95%
	Atmospheric pressure	86 ~ 106
	Voltage	AC220V/380V(+10% ~ -15%)
	Frequency	50Hz ±1Hz
	Power	0.35 KW (with heating 1.35KW)
Main components	Flow meter	MJ-65
	Solenoid valve	Dv1050
	Rubber hose	6 分
Qualification certificate	Explosion-proof certification	<input checked="" type="radio"/>
	Type evaluation	<input checked="" type="radio"/>
	Urea compatibility	<input checked="" type="radio"/>

Main parts of refueling equipment

1. Pump

Features:

Food grade stainless steel pump, head 25 meters, flow rate 3/12 cubic/hour.



2. Flowmeter

Features:

Positive displacement fully stainless steel flowmeter, fully ceramic ball bearing, with advantages of high precision, long service life, low failure rate etc.



3. Solenoid valve

Features:

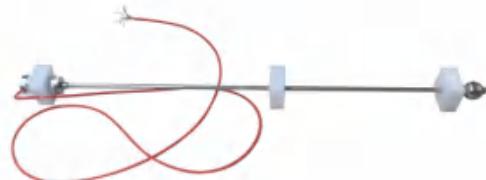
Fully stainless double flow solenoid valve provides double speed control for different flow size. The component is explosion-proof designed. It is safe and reliable.



4. Level Instrument

Features:

The entire product is explosion-proof. The probe, float ball, connector and other adapting piece that contact medium parts are made of 304 stainless steel (316L stainless steel can be customized). It has high measurement accuracy, long service life, maintenance-free process and other performance features, especially suitable for places with explosion-proof needs.



5. Filling gun

Features:

Stainless steel self-sealing filling gun, flow range (0-50) L/min.



6. Filling hose

Features:

Special hose for conducting static electricity with urea liquid, DN3/4, length 4500mm-6000mm.





Urea solution storage and refueling integrated machine

Urea solution storage and refueling integrated machine is an integrated equipment combining urea refueling machine for vehicles and urea solution storage tank.

Product Features

1. Accurate, stable and highly reliable; 2. The overcurrent parts are made of 304 stainless steel or other materials in accordance with GB29518 standards, which will not affect the quality of vehicle ureasolution.
3. The entire machine is explosion-proof, and can be used in gas stations and other dangerous areas.
4. Tank capacity can be customized according to customer requirements to meet various applications.
5. Storage tank and refueling machine can be set up separately, flexibly adapting to the site.

Model	1T	5T Split-Type	5T Integrated
Function	Voice	●	●
	Printing	●	●
	Emergency stop	●	●
	Electrostatic release	○	○
	Heating	can be customized for northern areas	can be customized for northern areas
Filling machine	Maximum allowable error	±0.30%	±0.30%
	Repeatability	0.15%	0.15%
	Flow Range	(5 ~ 30) L/min	(5 ~ 30) L/min
	Min. measurand	5L	5L
	Number of filling guns	Single gun	Single gun & double guns
Parameters	Storage capacity	1	3
	Liquid level monitoring	●	●
	Self-unloading	●	●
	Unloading speed (m3/h)	3	6
	Outline Size(mm)	1800×1180×1850mm	3800×1200×2255mm
	Weight(kg)	800KG	1050KG
	Ambient temperature	Normal temperature (-10~+55)	Normal temperature (-10~+55)
		Low temperature(-25~ +55)	Low temperature(-25~ +55)
	Relative humidity	Not more than 95%	Not more than 95%
	Atmospheric pressure	86 ~ 106kPa	86 ~ 106kPa
	Voltage	AC220V/380V(+10% ~ -15%)	AC220V/380V(+10% ~ -15%)
	Frequency	50Hz ±1Hz	50Hz ±1Hz
	Power	0.72KW (with heating 1.45KW)	0.72KW (with heating 1.45KW)
Main components	Flow meter	MJ-65	MJ-65(Inside the refiller)
	Pump	HW25	HW40/oil-submerged pump
	Solenoid valve	Dv1050	Dv1050
	Rubber hose	6 分	6 分
Qualification certificate	Explosion-proof certification	●	●
	Type evaluation	●	●
	Urea Compatibility Certification	●	●

09

CAR WASH EQUIPMENT

- Reciprocating car washing machine
- Tunnel type 14 brush car washing machine
- sewage treatment system
- Core accessories
- IoT HMI function introduction
- Smart Vehicle Service Cloud Ecosystem Products

Reciprocating car washing machine (unattended optional)



Technical Parameters

Project	Car wash equipment parameters	Remark
car wash speed	3~5 points/vehicle	6 car wash modes to choose from
car wash water consumption	80~120 liters	Average number of different models
Car wash power consumption	0.5 degree/vehicle	Average number of different models
Maximum car wash height	2000mm	/
Maximum car wash width	2000mm	/
Maximum car wash length	5500mm	/
Machine installed power	26KW	Electric power of the whole machine
Installed voltage	380V/50Hz	Three-phase five-wire system/ 10 square national standard wire
Equipment size	3* 2.3* 3.7m H*L*W	/
Equipment installation size	3.2*10*4m H*L*W	10 meters including the track, excluding the reserved space for entering and exiting vehicles

Tunnel type 14 brush car washing machine

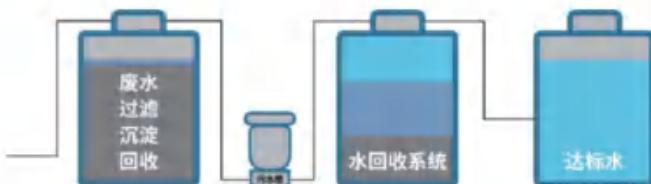


Technical Parameters

Project	Car wash equipment parameters	Remark
car wash speed	80 seconds per vehicle (consecutive washing mode)	Variable frequency speed regulation
car wash water consumption	100-140 liters/vehicle	Average number of different models
Car wash power consumption	1 kWh per vehicle	Average number of different models
Maximum car wash height	2000mm	Unit: mm
Maximum car wash width	2200mm	Unit: mm
Maximum car wash length	5500mm	Unit: mm
Machine installed power	40KW	Electric power of the whole machine
Installed voltage	380V/50Hz	Three-phase five-wire system/ 25 square national standard wire
Equipment size	3.2*14.7*4m H*L*W	Unit: m
Equipment installation size	3.2*30.7*4m H*L*W	Unit: m
Brush group configuration	Group Brush×4 Vertical Brush×4 Wheel Brush×2 Top Brush×1 Drying Brush×3	

sewage treatment system

Effectively removes hydrogen sulfide gas and odors.
Non-toxic, non-corrosive, and safer than chemical oxidants.
Suspended solids, accumulated debris, and soluble organic matter in sludge are converted into carbon dioxide, nitrogen, oxygen, water, and sulfates.
Produces less sludge compared to alternative methods.



Core Components

Italy SITI motor

The Italian SITI electric speed reducer is driven by a high-speed motor, reducing speed to a reasonable range. The waterproof motor has an IP67 rating.



Core Components

American Banner photoelectric sensor

1. Controls the start/stop of each brush rotation motor.
2. Controls the start/stop of the water - cleaning motor and brush motors.
3. Uses photoelectric sensing to detect vehicle position signals, transmitting them to the control center to regulate brush operation.
4. Manages the mid - drive system of the car wash.



German Pepperl+Fuchs proximity sensor

High frequency durable metal detector.
Durable.
0 contact detection.
UHF switch.



Zhongchen Inverter

Intelligent frequency conversion, low consumption and energy saving.



Core accessories

Schneider Electric Systems

Guard the car wash system, system protection shield.

AC contactor



IoT HMI function introduction



FlexEase's combination of IoT and human-machine interface is an innovative design in the industry, aiming to provide customers with a more economical and convenient HMI networking solution.



human-computer interaction



internet of things



analysis management



Remote monitoring

Mitsubishi FX5U Programmable Logic Controller (PLC)

It adopts a stacked structure combining integral and modular. This model has great outstanding points in terms of computing speed, number of instructions, and anti-interference performance. Features: high-speed operation, strong anti-interference, stable operation.



Function introduction



Remote transparent transmission of PLC program

It can realize remote PLC program download, upload and monitoring, and solve on-site problems without leaving home.



Data remote monitoring

Device data monitoring can be realized through the web page or mobile APP, so as to know the operating status of the device and modify parameters at the first time.

Function introduction



Data Statistics and Analysis

The energy consumption data and failure rate of the equipment can be counted, and the equipment can be effectively assessed and counted, which is convenient for different departments such as R&D, after-sales, and sales to analyze.



Device alarm push

Through various methods such as SMS, WeChat, voice, etc., the fault status of the equipment can be pushed at the first time, and the operating status of the equipment can be grasped in time.



Improve the efficiency of after-sales service

Through the Internet of Things platform, the efficiency of after-sales service can be improved.



Historical data query

The historical data of storage and equipment can be queried, displayed in the form of curves or tables, and can be exported to the local.

Application Scenario



Cloud Service Terminal Platform



Customer Management System

- Platform system management
- device management
- Operator Management
- User Management

Online service system

- Online Operation & Maintenance System
National network-based operation and maintenance, with real-time monitoring of car wash equipment status. Abnormalities trigger immediate alerts and troubleshooting.

Fund Settlement System

- It is used to count the consumption income of all users and operators, and conduct statistical analysis on a series of operating activities carried out by operators.

Smart car wash mobile terminal



- 1
Scan & Pay



- 2
High pressure pre-flush



- 3
Foam Application



- 4
360° scrubbing



- 5
Ceramic Coating Application



- 6
Intelligent Drying

Cloud Service Portal



Benefit Summary

- Aggregate revenue data: Track car wash transactions, count user visits by time period, and calculate revenue for each washing station.

Car washing machine information management

- Manage the network location, operating quantity, car washing machine model, and other operating consumption information of each car washing machine for all car washing machines.

Equipment monitoring and management

- Monitor the running status of the car washer, and reflect the usage of each system of the car washer in real time. For abnormal code scanning payment and safety problems in the car washer, the client will report to the police in time.

Statistics

- Count all users, equipment usage and operation information and form a complete data statistics table.

Custom

- According to their own needs and market needs, users can change their car washing prices, member discount methods, and car washing event planning plans.

Intelligent hardware system

License plate recognition system

- Rapidly identify vehicles through AI camera, license plate extraction, image preprocessing, license plate character recognition and other technologies to ensure that the vehicle information is consistent with the information collected by the cloud system.

voice announcement system

- The voice broadcast function reminds the user of the car washing process and operation details, and the operator changes or adds voice prompts according to their needs.

Acquisition Control System

- Control the data collection of the entire system, and the sending and receiving of operating instructions.

LED display prompt

- Dynamically display the car washing operation process and safety reminders during the car washing process

vehicle collision avoidance system

- The signal is received by the mechanical sensor. When the system receives the mechanical touch, the car washing machine stops running immediately.

Network Security System

- Receive and transmit network signals, plus a shielding receiving device, to ensure efficient and reliable operation of users' code scanning payment and equipment operation

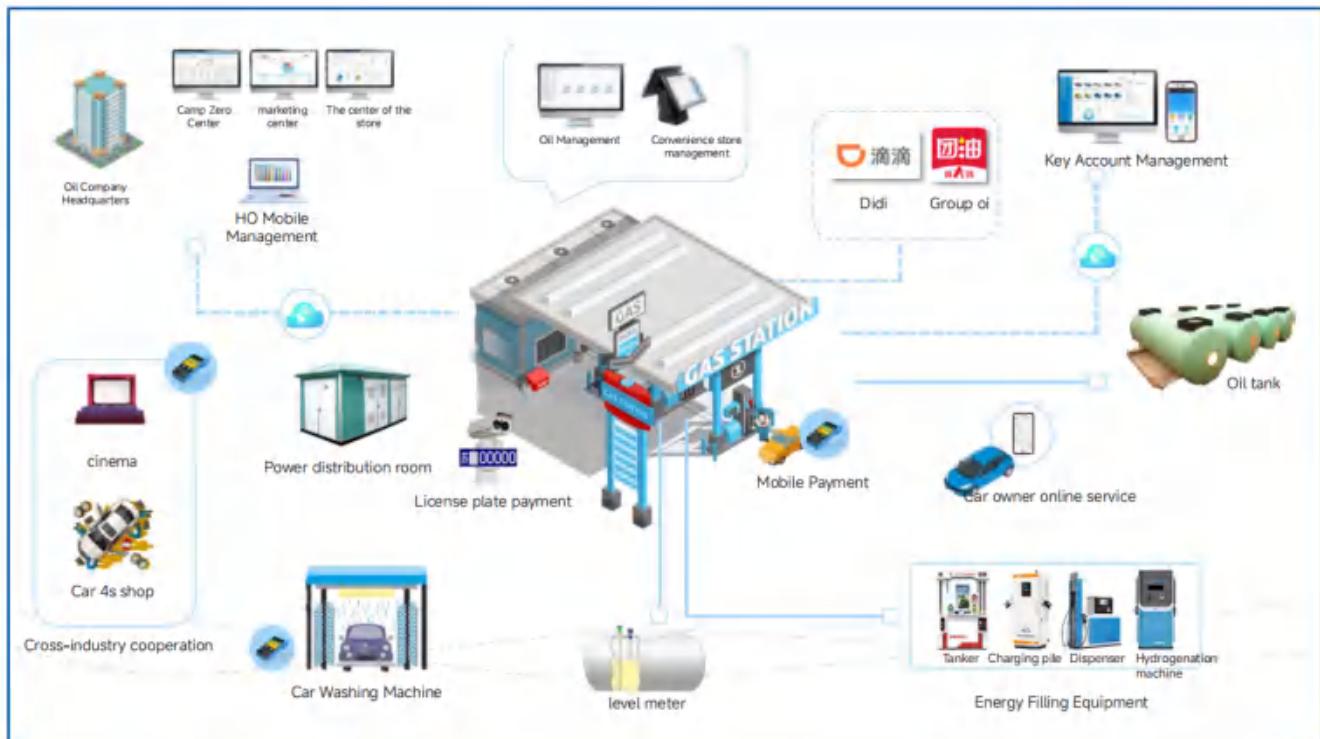
10

PLATFORM SYSTEM

- Urea Solution Refueling Machine for Vehicles
- Nengjiajia Charging Operation Platform

UREA SOLUTION REFUELING MACHINE FOR VEHICLES

Integrated Business Solution



SMART GAS STATION – SUPPORTED BY FIVE MAJOR SYSTEMS



Refined Oil Retail Management System

Smart Payment

Supports license plate payment, mobile payment (WeChat/Alipay), fuel cards, e-wallets, and other payment methods, including offline refueling.

Membership Management

A growing membership system (tiered membership), mini-program integration (one-click refueling/invoicing/top-up), and targeted marketing push.

Fuel Product Management

Covers the entire purchasing, sales, and inventory process (incoming inspection, inventory count, and one-click price adjustments), with real-time monitoring of fuel dispenser anomalies.

Efficient Operations

Dual-sided screens/POS terminals for fast checkout, automated shift handovers, and homepage data visualization (sales trends/profit and loss analysis).

Smart convenience store management system

Closed-loop product management

Online purchasing, sales, and inventory management (purchase/return/transfer/inventory).

Mutual promotion of fuel and non-fuel products

Through marketing activities such as gas coupons and point redemption, we connect fuel and non-fuel product consumption and increase average order value.

Points mall

Member points can be redeemed for products, enhancing user engagement.

Gas station smart screen application & license plate payment

Contactless Payment

License plate recognition automatically deducts payment, reducing the number of card insertion and QR code scanning steps, improving traffic efficiency (saving two steps compared to traditional processes).

Smart Interaction

Real-time display of refueling information, order verification, and aggregated payment (including third-party platforms). Supports carousel advertising and AI-powered voice guidance for refueling.

Low-Cost Retrofit

A purely visual solution (requiring only a camera), eliminating hardware installation requirements for the vehicle owner.

Marketing Management System

Flexible Marketing Tools

Configure diverse campaigns (recharge gifts, new member gifts, coupons, and employee customer acquisition).

Omnichannel Reach

Linking official account posts with mini-programs delivers real-time consumer information and promotions, awakening user demand.

Cross-Industry Collaboration

Supports car wash coupons and order verification on third-party platforms (Didi/Tuanyou), expanding collaboration scenarios.

Smart Monitoring System

Safety Monitoring

Vapor recovery (real-time alerts on gas-to-liquid ratio and concentration), tank leak detection, and static resistance status monitoring. Electrical Safety (alarms for abnormal current and voltage).

Intelligent Management and Control

Real-time monitoring of tank level, temperature, and volume, with automatic triggering of three-stage vapor recovery. Unified platform management for multiple devices (from the refueling area to the power distribution room).

NENGJIAJIA CHARGING OPERATION PLATFORM



Smart Monitoring Center

Real-time Dashboard

Aggregates key metrics such as charging capacity, failure rate, and membership growth, supporting multi-dimensional power station rankings.

Equipment Monitoring

Tracks charging plug status in real time (idle/charging/faulty), automatically generates and records fault causes.

Membership and Marketing System

Membership System

Seamless registration through the mini-program (login to become a member), supporting tiered membership and tiered benefits. Integrated e-wallet top-up, coupon distribution, and order tracking.

Precision Marketing

Official accounts push power station events and consumer information, with seamless transitions to the mini-program. Coupon marketing increases repurchase rates, and customized campaigns are tailored to member spending habits.

Operations Management Tools

Order Management

Visualize the entire charging/recharge/refund process, and automate financial reconciliation (including actual payment statistics, discount write-offs, etc.).

Dynamic Pricing

Supports time-of-use electricity pricing (peak and valley pricing) and charging station pricing (differentiated rates for fast and slow charging).

Traffic Partnering

Connect to AutoNavi Maps to display charging station status and fees, increasing station visibility and conversion rates.

Data Decision Support

Statistics Center

Power Station Dimension: Analysis of charging volume, revenue, and service frequency.

Device Dimension: Analysis of charging gun usage and fault attribution.

Marketing Dimension: Tracking the effectiveness of coupon redemption/redemption.

11

STATION SERVICE



Services, beyond your imagination

Station service description

As the sales terminal of both oil and gas products and non-oil and gas commodities, oil and gas stations are facing increasingly fierce competition. The competition includes not only competitions between oil and gas stations in the sale of oil and gas products and non-oil and gas products, but also competitions between oil and gas stations and other retailers in the sales of non-oil and gas products. It is crucial for oil and gas stations to reduce the cost, strengthen internal function and establish external brand image to improve their competitiveness.

Jiangyin Furen High-tech Co., LTD. provides integrated service for oil and gas stations in response to the competitive demands, which allows oil and gas stations to reduce operating costs, focus on strengthening internal functions, and maintain and enhance external brand image. Furen High-tech has established a professional service team equipped with professional hardware facilities, and developed a comprehensive service system to ensure customers get timely, efficient and satisfactory service. In the highly developed society and economy today, Furen High-tech sees whole-station service as a continuation of the sales of physical oil and gas equipment and products to create value for customers and achieve a win-win situation with customers.

The whole station service is divided into fixed maintenance, routine maintenance and emergency maintenance. Fixed maintenance is the premise of the three services. Fixed maintenance establishes a good image for oil and gas stations. Routine maintenance is the extension of fixed maintenance, which refines service projects, optimizes and improves service standards. Routine maintenance is an upgrade to fixed service. Fixed maintenance and routine maintenance change passive service into active service. Emergency maintenance provide emergency services at oil and gas stations and is an implementation of fixed and routine maintenance. The guiding principle of service is "think what customers think" and "Customers first always".

Jiangyin Furen High-tech Co., LTD promises to keep the following three aspects: keep the safe and stable operation of oil and gas stations, keep the good image of oil and gas stations, and keep the station owners and customers satisfied with capacity utilization.

As a well respected Fortune 500 company, you already have ➤

- 01 Abundant capital
- 02 First-class hardware facility
- 03 Excellent staff
- 04 Wide sales network



➤ What do you need next?

"Caring Butler" of Energy Station

- 1. Global solutions—"Auto Service Station"
- 2. Facilities and equipment are open all year round—"Regular Examination + Maintenance"
- 3. 24/7 Emergency Response—"Two-hour On-site Quick Repair Service"
- 4. Refreshing Customer Experience—"Perfect Visual + Experience"



"Caring Butler", for the energy station, undertakes repair and maintenance work to improve the service of the energy station.

"Caring Butler", as the most professional energy station maintenance team, can identify problems in advance and reduce maintenance and failure rate.

"Caring Butler", from the perspective of cost control, minimizes customer maintenance expenses.

"Caring Butler" helps customers enhance their brand and integrate their service brands to promote direct sales.

"Caring Butler" establishes a national standard for gas stations maintenance service, and is the only standard for appraising similar services.

Why us? “Furen High-Tech”

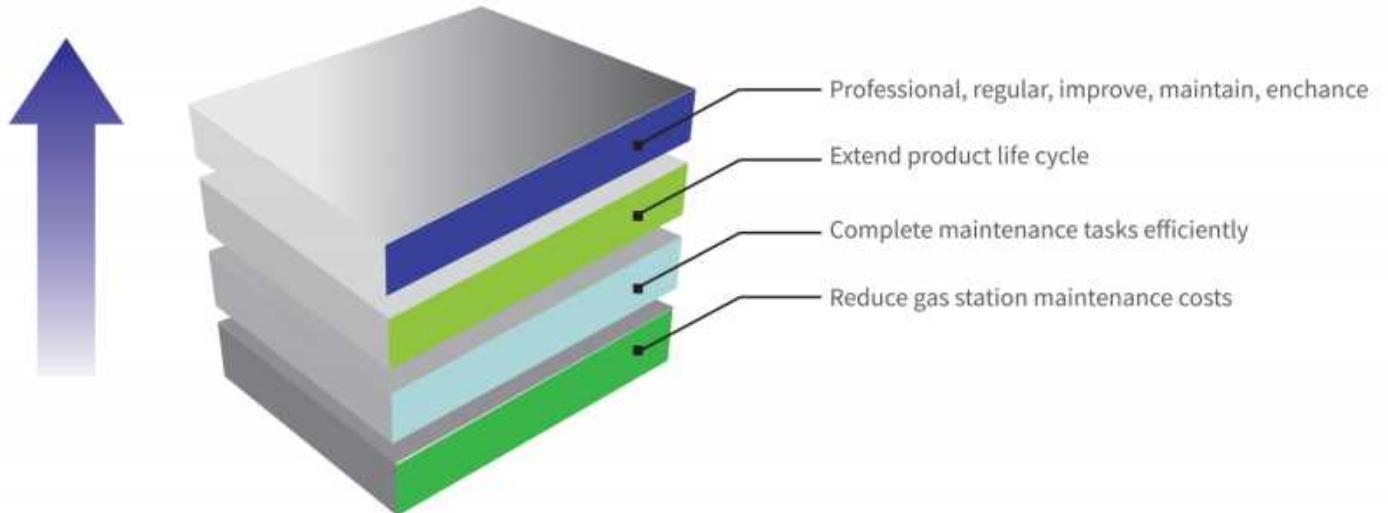
① The whole industry chain,
focusing on the industry for more than 20 years

② Innovation is our consistent concept

③ We love this industry



Whole Site Service Provider

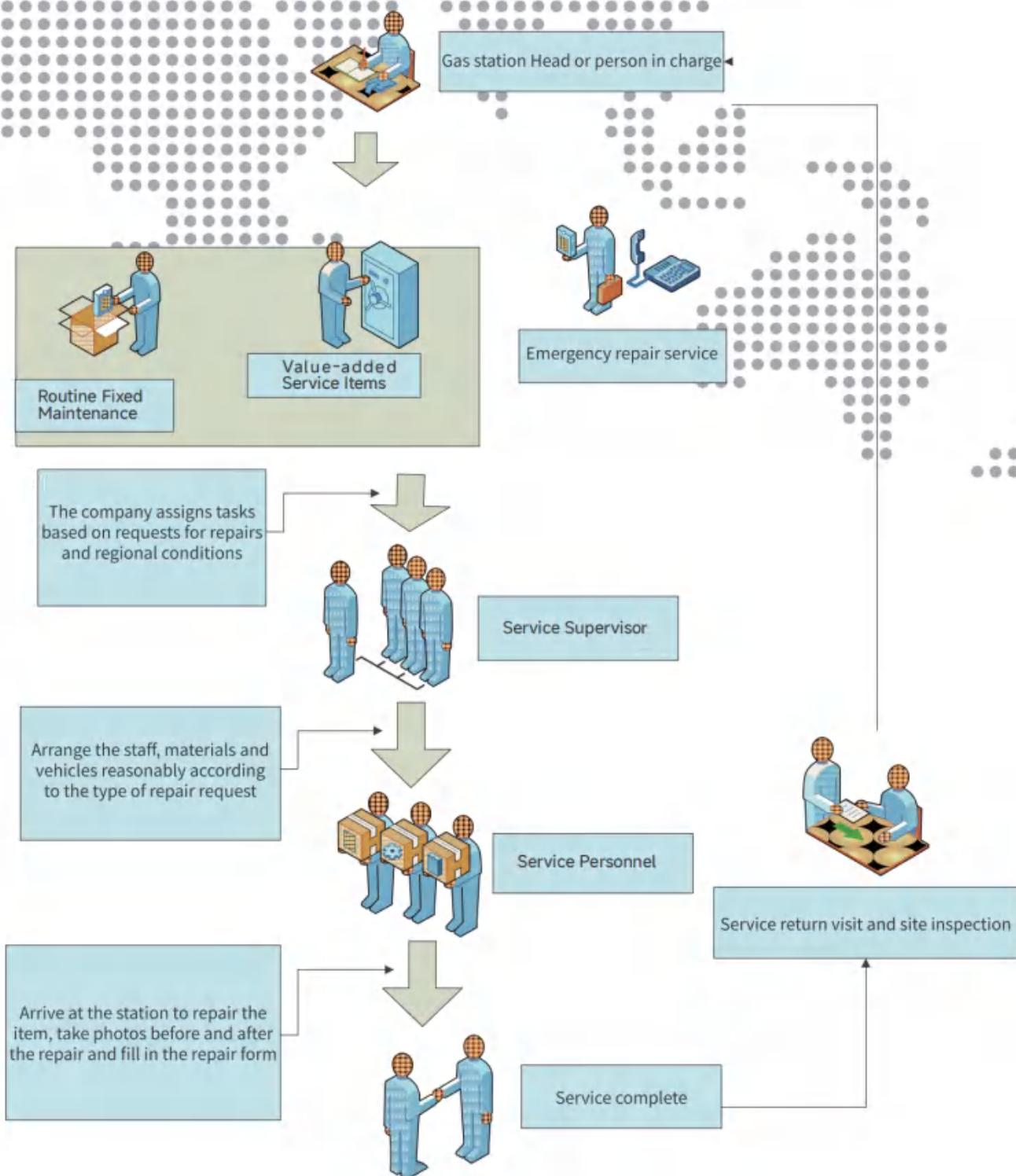


Caring\Assuring-Service Concept



1. Think what customers think
2. Customers first
3. Your customer is our God
4. Your achievement is our honor

Whole Site Service Flow Chart



HAOSHENG

整站服务
江阴市富仁高科股份有限公司



Experienced and professional-Elite Team

1. Project manager

2. Station Planning Specialist

3. Visual designer

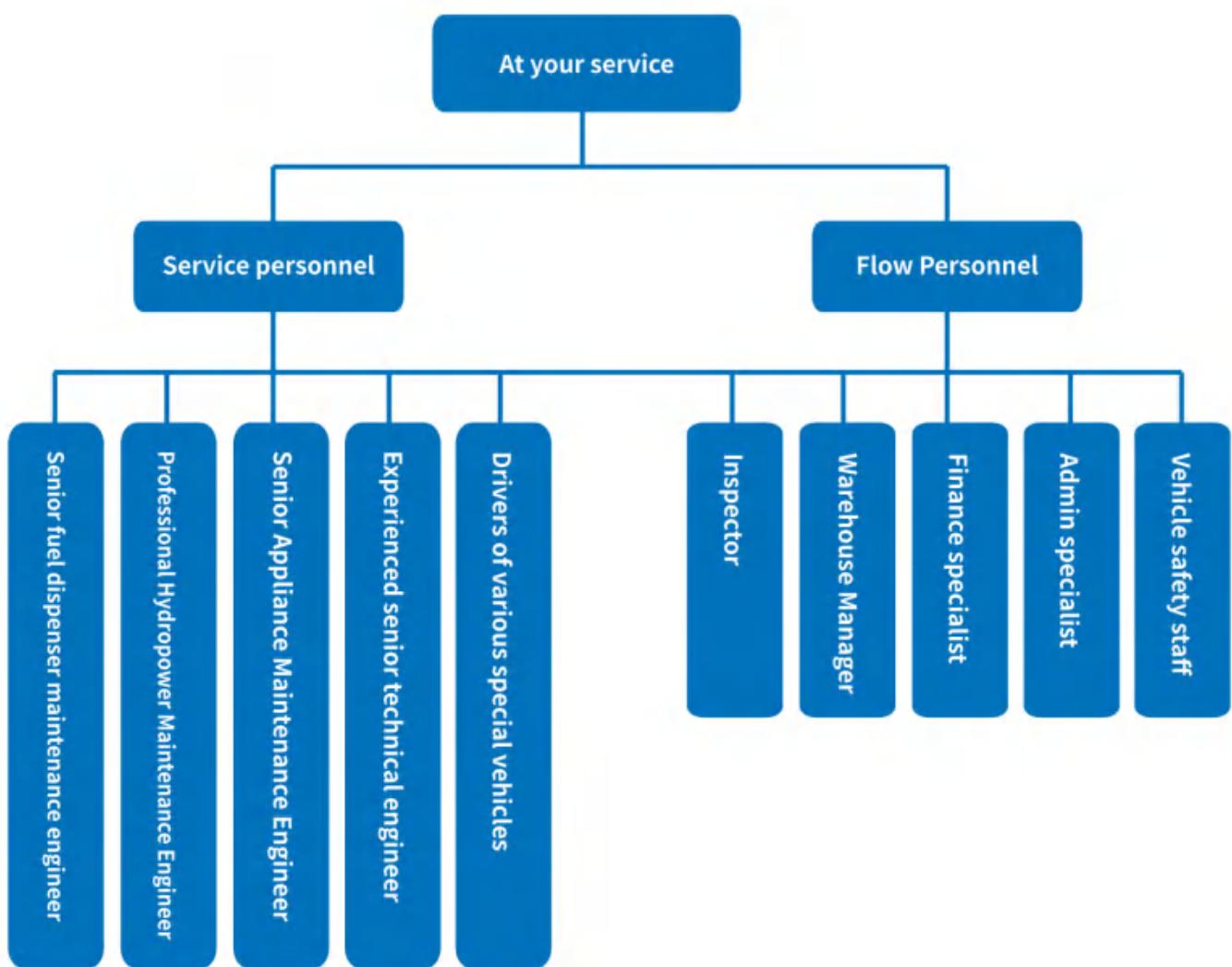
4. Customer Service Manager

5. Training manager

6. Senior engineer

7. Senior Mechanic

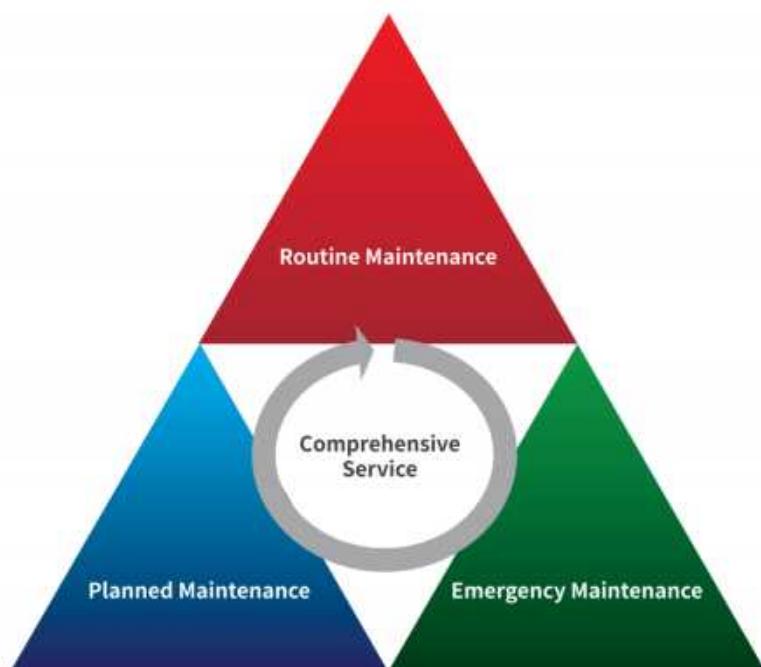
8. International consultant



Sophistication\Simplicity-Service Purpose

1. Comprehensive guaranteed service, reducing customer maintenance and repair expenses
 2. Professional consulting team, proactively identifying issues to reduce repair & failure rates
 3. Brand enhancement initiative, elevating customers' brand image to boost sales performance
-

- ◆ Organized
Carry out organized routine maintenance plans on gas stations in the area based on the routine maintenance schedule, and report the progress to the oil company.
- ◆ Periodic
Each gas station performs routine maintenance every 2 months.
- ◆ Safety
Utilize specialized aerial work vehicles, with personnel undergoing safety training and holding special operation certificates





Pooling Wisdom, Joining Hands

International Cooperation

1. Introducing international technology

2. Adoption of international standards

3. Co-creation with international experts

Unique Advanced Technology-Precision Inspection of Oil Tanks and Pipelines

Furen Hi-Tech, partnered with the Australian company "Leighton O'Brien", introduced the world's top oil tank and pipeline side leakage technology, which allowed the company to walk at the forefront of the times, and develop three core businesses: oil tank and pipeline precision testing, fuel recovery and oil tank cleaning, precision preventive testing.

Main services

- Gas-to-liquid ratio detection of oil and gas recovery at gas stations
- Gas station oil and gas recovery pipeline tightness detection
- Gas station oil and gas recovery pipeline liquid resistance detection

Testing equipment



Laoying 7003 type
Oil and gas recovery multi-parameter detector (20 models)

You Deserve the Best — Success Stories



The hardware configuration of whole site service in Jiangsu market:

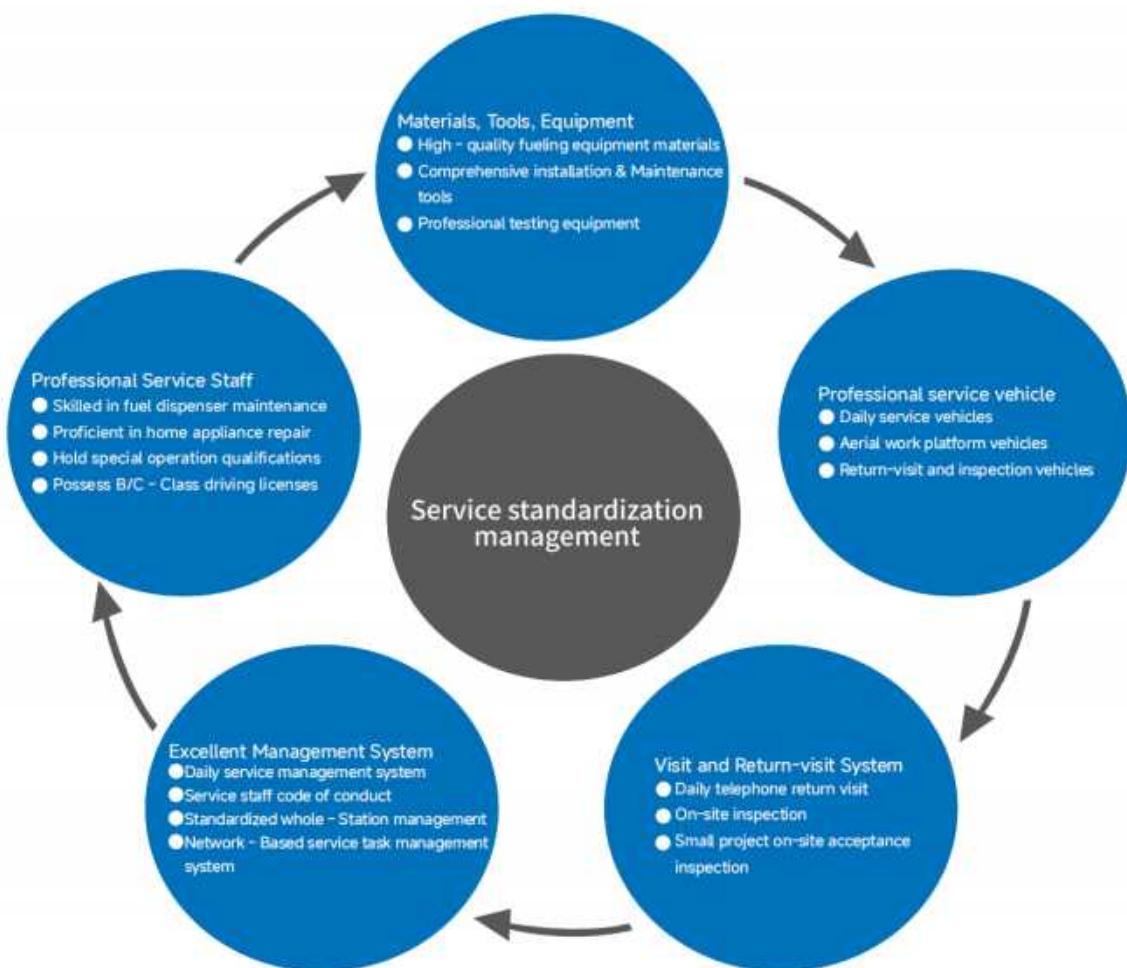
◆ Vehicle configuration type:

36 service vehicles

8 ladder trucks

2 inspection vehicles

◆ Office establishment: Service offices are set up in each city

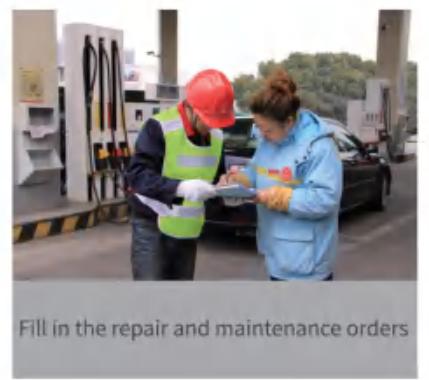
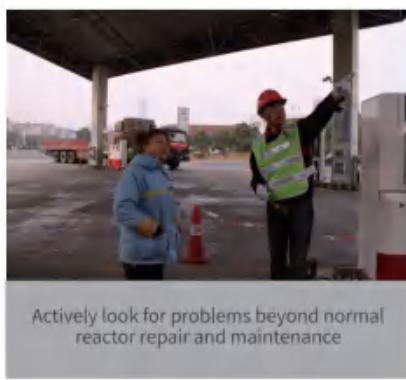
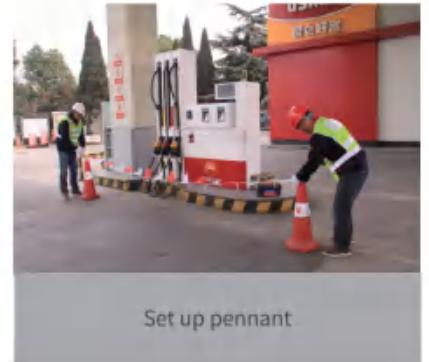
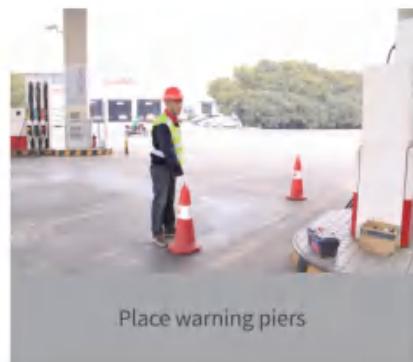




You Deserve the Best-seeing is believing



Intrinsically safe —HSE, equipment, people, materials, systems, regulations



- Establish safety system and create a intrinsically safe energy service station
- Raise the evaluating standards and the access threshold of various materials
- Strengthen the review for construction and inspection personnel qualifications
- Repeat inspection and check erroneous ideas at the outset



Free service/complaint hotline : 4008871900、8008287166



Tiktok



WeChat
official account



WeChat
video account

Official website:www.refueldispenser.com

Jiangyin Furen High-Tech Co., LTD

Add: No.8-6, No.8-7, Xinyuan Road, Chengjiang Street,

Jiangyin City, Jiangsu Province, China

Consultation phone:+86-0510-86105873

Mail: frgkonline@furentech.com