

## MDB-DILUTER PRO

### ENVIRONMENTAL DILUTER SYSTEM

The MDB-Diluter is a free-standing filtration system that prevents accumulation of welding fume by continuous filtration of polluted air. The system consists of a filter unit, a fan in a sound-absorbing case, an outlet unit with adjustable outlet nozzles and a silencer. The MDB-Diluter is supplied with intelligent control equipment ControlPro. The fan speed is pressure controlled by a frequency inverter.

The filter unit is provided with a spark arrester and filter cartridges. It contains the RamAir™ pulse amplifier for automatic filter cleaning. The dust and dirt particles end up in the dustbin underneath.



### APPLICATIONS

The MDB-Diluter is intended to be used for the following applications:

- MIG-MAG/GMAW welding
- TIG welding
- FCAW welding
- stick/MMAW welding
- (very) heavy dust load



### SPECIFICATIONS

■ Physical dimensions and properties	
Inlet diameter:	
• fan (internal diameter)	• Ø 401 mm (15¾ in.)
Outlet diameter:	
• filter unit	• Ø 400 mm (15¾ in.)
• fan (internal diameter)	• Ø 501 mm (19¾ in.)
Material:	
• housing	• electro-zinc coated steel (according to DIN EN 10152)
• fan	• steel
• fan housing	• steel with aluminium profiles
• outlet unit with nozzles	• zinc-plated steel and aluminium
• silencer	• zinc-plated steel
Colour:	
• housing	• black RAL 9005
• cover plates	• grey RAL 7035
• frame	• black RAL 9005
Weight (net)	825 kg (1819 lbs.)
Capacity of dustbin	80 litres (21 gallon)
■ Filter cartridges	
Type	CART-PTFE/15
Material	BiCo spunbond polyester with PTFE membrane
Filter surface area	8 x 15 m <sup>2</sup> = 120 m <sup>2</sup>
Welding fume class	W3 compliant (EN-ISO 15012-1:2013)
■ Compressed air system	
Required compressed air quality	dry and oil-free according to ISO 8573-3 class 6
Required pressure	4-5 bar (60-75 PSI)
Compressed air connection	push-in fitting: • in: G ¾ in. • out: 12 mm

Compressed air consumption	40-50 nl/pulse (1.4-1.8 ft <sup>3</sup> /pulse)	
■ Performance		
Fan type	radial	
Airflow (max.):	m <sup>3</sup> /h	CFM
• unrestricted	12.000	7,063
• operational	9.000	5,297
Throw	max. 50 m (164 ft)	
Speed of revolutions	2920 rpm at 50 Hz	
Noise level	<70 dB(A)	
■ Electrical data		
Power consumption fan	7,5 kW (10 HP)	
Available connection voltages	400-690V/3~/50Hz (435) 480V/3~/60Hz (536) 600V/3~/60Hz (636)	
Insulation class fan	F with PTC	
Nominal current	13,9 A	
Protection class	IP 54	
■ Ambient conditions		
Operating temperature:		
• min.	5°C (41°F)	
• nom.	20°C (68°F)	
• max.	70°C (158°F)	
Max. relative humidity	90%	
Suitable for outdoor use	no	
Storage conditions	• 5-45°C (41-113°F) • relative humidity max. 75%	
■ Scope of supply		
Central filter unit MDB-8/V – Air inlet module – Spark arrester – Frame – Dustbin – Dustbin trolley – Fan – Frame fan – Silencer – Duct 1,5 m (5 ft) / Ø 500 mm (19.7 in.) – Outlet unit with 6 nozzles – Control equipment, incl. HMI and frequency inverter		
■ Options and accessories		
CAR-KIT	Compressed air regulator with pressure gauge	
Cable Panel → HMI	30 or 60 m (instead of standard length 15 m)	
LightTower	External signaling device	

■ Logistics data				
	Gross weight (incl. pallet):		Packing dimensions:	
Pallet 1	185 kg	(408 lbs.)	80 x 120 x 230 cm	(31 x 47 x 91 in.)
Pallet 2	284 kg	(626 lbs.)	120 x 120 x 165 cm	(47 x 47 x 65 in.)
Pallet 3	208 kg	(459 lbs.)	100 x 120 x 225 cm	(39 x 47 x 89 in.)
Pallet 4	78 kg	(172 lbs.)	100 x 120 x 225 cm	(39 x 47 x 89 in.)
Pallet 5	94 kg	(207 lbs.)	80 x 120 x 180 cm	(31 x 47 x 71 in.)
Pallet 6	108 kg	(238 lbs.)	80 x 120 x 230 cm	(31 x 47 x 91 in.)
Harmonized Tariff Code		84213925		
Country of origin		the Netherlands		

■ Order information	
Article no.:	Type:
• 0000120993	MDB-8/Diluter PRO (435)
• 0000119051	MDB-8/Diluter PRO (536)
• 0000119052	MDB-8/Diluter PRO (636)

## APPROVALS/CERTIFICATES

	
	On fan motor and frequency inverter
	Directive 2011/65/EC (RoHS) valid as of 8 June 2011

## FEATURES & BENEFITS



The effective RamAir™ filter cleaning system: individually cleaning of the filter cartridges by compressed air pulses



360° air inlet



Adjustable outlet nozzles



ControlPro control equipment:  
intelligent control panel + HMI with extensive feature package for fan/filter control; remote access via network

### OPTION:



#### BoosterFan/S

Fan with straight airflow to enlarge the throw between two Diluter systems

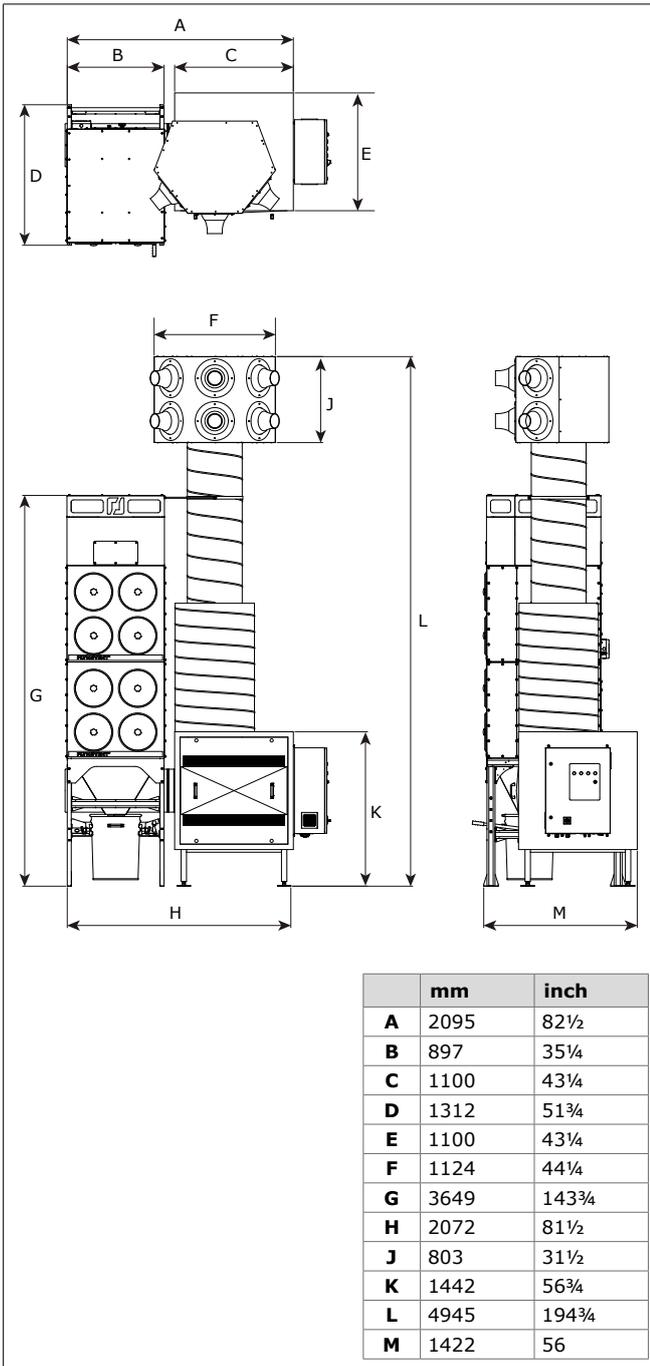


#### BoosterFan/A

Fan with angled airflow to enhance the return flow to the Diluter system

Refer to the application data sheet for more info

**DIMENSIONS**



**WORKING PRINCIPLE**



**Application restrictions**

Do **not** use the product for the following applications or in the following circumstances: oil mist | extraction of hot gases (more than 45°C/113°F continuously) | sucking cigarettes, cigars, oiled tissues and other burning particles, objects and acids | explosive environments of explosive substances/gases



Product type  
Article no.  
Product category  
Version

**MDB-Diluter PRO**  
*refer to Order information*  
general filtration systems  
12APR2024/E

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