

DRYBERG® AD

Compact Adsorption Dryers (30-110 m³/h)



Download full datasheets online





Heatless Adsorption Dryer – DRYBERG® AD

Reliable and efficient compressed air drying

The DRYBERG® AD dryers are engineered with a specially developed aluminum profile that guarantees optimal airflow distribution through the desiccant bed. This robust design ensures:

- Long service life and reliable performance
- Minimal failure rates even under continuous operation
- Easy and secure floor-mounted installation for all dryer sizes



Stable Dew Point Performance

The DRYBERG® AD guarantees reliable pressure dew points under demanding conditions:

- Standard version: $-40\text{ }^{\circ}\text{C}$
- Optional version: $-70\text{ }^{\circ}\text{C}$ (available on request)

This flexibility allows the system to meet the requirements of critical applications, such as electronics, pharmaceuticals, and food packaging.



Advanced Filtration System

Every DRYBERG® AD dryer is supplied with a complete filtration package:

- Prefilter: captures particles, oil aerosols, and water droplets before they enter the drying unit, increasing operational reliability.
- Dust After-Filter: removes unavoidable desiccant dust on the outlet side, ensuring clean, safe, and dry compressed air for downstream processes.



Oversized Silencers

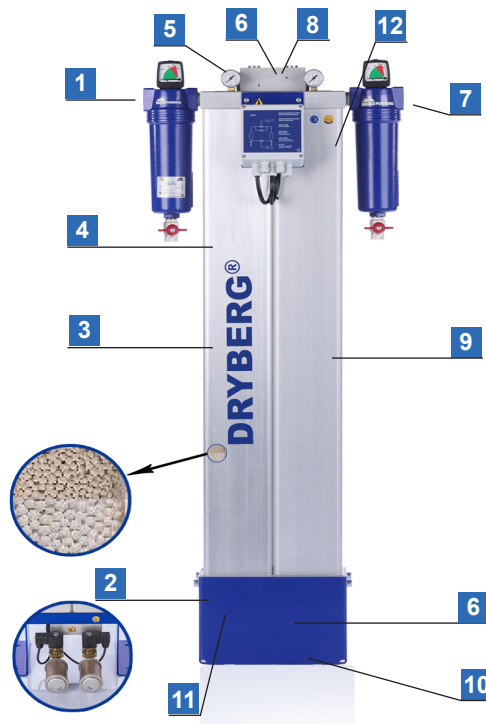
To further improve performance, DRYBERG® AD dryers are equipped with two large silencers:

- Reduce noise levels significantly compared to conventional systems.
- Increase overall reliability by minimizing back pressure during purge cycles.
- Contribute to a safer and more comfortable working environment.

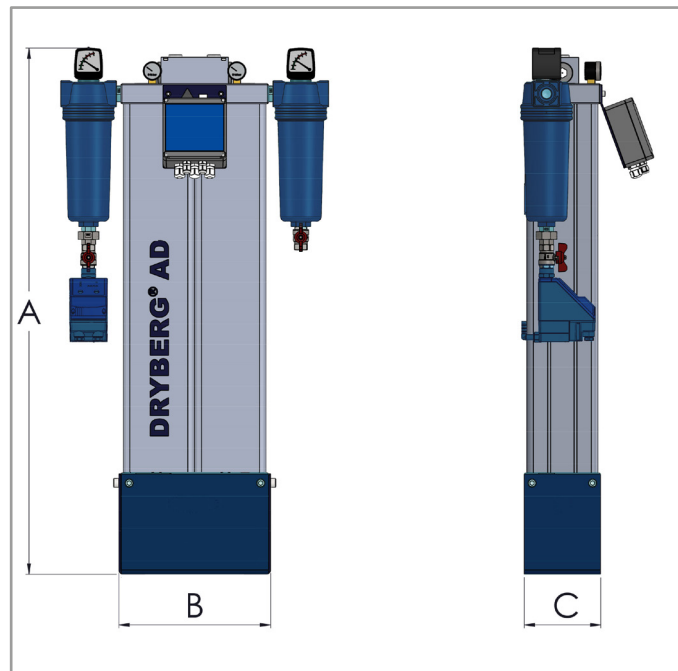
Why It Matters for Your Operations

Choosing DRYBERG® AD means reducing downtime, lowering maintenance costs, and ensuring your compressed air system delivers the highest quality air consistently. With its advanced aluminum profile, optimized dew point control, and state-of-the-art filtration, the DRYBERG® AD is designed to support long-term, trouble-free operation in all industrial environments.

Heatless Adsorption Dryer



1. **Fine Prefilter** – removes coarse particles, oil aerosols, and condensate before entering the dryer.
2. **Inlet Diffuser** – ensures even air distribution into the desiccant bed.
3. **Pre-drying Wet Zone** – initial separation of moisture before adsorption.
4. **Desiccant Vessel (Adsorption Phase)** – active tower where moisture is absorbed by the desiccant.
5. **Outlet Diffuser** – collects and directs dry air towards the outlet.
6. **Inlet Shuttle Valve** – controls the airflow path into the active vessel.
7. **Dust After-Filter** – captures desiccant dust, ensuring safe and clean compressed air.
8. **Purging Air Nozzle** – releases a small amount of dry air to regenerate the desiccant bed.
9. **Desiccant Vessel (Regeneration Phase)** – tower undergoing purge and regeneration cycle.
10. **Blow-off Valves** – quick-release valves for purge air and condensate discharge (Bürkert quality).
11. **Silencers** – reduce noise levels during purge and blow-off operations.
12. **Electronic Control Unit** – manages cycle switching, compressor synchronization, and alarms.



Technical Data of Heatless Adsorption Dryer DRYBERG® AD

Model	Nominal airflow		Dimension (A×B×C) [mm]	Weight [kg]	Air connection
	[m ³ /min]	[m ³ /h]			
AD 30	0.33	30	675×310×290	28	G 1/2"
AD 40	0.58	40	775×281×92	33	G 1/2"
AD 55	0.83	55	875×281×92	36	G 1/2"
AD 70	1.16	70	975×281×92	42	G 3/4"
AD 90	1.50	90	1175×281×92	49	G 3/4"
AD 110	1.83	110	1325×281×184	58	G 3/4"

*calculated at 1 bar (abs.) and 20°C at 7 bar g operating pressure and 35 °C compressed air

*inlet temperature (saturated condition)

Specifications and field of application

Ambient temperature	1.5 °C to 50 °C
Pressure dew point	-40 °C (-70 °C on request)
Air inlet temperature	1.5 °C to 50 °C (min./max.)
Min./Max. operating pressure	4 bar g to 16 bar g
Volume flow rate range	10.2 m ³ /h to 119 m ³ /h
Max. relative humidity	80 % up to 31 °C
Input voltage range	100 ... 240 VAC, 50 ... 60 Hz, 12 ... 24 VDC
Protection class	IP 54

* at standard inlet conditions 7 bar g and 35 °C

Dew Point - Correction factors

Operating temperature [°C]	-25	-40	-70
Correction factors F1	1.05	1.00	0.90






Operating pressure [bar g] - Correction Factors F2

		4	5	6	7	8	9	10	11	12	13	14	15	16
Inlet temp (°C)	35	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.55	1.60	1.65	1.70	1.76
	40	0.55	0.66	0.77	0.88	0.99	1.10	1.21	1.32	1.43	1.54	1.65	1.70	1.76
	45	0.42	0.50	0.59	0.67	0.76	0.84	0.92	1.01	1.09	1.17	1.26	1.34	1.47
	50	0.35	0.41	0.48	0.55	0.62	0.69	0.76	0.83	0.90	0.96	1.03	1.10	1.17

OEM PROGRAM - CUSTOMIZED COLD ADSORPTION DRYERS

At BERG GaseTech GmbH, we specialise in offering a comprehensive OEM program for small cold adsorption dryers. We provide customised manufacturing solutions, enabling businesses to market high-quality Drying systems under your own brand name and specifications.

What Our OEM Program Offers:

-  **Private Labeling:** Manufacture cold adsorption dryers with your brand name and logo.
-  **Custom Colors and Designs:** Tailored to match your corporate identity and visual standards.
-  **Optimized Configurations:** Designed to meet your exact technical and operational requirements, ensuring maximum efficiency.
-  **Energy-Efficient Performance:** Our dryers are engineered for low energy consumption while maintaining high drying efficiency and reliability.
-  **Compact & Space-Saving Design:** With a small footprint, our dryers are perfect for installations where space is limited, without compromising performance.

Benefits of Partnering with BERG GaseTech GmbH:

- **German Engineering & Quality:** Manufactured in Germany, ensuring precision, durability, and compliance with the highest industry standards.
- **Expand Your Product Portfolio:** Offer premium-quality cold adsorption dryers under your own brand without the hassle of in-house development.
- **Quick Market Entry:** Launch your dryers with minimal lead time, reducing R&D and production delays.
- **Reliable and Low-Maintenance:** Built with high-quality components for a long service life with minimal maintenance requirements.
- **End-to-End Support:** We provide comprehensive technical and logistical assistance, from design to delivery, ensuring a seamless OEM experience.

Applications of Our OEM Cold Adsorption Dryers:

- **Compressed Air Drying:** Ensures moisture-free air supply for pneumatic systems and industrial processes.
- **Laser Cutting and CNC Machinery:** Prevents condensation and corrosion in precision manufacturing.
- **Automotive & Paint Industries:** Provides dry, clean air for painting and coating applications.
- **Food & Beverage Processing:** Removes moisture for optimal performance in food packaging and processing.
- **Pharmaceutical & Chemical Industries:** Protects sensitive equipment and processes from humidity-related issues.

Why Choose BERG GaseTech GmbH?

As a trusted OEM partner, we are committed to helping businesses succeed by delivering customised cold adsorption dryers that align with their branding and operational goals. Our solutions reflect the highest standards of quality, efficiency, and durability, ensuring long-term value for your customers.

Contact us for OEM opportunities:

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Together, let's build your brand with our expertise!