



MJB-A and MJB-H Reverse Jet Tubular Bag Filters

Reverse ject tubular bag filter

The MJB-A and MJB-H comprise an innovative range of robust, versatile tubular bag filter units, that build upon the experience of the well established Dantherm MJB bag filters. By combining the advantages of two stage immersion type cleaning valves with the patented Dantherm UniClean technology, maximum cleaning efficiency is achieved with very low energy consumption and minimal maintenance. All access for maintenance is from the top of the unit.

The modular design, with several bolt together assembly options is optimized for transport by road or by sea container. It also maximises flexibility on site, to suite available facilities.

Filter sizes from 140 m² filter to about 1700m² are available as pre-assembled units. Airflow volumes up to around 180,000m³/h (subject to application) are possible for such units. The modular design enables larger units to be assembled and also existing units to be extended whenever required.

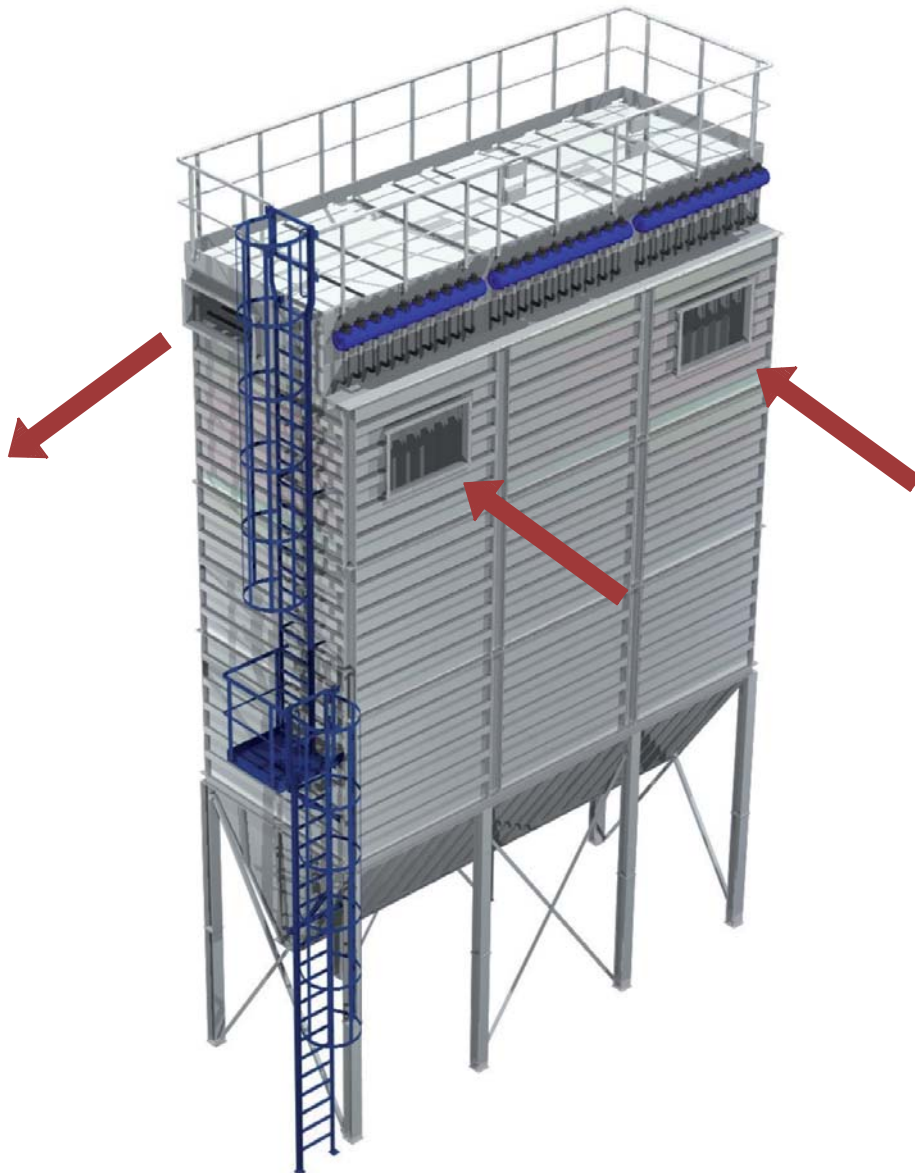
Features

- ▶ Robust welded steel construction
- ▶ Versatile modular design
- ▶ Weatherproof for exposed locations
- ▶ Flat pack dirty air chamber option for efficient transport by road or sea container.
- ▶ May be extended on site if required
- ▶ Efficient cleaning with patented Dantherm UniClean technology
- ▶ Integral pre-separation section
- ▶ Down flow / cross flow inlet air pattern to maximize dust handling capacity
- ▶ Low maintenance, with access from the unit top
- ▶ Two bag lengths available
- ▶ Higher temperature options including trace heating and insulation
- ▶ ATEX compliant for explosive dusts



General Description

Inlet air (raw gas) and clean air outlet connections



The dirty air normally enters at high level through the side of the dirty air chamber (as illustrated), or alternatively via the top of the dirty air chamber. It passes downwards through a generously sized pre-separation chamber, and then into the bag-house via a slotted profiled barrier to protect the bags from abrasion in a part cross flow and part

down flow pattern, thus eliminating unwanted upward velocity effects.

The outlet air connections are at high level directly from the clean air chamber. These may be situated at the sides or end of the clean air chamber. Rectangular connection flanges are normally provided.

General Description

Cleaning system

The MJB-A and MJB-H filter units utilise an efficient compressed air pulse cleaning system. High capacity two stage full immersion diaphragm valves with close-coupled solenoid valves supply short powerful pulses of compressed air supplied from generously sized certified header tanks. Cleaning efficiency is further enhanced by the patented Dantherm UniClean filter cage design.

Compressed air cleaning tank: 8inch (203 mm) diameter;
max pressure 8 bar;
test pressure 12 bar;
certification 87/404/CEE, 90/488/CEE.

Operating parameters: normal head pressure range 5.0 to 5.5 bar (dry, oil-free air)
Free air consumption (anticipated max) 135 litres per pulse per valve.

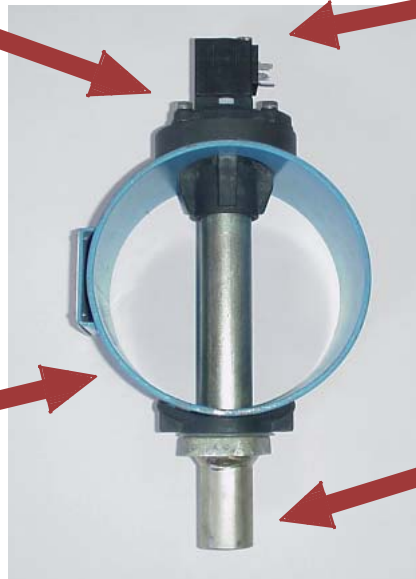
Immersion valves and tank

Two stage diaphragm valve for minimum response time plus maximum peak pressure

Pilot solenoid valve, directly mounted onto diaphragm valve

Compressed air tank

Delivery pipe to jet tube



Unit Strength

MJB-A and MJB-H units are designed for typical negative pressure (under-pressure) applications with the extraction fan separately mounted on the clean air side.

Positive pressure (over-pressure) applications are also possible, as below:

Standard construction:	minus 6,000Pa to plus 2000Pa
Optional construction:	minus 10,000Pa to plus 5000Pa

For explosion relief area calculation: Reduced explosion pressure $P_{red} = 0.2 \text{ barg}$

Modular Construction

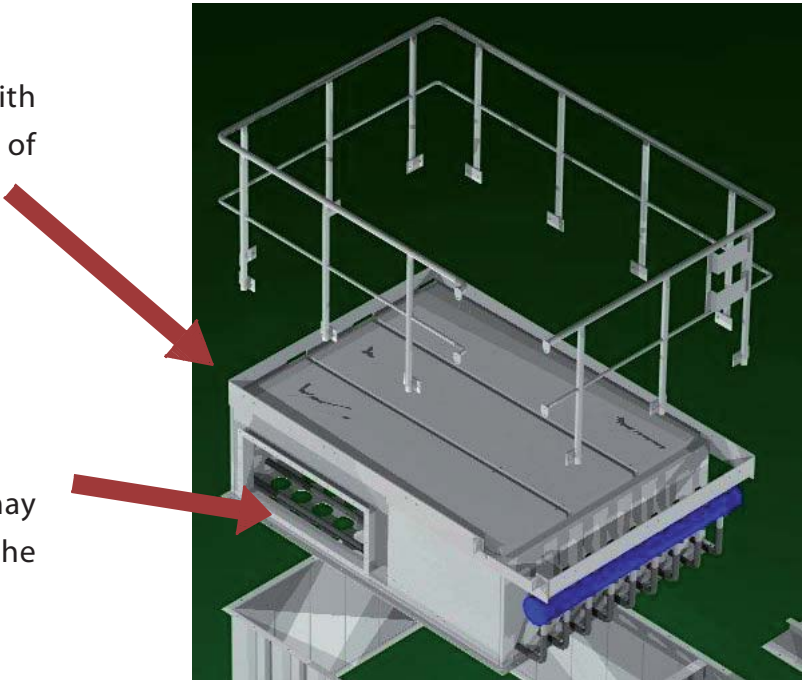
Clean air chamber



The heart of each filter is a factory finished and tested clean air module, designed to optimize transport by road or sea container. The standard filter unit clean air module is available with 8, 10, or 12 cleaning valves. Modules are connected together by means of a connecting frame. End walls may be added at each end.

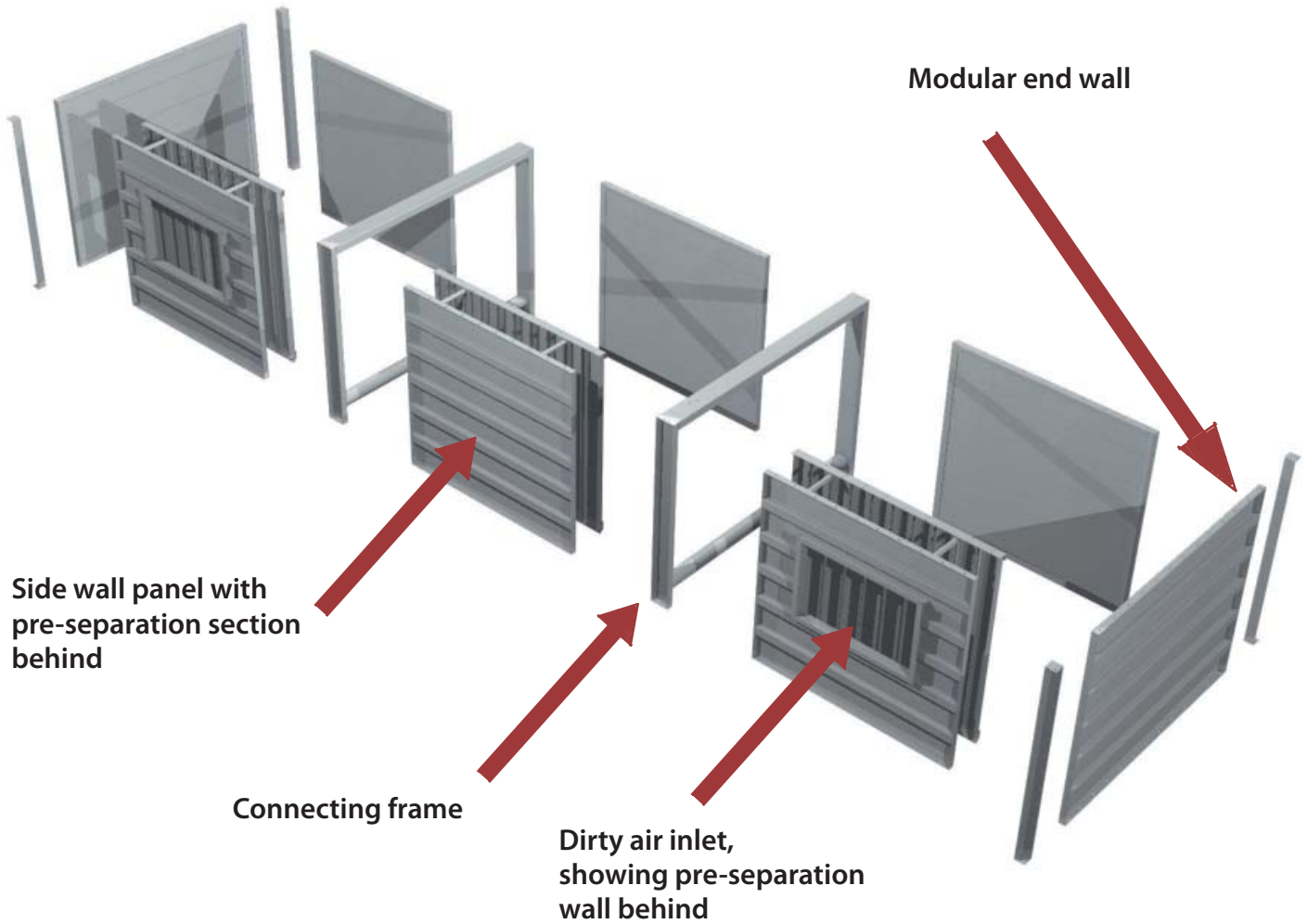
The clean air chambers are fitted with toeboards, pre-drilled for easy fitting of handrailing as required.

Flanged clean air outlet connections may be incorporated into the end walls or the side walls opposite the valves.



Modular Construction

Dirty air chamber



Dirty air (raw gas) chamber

These are available as complete modular sections for transport by road, or in parts for assembly on site as appropriate.

For the MJB-A, the dirty air chamber comprises two sections of the type illustrated, one mounted on top of the other to accommodate the 3.7m long bags.

For the MJB-H, the dirty air chamber comprises three sections of the type illustrated, mounted on top of each other, to accommodate the longer (6.1m) bags.

Description of range

The MJB-A and MJB-H ranges utilise the same modular clean air chamber sections, which are available in three standard sizes, for 8, 10 or 12 rows of vertical tubular filter bags. Modules may be joined together to form bigger filter units, utilising standard connecting frames. The maximum size of filter unit that can be made will be limited only by considerations of space on site.

There are two standard bag lengths designed to maximize commonality of dirty air chamber components:

- MJB-A models are fitted with A - bag (see filter bags above)
- MJB-H models are fitted with H - bag (see filter bags above)

Filter bags and cages

The tubular filter bags are located in steel cell plates by means of patented profiled stainless steel snap rings, to ensure a positive seal.

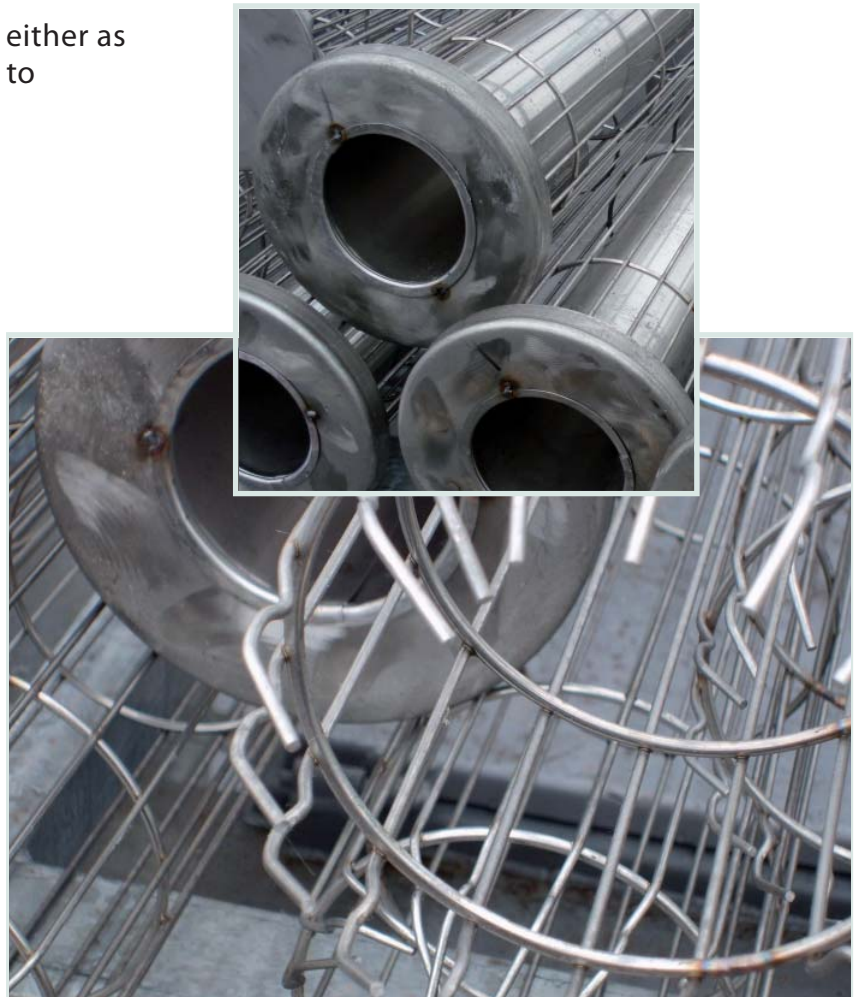
Filter bags are available in two lengths: The MJB-A bag, length 3.7m,
The MJB-H bag, length 6.1m.

A full range of media types is available either as standard or to special order, according to application.

The MJB-A is supplied normally with single piece cages incorporating the patented UniClean features. Two piece cages will be available as an option.

The MJB-H is supplied normally with two-piece cages with the upper part incorporating the patented UniClean features.

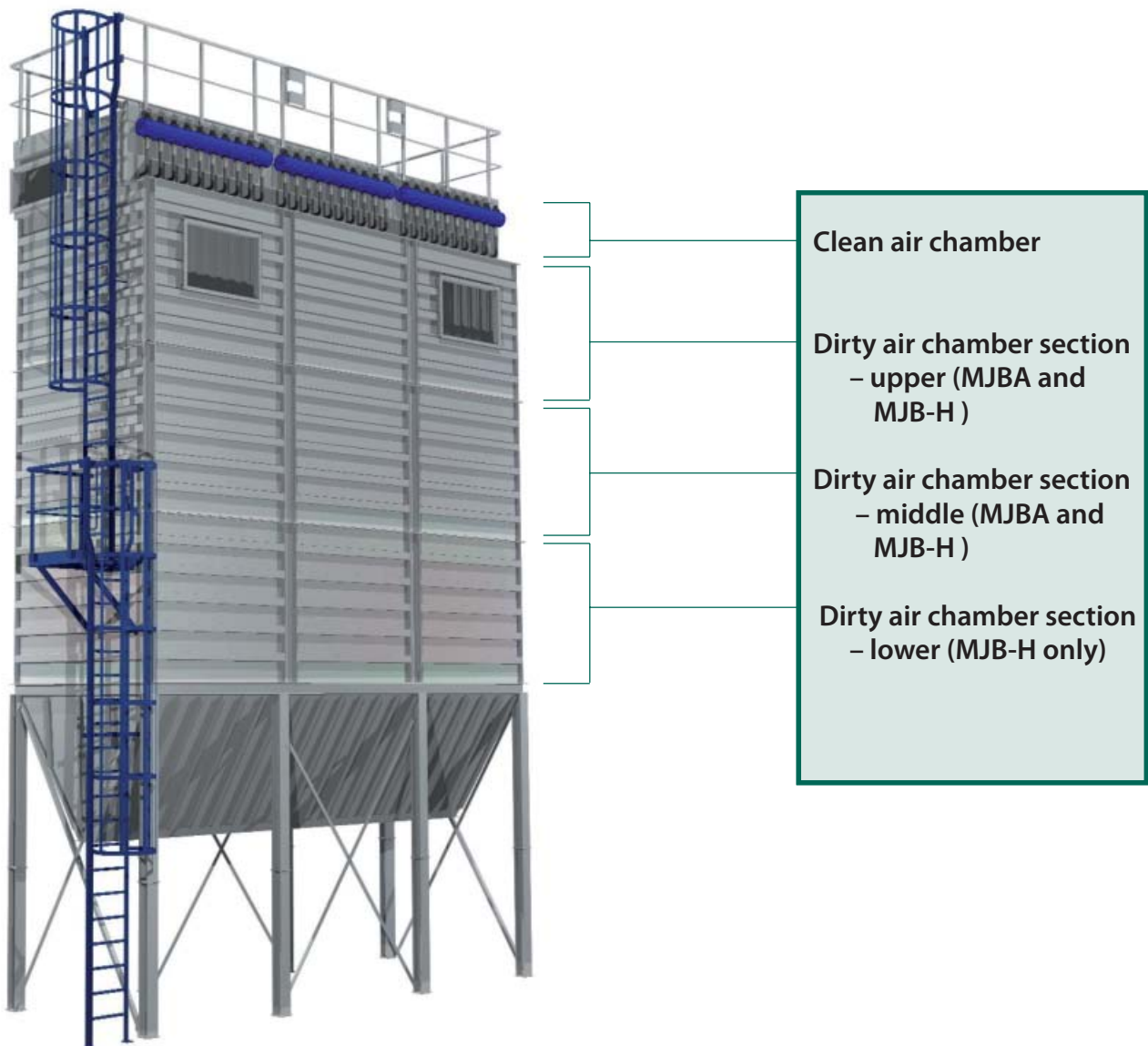
Filter cages are available in various designs and finishes to suit the application and special filter media. Stainless steel cages are available to special order.



General information

MJB-A filter units consist of a clean air chamber mounted onto two standard dirty air chamber sections. Depending upon the unit size and transport requirements, the clean air chamber could be delivered pre-assembled onto the upper dirty air section, with the lower dirty air section delivered pre-assembled or in flat pack form for final assembly on site.

The standard size range for the MJB-A unit is from 140m² (**MJB 140/A/8-10**) to typically 1050m² (**MJB 1050/A/60-10**). This unit would consist of five, twelve valve modules connected to form a single unit. Larger units may be assembled, however, by adding further modules as required.



MJB-H filter units consist of a clean air chamber mounted onto three standard dirty air chamber sections. Depending upon the unit size and transport requirements, the clean air chamber could be delivered pre-assembled onto the upper dirty air section, with the other dirty air sections delivered pre-assembled or in flat pack form for final assembly on site.

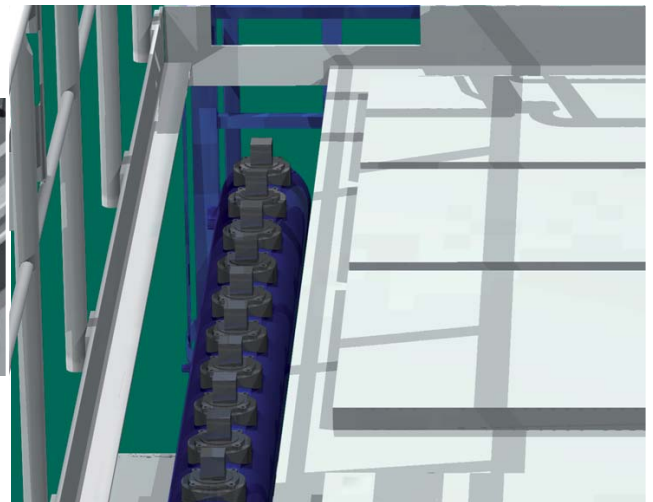
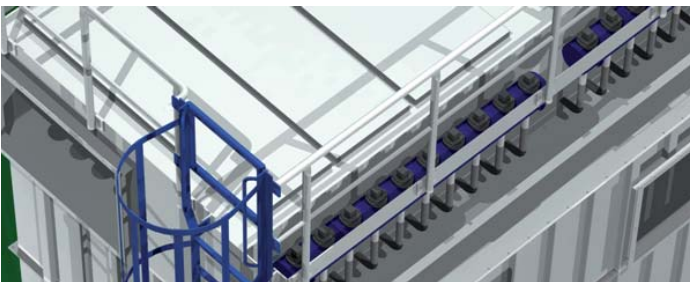
The standard size range for the **MJB-H unit** is from 295m² (MJB 295/H/10-10) to typically 1770m² (MJB 1770/H/60-10). This unit would consist of five, twelve valve modules connected to form a single unit. As with the MJB-A models, larger units may be assembled by adding further modules as required.

Easy to install

- MJB-A and MJB-H modules minimise transport and installation costs.
- Each section may be delivered fully finished, or as convenient sub-assemblies, for simple final assembly.
- Factory fitted fixings for access ladders are provided.
- Large top mounted lids give good access to the clean air chambers for installation of bags and cages.
- Patented profiled snap rings ensure positive leak-free location of bags.
- Factory fitted connection flanges enable quick accurate installation of inlet and outlet ducting.

Easy to maintain

- Top access only is required for maintenance via a single caged ladder with rest platform as required.
- Filter bag and cage replacement is performed from the clean air side.
- Split cages on MJB-H for ease of handling.
- Quick jet tube removal with no loose parts.
- Two stage cleaning valves requiring top access only.
- Standard maintenance and parts replacement by one man.



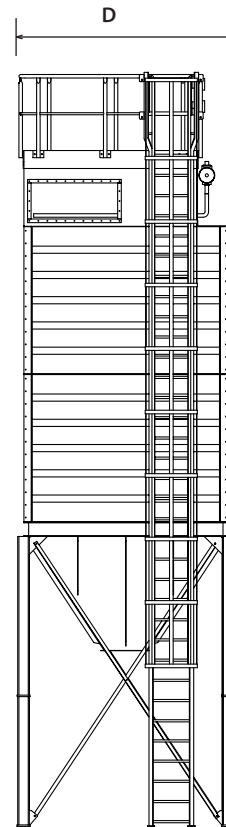
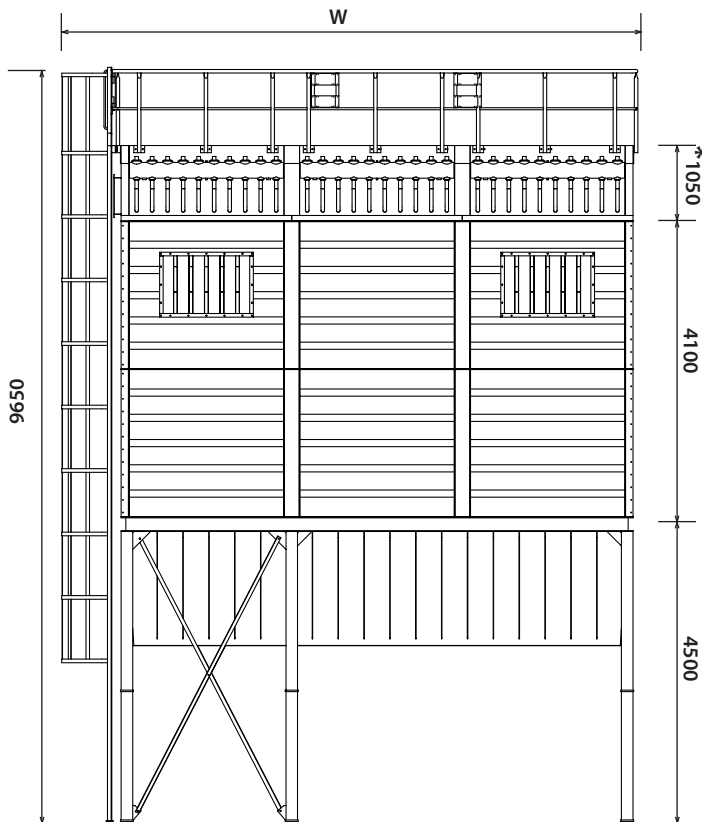
Maintenance access

The MJB-A and MJB-H filters are designed for top access to the filter bags, with bag exchange from the clean air side. Access to the cleaning valves is also directly from the unit top. Units will normally be supplied with hand railing around the perimeter of the top.

Higher temperature options

Units are available with higher temperature components, filter bags, cages, sealants and paint systems for operating temperatures up to 220 deg.C. The units are suitable for trace heating and thermal insulation with weatherproof cladding to be fitted if required.

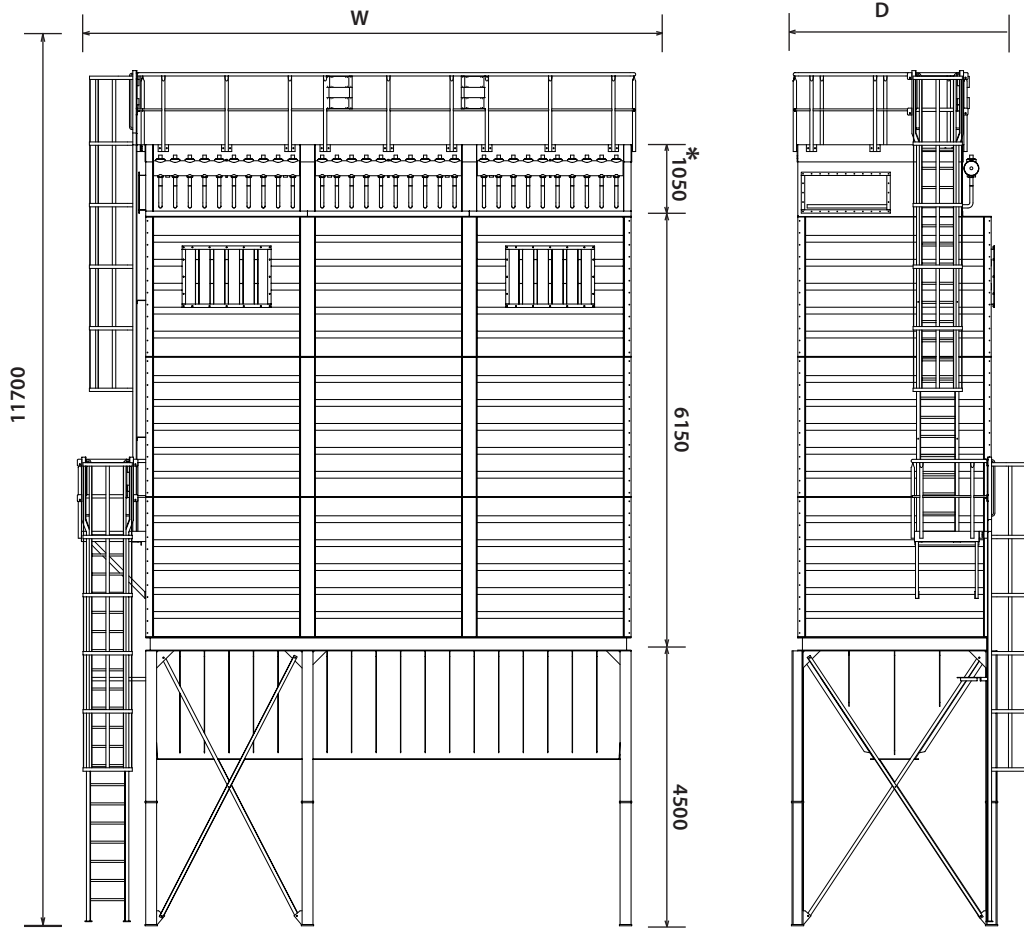
MJB-A Planning in data



* The Clean Air Chamber height includes toeboard

MJB-A unit module	Filter area [m ²]	no. of valves	bag type	width W	depth D
MJB 140/A/8-10	140	8	A	1935	2825
MJB 175/A/10-10	175	10	A	2365	2825
MJB 210/A/12-10	210	12	A	2795	2825
MJB 280/A/16-10	280	16	A	3870	2825
MJB 315/A/18-10	315	18	A	4300	2825
MJB 350/A/20-10	350	20	A	4730	2825
MJB 385/A/22-10	385	22	A	5160	2825
MJB 420/A/24-10	420	24	A	5590	2825
MJB 455/A/26-10	455	26	A	6235	2825
MJB 490/A/28-10	490	28	A	6665	2825
MJB 525/A/30-10	525	30	A	7095	2825
MJB 560/A/32-10	560	32	A	7525	2825
MJB 595/A/34-10	595	34	A	7955	2825
MJB 630/A/36-10	630	36	A	8385	2825
MJB 665/A/38-10	665	38	A	9030	2825
MJB 700/A/40-10	700	40	A	9460	2825
MJB 735/A/42-10	735	42	A	9890	2825
MJB 770/A/44-10	770	44	A	10320	2825
MJB 805/A/46-10	805	46	A	10750	2825
MJB 840/A/48-10	840	48	A	11180	2825
MJB 875/A/50-10	875	50	A	11825	2825
MJB 910/A/52-10	910	52	A	12255	2825
MJB 945/A/54-10	945	54	A	12685	2825
MJB 980/A/56-10	980	56	A	13115	2825
MJB 1015/A/58-10	1015	58	A	13545	2825

MJB-H Planning in data



* The Clean Air Chamber height includes toeboard

MJB-H unit module	Filter area [m ²]	no. of valves	bag type	width W	depth D
MJB 295/H/10-10	295	10	H	2365	2825
MJB 354/H/12-10	354	12	H	2795	2825
MJB 472/H/16-10	472	16	H	3870	2825
MJB 531/H/18-10	531	18	H	4300	2825
MJB 590/H/20-10	590	20	H	4730	2825
MJB 649/H/22-10	649	22	H	5160	2825
MJB 708/H/24-10	708	24	H	5590	2825
MJB 767/H/26-10	767	26	H	6235	2825
MJB 826/H/28-10	826	28	H	6665	2825
MJB 885/H/30-10	885	30	H	7095	2825
MJB 944/H/32-10	944	32	H	7525	2825
MJB 1003/H/34-10	1003	34	H	7955	2825
MJB 1062/H/36-10	1062	36	H	8385	2825
MJB 1121/H/38-10	1121	38	H	9030	2825
MJB 1180/H/40-10	1180	40	H	9460	2825
MJB 1239/H/42-10	1239	42	H	9890	2825
MJB 1298/H/44-10	1298	44	H	10320	2825
MJB 1357/H/46-10	1357	46	H	10750	2825
MJB 1416/H/48-10	1416	48	H	11180	2825
MJB 1475/H/50-10	1475	50	H	11825	2825
MJB 1534/H/52-10	1534	52	H	12255	2825
MJB 1593/H/54-10	1593	54	H	12685	2825
MJB 1652/H/56-10	1652	56	H	13115	2825
MJB 1711/H/58-10	1711	58	H	13545	2825

World wide sales companies



The world leader in air pollution control

Dantherm Filtration focuses on individual solutions for individual customer needs. We benefit from the experience and expertise of more than 30,000 air cleaning systems. And we deliver unbeatable reliability, low energy consumption and compliance with all

mandatory requirements for a wide range of applications in many different industries all over the world.

Dantherm Filtration is a part of Dantherm Group - a leader in industrial air management, offering industrial

cooling, heating, dehumidification, ventilation, air filtration and mobile air management. The Group has 3,000 employees and operates globally with production and sales companies in Europe, US and Asia.



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