

ADSORPTION DRYER

PICO-DRY

(Heatless regenerated adsorption dryer)

DESCRIPTION

PICO-DRY adsorption dryers are intended for separation of water vapour from compressed air thus reducing dew point. Those dryers were specifically designed for piston compressors with relatively small duty load (frequent start and stop). Adsorption takes place under pressure in the lower column. When the compressor stops the adsorption column is depressurised and the dry air from the buffer vessel is slowly expanded and used for regeneration. Dryer is equipped with aftercooler as well as with filter making sure that liquid water, oil and other large contaminants will not enter adsorption vessel. Springs in the columns make sure that the desiccant beads will not move during operation. Proven robust design enables efficient and reliable operation, fast installation and simple maintenance.



DRYER RATING ACCORDING TO ISO8573-1

Solid particles ⁽¹⁾	Water ^{(1),(2)}	Oil ⁽¹⁾
2	1-3	1

⁽¹⁾Typical result based on standard configuration and nominal operating conditions.

⁽²⁾Depend on specific design. Class 2 when operated at nominal operating conditions.

TECHNICAL SPECIFICATIONS

Operating pressure	0 – 10 bar(g)
Operating temperature	1,5°C to 50°C
Pressure dew points	Down to -10
Voltage, Frequency	230 V, 50/60 Hz
Power consumption	<50 W
Protection class (valve)	IP 65
Filter (inlet) ⁽³⁾	Super fine coalescing; residual oil cont. <0,01mg/m ³ ; 0,01µm
Filter (outlet)	Without
Controller	Without (controlled by compressor pressure switch)
Input for stand-by	Not available
Dew point dependent control	Not available
Communication	Not available

⁽³⁾ If dryer is supplied without inlet filter compressed air class 1 (ISO 8753-1) for solid particles and oil should be provided to the inlet of the dryer.

MATERIALS

Upper and lower control block	Aluminium (anodised)
Columns	Aluminium, Stainless steel spring and support, polyester needle felt, desiccant
Valves	Brass, aluminium
Check valves	PA
Valve membranes	NBR reinforced with PA fibres
Sealings	NBR
Flexible connection	PU
Fittings, Screws, plugs	INOX, brass, steel-zinc plated
Lubricant	Shell cassida grease RLS 2
Outside protection (columns, front/back cover)	Powder paint coated (Epoxy-polyester base)
Desiccant	80% Molecular sieve 4A, 20% Silica gel

SIZES

Model	Connecti on IN & OUT	Inlet flow [L/min] ⁽⁴⁾	Outlet flow [Nm ³ /h] ⁽⁵⁾	Height A [mm]	Width B [mm]	Depth C(C*) [mm]	Mass [kg]	Vessel Vol ⁽⁶⁾ [l]	Filter
PICO-DRY 06	G 1/4"	100	/*	638	196	269	10,5	1,30	AAF 0026
PICO-DRY 12	G 1/4"	200	/*	938	196	269	13,5	2,17	AAF 0026

⁽⁴⁾Refers to 1bar(a) and 20°C at 7 bar operating pressure , inlet temperature 35°C and pressure dew point at outlet down to -10°C.

⁽⁵⁾Heatless regenerated dryers normally consume approx.. 15-20% of air for regeneration. Actual consumption of PICO-DRY depend on compressor duty cycle.

⁽⁶⁾Volume of 1 vessel (adsorption).

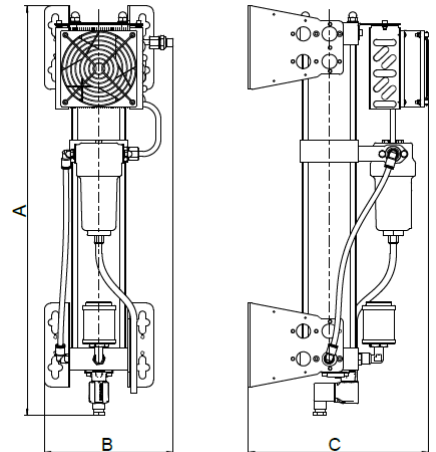
PRESSURE EQUIPMENT DIRECTIVE PED 2014/68/EU (Fluid group 2)

PICO-DRY 06 to 12	PED Category 1, Module A
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CORRECTION FACTORS

To calculate the correct capacity of a given dryer based on actual operating conditions, multiply the nominal flow capacity by the appropriate correction factor(s).

$$Corrected\ capacity = Nominal\ inlet\ flow\ capacity \times c_{OP} \times c_{OT} \times c_D$$



OPERATING PRESSURE

[bar]	4	5	6	7	8	9	10
[psi]	58	72	87	100	115	130	145
C _{OP}	0,63	0,75	0,88	1	1,13	1,25	1,38

OPERATING TEMPERATURE

[°C]	25	30	35	40	45	50
[F]	77	86	95	104	113	122
C _{OT}	1	1	1	0,97	0,87	0,80


MAINTENANCE

For maintenance, please follow instructions specified in operating manual. Check dryer operation weekly.

Typical service interval:

- Filter elements: every 12 months in operation or sooner if required
- Silencers, valve components: every 24 months in operation or sooner if required
- Adsorbent, valve components, silencers: every 48 months in operation or sooner if required

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	Our quality management system is certified by BUREAU VERITAS in conformity with ISO 9001:2015 Reg. number: 200285
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