CompAir

Heatless Modular Adsorption Dryers

AX060NS – AX314NS

Innovative compressed air treatment

A-Series

Totally dry and clean air

The A-Series modular compressed air dryers - a dedicated solution for every application

By combining the proven benefits of desiccant drying with modern design, CompAir provides an extremely compact and
reliable system to totally dry and clean compressed air.
At the heart of any compressed air treatment solution is the dryer, it’s purpose, to remove water vapour, stop condensation, corrosion and in the case of adsorption dryers,
inhibit the growth of micro-organisms.
The CompAir A-Series of heatless regenerative adsorption dryers have proven to be the ideal solution for many thousands of compressed air users worldwide in a wide variety of industries.

Why chose adsorption dryer technology?

Compressed air purification must deliver uncompromising performance and reliability whilst providing the right balance of air quality with lowest cost of operation.
Heatless adsorption dryers, which are also known as PSA dryers, are the simplest type of adsorption dryer available and
have long been the dryer of choice for many industries and applications. They are simple, reliable and cost effective and
for small to medium flow systems, often the only viable technology available. Additionally, modular heatless dryers such as the A-Series provide an even more reliable, smaller,
more compact & lightweight dryer which can be installed in both, the compressor room or at the point of use.

AX_NS compressed air dryers

Clean and dry compressed air is easily achieved with AX_N ultra-high purity compressed air dryers.

CompAir dryers reliably give you:

- More for your money - everything needed for installation is in the box
- Moisture and particulate protection of your production process
- Lower life cycle costs - low energy costs and simplified maintenance
- Built in dew point monitoring
- Safe and quiet operation
- Peace of mind - the most reliable product of its kind
- Designed for use in the compressor room, at the point of application or integrated into your original equipment, CompAir dryers are an effective solution to the problems caused by contaminated compressed air.

Reliability is built in… and backed by our ASSURE warranty

Benefits - get more for your money

Guaranteed performance

- CompAir dryers have been 100% function and performance tested at the factory to ensure the highest standard of performance, delivering compressed air purity in accordance with ISO8573-1.2010, Class 2 dirt (1 micron) and Class 2 water (-40°C pressure dew point)

Reliable operation

- high efficiency moisture removal and reliable operation with PLC controlled solenoid valves
- integral volumetric flow limiter prevents overflow ensuring consistent dew point performance

Quiet depressurisation

- Unique exhaust air silencers significantly reduce noise levels

Energy saving design as standard

- Energy saving dew point monitoring can save up to 60% during reduced inlet moisture loading

PLC controls and digital display

- A clear digital display provides a full view of PLC operation and monitoring data

High quality construction

- 100% leak, function and dew point performance tested

Easy to install space saving design

- the compact design allows installation in spaces too small for a traditional dryer **easy to maintain**
- convenient service kits for easy and efficient maintenance

AX_NS in detail

Combined desiccant & after filter column

- high density filled desiccant columns provides maximum adsorption capacity
- built in after filter ensures reliable downstream air quality

PLC controlled operation

- The dryer is operated by a robust and reliable PLC control system, offering valuable features including ‘power on’, ‘hours run’ and ‘service required’ indicators
- Memory retention built into the PLC enables the controller to pick up where it left off in the drying cycle, ensuring consistently clean and dry air downstream
- Compressor synchronisation is a standard energy saving feature which starts and stops the dryer with a signal from the compressor or point-of-use equipment to eliminate purge loss when drying is not required

Dew point control as standard

- With this option, a dew point sensor is incorporated into the dryer providing the ultimate in energy savings
- The outlet dew point is constantly monitored allowing the cycle time to be adjusted depending on the actual moisture load saving valuable purge air
- Dew point is conveniently displayed on the PLC
- The -S option reduces valve actuation, increasing service life

Optimum dew point performance

- Dryers are provided as standard set for a -40°C dew point. Optional dew points from -20°C to -70°C are available

Constant flow and pressure

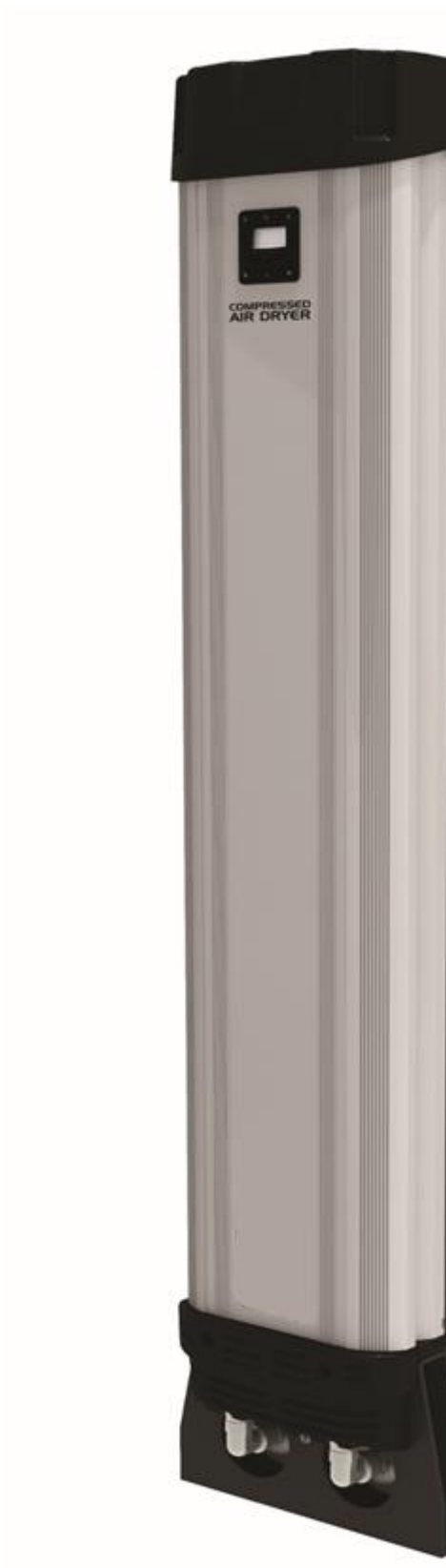
- Pressure is equalised before switching columns to ensure uninterrupted compressed air and consistent air pressure. Equalisation also ensures long desiccant life due to minimised desiccant attrition

Two stage maintenance free silencer

- Exhaust air is directed into easily maintained silencers behind the lower manifold. The air is then directed under the dryer away from operators and traffic lanes in the compressor room

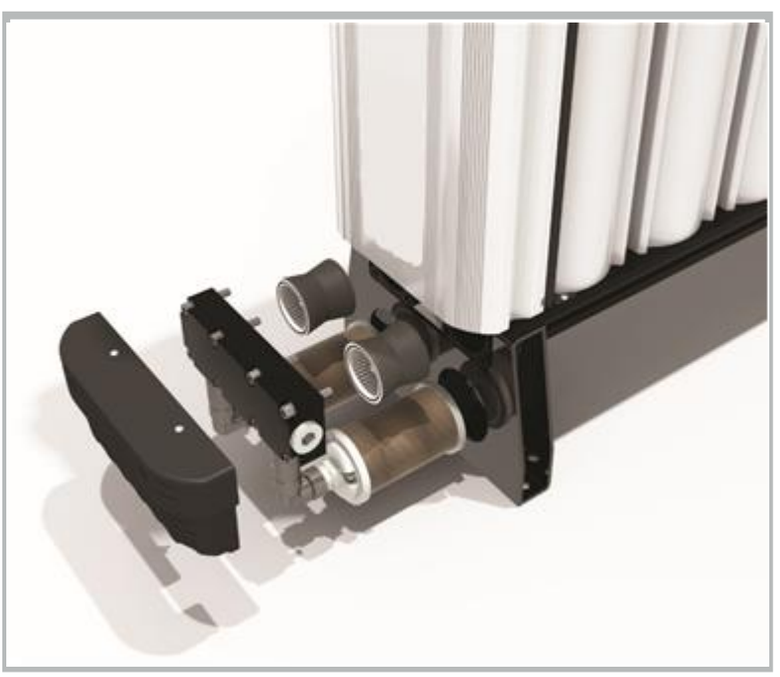
Maximum corrosion protection

- High tensile aluminium columns are corrosion protected then externally powder coated to provide maximum protection for corrosive environments



Flexibility is built right in

Designed with simplicity of service in mind. As standard,
reliable downstream air quality. For even greater ease of service, pre-
the columns are high density filled and include a built in after filter for
filled and pre-assembled desiccant / after filter cartridges are available
as a time saving option.



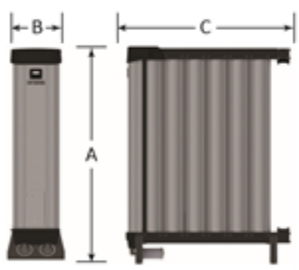
Reliable high performance valves

Inlet, exhaust and outlet air are controlled using coaxial flow valves integrated into the upper and lower manifolds. The valves provide unrestricted flow capacity and are designed for durability, ease of maintenance and long service life.

Performance
Sizing & Specifications

Dryer model	inlet & outlet	Rated flow [2]		dimensions (mm)			approx. weight
	BSPP [1]	Nm³/min	scfm	A	B	C	kgs
AX060NS	2"	6.00	212	1194	305	635	166
AX078NS	2"	78.00	276	1448	305	635	200
AX113NS	2"	11.33	400	1778	305	635	248
AX159NS	2"	15.85	560	1778	305	787	353
AX212NS	2 ½"	21.23	750	1778	305	965	458
AX235NS	2 ½"	23.45	828	1448	305	1295	524
AX314NS	2 ½"	31.43	1110	1778	305	1295	668

specifications	standard	optional
maximum particle size (ISO class) [4]	class 2 (1 micron)	class 1 (0.01 micron)
maximum water content (ISO class) [4]	class 2 (-40°C pdp)	class 1 (-70°C)
minimum operating pressure	4 barg	-
maximum operating pressure	10 or 16 barg [5]	consult factory
recommended operating temp range	1.5 to 35°C [6]	-
design operating temperature range	1.5 to 50°C [6]	-
power supply requirements	100 to 240 VAC / 50 or 60 Hz	24 VDC



pressure correction factors [7]

	4	5	6	7	8	9	10	11	12	13	14	16
Inlet air pressure (barg)	0.63	0.75	0.88	1	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.13
Correction factor												

temperature & dew point correction factors [7]

inlet air temperature (°C)	24	37	40	45	50	pressure dew point (°C)	-20	-40	-70
correction factor	1	1	0.97	0.88	0.73	correction factor	1.10	1.00	0.70

(1) All models have BSPP threaded connections

(2) At inlet conditions of 7 barg and 35°C and a -40°C outlet pressure dew point. For all other conditions refer to the correction factors above

(3) Recommended for all applications. Required when dryer is to be installed immediately downstream of an oil lubricated compressor.

(4) per ISO 8573.1:2010 (E)