

Green Brand Series Pump

TIANJIN JIAMA ELECTRIC SUBMERSIBLE PUMP CO., LTD.

WORLD CLASS INNOVATION

***Explosion-proof Submersible
Pump***

Updated 2022.10

ABOUT US

Introduction

In 2004, TianFu Group invested 20 million yuan and restructured Tianjin Jiamia Machinery Factory.

In 2012, Tianjin Jiamia Machinery Factory reformed, changing its name to Tianjin Jiamia Electric Submersible Pump Co., Ltd.

Green Brand is the name of our submersible pump series, which is devoted to providing optimal solutions for USTs in flammable and explosive environment.

Products

- Standard Submersible (for petrol station)
- Chemical Submersible Pump
- High Lift Submersible Pump
- Large Flow Submersible Pump
- Frequency Conversion Submersible Pump
- Loading Arm Submersible Pump
- Self-adaption Submersible Pump
- Super Large Flow Submersible Pump

Certificate

-9001:2015

-explosion-proof certification: EX ds IIB T4 Ga/Gb

-Tianjin independently innovative product certificate

-our chief technical engineer appointed as vice

technical director of ACFIC Fuel-servicing

Equipment Committee



Design Rendering of the Future Factory

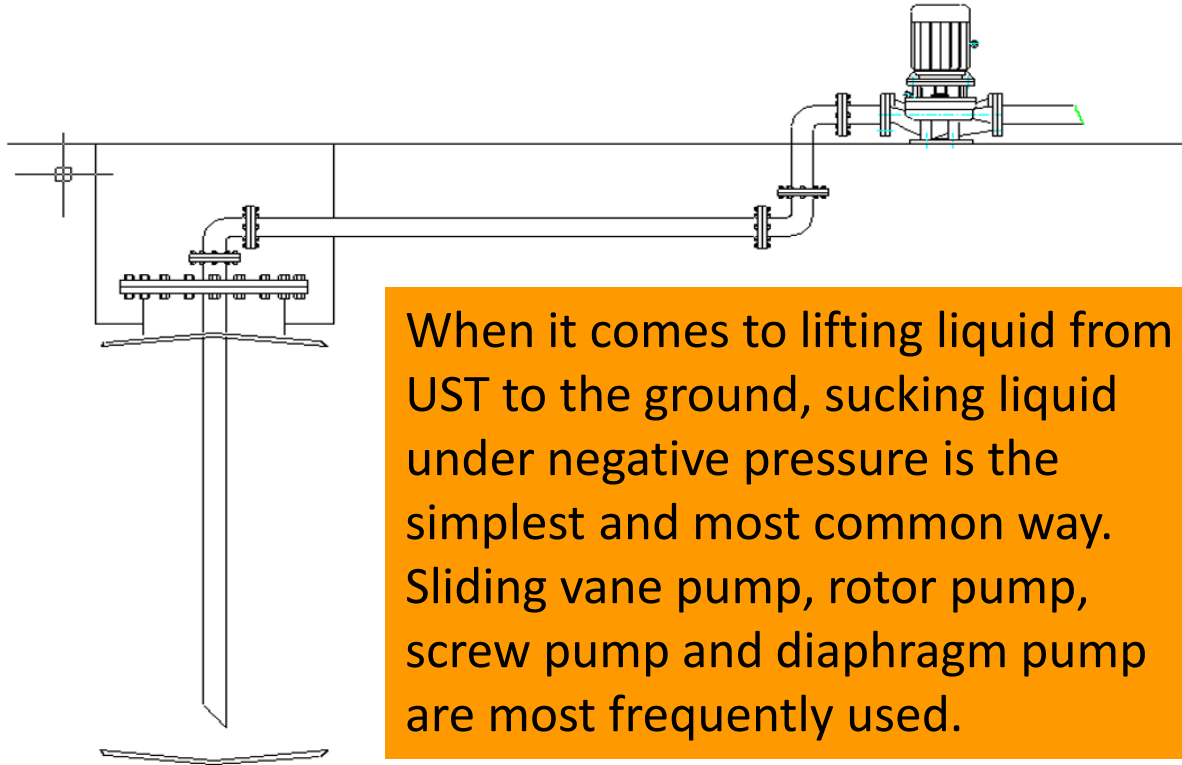
Application



Compared with traditional tanks onto the ground, underground storage tanks (USTs) have advantages as below:

- saving tank area space greatly;
- saving expense on land;
- shortening fire protection distance;
- improving onsite safety condition.

Traditional Transportation Method for UST



When it comes to lifting liquid from UST to the ground, sucking liquid under negative pressure is the simplest and most common way. Sliding vane pump, rotor pump, screw pump and diaphragm pump are most frequently used.

Traditional Transportation Method for UST

Disadvantage

Vapor lock &
cavitation

Low working
efficiency

Environment
pollution

High
equipment
failure rate

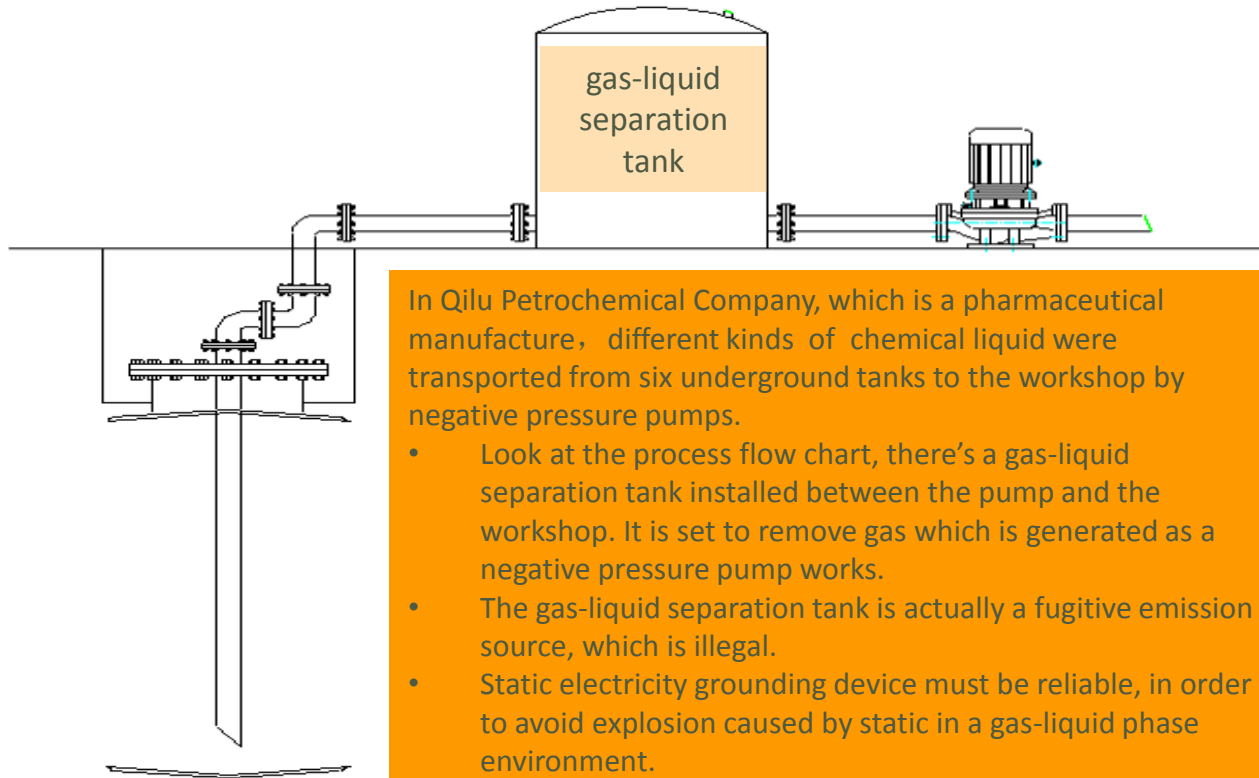
cavitation

efficiency

pollution

failure rate
equipment

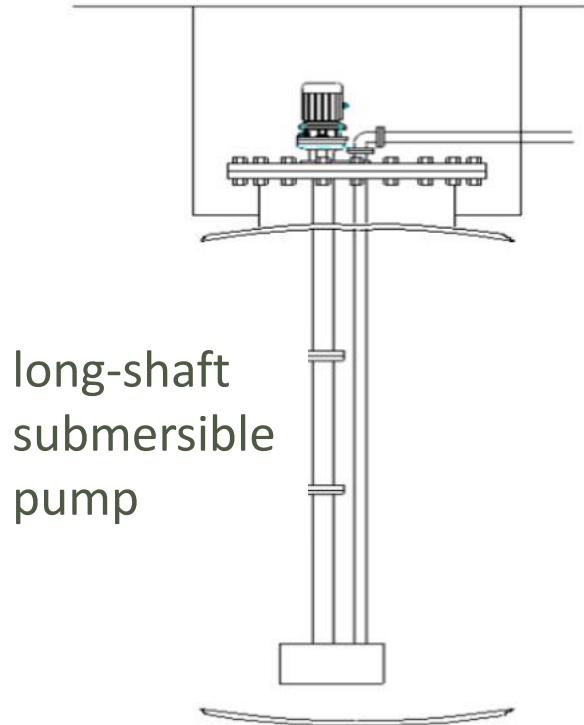
Traditional Transportation Method for UST



In Qilu Petrochemical Company, which is a pharmaceutical manufacture, different kinds of chemical liquid were transported from six underground tanks to the workshop by negative pressure pumps.

- Look at the process flow chart, there's a gas-liquid separation tank installed between the pump and the workshop. It is set to remove gas which is generated as a negative pressure pump works.
- The gas-liquid separation tank is actually a fugitive emission source, which is illegal.
- Static electricity grounding device must be reliable, in order to avoid explosion caused by static in a gas-liquid phase environment.

Traditional Transportation Method for UST



long-shaft
submersible
pump

- Light liquids are more likely to vaporize in high temperature and high altitude environment, gas-liquid phase condition can be even worse in pipeline, and vapor lock occurs frequently.
- Heavy liquid such as : dichloromethane, silicon tetrachloride can not be risen by negative pressure pumps.
- The long-shaft submersible pump with positive pressure transportation was then invented.

The Structure of Long Shaft Submersible Pumps Determines Its Insecurity

The shaft of a long shaft submersible pump is assembled by several pieces of short shaft. The bearings of each part are easier to be damaged. Serious consequences may occur if bearings are not maintained and changed in time.

Liquid in UST is usually flammable and explosive. CNPC(China National Petroleum Company) made a decision to forbid using long shaft submersible pump after several critical incidents happened .

(Attached is “ Discontinuance Notification ”)

Discontinuance Notification about Long Shaft Submersible Pump by CNPC

中国石油天然气股份有限公司 炼油与化工分公司文件

油炼化〔2012〕53号

关于停用长轴液下泵的通知

各有关单位：

2010年11月28日，辽阳石化对污水池提升泵（液下泵，轴长达4.2米，5个轴套，泵流量630m³/h，电机功率90kw。泵的连锁设置是：当液位低于1.05m时自停，其他状况下需手动操作）带物料单机试运行过程中轴发生摆动，致使轴瓦破碎，轴套和轴瓦研磨产生高温（专家鉴定其温度达700℃以上）点燃了泵轴防护罩内的残油，进而引爆了污水池（污水中含有石脑油和柴油）内的油气发生事故，造成5人死亡。

2012年3月2日，大港石化储运车间火炬污水泵（为立式液下泵，轴长2.67M，石墨轴套3个轴套，流量20m³/h时，电机功率15KW。启停泵为液位自动控制，当液位达到60%时污水泵自启，当液位降至40%自停）自启5分钟后，因泵支撑轴承摩擦发热，

闪燃了火炬污水池（含有少量凝缩油）内的可燃气体。现场操作人员发现后及时将火扑灭。

为深刻吸取此类事故事件教训，杜绝因长轴液下泵故障引发事故事件，特提出如下要求：

1. 各企业由主管副总经理任组长，立即组织对厂区内使用的长轴液下泵进行排查，尤其是地下油污罐、地下污水池系统的长轴液下泵，组织专家进行技术论证，对存在隐患的长轴液下泵立即整改。

2. 自即日起，对存在安全隐患、易发生闪爆的轻油污污水系长轴液下泵全部停用，影响到生产运行，临时改用风动泵或自吸泵等输送污水。将长轴液下泵改为自吸泵，并与污水池保持一定安全距离，避免转动设备和电气设备与可燃气体直接接触。

3. 要建立生产装置事故应急及非正常工况下，大量排油、窜入可燃、有毒气体、排入热水、酸碱等强腐蚀介质等情况下的提前申报和紧急报告程序制度，并组织对此类工况进行风险辨识，制定并落实相应的消减措施。

4. 要建立较为详细全面的生产装置排污检测监控网络，涵盖各排污点，全面强化日常的排污管理，实现动态管理，严格控制上游装置排污，减少含油污水的排放，建立上下游联动机制，发现问题及时处理，减少污水中的油含量和污水停留时间。

5. 加强生产辅助设施管理。各级领导必须树立生产辅助设施等同干主要生产装置管理的理念，尤其是危化品罐区、污水处理设施等存在较大安全环保风险的部位，要严格管理，狠抓检修质量和日常生产操作，严把物资采购质量关，做好检修界面交接，确保生产受控。

6. 各单位要将长轴液下泵的排查及整改情况，在4月30日前经企业主管副总经理签字后上报炼化板块。

7. 4月份安全风险预警的主题是：“防触电，防高空坠落，防有限空间伤害”，具体内容见附件。

联系人：绪军 电话：010-59982905

邮箱：xujun@petrochina.com.cn

附件：4月份安全风险预警



GB25286.1-2010 《Non-electrical Equipment for Explosive Atmospheres》

3.2.3 Ga level equipment... in the case of rare malfunction.. when a protective measure fails, at least a second independent protective measure works.

13.3.3 Measurement of the maximum surface temperature... It is measured under the most unfavorable load and the most severe conditions. Additional measures to limit the temperature for rare failures (must be provided) of Ga level equipment.

GB25285.1-2010 6.4.2

Ga level : The surface temperature of the equipment should not exceed ... 80 % of minimum ignition temperature (°C) even in the case of rare failures.

**Non-
electrical
Equipment
for Explosive
Atmospheres
Part I: Basic
Method and
Requirements**

ICS 29.260.20
K 35



中华人民共和国国家标准
GB 25286.1—2010

爆炸性环境用非电气设备
第1部分:基本方法 and 要求

Non-electrical equipment for explosive atmospheres—
Part 1: Basic method and requirements

2010-11-10 发布

2011-09-01 实施

中华人民共和国国家质量监督检验检疫总局 发布
中国国家标准化管理委员会

GB 25286.1-2010

3.2.3

II类Ga级设备 equipment group

II, category Ga

其设计应使之能按照制造商设定的运行参数发挥功能，并保证具有很高的保护级别。

该级别的设备用于爆炸气体、蒸气、薄雾与空气形成的混合物连续出现、长期存在或频繁出现的爆炸性环境。

该级别的设备应保证规定水平的保护级别，即使是在设备出现罕见故障的情况下仍能保证所要求的级别保护，其保护措施应达到：

—— 一个保护措施失效时，至少有第二个独立的保护措施提供必要的保护级别；或者

—— 当同时出现两个各自独立的故障时，应保证规定的保护级别。

GB 25286.1-2010

13.3.2 最高表面温度测定

最高表面温度是按照设备的级别，在制造商规定的最不利负载时的最严酷条件下测定的，测定最高表面温度应考虑Gc级或Dc级别的正常运行，Gb级或Db级设备的预期故障，Ga级或Da级设备的罕见故障和任何控制或限定温度的附加措施。

GB25285.1 2010

6.4.2 热表面

确定由热表面造成的危险见5.3.2

如果由热表面引起的危险已被识别，根据爆炸性环境的类型（气体/蒸气/薄雾或粉尘为可燃性物质）和设备的级别，设备、防护系统和元件应符合下列要求：用于爆炸性气体/蒸气/空气和薄雾/空气环境的设备、防护系统和元件

Ga级：所有能够接触爆炸性环境设备、防护系统和元件表面的温度，即使在出现罕见故障情况下，不应超过可燃气体或者可燃性液体的最低点燃温度（℃）的80%。

New Terms of IEC Standards in 2017

To obtain explosion-proof certificate for non electrical equipment in explosive environment, it needs the joint approval of **three** senior members from different explosion-proof institutes.

Long Shaft Submersible Pump Only Applicable to Non-explosive Environment

Strong corrosion	High temperature	High viscosity	Medium such as Slurry
corrosion	temperature	viscosity	slurry such as

Our customers in chemical industry say :

What we want is

Safety !

Case

- Tsubakihon, a Japanese company located in Tianjin, uses long shaft submersible pumps to send methanol in the UST to the workshop through 250m-long, 10m-high DN40 pipelines under a specific pressure. Therefore, long shaft submersible pumps must keep working 24h/d.
- In 2014, Tsubakihon asked to try out Green Brand explosion-proof submersible pump, because they are annoyed by the once-a-week maintenance cycle of long shaft submersible pumps.

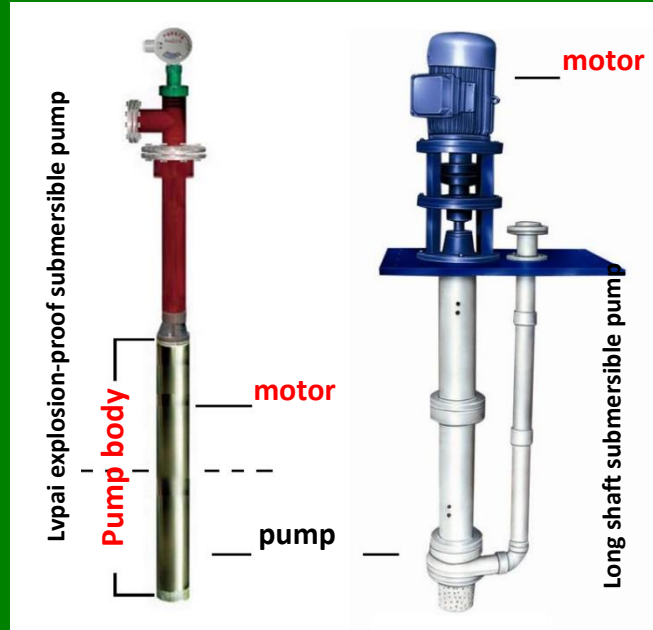
Case

- Tsubakihon company had two long shaft submersible pumps (one for use and one for reserve). At first, one of them was replaced by Green Brand explosion-proof chemical submersible pump, in order to check whether the pump is maintenance-free or not.
- There were no breakdowns during 9 months' operation, Tsubakihon made a final decision to use Green Brand explosion-proof chemical submersible pump with no doubt. The two pumps has been running steadily for more than 8 years, with the standby pump started every three months.

Comparison between Green Brand Explosion-proof Submersible Pump and Long Shaft Submersible Pump

Green Brand explosion-proof submersible pump

- Expensive price
- Excellent security performance
- Maintenance-free in lifetime
- Low operating cost, nearly 1 / 10 of traditional submersible pumps' cost



Long shaft submersible pump

- Low cost
- Poor security
- Frequent maintenance
- Shafts over 4 metres in length cannot be manufactured

Price-performance Ratio of Green Brand Explosion-proof Submersible Pump

- The power consumption of ordinary long shaft submersible pump is three to five times than that of Green Brand explosion-proof submersible pump. The maintenance cost is much more expensive than the pump price.
- The motor of Green Brand explosion-proof submersible pump is in the liquid and the shaft is only a few hundred millimetres long. So it runs steadily with little wear and tear. Maintenance-free, extra-long life and extremely low operating costs, its price-performance ratio is much higher than a traditional long-shaft submersible pump.

ESPs(Electric submersible pumps) are widely used in gas stations and oil depots around the world

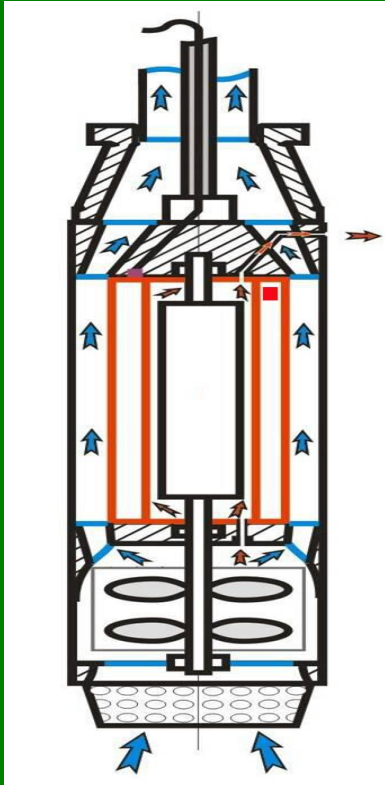
- Electric submersible pumps have been widely used in the United States for more than 70 years.
- Relatively conservative European countries began extensive use of electric submersible pumps in 2005 and issued EU standard “EN15268:2008(E)”
- Application of electric submersible pump in China has been over 30 years.
- All new and renovated stations of PetroChina and Sinopec use electric submersible oil pumps
- The national standard GB50156-2006 《 Code for Design and Construction of Filling Station 》 points out : “ One pump for multiple machines (guns) should be used at gas stations with submersible oil pumps installed in the tanks”.2012 and 2014 edition further pointed out : “ The refueling process of installing submersible pump in tank ... is the technical development trend of gas stations in China.”
- Green Brand electric submersible pumps were made for 18 years and more than 20000 sets have been sold.
- Green Brand explosion-proof submersible pump belongs to Green Brand submersible pump series

Structure

determines that Green Brand
explosion-proof submersible pump is

Safety

Structure determines the safety of Green Brand explosion-proof submersible pump -1



- Material transmission path — blue arrow indicates the direction fluid moves.
- Power transmission path- the cable is led through the explosion-proof connector and the cable exit to the junction box of the pump. The whole internal space was filled with high-strength flame-retardant epoxy resin.
- Motor internal circulation system - part of the liquid quickly passes through the motor and joins the liquid outside the submersible pump along the direction shown by the red arrow, complete the large system circulation.



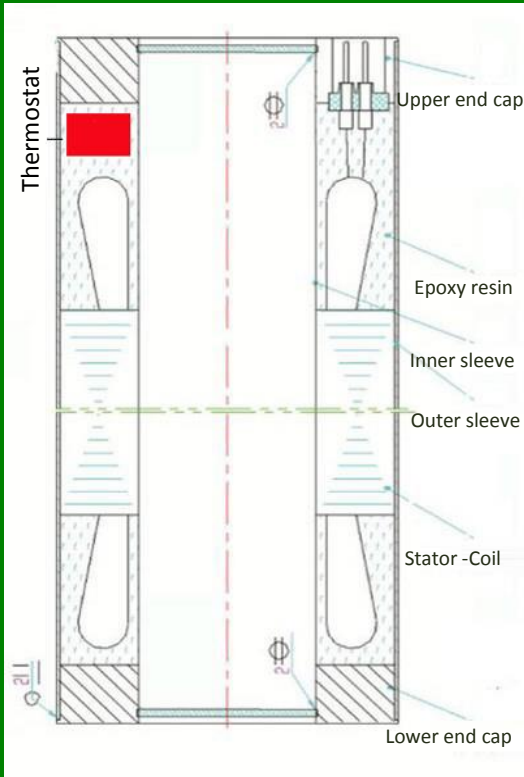
Structure determines the safety of Green Brand explosion-proof submersible pump -2

Schematic illustration of internal and external double circulation system of stator :

- The fast fluid on the inner and outer surfaces of the stator dissipates heat for the motor.
 - Motors range in temperature from 3K to 25K !
- Clean liquid lubricates thrust bearing and radial bearing
 - Greatly extending the bearing life !
 - These characteristics determine the motor long life !

Structure determines the safety of Green Brand explosion-proof submersible pump

-3



- Inner sleeve and outer sleeve are welded between upper end caps and lower end caps
 - Key process !
- Internal space filled with epoxy resin in vacuum pressure
 - Key process !
- Hydraulic test and insulation performance test
 - Key process !
- The stator coil is wrapped inside by the inner sleeve, the outer sleeve and the upper and lower end caps.

Image of Stator



Image of Rotors



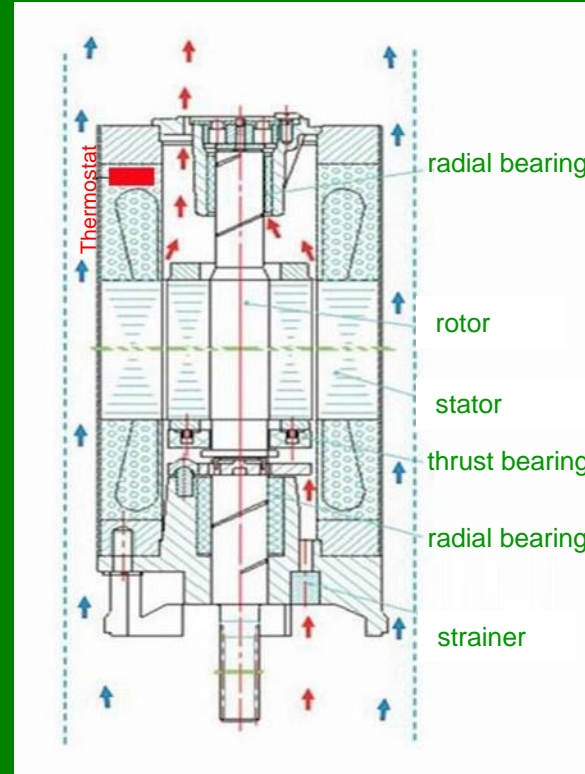
Image of Rotors



Structure determines the safety of Green B rand explosion-proof submersible pump

-4

Schematic diagram of
stator internal and
external circulation
system:



Structure determines the safety of Green Brand explosion-proof submersible pump -5

Safety and protection measures

- Embedded thermostat for motor stator
- When motor current exceeds normal value, submersible pump may be abnormal - automatic shutdown
- When the maximum temperature inside the motor reaches 95 °C
 - Automatic shutdown

Structure determines the safety of Green Brand explosion-proof submersible pump -6

Special explosion-proof type Exds II B T4 Ga/Gb

- GB3836.1-2010
- GB3836.2-2010
- GB3836.9-2006
- GB3836.20-2010
- GB3836.24-2017

Structure determines the safety of Green Brand explosion-proof submersible pump -7

- The explosion-proof chemical submersible pump was designed with flame proof shell and encapsulation.
 - Equipment Protection Level (EPL) is Ga
 - the pump may be used in zone 0, zone 1, zone 2.
- The latest version of GB3836.24-2017 has a detailed description
- All connectors and line connections of explosion-proof submersible pump system adopt the same types of explosion protection as above
- Comply with safety standards
 - Motor stator protection standard IP68



防爆合格证

证号: GYB21.1380X

由 天津加马电潜泵有限责任公司

制造的产品:

(地址: 天津市南开区贵阳路15号)

名称 潜油泵

型号规格 YQYB 系列

防爆标志 Ex d s I I B T4 Ga/Gb

产品标准 Q/12JM 01-2021

图样编号 XT31000000、XT14000000

经图样及技术文件的审查和样品检验,确认上述产品
符合 GB 3836.1-2010、GB 3836.2-2010、GB 3836.20-2010、标准,
GB/T 3836.24-2017

特颁发此证。

本证书有效期: 2021年3月23日至2026年3月22日

备注 1. 安全使用注意事项见本证书附件。
2. 证书编号后缀“X”表明产品具有安全使用特殊条件,内容见本证书附件。
3. 型号规格说明见本证书附件。
4. 电气参数见本证书附件。

站长

国家级仪器仪表防爆安全监督检验站

颁发日期二〇二一年三月二十二日

本证书仅对与认可文件和样品一致的产品有效。

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版本05

国家级仪器仪表防爆安全监督检验站
National Supervision and Inspection Centre for
Explosion Protection and Safety of Instrumentation

(GYB21.1380X)

(Attachment I)

GYB21.1380X防爆合格证附件 I

由天津加马电潜泵有限责任公司生产的YQYB 系列潜油泵,经国家级仪器仪表防爆安全
监督检验站(NEPSI)检验,符合下列标准:

GB3836.1-2010 爆炸性环境 第1部分:设备 通用要求

GB3836.2-2010 爆炸性环境 第2部分:由隔爆外壳“d”保护的的设备

GB3836.20-2010 爆炸性环境 第20部分:设备保护级别(EPL)为Ga级的设备

GB/T 3836.24-2017 爆炸性环境 第24部分:由特殊型“s”保护的的设备

产品防爆标志Ex d s I I B T4 Ga/Gb, 防爆合格证号为GYB21.1380X。

本项目认可的产品型号规格、电气参数如下:

潜油泵型号	额定功率(kW)	额定电压(V)
YQYB-500-34-4	4	380
YQYB-500-46-5.5	5.5	
YQYB-500-65-7.5	7.5	
YQYB-650-24-4	4	
YQYB-650-34-5.5	5.5	
YQYB-650-46-7.5	7.5	
YQYB-800-18-4	4	
YQYB-800-24-5.5	5.5	
YQYB-800-32-7.5	7.5	
YQYB-1000-14-4	4	
YQYB-1000-21-6	6	
YQYB-1000-28-7.5	7.5	
YQYB-1300-14-5.5	5.5	
YQYB-1300-21-9.2	9.2	
YQYB-1300-28-11	11	

第1页 共3页

(GYB21.1380X)

(Attachment I)

潜油泵型号	额定功率 (kW)	额定电压 (V)
YQYB-160-20-1.1	1.1	220
YQYB-160-20-1.1	1.1	
YQYB-180-26-1.5	1.5	
YQYB-180-35-2.2	2.2	
YQYB-180-45-3	3	
YQYB-180-74-4	4	
YQYB-200-24-1.5	1.5	
YQYB-200-30-2.2	2.2	
YQYB-200-41-3	3	
YQYB-200-52-4	4	
YQYB-500-11-1.5	1.5	
YQYBH-500-11-1.5	1.5	
YQYB-500-16-2.2	2.2	
YQYBH-500-16-2.2	2.2	
YQYB-500-22-3	3	
YQYB-650-6-1.1	1.1	
YQYBH-650-6-1.1	1.1	
YQYB-650-12-2.2	2.2	
YQYBH-650-12-2.2	2.2	
YQYB-650-18-3	3	
YQYBH-650-18-3	3	
YQYB-800-6-1.5	1.5	
YQYBH-800-6-1.5	1.5	
YQYB-800-12-3	3	
YQYBH-800-12-3	3	
YQYB-1000-6-2.2	2.2	
YQYBH-1000-6-2.2	2.2	

380

(GYB21.1380X)

(Attachment I)

一、产品安全使用特殊条件

防爆合格证号后缀“X”表明产品具有安全使用特殊条件，具体内容为：

- 1.1 涉及隔爆接合面的维修须联系产品制造商；
- 1.2 潜油泵不允许干转运行，必须与认可的设备配套使用确保其完全浸入被输送流体中或其内部有连续流动的冷却流体方可工作；
- 1.3 潜油泵主要由泵体、泵头和连接管线组成，泵头不得用于0区爆炸危险场所。
- 1.4 必须设置可靠的保护装置（涉及爆炸危险场所应用时，应取得有效的防爆合格证书）确保潜油泵的最高表面温度不超过温度组别的要求，保护装置应能断开其安装电路中的最大故障电流且保护装置额定电压应不低于工作电压。

二、产品使用注意事项

1. 产品设有接地端子，用户在安装使用时应可靠接地。
2. 产品使用环境温度为：-20℃~+40℃。
3. 现场使用和维护时必须遵守“严禁带电开盖”的原则。
4. 隔爆接合面所用紧固件性能等级不得低于8.8。
5. 用户不得自行更换该产品的零部件，应会同产品制造商共同解决运行中出现的故障，以杜绝损坏现象的发生。
6. 产品的安装、使用和维护应同时遵守产品说明书、GB3836.13-2013“爆炸性环境第13部分：设备的修理、检修、修复和改造”、GB/T3836.15-2017“爆炸性环境 第15部分：电气装置的设计、选型和安装”、GB/T3836.16-2017“爆炸性环境 第16部分：电气装置的检查和维护”及GB50257-2014“电气设备安装工程爆炸和火灾危险环境电气装置施工及验收规范”的有关规定。

三、制造厂责任

1. 制造厂必须将上述使用注意事项纳入产品的使用说明书中。
2. 制造厂必须严格按照NEPSI认可的文件资料生产。

国家级仪器仪表防爆安全监督检验站

二〇二三年三月二十三日

Certification

copy



Registration No.: 00922Q10792R0S

CHINA GREAT WALL (TIANJIN) QUALITY ASSURANCE CENTRE CO., LTD QUALITY MANAGEMENT SYSTEM CERTIFICATE

We hereby certify that

Tianjin Jiama Electric Submersible Pumps Co., Ltd.

(Unified social credit code:91120104735479238M)

Registered address is located at: (Floor 1, No.10 Building, Nankai Industrial Park)

No.15, Ziyang Road, Nankai District, Tianjin, P. R. China.

Post Code: 300190

Its quality management system meets the requirements of the
GB/T19001-2016/ISO9001:2015 Standard.

The quality management system applies in the following areas:

Design, development, production of submersible pumps.

Date of Issuance: May. 26th, 2022

Date of Expiry: May. 25th, 2025



CHINA GREAT WALL (TIANJIN) QUALITY ASSURANCE CENTRE CO., LTD

General Manager

Wang Jingbo



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C009-M

The certificate information (including certificate validity, supervision and maintenance of registration qualification and other information) can be scanned by the QR code of the certificate, and the website of the center can be used to check the information of the certificate (www.isoqgw.net), and the official website of CNCA (www.cnca.gov.cn) Query on.
CGW Add:No.4, Jinlong apartment, Water North road, Nankai District, Tianjin; Postal code:300074;
The web of centre: www.isoqgw.net

副本



注册号: 00922Q10792R0S



长城(天津)质量保证中心有限公司 质量管理体系认证证书

兹证明 天津加马电潜泵有限责任公司

(统一社会信用代码:91120104735479238M)

位于 天津市南开区资阳路15号

(南开工业园10号楼1层厂房)

邮编 300190

其质量管理体系符合 GB/T19001-2016/ISO9001:2015 标准

该质量管理体系认证范围

潜油泵的设计、开发和生产。

颁证日期 2022年5月26日

有效期至 2025年5月25日



长城(天津)质量保证中心有限公司

总经理

王海波



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C009-M

本证书信息(包括证书有效性、监督保持注册资格等信息)可通过扫描本证书二维码查询,在本中心网站(www.isoqgw.net),和国家认证认可监督管理委员会官方网站(www.cnca.gov.cn)上查询。
中心地址:天津市南开区水上北路津光公寓4号 邮政编码:300074
中心网站: www.isoqgw.net



中国国家强制性产品认证证书

编号: 2020312302000029

委托人 天津加马电潜泵有限责任公司
地址 南开区资源路 15 号(南开工业园 10 号楼 1 层厂房)
生产者 天津加马电潜泵有限责任公司
地址 南开区资源路 15 号(南开工业园 10 号楼 1 层厂房)
生产企业 天津加马电潜泵有限责任公司
生产地址 天津市南开区资源路 15 号(南开工业园 10 号楼 1 层厂房)
产品名称 潜油泵
型号规格 YQYB-1300-28-11
防爆标志 Ex d s IIB T4 Ga/Gb
依据标准 GB3836.1-2010, GB3836.2-2010

认证模式 型式试验+初始工厂检查+获证后监督

上述产品符合 CNCA-C23-01: 2019《强制性产品认证实施规则 防爆电气》
和 CNEX-C2301-2019《强制性产品认证实施细则 防爆电气》的要求。

产品相关信息见附页 (共 2 页)。

颁发日期 2020 年 09 月 10 日

有效期至 2025 年 09 月 09 日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。



南阳防爆电气研究所有限公司



网址: www.ccc-cnex.com
ccc.china-ex.com

地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734

邮政编码: 473008
邮箱: ccc@cn-ex.com

CN 0008071



中国国家强制性产品认证证书 (附页)

编号: 2020312302000029

第 1 页 共 2 页

产品相关信息:

1、本证书覆盖产品如下:

- YQYB-1300-21-9.2 9.2kW, YQYB-1300-14-5.5 5.5kW, YQYB-1000-28-7.5 7.5kW, YQYB-1000-21-6 6kW, YQYB-1000-14-4 4kW, YQYB-800-32-7.5 7.5kW, YQYB-800-24-5.5 5.5kW, YQYB-800-18-4 4kW, YQYB-650-46-7.5 7.5kW, YQYB-650-34-5.5 5.5kW, YQYB-650-24-4 4kW, YQYB-500-65-7.5 7.5kW, YQYB-500-46-5.5 5.5kW, YQYB-500-34-4 4kW, YQYBH-1000-6-2.2 2.2kW, YQYB-1000-6-2.2 2.2kW, YQYBH-800-12-3 3kW, YQYB-800-12-3 3kW, YQYBH-800-6-1.5 1.5kW, YQYB-800-6-1.5 1.5kW, YQYBH-650-18-3 3kW, YQYB-650-18-3 3kW, YQYBH-650-12-2.2 2.2kW, YQYB-650-12-2.2 2.2kW, YQYBH-650-6-1.1 1.1kW, YQYB-650-6-1.1 1.1kW, YQYB-500-22-3 3kW, YQYBH-500-16-2.2 2.2kW, YQYB-500-16-2.2 2.2kW, YQYBH-500-11-1.5 1.5kW, YQYB-500-11-1.5 1.5kW, YQYB-200-52-4 4kW, YQYB-200-41-3 3kW, YQYB-200-30-2.2 2.2kW, YQYB-200-24-1.5 1.5kW, YQYB-180-74-4 4kW, YQYB-180-45-3 3kW, YQYB-180-35-2.2 2.2kW, YQYB-180-26-1.5 1.5kW, YQYB-160-20-1.1 1.1kW

额定电压: 380V

- YQYBD-160-20-1.1 1.1kW, 额定电压: 220V

防爆标志: Ex d s IIB T4 Ga/Gb (注: 本证书认证范围不包括“s”型部分)。

颁发日期 2020 年 09 月 10 日

主任: 穆元玉



南阳防爆电气研究所有限公司



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ccc.china-ex.com

地址: 中国河南省南阳市仲景北路20号
电话: 0377-63239734

邮政编码: 473008
邮箱: ccc@cn-ex.com

We successfully join the suppliers category of these customers:

- China Petrochemical Corporation
- China National Aviation Fuel Group
- China National Petroleum Corporation
- Sinochem Group Co., Ltd.

中国石化股份有限公司油品销售事业部文件

石化股份销发〔2011〕429号

关于公布中国石化 2012 年度潜油泵 供应商入围评审结果的通知

各销售企业：

为发挥集团采购的优势，提高潜油泵的安全性能和产品质量，规范采购行为，优化供应渠道，规避采购风险，销售事业部在北京组织了潜油泵入围评审，现将评审结果公布如下：

一、中国石化 2012 年潜油泵供应商入围单位为维德路特油站设备（上海）有限公司、富兰克林电气（上海）有限公司、天津加马机械厂 3 家供应商。

二、各销售企业采购潜油泵从 2012 年 1 月 1 日起一律按附件《中国石化 2012 年潜油泵入围价格一览表》和《中国石化 2012 年潜油泵控制器入围价格一览表》要求执行。

三、为扶助国产品牌，并考虑到天津加马机械厂生产时间较

- 1 -



中国石油工程建设公司
CHINA PETROLEUM ENGINEERING & CONSTRUCTION CORP.

物资供应商准入通知

天津加马电潜泵有限责任公司：

经中国石油工程建设公司（以下简称 CPECC）评审，贵单位成为 CPECC 哈萨克斯坦巴左伊压气站项目潜油泵的合格供应商，兹对以后的合作提出如下要求：

- 一、在批准的准入范围内进行合法经营活动；
- 二、接受并积极配合 CPECC 为保证产品质量而展开的驻厂监造、出厂验收工作；
- 三、对出现问题的产品及时提供解决方案，根据需要确保及时更换，并承担相应责任、经济损失；
- 四、遵守 CPECC 关于供应商管理相关规定，积极配合 CPECC 对贵单位经营状况、资质、能力等进行必要的考察、核实；经考察/考核后如不具有相关资质和能力，CPECC 有权取消贵单位准入资格；
- 五、在商务活动中遵守职业道德，不得以任何形式、任何理由向 CPECC 员工提供个人佣金、回扣、礼金礼券和贵重物品等不正当行为，也不为 CPECC 员工安排高消费娱乐活动。如 CPECC 发现贵单位以不正当竞争手段拉拢、贿赂员工，一经查实，CPECC 将采取相应的处罚；
- 六、及时告知公司变更信息（若有），并提供有效的资质文件；
- 七、指定专人负责供应商准入、考核等相关业务，联系方式需经 CPECC 供应商管理岗备案。

中国石油工程建设公司采购管理部



物资设备供应商

准 入 证



中国航空油料集团公司
China National Aviation Fuel Group Corporation

Notice on publishing the shortlisted
evaluation results of Sinopec's
submersible pump suppliers in 2012

Material and equipment supplier
access certificate

Green Brand explosion-proof submersible pump is the direction

Green Brand explosion-proof submersible pump is developed from submersible pump, GB50156 (2014) points out that “it is the technology development direction of filling station in China ”.

Extended as “positive pressure push of submersible pump is the direction ”.

In 2010, our company on the internet appealed for development of relevant national standards. Now industry standard of “explosion-proof submersible pump” is proceeding. The national standard of “explosion-proof submersible pump” will be prepared in future, and compiling the national standard of “explosion-proof chemical submersible pump” is also our task in the future.

Applicable Mediums of Green Brand Explosion - proof Submersible Pump

Lipid

gamma-Butyrolactone	Ethyl acrylate
Methyl acetate	Methyl acrylate
Ethyl acetate	Methyl cyanoacetate
Propyl acetate	2-Propenoic acid, isooctyl ester
Butyl acetate	Methyl acetoacetate
DBE	Dimethyl malonate
Methyl propionate	Dimethyl sulfate
Ethyl propionate	Isopropyl acetate
Propyl propionate	Butyl acrylate
Methyl oleate	2-Butoxyethyl acetate
Ethyl butyrate	DL-sec-Butyl acetate
Methyl salicylate	2-Acetylbutyrolactone
Dimethyl carbonate	2-Ethoxyethyl acetate
tert-Butyl acetate	1-Methoxy-2-propyl acetate
Propyl acetate	Tetrahydrofuran& Ethyl acetate
Ethyl formate 99%	Vinyl acetate

Benzene Series

Motor benzol	Trimethylbenzene
Aromatic Solvent Oil 100#	Mesitylene
Toluene	Xylene
Aromatic Solvent Oil 150#	4-Fluorotoluene
Fluorobenzene	1,4-Dimethylbenzene
1,2-Dimethylbenzene	Heavy aromatics
Nitrobenzene	Trimethylbenzene (S100)

Applicable Mediums of Green Brand Explosion - proof Submersible Pump

Amines & Nitriles

Aniline	Isopropylamine
Ethanolamine	N,N-Dimethylformamide
Acetonitrile	Methylamine
Diesel Exhaust Fluid	2,3-Dimethylaniline
Acrylonitrile	Triethylamine
Formamide	2,6-Diisopropylaniline
Waste Acetonitrile	Cyclohexylamine
2-Chloroacrylonitrile	Dimethylamine

Alcohols

1-Pentanol	3-Methyl-1-butanol
Cyclohexanol	Mixed isoamyl alcohol
Sugar Alcohol	Waste ethanol
Benzyl alcohol	Diethylene glycol
1,2-Propanediol	4-Hydroxy-4-methyl-2-pentanone
Ethylene glycol	Isopropanol
1-Octanol	2-Methyl-1-propanol
D(+)-2-Octanol	Methanol
1-Butanol	Ethanol
DL-2-Octanol	Mixed methanol/ethanol
Hexyl alcohol	1-Propanol

Alkanes

Morpholine
Epichlorohydrin
Heptane
Methylcyclohexane
Hexane
Cyclohexane 99.5%
Dichloromethane
1,2-Dichloropropane
1,2-Dichloroethane
Diethoxymethane

Applicable Mediums of Green Brand Explosion - proof Submersible Pump

Ethers

Petroleum ether
1-Methoxy-2-propanol
Tetrahydrofuran
tert-Butyl methyl ether
2-Ethoxyethanol
2-Methoxyethanol 99%
2-Butoxyethanol
Butyl diglycol

Oil and Fuel

Turpentine oil
Solvent-extracted oil #6
Solvent-extracted oil #120
Solvent-extracted oil #200
Wastewater with Turpentine oil
Solvent-extracted oil #1000
Diesel
gasoline
kerosene

Organic Acid

Butyric acid
Acetic acid glacial
Isobutyric acid
Methacrylic acid
Acrylic acid
Acetic acid glacial 36%
Acetic acid glacial 99%
Cyclohexane carboxylic acid

Aldehydes& Alkenes

Formaldehyde Solution
Dimethoxymethane
Allyl chloride
Sulfurized isobutylene
Styrene
1,1-Dichloroethylene 99.9%

Ketones

2-Butanone
Cyclohexanone
Acetone

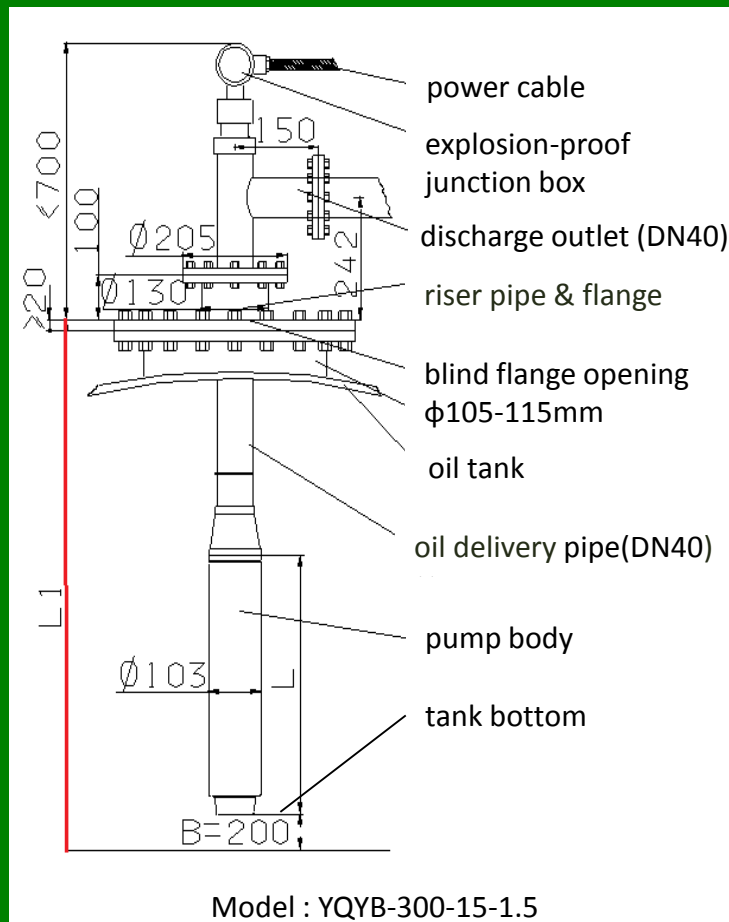
Others

Wastewater
Urea
Pyridine
Phenylmercury acetate
Hydrazine hydrate
Thionyl chloride
1,3-Dioxolane

Installation Diagram of Green Brand Explosion- proof Submersibl -e Pump

Parameters of the pumps could be customized to perfectly match individual duty needs

- Discharge outlet diameter ranges from 40mm to 100mm;
- Outer diameter of the unitized motor and pump ranges from 103mm to 185mm
- L1(indicated in the right picture) ranges from 3m-6m.



ESP Installation Requirements

- The thickness of the manhole cover should be greater than or equal to 20mm.
- A level gauge must be set and interlocked with the ESP. Otherwise, as the liquid level is too low, the cooling system would fail. The motor would be damaged with the high temperature rise.
- A motor protector should be installed in the control box.



***Stainless
Steel
Explosion-proof
Submersible
Pump***



Stainless Steel Explosion- proof Submersi- ble Pump



Standard ESP for Petrol Station



**High
Flow
Submersi-
ble
Pump**



Loading Arm Submersi- ble Pump



High Lift Submersi- ble Pump



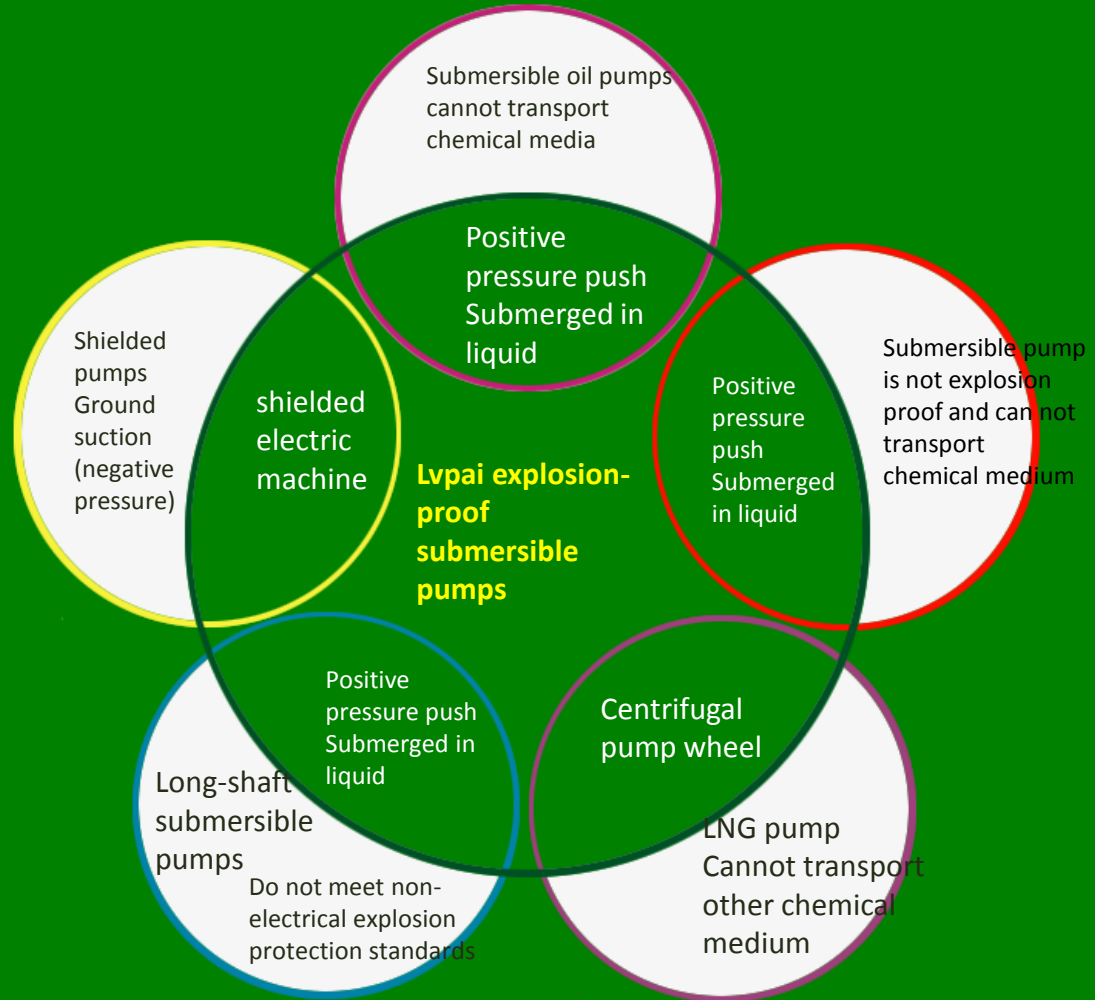
Customer List (displayed with the authorization of clients)

Company Name	Materials conveyed	Company Name	Materials conveyed	Company Name	Materials conveyed
Sinopec Shanxi Province Branch Province-wide Oil Depot (Station)	Methanol	Changchun Hongzhan Mechanical and Electrical Equipment Co.	Ethanol	Huangshan Pharmaceutical Co.	Ethyl alcohol, acetone
Xinjiang Xinyang Cast Iron Machinery Manufacturing Company	Methanol	Tianjin Huirong Petroleum Co.	Ethanol	Guizhou Yulong Ruixing Technology Co.	Aviation washing gasoline
Taiyuan Renewable Energy Heat Supply Co.	Methanol	Shenyang Industrial Installation Engineering Co.	Ethanol	Baoding Lekai Design Institute Co.	90% water and paraffin oil
Shaanxi Shenglong Petrochemical Co.	Methanol	Zhejiang Wenbro Machinery Valve Industry Co.	Ethanol	Chongqing Bai Tao Chemical Co.	Benzene, toluene, xylene
Queen's Park Oil Depot, Taiyuan, Shanxi Province	Methanol	Sinochem (Zhoushan) Xinghai Construction Co.	Ethanol	Jilin Changbaishan Packaging Material Co.	Methanol, alkanes, hydrocarbons
Datong City, Shanxi Province Gudian Oil Depot	Methanol	Shandong Buchang Pharmaceutical Co.	Ethanol	Hebei Xulong Chemical Co.	Hydrotoluene, toluene methanol
Ningxia Zhongning Ningxin Industrial Co.	Methanol	Shandong Aobo Biotechnology Co.	Ethanol	Tianjin Daga Chemical Co.	Methyl salicylate, benzyl alcohol
Jiangsu Zhongjian Engineering Design and Research Institute Ningxia Branch	Methanol	Guangxi Wuzhou San Arrow Pharmaceutical Co.	Ethanol	Liaoning Panjin Huacheng Pharmaceutical Co.	Ethanol, acetone, petroleum ether
Jiexiu City Jie Guang Materials Trading Co.	Methanol	Hunan Chenzhou Sanjiu Pharmaceutical Co.	Ethanol	Hebei Darui Biotechnology Co.	Ethyl acetate, 100% methanol
Road city net clean fuel alcohol oil business department	Methanol	Anhui Shihua Engineering Technology Co.	Ethanol	Xiamen Fulong Industry & Trade Co.	Ethyl acetate, propylene glycol methyl ether
Yantai Dachantek Machinery Co.	Methanol	Jinhua Lijiajia Biological Engineering Co.	Ethanol	Ruida Nanyang Mechanical & Electrical Co.	Mixture of methanol, oil and water
Henan Hengrunchang Environmental Protection Technology Co.	Methanol	Xinjiang Bechi Petroleum Technology Development Co.	Ethanol	Hunan Songyuan Biotechnology Co.	Turpentine, 10% turpentine and water
Ulanqab Jining Changsheng Gas Co.	Toluene	Shuangzheng Pharmaceutical	Ethanol	China Air Separation Engineering Co.	Methanol, ethyl acetate, xylene
Yantai Bai Heat Treatment Technology Co.	Toluene	Shanxi Yinyan Group Guccio Gaosheng Coking Co.	Crude benzene	Jingzhou Noah Chemical Co.	Propylene meth, xylene, dioxane
Xinjiang Qiangrun Paint Co.	Toluene	Hebei Desong Biotechnology Co.	Acetone	Jiangsu Delachem Biotechnology Co.	Ethanol, ethyl ethyl acetate . 6# Solvent oil
Hebei Yongle Tape Co.	Toluene	Jining Sunshine Coal Chemical Co.	Acetone	Weihai Jiamei Chemical Co.	Butyl acetate, xylene, n-butanol
Qitaihe Longfa Chemical Bio-Oil Company	Blending agents	Shenyang Shenyl Specialty Coatings Co.	Xylene	Anhui Qiangbang Printing Materials Co.	Butanone, propylene glycol methyl ether, ethylene glycol ethyl ether
Jinzhou Anfu High Energy Cutting Gas Co.	Additives	Zhuhai Yida Industrial Co.	Diethylene glycol	Xiamen Qinghe Chemical Co.	Ethyl acetate, isopropanol, toluene ethanol
Anhui Youke New Material Technology Co.	Styrene	Yongjia Taian Oil Supply Co.	Solvent oil	Xiangyang Jinda Fine Chemical Co.	o-xylene, methanol, ethanol, isopropyl fermentation_.
Qitaihe Longfa Chemical Bio-oil Company	Blending agent	Shenzhen Xinyuan Materials Co.	Dichloromethane	Sichuan Yongshengwang Construction Engineering Co.	Ethyl acetate, isopropyl alcohol, butanol, n-propanol
Jinzhou Anburn High Energy Cutting Gas Co.	Additives	Shenyang Fourth Rubber Co.	Ethyl acetate	Inner Mongolia Dongwuqi North China Oilfield Al Union Station	Condensate (use environment: alpine minus 40 degrees)
Anhui Youke New Material Technology Co.	Styrene	Jiangsu Han Huang Installation Engineering Co.	Ethyl acetate	Xiamen Fulong Industry and Trade Co.	Ethyl acetate, n-propyl alcohol, isopropyl alcohol, propanediol
Jiangsu Chaoli Building Materials Technology Co.	Acrylic acid	Dalian Huayang Ensai Co.	Dichloromethane	Chongqing Huatie Logistics Co.	Xylene, toluene, methanol, ethanol solvent oil, gasoline
Anhui Jiren Pharmaceutical Co.	Medical ethanol	Yantai Baitai Heat Treatment Technology Co.	Methanol	Shanxi Yingkun Technology Co.	95% ethanol, anhydrous ethanol, ethyl acetate. n-propyl acetate
Changshu Chunlai Machinery Co.	Medical ethanol	Jiangsu Han Huang Installation Engineering Co.	Ethyl poly-Z acid	Anhui Qingke Ruijie New Materials Co.	Dimethylformamide, methanol, ethanol, monomethylamine, nitrobenzene

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Taiyuan Renewable Energy Heat Supply Co.	Methanol	Shenyang Industrial Installation Engineering Co.	Ethanol	Baoding Lekai Design Institute Co.	90% water and paraffin oil
Shaanxi Shenglong Petrochemical Co.	Methanol	Zhejiang Wenbro Machinery Valve Industry Co.	Ethanol	Chongqing Bai Tao Chemical Co.	Benzene, toluene, xylene
Queen's Park Oil Depot, Taiyuan, Shanxi Province	Methanol	Sinochem (Zhoushan) Xinghai Construction Co.	Ethanol	Jilin Changbaishan Packaging Material Co.	Methanol, alkanes, hydrocarbons .
Datong City, Shanxi Province Gudian Oil Depot	Methanol	Shandong Buchang Pharmaceutical Co.	Ethanol	Hebei Xulong Chemical Co.	Hydrotoluene, toluene methanol
Ningxia Zhongning Ningxin Industrial Co.	Methanol	Shandong Aobo Biotechnology Co.	Ethanol	Tianjin Daga Chemical Co.	Methyl salicylate, benzyl alcohol
Jiangsu Zhongjian Engineering Design and Research Institute Ningxia Branch	Methanol	Guangxi Wuzhou San Arrow Pharmaceutical Co.	Ethanol	Liaoning Panjin Huacheng Pharmaceutical Co.	Ethanol, acetone, petroleum ether
Jiexiu City Jie Guang Materials Trading Co.	Methanol	Hunan Chenzhou Sanjiu Pharmaceutical Co.	Ethanol	Hebei Darui Biotechnology Co.	Ethyl acetate, 100% methanol
Road city net clean fuel alcohol oil business department	Methanol	Anhui Shihua Engineering Technology Co.	Ethanol	Xiamen Fulong Industry & Trade Co.	Ethyl acetate, propylene glycol methyl ether
Yantai Dachantek Machinery Co.	Methanol	Jinhua Lijiajie Biological Engineering Co.	Ethanol	Ruida Nanyang Mechanical & Electrical Co.	Mixture of methanol, oil and water
Henan Hengrunchang Environmental Protection Technology Co.	Methanol	Xinjiang Bechi Petroleum Technology Development Co.	Ethanol	Hunan Songyuan Biotechnology Co.	Turpentine, 10% turpentine and water
Ulanqab Jining Changsheng Gas Co.	Toluene	Shuangzheng Pharmaceutical	Ethanol	China Air Separation Engineering Co.	Methanol, ethyl acetate, xylene
Yantai Bai Heat Treatment Technology Co.	Toluene	Shanxi Yinyan Group Guccio Gaosheng Coking Co.	Crude benzene	Jingzhou Noah Chemical Co.	Propylene meth, xylene, dioxane
Xinjiang Qiangrun Paint Co.	Toluene	Hebei Desong Biotechnology Co.	Acetone	Jiangsu Delachem Biotechnology Co.	Ethanol, ethyl ethyl acetate . 6# Solvent oil
Hebei Yongle Tape Co.	Toluene	Jining Sunshine Coal Chemical Co.	Acetone	Weiwei Jiamei Chemical Co.	Butyl acetate, xylene, n-butanol
Qitaihe Longfa Chemical Bio-Oil Company	Blending agents	Shenyang Shenli Specialty Coatings Co.	Xylene	Anhui Qiangbang Printing Materials Co.	Butanone, propylene glycol methyl ether, ethylene glycol ethyl ether
Jinzhou Anfu High Energy Cutting Gas Co.	Additives	Zhuhai Yida Industrial Co.	Diethylene glycol	Xiamen Qinghe Chemical Co.	Ethyl acetate, isopropanol, toluene, ethanol
Anhui Youke New Material Technology Co.	Styrene	Yongjia Taian Oil Supply Co.	Solvent oil	Xiangyang Jinda Fine Chemical Co.	o-xylene, methanol, ethanol, isopropyl fermentation .
Qitaihe Longfa Chemical Bio-oil Company	Blending agent	Shenzhen Xinyuan Materials Co.	Dichloromethane	Sichuan Yongshengwang Construction Engineering Co.	Ethyl acetate, isopropyl alcohol, butanol, n-propanol
Jinzhou Anburn High Energy Cutting Gas Co.	Additives	Shenyang Fourth Rubber Co.	Ethyl acetate	Inner Mongolia Dongwuqi North China Oilfield AI Union Station	Condensate (use environment: alpine minus 40 degrees)
Anhui Youke New Material Technology Co.	Styrene	Jiangsu Han Huang Installation Engineering Co.	Ethyl acetate	Xiamen Fulong Industry and Trade Co.	Ethyl acetate, n-propyl alcohol, isopropyl alcohol, propanediol
Jiangsu Chaoli Building Materials Technology Co.	Acrylic acid	Dalian Huayang Ensay Co.	Dichloromethane	Chongqing Huatie Logistics Co.	Xylene, toluene, methanol, ethanol, solvent oil, gasoline
Anhui Jiren Pharmaceutical Co.	Medical ethanol	Yantai Baitai Heat Treatment Technology Co.	Methanol	Shanxi Yingkun Technology Co.	95% ethanol, anhydrous ethanol, ethyl acetate. n-propyl acetate
Changshu Chunlai Machinery Co.	Medical ethanol	Jiangsu Han Huang Installation Engineering Co.	Ethyl poly-Z acid	Anhui Qingke Ruijie New Materials Co.	Dimethylformamide, methanol, ethanol, monomethylamine, nitrobenzene

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