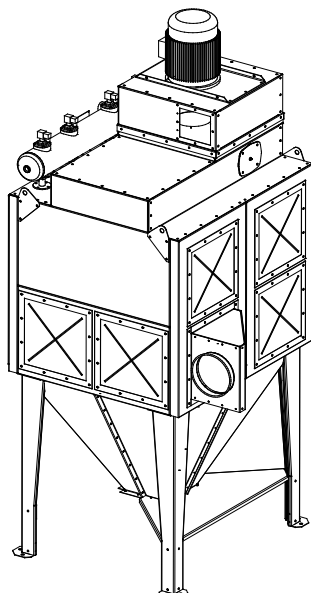


FMCZ200 Cartridge Filter with ATEX certificate

Compact filter for solving dust problems within a wide range of industries where there is dust with a potential explosion hazard



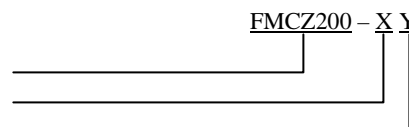
The FMCZ200 filter is a compact cartridge filter equipped with explosion membranes. The filter is ideal for solving dust problems within a wide range of industries where there is dust with a potential explosion hazard (St1, St2 dust or St3 dust up to Kst 600). The filter is designed for outdoor location.

The FMCZ200 filter is designed for explosive dust and contains a type certificate by a Notified Body under the ATEX Directive. The certificate identifies the raw gas section of the filter as zone 20 and allows P_{red} up to 0.3 bar.

The FMCZ200 filter is easy to maintain due to the following features:

- Inspection and change of filter cartridges can take place within a few minutes
- Front service of the cleaning valves, the controller, the compressed air tank and the filter cartridges.

Cartridge filter FMCZ200
No. of cartridge modules
Height of modules L or A



| Type | Number of cartridges | Filter area (m ²) | Max. air flow (m ³ /h) * | Max. number of ex. membranes | Max. silo ** (m ³) | Standard number of ex. membranes *** | |
|------------|----------------------|-------------------------------|-------------------------------------|------------------------------|--------------------------------|--------------------------------------|-----|
| | | | | | | St1 | St2 |
| FMCZ200-2L | 8 | 32 | 3,200 | 5 | 10 | 1 | 2 |
| FMCZ200-4L | 16 | 64 | 6,400 | 7 | 15 | 2 | 2 |
| FMCZ200-6L | 24 | 96 | 9,600 | 9 | 20 | 2 | 3 |
| FMCZ200-8L | 32 | 128 | 12,800 | 11 | 25 | 2 | 3 |
| FMCZ200-2A | 8 | 53 | 5,300 | 5 | 10 | 2 | 2 |
| FMCZ200-4A | 16 | 106 | 10,600 | 7 | 15 | 2 | 2 |
| FMCZ200-6A | 24 | 159 | 15,900 | 9 | 20 | 2 | 3 |
| FMCZ200-8A | 32 | 212 | 21,200 | 11 | 25 | 3 | 4 |

* Max. air flow is dependent upon the actual dust type, cartridge type etc.

** Maximum silo volume that can be ventilated by an FMCZ200 with no hopper, if directly mounted onto the silo (min strength 0,3 bar).

*** Standard explosion membrane 410 x 410 mm according to EN 14491

Filter house and hopper: St1 - K_{St} = max. 200 bar x m/s and P_{max} = 9 bar.

St2 - K_{St} = max. 300 bar x m/s and P_{max} = 9 bar.

St3 - K_{St} = max. 600: Ask for Ex-calculation.

Filter material

Antistatic cartridges mandatory – CA140.

Dust load

Standard cartridge: Max. 5 g/m³ fine or coarse dust.

Fan

A range of high-efficiency, top mounted fans for optimising the extraction is part of the product range. Remote mounted COMBIFAB fans are also available if required.

Inlet and outlet connections

QF, Spiro or flange.

Inlet options

Dia. 160, 250, 315, 400, 500 mm.

Dia. 500: only available for FMCZ200-6 and FMCZ200-8.

Two 400 mm inlets are assembled in one with a T-pipe.

Outlet options

Dia. 160, 250, 315, 400, 500, 560 or 600 mm.

Dia. 500: also available on top.

Dia. 560 and 630: high capacity clean air duct is necessary.

Rectangular flange possible.

Access door

A lift off bolted door is supplied as standard.

Hinged door can be delivered as an option for FMCZ200

| Specifications | Standard, flange version |
|---------------------------------|--|
| Filter cartridge material | Antistatic: CA140 |
| Filter housing | Galvanised steel (2 mm) |
| Fan type FM incl. motor, 50 Hz | 3 to 15 kW; 3 x 400V |
| Compressed-air system | 6 bar, 24V DC; 1" pipe thread # Average normal consumption – see table at data sheet for actual filter size |
| Electrical controller | DFC-08M, 230/110V AC supply voltage |
| Water separator/press regulator | Option |
| Dust discharge | 300 x 300 mm flange |
| Lex extension | Option |
| Fan, position and outlet * | R1 or M, RD270 |
| Max. vacuum | 6000 Pa |
| Max. overpressure | 1500 Pa |
| Temperature | -20°C to +70°C |

* Inlet and outlet positions – see the FMC datasheet.

Down time cleaning at 6 second interval time requires 22 Nm³/h compressor capacity.

Accessories

- Top mounted FMZ fans
- Access platform and ladder for maintenance purposes
- Air discharge with silencer
- Rotary valve type NRSZ3
- Damper NFUS3
- DUAL Silencer
- Regulation damper in the fan inlet
- Compressed air filter and pressure regulator
- Supplementary protection of filter cartridges against abrasive dusts
- Fan motor starter
- Leg extension from 0 to 2,000 mm
- Clean air ducts in different heights – enables filter groups
- Outlet(s) diameter 500 mm upward optional
- Noise enclosure of pressure vessel incl. valves
- QF-duct systems
- Remote mounted COMBIFAB fans for special air volumes or pressures
- Indoor installation of filter – on enquiry


Ordering

At ordering please specify:

Dust characteristics Kst and P-Max
Zone-rating of place for installation (Non-zone or zone 22)

Marking

The FMCZ200 filter body in the St2 version is marked:

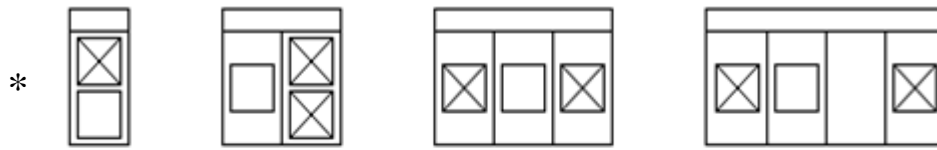
 II 1(3)/- D St2

The St1 version is marked II 1(3)/- D St1

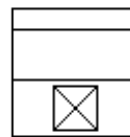
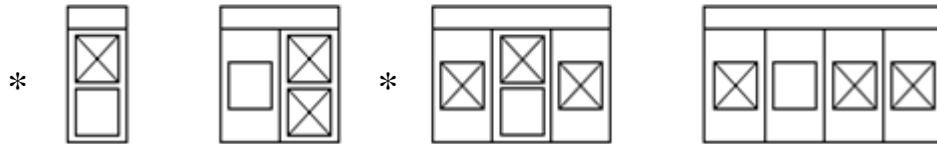
The marking is based on self certification and the ATEX certificate FTZU 02ATEX0272.

Inlet position and the position of the explosion membranes

**FMCZ200-xL
For St1-dust**

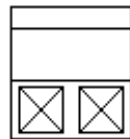
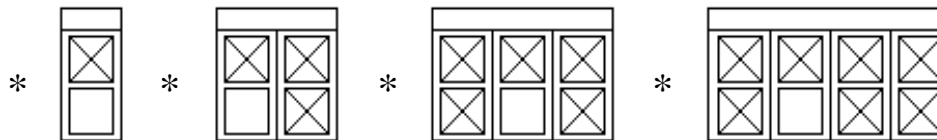


**FMCZ200-xL
For St2-dust**

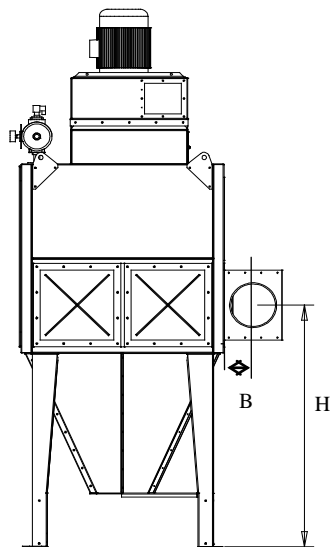


☒ : Explosion membranes
□ : Inlet

**FMCZ200-xL
With max.
number of
ex. membranes**



Side view - the same for all sizes



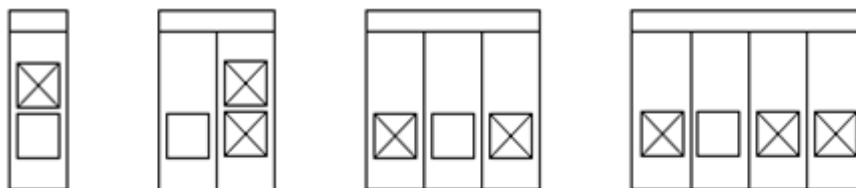
For further dimensions:
See the technical leaflet for the
FMC200 filter.

| Diameter inlet | Position | B | H |
|----------------|--------------|-----|------|
| 160 | Left | 113 | 1685 |
| | Right | 113 | 1685 |
| | Up | 113 | 1935 |
| | Down | 113 | 1435 |
| | Direct inlet | 260 | 1685 |
| 250 | Left | 160 | 1685 |
| | Right | 160 | 1685 |
| | Up | 160 | 1935 |
| | Down | 160 | 1435 |
| | Direct inlet | 260 | 1685 |
| 315 | Left | 195 | 1685 |
| | Right | 195 | 1685 |
| | Up | 195 | 1935 |
| | Down | 195 | 1435 |
| | Direct inlet | 260 | 1685 |
| 400 | Left | 260 | 1685 |
| | Right | 260 | 1685 |
| | Up | 260 | 1935 |
| | Down | 260 | 1435 |
| | Direct inlet | 260 | 1685 |

All dimensions in mm
* reduce H dimension with 270 mm.

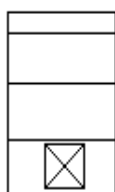
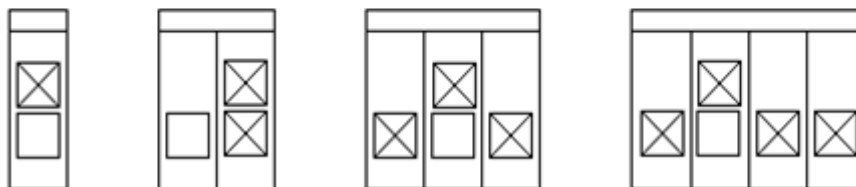
Inlet position and the position of the explosion membranes

FMCZ200-xA For St1-dust



FMCZ200-xA For St2-dust

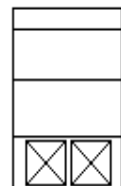
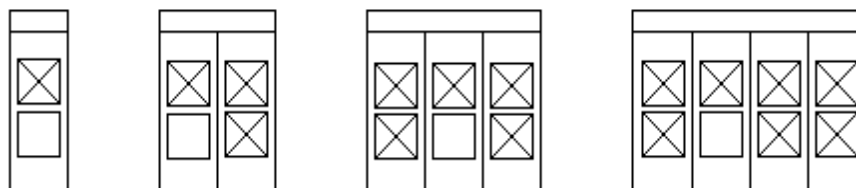
If two inlets with a T-pipe is used, the position of the explosion membranes may alter.



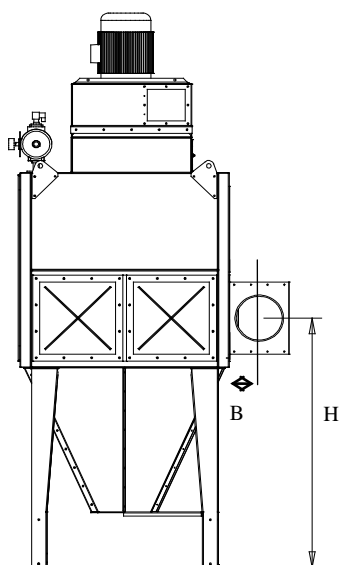
Side view of a 2-module cartridge filter

: Ex. membrane (410 x 410 mm)
 : Inlet

FMCZ200-xA With max. number of ex. membranes



Side view - the same for all sizes



For further dimensions:
See the technical leaflet for the FMC200 filter.

| Diameter inlet | Position | B | H |
|----------------|--------------|-----|------|
| 160 | Left | 113 | 1685 |
| | Right | 113 | 1685 |
| | Up | 113 | 1935 |
| | Down | 113 | 1435 |
| | Direct inlet | 260 | 1685 |
| 250 | Left | 160 | 1685 |
| | Right | 160 | 1685 |
| | Up | 160 | 1935 |
| | Down | 160 | 1435 |
| | Direct inlet | 260 | 1685 |
| 315 | Left | 195 | 1685 |
| | Right | 195 | 1685 |
| | Up | 195 | 1935 |
| | Down | 195 | 1435 |
| | Direct inlet | 260 | 1685 |
| 400 | Left | 260 | 1685 |
| | Right | 260 | 1685 |
| | Up | 260 | 1935 |
| | Down | 260 | 1435 |
| | Direct inlet | 260 | 1685 |

All dimensions in mm.