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Complete protection for your application

Dry and clean compressed air is essential for a broad range of industrial applications. Yet it must be produced reliably, energy-efficiently and cost-effectively. Atlas Copco's XDG series desiccant dryers protect your systems and processes. Its innovative design ensures operation with total reliability and deliver stable dewpoint in full load conditions, while consuming minimal amounts of energy.



Protecting your reputation and production

Compressed air is always saturated; when it cools, moisture condenses and can damage your air system and products. Atlas Copco desiccant dryers remove this moisture, preventing failures, downtime, and costly repairs.



Highest reliability

You can achieve pressure dew points down to $-40^{\circ}\text{C}/-40^{\circ}\text{F}$, $-70^{\circ}\text{C}/-94^{\circ}\text{F}$, or $-90^{\circ}\text{C}/-130^{\circ}\text{F}$ at full load. XDG's durable switching valves extend dryer life, while its advanced controls ensure production efficiency.



Maximum energy efficiency

Atlas Copco's XDG series desiccant dryers use heat of compression and dry air regeneration for efficient desiccant renewal. SmartCycle technology delivers extra energy savings at partial load, ensuring reliable performance in one solution.



Your partner in pure, reliable, and dry air

Dry and clean compressed air is essential for a broad range of industrial applications. From sensitive electronics to demanding pharmaceutical and food environments, our advanced XDG heat of compression technology provides dry air with minimal pressure drop and reliable performance.



Food and beverage



Pharmaceuticals



Electronics



Power generation



Chemicals

Food and beverage: Pure dry air for food safety

In food and beverage production, dry air is critical to prevent condensation, microbial growth, and contamination from ingredient handling to packaging. Without it, processes risk spoilage, reduced shelf life, and non-compliance with food safety standards. Our XDG dryers deliver dry air and ensure ultra-low dew points and zero-contamination.



Pharmaceuticals: A tight control on quality

Many materials used to produce pharmaceuticals have a physical affinity for moisture, which can cause powdered material to aggregate. Other powders that are formed into a tablet under high pressures will adhere only when in a dry state. Humidity can cause a tablet to crumble or to decompose and diminish its therapeutic value. To assure high-quality drugs, the presence of dry air in the processing area and machinery is therefore vital.

Electronics and Semiconductor Manufacturing: Unmatched Dry Air

Production of advanced electronics and semiconductors takes place in cleanroom environments where even the smallest contamination can cause defects, corrosion, or yield loss. That's why XDG is engineered to deliver Clean Dry Air (CDA) at ultra-low dew points down to -90°C , ensuring the highest level of air purity for wafer processing, printed circuit board assembly, and LCD manufacturing.



Power generation: Uninterrupted Operations with Dry Air

All types of power plants rely on compressed air to operate pneumatically controlled valves, actuators, and essential instrumentation. Even minimal moisture in the air can cause corrosion or failures, putting both productivity and safety at risk. High-quality dry air is crucial for keeping these systems running smoothly, especially during maintenance or emergency operations when reliability is non-negotiable. By ensuring dry and contaminant-free air, XDG helps power plants reduce unplanned downtime, and extend equipment life.

Chemical Production: Reliable Dry Air

In chemical manufacturing, even small amounts of humidity in compressed air can trigger unwanted reactions and lead to inconsistent product quality. Dry air is essential for applications such as reactor blanketing, pneumatic conveying of powders, and supplying instrument air, where moisture can cause corrosion, blockages, or contamination. By ensuring dry and pure air supply, chemical plants can maintain process integrity, protect sensitive equipment, and achieve safer, more efficient operations.



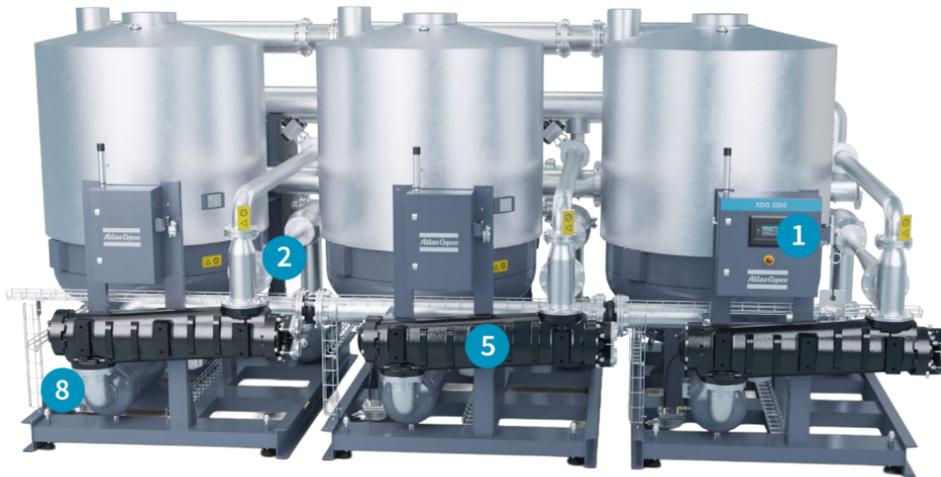
Where Reliability Drives Innovation

To ensure the success of your business, you need to guarantee consistent quality while minimizing your overheads. Our XDG dryer keeps you on track by delivering a reliable supply of clean, dry air.

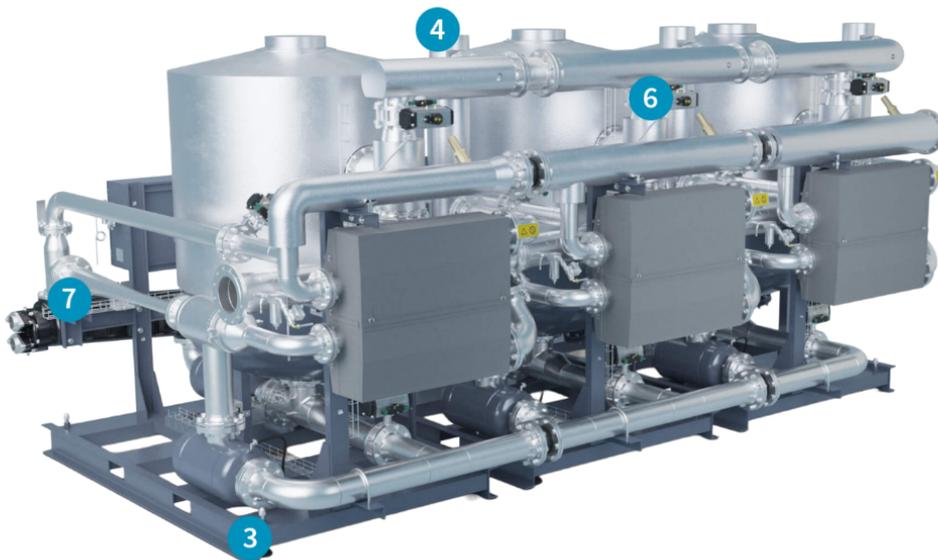


XDG 3200

FRONT VIEW



BACK VIEW



1 Advanced Elektronikon® monitoring system

- SMARTlink connectivity enables real-time remote monitoring and control, supporting proactive maintenance and reducing downtime.
- Smart Cycle technology adapts to varying loads, reducing component stress and ensuring long-term reliability.
- The control panel is housed in an IP54-rated enclosure, providing optimal protection for all electrical and monitoring components to ensure safe and reliable operation.

2 Galvanized piping

- Premium corrosion-resistant treatment delivers maximum protection in all operating conditions for long-lasting reliability.
- Self-healing scratch resistance feature preserves surface integrity and extends component life.
- High heat resistance is applied inside and out to ensure durability under extreme temperatures.



3 Skid

- Quick installation of skids ensures reliable system start-up by reducing commissioning time and minimizing downtime risks.

4 Low watt density heater

- The heater prevents hot spots, reducing thermal stress and extending component life.
- High-grade stainless steel heating elements offer superior corrosion resistance for long-term durability.
- Low pressure drop spacer and baffle plates maintain stable airflow, protecting system integrity.

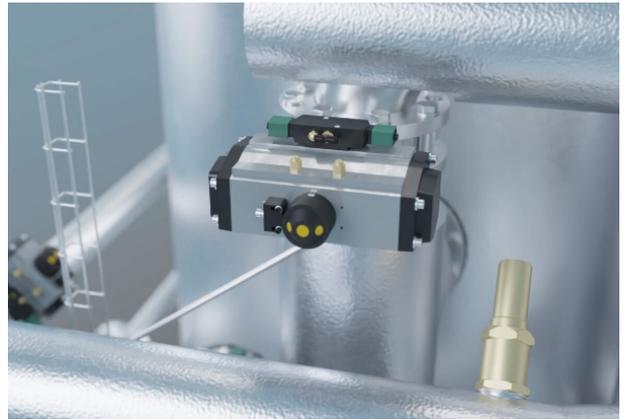


5 Water coolers

- Tube-and-shell design ensures mechanical strength and long-term durability under demanding conditions.
- Stainless steel tubes provide superior corrosion resistance, maintaining performance and preventing leaks over time.

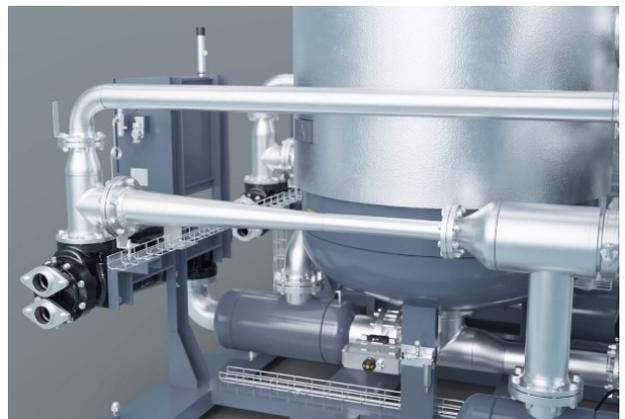
6 Butterfly valves

- Bubble-tight sealing prevents leaks, guaranteeing consistent system integrity.
- Stainless steel disc and shaft deliver superior corrosion resistance for long-lasting durability.
- High-torque pneumatic actuators provide secure, fail-safe operation under all load conditions.



7 Ejector

- Controlled vessel air speed protects the desiccant from shattering, ensuring long-term performance and durability.



8 Drain system

- In-house developed zero air-loss drains ensure reliable condensate removal without air leakage.

Superior energy efficiency

XDG desiccant dryers set the benchmark for energy efficiency. By combining heat of compression, dry air regeneration, and zero purge technology, they minimize energy use while achieving ultra-low pressure dew points down to $-90^{\circ}\text{C}/-130^{\circ}\text{F}$. SmartCycle technology further optimizes performance at partial load, reducing consumption even more. These innovations deliver significant energy savings and lower your total cost of ownership.



Energy saving components

Our engineers designed XDG with one clear goal: to maximize energy efficiency at every stage of operation. From the core design to the smallest detail, every element works together to minimize energy consumption without compromising performance. This commitment to innovation ensures that XDG delivers reliable drying with significantly lower running costs, making it the smart choice for compressed air systems.



Long-life silica gel desiccant

XDG dryers use long-life, high-adsorption silica gel desiccant that needs less energy for reactivation than conventional agents. This efficient moisture handling reduces heat demand during regeneration, lowering energy consumption and operating costs while ensuring reliable performance.



Advanced control and monitoring system

XDG's intelligent control system reduces energy use during low demand with features like night/weekend shutdown timers and dual pressure bands for lower settings. SmartCycle technology further optimizes efficiency at partial load, ensuring maximum performance with minimal waste.



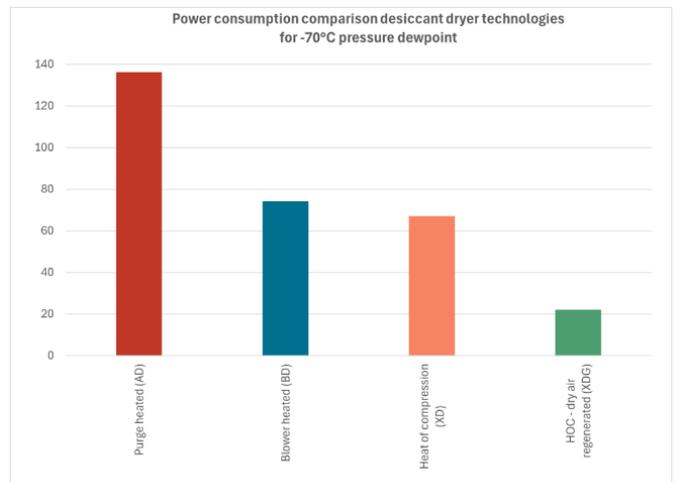
Hot air inlet

XDG takes advantage of the heat of compression for regeneration, eliminating the need for additional energy input. By reusing this available heat, the system achieves efficient drying without extra power consumption, significantly reducing operating costs.



Maximum Drying Minimum Power

Our latest unique XDG 2100-5400 design sets a new benchmark in energy efficiency. Compared to traditional purge and blower-heated dryers, it consumes up to 80% less power thanks to its heat-of-compression regeneration and smart design. This means lower operating costs and uncompromised performance at -70°C dew point. It delivers the most efficient drying solution in its class for maximum energy savings for lower total life cycle cost.



It's all about efficiency, reliability and connectivity



Energy management system

Our central controllers can efficiently regulate all connected machines to reduce energy consumption as much as possible while keeping the pressure stable.

- Knowing all machine operating points in real-time
- VSD machines operate in their sweet spots and fixed speed machines have the lowest possible unload time, resulting in the highest possible efficiency and uptime of the entire installation.
- A much smaller pressure band can be achieved, which brings with it a very high energy-saving potential.
- Ensuring that the most energy efficient machine constellation is always running
- Optimizer 4.0 and Equalizer 4.0 PRO

An ISO50001 complaint Energy Management System will **lower your production cost significantly and achieve the lowest Total Cost of Ownership!**

Get connected for the future

All machines and equipment are interconnected and continuously sending their data to a centralized SCADA, DCS or Cloud platform via a secure LAN network.

Maximized reliability

- Central controllers reduce the load/unload and start/stop cycles as much as possible, resulting in a long-lasting and reliable machine
- The overall running hours of the compressors, blowers and dryers are reduced as much as possible
- The equalization of the running hours allows the machines to age together and share the load

The EXTENDER +

This device is used along with an Atlas Copco central controller, allowing to maximize the Optimization in the Utility Room.

Characteristics:

- Allows **the dynamic control of dryers**, gas generators, valves and cooling systems.
- Add- on module for the Optimizer 4.0 or Equalizer 4.0 PRO
- Reduce the energy consumption & CO2 footprint
- Minimizes the running hours and maintenance cost
- Redundant machine setup
- Enables smart controls for the complete utility room



Complete solution providing the lowest life cycle costs

Smart AIR Solutions are a complete air or gas solution designed to provide our customers with the lowest life cycle costs for their equipment. Smart AIR solutions combine compressors, blowers and boosters with quality air solutions fully optimized to operate together in the most efficient and reliable way.



1 Reliable, energy-efficient compressors

By paying close attention to the right combination of components, we ensure that you will get the most out of your system. We also prioritize soundproofing for a better working environment and easy maintenance to eliminate downtime.



2 Central Controller

A central controller is the key to every smart AIR solution. It controls a multi-compressor installation more efficiently than individual machines with their own settings. It also offers you connectivity to disclose the controls to any device in your LAN, add advanced local visualization features, connect to your SCADA system, or use SMARTLINK to access unique insights, suggestions, and solutions for improved uptime and energy efficiency.



3 Desiccant heat of compression dryer

XDG dryers feature a modular design with up to five compact desiccant towers depending on the flow capacity, each shipped as an individual module for quick on-site assembly. Equipped with forklift slots and lifting eyes, these modules are easy to handle, making transport and installation simple, even in tight spaces.



4 Air treatment portfolio

Our advanced filters, available in multiple media types and grades, effectively remove dust, oil, and other contaminants to ensure clean, high-quality air. Combined with our energy-efficient dryers and reliable compressors, you get a fully integrated setup designed for maximum performance and protection.



5 Plug & Play concept

Experience hassle-free setup with our plug & play design. The XDG comes fully wired and ready to go. No complex configurations, no extra steps. Simply connect, power up, and start operating with confidence.

Optimize your systems

XDG 2100–5400 offers a comprehensive scope of supply designed for maximum energy efficiency. With configurations that eliminate unnecessary air loss and deliver consistent performance, XDG sets the standard for consistent compressed air drying by giving you flexibility without compromising efficiency.

| | |
|-----------------------|---|
| Air circuit | Galvanized in and outlet piping |
| | Insulated heater pipe and connection piping to vessels |
| | Ejector |
| | Moisture separator |
| | Switching valves |
| Connections | DIN-flanges |
| | ANSI-flanges |
| Electrical components | Pre-mounted electrical control panel |
| | Elektronikon control and monitoring system with SMARTLINK and SmartCycle technology |
| | IP54 protected |
| | Voltage free contacts for remote alarm and warning signals |
| Framework | Pressure dewpointing sensor |
| | Base frame with forklift slots |
| | Lifting lugs |
| Mechanical approval | CE approval |
| | ASME approval |
| Dewpoint performance | -40°C/°F |
| | -70°C / -94°F |
| | -90°C / -130°F |
| Options | High ambient temperature (HAT) |
| | Tower insulation |

Technical Specifications

XDG 2100-5300 Technical specifications

| Type | Inlet Flow FAD 7bar (e) / 100psig | | | Pressure dewpoint | | Air inlet flange | Air outlet flange | Recommended after-filter |
|----------|-----------------------------------|--------------------|-------|-------------------|--------------------|------------------------|-------------------|--------------------------|
| | l/s | m ³ /hr | cfm | °C | °F | DIN PN16 / ANSI 150Lbs | | |
| XDG 2100 | 2100 | 7560 | 4450 | -40 or -70 or -90 | -40 or -94 or -130 | DN 150 / ANSI 6" | DN 200 / ANSI 8" | DDp 2100+F |
| XDG 3200 | 3200 | 11520 | 6780 | -40 or -70 or -90 | -40 or -94 or -130 | DN 200 / ANSI 8" | DN 200 / ANSI 8" | DDp 3500+F |
| XDG 4200 | 4200 | 15120 | 8899 | -40 or -70 or -90 | -40 or -94 or -130 | DN 200 / ANSI 8" | DN 200 / ANSI 8" | DDp 5000+F |
| XDG 5400 | 5400 | 19440 | 11442 | -40 or -70 or -90 | -40 or -94 or -130 | DN 250 / ANSI 10" | DN 250 / ANSI 10" | DDp 6000+F |

Dimensions

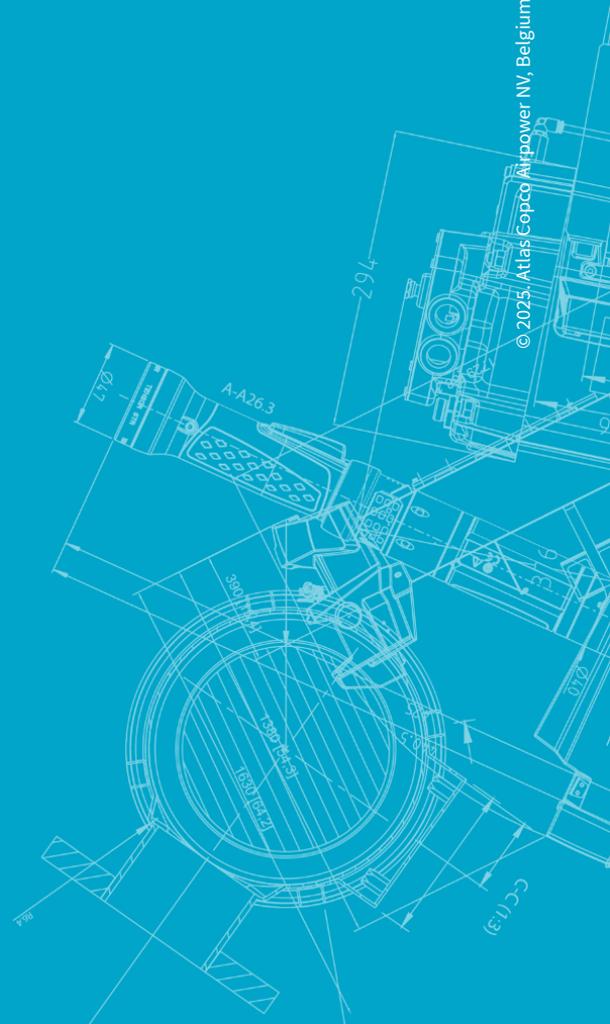
| Type | Dimensions | | | | | | Weight | |
|----------|------------|-------|-------|------|-----|-----|--------|--------|
| | mm | | | inch | | | kg | lbs |
| | L | W | H | L | W | H | | |
| XDG 2100 | 4 112 | 3 422 | 2 820 | 162 | 135 | 111 | 9 700 | 21 385 |
| XDG 3200 | 6 168 | 3 422 | 2 820 | 243 | 135 | 111 | 14 700 | 32 408 |
| XDG 4200 | 8 224 | 3 422 | 2 820 | 324 | 135 | 111 | 19 600 | 43 211 |
| XDG 5400 | 10 280 | 3 422 | 2 820 | 405 | 135 | 111 | 24 700 | 54 454 |



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