

# MX ATEX Pneumatic Heatless Adsorption Dryers

## Dryer Performance

| Dryer Models | Dewpoint (Standard) |     | ISO8573-1:2010 Classification (Standard) | Dewpoint (Option 1) |      | ISO8573-1:2010 Classification (Option 1) | Dewpoint (Option 2) |    | ISO8573-1:2010 Classification (Option 2) |
|--------------|---------------------|-----|--|---------------------|------|--|---------------------|----|--|
|              | °C                  | °F  |  | °C                  | °F   |  | °C                  | °F |  |
| MXS DS       | -40                 | -40 | Class 2.2.2                              | -70                 | -100 | Class 2.1.2                              | -20                 | -4 | Class 2.3.2                              |

ISO8573-1 Classifications when used with OIL-X pre / post filtration

## Technical Data

| Dryer Models         | Minimum Operating Pressure |       | Maximum Operating Pressure |       | Minimum Operating Temperature |    | Maximum Operating Temperature |     | Maximum Ambient Temperature |     | Electrical Supply (Standard)               | Electrical Supply (Optional) | Thread Type | Noise Level<br>dB(A) |
|----------------------|----------------------------|-------|----------------------------|-------|-------------------------------|----|-------------------------------|-----|-----------------------------|-----|--|------------------------------|-------------|----------------------|
|                      | bar g                      | psi g | bar g                      | psi g | °C                            | °F | °C                            | °F  | °C                          | °F  |  |                              |             |                      |
| MXS102CDS - MXS108DS | 4                          | 58    | 13                         | 190   | 5                             | 41 | 50                            | 122 | 55                          | 131 | Not Applicable - Fully Pneumatic Operation |                              | BSPP        | <75                  |

## Flow Rates

| Model   | Pipe Size | Inlet Flow Rate |        |       |      |
|---------|-----------|-----------------|--------|-------|------|
|         |           | L/s             | m³/min | m³/hr | cfm  |
| MXP102c | 2"        | 113             | 6.81   | 408   | 240  |
| MXP103c | 2"        | 170             | 10.22  | 612   | 360  |
| MXP103  | 2"        | 213             | 12.75  | 765   | 450  |
| MXP104  | 2½"       | 283             | 17     | 1020  | 600  |
| MXP105  | 2½"       | 354             | 21     | 1275  | 750  |
| MXP106  | 2½"       | 425             | 26     | 1530  | 900  |
| MXP107  | 2½"       | 496             | 30     | 1785  | 1050 |
| MXP108  | 2½"       | 567             | 34     | 2040  | 1200 |

Stated flows are for operation at 7 bar (g) (102 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 below.

## Product Selection & Correction Factors

For correct operation, compressed air dryers must be sized using for the maximum (summer) inlet temperature, maximum (summer) ambient temperature, minimum inlet pressure, required outlet dewpoint and maximum flow rate of the installation.

To select a dryer, first calculate the MDC (Minimum Drying Capacity) using the formula below then select a dryer from the flow rate table above with a flow rate equal to or above the MDC.

Minimum Drying Capacity = System Flow x CFMIT x CFMAT x CFMIP x CFOD

### CFMIT - Correction Factor Maximum Inlet Temperature

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

### CFMAT - Correction Factor Maximum Ambient Temperature

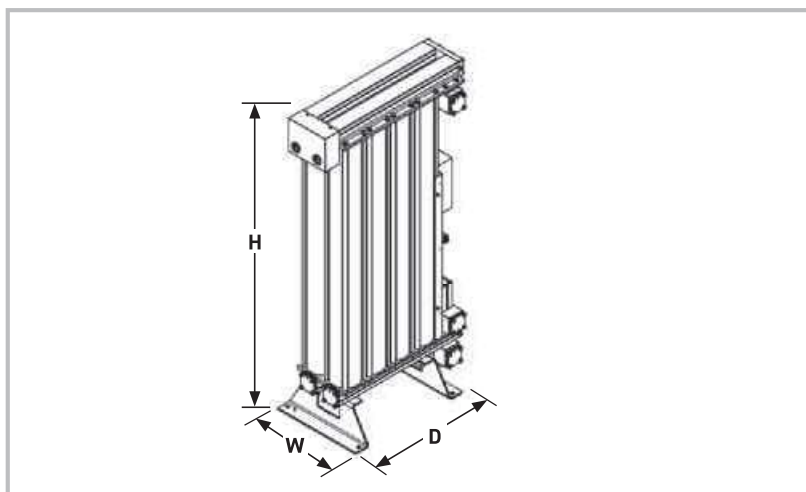
| Maximum Ambient Temperature | °C | 25   | 30   | 35   | 40   | 45   | 50   |
|-----------------------------|----|------|------|------|------|------|------|
|                             | °F | 77   | 86   | 95   | 104  | 113  | 122  |
| Correction Factor           |    | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |

### CFMIP - Correction Factor Minimum Inlet Pressure

| 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  |
| Correction Factor      |       | 1.60 | 1.33 | 1.14 | 1.00 | 0.89 | 0.80 | 0.73 | 0.67 | 0.62 | 0.57 |

### CFOD - Correction Factor Outlet Dewpoint

| Outlet Dewpoint   | °C | -20  | -40  | -70  |
|-------------------|----|------|------|------|
|                   | °F | -4   | -40  | -100 |
| Correction Factor |    | 0.91 | 1.00 | 1.43 |



## Weights & Dimensions

| Model  | Dimensions |      |           |      |           |      | Weight |      |
|--------|------------|------|-----------|------|-----------|------|--------|------|
|        | Height (H) |      | Width (W) |      | Depth (D) |      |        |      |
|        | mm         | ins  | mm        | ins  | mm        | ins  | kg     | lbs  |
| MX102C | 1647       | 64.8 | 687       | 27.0 | 550       | 21.7 | 235    | 518  |
| MX103C | 1647       | 64.8 | 856       | 33.7 | 550       | 21.7 | 316    | 696  |
| MX103  | 1892       | 74.5 | 856       | 33.7 | 550       | 21.7 | 355    | 782  |
| MX104  | 1892       | 74.5 | 1025      | 40.3 | 550       | 21.7 | 450    | 992  |
| MX105  | 1892       | 74.5 | 1194      | 47.0 | 550       | 21.7 | 543    | 1197 |
| MX106  | 1892       | 74.5 | 1363      | 53.6 | 550       | 21.7 | 637    | 1404 |
| MX107  | 1892       | 74.5 | 1532      | 60.3 | 550       | 21.7 | 731    | 1611 |
| MX108  | 1892       | 74.5 | 1701      | 67.0 | 550       | 21.7 | 825    | 1818 |

## Recommended Filtration

| Model   | Pipe Size<br>BSPP | Dryer Inlet                   |                           | Dryer Outlet                   |  |  |
|---------|-------------------|-------------------------------|---------------------------|--------------------------------|--|--|
|         |                   | General Purpose<br>Pre-filter | High Efficiency<br>Filter | Oil Vapour<br>Reduction Filter | General Purpose<br>Dry Particulate<br>Filter | High Efficiency<br>Dry Particulate<br>Filter |
| MXP102c | 2"                | AOP040HGFX                    | AAP040HGFX                | -                              | AOP040HGMX                                   | -  |
| MXP103c | 2"                | AOP040HGFX                    | AAP040HGFX                | -                              | AOP040HGMX                                   | -  |
| MXP103  | 2"                | AOP040HGFX                    | AAP040HGFX                | -                              | AOP040HGMX                                   | -  |
| MXP104  | 2½"               | AOP045IGFX                    | AAP045IGFX                | -                              | AOP045IGMX                                   | -  |
| MXP105  | 2½"               | AOP050IGFX                    | AAP050IGFX                | -                              | AOP050IGMX                                   | -  |
| MXP106  | 2½"               | AOP050IGFX                    | AAP050IGFX                | -                              | AOP050IGMX                                   | -  |
| MXP107  | 2½"               | AOP055IGFX                    | AAP055IGFX                | -                              | AOP055IGMX                                   | -  |
| MXP108  | 2½"               | AOP055IGFX                    | AAP055IGFX                | -                              | AOP055IGMX                                   | -  |

## Parker Catalogue Numbers

| Model   | Catalogue Number<br>-20°C PDP / -40°C PDP | Catalogue Number<br>-70°C PDP |
|---------|---|-------------------------------|
| MXP102c | MXP102C-40-ATEX                           | MXP102C-70-ATEX               |
| MXP103c | MXP103C-40-ATEX                           | MXP103C-70-ATEX               |
| MXP103  | MXP103-40-ATEX                            | MXP103-70-ATEX                |
| MXP104  | MXP104-40-ATEX                            | MXP104-70-ATEX                |
| MXP105  | MXP105-40-ATEX                            | MXP105-70-ATEX                |
| MXP106  | MXP106-40-ATEX                            | MXP106-70-ATEX                |
| MXP107  | MXP107-40-ATEX                            | MXP107-70-ATEX                |
| MXP108  | MXP108-40-ATEX                            | MXP108-70-ATEX                |

**Dryer catalogue number does not include filtration -  
Please order filters separately**

### Important Notes Regarding the Ordering of MXS dryers

Please note that when ordering MXP heatless dryers, the following items must also be ordered separately.

- Dryer Model
- Inlet / Outlet Flange kit (BSPP or NPT)
- Pre / Post Filtration (Grades AO / AA/ A0)
- FCD (Flow Control Device) - only required for multi-bank installations
- QRV - Part Number 608203833 for operation 9 bar g