Parker Zander

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ENGINEERING YOUR SUCCESS.

COMPRESSED AIR TREATMENT REDEFINED

MX | HEATLESS COMPRESSED AIR DRYER

Parker Zander MX heatless regeneration compressed air dryer. Innovative engineering and technology.

Providing clean, dry compressed air in accordance with all editions of ISO8573-1, the international standard for compressed air quality.

MODULAR CONSTRUCTION

Allows greater flexibility, dryers can be multi-banked to provide extra compressed air drying capacity should demand increase. This feature allows 100% standby at a fraction of the cost of alternative construction methods and also allows individual dryers to be easily isolated for routine service work, whilst maintaining the plant's clean, dry air supply.

Compact, lightweight design

High tensile extruded aluminium columns and manifolds reduce the footprint of the dryer, allowing for easy installation and maintenance. Fully corrosion protected inside and out and covered by a 10 year guarantee on the pressure envelope.

International approval standards

Due to the column design, MX is exempt from the pressure vessel inspection requirements of ASME meaning the elimination of costly annual checks. MX is also fully compliant with PED/CSA/UL/CRN approvals.

Consistent dewpoint performance

-40°C and -70°C dewpoint models will inhibit the growth of micro-organisms as well as eliminate downstream corrosion. Snowstorm desiccant filling provides 100% utilisation of the dryer bed, preventing air channelling, significantly reducing attrition which could lead to blocked filters and loss of dewpoint.

Quiet operation

Low operational noise levels of <75 db (A) helps to support a safe working environment.

Four control options

Three variants of electrical operation offer users flexibility and additional advanced features to meet plant requirements. MXP models provide ATEX Group II, category 2GD, T6 approved pneumatic control.

Energy Saving Technology (DDS)

MXA models (optional on MXS) automatically adapts dryer operation to the ambient inlet conditions and compressed air demand, ensuring optimum energy consumption and full utilisation of the desiccant material.

Compressor synchronisation

When the dryer is installed prior to the air receiver, MX can provide a purge economy feature that prevents the dryer from carrying out its regeneration cycle when the compressor goes off load. This saves energy and money with the elimination of the use of unnecessary purge air. Normal drying cycles automatically resumes once the compressor re-starts.

Product Selection

Dryer Model	Controller Type	Number of Drying Banks	Number of Drying Columns	DDS Energy Management
MX	S = Smart A = Advanced P = Pneumatic	Number of individual dryers in installation	Number of columns per dryer bank	DDS = DDS Fitted (DDS standard with Advanced Controllers)
MX	S	3	08	DDS

Example Dryer Model MXS308DDS
*Please state dewpoint at time of ordering

Flow Rates

Stated flows are for operation at 7 bar g (100 psi g) with reference to 20°C, 1 bar a, 0% relative water vapour pressure.
For flows at other pressures apply the correction factors shown.

	Model	Port Connection	L/s	m^3/min	m^3/hr	cfm
Single Bank	MX ☐ 102C	G2	113	6.8	408	240
	MX ☐ 103C	G2	170	10.2	612	360
	MX ☐ 103	G2	213	12.8	765	450
	MX ☐ 104	G2 1/2	283	17	1020	600
	MX ☐ 105	G2 1/2	354	21	1275	750
	MX ☐ 106	G2 1/2	425	26	1530	900
	MX ☐ 107	G2 1/2	496	30	1785	1050
	MX ☐ 108	G2 1/2	567	34	2040	1200
Multi-Bank	MX ☐ 205	G2 1/2	708	43	2550	1500
	MX ☐ 206	G2 1/2	850	51	3060	1800
	MX ☐ 207	G2 1/2	992	60	3570	2100
	MX ☐ 208	G2 1/2	1133	68	4080	2400
	MX ☐ 306	G2 1/2	1275	77	4590	2700
	MX ☐ 307	G2 1/2	1488	89	5355	3150
	MX ☐ 308	G2 1/2	1700	102	6120	3600

☐ = S (Smart) / A (Advanced) / P (Pneumatic)

Correction Factor

Temperature Correction Factor CFT							
Maximum Inlet Temperature	°C	25	30	35	40	45	50
	°F	77	86	95	104	113	122
	CFT	1.00	1.00	1.00	1.04	1.14	1.37

Pressure Correction Factor CFP											
Minimum Inlet Pressure	bar g	4	5	6	7	8	9	10	11	12	13
	psi g	58	73	87	100	116	131	145	160	174	189
	CFP	1.60	1.33	1.14	1.00	0.89	0.80	0.73	0.67	0.62	0.57

Dewpoint Correction Factor CFD				
Required Dewpoint	PDP °C	-20	-40	-70
	PDP °F	-4	-40	-100
	CFD	0.91	1.00	1.43

Dryer Selection
To correctly select a dryer model, the flow rate of the dryer must be adjusted for the minimum operating pressure and, maximum operational temperature of the system. If the dewpoint required is different to the standard dewpoint of the dryer then the flow rate must also be adjusted for the required outlet dewpoint.

1. Obtain the minimum operating pressure, maximum inlet temperature and maximum compressed air flow rate at the inlet of the dryer. Obtain the outlet dewpoint required.
2. Select correction factor for maximum inlet temperature from the CFT Table (always round up e.g. for 37°C use 40°C correction factor)
3. Select correction factor for minimum inlet pressure from the CFP table (always round down e.g. for 5.3 bar use 5 bar correction factor)
4. Select correction factor for required outlet dewpoint from the CFD table
5. Calculate minimum drying capacity
   Minimum Drying Capacity = Compressed Air Flow x CFT x CFP x CFD
6. Using the minimum drying capacity, select a dryer model from the flow rate tables above (dryer selected must have a flow rate equal to or greater than the minimum drying capacity)

If the minimum drying capacity exceeds the maximum values of the models shown within the tables, please contact Parker Zander for advice regarding larger multi-banked dryers.

Dryer Performance

Model	Dewpoint (Standard)		ISO 8573-1:2010 Classification (standard)	Dewpoint (Option 1)		ISO 8573-1:2010 Classification (Option 1)	Dewpoint (Option 2)		ISO 8573-1:2010 Classification (Option 2)
	°C	°F		°C	°F		°C	°F	
MX ☐	-40	-40	Class 2	-70	-100	Class 1	-20	-4	Class 3

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Technical Data

Model	Min Operating Pressure		Max Operating Pressure		Min Operating Temperature		Max Operating Temperature		Max Ambient Temperature		Electrical Supply (standard)	Thread Connections	Noise Level
	bar g	psi g	bar g	psi g	°C	°F	°C	°F	°C	°F			dB (A)
MXS	4	58	13	190	2	35	50	122	55	131	85 - 265 V 1ph 50/60Hz	BSPP or NPT	<75
MXA	4	58	13	190	2	35	50	122	55	131	85 - 265 V 1ph 50/60Hz	BSPP or NPT	<75
MXP	4	58	13	190	2	35	50	122	55	131	N/A	BSPP or NPT	<75

Controller Options

Controller Options	Function								
	Power on Indication	Fault Indication	Display Fault Condition Values	Service Interval Indication	Service Countdown Timers	Comfigurable Alarm Settings	Remote Volt Free Alarm Contacts	Filter Service Timer	DDS Energy Management System
Smart	●	●		●			●		
Smart DDS	●	●		●			●		●
Advanced	●	●	●	●	●	●	●	●	●

Weights and Dimensions

Model	Port Connection	Height (H)		Width (W)		Depth (D)		Weight	
		mm	ins	mm	ins	mm	ins	kg	lbs
MX ☐ 102C	G 2	1647	64.8	687	27.0	550	21.7	235	518
MX ☐ 103C	G 2	1647	64.8	856	33.7	550	21.7	316	696
MX ☐ 103	G 2	1892	74.5	856	33.7	550	21.7	355	782
MX ☐ 104	G 2	1892	74.5	1025	40.3	550	21.7	450	992
MX ☐ 105	G 2½	1892	74.5	1194	47.0	550	21.7	543	1197
MX ☐ 106	G 2½	1892	74.5	1363	53.6	550	21.7	637	1404
MX ☐ 107	G 2½	1892	74.5	1532	60.3	550	21.7	731	1611
MX ☐ 108	G 2½	1892	74.5	1701	67.0	550	21.7	825	1818

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Recommended Filtration

Model	Port Connection	Inlet General Purpose Pre-filter	Inlet High Efficiency Filter	Outlet Dust Filter
MX☐102C	2"	AOP040H☐FX	AAP040H☐FX	AOP040H☐MX
MX☐103C	2"	AOP040H☐FX	AAP040H☐FX	AOP040H☐MX
MX☐103	2"	AOP045H☐FX	AAP045H☐FX	AOP045H☐MX
MX☐104	2½"	AOP045H☐FX	AAP045H☐FX	AOP045H☐MX
MX☐105	2½"	AOP050I☐FX	AAP050I☐FX	AOP050I☐MX
MX☐106	2½"	AOP055I☐FX	AAP055I☐FX	AOP055I☐MX
MX☐107	2½"	AOP055I☐FX	AAP055I☐FX	AOP055I☐MX
MX☐108	2½"	AOP055I☐FX	AAP055I☐FX	AOP055I☐MX

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Adsorption dryers are designed to remove water vapour from compressed air. For optimum performance and to deliver air quality in accordance with all editions of ISO8573-1, liquid water, oil and solid particulate must be first be removed using Parker domnick hunter OIL-X Grade AOP, AAP filters. Grade AOP filters (with manual drain) should also be fitted to the outlet of the dryer for solid particulate removal.