

Non-standard Custom Explosion-proof 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 explosion-proof refrigerated air dryer solutions that precisely meet your specific industrial needs. Our explosion-proof refrigerated air dryers are specially designed for flammable, explosive and hazardous environments, which can effectively remove moisture and impurities from compressed air, ensure the stability and safety of your production equipment and processes, and fully comply with international standards such as CE, ISO 9001, ASME and relevant explosion-proof certifications.

Applicable Industries

Our non-standard custom explosion-proof refrigerated air dryers are widely used in various flammable and explosive industrial environments that require dry and clean compressed air, including but not limited to:

- Petrochemical & Oil & Gas Industry: Suitable for oil refineries, natural gas stations, chemical plants and oil drilling platforms, ensuring the safe operation of air-powered equipment in explosive gas environments.
- Coal Mining Industry: Used in underground coal mines, coal processing plants and coal-fired power plants, adapting to the

flammable and explosive environment with coal dust and gas.

- **Pharmaceutical & Chemical Industry:** Applied in the production of flammable and explosive chemicals, pharmaceutical intermediates and other projects, complying with strict safety and hygiene standards.
- **Grain & Feed Industry:** For grain storage, processing and feed production workshops, preventing dust explosion and ensuring the normal operation of pneumatic conveying systems.
- **Paint & Coating Industry:** Used in paint mixing, spraying and coating workshops, avoiding fire and explosion risks caused by flammable solvent vapors.
- **Mining & Metallurgy Industry:** Suitable for non-ferrous metal smelting, mineral processing and other projects with flammable and explosive dust and gas.

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 explosion-proof equipment experience will design and configure the most suitable explosion-proof refrigerated air dryer for you, ensuring perfect integration with your production system and full compliance with on-site safety requirements:

- Compressed air handling capacity (Nm^3/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).
- Explosion-proof grade requirements (such as Ex d IIB T3, Ex ia IIC T4, etc.) and on-site hazardous area classification (Zone 1, Zone 2, etc.).
- Working environment conditions (ambient temperature, humidity, installation space, dust concentration and other special requirements).
- Special industry standards or certification requirements (such as CE, ASME, ATEX, IECEx explosion-proof certification).
- Other special needs (such as cooling method, control system type, pipeline interface size, installation mode and maintenance requirements).

Optional Materials & Accessories

To ensure the explosion-proof performance, durability, corrosion resistance and high efficiency of the equipment, we select high-quality explosion-proof materials and accessories that meet international 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 explosion-proof coating (standard), 304/316L stainless steel (for corrosive and humid explosive environments), explosion-proof alloy steel (for high-pressure and high-risk scenarios).
- **Heat Exchanger Material:** Stainless steel plate-fin (standard, explosion-proof and corrosion-resistant), copper tube with aluminum fins (high heat exchange efficiency, suitable for general explosion-proof environments), titanium alloy (for strong corrosive environments).
- **Pipeline Material:** Explosion-proof seamless steel pipe, 304/316L stainless steel pipe, anti-corrosion alloy steel pipe (according to on-site pressure and corrosiveness requirements).

Optional Accessories

- **Compressor:** Bitzer, Hitachi, Danfoss (international famous brands, explosion-proof grade compliant, high reliability and energy efficiency, suitable for hazardous environments).
- **Control System:** Explosion-proof PLC control (Siemens, Mitsubishi), explosion-proof touch screen, remote monitoring and fault alarm function (optional), all electrical components meet explosion-proof standards.
- **Refrigerant:** Environmentally friendly refrigerant such as R134a, R407c, R410a (zero ozone depletion potential, non-flammable and non-toxic, complying with international environmental and safety standards).

- Auxiliary Accessories: Explosion-proof dew point analyzer, explosion-proof automatic non-clogging drain valve, explosion-proof precision filter (further improving air purity), explosion-proof fan, explosion-proof junction box.
- Cooling System: Air-cooled (standard, explosion-proof structure), water-cooled (optional, suitable for high ambient temperature and closed explosive environments).
- Safety Accessories: Explosion-proof pressure relief valve, flame arrester, gas leakage detector, over-temperature and over-pressure protection device (comprehensively ensuring equipment and on-site safety).

Our Advantages

With years of experience in R&D and production of compressed air treatment equipment and explosion-proof equipment, we have a professional technical team familiar with international explosion-proof standards and a strict quality control system. All customized explosion-proof refrigerated air dryers undergo 48-hour full-load explosion-proof performance testing before leaving the factory, ensuring stable performance, reliable operation and full compliance with explosion-proof and 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 explosion-proof refrigerated air dryers, including customized solutions, technical parameters, explosion-proof certification, 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 safety production 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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