

Henan Jian Shen Metal Metenrial Co. Itd

Products supply Fuel station equipment, LPG filling station, Cryogenic storage tank



CHINA • ANYANG



COMPANY PROFILE



Henan Jianshen Metal Metenrial Co.Ltd founded in 1998, it is a comprehensive modern high-end steel container manufacturer integrating R&D, manufacture, sales and service. The company is located in the west section of Yecheng Avenue, Anyang City. With our exquisite craftsmanship, strict and high quality, won the trust of more and more client and attracted more agents.

The company covers an area of more than 40,000 square meters, construction area of 10,000 square meters, production and processing workshop of 8,000



square meters. The company has a total of more than 120 people, 6 senior engineers, and more than 40 professional engineers and technicians in cryogenic vessels. We has established cooperative relationships with many universities and design institutes in China. Design, manufacture and install various storage containers of carbon steel, stainless steel materials such as pressure vessels, cryogenic vessels, dangerous chemical tanks, double-layer oil tanks, furfural complete equipment, reaction vessels, heat exchangers, tower containers and pressure pipes.





We got ISO quality and environmental certification, quality problems in production can be tracked and forth to ensure the quality of the pressure vessel is controlled. With standardized management, professional design, scientific and quality construction to achieve efficient use of consumers.

OUR CERTIFICATE













PRODUCTS

CATEGORY

■ FUEL TANK

- 1. Underground double layer tank 02
- 2. Above ground tank
- 3. Mobile fuel station
- 4. Dispenser

■ CRYOGENIC STORAGE TANK

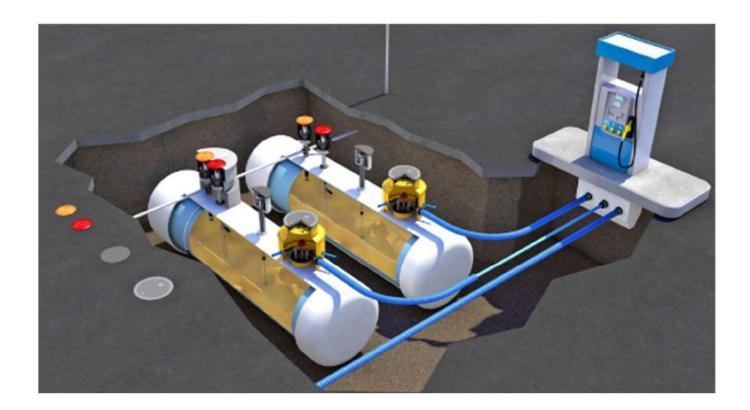
- 1.LNG cryogenic tank
- 11
- 2. Oxygen, nitrogen, argon storage tank
- 3.LCO2 cryogenic tank
- 4. Air ambient vaporizer
- 5. Cryogenic pump

■ LPG TANK

- 1. Underground LPG tank
- 19
- 2. Above ground LPG tank
- 3.LPG skid station
- 4.LPG dispenser
- 5.LPG pump

■ FURFURAL PRODUCTION LINE

OIL TANK > SF DOUBLE LAYER FUEL TANK



Description

Double wall fuel tank'S outer layer is made of fiberglass, and the inner layer is made of Q235b carbon steel, generally used in underground storage and is manufactured using patent-specific equipment. The tank has a uniform mezzanine space that is connected to the leak detector to monitor leaks at any time.

Three Characteristics







OIL TANK > SF DOUBLE LAYER FUEL TANK



- 1 Underground fuel storage tank for service station
- 2 Underground fuel storage tank for generators Health-care facilities use corrosion-resistant fiberglass underground storage tanks for emergency standby generators to be operational during any periods of power loss.

OIL TANK > SF DOUBLE LAYER FUEL TANK

Specifications

Volume(m3)	Nominal parameter(mm)	Cylinder length(mm)	Thickness(mm) Head/Cylinder	Weight (KG)
5	ф1600	1870	5/6	777
10	ф1800	3280	6/6	1493
15	ф1800	5240	8/6	2500
25	ф2200	5760	8/8	2852
20	ф2200	4500	6/6	2675
			8/8	3280
30	ф2400	5750	6/6	3321
			8/8	4223
40	ф2600	6600	8/8	5212
	φ2333	0000	10/8	5470
50	ф2800	7100	8/8	5960
30	Ψ2000	1100	10/8	6255
100	Ф3000	14600	12/12	11500

Parameters are for reference only and can be customized according to your needs!

OIL TANK > SINGLE LAYER FUEL TANK



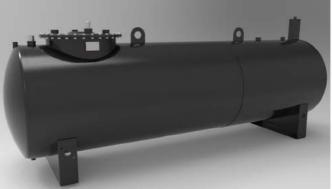
Description

The difference between single-layer fuel oil tank and a double-layer fuel oil tank is that it has only one layer of carbon steel, The single layer fuel tank including manholes, oil inlets and oil outlets, sewage outlets, liquid level gauge mouth, air vents valve, and support saddles.

Application

It can used to store crude oil, gasoline, diesel, petrol, vegetable oil and kerosene or other petroleum products, as well as solid or liquid, alcohol.





OIL TANK > MOBILE FILLING STATION



Applications

Using range

- seasonal requirements;
 (holiday attractions, marina, agricultural areas, etc.)
- construction sites,
 The mining industry,
- fuel supply for large fleet and internal gas stations (large enterprises, transportation companies, etc.),
- different filling systems: hospital filling system, Marine fuel filling, outdoor storage tank construction, different liquid conveying devices.



Standard configuration:

Leakage indicator, control panel, thermal insulation

Speculum, thermometer, pump, liquid inlet and outlet

Ventilation device, liquid level gauge, explosion-proof storage tank.

Refueling system.

Unload the system.

Explosion-proof distribution system.

Oil and gas monitoring system.

Liquid level monitoring system.

OIL TANK > DISPENSER

The basic structure of dispenser and the function of main component



Mobile fuel dispenser Flow rate:30-70 litres/minutes, one nozzle, one flow meter, one pump, two displays, power supply 220V/50HZ, PVC Keypad



Flow rate: 50-85 litres/minutes, one nozzle, one flow meter, one pump, two displays, power supply 220V/50HZ, PVC Keypad



Flow rate: 50-85 litres/minutes, two nozzles, two flow meters, two pumps, four displays, power supply 220V/50HZ, PVC Keypad



Flow rate: 50-85 litres/minutes, one nozzle, one flow meter, one pump, two displays, power supply 220V/50HZ, PVC Keypad



Flow rate: 50-85 litres/minutes, two nozzles, two flow meters, two pumps, four displays, power supply 220V/50HZ, PVC Keypad

LNG/LCO2/LO2/LN2/LAR TANK

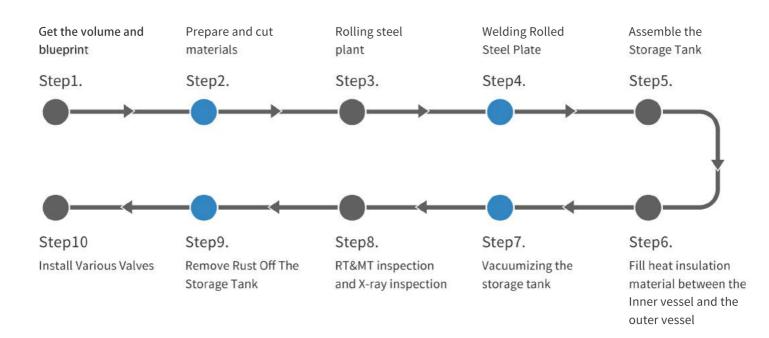
Application

Mainly used in chemical industry, iron and steel, steel processing, machinery manufacturing, non-ferrous metal smelting, metal structure, hospital, gas filling station, can also be directly filled with cryogenic liquid bottles, can also be gasified pressure filling room temperature high-pressure gas bottles, or the establishment of centralized gas supply station.

Practical customer applications:

- 1. Service station
- 2. Oxygen cylinder filling and loading station;
- 3. Oxygen stations for hospitals;
- 4. Fish tank;
- 5. Steel mill;
- 6. Nitrogen is used to clean pipes;
- 7. Carbonated beverage industry;
- 8. Centralized gas supply to the community

Products Process



CRYOGENIC STORAGE TANK > LNG CRYOGENIC TANK

Specifications

NO.	Model	Medium	Inner tank size (Dia*L*Thickness mm)	Outer tank size (Dia*L*Thickness mm)	Outer size (Dia*H/L(mm)	Net weight (Kg)
1	JSSM20-L/0.6	LNG	DN2200*4450*6/6	DN2700*5070*8	Ф2716*7091	8770
2	JSSM30-L/0.6	LNG	DN2400*5760*6/6	DN2900*6440*10	Ф2920*8539	12400
3	JSSM50-L/0.6	LNG	DN2700*7760*8/8	DN3200*8410*10	Ф3220*10627	18885
4	JSSM60-L/0.6	LNG	DN2700*9500*8/8	DN3200*10300*10	Ф3220*12810	23345
5	JSSM100-L/0.6	LNG	DN2900*14100*8/8	DN3400*15020*12	Ф3424*17629	37880
6	JSSM5-W/0.8	LNG	DN1400*2740*6/6	DN1900*3360*8	Ф1916*4712	4020
7	JSSM10-W/0.8	LNG	DN1800*3300*6/6	DN2300*4000*8	Ф2316*5538	6120
8	JSSM10-L/0.8	LNG	DN1800*3300*6/6	DN2300*3910*8	Ф2316*5808	5465
9	JSSM15-L/0.8	LNG	DN1800*5250*6/6	DN2300*5860*8	Ф2316*7725	7530
10	JSSM20-W/0.8	LNG	DN1900*6400*6/8	DN2400*7020*8	Ф2416*8456	9480
11	JSSM20-L/0.8	LNG	DN1900*6400*6/8	DN2400*7020*8	Ф2416*8922	9375
12	JSSM30-L/0.8	LNG	DN2400*5760*8/8	DN2900*6440*10	Ф2920*8574	13060
13	JSSM50-L/0.8	LNG	DN2600*8480*8/10	DN3100*9200*10	Ф3120*11378	19505
14	JSSM60-L/0.8	LNG	DN2500*11310*8/8	DN3000*12110*10	Ф3020*14551	24090
15	JSSM100-L/0.8	LNG	DN2900*14100*10/10	DN3400*15020*12	Ф3424*17666	39135
16	JSSM60-L/1.2	LNG	DN2500*11310*12/14	DN3000*12210*10	Ф3020*14551	28300
17	JSSM100-L/1.2	LNG	DN2800*15230*14/16	DN3300*16150*12	Ф3324*18739	45620

CRYOGENIC STORAGE TANK > LNG/LO2/LN2/LAR2 TANK



Description

Insulation method: vacuum powder insulation

Working pressure: 0.2-3.0MPa Effective volume: 5M3-200M3

Design temperature: -196 ° C -50 ° C

Filling rate: 95%

Advantages: Vacuum powder insulation, compact structure, low daily evaporation rate, small floor

space, centralized control, safe and reliable, convenient operation and maintenance.

Material: inner S30408 stainless steel. Outer Q245R alloy steel. Medium Pearl sand filling

Type: fixed tank or transport tanker Model: vertical(L) or horizontal(H)

Specifications

NO.	Model	Medium	Inner tank size (Dia*L*Thickness mm)	Outer tank size (Dia*L*Thickness mm)	Outer size (Dia*H/L(mm)	Net weight (Kg)
1	JSSM5-L/0.8		DN1400*2910*6/6	DN1900*3550*8	Ф1916*5262	3940
2	JSSM10-L/0.8		DN1800*3490*6/6	DN2300*4100*8	Ф2316*5965	6040
3	JSSM15-L/0.8		DN1800*5560*6/6	DN2300*6170*8/8/8	Ф2316*8035	8045
4	JSSM20-L/0.8		DN2200*4730*8/8	DN2700*5340*8/10/10	Ф2716*7361	9875
5	JSSM30-L/0.8		DN2400*6100*8/8	DN2900*6780*10/10/12	Ф2920*8881	14210
6	JSSM50-L/0.8		DN2700*8220*10/10	DN3200*8970*10/10/12	Ф3220*11222	21180
7	JSSM5-L/1.6	LO2	DN1400*2910*8/10	DN1900*3550*8/8/8	Ф1916*5229	4380
8	JSSM10-L/1.6	LN2 LAr	DN1800*3490*10/12	DN2300*4100*8/8/8	Ф2316*5965	6900
9	JSSM15-L/1.6		DN1800*5560*10/12	DN2300*6170*8/8/8	Ф2316*8035	9300
10	JSSM20-L/1.6		DN2100*5300*12/14	DN2600*5950*8/10/10	Ф2616*7933	11645
11	JSSM30-L/1.6		DN2400*6100*14/14	DN2900*6780*10/10/12	Ф2920*8881	16750
12	JSSM50-L/1.6		DN2700*8220*16/16	DN3200*8970*10/10/12	Ф3220*11187	25570

CRYOGENIC STORAGE TANK > LNG OXYGEN CRYOGENIC TANK

Application

1.LNG refueling station. Tank is main part, matched with cryogenic liquid pumps, dispenser and other combination module. The process is reasonable, layout is normative, concise.

2. Filling cylinder. Matched with cryogenic liquid pump and gas filling manifold, omnibus bar, can be applied in the filling and concentration of oxygen, argon, nitrogen and carbon dioxide.

3. Vaporizing station. Transport to end user after adjusted pressure, measurement and other process. When outdoor temperature is low, and air ambient vaporizer outlet temperature is lower than 5°C, needs to add water bath vaporizer heating.

4. Chemical industry. For metal smelting, mechanical processing and other industries.

5.Health care. Supply breathing, used in hypoxia or anaerobic environment, such as driving operation, mountaineering, medical rescue, etc.

6.Electronics. Providing a protective atmosphere and heat transfer for germanium and silicon crystals used in ultra-pure semiconductors.

7.Fish farming.









LIQUID CARBON DIOXIDE CRYOGENIC STORAGE TANK



Features

Insulation method: vacuum powder insulation

Working pressure: 0.2-3.0MPa Effective volume: 5M3-200M3

Design temperature: -196 ° C-50 ° C

Filling rate: 95%

Advantages: Vacuum powder insulation, compact structure, low daily evaporation rate, small floor

space, centralized control, safe and reliable, convenient operation and maintenance.

Material: inner 16MnDR 、Outer Q345R alloy steel、 Medium Pearl sand filling

Type: fixed tank or transport tanker Model: vertical(L) or horizontal(H)

Specifications

NO.	Model	Medium	Inner tank size (Dia*L*Thickness mm)	Outer tank size (Dia*L*Thickness mm)	Outer size (Dia*H/L(mm)	Net weight (Kg)
1	JSAA5-L/2.16	Carbon dioxide	DN1400*2910*12/12	DN1900*3550*8/8/8	Ф1916*5229	4785
2	JSAA10-L/2.16	Carbon dioxide	DN1800*3490*14/14	DN2300*4100*8/8	Ф2316*5965	7520
3	JSAA15-L/2.16	Carbon dioxide	DN1900*4890*14/16	DN2400*5500*8/8/8	Ф2416*7402	10015
4	JSAA20-L/2.16	Carbon dioxide	DN2100*5300*16/16	DN2600*5950*8/10/10	Ф2616*7933	12905
5	JSAA30-L/2.16	Carbon dioxide	DN2400*6100*18/20	DN2900*6780*10/10/10	Ф2920*8914	18170
6	JSAA50-L/2.16	Carbon dioxide	DN2600*8980*20/22	DN3100*9670*10/10/12	Ф3120*11884	28240
7	JSAA60-L/2.16	Carbon dioxide	DN2800*9250*22/22	DN3300*10170*12/12/12	Ф3324*12460	37170
8	JSAA100-L/2.16	Carbon dioxide	DN3000*13820*24/26	DN3500*14600*14/12/14	Ф3528*16933	59315

AIR AMBIENT VAPORIZER





Air heat exchanger and gas regulator

- 1. Uploading pressureization skid: for the tanker, the unloading liquid between the cryogenic storage tank and the ambient air vaporizer
- 2. ambient air vaporizer, a process in which a cryogenic liquid passes through a heat exchange process
- 3. LNG pressure metering skid: Adjust gas pressure, purification, temperature rise, etc.

CRYOGENIC PUMP



This series of pump is based on the advanced technology in the world, design and manufactured with meticulousness. The pump has a stable performance, convenient operation and maintenance, start-up time is short, smooth operation and so on. Pump Head adopt high vacuum multilayer insulation, Reduce the cold damage the working medium, And the use of flow-through design. So that the pump can be started at the time without relief.

The pump is suitable for liquid oxygen, liquid nitrogen, liquid argon filling system. Its aim is to work in the cryogenic liquid storage tank after filling the cylinder supercharged vaporization. Simple design and careful manufacturing optimization ensures safe and reliable operation for along time.

Technical Parameter

Medium transported	Liquid oxygen, nitrogen, argon
Pdoduct type	Horizontal , single cylinder, piston
Flow rate(Litres/hour)	100-1000
Inlet Pressure(Mpa)	0.02-2.5
Max Outlet pressure(Mpa)	16.5
Power input	380V 50HZ 3 phase

LPG TANK

Description

Capacity: 5000-250000 litres The Max Length: 20 metres The Max diameter: 4.5 meters

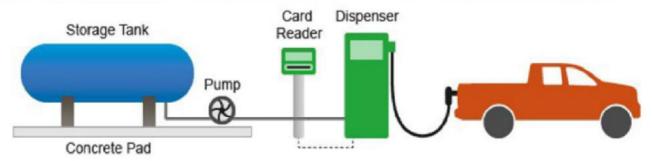
We have A2 class pressure vessel design and manufacture of qualification, Reator, storage tank,

heat exchanger,

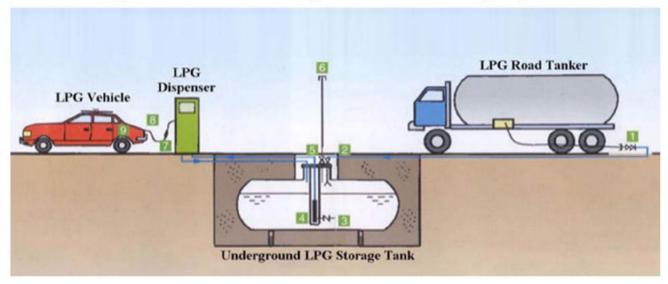
According to customer request in accordance with the ASME requirements







LPG Filling Station(Loading and Unloading System)



- 1 Double Check Valve
- 2 Check Valve
- 3 Excess Flow Valve
- 4 Submersible Pump

- 5 Pressure Relief 6 Vent Pipe
- 7 Breakaway Coupling 8 Filling Hose

LPG TANK

Tank		
Medium	LPG	
Capacity	5000-200000 Litres	
Design Pressure	1.77Mpa	
Diameter	1.2-4.5 Meters	
Length	1.6-100Meters	
Design Pressure of the Process Piping	2.5Mpa	
Opening Pressure of Process piping safety valve	1.61Mpa	
Applicable Temperature Range	-20°C~55°C	
Applicable Humidity Range	10~95%	
LPG Dispenser		
Measurement Accuracy	±1%	
Unit of Measurement	Litre	
Operation Power	AC220V/50Hz	
Power	30W	
Pump		
Rated Flow	15m³/h	
Operation Power	220/380V 50Hz	
Power	5.5kw	
Size (L*W*H) of Station	7500mm * 2000mm * 2450mm	

 $Note: \ \, \text{Different models have different accessory parameters.} \\ \text{The actual parameters are subject to paper documents and actual products.} \\$

LPG TANK > LPG SKID FILLING STATION

Description

Lpg skid filling station also called lpg skid-mounted station,lpg filling station,lpg cooking gas filling plant/station. The structure of LPG Skid-mounted station is divided into four parts, the tank, skid section, LPG dispenser, EX electronic control box. LPG skid section consists of a storage tank, pipe section and two pumps, one pump forms unloading system, another forms filling system. These two systems under fault conditions can be used temporarily. All parts are installed completely before shipping, ready to use.









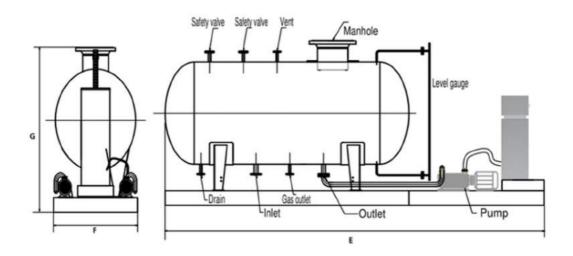
LPG TANK> LPG SKID FILLING STATION

- STAND-ALONE LPG STORAGE UNITS WITH PUMPING EQUIPMENT AND DISPENSER INCORPORATED IN A FRAME.
 INCLUDES TRANSFER EQUIPMENT TO ALLOW THE SUPPLY OF GAS IN LIQUID
- PHASE TO VEHICLES, WITH THE MAXIMUM GUARANTEE OF SAFETY.
- SIMPLIFIED INSTALLATION: ONLY REQUIRES CONNECTION OF POWER
- SUPPLY TO THE UNIT AND ANCHORING TO THE GROUND (WITH EARTH CONNECTION).

COMPOSITION:

LPG STORAGE TANK: STANDARD TANK WITH A DESIGN PRESSURE OF 17.7 BAR FRAME: A SUPPORT STRUCTURE THAT HOUSES THE COMPLETE INSTALLED UNIT.

LPG TRANSFER LINES: LIQUID PHASE OUTLET LINE, RETURN LINE TO TANK, PUMP-TO-DISPENSER TRANSFER LINE LPG TRANSFER PUMP: SPECIFIC FOR LPG IN LIQUID PHASE.



LPG Skid Filling Station Parameter

Model	Volume(L)	Pressure(MPA)	Tube size	Dimension (D*H*W mm)	Material	Weight(KG)
JSASQ5	5000	1.77	DN1200*4000*10	Ф1800*1800*6000	Q345R	3200
JSASQ10	10000	1.77	DN1600*4400*10	Ф2000*2000*6000	Q345R	3500
JSASQ15	15000	1.77	DN1800*5250*12	Ф2300*2000*7000	Q345R	5200
JSASQ20	20000	1.77	DN2000*5500*12	Ф2450*2000*7500	Q345R	6800
JSASQ25	25000	1.77	DN2200*5800*12	Ф2500*2000*10000	Q345R	7000
JSASQ30	30000	1.77	DN2200*7100*12	Ф2600*2200*12000	Q345R	7500

LPG CYLINDER FILLING SCALE/PUMP/DISPENSER

Advantages

Easy to operatconvenient, accurate, safe-operating, long lifespane, fast filling





Easy to operate, fast filling



Super bright digital tube display



Easy to balance calibration



With anti shock, impact resistance, resistance to electromagnetic inference function



The total weight of filling and automatic filling peeling can be set without additional weighting scale

LPG TANK > CAR FILLING DISPENSER

Advantages





Adopting combination pump or separate pump, smaller shape and convenient maintenance



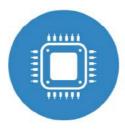
Big-size aluminium nozzle booter



Flow meter features high precision and strong reliability



Conveniently combining and extending function



Be capable of connecting with central computer in gas station



Excellent electromagnetic compatibility and strongly anti-jamming

LPG TANK > LPG PUMP



Description

The YQB pump series are used to transport LPG, propane, methanol, volatile liquids and other petroleum products 2. A centrifugal vane pump 3. Pump used in LPG loading and unloading, cylinder/car filling, workshop feeding and other work places 4. Volumwtric vane pump with advanced structure and composite curve 5. Both ends are mechanically sealed 6. The rotating moving parts are made of metal corresponding to non-metal, has the function of safety, reliable and multi-purpose use.

LPG Pump Parameter

	LPG Pump Parameter								
Туре	Rotate Speed N	FLow Q	Pressure P	Working Pressure P	Motor Type	Power N	Entrance	Exit	Temperature °C
10-5	600r.P.m	10m3/h	0.5Mpa	1.6Mpa	YB132S-4	5.5KW	2	2	-40~40
15-5	780r.P.m	15m3/h	o.s.mpa	1.011111	101323	3.5NW	2	2	10 10
25-5	600r.P.m	25m3/h	0.5Mpa	1.6Mpa	YB160M-4	11KW	3	3	-40~40
35-5	780r.P.m	35m3/h		1.011111	1.011pa				
10-5A	600r.P.m	10m3/h	0.5Mpa	1.6Mpa	YB112M-4	4KW	2	2	-40~40
15-5A	780r.P.m	15m3/h		210pu					
2-5	600r.P.m	2m3/h	0.5Mpa	2.0Mpa	YB90L-4	1.5KW	1	1	-40~40
5-5	780r.P.m	5m3/h	-0.0	Zionpa	.5502	20	-	-	.5 .5
50-5	780r.P.m	50m3/h	0.5Mpa	2.0Mpa	YB160L-4	15KW	4	4	-40~40

FURFURAL PRODUCTION LINE



Introduction

Furfural is used as a chemical raw material for the production of furfural, tetrahydrofurfuryl alcohol and tetrahydrofuran derivatives for the production of furfural phenol resins, furfural acetone resins and furan resins which are widely used in the foundry industry. Furfural is also used in the pharmaceutical production of nitrofurazone, furan, furanone and other organic synthesis industries.

Plant fibers containing polyxanthose, such as bagasse, corn cob, cotton husk, rice husk, oil tea shell, etc., are hydrolyzed and dehydrated. The process uses a corn cob and produces about 1 ton of furfural in about 10 tons of corn cob.

The corn cob is pulverized by a pulverizer and then added to the reactor, and a dilute sulfuric acid having a concentration of 3-10% is added. The ratio of the corn cob to the sulfuric acid is about 1:0.03 and is sufficiently mixed and sent to the high pressure vapor at a reaction temperature of 140 to 230 ° C. The reaction is carried out at 0.3~1.0 MPa for 5-8 h, and then the formed furfural is distilled off by steam, and after condensation, it is sent to a stripping tower, the bottom of the stripping tower is discharged, and a vapor-rich mixture rich in furfural is obtained at the top. The mixture is condensed and sent to the oil moisture layer for stratification. The upper tank contains about 8% furfural, which is sent to the de-methanol column, and is then returned to the stripping column by removing low-boiling reaction by-products such as methanol. The lower tank contains about 6% water, is sent to the neutralization tower, neutralized with saturated soda ash, and then enters the dehydration tower. The water distilled from the top of the tower is condensed and returned to the oil-water separator, and the bottom product is subjected to a rectification to obtain a furfural product.

FURFURAL PRODUCTION LINE

Product quality index

Indicator name	Indicators
density	1.159-1.161 P20/ml
Refractive index	1.52-1.527η
Moisture content	%≤0.05
acidity	mol/L0.008
Furfural content	%≥99

Parameters are for reference only and can be customized according to your needs!

Production cost list

Name	MIN	MAX
Corn cob	9 T/Tons	10 t /ton
Sulfuric acid	240 kg/KGS	280 kg/KGS
Soda ash	8 kg/KGS	15 kgKGS
Electricity fee	200 KW/h	250 Kw/h
Worker	15 people/person	20people/person

Parameters are for reference only and can be customized according to your needs!

FURFURAL PRODUCTION LINE

Product quality index

NO.	Device Description			
Production workshop				
1	Workshop master device			
2	Connecting pipe valve Insulation preservation			
Wastewater treatment				
3	Wastewater treatment equipment			
4	Connection accessories			
Boiler section				
5	Boiler equipment			
6	Device connection			
Environmental protection device				
7	Desulfurization, dust removal and deodorization equipment			
8	Device connection			
Technical support				
Continuous refining process(Chunlei factory aldehyde rate is greater than 92%)				

Parameters are for reference only and can be customized according to your needs!



After-sales service commitment

1. Quality assurance:

- (1) Ensure requirements of industrial production;
- (2) Provide production technical parameters;
- (3) Both the manufacturing and testing of our products have quality records and test data.

2. Delivery time:

Our products can be delivered within 30 days. If there are special requirements, it will be completed in advance.

3.Installation service:

We can through videos to guide installation, and we can organize installation to meet customer's requirements. (pay services)

4. After-sales service:

the tank design has a service life of 20 years. The accessories is for 1 year free replacement (non-human factors damaged), not include shipping cost.

28

