Flow Control Device (FCD)

Why do I need a Flow Control Device for multi-bank installations?

When the compressed air requirements of a facility requires the installation of more than one single MX dryer, flow control devices (known as FCDs or sonic nozzles) must be fitted to the outlet of each dryer to protect it from overflow or preferential flow.

FCDs are sized to an installation and are designed to provide no more than 125% of the outlet flow of the dryer. If the system usage tries to overflow the dryer by more than 125% the FCD will restrict air flow, increasing differential pressure.

Benefits of Fitting a Flow Control Device:

- Prevents preferential or significant overflow of the dryer
- Helps to maintain a constant outlet pressure dewpoint
- Indicates by high pressure drop when system demand exceeds rated capacity

Example of a multi-bank installation

Flanged Connection Kits for MX Dryers

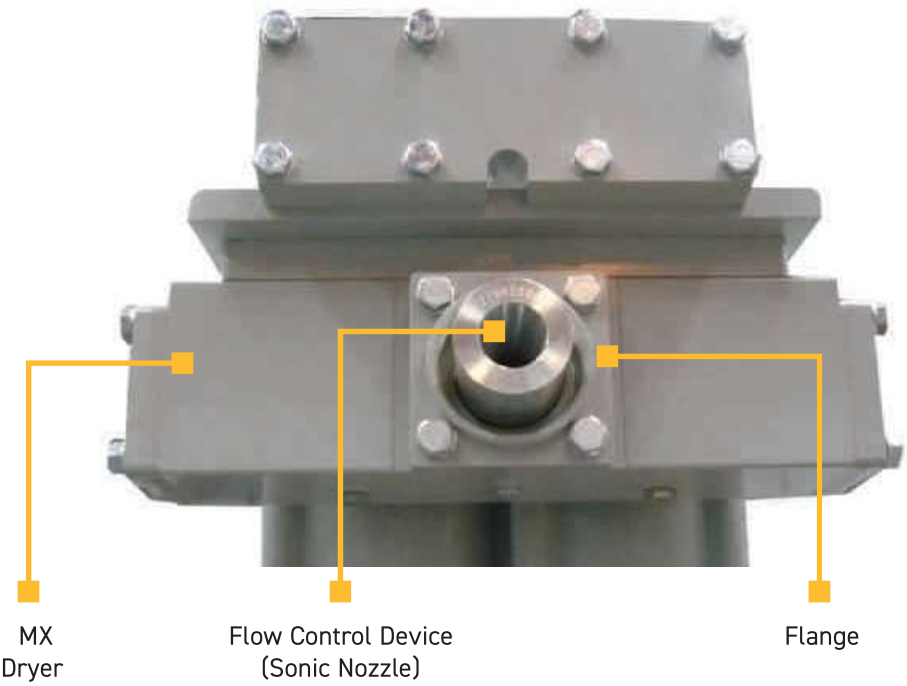
MX dryers do not include an inlet / outlet connection. When ordering an MX dryer the flanged connection kit must be ordered in addition to the dryer and must match the connection sizes of the inlet & outlet filtration.

When more than one dryer is installed (multi-bank installation), a Flow Control Device (FCD) is also required. The FCD will fit inside the outlet flange. Please order the appropriate inlet / outlet connection kit from the list below and FCD from the tables on the following pages.

608620077 thread connection kit (outlet flange on left)

The MX102c – MX103 dryers have 2" connections
608620076 FCD threaded connection 2" BSPP
608620078 FCD threaded connection 2" NPT

The MX104 – MX108 dryers have 2.5" connections
608620077 FCD threaded connection 2½" BSPP
608620079 FCD threaded connection 2½" NPT



Flow Control Device (FCD) Product Selection For MX Heatless Dryer

To size FCDs correctly, the following information is required:

- Dryer model
- Dewpoint dryer has been sized to deliver
- Minimum inlet pressure
- Maximum inlet temperature

Sizing Example

The customer orders 2 x MXS108 and requires BSPP connections. The site parameters are an inlet temperature of 35°C, inlet pressure of 7 bar g, and a pressure dewpoint of -40°C. The FCD is 608620053, and the correct flange kit is 608620077.

35°C Inlet Temperature -20°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
5 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
6 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
7 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620056
8 bar	608620011	608620016	608620019	608620024	608620046	608620050	608620053	608620056
9 bar	608620011	608620016	608620020	608620024	608620046	608620050	608620053	608620057
10 bar	608620012	608620017	608620020	608620024	608620047	608620050	608620054	608620057
11 bar	608620012	608620017	608620020	608620025	608620047	608620051	608620054	608620057
12 bar	608620012	608620017	608620020	608620025	608620047	608620051	608620054	Contact Parker
13 bar	608620012	608620017	608620020	608620025	608620047	608620051	608620054	Contact Parker

35°C Inlet Temperature -40°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620008	608620012	608620015	608620019	608620040	608620044	608620047	608620049
5 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
6 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
7 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
8 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620050	608620053
9 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
10 bar	608620010	608620015	608620018	608620023	608620044	608620048	608620051	608620054
11 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
12 bar	608620011	608620015	608620019	608620023	608620045	608620049	608620052	608620055
13 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620055

35°C Inlet Temperature -70°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620008	608620012	608620015	608620019	608620040	608620044	608620047	608620049
5 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
6 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
7 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
8 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620050	608620053
9 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
10 bar	608620010	608620015	608620018	608620023	608620044	608620048	608620051	608620054
11 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
12 bar	608620011	608620015	608620019	608620023	608620045	608620049	608620052	608620055
13 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620055

Flow Control Device (FCD) Product Selection For MX Heatless Dryer

40°C Inlet Temperature -20°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620009	608620014	608620016	608620021	608620042	608620046	608620049	608620051
5 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
6 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
7 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620052	608620055
8 bar	608620011	608620016	608620019	608620023	608620045	608620049	608620052	608620055
9 bar	608620011	608620016	608620019	608620024	608620046	608620049	608620053	608620056
10 bar	608620011	608620016	608620019	608620024	608620046	608620050	608620053	608620056
11 bar	608620011	608620016	608620020	608620024	608620046	608620050	608620053	608620057
12 bar	608620012	608620017	608620020	608620024	608620047	608620050	608620054	608620057
13 bar	608620011	608620017	608620020	608620025	608620047	608620050	608620054	608620057

40°C Inlet Temperature -40°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620008	608620012	608620015	608620018	608620040	608620043	608620046	608620048
5 bar	608620009	608620013	608620016	608620020	608620042	608620044	608620047	608620050
6 bar	608620009	608620013	608620016	608620020	608620043	608620045	608620048	608620051
7 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620059	608620052
8 bar	608620010	608620014	608620017	608620021	608620044	608620047	608620050	608620053
9 bar	608620010	608620015	608620017	608620022	608620044	608620047	608620050	608620053
10 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620051	608620054
11 bar	608620010	608620015	608620018	608620022	608620045	608620048	608620051	608620054
12 bar	608620010	608620015	608620018	608620023	608620045	608620048	608620051	608620054
13 bar	608620010	608620015	608620018	608620023	608620045	608620048	608620051	608620054

40°C Inlet Temperature -70°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620003	608620006	608620008	608620011	608620032	608620034	608620036	608620038
5 bar	608620004	608620007	608620009	608620013	608620033	608620036	608620038	608620040
6 bar	608620005	608620008	608620010	608620014	608620034	608620037	608620039	608620042
7 bar	608620005	608620009	608620011	608620014	608620035	608620038	608620040	608620043
8 bar	608620006	608620009	608620012	608620015	608620036	608620039	608620041	608620043
9 bar	608620006	608620010	608620012	608620015	608620036	608620039	608620042	608620044
10 bar	608620006	608620010	608620012	608620016	608620037	608620040	608620042	608620045
11 bar	608620006	608620010	608620012	608620016	608620037	608620040	608620043	608620045
12 bar	608620006	608620010	608620013	608620016	608620037	608620040	608620043	608620045
13 bar	608620007	608620010	608620013	608620016	608620038	608620041	608620043	608620046

45°C Inlet Temperature -20°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
5 bar	608620009	608620013	608620016	608620020	608620041	608620044	608620047	608620050
6 bar	608620009	608620014	608620016	608620021	608620042	608620045	608620049	608620051
7 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052
8 bar	608620010	608620014	608620017	608620022	608620043	608620047	608620050	608620053
9 bar	608620010	608620015	608620018	608620022	608620044	608620047	608620050	608620053
10 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
11 bar	608620010	608620015	608620018	608620022	608620044	608620048	608620051	608620054
12 bar	608620010	608620015	608620018	608620023	608620045	608620048	608620051	608620054
13 bar	608620011	608620015	608620018	608620023	608620045	608620048	608620051	608620054

45°C Inlet Temperature -40°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620007	608620010	608620013	608620016	608620038	608620041	608620043	608620046
5 bar	608620007	608620011	608620014	608620018	608620039	608620042	608620045	608620047
6 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
7 bar	608620008	608620013	608620015	608620019	608620041	608620044	608620047	608620050
8 bar	608620009	608620013	608620016	608620020	608620041	608620045	608620047	608620050
9 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
10 bar	608620009	608620013	608620016	608620020	608620042	608620045	608620048	608620051
11 bar	608620009	608620014	608620016	608620021	608620042	608620046	608620049	608620052
12 bar	608620009	608620014	608620017	608620021	608620042	608620046	608620049	608620052
13 bar	608620009	608620014	608620017	608620021	608620043	608620046	608620049	608620052

45°C Inlet Temperature -70°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620002	608620005	608620007	608620009	608620029	608620032	608620033	608620035
5 bar	608620003	608620006	608620008	608620011	608620031	608620034	608620036	608620038
6 bar	608620004	608620007	608620009	608620012	608620033	608620035	608620037	608620039
7 bar	608620004	608620008	608620010	608620013	608620034	608620036	608620038	608620040
8 bar	608620005	608620008	608620010	608620013	608620034	608620037	608620039	608620041
9 bar	608620005	608620008	608620011	608620014	608620035	608620037	608620040	608620042
10 bar	608620005	608620009	608620011	608620014	608620035	608620038	608620040	608620042
11 bar	608620005	608620009	608620011	608620015	608620036	608620038	608620041	608620043
12 bar	608620006	608620009	608620011	608620015	608620036	608620039	608620041	608620043
13 bar	608620006	608620009	608620012	608620015	608620036	608620039	608620041	608620044

Flow Control Device (FCD) Product Selection For MX Heatless Dryer

50°C Inlet Temperature -20°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620005	608620009	608620011	608620015	608620036	608620038	608620041	608620043
5 bar	608620006	608620010	608620012	608620026	608620037	608620040	608620043	608620045
6 bar	608620007	608620011	608620013	608620017	608620038	608620041	608620044	608620046
7 bar	608620007	608620011	608620014	608620018	608620039	608620042	608620045	608620047
8 bar	608620008	608620012	608620014	608620018	608620040	608620043	608620045	608620048
9 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
10 bar	608620008	608620012	608620015	608620019	608620040	608620043	608620046	608620049
11 bar	608620008	608620012	608620015	608620019	608620041	608620044	608620047	608620049
12 bar	608620008	608620013	608620015	608620019	608620041	608620044	608620047	608620050
13 bar	608620008	608620013	608620016	608620020	608620041	608620044	608620047	608620050

50°C Inlet Temperature -40°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620004	608620007	608620010	608620013	608620033	608620036	608620038	608620040
5 bar	608620005	608620009	608620011	608620014	608620035	608620038	608620040	608620042
6 bar	608620006	608620009	608620012	608620015	608620036	608620039	608620041	608620044
7 bar	608620006	608620010	608620012	608620016	608620037	608620040	608620042	608620045
8 bar	608620007	608620010	608620013	608620016	608620038	608620040	608620043	608620046
9 bar	608620007	608620011	608620013	608620017	608620038	608620041	608620044	608620046
10 bar	608620007	608620011	608620013	608620017	608620038	608620041	608620044	608620047
11 bar	608620007	608620011	608620014	608620017	608620039	608620042	608620044	608620047
12 bar	608620007	608620011	608620014	608620018	608620039	608620042	608620045	608620047
13 bar	608620007	608620012	608620014	608620018	608620039	608620042	608620045	608620048

50°C Inlet Temperature -70°C PDP								
Pressure	**MX 102c**	**MX 103c**	**MX 103**	**MX 104**	**MX 105**	**MX 106**	**MX 107**	**MX 108**
4 bar	608620001	608620002	608620003	608620005	608620028	608620027	608620028	608620030
5 bar	608620001	608620003	608620005	608620007	608620028	608620029	608620031	608620033
6 bar	608620002	608620004	608620006	608620009	608620029	608620031	608620033	608620035
7 bar	608620002	608620005	608620007	608620010	608620030	608620032	608620034	608620036
8 bar	608620003	608620006	608620008	608620010	608620031	608620033	608620035	608620037
9 bar	608620003	608620006	608620008	608620011	608620031	608620034	608620036	608620038
10 bar	608620003	608620006	608620008	608620011	608620032	608620034	608620036	608620038
11 bar	608620004	608620007	608620009	608620012	608620032	608620035	608620037	608620039
12 bar	608620004	608620007	608620009	608620012	608620033	608620035	608620037	608620039
13 bar	608620004	608620007	608620009	608620012	608620033	608620035	608620038	608620040

MX Heatless Dryers (FAQs)

Does the dryer have a fault alarm relay fitted?
Yes, a single pole fault relay is fitted as standard.

Are the inlet valves normally open or normally closed?
The inlet valves on the MX dryer are normally closed as standard.

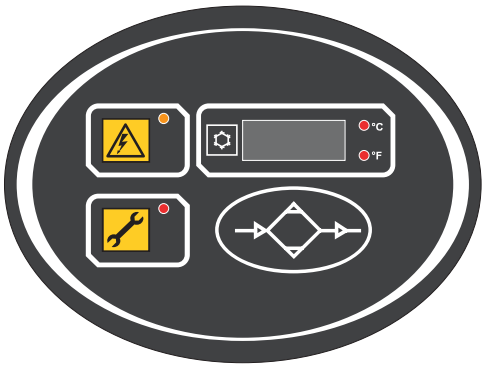
What is the power requirement of the dryer?
MXS, MXSDS = 15W. MXA = 35W.

What IP rating is the dryer?
IP65.

Is a QRV (Quick Re-pressurisation Valve) fitted as standard?
No, if the inlet pressure is equal to or greater than 9 bar, a QRV must be ordered with the dryer. Part Number: 608203833.

Why do I have 3 sets of purge plates in the packing crate?
As standard the dryer will be factory fitted with the 7 bar purge plates. If you are operating the dryer at a different pressure please use the appropriate purge plate.

MX Displays - MXS/DS
MXS display provides power and service interval indicators. The MXS dryer also comes complete with a digital display showing outlet pressure dewpoint and has a ECO display when the dryer is in energy saving mode.



MXS DS Controller

Dewpoint Display
ECO - DDS active display
Sensor failure indication

Option

4-20mA dewpoint re-transmission