

MJC Mini - Cartridge dust collector

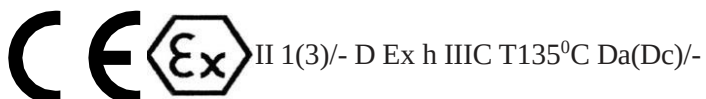


MJC Mini standard version



MJC Mini ATEX version

Product marking



MJC Mini cartridge dust collectors are designed for continuous purification of small volumes of gases containing dry dust up to 50 g/m³ concentration. MJC Mini builds on the Nederman tradition for producing robust long lasting, welded filter units.

Nederman 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 MJCMini extends Nederman commitment to our customers.

Features

- Robust welded construction, sealed and painted.
- Enhanced cleaning, higher efficiency and longer cartridge life.
- Compact design with small footprint.
- Different sizes to choose, from 4 m² to 40 m² of filter area.
- CA cartridge sizes: 2.2, 4.0 and 6.6 m² in largest units
- SC cartridge size: 8.4 and 13.2 m².
- Larger dust capacity integral pre-separation and cross flow air design.
- Low cost maintenance, easy access.
- Powerful but quiet.

Configurations

- Insertable units (cartridges protrude into ventilated vessel).
 - Units with flanged open base (mounted directly onto a ventilated vessel).
 - Complete units with hopper and dust collecting bin.
- All above can be venting units or units assisted by fan.

Specification

- Airflow volumes:
 - from 500 m³/h to 3500 m³/h for polyester (CA) cartridges,
 - from 3330 m³/h for 5230 m³/h SC178 cartridges.
- ATEX certified explosion relief panels when handling combustible dusts.
- Range of standard fans from 0.75 to 5.5 kW.
- Different cartridge media types (CA 100, CA 140, CA148 CA 190, SC 178), selected to best fit the application.
- Cleaning controller supply voltage: 230/220/110 V AC and 24V DC.

Dust collector	Maximum overpressure [Pa]	Maximum negative pressure [Pa]	Operation temperature [°C]	Maximum reduced explosion pressure $P_{red,max}$
MJC Mini	2000	8000	Min. -20 Max. +80	0,42 bar

Combustible dust properties	Data
K_{ST}	Max. 200 bar*m*s ⁻¹
Explosion class	St 1

Accessories

- Fan silencer with weather cowl.
- Secondary filters type H13.
- Castors for mobility.
- Explosion panel alarm switch.
- Differential pressure indicator and alarm.
- Control cabinet with frequency converter or without (not connected to the dust collector at the factory).

Cartridge material

- CA 100 - Pleated high quality thermal bonded polyester fibers.
- CA 140 - as CA100 but with metallised antistatic treatment.
- CA 148 – as spunbond polyester with antistatic treatment and nanofiber
- CA 190 - as CA100 but with PTFE type dust release treatment.
- SC 178 - is 80% cellulose, 20% polyester material with nanofiber.

Requirements

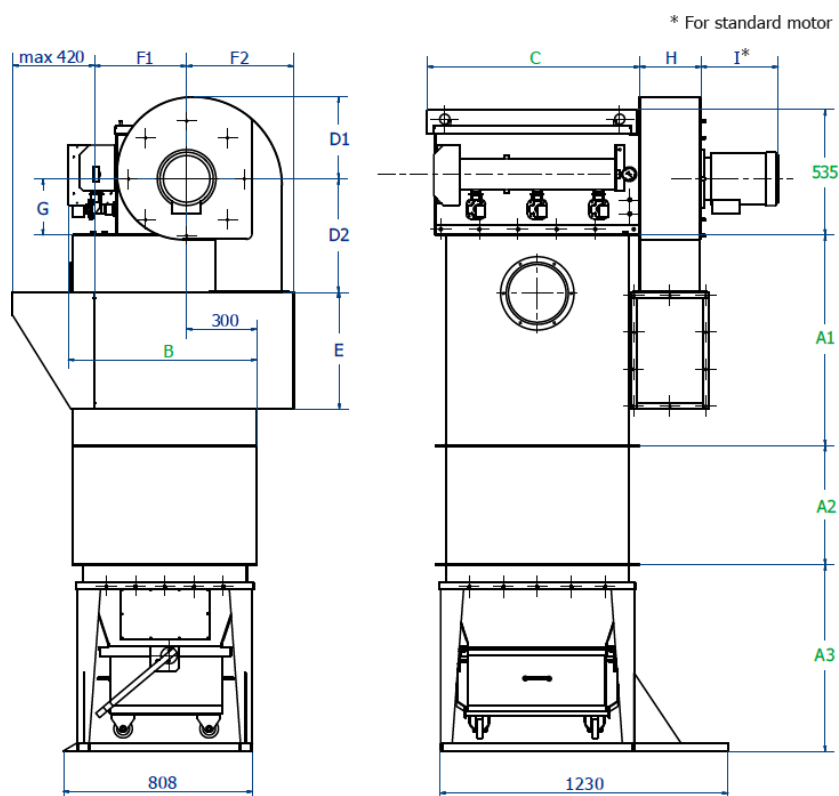
Compressed air requirements: normal operating pressure for cleaning air with:

- CA cartridge type: from 5.0 to 5.5 bar, dry and oil free.
- SC cartridge type: from 6.0 to 6.5 bar, dry and oil free.

Technical data

No.	MJC Mini dust collector	Filter area [m²]	Number of cartridges	Maximum compressed air consumption [Nm³/h]	Fan motor power [kW]
Types 4/22/2-1 and 8/40/2-1 are available in the standard version only:					
1	4/22/2-1	4	2	3,0	0,75 - 3,0
2	8/40/2-1	8	2	3,0	
3	50/84/3-2*	50	6	5,4	
4	79/132/3-2*	79	6	5,4	
Following types of the MJC Mini dust collectors are available in the ATEX versions too:					
3	9/22/2-2	9	4	3,6	0,75 - 5,5 and 4,0 High Pressure
4	13/22/3-2	13	6	5,4	
5	16/40/2-2	16	4	3,6	
6	24/40/3-2	24	6	5,4	
8	26/66/2-2	26	4	3,6	
9	40/66/3-2	40	6	5,4	
* Version with SC cartridge type.					

Dimensions



MJC Mini dust collector	A1 [mm]	A2 [mm]	A3 [mm]			B [mm]	C [mm]
	Height of the dirty air chamber	Height of chamber with explosion relief membrane	Height of hopper with dust bin			Width of the dust collector	Depth of the dust collector
			52 litres	75 litres	150 litres		
4/22/2-1	500	-	-	-	-	320	600
8/40/2-1	900	-				320	600
9/22/2-2	500	-	160	696 without wheels	991 without wheels	805	637
9/22/2-2 ATEX	500	510				805	637
13/22/3-2	500	-				805	907
13/22/3-2 ATEX	500	510				805	907
16/40/2-2	900	-				805	637
16/40/2-2 ATEX	900	510				805	637
24/40/3-2	900	-				805	907
24/40/3-2 ATEX	900	510				805	907
50/84/3-2*	900	510				805	907
26/66/2-2	1400	-				805	637
26/66/2-2 ATEX	1400	510				805	637
40/66/3-2	1400	-				805	907
40/66/3-2 ATEX	1400	510				805	907
79/132/3-2*	1400	-		798 with wheels	1091 with wheels	805	907

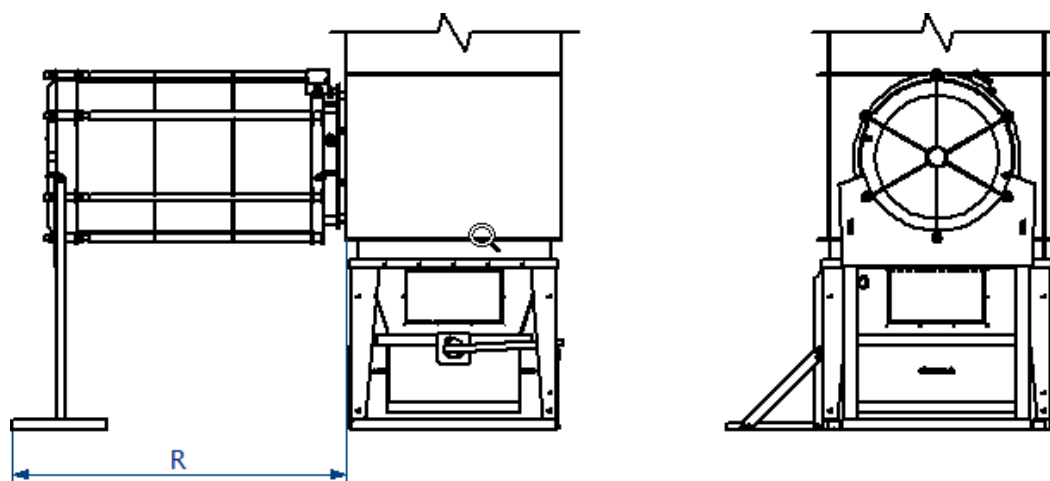
* Version with SC cartridge type.

Main dimensions of fans with silencer and weather cowl:

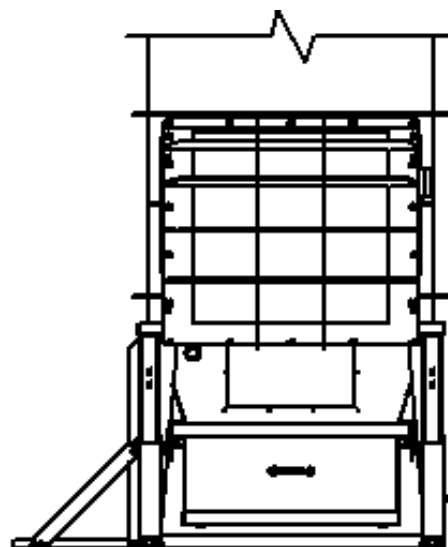
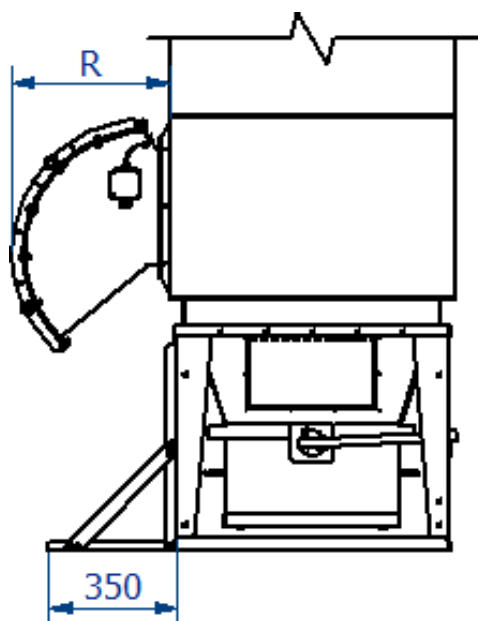
Fan motor power [kW]	D1 [mm]	D2 [mm]	E [mm]	F1 [mm]	F2 [mm]	G [mm]	H [mm]	I* [mm]
0,75 and 1,1	282	386	380	338,5	365	300	131	258
2,2	282	386	380	338,5	365	300	131	304
3,0	282	386	380	338,5	365	300	131	346
4,0	352	485	500	395	458,5	240	259	370
4,0 High Pressure	352	485	380	349	454,5	300	131	370
5,5	352	485	500	395	458,5	240	259	383

* for a standard motor

Dimensions of MJC Mini dust collector (ver. ATEX) with Flameless Flex



Flameless panel type	Pmax (bar)	Kst max (bar * m/s)	Mass (kg)	Dimension R (mm)
Flex C1 Pro	9	120 ÷ 130	30	745
Flex C2 Pro S	9	140 ÷ 210	87	1255



Flameless panel type	Pmax (bar)	Kst max (bar * m/s)	Mass (kg)	Dimension R (mm)
Flex R1 Pro	9	240	40	432

MJC Mini weight [kg] – excluding fans

MJC Mini dust collector	Version with open base	with dust bin 52 litres	with dust bin 75 litres	with dust bin 150 litres
4/22/2-1	58	-	-	-
8/40/2-1	74	-	-	-
9/22/2-2	120	142	170	179
9/22/2-2 ATEX	-	169	197	206
13/22/3-2	146	174	213	222
13/22/3-2 ATEX	-	216	255	264
16/40/2-2	145	167	195	204
16/40/2-2 ATEX	-	194	222	231
24/40/3-2	178	206	245	254
24/40/3-2 ATEX	-	248	287	296
50/84/3-2	178	206	245	254
26/66/2-2	175	197	225	234
26/66/2-2 ATEX	-	224	252	261
40/66/3-2	215	243	282	291
40/66/3-2 ATEX	-	285	324	333
79/132/3-2	215	243	282	291

MJC Mini dust collectors
- weight of equipment elements [kg]

Equipment	Mass [kg]
Fan 0,75 kW	38
Fan 1,1 kW	40
Fan 2,2 kW	46
Fan 3,0 kW	53
Fan 4,0 kW	88
Fan 4,0 kW High Pressure	80
Fan 5,5 kW	96
Fan silencer	12
Silencer weather cowl	1,5
Pressure equalization system	2

Fan performance

High efficiency backward curved radial fans (0.75 - 5.5 kW), 3 phase induction motor.
Single phase option available for 0.75 - 2.2 kW fans.

NF fan performance, with open outlet, at nominal running speed of motor

