



S-Range of Modular Desiccant Dryers



Intelligent Air Technology

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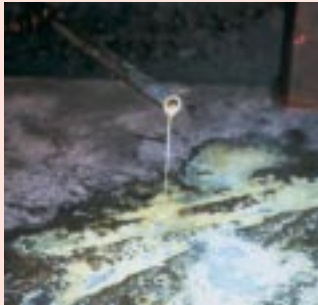
The Problem

Compressed air is an essential power source that is widely used throughout the industry. This safe, powerful and reliable utility can be the most important part of your production process.

However, compressed air contains water, dirt, wear particles and even degraded lubricating oil; mixed together these form an unwanted abrasive sludge. This sludge, often acidic, rapidly wears on pneumatic machinery, blocks valves and orifices causing high maintenance and costly air leaks. It also corrodes piping systems and can bring your production process to an extremely expensive standstill!



Corrosion



Unwanted Abrasive Sludge



Damaged Tools

The Solution

All of these costly problems can be avoided by simply installing one of the CompAir S-Range of Modular Desiccant Dryer packages. The S-Range packages are suitable for use with any compressor type and are suited to "point-of-use" applications.

CompAir's S-Range cleans and dries compressed air down to -40°F (-40°C) dpd as standard - (ISO 8573.1 Class 1.2.1). For critical applications, the S-Range can be supplied with a dewpoint of -100°F (-73°C) dp (ISO 8573.1 Class 1.1.1). Based on proven designs and principles, CompAir's S-Range embodies true innovation and excellent value for the money. Technically superior, yet simple by design, the S-Range leads the way in compressed air drying.

How the S-Range Works

The CompAir S-Range is comprised of a high tensile extruded aluminum column containing twin chambers filled with desiccant material which dries the compressed air as it passes through. One chamber is operational (drying), while the opposite chamber is regenerating using the Pressure Swing Adsorption (PSA) method of drying.

A small amount of the dried compressed air is used to regenerate the saturated desiccant bed by expanding air from line pressure to atmospheric pressure, removing the moisture absorbed by the desiccant material, and therefore regenerating the dryer.

Features



Benefits

- Reliable, clean, oil-free and dry compressed air.
- Stops corrosion preventing product spoilage and damage.
- Compact and lightweight advanced modular construction is less than half the size of conventional dryers.
- Easy and flexible installation with minimal space required.
- Simple maintenance giving reduced downtime.
- Quiet operation reduces noise pollution.
- Energy saving Dewpoint Dependent Switching option (DDS).

Technical Specifications

Flow Range:	24 scfm (0.085 m ³ /min) to 176 cfm (4.98 m ³ /min) at 102 psi g (7 bar g)	Maximum Inlet Temperature:	122°F (50°C)
Dew point: <small>(If -70°C pdp option required, contact CompAir)</small>	-40°C (-40°F) Nominal -70°C (-100°F) Optional	Minimum Inlet Temperature:	41°F (5°C)
Air Quality Class:	ISO 8573.1 Class 1.2.1 Nominal ISO 8573.1 Class 1.1.1 Optional	Controls:	Electronic Control Timer
Maximum Operating Pressure:	A7S - A25S 232 psi g (16 bar g) A30S - A50S 189 psi g (13 bar g)	Standard Electrical Supply:	110 V/1 Ph/60 Hz 230 V/1 Ph/60 Hz
Minimum Operating Pressure:	58 psi g (4 bar g)	Noise Level (Average):	75 dB(A)

Model	Flow Rates* @ 102 psi g (7 bar g)		Dimension A		Inlet Filter	Outlet Filter	Filter Port Size**
	cfm	m ³ /min	ins.	lbs.			
A7S	24	0.68	32.9	70	CF0018C	CF0018E	G ¹ / ₂ - ¹ / ₂ " NPT
A9S	32	0.91	39.5	81	CF0018C	CF0018E	G ¹ / ₂ - ¹ / ₂ " NPT
A12S	42	1.19	46.0	92	CF0018C	CF0018E	G ¹ / ₂ - ¹ / ₂ " NPT
A15S	53	1.5	52.5	103	CF0018C	CF0018E	G ¹ / ₂ - ¹ / ₂ " NPT
A18S	65	1.84	59.0	114	CF0018C	CF0018E	G ¹ / ₂ - ¹ / ₂ " NPT
A25S	88	2.49	68.8	132	CF0036C	CF0036E	G ³ / ₄ - ³ / ₄ " NPT
A30S	106	3.0	56.4	176	CF0048C	CF0048E	G1-1" NPT
A37S	130	3.68	62.9	198	CF0048C	CF0048E	G1-1" NPT
A50S	176	4.98	72.7	229	CF0048C	CF0048E	G1-1" NPT

*Referenced to 20 °C (68 °F) and 1 bar a (14.5 psi a) CompAir USA Product NPT.

Correct Dryer Selection

1. Select your correction factor for minimum pressure (CFP) to inlet of dryer
(Allow for system pressure losses when determining minimum operating pressure).

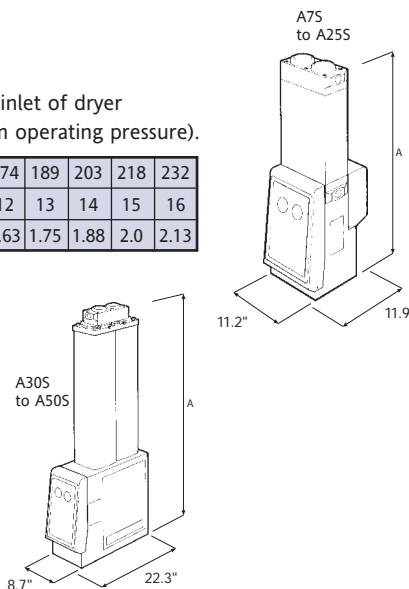
Minimum Pressure to Inlet of Dryer	psi g	58	73	87	102	116	131	145	160	174	189	203	218	232
	bar g	4	5	6	7	8	9	10	11	12	13	14	15	16
Correction Factor (CFP)		0.63	0.75	0.88	1.0	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2.0	2.13

2. Select your correction factor for maximum temperature (CFT) to inlet of dryer.

Maximum Temperature to Inlet of Dryer	°F	77	95	104	113	122
	°C	25	35	40	45	50
Correction Factor (CFT)		1.0	1.0	0.97	0.88	0.73

3. Calculate dryer capacity required following the equation below.

Inlet Flow Requirement = Dryer Capacity Requirements
CFP x CFT



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CompAir
PO Box 927
211 East Russell Road
Sidney, Ohio 45365-0927
United States of America

Telephone (937) 498-2500
Fax (937) 492-3923

www.CompAirUSA.com
Email sales@CompAirUSA.com

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