

Non-standard Custom Natural Gas Refrigerated Air Dryer

Explosion-Proof Gas Dryer











Product Description

As a professional manufacturer specializing in refrigerated air dryers and desiccant air dryers, Demargo (Shanghai) Energy-Saving Technology Co., Ltd is dedicated to providing high-quality, non-standard customized natural gas refrigerated air dryer solutions that precisely meet your specific industrial needs. Our natural gas refrigerated air dryers are specially designed to remove moisture, impurities and harmful components (such as sulfur compounds, carbon dioxide) from natural gas, ensuring the purity, stability and safety of natural gas during extraction, transportation, storage and utilization, while fully complying with international standards such as CE, ISO 9001 and ASME.

Applicable Industries

Our non-standard custom natural gas refrigerated air dryers are widely used in various industries related to natural gas extraction, purification, transportation and utilization, including but not limited to:

- Oil & Gas Industry: Suitable for natural gas drying in oilfield gas extraction, natural gas pipelines, gas processing plants and LNG (liquefied natural gas) projects, preventing pipeline corrosion and ice blockage.
- Power Generation Industry: Used in natural gas drying for gas-fired power plants, ensuring efficient combustion and stable

operation of power generation equipment, reducing equipment wear and maintenance costs.

- Urban Gas Industry: Applied in natural gas drying for urban gas supply systems, residential and commercial gas stations, ensuring the safety and quality of gas used by end users.
- Petrochemical Industry: For natural gas drying in chemical synthesis, methanol production and ethylene projects, complying with strict purity requirements of industrial production.
- Mining Industry: Used in natural gas drying for coalbed methane extraction, coal mine gas utilization and shale gas development projects, adapting to harsh on-site working conditions.
- Marine Industry: Suitable for natural gas drying on LNG ships, offshore gas platforms and marine gas supply systems, with excellent anti-corrosion and anti-vibration performance.

Customization Process: What You Provide, We Customize

Adhering to a customer-oriented customization concept, you only need to provide us with the following key parameters. Our professional R&D and engineering team with rich experience in natural gas treatment equipment will design and configure the most suitable natural gas refrigerated air dryer for you, ensuring perfect integration with your natural gas system:

- Natural gas handling capacity (Nm³/min or CFM), inlet pressure and inlet temperature.
- Required pressure dew point (from 2°C to -60°C, or lower according to your special requirements, to avoid ice blockage in low-temperature environments).
- Natural gas composition (methane content, moisture content, impurity content such as sulfur compounds, carbon dioxide, nitrogen).
- Working environment conditions (ambient temperature, humidity, installation space, corrosion level, anti-vibration requirements and other special needs).
- Special industry standards or certification requirements (such as CE, ASME, API, ISO and relevant natural gas safety certifications).
- Other special needs (such as cooling method, control system type, pipeline interface size, installation mode and remote monitoring requirements).

Optional Materials & Accessories

To ensure the durability, corrosion resistance, high efficiency and safety of the equipment, we select high-quality materials and accessories that meet international natural gas industry standards, supporting you to choose flexibly according to your on-site environment, industry characteristics and budget:

Optional Materials

- Body Material: Carbon steel with anti-corrosion coating (standard), 304/316L stainless steel (for corrosive natural gas environment with high sulfur content), corrosion-resistant alloy steel (for high-pressure and offshore environments).
- Heat Exchanger Material: Stainless steel plate-fin (standard, corrosion-resistant and high heat exchange efficiency), copper-nickel alloy (for marine and high-corrosion environments), titanium alloy (for strong corrosive and high-purity natural gas scenarios).
- Pipeline Material: 304/316L stainless steel pipe, seamless steel pipe, corrosion-resistant alloy steel pipe (according to natural gas pressure, corrosiveness and working environment requirements).

Optional Accessories

- Compressor: Bitzer, Hitachi, Danfoss (international famous brands, high reliability, energy efficiency and stable performance, suitable for long-term continuous operation in harsh environments).
- Control System: PLC control (Siemens, Mitsubishi), touch screen operation, remote monitoring, fault alarm and automatic shutdown function (optional), realizing intelligent operation and easy maintenance.
- Refrigerant: Environmentally friendly refrigerant such as R134a, R407c, R410a (zero ozone depletion potential, non-toxic, complying with international environmental and safety standards, suitable for natural gas drying scenarios).

- **Auxiliary Accessories:** Dew point analyzer (real-time monitoring of gas moisture), automatic non-clogging drain valve, precision filter (to further improve natural gas purity), sulfur compound filter, pressure regulator.
- **Cooling System:** Air-cooled (standard, easy to install and maintain), water-cooled (optional, suitable for high ambient temperature and large-scale natural gas drying projects), offshore special cooling system (for marine and offshore platforms).
- **Safety Accessories:** Pressure relief valve, natural gas leakage detector, over-temperature and over-pressure protection device, flame arrester, emergency shutdown system (comprehensively ensuring equipment and on-site safety).

Our Advantages

With years of experience in R&D and production of compressed air treatment equipment and natural gas drying equipment, we have a professional technical team familiar with natural gas treatment technology and international industry standards, as well as a strict quality control system. All customized natural gas refrigerated air dryers undergo 48-hour full-load performance testing before leaving the factory, ensuring stable performance, reliable operation and compliance with relevant standards. We also provide 24-hour technical support, on-site installation guidance and after-sales service to solve your problems in a timely manner.

For more specific details about non-standard custom natural gas refrigerated air dryers, including customized solutions, technical parameters, quotation and delivery time, please contact us directly. We will provide you with one-to-one professional consultation and customized services to meet your unique natural gas drying needs.

Demargo (Shanghai) Energy Saving Technology Co., Ltd.

Demargo (Shanghai) Energy-Saving Technology Co., Ltd. is a national high-tech enterprise and a Shanghai "Specialized, Refined, Characteristic and Innovative" enterprise, devoting itself to the R&D, production, sales and after-sales service of compressed air purification equipment for 19 years. With a firm commitment to energy conservation, environmental protection and technological innovation, we have grown into a leading manufacturer in the air compression post-treatment industry, providing high-quality, customized solutions for global industrial customers.

Our core strength lies in strong technological research and development capabilities. Up to now, we have owned 24 authorized patents and 22 patents under application, covering key technologies of air drying and purification equipment, which effectively guarantees the stability and energy efficiency of our products. We have passed ISO9001 and QS certifications, and our products comply with international industrial standards, with dew point ranging from -23°C to -70°C, air treatment capacity of 1~500Nm³/min, and outlet oil content as low as 0.003PPM, reaching the industry-leading precision level.

We boast a comprehensive and diverse product portfolio, covering more than 60 product categories, including 21 standard products and a variety of non-standard customized products that lead the industry. Our main products include air compressors and their accessories, air receivers, refrigerated dryers (including plate heat exchanger type, high-temperature air-cooled type, DC inverter type, etc.), adsorption dryers, combined dryers, heat of compression adsorption dryers, filters, zero-air-consumption blower-heated dryers, self-cleaning air filters, compressed air pre-cooling units, low-temperature high-pressure nitrogen pre-cooling units, industrial chillers, oil-water separators, oil removers and aftercoolers, etc.. We support 12 types of product configurations such as air-cooled/water-cooled, fluorine-free/high-temperature, inverter/explosion-proof, and can provide intelligent solutions such as industrial computer and programmable control according to customer needs.

With excellent product quality and professional service, we have won wide recognition in the global market. Our customers are distributed in more than 20 countries and regions around the world, including Brazil, Australia, etc., and we have established in-depth cooperation with more than 20 OEM manufacturers and 2299 brand agents. Our annual output reaches 9,682 sets, and the cumulative sales volume exceeds 100,000 sets, which fully demonstrates the market influence and

customer trust in our brand.

Customer-centricity is our consistent service philosophy. We provide a full-cycle service system from pre-sales design, in-sales installation to after-sales maintenance: we promise 30-minute response, 24-hour online guidance and 48-hour on-site service, and ensure spare parts supply response within 24 hours, effectively solving the worries of customers in product use. We are committed to tailoring the most suitable compressed air purification solutions for customers in more than 30 industries such as power, aerospace, electronics, and chemical industry, helping enterprises reduce energy consumption, improve production efficiency and product quality.

Looking forward to the future, Demargo will continue to increase R&D investment, accelerate technological innovation, expand the global market layout, and strive to become a world-class provider of compressed air purification and energy-saving solutions. We sincerely look forward to cooperating with partners from all over the world to jointly promote the development of the global industrial energy-saving and environmental protection industry!

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