

Technical leaflet 150051 0	Date 2011-06-10
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## MJC Mini Cartridge Filter

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The MJC Mini builds on the Nederman tradition for producing robust long lasting welded filter units. Stocked as standard sub-assemblies or complete units to meet your needs for fast delivery.

Nederman Filtration firmly believes in reacting quickly to changing market conditions and customers requests. It has always been our aim to provide the best filter units for your applications without compromise, backed up by an excellent service packages. The MJC Mini extends Filtration commitment to our customers.

### Features

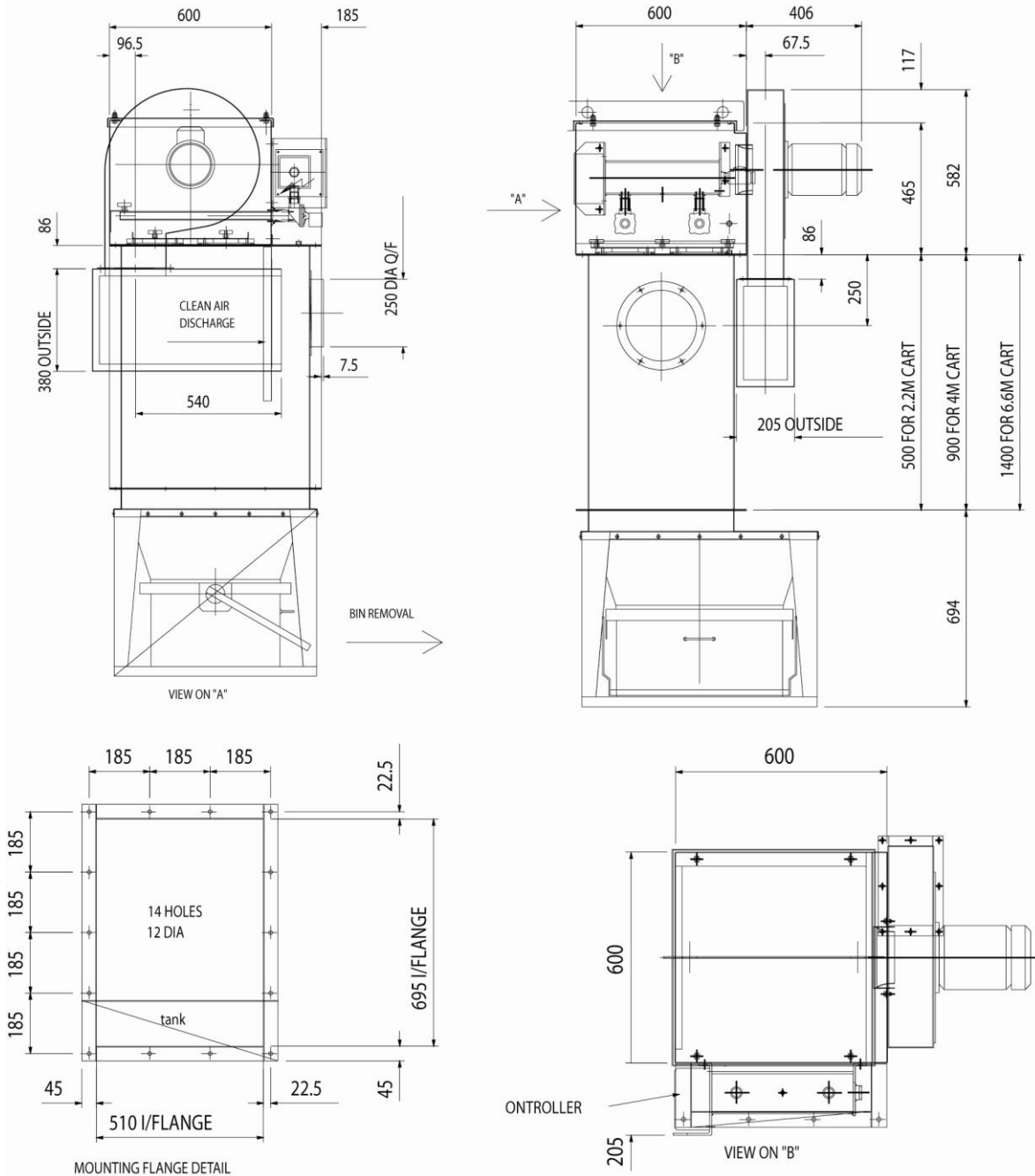
- Rugged construction based on the well proven MJC Range
- Enhanced cleaning, higher efficiency and longer cartridge life with our patented UniClean cartridges
- Compact design with small footprint and low headroom requirements
- 8 Sizes to choose from ranging from 4m<sup>2</sup> to 40m<sup>2</sup> of filter area
- Three cartridge sizes, 2.2, 4.0 and 6.6m<sup>2</sup> option on largest unit.
- Larger dust capacity integral pre-separation and cross flow air design
- Venting or Fan assisted with a range of additional features
- Low cost maintenance, easy access, clean air side cartridge replacement
- Powerful but quiet

### Principal specification and options

- ATEX compliant explosion relief panels
- Insert able venting
- Open base venting
- Conventional hopper and bin
- Standard Fan sizes 0.75 to 3.0kW; air silencers.
- 4.0kW option on certain units.
- Four standard cartridge materials to suit many applications.
- Castors for mobility, optional.
- Minimal compressed air usage.

# MJC Mini Planning-in Data

## MJC Mini 9/22/22, 16/40/22 and 26/66/22



The MJC Mini 9/22/22, 16/40/22 and 26/66/22 are available as insertable or open based venting filters, with or without fan assistance. Both units use the same mounting flange illustrated here.

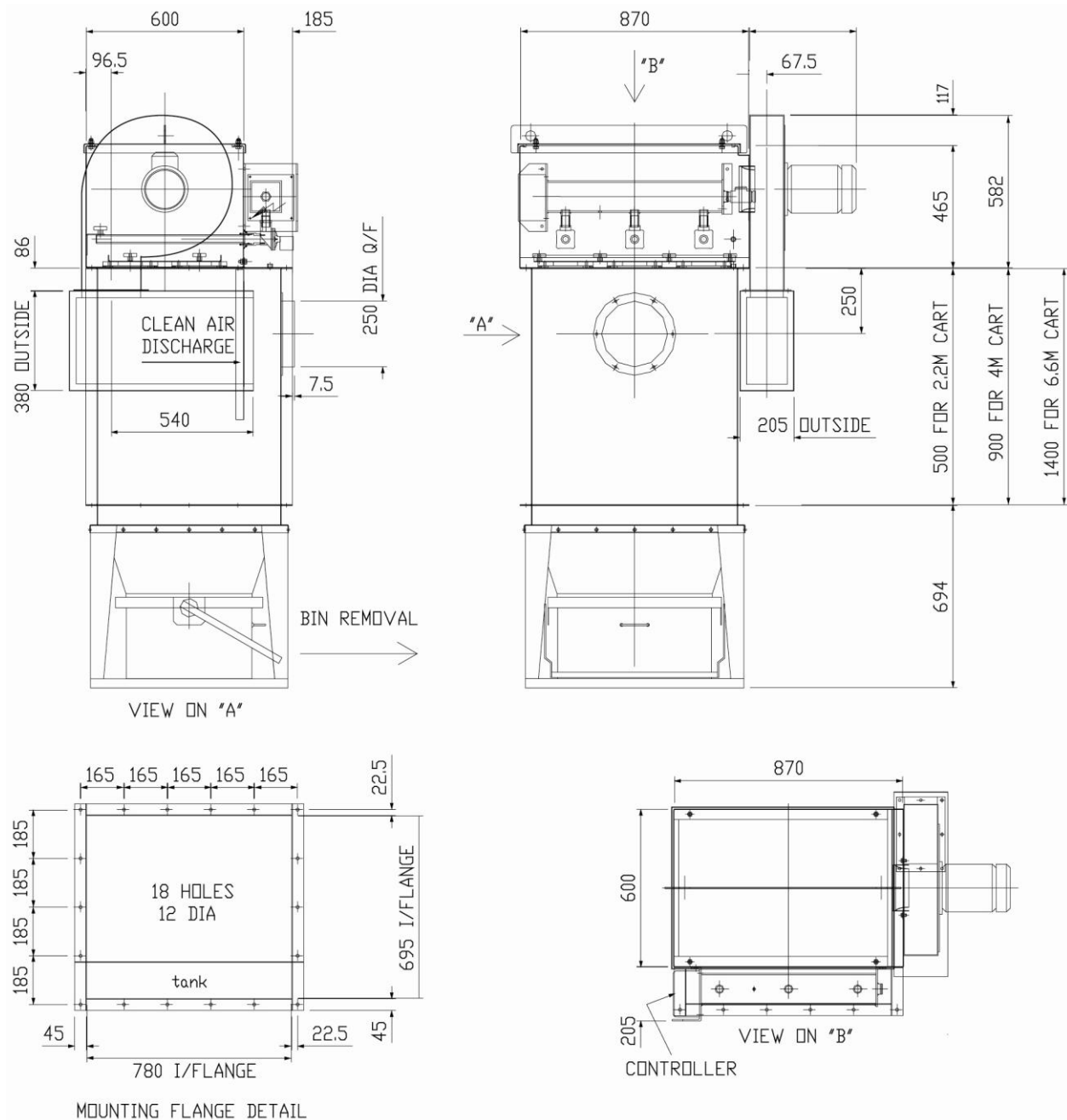
A hopper with 75 litre quick-release bin is available.

The unit can be assembled with bin removal from front or rear.

The fan may be positioned with an upward discharge if required.

## MJC Mini Planning-in Data

### MJC Mini 13/22/32, 24/32/32 and 40/66/32



The MJC Mini 13/22/32, 24/40/32 and 40/66/32 are available as insertable or open based venting filters, with or without fan assistance. Both units use the same mounting flange illustrated here.

They may also be specified with a conventional hopper with 75 litre (illustrated) or 150 litre quick-release bin. The units may be assembled with bin removal from front or rear.

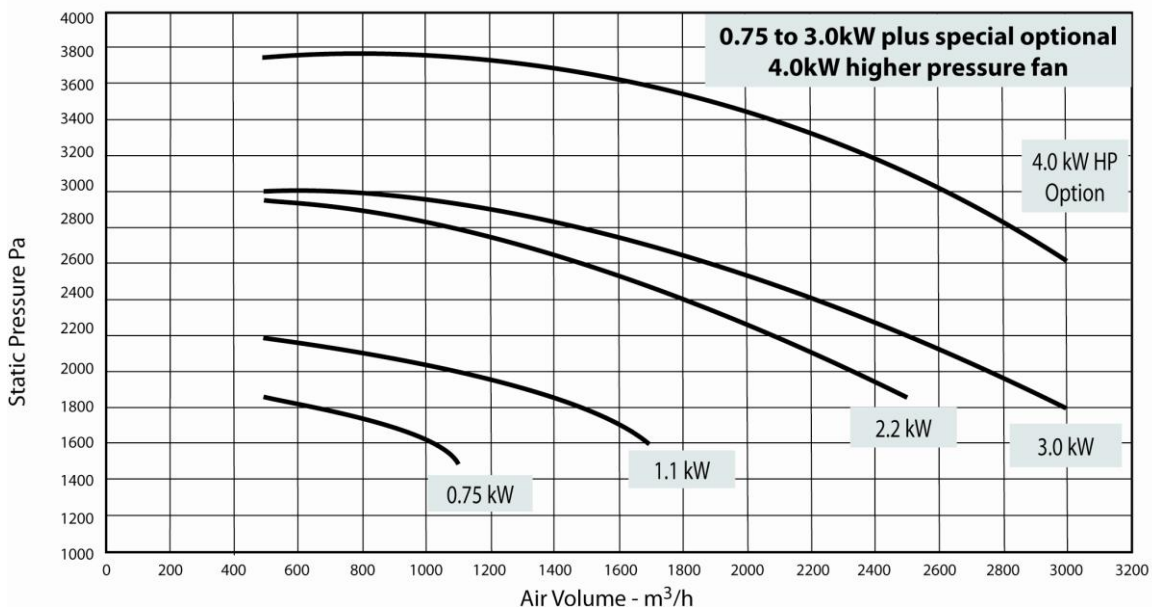
The fan may be positioned with an upward discharge if required.

## Fan Performance

High efficiency backward curved radial fan with 0.75, 1.1, 2.2 or 3kW, 3 phase induction motor. Single phase option available for 0.75, 1.1 and 2.2kW fans.

The higher pressure fan is available to special order for the following units only:  
MJC Mini 16/40/22, MJC Mini 26/66/22, MJC Mini 24/40/32, MJC Mini 40/66/32.

**MJC Mini range fan performance, with open outlet, at running speed 2900/min.**



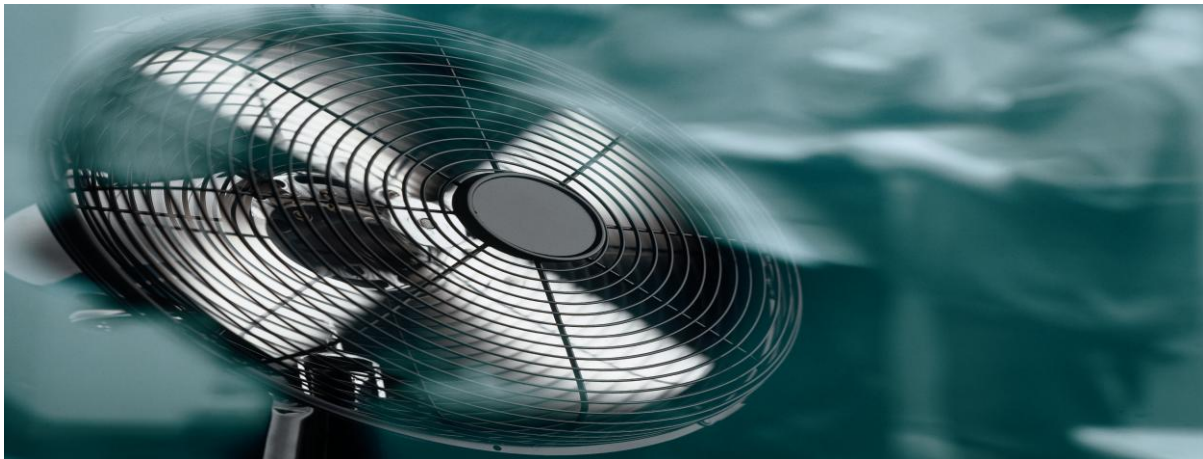
Electrical Supply: MJC Mini 4/22/21 and 8/40/21 with no fan: -110v single phase 50 or 60Hz.

MJC Mini, all other models, with no fan: - 110 or 220v single phase 50 or 60Hz.

Fan: add 380/415v 3-phase for any fan or 220/240v single phase supply for 0.75, 1.1 or 2.2kW fan only.

## Optional starter / control panels

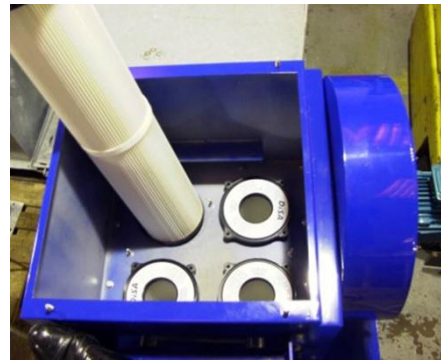
Starter / control panels are available for all MJC Mini units, with standard fan sizes from 0.75 to 3.0 kW and also for the special 4.0 kW fan available on the largest units. All panels include 3- phase fan motor starter and fused single phase output for reverse jet timer, 'start' and 'stop/clean' push buttons. They do not include main isolator or motor fuses. They are suitable for motor sizes 0.75, 1.1, 2.2, 3.0 and 4.0 kW, with appropriate thermal overloads fitted.



## Cartridge Material

**At the heart of every MJC Mini cartridge filter is the UniClean Patent pleated cartridge element.**

The overall dimensions, including pleat depth and spacing were designed uniquely for the MJC range and its smaller sisters MJC Mini and SiloSafe. More than ten years' experience in many applications and the more recent introduction of the UniClean feature ensure maximum performance and long life.



## Surface Filtration

The filter media is typically around 1.7mm thick but contains many layers of random fibres. Filtration occurs at or very near the surface of the materials and its efficiency (BIA class L, M) is further enhanced by a surface layer of dust.

The MJC Mini uses our patented **Type 40** UniClean cartridge with 4.0m<sup>2</sup> of filter area.

## MJC Mini reverse jet cartridge filter

### Filter materials are:

- **CA100** high quality thermal bonded polyester pleated fabric fitted as standard.
- **CA140** as CA100 but with metallised antistatic treatment.
- **CA190** as CA100 but with ptfе dust release treatment.

<b>General construction</b>	cold reduced mild steel, typically 2.5mm thick welded, sealed and painted. For use with explosible dust: design Reduced Explosion Pressure (Pred) = 0.25 bar.
<b>Reverse jet cleaning</b>	single 4.7 or 7.7 litre steel compressed air reservoir. Maximum working pressure: 7.0 barg. Test pressure: 13.0 barg.
<b>Normal cleaning pressure</b>	for cartridges: 5.5 barg.

## MJC Mini Range is available in three basic configurations:

### Insertable units

The cartridges protrude into the customer vessel and are mounted vertically. The MJC Mini 4/22/21, 9/22/22 and 13/22/32 can also be inserted horizontally if required.

- A space saving option where there is free space within the enclosure or vessel to be ventilated
- Continuously or intermittently used storage or process vessels, with ventilation requirements up to approximately 3600m<sup>3</sup>/h, handling dry powders or dusty materials
- Transfer points in enclosed conveying systems
- Mixing / blending vessels
- Silo ventilation for most dry bulk materials, delivered mechanically or under pressure



### Cased units with flanged open base

Cased unit with a flanged base is mounted directly onto a vessel to be ventilated. This configuration also allows fitting of a simple hopper for continuous dust discharge.

- As for insertable units, but in situations where the cartridge must not protrude into the vessel
- Ventilation/aspiration of enclosed conveyors, for example grain and milled products in multi-bin storage and handling systems
- Ventilation of sack tipping and bag splitting enclosures

### Cased units with bin (Optional castors and single phase for versatility and portability)

A stand alone unit complete with inlet duct connection and dust collection bin.

- Dust extraction in tight spaces.
- Compact low height dust extractor / collector.
- Welding fume extraction up to four extraction hoods.
- CNC machining extraction, e.g. Cast iron.
- General metalworking, dry processes including sawing, grinding, finishing, sanding and shot blast.
- Pharmaceuticals tableting, laboratory mixing, non-hazardous powder mixing.
- Ceramics mixing booths, trimming and finishing booths, specialist small scale production.
- Ceramics educational establishments, work stations.
- Building products hand trimming and finishing processes, eg. bathroom pottery.
- Stone Masonry, sawing, cutting, sculpting, trimming and finishing.
- Plastics machine cutting, sanding.
- Wood machining, sanding.
- Versatility can be increased further by the addition of a simple hopper suitable for mechanical discharge devices.

