

NanoDehumidifying-ADC-SUN¹ Series

AIR TREATMENT NANO DEHUMIDIFYING TECHNOLOGY

Products Catalog
Desiccant Dryers





**NanoDehumidifying- ADC-SUN¹ Series
Desiccant Dryers**

SUN IN



NanoDehumidifying- ADC-SUN¹ Series

Industrial Air Filtration

SUN IN™ Smart Desiccant Dryers are a complete and compact compressed air treatment solution designed to reduce downtime and maintenance costs. By reducing moisture and oils in the dust collector air supply, Solenoid and diaphragm valves remain free and dry and can operate more efficiently.

ADC-SUN™ Smart Desiccant Dryers also reduce overall maintenance costs by removing moisture and oil in the air used to pulse clean dust collector filters. This avoids clogging, improving the regeneration cycle, and extending Filter life.

Finally, providing flexibility for your particular facility configuration, SUN IN ADC-SUN™ Smart Dryers cost significantly less than central drying systems and are ideal for point-of-use systems where specific processes can use moisture reduction.



Applications:

- Food processing
- Beverage
- Pharmaceutical
- Medical
- Industrial machinery
- Plastic industry
- Bottling
- Packaging
- Mining & Minerals
- Automotive
- Energy

Operating Principal

Moist air from the compressor is sent through the coalescing filter. Here water & oil coalesces and purges through the auto drain valve. The relatively clean air with water vapor passing through the aluminum drying tower filled with desiccant gets completely dried (up to -400C PDP) and then passes through a built in after filter (25 micron). The desiccant fines from the towers are completely removed and clean dry air is let out through the outlet port for use.

During the regeneration cycle, the sudden depressurization brings out water molecule strapped in the Desiccant pores to the surface of the beads. A small portion of dry compressed air from the drying tower then passes over the desiccant through the regeneration orifice built in the Top Block. This results in complete regeneration of the Desiccant.

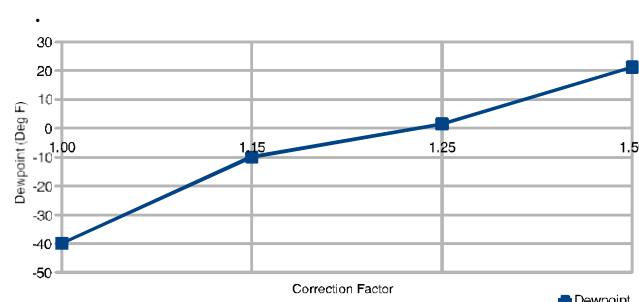


Specifications

Specifications	
Pressure dew point	-40°C
Medium	Compressed air and gases
Min. working pressure	4 bar g
Max. working pressure	16 bar g (ADC-ADC-SUN ¹⁰ : 13,5 bar g)
Power supply	230 V / 50-60 Hz AC
Cooler	Blue, RAL 5010 Profiles silver anodized



Dew Point Correction



NanoDehumidifying-ADC-SUN¹

Scope of supply
Compressed air purification unit, including:
Adsorption dryer, heatless-type, fully automatic, including pressure gauges
Electric control device, incl. compressor start-stop function
Prefilter incl. automatic condensate drain
Final filter incl. manual drain

ADSORPTION HEATLESS COMPACT RANGE											
MODEL	CAPACITY		Dimensions (mm)				Connect	Connect	Weight	USD NET	PG
	m ³ /h	cfm	A	B	C	D	Inlet	Outlet	Kg	Complete Set	
ADC-SUN ¹	5	3	623	535	373	306	3/8"	3/8"	16	2,205.00 \$	310
ADC-SUN ²	10	6	723	635	373	306	3/8"	3/8"	18	2,451.00 \$	310
ADC-SUN ³	20	12	823	735	373	316	3/8"	3/8"	20	2,835.00 \$	310
ADC-SUN ⁴	35	21	872	767	464	419	3/8"	3/8"	36	3,405.00 \$	310
ADC-SUN ⁶	50	29	972	867	464	419	3/8"	3/8"	40	4,077.00 \$	310
ADC-SUN ⁷	60	35	1072	967	464	419	1/2"	1/2"	43	4,318.50 \$	310
ADC-SUN ⁸	70	41	979	860	536	442	1/2"	1/2"	58	4,767.00 \$	310
ADC-SUN ⁹	90	53	1119	1000	534	442	1/2"	1/2"	65	5,515.50 \$	310
ADC-SUN ¹⁰	110	65	1299	1180	582	442	1/2"	1/2"	73	6,396.00 \$	310
ADC-SUN ¹¹	140	80	976	774	761	805	1/2"	1/2"	113	8,190.00 \$	310
ADC-SUN ¹²	180	110	1116	914	761	805	1/2"	1/2"	127	8,662.50 \$	310

*calculated at 1 bar (abs.) and 20°C at 7bar g working pressure

Correction factors inlet temperature									
°C	< 25	25	30	35	38	40	45	48	50
F(t)	1,2	1,1	1,09	1	0,84	0,78	0,72	0,65	0,58

Correction factors working pressure																									
bar g	4	4,5	5	5,5	6	6,5	7	7,5	8	8,5	9	9,5	10	10,5	11	11,5	12	12,5	13	13,5	14	14,5	15	15,5	16
F (p)	0,6	0,7	0,74	0,82	0,89	0,97	1	1,08	1,11	1,16	1,22	1,29	1,36	1,42	1,5	1,57	1,63	1,69	1,75	1,83	1,9	1,96	2,03	2,1	2,14

Please multiply the capacity of ADC-SUN with the correction factor in the above table. Example: Capacity ADC-SUN⁴ at 13 bar g / 30°C t Capacity nom (35 m3/h) x F(p) (1,75) x F(t) (1,09) = Capacity corrected (66,76 m3/h)



Service kits for SUN IN adsorption dryers

Types ADC-SUN¹ – ADC-SUN¹⁰

Please always include the serial number of the dryer in your

Filter elements	
Scope of supply	Quantity
· Prefilter element	1
· Final filter element	1



Service interval: 1 year

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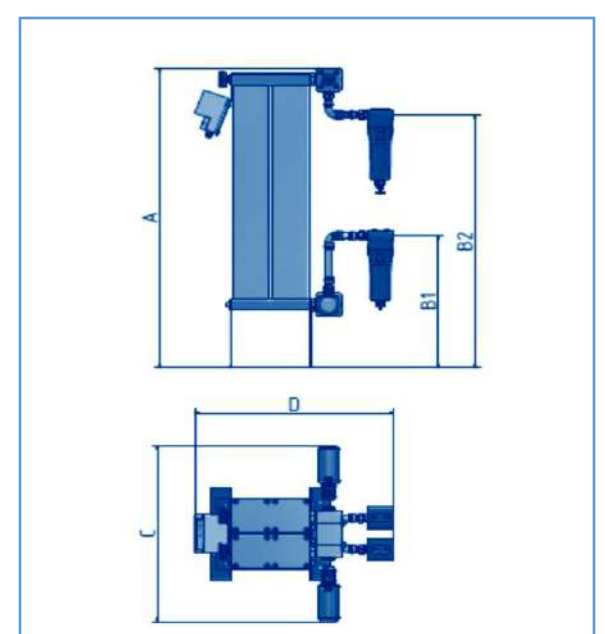
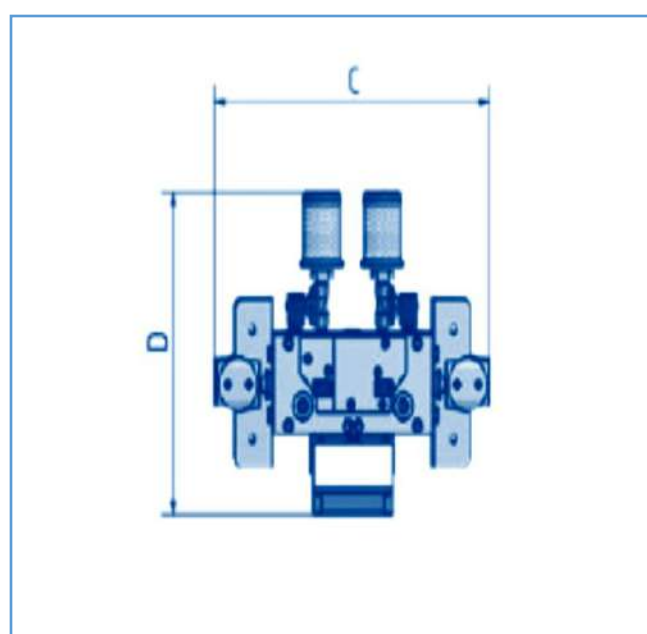
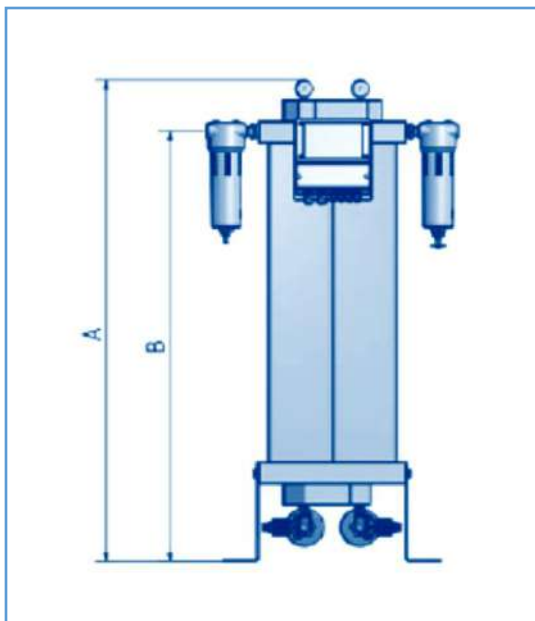
Order code	for dryer types	NET USD \$	PG
APE-ADC-SUN ¹ - ADC-SUN ⁶	ADC-SUN ¹ - ADC-SUN ⁶	244.50 \$	110
APE- ADC-SUN ⁷ - ADC-SUN ⁹	ADC-SUN ⁷ - ADC-SUN ⁹	265.50 \$	110
APE- ADC-SUN ¹⁰	ADC-SUN ¹⁰	297.00 \$	110
APE- ADC-SUN ¹¹ - ADC-SUN ¹²	ADC-SUN ¹¹ - ADC-SUN ¹²	402.00 \$	110

Functional parts	
Scope of supply	Quantity
Set of pistons	1
Blow-off valve	2
O-ring for filter housings	2
Manometer	2
Silencer	2

Desiccant

Scope of supply	Quantity
Desiccant filling	1

It is not necessary to demount the plates for changing the desiccant at ADC-SUN¹



SUN IN™ Compressed air contamination is a real problem for industry in today's modern production facilities, the use of compressed air is often pivotal to manufacturing processes. Irrespective of whether the compressed air comes into direct contact with the product or is used to automate a process, provide motive power, or even to generate other gases on-site, a clean, dry, reliable compressed air supply is essential to maintain efficient and cost-effective production.

SUN IN provides complete compressed air treatment solutions to suit every industry, application & budget.

The benefits of using SUN IN compressed air treatment solutions:

- Plant Reliability - trouble free operation from equipment and processes using compressed air
- Clean Dry Air available for all applications • No contamination of products / processes / equipment
- Low Maintenance Costs – Reduce or eliminate unexpected / unplanned plant maintenance for better budget control
- Lower plant energy consumption
- Lower plant environmental impact
- Legislation compliance – e.g. assist in complying with hygiene legislation in the Food, Beverage & Pharmaceutical industries