

Compact fine dust filter elements

Fine dust filters: F736, F737, F739

Filter classes: F6, F7, F9

- » Rigid, air-tight frame construction, can be used in all commercial mounting frames
- » High efficiencies at low differential pressures and long filter life
- » Developed for gas turbines and industrial applications with extreme operating conditions



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Detail



Compact fine dust filter

» Application

Fine dust filters: Prefilters or final filters in ventilation systems for the separation of fine dust with large and/or variable volume flow rates and long filter life. Compact filters for ventilation systems with extreme operating conditions. Typical areas: Electronics and computer rooms, pharmaceutical production areas, research laboratories, hospitals, industrial ventilation, and prefiltering for particulate filters, supply air for gas turbines, and centrifugal compressors.

» Filter types

- Type F736 (F6)
- Type F737 (F7)
- Type F739 (F9)

» Material

- Filter pack is made of high-quality, moisture-resistant glass-fibre paper which is folded into closely spaced shallow pleats.
- Spacers are made of profiled aluminium foil and provide a uniform spacing of the pleats.

» Construction

Compact fine dust filters:

- W = Frame made of MDF (depth 150 mm and 292 mm)
- Y = Frame made of galvanised sheet steel (depth 150 mm and 292 mm)
- M = Frame made of galvanised sheet steel with individual flange (depth 150 mm and 292 mm)

Compact fine dust filters for gas turbines:

- G = Frame made of galvanised sheet steel with individual flange (depth 292 mm)
- X = Frame made of galvanised sheet steel with double flange (depth 292 mm)

» Equipment

Seal: Compact fine dust filter without flange, construction equipped with a peripheral flat section seal.

Compact fine dust filters with a flange do not require a seal since the mounting frame is equipped with a seal.

» Associated filter units

- Standard cell frames for wall installation (F2/1/././..).
- Universal casings for duct installation (F3/1/././..).

» Certification of EUROVENT

The minipleat fine dust compact filters of filter classes F6 to F9 are certified according to Eurovent. This certification can only be achieved by manufacturers whose filter product performance properties, filter classification and initial differential pressure have been tested by an independent institute. In this way, the quality of the fine dust filter is guaranteed.



Order code

<table style="margin: auto; border-collapse: collapse;"> <tr> <td style="border: 1px solid black; padding: 2px;">F</td> <td style="border: 1px solid black; padding: 2px;">7</td> <td style="border: 1px solid black; padding: 2px;">3</td> <td style="border: 1px solid black; padding: 2px;">9</td> <td style="border: 1px solid black; padding: 2px;">M</td> <td style="border: 1px solid black; padding: 2px;">5</td> <td style="border: 1px solid black; padding: 2px;">4</td> <td style="border: 1px solid black; padding: 2px;">H</td> <td style="border: 1px solid black; padding: 2px;">0</td> <td style="border: 1px solid black; padding: 2px;">0</td> <td style="border: 1px solid black; padding: 2px;">0</td> <td style="border: 1px solid black; padding: 2px;">0</td> <td style="border: 1px solid black; padding: 2px;">0</td> <td style="border: 1px solid black; padding: 2px;">0</td> </tr> <tr> <td colspan="4" style="text-align: center;">└───┬───┘</td> <td style="text-align: center;"> </td> <td colspan="2" style="text-align: center;">└───┬───┘</td> <td style="text-align: center;"> </td> <td colspan="6" style="text-align: center;">└───┬───┘</td> </tr> <tr> <td colspan="4" style="text-align: center;">1</td> <td style="text-align: center;">2</td> <td colspan="2" style="text-align: center;">3</td> <td style="text-align: center;">4</td> <td colspan="6" style="text-align: center;">5</td> </tr> </table>		F	7	3	9	M	5	4	H	0	0	0	0	0	0	└───┬───┘					└───┬───┘			└───┬───┘						1				2	3		4	5					
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└───┬───┘					└───┬───┘			└───┬───┘																																			
1				2	3		4	5																																			
1 Filter type: Type F736 (F6) Type F737 (F7) Type F739 (F9)	4 Filter area 0 = Standard filter area H = Increased filter area (only possible for construction G and X)																																										
2 Construction: W = Frame made of MDF Y = Frame made of galvanised sheet steel with internal canting M = Frame made of galvanised sheet steel with individual flange G = Frame made of galvanised sheet steel with individual flange (for gas turbines) X = Frame made of galvanised sheet steel with double flange (for gas turbines)	5 Zeros																																										
3 Code number: Size of the compact fine dust filter See the code numbers in Tables 3 to 8																																											

Example of a compact fine dust filter

- » Filter type: **F739**
- » Construction of a frame made of galvanised sheet steel with individual flange: **M**
- » Filter size 592 x 592 x 292 mm: **54**

F	7	3	9	M	5	4	0	0	0	0	0	0	0
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Technical data

Filter type		F736	F737	F739
Filter class according to EN 779		F6	F7	F9
Average efficiency according to EN 779	in %	65	85	95
Initial differential pressure at nominal volume flow rate	in Pa	130	150	170
Recommended final differential pressure	in Pa	450	450	450
Max. operating temperature	in °C	120	120	120
Max. relative humidity	in %	100	100	100

Table 1: Technical data for filter types F736, F737, and F739

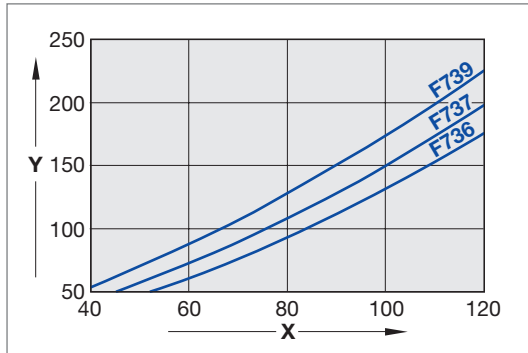


Diagram 1: Compact fine dust filters
F736, F737, F739

X = Volume flow rate in % of nominal volume flow rate
Y = Initial differential pressure in Pa

Filter type		F736	F736-H	F739	F739-H
Filter class according to EN 779		F6	F6	F9	F9
Average efficiency according to EN 779	in %	65	65	95	95
Initial differential pressure at nominal volume flow rate	in Pa	130	190	180	240
Recommended final differential pressure	in Pa	650	650	650	650
Max. operating temperature	in °C	120	120	120	120
Max. relative humidity	in %	100	100	100	100

Table 2: Technical data for filter types F736 and F739 for gas turbines

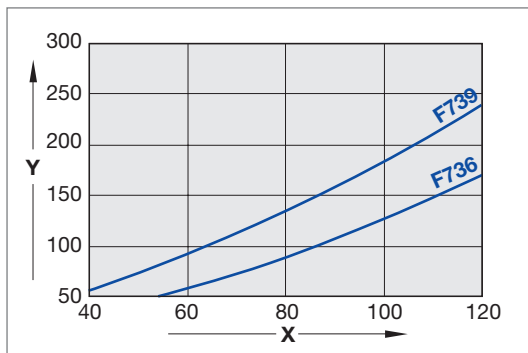


Diagram 2: Compact fine dust filter
for gas turbines F736 and F739

X = Volume flow rate in % of nominal volume flow rate
Y = Initial differential pressure in Pa

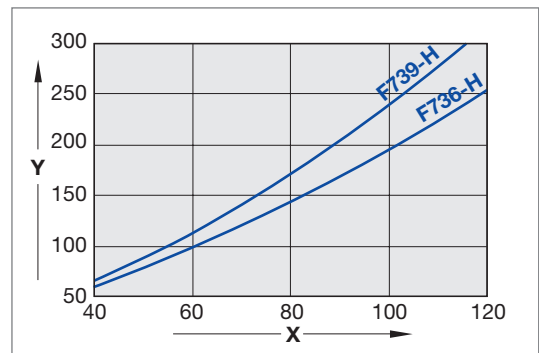


Diagram 3: Compact fine dust filter
for gas turbines F736-H and F739-H

X = Volume flow rate in % of nominal volume flow rate
Y = Initial differential pressure in Pa

Test

» Testing fine dust filters

EN 779: Particulate air filters for general ventilation.

This European standard describes the test method and test rig for measuring the filter performance.

For fine dust filters, the average efficiency is tested with a liquid test aerosol at a particle size of 0.4 µm diameter.

The filters are classified into filter classes F6 to F9 depending on the tested values (see Leaflet P/1/././.).

Detail

2 W = Frame made of MDF with flat section seal

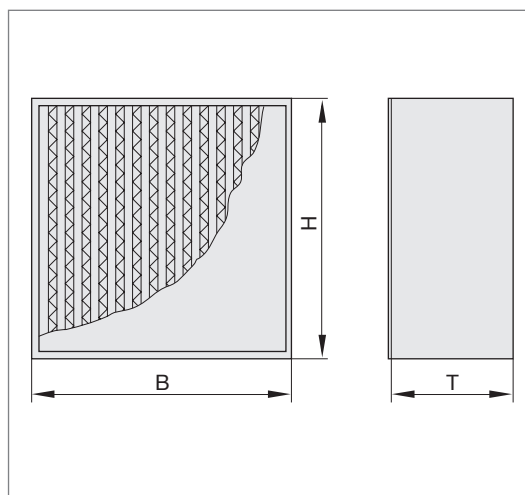
Y = Frame made of galvanised sheet steel with flat section seal

Technical data

Dimensional tolerance:

+ 0 mm

- 1 mm



Detail drawing 1: Compact fine dust filters F736, F737, and F739, constructions W and Y

F736, F737, F739: Frame depth 150 mm

Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no. [3]
B	H	T	l/s	m³/h		
305	305	150	140	500	3.5	12
287	592	150	260	950	5.0	37
592	592	150	530	1900	8.0	16
305	610	150	280	1000	5.0	01
610	610	150	560	2000	8.0	02

Table 3: Compact fine dust filters F736, F737, and F739

F736, F737, F739: Frame depth 292 mm

Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no. [3]
B	H	T	l/s	m³/h		
287	592	292	470	1700	7.0	52
592	592	292	940	3400	14.0	54
305	610	292	500	1800	8.0	21
610	610	292	1000	3600	15.0	03
762	610	292	1250	4500	18.0	04

Table 4: Compact fine dust filters F736, F737, and F739

Order code

F	7	3	7	Y
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1

Order code

7	Y	0	1	0
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2 3

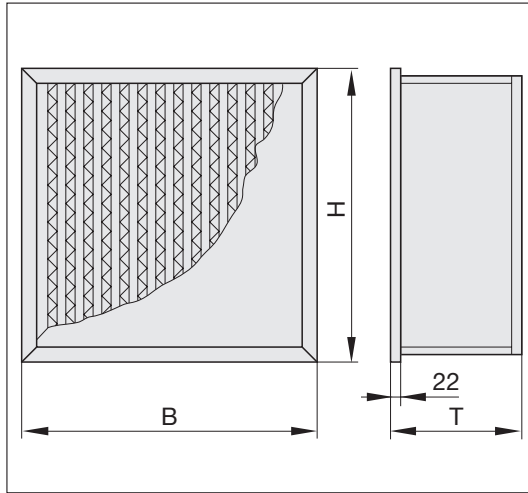
All weights are net, without packaging.

Detail

2 M = Frame made of galvanised sheet steel with individual flange

Technical data

Dimensional tolerance:
+ 0 mm
- 1 mm



Detail drawing 2: Compact fine dust filters
F736, F737, and F739, construction M

F736, F737, F739: Frame depth 150 mm

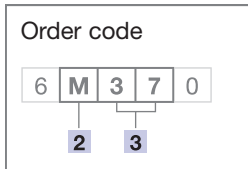
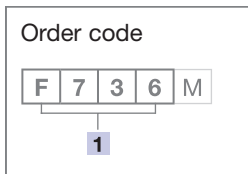
Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no ③
B	H	T	l/s	m³/h		
287	592	150	260	950	5.0	37
592	592	150	530	1900	8.0	16

Table 5: Compact fine dust filters
F736, F737, F739

F736, F737, F739: Frame depth 292 mm

Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no ③
B	H	T	l/s	m³/h		
287	592	292	470	1700	6.0	52
592	592	292	940	3400	13.0	54

Table 6: Compact fine dust filters
F736, F737, and F739



All weights are net,
without packaging.

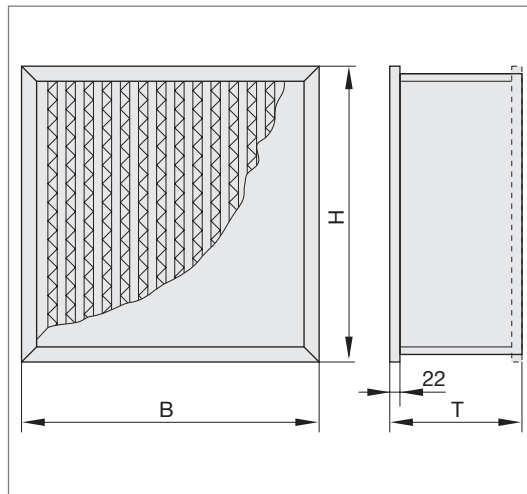
Detail

2 G = Frame made of galvanised sheet steel with individual flange

X = Frame made of galvanised sheet steel with double flange

Technical data

Dimensional tolerance:
+ 0 mm
- 1 mm



Detail drawing 3: Compact fine dust filter for gas turbines F736 and F739, constructions G and X

F736, F739: Standard filter area

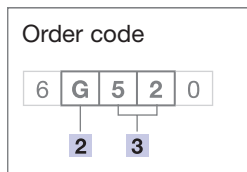
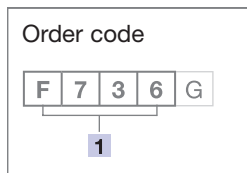
Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no [3]
B	H	T	l/s	m ³ /h		
287	592	292	470	1700	6.0	52
592	592	292	940	3400	10.0	54

Table 7: Compact fine dust filters for gas turbines F736 and F739

F736, F739: Increased filter area H

Dimensions in mm			Nominal volume flow rate		Weight Approx. kg	Code no [3]
B	H	T	l/s	m ³ /h		
287	592	292	580	2100	6.0	52
592	592	292	1180	4250	10.0	54

Table 8: Compact fine dust filters for gas turbines F736 and F739



All weights are net, without packaging.

Specification text

TROX compact fine dust filters

F736, F737, and F739:

- » Frame made of MDF or galvanised sheet steel (with or without flange or protection grid according to construction).
- » Filter pack made of high-quality, moisture-resistant glass-fibre paper with spacers made of profiled aluminium foil.
- » Tested according to EN 779.
- » Packed in stable carton suitable for transport.

Technical data:

Filter class according to EN 779 _____
 Average efficiency according to EN 779 _____ %
 Dimensions (B x H x T) _____ mm
 Nominal volume flow rate _____ l/s (m³/h)
 Initial differential pressure _____ Pa
 Max. operating temperature _____ °C
 Max. relative humidity _____ %
 Net weight _____ kg
 Order number _____
 Make: TROX

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Filters

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