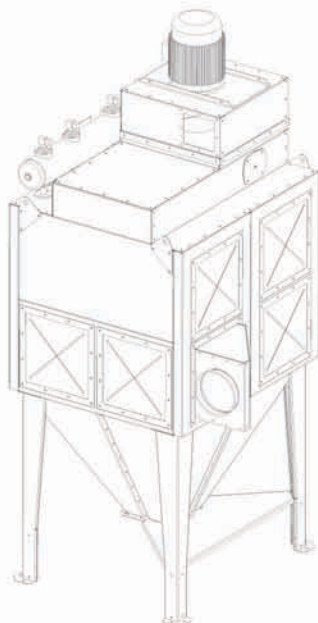


FMKZ25 Cassette filter with ATEX certificate

Compact cassette filter equipped with explosion membranes for solving dust problems where there is dust with a potential explosion hazard



The FMKZ25 filter is a compact cassette 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 or St3 dust up to Kst 600). The filter is designed for an outdoor location.

The FMKZ25 filter is designed for explosive dust and contains a type certificate by a Notified Body under the ATEX directive. The certificate identifies the interior raw gas section of the filter as zone 20 and allows P_{red} up to 0,3 bar.

The FMKZ25 filter is easy to maintain due to the following features:

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

Cassette filter FMKZ25 FMKZ25 - XE/X
No. of cassettes _____
Single modules _____
No. of filter rows per cassette, 4 or 6 _____

Type	No. of cassettes	Filter area m ²	Max. air flow [m ³ /h]*	Max. number of ex. membranes	Max. silo ** St1 m ³	Standard no. of ex. membranes ***	
						St1	St2
FMKZ25-2E/4	2	15	1.800	5	10	1	2
FMKZ25-2E/6	2	22	2.600	5	10	1	2
FMKZ25-4E/4	4	29	3.400	7	15	2	2
FMKZ25-4E/6	4	44	5.200	7	15	2	2
FMKZ25-6E/4	6	44	5.200	9	20	2	3
FMKZ25-6E/6	6	66	8.000	9	20	2	3
FMKZ25-8E/4	8	58	7.000	11	25	2	3
FMKZ25-8E/6	8	88	10.500	11	25	2	3

* Max. Air flow is dependent on the actual dust type.

** Max. Extra relieved volume (St1 dust), when FMKZ25 silo version is mounted directly on a silo (min. P_{red} 0,3 bar).

*** Standard explosion membrane 410 x 410 mm or EVN 480 according to EN 14491

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

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

St3 - Kst max 600: Ask for Ex-calculation

Filter material

Filter cassettes are available in different materials to suit most applications dependent upon the dust type, the dust load and the efficiency required. Antistatic type mandatory, available as standard: NF141, NF142 and NF143.

Dust load

4-rows cassette: Max. 20 g/m³ fine or coarse dust.

6-rows cassette: Max. 10 g/m³ fine dust.

Access door

A lift off bolted door is supplied as standard.

Dust discharge

The filter is available with a hopper having a flanged outlet for continuous or mechanised discharge or connection to your plant.

Inlet options

Diameter 160, 250, 315, 400 500 mm.

Diameter 500: only available for FMKZ25-6 and FMKZ25-8.

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

Outlet options

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

Dia. 500: also available on top.

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

Rectangular flange possible.

Inlet and outlet connection

QF or Spiro

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

Specifications	Standard, flange version
Filter cassette material	NF141, 142 or 143
Filter housing	Galvanised steel (2 mm)
Fan type FMZ, incl. motor, 50 Hz.	3 to 15 kW, 3 x 400 V
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, 230/110 V AC supply voltage
Water separator / press regulator	None
Inlet, size	Ø160 to 400 mm QF
Inlet, position	L1 or M
Outlet, size	Ø160 to 400 mm QF
Outlet, position (no fan)*	Right
Dust discharge	300 x 300 mm flange
Waste bin	None
Leg extension	None
Fan, position and outlet *	R1 or M, RD270
Max. vacuum	6,000 Pa
Max. overpressure	1,500 Pa

* Positions available – see FMK25.data sheet

Down time cleaning at 6 second interval time requires 27 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 fan inlet
- Compressed air filter and pressure regulator
- Supplementary protection of filter cassettes 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) dia 500 mm upward
- Noise enclosure of pressure vessel incl. valves
- QF duct systems
- Remote mounted COMBIFAB fans for special air volumes or pressures.
- EVN 480 explosions valve for indoor installation of filter.

Ordering

At ordering please specify:

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

Marking:

The FMKZ25 filter body in the St2 version is marked:

Ex II 1(3)/- D St2

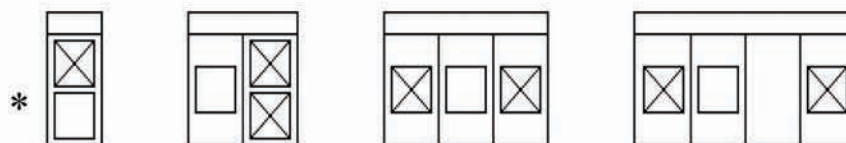
The St1 version is marked: II 1(3)/- D St1

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

Inlet position and the position of the explosion membranes

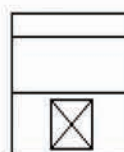
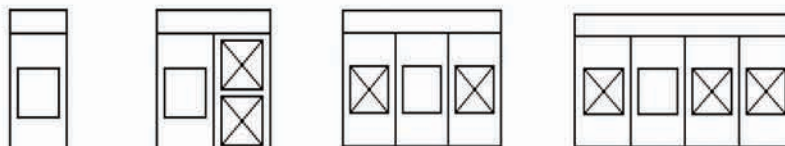
FMKZ25

For St1 - dust



FMKZ25

For St2 - dust



Side view of a 2-cassette filter



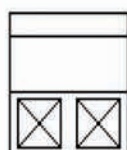
: Explosion membrane

: Inlet

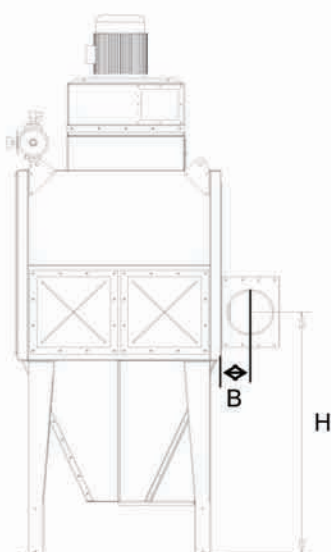
FMKZ25

With max. number of ex.
membranes

(i.e. for silo relief)



Side view – the same for all sizes



For further dimensions:
See technical leaflet for FMK25 cassette 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	1195	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

* Reduce H with 270 mm.
All dimensions in mm.