COMPRESSED AIR TREATMENT REDEFINED

MX | HEATLESS COMPRESSED AIR DRYER

Parker 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, while 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°F and -100°F dewpoint models will inhibit the growth of micro-organisms as well as eliminate downstream corrosion. Snowstorm desiccant filling provides 100% utilization 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.

Flexible control options

MXSmart offers users flexibility and additional advanced features in electrical operation to meet plant requirements. MXP models provide ATEX Group II, category 2GD, T6 approved pneumatic control.

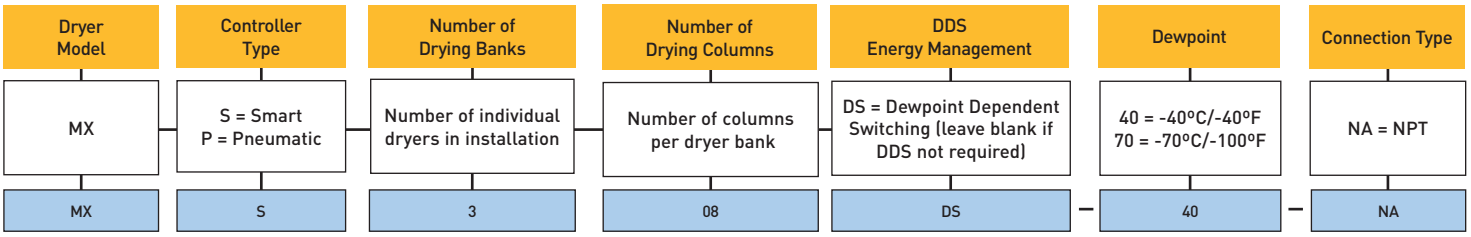
Energy Saving Technology (DDS)

This option automatically adapts dryer operation to the ambient inlet conditions and compressed air demand, ensuring optimum energy consumption and full utilization of the desiccant material.

Compressor synchronization

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



Example Dryer Model MXS308DS-40-NA

Flow Rates

Stated flows are for operation at 7 bar g (100 psi g) with reference to 68°F (20°C), 14.5 psia (1 bar a), 0% relative water vapor pressure.
For flows at other pressures apply the correction factors shown.

	Model	Port Connection	cfm	L/s	m^3/min	m^3/hr
Single Bank	MX ☐ 102C	2" NPT	240	113	6.8	408
	MX ☐ 103C	2" NPT	360	170	10.2	612
	MX ☐ 103	2" NPT	450	213	12.8	765
	MX ☐ 104	2½" NPT	600	283	17	1020
	MX ☐ 105	2½" NPT	750	354	21	1275
	MX ☐ 106	2½" NPT	900	425	26	1530
	MX ☐ 107	2½" NPT	1050	496	30	1785
	MX ☐ 108	2½ " NPT	1200	567	34	2040
Multi-Bank	MX ☐ 205	2½ " NPT	1500	708	43	2550
	MX ☐ 206	2½" NPT	1800	850	51	3060
	MX ☐ 207	2½" NPT	2100	992	60	3570
	MX ☐ 208	2½" NPT	2400	1133	68	4080
	MX ☐ 306	2½" NPT	2700	1275	77	4590
	MX ☐ 307	2½" NPT	3150	1488	89	5355
	MX ☐ 308	2½" NPT	3600	1700	102	6120

☐ = S (Smart) / 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 107°F use 113°F correction factor)
3. Select correction factor for minimum inlet pressure from the CFP table (always round down e.g. for 92 psi use 87 psi 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 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
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	●	●		●			●		●

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 vapor 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.

Worldwide Filtration Manufacturing Locations

North America

Compressed Air Treatment

Industrial Gas Filtration and Generation Division
Lancaster, NY
716 686 6400
www.parker.com/igfg

Haverhill, MA
978 858 0505
www.parker.com/igfg

Engine Filtration

Racor
Modesto, CA
209 521 7860
www.parker.com/racor

Holly Springs, MS
662 252 2656
www.parker.com/racor

Hydraulic Filtration

Hydraulic & Fuel Filtration
Metamora, OH
419 644 4311
www.parker.com/hydraulicfilter

Laval, QC Canada
450 629 9594
www.parkerfarr.com

Velcon
Colorado Springs, CO
719 531 5855
www.velcon.com

Process Filtration

domnick hunter Process Filtration
SciLog
Oxnard, CA
805 604 3400
www.parker.com/processfiltration

Water Purification

Village Marine, Sea Recovery, Horizon Reverse Osmosis
Carson, CA
310 637 3400
www.parker.com/watermakers

Europe

Compressed Air Treatment

domnick hunter Filtration & Separation
Gateshead, England
+44 (0) 191 402 9000
www.parker.com/dhfns

Parker Gas Separations
Etten-Leur, Netherlands
+31 76 508 5300
www.parker.com/dhfns

Hiross Airtek
Essen, Germany
+49 2054 9340
www.parker.com/hzfd

Padova, Italy
+39 049 9712 111
www.parker.com/hzfd

Engine Filtration & Water Purification

Racor
Dewsbury, England
+44 (0) 1924 487 000
www.parker.com/rfde

Racor Research & Development
Stuttgart, Germany
+49 (0)711 7071 290-10

Hydraulic Filtration

Hydraulic Filter
Arnhem, Holland
+31 26 3760376
www.parker.com/hfde

Urjala, Finland
+358 20 753 2500

Condition Monitoring
Parker Kittiwake
West Sussex, England
+44 (0) 1903 731 470
www.kittiwake.com

Process Filtration

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Parker Twin Filter BV
Birtley, England
+44 (0) 191 410 5121
www.parker.com/processfiltration

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Sao Paulo, Brazil
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www.parker.com/br

Pan American Division
Miami, FL
305 470 8800
www.parker.com/panam

Africa

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www.parker.com/africa

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www.parker.com/igfg

State of California ONLY
WARNING: Proposition 65
The products described herein can expose you to chemicals known to the State of California to cause cancer or reproductive harm.
For more information: www.P65Warnings.ca.gov

MANAGEMENT SYSTEM CERTIFICATION
DNV·GL
ISO 9001 ISO 14001