

MCP-16RC, Air Purification Tower

Compact cartridge filter with pulse cleaning



The MCP-16RC Air Purification Tower is a compact cartridge filter for decentralized indoor air purification.

Dirty air enters the unit at floor level into the efficient filtration compartment, clean air is blown back into the workplace through 60 individually adjustable nozzles at high speed on top of the unit.

The unit is delivered as two pre-wired components requiring minimal mechanical installation. With a built in fan it requires only power and compressed air supply to be connected to complete the installation.

Inside the unit are 16 patented Uni-Clean filter cartridges. The filter cartridges are cleaned automatically by an energy efficient compressed air reverse pulse system. Cleaning is activated by an integral electronic controller. The filter is made out of 14 gauge (2 mm) galvanized and painted sheet metals.

The MCP-16RC is easy to maintain thanks to the following features:

- Front access allows easy inspection and service of the cleaning valves, compressed air tank and filter cartridges.
- Ergonomic and easy maintenance of the unit, due to location of controller and electrical cabinet.
- Simple emptying of the dust bin

Outlet / Outblow: The outlet is placed on top of the filter and equipped with 60 nozzles for high speed air flows. The outlet and the nozzles are individually adjustable for local conditions.

Dual Silencer: The fan is completely build in a special dual silencer, which decreases the noise level from fan motor and airflow.

Fan: F63-R355 (10,0 kW) from Combifab F-series for 50 Hz and FM831 (20 HP) for 60 Hz

Filter Cartridges: CA175: flame retardant cellulose (80% cellulose, 20% polyester), suitable for fine dust and welding fumes

Inlet: The inlet is covered and placed on the rear side for low air noise. It includes a backpressure flap, which closes when the filter is shut down for dust-free cleaning.

Dust bin: Dust bins are always equipped with wheels for easy maintenance.

The following sizes are available:

- 50 l / 13 gal. with wheels
- 37 l / 10 gal. with wheels and bin balancing (required for W3)

Easy two step installation: The filter is delivered as two pre-wired components. Simply assemble the two components and connect to power and compressed air supply to complete installation.

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- 60 nozzles with 35 m (115 ft.) throw length
- Available as W3 tested unit according to EN15012-1

Product name	MCP-16RC, Air Purification Tower
Noise level (dB(A))	70 (at 1m (3.28 ft.) from unit at 1,6 m (5.25 ft.) height)
Compressed air requirement	Clean & dry compressed air, 4,5 bar (65 psi) , 24 V DC
Compressed air consumption	22 NI/cleaning puls (0.8 cfm) 66 NI/min at 20 s interval (2.4 cfm/min) 220 NI/min after cleaning (7.8 cfm/min)
Installation	Indoor
Material	Galvanised and painted sheet metal
Filter cleaning method	Pulse jet
Application	Fumes
Working pressure (kPa)	Negative pressure max 6 kPa (24 inch / 6000 Pa)
Dustbin volume (l)	50 l with wheels (13 gal.) or 37 with wheels and bin balancing
Filter Area (m2)	232 (2498 ft²)
Capacity (max airflow m3/h)	10000 (5900 cfm)
Operating Temperature	-20°C to 70 °C (-4°F to 158°F)
No of phases	3
Filter type	Cartridge
Number of filter elements	16
Filter material	CA 175
Control Voltage (V)	85 - 265 V AC - 50-60 Hz
Weight (kg)	1250
Power (kW)	10









Fumes



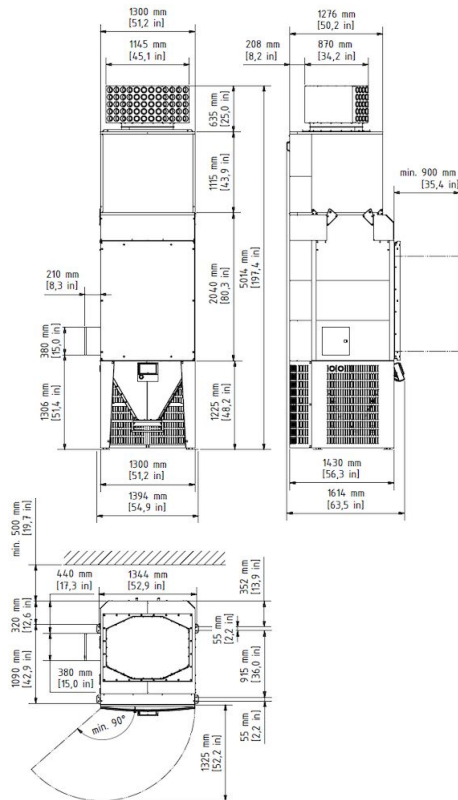
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Image	Description	Power Voltage (V)	Frequency (Hz)	Model
	MCP-16RC, Air Purification Tower, electrical cabinet on left filter side. Dust bin: 50 l. Fan: F63-R355 (10,0 kW)	400	50	55999302
	MCP-16RC, Air Purification Tower, electrical cabinet on right filter side. Dust bin: 50 l. Fan: F63-R355 (10,0 kW)	400	50	55999303
	MCP-16RC, Air Purification Tower, electrical cabinet on left filter side. Dust bin: 13 gal. Fan: FM831 (20 HP)	230	60	55999308
	MCP-16RC, Air Purification Tower, electrical cabinet on right filter side. Dust bin: 13 gal. Fan: FM831 (20 HP)	230	60	55999309
	MCP-16RC, Air Purification Tower, electrical cabinet on left filter side. Dust bin: 13 gal. Fan: FM831 (20 HP)	460	60	55999310
	MCP-16RC, Air Purification Tower, electrical cabinet on right filter side. Dust bin: 13 gal. Fan: FM831 (20 HP)	460	60	55999311
	MCP-16RC, Air Purification Tower, electrical cabinet on left filter side. Dust bin: 13 gal. Fan: FM831 (20 HP)	575	60	55999312
	MCP-16RC, Air Purification Tower, electrical cabinet on right filter side. Dust bin: 13 gal. Fan: FM831 (20 HP)	575	60	55999313
	MCP-16RC, Air Purification Tower, electrical cabinet on left filter side and W3 certificated. Dust bin: 37 l with bin balancing. Fan: F63-R355 (10,0 kW)	400	50	55999306
	MCP-16RC, Air Purification Tower, electrical cabinet on right filter side and W3 certificated. Dust bin: 37 l with bin balancing. Fan: F63-R355 (10,0 kW)	400	50	55999307

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Accessory		Part No
	Shut off valve An air venting type. Should be installed in the compressed air pipe line. Is used to shut off the compressed air supply before any service on the system is done.	12372083
	Pressure switch for compressed air Protects the filter from damage during use without compressed air. Must not be placed in explosion risk areas.	12372142
	Filter regulator Is used for setting the correct compressed air pressure. Separates dust, oil and water in the compressed air and protecting the valves. Should be installed in the compressed air line. Must be positioned in a frost free environment.	55999315
	Level indicator for dust bin Capacitive level sensor for detection of full dust bin. Connected to the controller a warning will be shown when the dust bin is full.	55999316
	Plastic bag set (5 pcs., only for dust bins with bin balancing) Plastic bags that are placed inside the dust bin for easier handling of the dust, required at W3	55999317
	Duct piece for Ø710 (28 inch) This adjustable duct piece set can be clamped with QF connection between the dual silencer and the outblow for allowing a higher outblow position. The duct length can be adjusted between 1400 mm (55 inch) and 2400 mm (94.5 inch).	55999314
	Air purification box with indicator	55999319
	Timer-Function Is used for setting the working hours of the filter according customer needs. The filters starts and stops automatically according the settled working hours. The timer is integrated into the electrical cabinet when ordered with the filter incl. a selection switch. (Can only be ordered with a complete MCP-16RC.)	55999324
	4 m connection cable set with CEE plug (pre-mounted) Pre-mounted CEE plug 32A with 4 m connection cable at the electrical cabinet. (Can only be ordered with a complete MCP-16RC)	55999328

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The electrical cabinet can be placed on left or right filter side.

Note: The filter must be placed in such a way that there is always free access to the electrical cabinet, because the emergency stop is placed on the front door of the electrical cabinet.

The inspection door on the back site of the filter must be able to reach for service.