

DryAir



TEXOL
Products

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Laboratory Gas Generators

DryAir

Regenerative Ultra Dry Air and Purge Gas Generators up to -70°C (-94°F) ADP

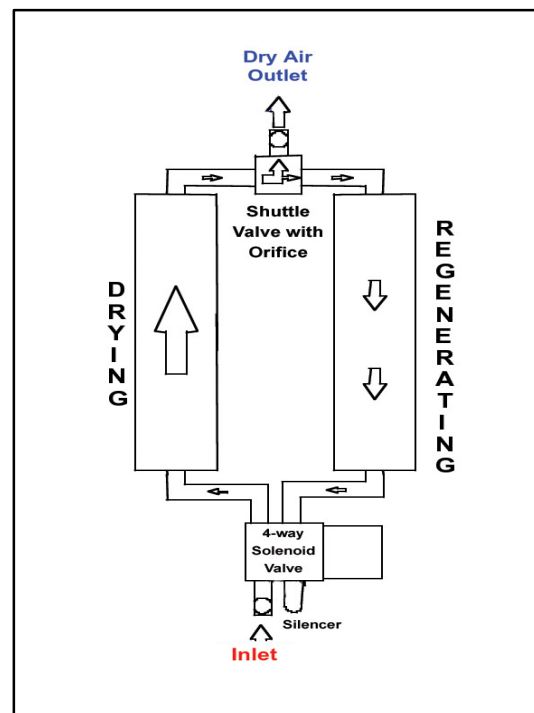
Process Description

The DryAir Range employs Pressure Swing Adsorption (PSA) technology to remove water vapour from ordinary compressed air. The open solenoid valve directs the wet air into one of the two desiccant chambers, where nearly all of the water vapour is removed. The ultra-dry air leaving the desiccant chamber passes through a valve to the process application. A precision orifice in the outlet valve allows a portion of the dry air to be re-directed back through the off-line desiccant chamber, purging it of the accumulated moisture. The purge air exits through the closed solenoid valve and silencer. A solid-state timer governs the process by controlling the solenoid valves precisely and allows for lower power consumption. The re-pressurising control module has a timed switchover between columns and allows a re-pressurising period prior to switching chambers. Re-pressurising helps minimise the outlet pressure variation and desiccant shock as the flow switches from one chamber to the other. Of the three models in the DryAir Range, the MINI and MAXI dryers use a shuttle valve principle and the MIDI dryers use a fixed orifice valve.

Overview

The DryAir range delivers ultra-dry air, which is essential for many industrial and laboratory applications, leading to improved process quality, reduced equipment downtime and lower operation costs.

They are designed to improve the quality of customer processes with minimum space requirements, low operating costs and minimum maintenance



Features and Benefits

- Ultra-dry air to -70°C (-94°F) ADP
- Flow of up to $103.63\text{ m}^3/\text{hour}$ ($1727.17\text{ l}/\text{min}$)
- Pressures of 30-150 psi (2.07-10.35 Bar)
- Auto regeneration process
- Non-corroding purge silencer
- Compact and lightweight
- Low power requirement
- Easy Installation
- No Regular maintenance required

Typical Applications

- Ozone generation feed gas
- Environmental chambers
- Analytical instruments and analysers
- Air bearings, pneumatic motors/actuators
- Coolant air drying for electronic devices
- Any other application requiring ultra-dry air

Technical Specifications

DA-MINI Series



Model		DA-MINI 70L		DA-MINI 70H		
Column Length (cm/ins)		23.5 / 9.25		28.9 / 11.38		
At -70°C / -94°F Dewpoint	Input Pressure		Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow
	psi 100	bar 6.89	Nm ³ /hr / l/hr 0.39 / 390	Nm ³ /hr / l/hr 1.18 / 1,180	Nm ³ /hr / l/hr 1.58 / 1,580	Nm ³ /hr / l/hr 3.16 / 3,160
Model		DA-MINI 40L		DA-MINI 40H		
Column Length (cm/ins)		23.5 / 9.25		28.9 / 11.38		
At -40°C / -40°F Dewpoint	Input Pressure		Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow
	psi 100	bar 6.89	Nm ³ /hr / l/hr 0.51 / 510	Nm ³ /hr / l/hr 1.44 / 1,440	Nm ³ /hr / l/hr 2.03 / 2,030	Nm ³ /hr / l/hr 4.07 / 4,070
Air Requirement	INLET FLOW NEEDS TO BE 25% GREATER TO ACHIEVE THE ABOVE OUTLET FLOWS					
Dimensions (excluding box)						
Depth (cm/ins)		23.5 / 9.25		28.9 / 11.38		
Height (cm/ins)		10.16 / 4		11.43 / 4.5		
Width (including filter) (cm/ins)		9.53 / 3.75		12.06 / 4.75		
Weight (kg/lbs)		0.45 / 1		0.90 / 2		
Operating Pressure (psi/bar)		50 to 125 / 3.45 to 8.62 (maximum)				
Power Options		115VAC / 230VAC / 12VDC				
All performance data generated using saturated inlet conditions at 21.11°C / 70°F						

Technical Specifications

DA-MIDI Series (-70C)

Model		DA-MIDI 70L		DA-MIDI 70M		DA-MIDI 70H		
Column Length (cm/ins)		15.24 / 6		30.48 / 12		50.8 / 20		
	Input Pressure	Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow	
At -70°C / -94°F Dewpoint	psi							
	bar							
	125	8.62	Nm ³ /hr / l/hr 0.08 / 80	Nm ³ /hr / l/hr 3.99 / 3,990	Nm ³ /hr / l/hr 9.00 / 9,000	Nm ³ /hr / l/hr 11.72 / 11,720	Nm ³ /hr / l/hr 13.08 / 13,080	Nm ³ /hr / l/hr 19.36 / 19,360
	110	7.58	0.10 / 100	3.48 / 3,480	7.30 / 7,300	9.85 / 9,850	11.38 / 11,380	17.32 / 17,320
	100	6.89	0.10 / 100	3.24 / 3,240	7.30 / 7,300	8.40 / 8,400	9.68 / 9,680	13.25 / 13,250
	90	6.20	0.10 / 100	2.88 / 2,880	6.96 / 6,960	8.15 / 8,150	9.17 / 9,170	11.55 / 11,550
	80	5.52	0.12 / 120	2.48 / 2,480	5.52 / 5,520	8.62 / 8,620	7.47 / 7,470	9.85 / 9,850
	70	4.83	0.10 / 100	2.05 / 2,050	4.59 / 4,590	5.26 / 5,260	6.28 / 6,280	8.15 / 8,150
	60	4.14	0.08 / 80	1.54 / 1,540	3.74 / 3,740	4.58 / 4,580	5.43 / 5,430	6.62 / 6,620
	50	3.45	0.07 / 70	1.18 / 1,180	2.79 / 2,790	3.10 / 3,100	3.22 / 3,220	4.92 / 4,920
	40	2.76	0.08 / 80	0.90 / 900	1.92 / 1,920	2.34 / 2,340	2.63 / 2,630	3.22 / 3,220
30	2.07	0.05 / 50	0.57 / 570	0.82 / 820	1.18 / 1,180	1.52 / 1,520	1.86 / 1,860	
Air Requirement		INLET FLOW NEEDS TO BE 25% GREATER TO ACHIEVE THE ABOVE OUTLET FLOWS						
Depth (cm/ins)		12.7 / 5		12.7 / 5		12.7 / 5		
Height (cm/ins)		27.94 / 11		43.18 / 17		63.5 / 25		
Width (incl. filter) (cm/ins)		38.1 / 15		38.1 / 15		38.1 / 15		
Weight (kg/lbs)		3.17 / 7		4.08 / 9		8.62 / 19		
Power Options		115VAC / 230VAC						
These units come with filtration, a moisture indicator and a regulator as standard								
All performance data generated using saturated inlet conditions at 21.11°C / 70°F								



Technical Specifications

DA-MIDI Series (-40C)

Model		DA-MIDI 40L		DA-MIDI 40M		DA-MIDI 40H		
Column Length (cm/ins)		15.24 / 6		30.48 / 12		50.8 / 20		
	Input Pressure		Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow
	psi	bar	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr
At -40°C / -40°F Dewpoint	125	8.62	0.08 / 80	5.43 / 5,430	12.06 / 12,060	14.27 / 14,270	14.81 / 14,810	23.95 / 23,950
	110	7.58	0.10 / 100	4.75 / 4,750	10.53 / 10,530	11.89 / 11,890	13.25 / 13,250	21.06 / 21,060
	100	6.89	0.10 / 100	3.92 / 3,920	9.00 / 9,000	11.55 / 11,550	12.91 / 12,910	16.31 / 16,310
	90	6.20	0.10 / 100	3.90 / 3,900	8.83 / 8,830	9.85 / 9,850	11.21 / 11,210	14.78 / 14,780
	80	5.52	0.12 / 120	3.17 / 3,170	7.13 / 7,130	8.32 / 8,320	9.34 / 9,340	13.25 / 13,250
	70	4.83	0.12 / 120	2.71 / 2,710	6.80 / 6,800	6.70 / 6,700	7.98 / 7,980	11.21 / 11,210
	60	4.14	0.12 / 120	2.20 / 2,200	4.76 / 4,760	5.26 / 5,260	6.45 / 6,450	8.49 / 8,490
	50	3.45	0.10 / 100	1.86 / 1,860	3.74 / 3,740	4.58 / 4,580	5.60 / 5,600	6.45 / 6,450
	40	2.76	0.08 / 80	1.27 / 1,270	2.89 / 2,890	3.22 / 3,220	3.73 / 3,730	4.92 / 4,920
	30	2.07	0.07 / 70	0.91 / 910	1.69 / 1,690	2.03 / 2,030	2.37 / 2,370	2.88 / 2,880
Air Requirement		INLET FLOW NEEDS TO BE 25% GREATER TO ACHIEVE THE ABOVE OUTLET FLOWS						
Depth (cm/ins)		12.7 / 5		12.7 / 5		12.7 / 5		
Height (cm/ins)		27.94 / 11		43.18 / 17		63.5 / 25		
Width (incl. filter) (cm/ins)		38.1 / 15		38.1 / 15		38.1 / 15		
Weight (kg/lbs)		3.17 / 7		4.08 / 9		8.62 / 19		
Power Options		115VAC / 230VAC						
These units come with filtration, a moisture indicator and a regulator as standard								
All performance data generated using saturated inlet conditions at 21.11°C / 70°F								



Technical Specifications

DA-MAXI Series (-40C)

Model		DA-MAXI 40L		DA-MAXI 40M		DA-MAXI 40H			
Column Length (cm/ins)		38.1 / 15		49 / 19.3		62.23 / 24.5			
	Input Pressure		Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow	Min Outlet Flow	Max Outlet Flow	
	psi	bar	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	Nm ³ /hr / l/hr	
At -40°C / -40°F Dewpoint	150	10.34	32.28 / 32,280	50.97 / 50,970	40.77 / 40,770	50.97 / 50,970	73.05 / 73,050	103.63 / 103,630	
	120	8.27	25.48 / 25,480	40.77 / 40,770	32.28 / 32,280	40.77 / 40,770	57.76 / 57,760	81.55 / 81,550	
	100	6.89	22.09 / 22,090	32.28 / 32,280	27.18 / 27,180	32.28 / 32,280	45.87 / 45,870	66.26 / 66,260	
	80	5.52	16.99 / 16,990	25.48 / 25,480	20.38 / 20,380	25.48 / 25,480	35.67 / 35,670	50.97 / 50,970	
	50	3.45	10.19 / 10,190	15.29 / 15,290	11.89 / 11,890	15.29 / 15,290	20.38 / 20,380	28.88 / 28,880	
Air Requirement		INLET FLOW NEEDS TO BE 25% GREATER TO ACHIEVE THE ABOVE OUTLET FLOWS							
Depth (cm/ins)		13.97 / 5.5		16.2 / 6.37		16.2 / 6.37			
Height (cm/ins)		64.7 / 25.5		76.2 / 30		89.5 / 35.25			
Width (incl. filter) (cm/ins)		20.95 / 8.25		23.5 / 9.25		23.5 / 9.25			
Weight (kg/lbs)		Weight on application from Texol							
Power Options		115VAC / 230VAC							
These units come with filtration, a moisture indicator and a regulator as standard									
All performance data generated using saturated inlet conditions at 21.11°C / 70°F									

Contact Details

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