Adsorption dryer ADX

fixed cycle time controlled

Comprag ADX adsorption dryers are a highly efficient solution for dehumidifying compressed air. They can keep the pressure dew point at -40 °C at constant pressure. The adsorption dryer comprises two towers, which contain the optimum amount of dehumidifying drying agent. Compressed air is fed into the two towers in an alternating manner and brought into contact with the drying agent at a moderate speed, whereby the air is dehumidified.
If the drying agent of the first tower is too moist, the flow of compressed air switches over to the second tower, which then takes on the function of moisture uptake.
ADX adsorption dryers feature high-quality control valves with long service life. Switching between the drying cycle and regeneration cycle is controlled electronically with a switching cycle of 10 minutes.

Consistently low dew point also with variable compressed air flow from 0% to 100%.

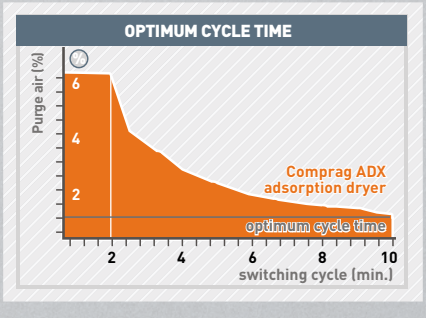
Properties:

- Fully automatic operation
- Dew point at constant pressure from -40 °C for efficient dehumidification
- High-grade drying agent with high specific surface
- Optimum cycle of 10 min.
- Adjustable purge air flow
- ADX-F with installed pre- and after-filters

Performance data according to DIN ISO 7183:

- Working pressure: 7 bar
- Compressed air temperature: 35°C
- Ambient temperature: 25°C
- Pressure dew point: -40°C

Optimum cycle time of 10 minutes



Comprag adsorption dryers operate at optimum performance with a cycle time of 10 minutes. Reducing the regeneration cycles lowers the operational load of the towers, the valves and the drying agent.

Furthermore, a long cycle reduces pressure loss if the working pressure in the tower is restored after a regeneration cycle.

Operation of the ADX-series adsorption dryer

Phase 1

Tower (1) is in the drying cycle. Moist air flows out of the compressor via the bottom shuttle valve (A) into the tower (1).

The pressure in the tower (1) rises to the compressor's working pressure. The drying agent in the tower (1) removes moisture from the inflowing compressed air. The dried compressed air is fed through the directional control valve (B) into the compressed-air system.

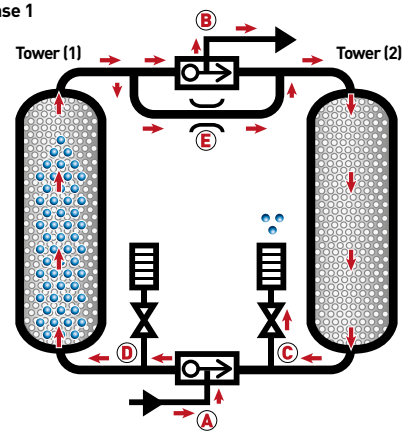
Tower (2) is in the regeneration cycle. A small amount of dried compressed air (E) (purge air) is fed through the tower (2). The blow out valve (C) is opened and the purge air together with the moisture accumulated in the tower (2) is discharged through the blow-out valve and the silencer.

Phase 2

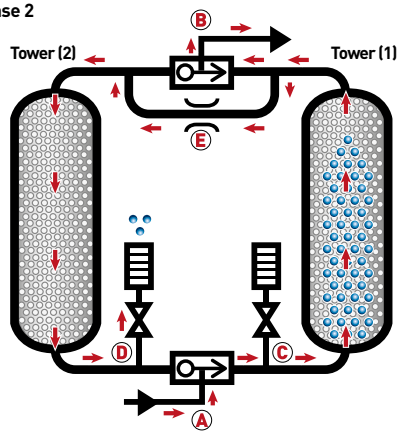
The towers alternate functions in a 10-minute cycle. The blow-out valve (C) of the tower (2) is closed, and the blow-out valve (D) of the tower (1) is opened.

The shuttle valve (A) switches simultaneously, and the moist air flows out of the compressor into the tower (2) that is switching into the drying cycle. Tower (1) switches into the regeneration cycle and discharges the accumulated moisture.

Phase 1



Phase 2

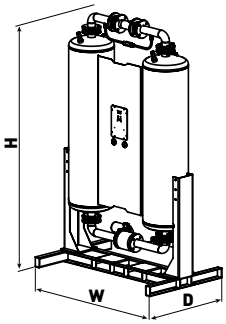


Technical data adsorption dryer ADX-F with installed pre-and after-filters

Article	Model	Air flow* (m³/min)	Pre-filters	After-filters	Max. working pressure (bar)	Screw connection	Rated voltage (Phase/V/Hz)
14400201	ADX-20-F	2,00	AF-047/EL-047S	AF-047/EL-047P	10	G 1"	1/230/50
14400202	ADX-30-F	3,00	AF-047/EL-047S	AF-047/EL-047P	10	G 1"	1/230/50
14400203	ADX-40-F	4,00	AF-072/EL-072S	AF-072/EL-072P	10	G 1.1/4"	1/230/50
14400204	ADX-50-F	5,00	AF-072/EL-072S	AF-072/EL-072P	10	G 1.1/4"	1/230/50
14400205	ADX-70-F	7,00	AF-085/EL-085S	AF-085/EL-085P	10	G 1.1/2"	1/230/50
14400206	ADX-90-F	9,00	AF-085/EL-085S	AF-085/EL-085P	10	G 1.1/2"	1/230/50
14400207	ADX-125-F	12,50	AF-148/EL-148S	AF-148/EL-148P	10	G 2"	1/230/50
14400208	ADX-160-F	16,00	AF-148/EL-148S	AF-148/EL-148P	10	G 2"	1/230/50
14400209	ADX-200-F	20,00	AF-240/EL-240S	AF-240/EL-240P	10	G 2.1/2"	1/230/50
14400210	ADX-250-F	25,00	AF-240/EL-240S	AF-240/EL-240P	10	G 2.1/2"	1/230/50

*Measured according to ISO 7183

Dimensions of ADX-F



Model	Height H (mm)	Width W (mm)	Depth D (mm)	Weight (kg)
ADX-20-F	1220	800	600	95,0
ADX-30-F	1500	800	600	116,0
ADX-40-F	1850	800	800	185,0
ADX-50-F	2130	800	800	215,0
ADX-70-F	1950	1040	800	260,0
ADX-90-F	2200	1040	800	320,0
ADX-125-F	2320	1275	1000	520,0
ADX-160-F	2320	1320	1000	590,0
ADX-200-F	2320	1430	1000	750,0
ADX-250-F	2630	1430	1000	840,0

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