

Technical leaflet 150049 0	Date 2011-06-10
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## MJB

### Tubular Bag Filter



The MJB is a long established range of reverse jet cleaned tubular bag filters designed for continuous operation in bulk handling and process applications. This second generation of the MJB offers three bag lengths and on-line high efficiency reverse jet cleaning. Filter areas range from 9m<sup>2</sup> to 210m<sup>2</sup> as standard, but units up to about 350m<sup>2</sup> may be made to special order.

All MJB units have generously sized integral pre-separation chambers to increase their dust load capacity whilst reducing the load on the filter bags.

Normal maintenance is from the top, within handrails if specified, but bag changing may be specified from the side, if headroom does not allow top access.

A range of space saving integral fans from 0.75kW to 18.5kW may be specified, with optional air silencers.

#### Features

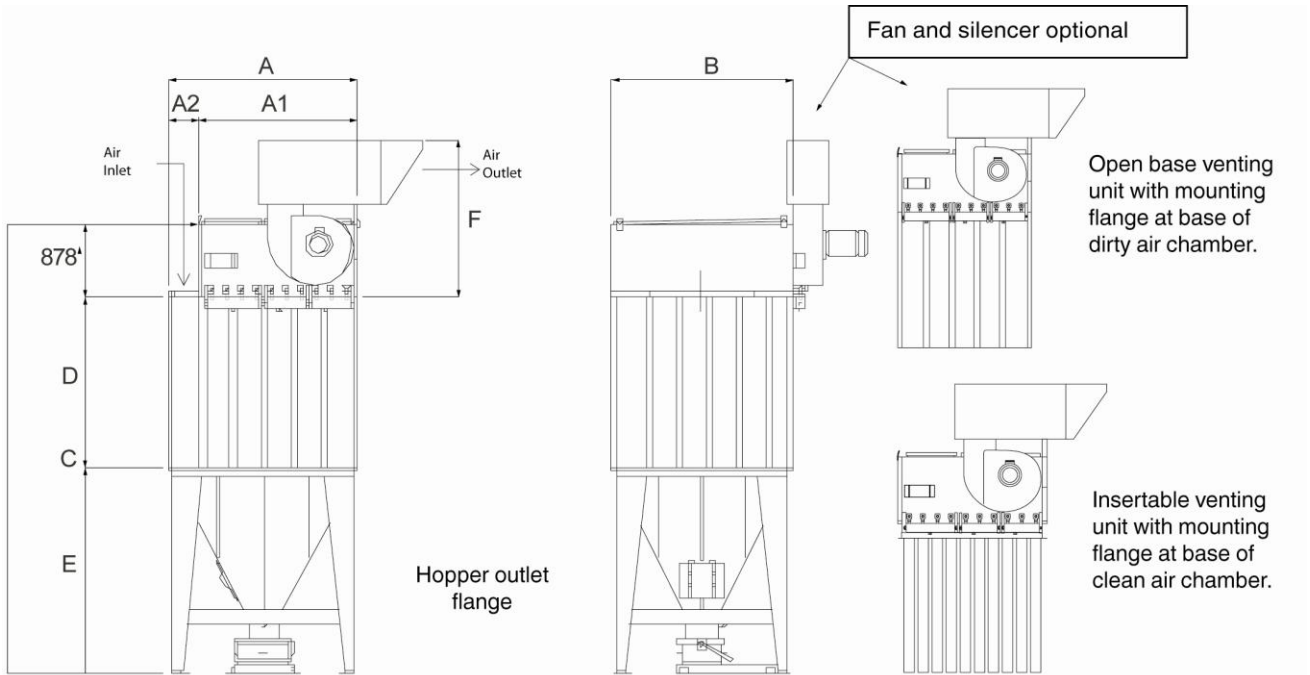
- Robust welded steel construction
- Weatherproof for exposed locations
- Filter area from 9m<sup>2</sup> to 210m<sup>2</sup> as standard
- Three bag lengths available
- On-line cleaning with high efficiency diaphragm valves
- Compressed air pressure typically 6.0 bar
- Normal maximum negative/positive operating pressure 8000Pa/2000Pa
- Large integral pre-separation chamber
- Downflow/crossflow inlet air pattern reduces cleaning power required
- Cleaning sequence controller type DFC-08M in IP65 enclosure
- Wide range of filter media to suit all applications
- Easy access for maintenance of bags and cleaning components from unit top within handrails
- ATEX certified explosion relief panels when handling explosive dusts St1, St2, St3

#### Options

- Discharge options include screw conveyor, rotary valve, gravity or motorised flap valve or quick release bin
- Flanged inlet and outlet for ducting and remote fan, if integral fan is not fitted
- Range of integral fans from 0.75kW to 18.5kW with optional air silencers
- Separate floor mounted Combifab fans for larger installations
- Access ladders and handrails for maintenance
- Higher negative/positive operating pressure 15000Pa/5000Pa
- Trace heating and insulation to customer standards
- Operating temperature up to 250°C
- Free standing dust collector, open based or insertable for direct mounting
- Dedicated control systems for complete dust extraction installation

# MJB Planning-in Data

## MJB-M Medium length bag



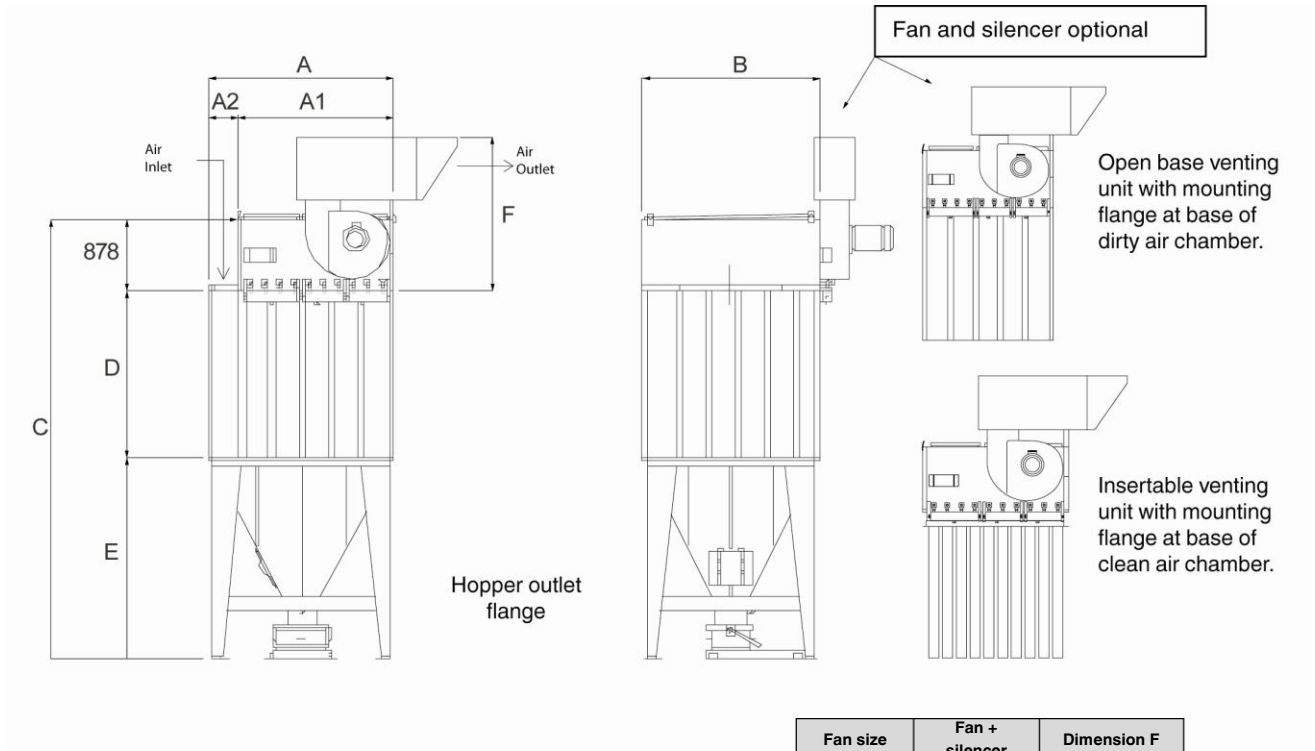
Front and side view of standard MJB complete with typical fan and silencer, mounted on a bin hopper. Rotary valve, flap valve and other discharge options available.

Fan size	Fan + silencer	Dimension F
[kW]	[kg]	[mm]
up to 3,0	67	1396
4,0 to 7,5-S	108	1685
7,5-L to 18,5	188	1850

MJB Medium	A1 Clean air chamber (CAC) width	A2 Add for side pre-separation chamber	A Dirty air Chamber (DAC) hopper width	B Depth of clean and dirty air chamber and hopper	C CAC plus DAC plus hopper height	D Dirty air chamber height	E Hopper height 75 litre bin	Typical weights using normal construction kg		No. of bins
								Filter Unit	Hopper	
9/M/36	800	350	1150	1220	3765	1420	1467	383	354	1
12/M/46	800	350	1150	1220	3765	1420	1467	401	354	1
12/M/38	800	350	1150	1570	3965	1420	1667	441	422	1
16/M/48	800	350	1150	1570	3965	1420	1667	465	422	1
20/M/58	1150	350	1500	1570	4565	1420	1827	619	490	1
22/M/4-11	800	350	1150	2095	4125	1420	2267	652	648	1
24/M/68	1150	350	1500	1570	4305	1420	1827	642	490	1
28/M/78	1500	350	1850	1570	4565	1420	2007	924	558	1
28/M/5-11	1150	350	1500	2095	4305	1420	2267	794	716	1
32/M/88	1500	350	1850	1570	4565	1420	2007	947	558	1
33/M/6-11	1150	350	1500	2095	4565	1420	2267	825	716	1
39/M/7-11	1500	350	1850	2095	4565	1420	2267	965	784	1
44/M/8-11	1500	350	1850	2095	4565	1420	2267	996	784	1
50/M/9-11	1850	350	2200	2095	4735	1420	2437	1146	852	1
55/M/10-11	1850	350	2200	2095	4735	1420	2437	1177	852	1

# MJB Planning-in Data

## MJB-L Long length bag



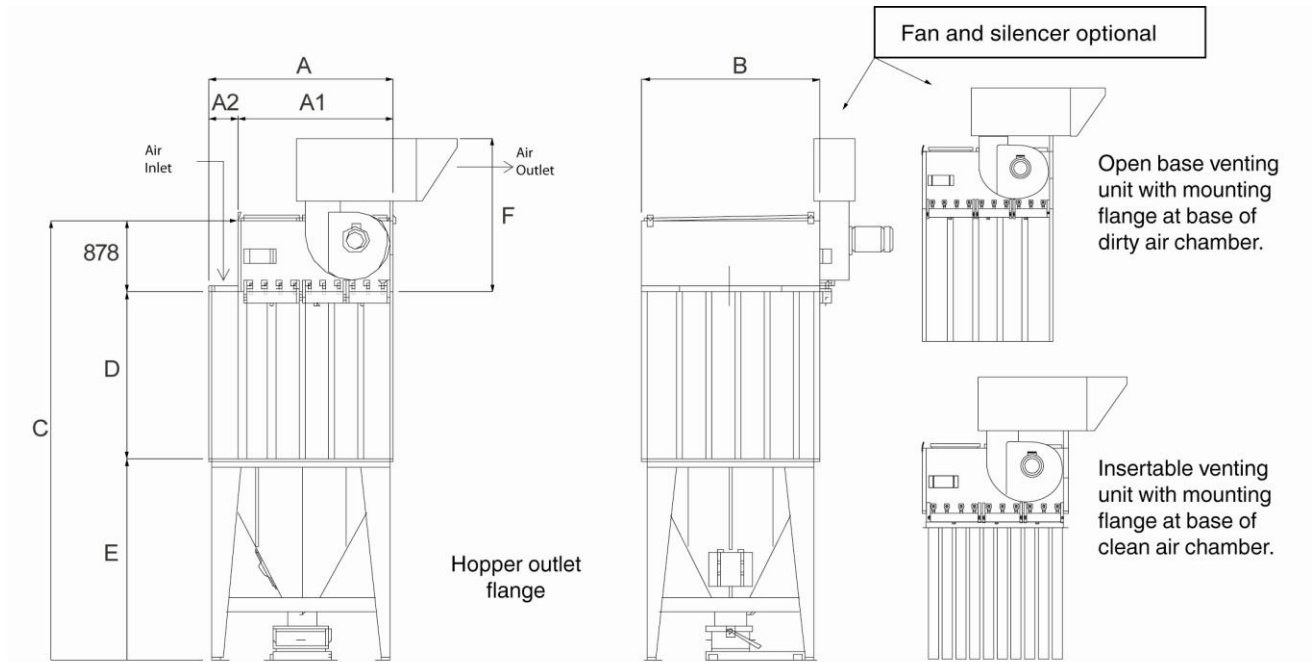
Front and side view of standard MJB complete with typical fan and silencer, mounted on a bin hopper. Rotary valve, flap valve and other discharge options available.

Fan size	Fan + silencer	Dimension F
[kW]	[kg]	[mm]
up to 3,0	67	1396
4,0 to 7,5-S	108	1685
7,5-L to 18,5	188	1850

MJB Long	A1 Clean air chamber (CAC) width	A2 Add for side pre-separation chamber	A Dirty air Chamber (DAC) hopper width	B Depth of clean and dirty air chamber and hopper	C CAC plus DAC plus hopper height	D Dirty air chamber height	E Hopper height 75 litre bin	Typical weights using normal construction kg		No. of bins
								Filter Unit	Hopper	
14/L/36	800	350	1150	1220	4395	2050	1467	490	354	1
19/L/46	800	350	1150	1220	4395	2050	1467	512	354	1
19/L/38	800	350	1150	1570	4595	2050	1667	595	422	1
26/L/48	800	350	1150	1570	4595	2050	1667	625	422	1
32/L/58	1150	350	1500	1570	4755	2050	1827	791	490	1
35/L/4-11	800	350	1150	2095	5195	2050	2267	831	648	1
38/L/68	1150	350	1500	1570	4755	2050	1827	821	490	1
44/L/78	1500	350	1850	1570	4935	2050	2007	908	558	1
44/L/5-11	1150	350	1500	2095	5195	2050	2267	981	716	1
50/L/88	1500	350	1850	1570	4935	2050	2007	938	558	1
52/L/6-11	1150	350	1500	2095	5195	2050	2267	1021	716	1
60/L/7-11	1500	350	1850	2095	5195	2050	2267	1181	716	1
70/L/8-11	1500	350	1850	2095	5195	2050	2267	1221	784	1
78/L/9-11	1850	350	2200	2095	5365	2050	2437	1392	784	1
87/L/10-11	1850	350	2200	2095	5365	2050	2437	1432	852	1
94/L/11-11	2200	350	2550	2095	5195	2050	2267	1627	957	2
104/L/12-11	2200	350	2550	2095	5195	2050	2267	1667	957	2
120/L/14-11	2550	700	3250	2095	5195	2050	2267	1930	1093	2
140/L/16-11	2900	700	3600	2095	5195	2050	2267	2129	1161	2

# MJB Planning-in Data

## MJB-XL Extra Long length bag



Front and side view of standard MJB complete with typical fan and silencer, mounted on a bin hopper. Rotary valve, flap valve and other discharge options available.

Fan size	Fan + silencer	Dimension F
[kW]	[kg]	[mm]
up to 3,0	67	1396
4,0 to 7,5-S	108	1685
7,5-L to 18,5	188	1850

MJB Extra Long	A1 Clean air chamber (CAC) width	A2 Add for side pre-separation chamber	A Dirty air Chamber (DAC) hopper width	B Depth of clean and dirty air chamber and hopper	C CAC plus DAC plus hopper height	D Dirty air chamber height	E Hopper height 75 litre bin	Typical weights using normal construction kg		No. of bins
								Filter Unit	Hopper	
23/XL/38	800	350	1150	1570	4995	2450	1667	774	422	1
31/XL/48	800	350	1150	1570	4995	2450	1667	808	422	1
38/XL/58	1150	350	1500	1570	5155	2450	1827	976	490	1
42/XL/4-11	800	350	1150	2095	5595	2450	2267	1083	648	1
46/XL/68	1150	350	1500	1570	5155	2450	1827	1010	490	1
54/XL/78	1500	350	1850	1570	5335	2450	2007	1171	558	1
52/XL/5-11	1150	350	1500	2095	5595	2450	2267	1263	716	1
60/XL/88	1500	350	1850	1570	5335	2450	2007	1205	558	1
63/XL/6-11	1150	350	1500	2095	5595	2450	2267	1309	716	1
74/XL/7-11	1500	350	1850	2095	5595	2450	2267	1488	784	1
84/XL/8-11	1500	350	1850	2095	5595	2450	2267	1534	784	1
94/XL/9-11	1850	350	2200	2095	5765	2450	2437	1734	852	1
105/XL/10-11	1850	350	2200	2095	5765	2450	2437	1780	852	1
115/XL/11-11	2200	700	2900	2095	5595	2450	2267	2089	1025	2
125/XL/12-11	2200	700	2900	2095	5595	2450	2267	2135	1025	2
145/XL/14-11	2550	700	3250	2095	5595	2450	2267	2360	1093	2
165/XL/16-11	2900	700	3600	2095	5595	2450	2267	2589	1161	2
190/XL/18-11	3250	700	3950	2095	5765	2450	2437	2842	1229	2
210/XL/20-11	3600	700	4300	2095	5765	2450	2437	3092	1297	2

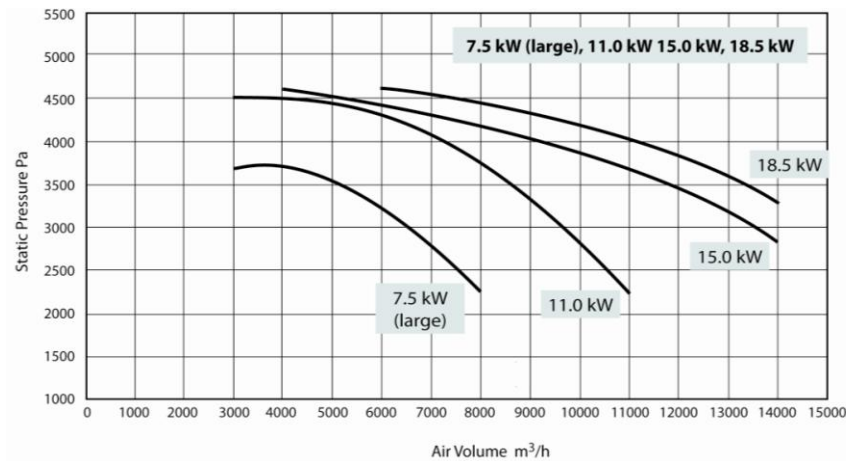
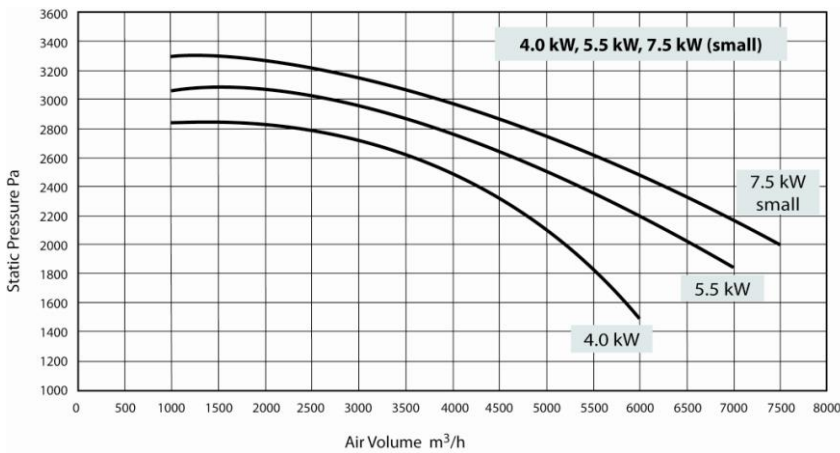
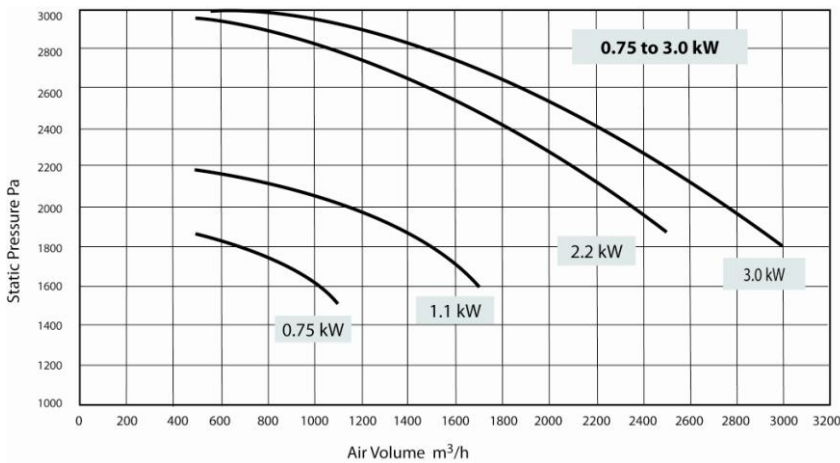
## Integral Fans

MJB units may be fitted with space saving integral high efficiency radial fans. Single fans can deliver up to 14000m<sup>3</sup>/h but some larger units may be fitted with two fans. A floor mounted version of the same fan range is also available as an option.



### Performance of standard integral fans 0.75 to 18.5 kW

Fan performance, with open outlet, at running speed 2900/min.  
Detachable fan used on MJB and MJC.



## MJB Technical Specification

<b>Construction</b>	Welded painted steel; clean air chamber 2.0mm thick steel; dirty air chamber 2.0mm or 3.0mm; hopper typically 2.5mm thick.
<b>Strength</b>	<b>Maximum negative and positive operating pressures;</b> <ul style="list-style-type: none"> <li>- Standard - minus 8000Pa to plus 2000Pa;</li> <li>- Optional - minus 15000Pa to plus 5000Pa</li> <li>- For explosion relief area calculation St1, St2, St3;</li> <li>- Reduced explosion pressure Pred = 0.2 bar.</li> </ul>
<b>Operation temperature</b>	Standard unit -10 to +80°C Optional high temp. unit: - -10 to +250°C
<b>Compressed air requirement</b>	Normal operating pressure for cleaning air - 90psi (6.2 barg) dry and oil free. Typical compressed air consumption for 2 minute continuous cleaning cycle (for units with up to 12 valves); or 10 second interval between pulses (for units with more than 12 valves). Based upon 75 liters at NTP per pulse.
<b>Electrical requirement Controller</b>	240/220/110v AC input (24vDC to special order only)

## Compressed Air Consumption

No. of Valves	3	4	5	6	7	8	9	10	11	12	>12
nm <sup>3</sup> /h	6.75	9.0	11.25	13.5	15.75	18.0	20.25	22.5	24.75	27.0	27.0

*NOTE: Use of "clean-on-demand" or increased cleaning cycle time will reduce typical compressed air consumption.*

## Applications

- Bag filling and emptying: animal feed, building products, additives
  - Blast cleaning: metals, equipment
  - Conveying, mixing, blending: all powders, pellets and granulated material
  - Crushing, screening, sieving: from quarried minerals to pharmaceutical powders
  - Grinding, polishing, finishing: metals and other materials
  - Foundry processes: melting and sand reclamation to fettling and finishing
  - Milling: food and feed raw materials, grains, pulses
  - Cutting and shaping: laser, plasma, mechanical sawing
  - Powder coating: surface finishing, decorative coatings
  - Hot metal processes: galvanizing, metal spraying
- ... and many more

