

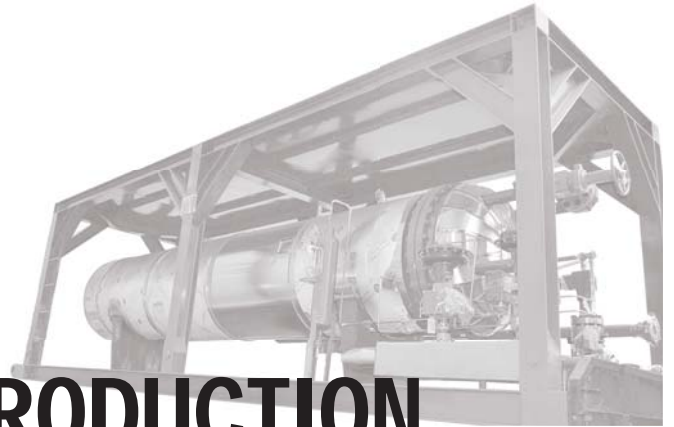


EQUIPMENT AND SERVICES FOR OIL & GAS FIELDS

EQUIPMENT AND SERVICES FOR PETROCHEMICAL, OIL & GAS SURFACE FACILITIES

**Luoyang Runcheng Petro-
chemical Equipment Co.,LTD.**
No.1, Weiliu Road,Luoyang
Industrial Park,Luoyang,Henan,
P.R. China

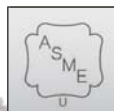
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BRIEF INTRODUCTION

Luoyang Runcheng Petrochemical Equipment Co. LTD, which is part of Luoyang Runcheng Group, focuses on professional manufacturing and supplying of high quality equipment for oil & gas, petrochemical, energy industries. Our company has four main production facilities in Luoyang city, Henan, China, which allow us to manufacture and supply wide variety of equipment for particular complex projects not only in China, but also overseas. Our team of qualified engineers and marketing specialists under leading of proper management will find suitable energy- and cost-effective solutions for particular project. Our successfully completed projects, high quality equipment and efficient services gained for us recognition from our serious customer's such as Sinopec, CNPC, PPIG, Yanchang Petroleum, Schlumberger, Rosneft, Gazprom, Perenco, Petrobras, PetroSA, IndianOil, ONGC, and many others petroleum, petrochemical and EPC companies.

We are one of the most innovative, high tech, and client-oriented companies in China. Our engineering team provides the most suitable energy-effective solutions for particular customer's requirements, climatic and working conditions, and our supply chain and marketing team ensures that offer is cost-effective and shipment is done on time strictly as per project's schedule and agreed terms.



✓ ENTERPRISE CULTURE:

- Enterprise spirit: Pioneering, innovation and continual improvement
- Enterprise quality policy: Compliance with standards and policies, Product Quality Conformance, Continuous Quality Training, Test Development, Environmentally conscience,
- Enterprise purpose: Maximum benefits at the lowest costs and risks, Business continuity, Accessible information, Information security, Technological independence, Adaptability and flexibility.

NATURAL GAS THREE-PHASE SEPARATION METERING UNIT

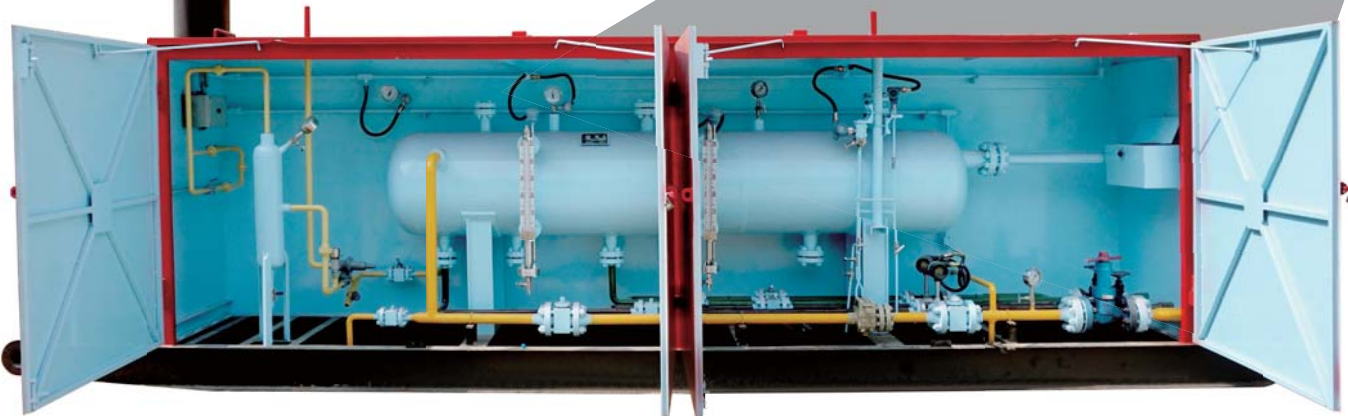
Our company produces natural gas three-phase separation metering unit as per international and domestic standards using last technology achievement and developments in oil & gas and petroleum industry. Our equipment has been developing by our R & D Department within many years and can meet any critical working medium and tough weather conditions.

As per customer's requirements our engineering team can provide technical solution for stable operation, and our manufacturing facilities provide high quality equipment with certified mechanical and electrical parts. Our engineers equip the unit with high-tech control system for easy and safe operation. We have rich references of engineering and manufacturing of this kind of equipment. After-Sales Service Department guarantees to find a solution to any cause related to our equipment, and provides necessary documentation, certificates and spare parts. As per customer's requirements we can arrange onsite supervision and training of customer's personnel.



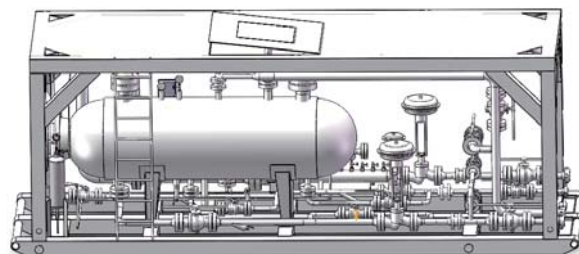
✓ MAIN TECHNICAL DATA OF OUR EQUIPMENT:

- **DESIGN PRESSURE FOR HEATING COIL IN HEATER MAX** : 32MPa (4640psi)
- **DESIGN PRESSURE MAX** : 9.8MPa (1400psi)
- **INLET PRESSURE (MAX)**: 32.0MPa (4640psi)
- **INLET TEMPERATURE** : $\geq 10^{\circ}\text{C}$ (50° F)



SULFUR- AND ACID-RESISTANT THREE-PHASE SEPARATION METERING UNIT

Our company produces Anti-sulfur and -acid three-phase separation metering unit as per international and domestic standards using last technology achievement and developments in oil & gas and petroleum industry. Our equipment has been developing by our R & D Department within many years and can meet any critical working medium and tough weather conditions. Our engineering team strictly designs equipment with minimum risks to the personnel and environment of particular region. Manufacturing facilities allow producing equipment with high precision with consideration to every detail, and firmness of mechanical parts. Equipment is tested before it is shipped to construction site.



✓ MAIN TECHNICAL DATA OF OUR EQUIPMENT:

- **WORKING MEDIUM:** Anti-sulfur EE or anti-acid 15%
- **DESIGN PRESSURE:** 9.8MPa
- **FLOW MAX:** 1000m³/d
- **SEPARATION EFFICIENCY:** ≥90%
- **MAIN ANTI-ACID MATERIAL:** Q245R+316L
- **FLOW GAS CAPACITY MAX:** 120 × 10⁴Nm³/d



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STEAM HEAT-EXCHANGER

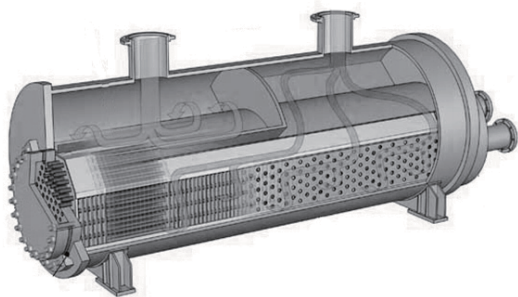
✓ INTRODUCTION

The steam heat exchanger is directly heat to the coil pipes by steam from the steam generator. The heat exchange efficiency of this method is higher than the indirect heating furnace, and low heat consumption. The coil pipes are divided into upstream and downstream. The middle part is provided with adjustable nozzle. The adjustable nozzle reduce the flow rate when through the downstream coil pipe. So as to carry out more heat exchange.



✓ ADVANTAGE

- Steam inlet installed a temperature control system, according to the temperature of the heated fluid to determine how much of the steam supply.
- Steam outlet installed a mist catcher, only liquid water is allowed to reach the goal of maximum energy saving.
- The steam heat exchanger is equipped with double safety system which is the spring safety valve and rupture disk on the top of the vessel. They connect to the discharge nozzle by the safety release line.



✓ MAIN TECHNICAL DATA OF OUR EQUIPMENT:

- **WORKING ENVIRONMENT**: Anti-sulfur EE or anti-acid 15%
- **PRESSURE LEVEL**: 35MPa
- **CONNECTION MODE**: 3"fig 602union
- **COIL PIPE MATERIAL**: 20G(Heating coil pipe)Anti-sulfur EE, 20G+316L (Heating coil pipe) anti-acid 15%

BUFFER VESSEL

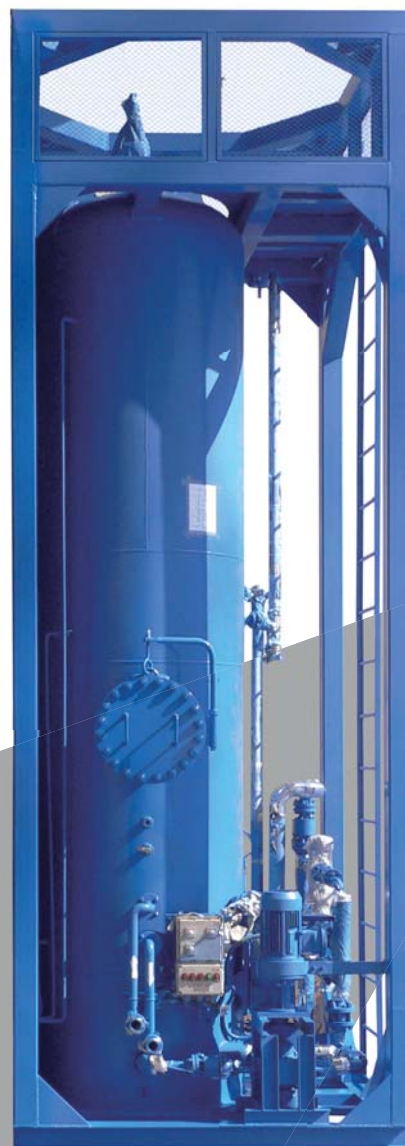
Buffer vessel is one of the often supplied equipment of our company. Engineering and manufacturing facilities of our company provide high quality buffer vessels with separation and high precision metering functionalities. Our buffer vessel is equipped with all necessary mechanical and electrical parts ensuring easy and safe operation. Scope of supply consists of vessel, indicators, alarm systems, pressure control valves, frame and other parts that necessary to fulfill project requirements.

✓ MAIN TECHNICAL DATA OF OUR EQUIPMENT:

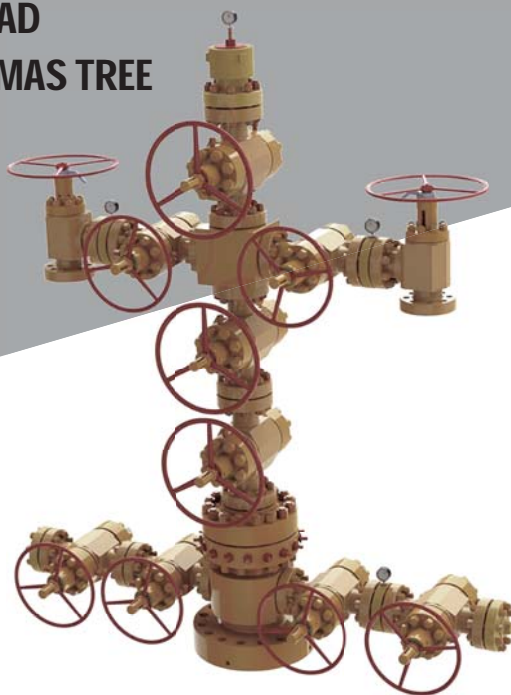
- **CAPACITY (M³):** 2x50 (16)
- **WORKING PRESSURE (BAR):** 3.5–10.3
- **DESIGN TEMPERATURE (°C):** -29 ... 38 / -41...+21

As per customer's requirements our engineering team can provide technical solution for stable operation, and our manufacturing facilities provide high quality equipment with certified mechanical and electrical parts. Our engineers equip the unit with high-tech control system for easy and safe operation. We have rich references of engineering and manufacturing of this kind of equipment.

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WELLHEAD CHRISTMAS TREE

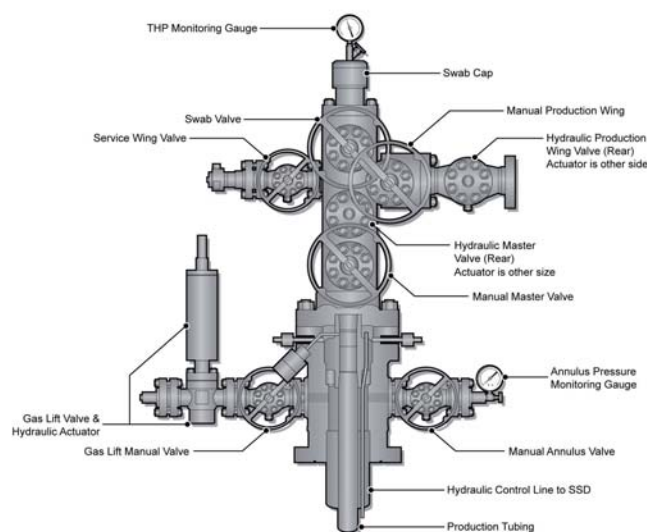


Our company is one of the leading manufacturers of wellhead christmas trees for oilwells. Our last R & D Department's achievements and manufacturing facilities provide high reliable and durable equipment for controlling high pressure oil wells. Shut-off and control parts are made of high quality certified parts, and allow personnel easily and safe operate onsite. Equipment is strictly tested before shipment and provided with necessary certificates and test results.



✓ MAIN TECHNICAL DATA OF OUR EQUIPMENT:

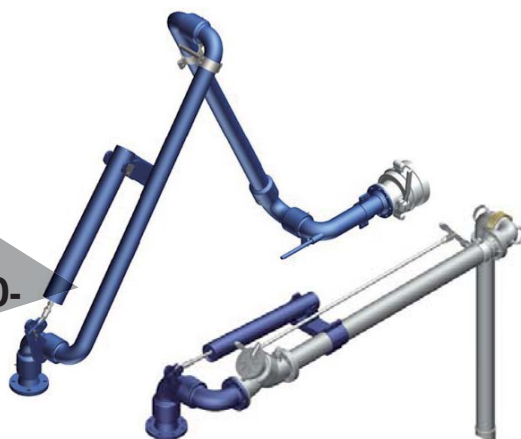
- **WORKING TEMPERATURE:** -46° C ~ 121° C (LU CLASS)
- **WORKING PRESSURE:** 2000~200000psi
- **NOMINAL DIAMETER:** 65~180 mm
- **BYPASS DIAMETER:** 46~103 mm
- **OIL PIPE DIAMETER:** 48.3~114.3 mm
- **MATERIAL:** AA BB CC DDEE FF
- **WORKING MEDIUM:** oil, gas, mud ,gas with H₂S , CO₂
- **PSL:** PSL1~4
- **PR:** PR1~2



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PETROCHEMICAL PRODUCTS LOADING UNITS

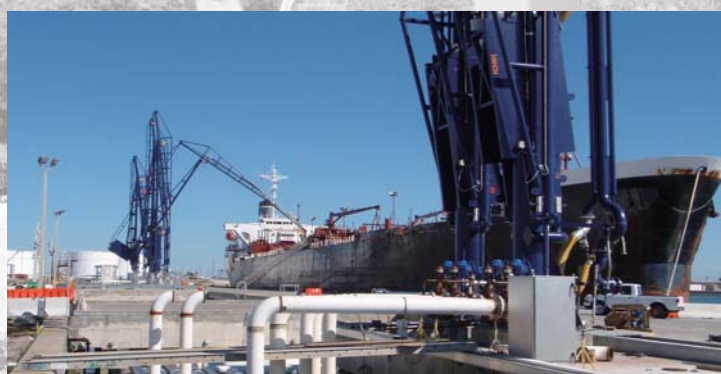
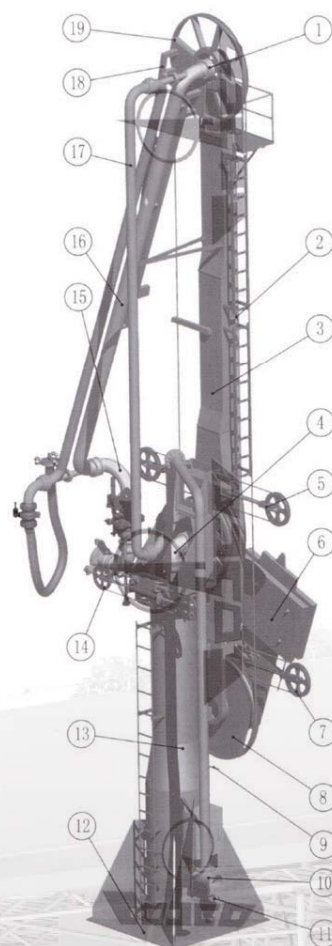


Our reliable petrochemical products loading units are widely used in many oil & gas, petrochemical plants and stations not only in China, but also in overseas. Engineering team of our company, which specializes in pumping, loading controlling flow of wide variety petrochemical equipment, is able to find energy efficient and optimal solutions for particular customer's conditions. Our high reliable pumping and loading systems ensure stable flow, and control and measure systems allow you to control every loading of petrochemical products into oil tanker, oil-truck and other means of petrochemical products freight. We use high reliable electrical and control parts which are certified in many countries. Our technical team can provide software in particular foreign language for easy operation and control.

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- (1) Apex Swivel joint
- (2) Inboard Arm
- (3) Inboard Arm Support
- (4) Removable Elbow
- (5) Inboard Arm Drive
- (6) Counterweight
- (7) Outboard Arm Drive
- (8) Cable Sheave
- (9) Locking Device
- (10) Connection Flange
- (11) Drain Inlet
- (12) Base plate
- (13) Riser
- (14) Slewing Drive
- (15) Triple Swivel Assembly
- (16) Outboard Arm
- (17) Vapor Recovery Line
- (18) Outboard Arm support
- (19) Apex Sheave



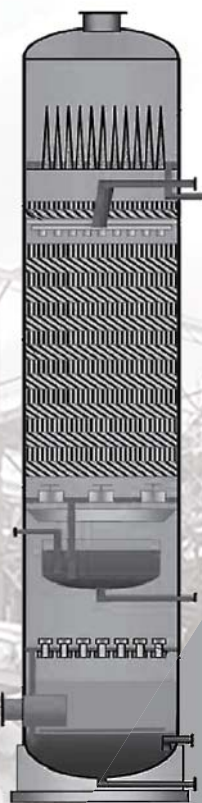
ABSORPTION COLUMN (ABSORBER) DESORPTION COLUMN (DESORBER)

Our company's absorption and desorption column are widely used in various complexity oil & gas and petrochemical plants. This equipment is highly important for achieving stable process of gas purification. Our engineering team is able to design process and equipment to fully comply with project requirements. Our manufacturing facilities with high-tech production equipment and quality control system produce equipment with high precision as per international and domestic standards. Structure, inner and outer parts of equipment are produced with certified materials in order to increase product's durability and production efficiency, structure is made for easy and safe operation and maintenance with minimum risks to the environment.



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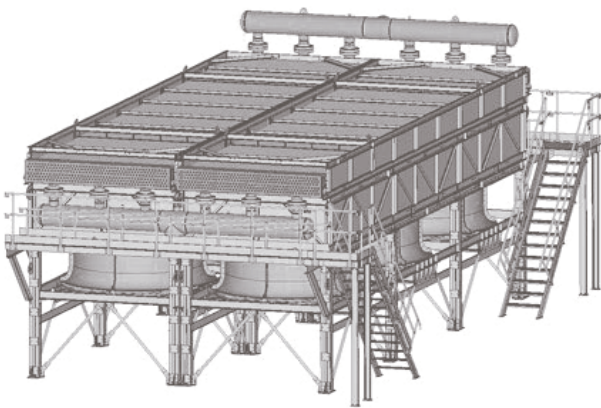
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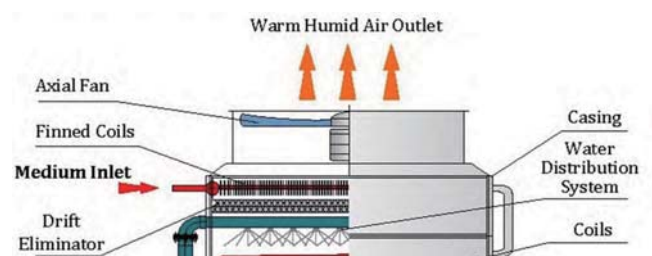
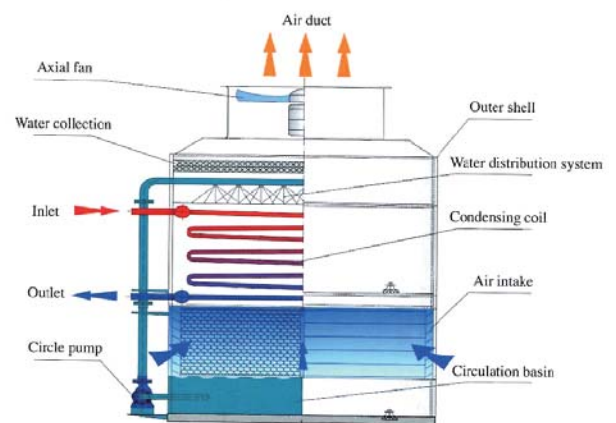
MAIN TECHNICAL DATA OF OUR EQUIPMENT:

- **PRESSURE LOSS:** 300~700 Pa
- **GAS VELOCITY:** 0.5 ~ 1.2m / s
- **SPRAY DENSITY:** 6 ~ 8m³ / (m².h)

AIR COOLING UNITS FOR PETROCHEMICAL, OIL & GAS INDUSTRIES



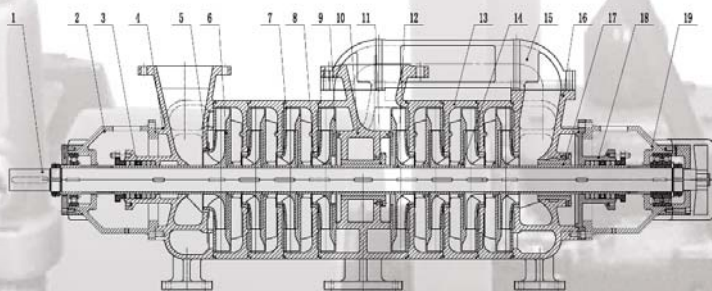
Our air cooling units for petrochemical, oil & gas industries fulfill particular project's requirements, and ensure stable cooling of process flow. Engineering Department of company provides suitable for particular project equipment with proper design, structure, mechanical and electrical parts. We can provide different cooling solutions for different and critical working conditions. High quality inner parts ensure durability of equipment; proper structure and process design allow reaching needed cooling grade of particular working medium. Before shipment all mechanical and electrical parts are tested, and enclosed necessary instruction and certifications. After-Sales Service Department guarantees to find a solution to any cause related to our equipment, and provides necessary documentation, certificates and spare parts. As per customer's requirements we can arrange onsite supervision and training of customer's personnel.



SPECIAL PUMPING UNITS FOR PETROCHEMICAL, OIL & GAS INDUSTRIES



Our high quality pumping units for petrochemical, oil & gas industries can meet requirements of particular project and working conditions. Our pumping units with reliable certified electrical and control parts work under special high pressure and high temperature conditions. Explosion proof parts allow safe operation and maintenance. High quality inner and outer materials as per domestic and international standards, such as API, NACE, ANSI, DIN, GB increase durability of equipment, and guarantee long-term operation and maintenance. Our pumping units are tested before they are shipped to a customer for installation and operation. After-Sales Service Department guarantees to find a solution to any cause related to our equipment, and provides necessary documentation, certificates and spare parts. As per customer's requirements we can arrange onsite supervision and training of customer's personnel. With us your project's flow is under control.



- | | | |
|-------------------------|------------------------------|-----------------------------|
| 1. Axis | 9. Final guide vanes | 16. Secondary water section |
| 2. Drive bearing parts | 10. Effluent section | 17. Sub-throttle device |
| 3. Filling device | 11. Middle throttling device | 18. End cover |
| 4. Inhalation section | 12. Impeller | 19. Non-drive bearing parts |
| 5. First mouth ring | 13. Mid section | |
| 6. The first impeller | 14. Guiding vane tube | |
| 7. Guide leaf | 15. Transition pipe | |
| 8. Secondary mouth ring | | |

HIGH PRESSURE ANTI SULFUR DESANDER

✓ INTRODUCTION

High pressure anti sulfur desander successful development is according to the principle of foreign filtering desander. And combined with the actual situation of domestic oil field, using a new type of anti sulfur acid materials. It is a new high pressure desander with anti sulfur and acid.

This device not only have same effect device as foreign import, but also anti sulfur and acid. Suitable for desanding in the high pressure, high yield, acid oil and gas well. Can effectively desand the sand fracturing, sand stratum, shot pierced shells, other harmful solid debris, clay, heavy oil and so on which Impact of surface transport, testing, measurement.

✓ WORKING PRINCIPLE

- **MAXIMUM WORKING PRESSURE:** 70MPa/ 105MPa
- **MAXIMUM WORKING TEMPERATURE OF FLUID:** -120 °C
- **AMBIENT TEMPERATURE :** -40 -70 °C
- **LOWEST TEMPERATURE DEVICES STORAGE:** -50 °C
- **WORKING MEDIUM:** OIL, GAS, WATER
- **DESANDING CYLINDER MAXIMUM DIAMETER:** Φ210mm
- **IMPORT AND EXPORT SIZE :** 2-9/16"
- **DESANDING CYLINDER VOLUME:** ≥46L
- **NATURAL GAS PROCESSING CAPACITY :** 150,0000NM³ /D
- **ANTI - SULFUR GRADE:** 10%

1. High efficient wellhead desanding equipment
2. Anti-sulfur and anti-acid
3. Dismountable screens
4. Pneumatic hinge for screen lifting
5. High-strength skid with crash frame for protection
6. Have hanging points and noose
7. Hard-surface brake valve and valve seat, anti-erosion tee joint for erosion protection
8. Upstream solids removal and protection of downstream equipment
9. Custom-made is available



| Working environment | Anti-sulfur(EE) | | |
|------------------------------|--------------------------|------------------|------------------|
| Rated operating pressure | 10000psi(70Mpa) | 15000psi(100Mpa) | 20000psi(140Mpa) |
| Operating temperature | -29~121℃ | | |
| Working medium | Oil, gas, water and sand | | |
| Max. diameter of pots | Ø210mm | Ø203mm | Ø196mm |
| Inlet/outlet size | 3-1/16" | | |
| The volume of pots | ≥46L | ≥43L | ≥439L |
| The min. storage temperature | -50℃ | | |
| Anti-sulfur grade | 10% | | |

RUN CHENG GROUP STRUCTURE



RUNCHENG GROUP

LUOYANG RUNCHENG
PETROCHEMICAL EQUIPMENT CO. LTD
4 EQUIPMENT PRODUCTION & TEST FACILITIES

FACTORY 1

FACTORY 2

FACTORY 3

FACTORY 4

HK HUICHUAN INTERNATIONAL
PETROLEUM EQUIPMENT CO. LTD

CHINA MIDDLE EAST OPERATING COMPANY

CERTIFICATES



RUN CHENG GROUP

REFERENCES



PetroSA



ROSNEFT



IndianOil

Schlumberger



YANCHANG PETROLEUM



CNPC

PERENCO



PETROBRAS

ओएनजीसी



ONGC



SINOPEC

LUOYANG RUNCHENG GROUP

WWW.LYRCPE.COM



WITH HOPE OF MUTUALLY BENEFICIAL COOPERATION !



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