# **Cleaning DF**

# Range of high-efficiency filter units





**Cleaning DF** 

Cleaning DF 1 Cleaning DF 2



Innovative Air Solutions For a cleaner future.

ΕN

# Design

Mobile filter unit with horizontal cartridges, manually cleaned, with integrated centrifugal fan suitable for extraction and filtration of welding fumes.





### Highlights

- Equipped with Dynaflex or Evolution No Smoke **self-supporting arm** as standard.
- High-efficiency cartridges.
  - Manual cleaning easy maintenance due to horizontal cartridges.
- High extraction capacity.
- Low noise level.
- Plug & Play' solution, no installation required.
  - "Down Flow Concept".

# **Applications**



Welding fumes

### **Filtration technology**



**IFA-BGIA**: Institute for Occupational Safety and Health (Bonn – Germany) **AGW:** Occupational Exposure Limit Value (Arbeitsplatzgrenzwerte)

#### **DESCRIPTION AND PURPOSE**

The purpose of the IFA-BGIA institute is to ensure the safety of workers in the workplace. Filter materials are analysed by establishing use classes L, M, H. BIA has also established an exposure limit value (AGW) above which worker safety is no longer guaranteed. The exposure limit value for a pollutant compound represents the concentration in the air that a person can breathe during a limited period of 15 minutes without immediate toxic effects. The IFA-BGIA test is carried out using the following parameters:

- Passage velocity of 0.056 m/s
- Quartz dust concentration 200 ± 20 mg/m<sup>3</sup>
- Variable particle size between 0.2 and 2 microns

CLASS OF USE	CONCENTRATION	MAX AUTHORISED RELEASED
M	Filtering out dust with AGW values $\geq$ 0,1 mg/m <sup>3</sup>	>99,9 %

### Easy access, quick and simple maintenance



The horizontal arrangement of the cartridges allows easy access and quick maintenance of the filter section.



#### Activated carbon cartridge

It has the function of absorbing odours from the extracted fumes by exploiting the porous and absorption characteristics of activated charcoal.

OPTIONAL

### **Filter Media**

MEDIA	MATERIALS	m²	g/m²	STANDARD	OPTIONAL
M CEL	CELLULOSE 6066	12	213		
M-PES+PTFE/Membrane	POLYESTER - TEFLON MEMBRANE	7	290		
M-PES+PTFE/Membrane-H	POLYESTER/TEFLLON MEMBRANE/ FABRIC WITH H13 FILTRATION EFFICIENTY	7	280		
Cartridges wiith activated charcoal to be inserted to the cellulose cartridges M-CEL			2,5 Kg		
Cartridge with activated carbon and polyester prefilter COL 500A to be inserted in place of the M CEL cartridge			10 Kg		

DF1 DF2

M CEL

STANDARD



OPTIONAL

M-PES+PTFE/Membrane M-PES+PTFE/Membrane-H DF 1 | DF 2



2.5 KG cellulose cartridge with activated carbons

#### DF1 DF2

OPTIONAL



Activated carbon cartridge to be inserted in place of the cellulose cartridge. Carbon weight: 10 kgs



## Principle of operation

The Cleaning DF filter unit consists of a pre-chamber, where most of the fumes are separated and deposited in the first collection bin; the remaining particles are filtered by the high-efficiency M-class cartridge filters before being returned to the environment. The finest filtered dust is deposited in the second collection bin. The air thus filtered passes through the high-efficiency fan, located on top of the unit, and is exhausted through a grille, located on the upper wall of the plenum, guaranteeing a high extraction capacity and low noise level.

#### **Cleaning DF**









- ① Dusty air inlet
- ② Calming chamber
- ③ 1st Collection Bin
- (4) 2nd Collection Bin
- 5 Filtering cartridges
- 6 Fan
- ⑦ Filtered air outlet
- Hour counter run/stop switch pentapolar socket





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### **Product range**



### **Cleaning DF1**

 The carted filter is equipped with 1 horizontal
 Cartridge

 cartridge filter for extraction and filtration of welding
 1

 fumes.
 1

Cartridges (nr)	Power (kW)
1	0,55
1	0,75



### Cleaning DF 2

The carted filter is equipped with 2 horizontal cartridges for extraction and filtration of welding fumes.

Cartridges (nr)	Power (kW)
2	1,1
2	2,2

# **Technical features**

Technical features		Model Cleaning DF					
		DF1 0,55	DF1 0,75	DF 2 1,1	DF 2 2,2		
Power	kW	0,55	0,75	1,1	2,2		
Nominal air flow	m³/h	1400	1450	1880	2280		
Air flow capacity at arm Ø160	m³/h	1000	1100	1550	2x 1100		
Number of Arms	mm 3 mt	1 x Ø160	1 x Ø160	1 x Ø160	2x Ø160		
Number of cartridges	Ø325mm H 400mm	1	1	2	2		
Filtering Surface	m²	12	12	24	24		
Cartridge classification		CELLULOSE					
Pneumatic cleaning		NO	NO	NO	NO		
Bin storage capacity(A+B)	lt	9+15	9+15	12+28	12+28		
R.P.M.		2845	2845	2845	2845		
STD power supply	V Hz	230/400 50	230/400 50	230/400 50	230/400 50		
Noise level	dB	74	75	74	74 ,5		
Noise level with soundproofing plenum	dB	70	70,5	69	70		
Total weight	kg	105	110	145	160		



## **Standard Components**

DF 2



Rear collection bin

Rear collection bin



DF1 DF2



Front collection bin

#### Mod. **DF 2 2.2** with 2 Evolution No Smoke ø160 3-metre suction arms

# Options

DF1 | DF2



Painted soundproofing plenum



PLENUM with HEPA absolute fitro H13- H14



Plenum with activated carbons

#### DF 2



A Inlet plate for arm without soundproofing plenum. A+B Plate plus inlet fitting for arm with soundproofing plenum.

#### DF 1 | DF 2



Plastic winghood with light kit

#### DF1 | DF2



Differential pressure gauge



# **Overall dimensions**

### **Cleaning DF1**







### Cleaning DF 2







Plenum box with HEPA absolute filter (optional) Painted soundproofing plenum (optional)

MODEL	DIMENSIONS (mm)				MODEL			DIMEN	ISIONS	<b>6</b> (mm)					
	Α	В	С	D	Е	F	G		Α	В	С	D	Е	F	G
Cleaning DF 1 0,55	675	905	1129	939	2360	1530	1319	Cleaning DF 2 1,1	750	955	1380	1158	2579	1654	1608
Cleaning DF 1 0,75	675	905	1162	939	2360	1530	1319	Cleaning <b>DF 2 2,2</b>	750	955	1420	1158	2579	1654	1608

### Packaging information



MODEL	DIMENSIONS (mm) AxBxH	WEIGHT (kg)
Cleaning DF 1 0,55	1100 x 900 x 1300	130
Cleaning <b>DF 1 0,75</b>	1100 x 900 x 1300	130
Cleaning DF 2 1,1	1100 x 1000 x 1600	180
Cleaning <b>DF 2 2,2</b>	1100 x 1000 x 1600	180
Evolution Arm No Smoke ø160 from 3 metres	1670 x 370 x 680	35

All images and values on this catalogue are indicative and can be subject to modification and improvements. CORAL reserves the right to change them, without previous advice.





# Made in Coral

Coral manufactures 100% of all the components that are part of an industrial extraction system within their facilities in Volpiano, just outside of Turin. The quality of materials that we use and our industry experience guarantee a production of high level in everything we make.

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