

Non-standard Custom Biogas Refrigerated Air Dryer

Explosion-Proof Air 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 biogas refrigerated air dryer solutions that precisely meet your specific industrial needs. Our biogas refrigerated air dryers are specially designed to remove moisture, impurities and harmful components from biogas, ensuring the purity, stability and safety of biogas during utilization, while complying with international standards such as CE, ISO 9001 and ASME.

Applicable Industries

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

- **Biomass Energy Industry:** Suitable for biogas drying in biogas plants, straw gasification projects and biomass power generation, ensuring efficient combustion and power generation.
- **Waste Treatment Industry:** Used in biogas purification from municipal solid waste landfills and sewage treatment plants, realizing resource recycling and environmental protection.

- **Agricultural Industry:** Applied in biogas drying for livestock and poultry breeding farms, crop straw utilization and biogas fertilizer projects, helping agricultural green development.
- **Industrial & Mining Industry:** For biogas drying in coal mine gas recovery, food processing waste treatment and other projects, improving biogas utilization rate and safety.
- **Energy Saving & Environmental Protection Industry:** Used in biogas purification and utilization projects, contributing to low-carbon emission reduction and circular economy development.

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 will design and configure the most suitable biogas refrigerated air dryer for you, ensuring perfect integration with your biogas system:

- Biogas handling capacity (Nm³/min or CFM), inlet pressure and inlet temperature.
- Required pressure dew point (from 2°C to -40°C, or lower according to your special requirements).
- Biogas composition (methane content, hydrogen sulfide content, moisture content and other impurities).
- Working environment conditions (ambient temperature, humidity, installation space and special requirements such as explosion-proof, corrosion-proof).
- Special industry standards or certification requirements (such as CE, ASME, explosion-proof certification).
- Other special needs (such as cooling method, control system type, pipeline interface size, installation mode).

Optional Materials & Accessories

To ensure the durability, corrosion resistance, explosion-proof performance and high efficiency of the equipment, we provide a variety of high-quality optional materials and accessories, supporting you to choose flexibly according to your industry characteristics, working conditions and budget:

Optional Materials

- **Body Material:** Carbon steel (standard), 304/316L stainless steel (for corrosive biogas environment), carbon steel with anti-corrosion coating (cost-effective option).
- **Heat Exchanger Material:** Aluminum plate-fin (standard), stainless steel plate-fin (for high corrosion, high hygiene requirements), copper tube with aluminum fins (high heat exchange efficiency).
- **Pipeline Material:** Carbon steel, 304/316L stainless steel, anti-corrosion alloy steel (according to biogas corrosiveness and working pressure).

Optional Accessories

- **Compressor:** Bitzer, Hitachi, Danfoss (international famous brands, high reliability, energy efficiency and explosion-proof performance).
- **Control System:** PLC control (Siemens, Mitsubishi), touch screen operation, remote monitoring and fault alarm function (optional), easy to operate and maintain.
- **Refrigerant:** Environmentally friendly refrigerant such as R134a, R407c, R410a (zero ozone depletion potential, complying with international environmental standards).
- **Auxiliary Accessories:** Dew point analyzer, automatic non-clogging drain valve, hydrogen sulfide filter, methane concentration detector, precision filter (to further improve biogas purity), explosion-proof fan.
- **Cooling System:** Air-cooled (standard), water-cooled (optional, suitable for high ambient temperature environments).
- **Safety Accessories:** Pressure relief valve, explosion-proof device, gas leakage detector (to ensure safe operation of the equipment).

Our Advantages

With years of experience in R&D and production of compressed air treatment equipment and biogas purification equipment,

we have a professional technical team and strict quality control system. All customized biogas refrigerated air dryers undergo 48-hour full-load testing before leaving the factory to ensure stable performance, reliable operation and compliance with safety 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 biogas 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 biogas utilization needs.

Refrigerated Air Dryer & Desiccant Air Dryer - Demargo

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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