



Technical data and benefits

DRYPOINT® ADZ

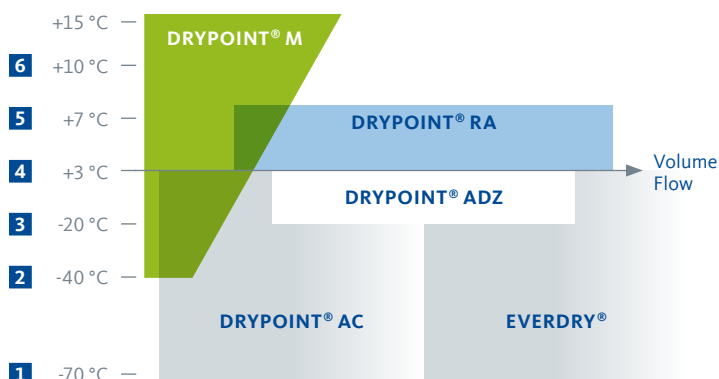
The **DRYPOINT® ADZ** heat-regenerating adsorption drum dryer is specially developed for the treatment of **oil-free compressed air**. As a **zero air loss heat of compression dryer**, it uses the waste heat from oil-free air compressors for regeneration and achieves **high energy efficiency**.

Different from traditional twin-tower adsorption dryers, the **DRYPOINT® ADZ** features a **single-tower rotary drum design** with a compact footprint. The rotary drum uses a **solid honeycomb adsorption structure** without granular desiccant, supporting **clean and stable operation**.

The **DRYPOINT® ADZ** can reliably provide compressed air with a **pressure dew point of up to -20 °C or better**, matching the requirements of various oil-free air compressor applications. It is widely used in **electronics, metallurgy, food and beverage, pharmaceutical and chemical industries**.

The product offers a comprehensive range of functions and configurations to meet key application requirements. It is available in multiple sizes, covering a **volume flow range from 10 m³/min to 150 m³/min**.

- ✓ **Ultra energy saving**
Utilizes the waste heat from oil-free air compressors for regeneration. **Zero air loss during the entire operating process**, delivering high energy efficiency.
- ✓ **Safe and reliable**
Pressure dew point of up to -20 °C or better. **Continuous single-tower operation without interruption**. Standard equipment includes **PLC control and a full-flow cooler**.
- ✓ **User-friendly**
Plug and play design for easy installation and commissioning. Single-tower adsorption structure with **small footprint and dust-free operation**.
- ✓ **Future-proof**
No F-gas. Low carbon emissions. Standard Modbus communication.

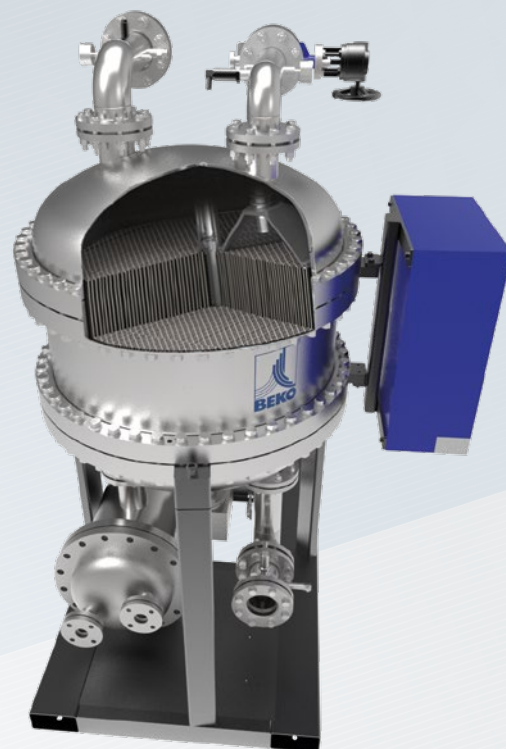


Pressure dew point in °C **1-6** = Quality class according to ISO 8573-1





At a glance: The benefits of DRYPOINT® ADZ



Professional customization, perfect match

- Oil-free specialization: Designed for oil-free screw, centrifugal, and reciprocating compressors.
- Customized solutions: Available according to specific pressure and flow requirements, including optional appearance design.

Enables optimal integration into OEM and project-specific solutions.



Ultra energy efficiency, zero air loss

- Lowest power consumption: Average power consumption during operation can be as low as 0.12 kWh, resulting in virtually negligible operating costs.
- Zero air loss: The entire operation process runs without air loss. Standard equipment includes BEKOMAT® zero air loss condensate drain, the best choice.

Maximizes energy efficiency without compromising drying performance.



High reliability, minimal maintenance

- Stable operation: Three-zone continuous operation without switching cycles ensures high process reliability and reduced mechanical wear.
- Low maintenance: Designed with a clear focus on minimizing moving parts and eliminating depressurization cycles.

Designed for long-term, low-maintenance operation.



Eco-friendly, future-proof

- No F-gas: Uses non-refrigerated drying technology.
- Low carbon emissions: Energy-efficient design reduces carbon footprint.

Supports compliance with current and future environmental regulations.



Smart connectivity, plug and play

- Intelligent control system: Standard with Modbus communication protocol.
- Ready-to-use: Compact structure, lightweight design, and small footprint. Particularly suitable for retrofit projects and installations with limited space. Especially easy to commission.

Ideal for fast integration into existing compressor systems.



Quiet and clean, user-friendly

- Ultra-low noise: Operating noise ≤ 30 dBA, meeting the stringent requirements of industries such as food, pharmaceuticals, and laboratories for quiet and clean environments.
- Reliable materials: Uses a fixed honeycomb adsorption structure, dust-free.

Supports clean production processes without additional filtration effort.



Flexible adaptation, ready for any challenge

- Stable volume flow: An external venturi ejector harnesses regeneration airflow to create negative pressure, drawing in wet inlet air for effective mixing. This ensures a stable volume flow into the cooler and drum, which is key for reliable regeneration and cooling.

Well suited for variable load and fluctuating operating conditions.



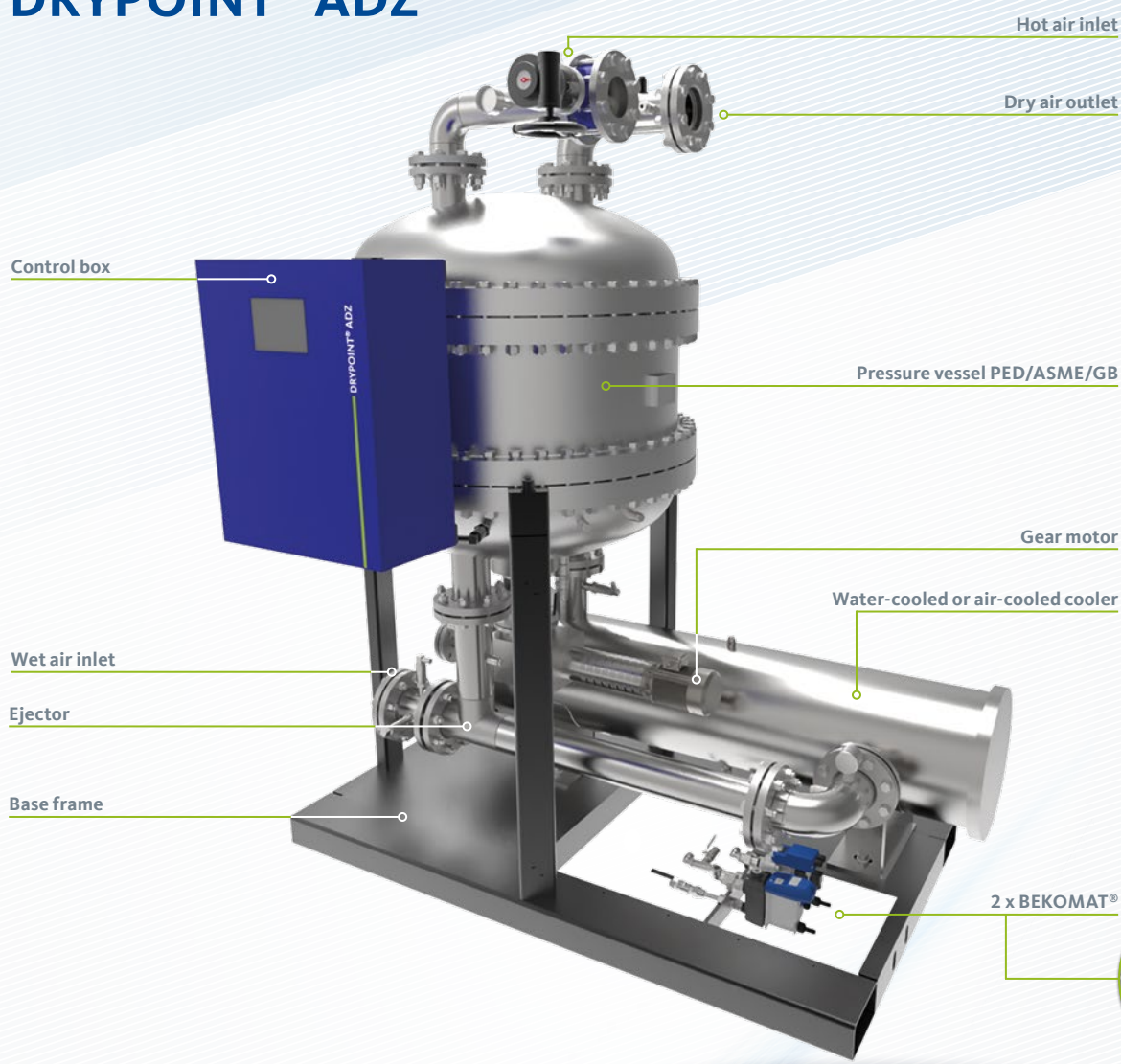
Redundant design for round-the-clock reliability

- Stable pressure dew point: An external, independent enlarged full-flow cooler ensures correct adsorption temperature and a stable outlet pressure dew point, largely independent of compressor operation.
- Multiple protection: integrated water separator and BEKOMAT® condensate drain keep the liquid water out of the drying zone.

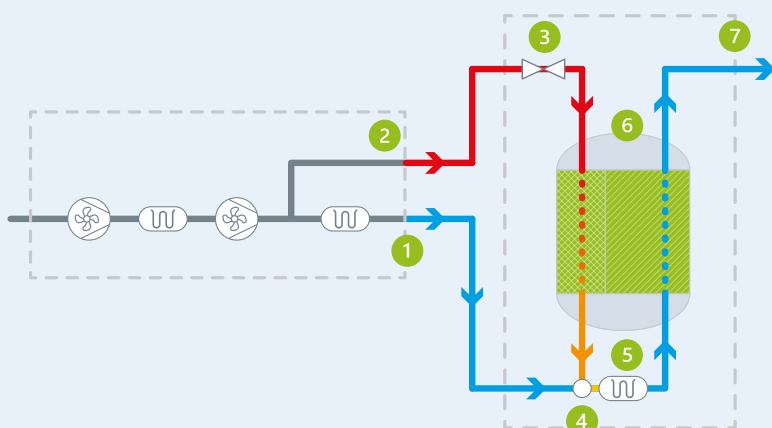
Ensures reliable operation even under changing operating conditions.



Construction of DRYPOINT® ADZ



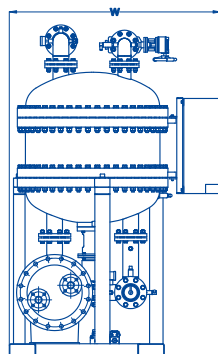
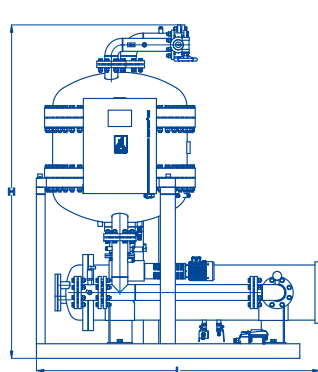
Basic Workflow



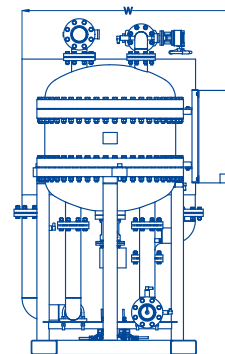
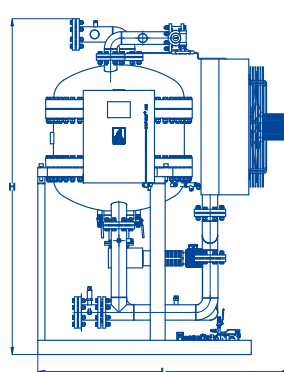
- 1** The oil-free compressor (OFS) is equipped or can be modified with two outlets. Discharge air at point 1 is taken from the aftercooler at approximately 32-40 °C.
- 2** Discharge air at point 2 is taken upstream of the aftercooler. Depending on the pressure rise at the final compression stage, the temperature can reach 160-180 °C. This heat is used for drum regeneration.
- 3** A manual valve is used to adjust the volume flow at point 2, ensuring sufficient regeneration energy and proper differential pressure for mixing with stream 1 at point 4.
- 4** An ejector mixes streams 1 and 2 at an allowable pressure difference, based on computational fluid dynamics (CFD) calculations and flow parameters.
- 5** The cooler is designed for full volume flow. Both water-cooled and air-cooled versions are available.
- 6** The pressure vessel contains the drum and is driven by a gear motor operating at approximately 6-10 revolutions per hour.
- 7** The dried compressed air exits the system. A dew point sensor is available as an option for monitoring dryer operating status.

Technical data

Water-cooled



Air-cooled



Model	Max volume flow			Wet air Inlet Dry air outlet	Hot air inlet	Cooling water connection	Dimension			Weight
	m³/min	cfm	l/s	DN	DN	DN	mm			kg
							L	W	H	

Water-cooled

ADZ010.1 W	12	424	200	65	50	40	1650	800	1950	750
ADZ015.1 W	17	600	283	65	50	40	1650	800	1950	750
ADZ020.1 W	23	812	383	80	65	40	1550	1250	2150	950
ADZ025.1 W	27	954	450	80	65	40	1550	1250	2150	950
ADZ030.1 W	32	1130	533	80	65	40	1700	1250	2150	1000
ADZ040.1 W	44	1554	733	100	80	40	2000	1500	2300	1600
ADZ050.1 W	52	1836	867	100	80	40	2000	1500	2300	1600
ADZ060.1 W	64	2260	1067	125	100	40	2000	1500	2600	1700
ADZ070.1 W	73	2578	1217	125	100	40	1900	1500	2600	1800
ADZ080.1 W	81	2861	1350	125	100	40	2000	1500	2600	1900
ADZ090.1 W	90	3178	1500	150	125	50	2100	1700	2900	2200
ADZ100.1 W	100	3532	1667	150	125	50	2100	1700	2900	2200
ADZ125.1 W	125	4414	2083	150	125	65	2050	1700	2900	2300
ADZ150.1 W	150	5297	2500	200	150	65	2300	1800	3100	3000

Air-cooled

ADZ010.1 A	12	424	200	65	50	N/A	1300	1100	2000	700
ADZ015.1 A	17	600	283	65	50	N/A	1300	1200	2000	750
ADZ020.1 A	23	812	383	80	65	N/A	1600	1250	2300	950
ADZ025.1 A	27	954	450	80	65	N/A	1600	1300	2300	1000
ADZ030.1 A	32	1130	533	80	65	N/A	1600	1350	2300	1050
ADZ040.1 A	44	1554	733	100	80	N/A	1900	1500	2400	1350
ADZ050.1 A	52	1836	867	100	80	N/A	1900	1600	2400	1400



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