

Bag Filters

for wall mounting

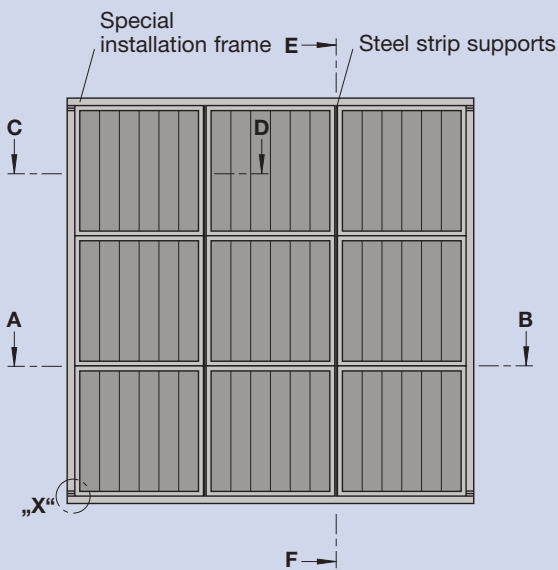


TROX[®] **TECHNIK**

Contents · Description · Installation

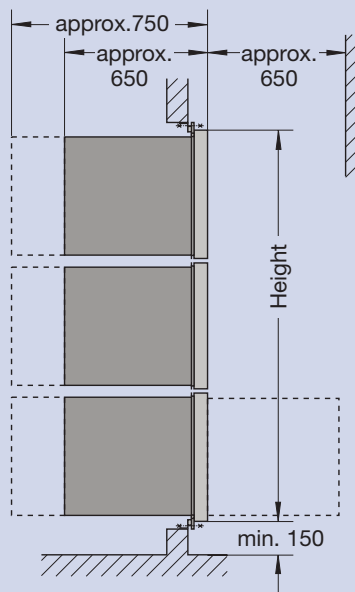
Description	2	Trox Bag Filter assemblies consist of standard cell frames and special installation frames with steel strip supports and high efficiency bag filter inserts from high quality chemical fibre or glass fibre media with various grades of filtration. They provide significant advantages for project planning, assembly and servicing.
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Dimensions

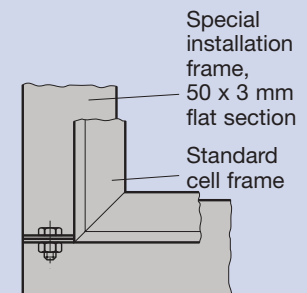


Section E-F

Minimum space required for media change depending on bag filter length

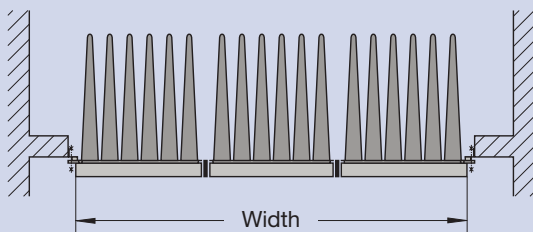


Detail „X“



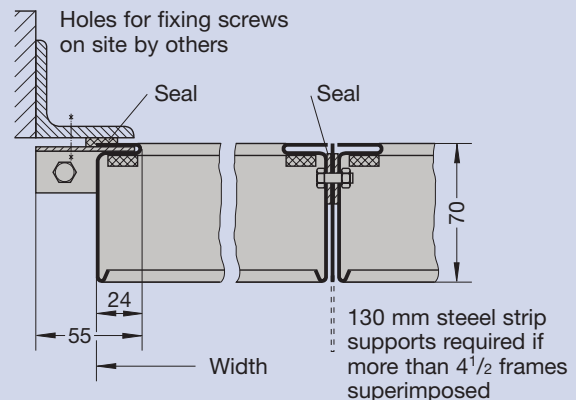
Servicing from clean air side:
Space required approx. 1000–1300 mm, depending on bag filter length

Section A-B



Servicing from dirty air side of installation as shown. Depending on order placed, all components illustrated can be supplied. Holes for the fixing screws in the special installation frame are to be site drilled by others.

Section C-D



Standard Cell Frames

From galvanized sheet steel with sealing strips and quick release clamps, available in sizes;

- 610 x 610 mm
- 508 x 610 mm
- 305 x 610 mm
- 305 x 305 mm

Cell frames can be combined up to six high and any width. The static stability of the filter assembly is achieved by the steel strip supports which are bolted together with the cell frames and extend to the full height of the filter.

Weight of standard cell frames with bag filter insert:

- Size 610 x 610 mm: approx. 6.5 kg
- Size 508 x 610 mm: approx. 6.0 kg
- Size 305 x 610 mm: approx. 4.0 kg
- Size 305 x 305 mm: approx. 2.5 kg

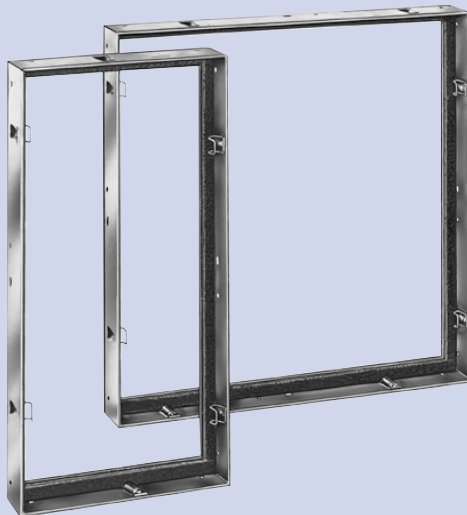
Special Installation Frame

The special installation frame is an excellent low-priced option providing simple and quick erection. The frame, made from flat section, is inserted into the slot of the cell frame and bolted at the four corners. No adjustment is necessary as dimensional tolerances are compensated by the depth of the slot.

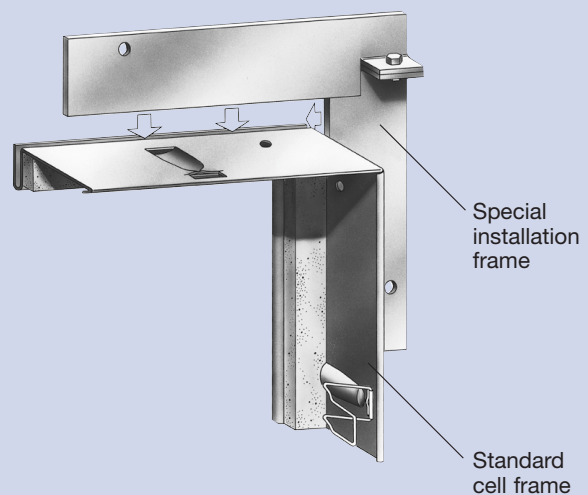
Weights net excluding packing.

Weights per packing unit approx. 1 kg.

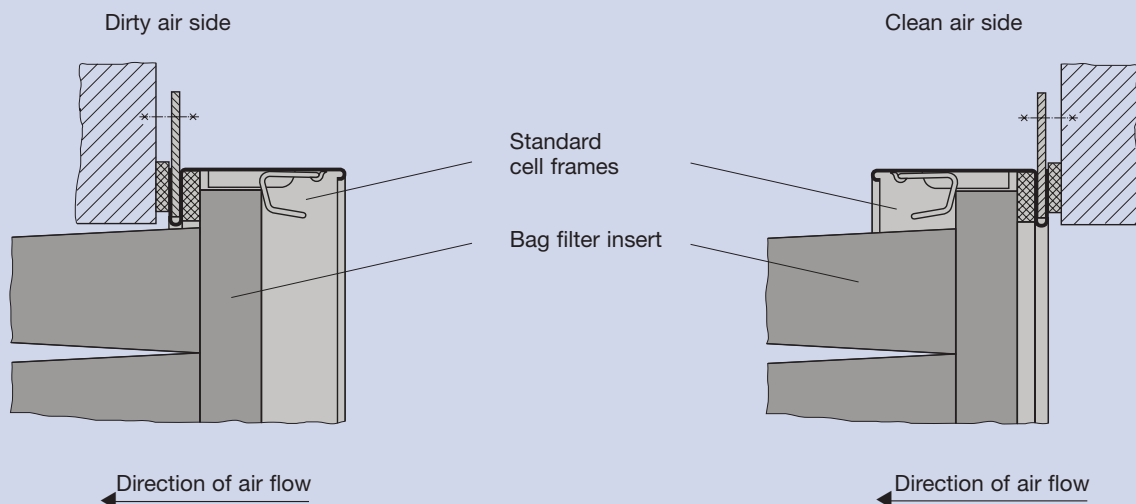
Standard Cell Frame



Special Installation Frame



Installation of bag filter insert



Selection Tables

Steel Strip Supports and Special Installation Frames

Height in mm	Width in mm		610	919	1122	1225	1535	1735	1840	2145	2350	2450
	Steel strip supports		Special installation frame: order numbers and weight. Intermediate weight can be determined by interpolation.									
	Order number	Weight	3 kg	4 kg	4 kg	4 kg	5 kg	5 kg	6 kg	6 kg	7 kg	7 kg
610	–	–	B221 CC0	B221 CE0	B221 CF0	B221 CG0	B221 CJ0	B221 CK0	B221 CL0	B221 CN0	B221 CP0	B221 CQ0
915	B221 CA0	2 kg/unit	B221 CC1	–	–	B221 CG1	–	–	B221 CL1	–	–	B221 CQ1
1118	B221 CA1	2 kg/unit	B221 CC2	–	–	B221 CG2	–	–	B221 CL2	–	–	B221 CQ2
1220	B221 CA2	2 kg/unit	B221 CC3	B221 CE1	B221 CF1	B221 CG3	B221 CJ1	B221 CK1	B221 CL3	B221 CN1	B221 CP1	B221 CQ3
1525	B221 CA3	3 kg/unit	B221 CC4	–	–	B221 CG4	–	–	B221 CL4	–	–	B221 CQ4
1730	B221 CA4	3 kg/unit	B221 CC5	–	–	B221 CG5	–	–	B221 CL5	–	–	B221 CQ5
1830	B221 CA5	3 kg/unit	B221 CC6	B221 CE2	B221 CF2	B221 CG6	B221 CJ2	B221 CK2	B221 CL6	B221 CN2	B221 CP2	B221 CQ6
2135	B221 CA6	4 kg/unit	B221 CC7	–	–	B221 CG7	–	–	B221 CL7	–	–	B221 CQ7
2340	B221 CA7	4 kg/unit	B221 CC8	–	–	B221 CG8	–	–	B221 CL8	–	–	B221 CQ8
2440	B221 CA8	4 kg/unit	B221 CC9	B221 CE3	B221 CF3	B221 CG9	B221 CJ3	B221 CK3	B221 CL9	B221 CN3	B221 CP3	B221 CQ9
			10 kg	11 kg	11 kg	12 kg	12 kg	12 kg	13 kg	14 kg	14 kg	15 kg
	Number of steel strip supp.		–	1	1	1	2	2	2	3	3	3

Dimensions and Volume Flow \dot{V} in l/s (m^3/h)

Height in mm	Width with steel strip supports and sealing (mm)		610	919	1122	1225	1535	1735	1840	2145	2350	2450
	Cell frames: No. horiz. cells ▶ No. vert. cells ▼	Nominal air velocity (m/s)	1 x 610/610	1 x 610/610 + 1 x 305/610	1 x 610/610 + 1 x 508/610	2 x 610/610	2 x 610/610 + 1 x 305/610	2 x 610/610 + 1 x 508/610	3 x 610/610	3 x 610/610 + 1 x 305/610	3 x 610/610 + 1 x 508/610	4 x 610/610
610	1 x 610/610	in l/s in m^3/h	950/1200 3400/4300	1425/1800 5100/6500	1730/2200 6200/7900	1900/2400 6800/8600	2375/ 3000 8500/10800	2680/ 3400 9600/12200	2850/ 3600 10200/12900	3325/ 4200 11900/15100	3630/ 4600 13000/16500	3800/ 4800 13600/17200
	No. cell frames		1	1 + 1	1 + 1	2	2 + 1	2 + 1	3	3 + 1	3 + 1	4
915	1 x 610/610 + 1 x 305/610	in l/s in m^3/h	1425/1800 5100/6500	–	–	2850/ 3600 10200/13000	–	–	4275/ 5400 15300/19500	–	–	5700/ 7200 20400/26000
	No. cell frames		1 + 1	–	–	2 + 2	–	–	3 + 3	–	–	4 + 4
1118	1 x 610/610 + 1 x 508/610	in l/s in m^3/h	1730/2200 6200/7900	–	–	3460/ 4400 12400/15800	–	–	5190/ 6600 18600/23700	–	–	6920/ 8800 24800/31600
	No. cell frames		1 + 1	–	–	2 + 2	–	–	3 + 3	–	–	4 + 4
1220	2 x 610/610	in l/s in m^3/h	1900/2400 6800/8600	2850/ 3600 10200/13000	3460/ 4400 12400/15800	3800/ 4800 13600/17200	4750/ 6000 17000/21600	5360/ 6800 19200/24400	5700/ 7200 20400/25800	6650/ 8200 23800/30200	7260/ 8200 26000/33000	7600/ 9600 27200/34400
	No. cell frames		2	2 + 2	2 + 2	4	4 + 2	4 + 2	6	6 + 2	6 + 2	8
1525	2 x 610/610 + 1 x 305/610	in l/s in m^3/h	2375/ 3000 8500/10800	–	–	4750/ 6000 17000/21600	–	–	7125/ 9000 25500/32400	–	–	9500/12000 34000/43200
	No. cell frames		2 + 1	–	–	4 + 2	–	–	6 + 3	–	–	8 + 4
1730	2 x 610/610 + 1 x 508/610	in l/s in m^3/h	2680/ 3400 9600/12200	–	–	5360/ 6800 19200/24400	–	–	8040/10200 28800/36600	–	–	10720/13600 38400/48800
	No. cell frames		2 + 1	–	–	4 + 2	–	–	6 + 3	–	–	8 + 4
1830	3 x 610/610	in l/s in m^3/h	2850/ 3600 10200/12900	4275/ 5400 15300/19500	5190/ 6000 18600/23700	5700/ 7200 20400/25800	7125/ 9000 25500/32400	8040/10200 28800/36600	8550/10800 30600/38700	9975/12600 35700/45300	10890/13800 39000/49500	11400/14400 40800/51600
	No. cell frames		3	3 + 3	3 + 3	6	6 + 3	6 + 3	9	9 + 3	9 + 3	12
2135	3 x 610/610 + 1 x 305/610	in l/s in m^3/h	3325/ 4200 11900/15100	–	–	6650/ 8400 23800/30200	–	–	9975/12600 35700/45300	–	–	13300/16800 47600/60400
	No. cell frames		3 + 1	–	–	6 + 2	–	–	9 + 3	–	–	12 + 4
2340	3 x 610/610 + 1 x 508/610	in l/s in m^3/h	3630/ 4600 13000/16500	–	–	7260/ 9200 26000/33000	–	–	10890/13800 39000/49500	–	–	14520/18400 52000/66000
	No. cell frames		3 + 1	–	–	6 + 2	–	–	9 + 3	–	–	12 + 4
2440	4 x 610/610	in l/s in m^3/h	3800/ 4800 13600/17200	5700/ 7200 20400/26000	6920/ 8800 24800/31600	7600/ 9600 27200/34400	9500/12000 34000/43200	10720/13600 38400/48800	11400/14400 40800/51600	13300/16800 47600/60400	14520/18400 52000/66000	15200/19200 54400/68800
	No. cell frames		4	4 + 4	4 + 4	8	8 + 4	8 + 4	12	12 + 4	12 + 4	16

Filter Media Data

Bag Filters can be supplied with various type of media and related dust extraction efficiencies, to meet specific requirements:

Bag Filter inserts from chemical fibre media for separating fine dust, especially suitable for application in air conditioning system where arduous operating conditions exist.

Bag Filter inserts from high-quality glass fibre media for separation of fine dust and aerosols.

Long service life due to large dust holding with high and constant extraction efficiencies, even in arduous conditions.

As aerosols and suspended particles are precipitated by the bag filters, use with air at high relative humidities (near dew point) is to be avoided. When below the dew point, collected water droplets can cause an increase in the pressure differential.

The materials employed are moisture-resistant and can be used again after drying.

For replacement media, see price list.

The Bag Filters have been tested to ASHRAE standard 52-76 by an independent centre, the Material and Testing Institute Northrhine-Westfalia. Comprehensive test certificates have been issued and abridged versions are available as separate leaflets.

In addition, Trox-Bag Filters ensure a guaranteed high margin of safety, even in extreme operating conditions.

The bag filter inserts are fully incinerable in normal incineration facilities and ratified by the TÜV Südwest (Technical Supervisory Board).

Filter Media Data and Code Numbers

Bag Filter Type	Chemical fibre media			Glass fibre media							
	F742	F743	F745	F744	F746	F748	F749	F744	F746	F748	F749
Bag Filter Length	360 mm	360 mm	650 mm	600 mm				700 mm			
Filter class to EN 779 ¹⁾	G3	G4	F5	F5	F6	F7	F9	F5	F6	F7	F8
Average synthetic dust weight arrestance approx.	82 %	90 %	96 %	98 %	> 98 %	> 98 %	> 98 %	98 %	> 98 %	> 98 %	> 98 %
Average atmospheric dust spot efficiency approx.	-	-	47 %	55 %	65 %	85 %	95 %	55 %	65 %	85 %	95 %
Initial pressure differential at 950- 780- 475 l/s at 3400-2800-1700 m ³ /h	25 Pa	35 Pa	70 Pa	50 Pa	80 Pa	100 Pa	140 Pa	50 Pa	80 Pa	80 Pa	120 Pa
Initial pressure differential at 1200-1000- 600 l/s at 4300-3600-2200 m ³ /h	35 Pa	50 Pa	100 Pa	70 Pa	110 Pa	130 Pa	190 Pa	70 Pa	110 Pa	110 Pa	160 Pa
Recommended final pressure diff.	200-250 Pa			200-250 Pa		250-350 Pa		200-250 Pa		250-350 Pa	
Filtration area: Filter insert 592 x 592 mm approx. Filter insert 490 x 592 mm approx. Filter insert 287 x 592 mm approx.	2.8 m ² 2.3 m ² 1.4 m ²	2.8 m ² 2.3 m ² 1.4 m ²	4.3 m ² 3.4 m ² 2.5 m ²	5.2 m ² 4.4 m ² 2.6 m ²	5.2 m ² 4.4 m ² 2.6 m ²	6.6 m ² 5.7 m ² 3.3 m ²	6.6 m ² 5.7 m ² 3.3 m ²	7.6 m ² 6.6 m ² 3.8 m ²	7.6 m ² 6.6 m ² 3.8 m ²	9.4 m ² 7.5 m ² 4.7 m ²	9.4 m ² 7.5 m ² 4.7 m ²
Temperature stability	up to + 90 °C			- 30 up to + 90 °C				- 30 up to + 90 °C			
Code numbers Standard 610 x 610 mm Cell frame 508 x 610 mm with filter insert 305 x 610 mm	F242 F64 F242 F54 F242 F34	F243 F64 F243 F54 F243 F34	F245 F66 F245 F56 F245 F36	F244 F66 F244 F56 F244 F36	F246 F66 F246 F56 F246 F36	F248 F66 F248 F56 F248 F36	F249 F66 F249 F56 F249 F36	F244 F67 F244 F57 F244 F37	F246 F67 F246 F57 F246 F37	F248 F67 F248 F57 F248 F37	F249 F67 F249 F57 F249 F37

¹⁾ EN 779: "Particle air filters for general ventilation and air conditioning purposes".
(Equivalent to ASHRAE STANDARD 52-76)

Order Information

Order Example

Given:

Volume flow 13800 l/s
 Equipment Width 2350 mm
 Equipment Height 1830 mm
 Bag filter type F 749 700 mm long

Solution:

9 units 610 x 610 mm F249 F67 Nos. of units table page 4 order No. from table
 3 units 508 x 610 mm F249 F57 "Filter Media Data" page 5.
 3 steel strip supports B221 CA5 Order No. from table "Steel Strip Supports and
 1 special installation frame B221 CP2 Special Installation Frame" page 4.

Specification Text

Item	Qty.	Description
		<p>Trox bag filter, comprising</p> <p><input type="checkbox"/> standard cell frames 610 x 610 mm</p> <p><input type="checkbox"/> standard cell frames 508 x 610 mm</p> <p><input type="checkbox"/> standard cell frames 305 x 610 mm</p> <p>with sealing strip and quick release clamps for dirty or clean air side media change</p> <p>1 set bag filter inserts</p> <p>special installation frame with accessories</p> <p>steel strip support(s) for static stability.</p> <p>Assembly bolts and sealing material, complete assembly and operating instructions, compact non-returnable packaging.</p>
		<p>Technical Data:</p> <p>Air Volume _____ l/s (m³/h)</p> <p>Equipment Width _____ mm</p> <p>Equipment Height _____ mm</p> <p>Filter class to EN 779 _____</p> <p>Average synthetic dust weight arrestance _____ %</p> <p>Average atmospheric dust spot efficiency _____ %</p> <p>Initial pressure differential _____ Pa</p> <p>Net weight _____ kg</p> <p>Order No. _____</p> <p>Manufacture: Trox</p>
		Price / Enclosure