PLYMOVENT®
clean air at work

MULTIDUST™ BANK

CENTRAL FILTER SYSTEM

The MultiDust™ Bank (MDB) is a central filter system that consists of modular components. Automatic filter cleaning by compressed air pulses inside each filter cartridge.

The MDB is supplied including intelligent control equipment ControlPro or ControlGo for the magnetic valves and the fan (refer to separate product data sheets).

The product type corresponds with the number of filter cartridges. Larger configurations on request.

Filter cartridges and extraction fan to be selected and ordered separately.



Image: MDB-16

APPLICATIONS

The MultiDust™ Bank is intended to be used for the following applications:

- MIG-MAG/GMAW welding
- TIG welding
- FCAW welding
- stick/MMAW welding

Combined with an OilShield (limestone feeder) the MultiDust™ Bank is also suitable for:

- oil mist
- heavy oil mist in welding fume

SPECIFICATIONS

Physical dimensions and properties		
Material (housing): • steel grade • steel grade no.	electro-zinc coated steel (according to DIN EN 10152) • DC01+ZE • 1.0330	
Colour: • top and side plates • front and back surfaces	 • yellow RAL 1004 • grey RAL 7011	
Weight (net):	*kg*	*lbs.*
• MDB-BM/2 (module)	80	176
• MDB-BM/4 (module)	109	240
• MDB-4	300	661
• MDB-6	380	838
• MDB-8/H	455	1003
• MDB-8/V	420	926
• MDB-10/V	480	1058
• MDB-12	575	1268
• MDB-12/H	680	1499
• MDB-12/V	630	1389
• MDB-16	795	1753
• MDB-16/H	1485	3274
• MDB-16/V	805	1775
• MDB-20	915	2017
• MDB-24/H	1135	2502
• MDB-24/V	1110	2447
• MDB-32/H	1485	3274
• MDB-32/V	1435	3164
• MDB-36	1695	3737
• MDB-48/H	2170	4784
• MDB-48/V	2155	4751
• MDB-64	2760	6085

Filter cartridges	
Filter cartridges are not included and must be selected and ordered separately. For more details: refer to the separate data sheet.	
Available filter cartridges:	Filter material:
• CART-D Premium Plus	• BiCo spunbond polyester
• CART-D Premium	• spunbond polyester
• CART-D Economy	• cellulose
• CART-C	• BiCo spunbond polyester with aluminium coating (antistatic)
• CART-E	• BiCo spunbond polyester + PTFE impregnation
• CART-PTFE	• BiCo spunbond polyester + PTFE membrane
• CART-MB	• cellulose with polypropylene microfiber overlay, electro-statically charged
Compressed air system	
Volume compressed air tank	11 litres (2⅞ gallon)
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 ⅜ in. • out: 12 mm
Compressed air consumption	40-50 nl/pulse (1⅜-1¾ ft³/pulse)
Electrical data	
Input voltage for magnetic valves	24V DC
Ambient conditions	
Process temperature: • min. • nom. • max.	 • 5°C (41°F) • 20°C (68°F) • 70°C (158°F)
Max. relative humidity	90%
Suitable for outdoor use	yes, if protected against precipitation
Storage conditions	• 5-45°C (41-113°F) • relative humidity max. 75%

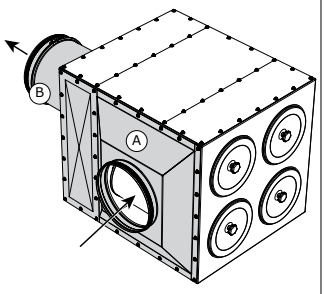
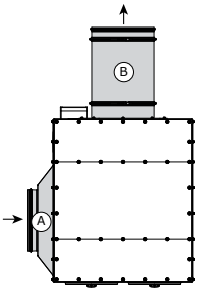
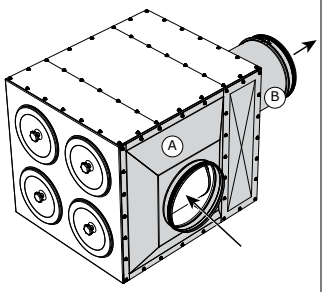
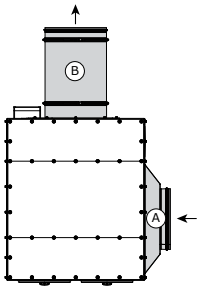
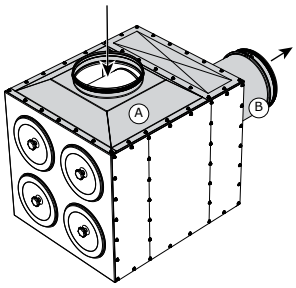
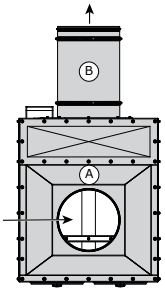
product data sheet

■ Control equipment	
There are two ways to control the filter cleaning system of the MDB and the connected fan:	
Filter system:	Control equipment:
• MDB GO	• **ControlGo** Intelligent control panel for basic fan/filter control
• MDB PRO	• **ControlPro** Intelligent control panel with HMI with extensive feature package for fan/filter control; remote access via network. Supplied including dustbin level switch.
■ Options and accessories	
DB-TROLLEY/80	dustbin trolley
MD-315/MDB MD-400/MDB MD-500/MDB	manual damper with cuf-off blade
BPF	prefilter module
PT-1000 | PT-2500	pressure transmitter
MDB-PG KIT	pressure gauge (for MDB GO)
■ Scope of supply	
Filter system consisting of modular components; refer to table COMPONENTS on page 6. *Additionally: MDB seal assembly sets | SealApplicator*	
■ Order information	
Article no.:	
• individual components	• refer to table LOGISTICS DATA on page 7
• complete filter systems	• refer to table PACKAGES on page 7
■ Logistics data	
Gross weight	refer to table LOGISTICS DATA on page 7
Packing dimensions	refer to table LOGISTICS DATA on page 7
Harmonized Tariff Code	8421.3920.90

APPROVALS/CERTIFICATES

CE	
MDB + CART-PTFE/10	W3 compliant (according to EN-ISO 21904-2:2020)
MDB + CART-PTFE/15	

INLET AND OUTLET POSITIONS

Possible inlet (A) and outlet (B) positions	
Side view	Top view
	
	
	

A	MDB-INLET/400 square MDB-INLET/16 square	B	MDB-OUTLET/400 round MDB-OUTLET/16 round
	MDB-INLET/500 square MDB-INLET/20 square		MDB-OUTLET/500 round MDB-OUTLET/20 round
	MDB-INLET/630 square MDB-INLET/24 square		



Example of MDB-16

REMARK:

The standard version of the MDB GO and MDB PRO is equipped with square inlets and round outlets.

However, a number of MDB units is optionally available with cylindrical inlets and/or outlets, which were previously supplied as standard.

- Refer to the table INLET AND OUTLET COMBINATIONS on page 6 for the various options
- Refer to the table PACKAGES on page 7 for the article numbers

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FEATURES & BENEFITS



Modular design; expandable when business and workload grows



Optimum resistency against negative pressure and shock waves due to innovative double-sided adhesive AllTight™ sealing method

Intelligent control equipment



ControlGo:
• control panel



ControlPro:
• control panel
• HMI
• dustbin level switch



Efficient filtration of dust and welding fume



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



Easy-to-handle dustbin (80 litres) on trolley (option), incl. lifting pin and handles



Many possibilities to connect inlet and outlet ducting

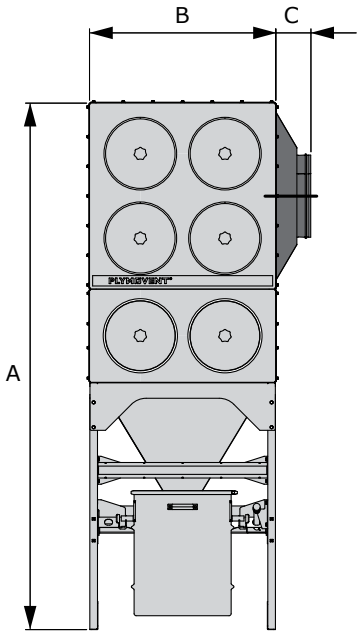
Application restrictions
Do **not** use the product for the following applications or in the following circumstances: polishing applications in combination with grinding, welding or any other application that generate sparks (fibres from polishing or abrasive flap disks are highly flammable and pose a high risk of filter fires when exposed to sparks) | aluminium laser cutting | oil mist | heavy oil mist in welding fume | arc-air gouging | extraction of aggressive fumes and gases (e.g. from acids, from alkaline, from soldering paste containing lithium) | extraction of hot gases (more than 70°C/158°F continuously) | grinding aluminum and magnesium | flame spraying | extraction of cement, saw dust, wood dust etc. | sucking cigarettes, cigars, oiled tissues and other burning particles, objects and acids | explosive environments or explosive substances/ gases

Product type	**MultiDust™ Bank**
Article no.	refer to table: PACKAGES
Product category	central filter systems
Version	28DEC2023/T

Always check the latest version on **www.plymovent.com**

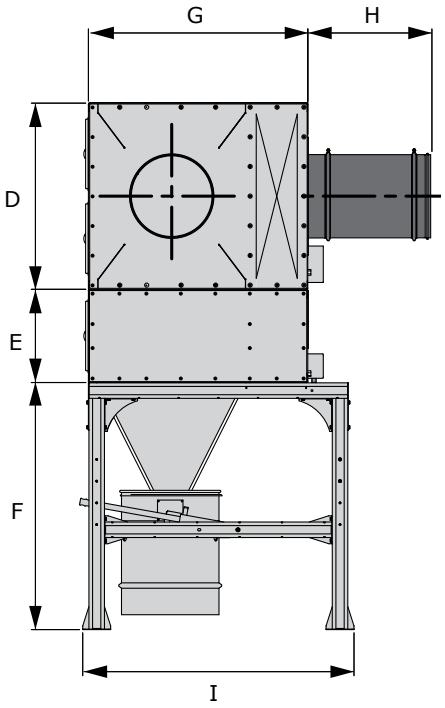
DIMENSIONS AND VIEWS (MDB "STANDARD") [1)]

Front view



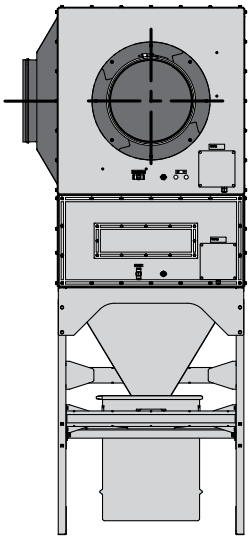
	mm	inch
A	2544	100
B	900	35½
C	170	6½

Side view



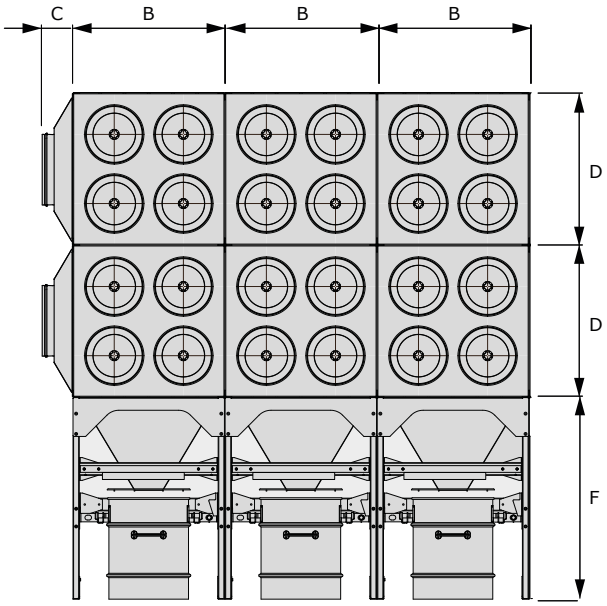
	mm	inch
D	900	35½
E	450	17½
F	1194	47
G	1060	41½
H	600	23½
I	1311	51½

Rear view



[1)] Because the MultiDust™ Bank is a modular system, these dimensions allow you to know the dimensions of all available configurations

EXAMPLE: MDB-24/H

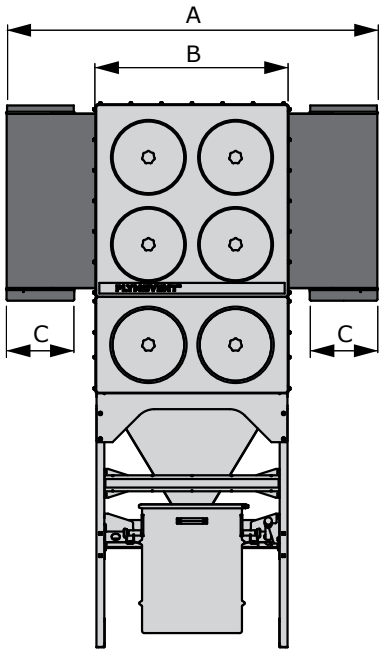


Width =					
C +	**B +**	**B +**	**B =**	**mm**	**inch**
170 +	900 +	900 +	900 =	2870	113

Height =					
D +	**D +**	**F =**		**mm**	**inch**
900	900	1194 =		2994	118

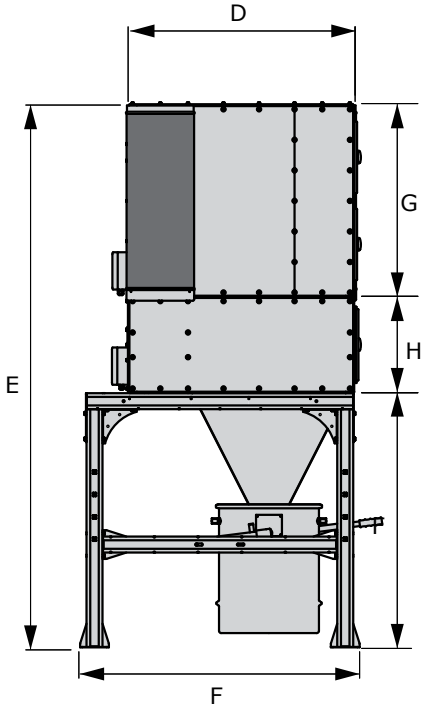
DIMENSIONS AND VIEWS (MDB "CYLINDRICAL") [2)]

Front view



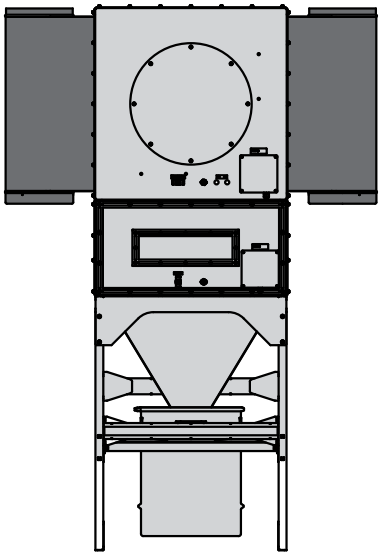
	mm	inch
A	1602	63¼
B	900	35½
C	Ø 500	Ø 19⅝

Side view



	mm	inch
D	1060	41½
E	2544	100
F	1311	51½
G	900	35½
H	450	17½

Rear view



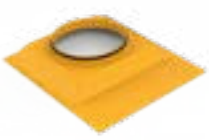
[2)] Because the MultiDust™ Bank is a modular system, these dimensions allow you to know the dimensions of all available configurations.

COMPONENTS

An MDB unit consists of the following main components:		Filter modules			Cover plates				Mounting frame + dustbin				Air inlet modules (square)			Air outlet (round)		Control equipment		
Type	**Orientation**	MDB-BM/2	MDB-BM/4	MDB JOIN KIT	MDB-COVER/S	MDB-COVER/M	MDB-COVER/U	MDB-COVER/2	MDB-FRAME	MDB-HOPPER/80	DB-80	DB-TROLLEY/80 [2]	MDB-INLET/400	MDB-INLET/500	MDB-INLET/630	MDB-OUTLET/400	MDB-OUTLET/500	ControlGo	ControlPro	Dustbin level switch
MDB-4	square		1		4	3	1		1	1	1	1	1			1				
MDB-6	vertical	1	1	1	4	3	1	2	1	1	1	1	1			1				
MDB-8/H	horizontal		2	1	6	4	2		2	2	2	2		1			1			
MDB-8/V	vertical		2	1	6	5	1		1	1	1	1		1			1			
MDB-10/V	vertical	1	2	2	6	5	1	2	1	1	1	1		1			1			
MDB-12	square	2	2	3	6	4		2	2	2	2	2			1	2				
MDB-12/H	horizontal		3	2	7	5			3	3	3	3			1	2				
MDB-12/V	vertical		3	2	8	7	1		1	1	1	1			1	2				
MDB-16	square		4	4	4	6	2		2	2	2	2			1		2			
MDB-16/H	horizontal		4	3	8	6			4	4	4	4			1		2			
MDB-16/V	vertical		4	3	10	9	1		1	1	1	1			1		2			
MDB-18	horizontal	3	3	5	7	5		2	3	3	3	3		2			2			
MDB-20	square	2	4	6	4	6	2	2	2	2	2	2		2			2			
MDB-24/H	horizontal		6	7	6	7	3		3	3	3	3			2		3			
MDB-24/V	vertical		6	7	4	8	2		2	2	2	2			2		4			
MDB-32/H	horizontal		8	10	8	8	4		4	4	4	4			2		4			
MDB-32/V	vertical		8	10	4	10	2		2	2	2	2			2		4			
MDB-36	square		9	12	3	9	3		3	3	3	3			3		4			
MDB-##-**GO**																		1		
MDB-##-**PRO**																			1	1

[2] Option

INLET AND OUTLET COMBINATIONS

"STANDARD"		"SIDE OUTLET"		"CYLINDRICAL"	
Inlet	**Outlet**	**Inlet**	**Outlet**	**Inlet**	**Outlet**
					
square	**round**	**square**	**cylindrical**	**cylindrical**	**cylindrical**
Position: • side • top	Position: • rear	Position: • side • top	Position: • side • top • behind hopper	Position: • side • top	Position: • side • top • behind hopper

PACKAGES

MultiDust™ Bank including intelligent control panel:

ControlGo (control panel)

Type	Art. no.	
Configuration:	"standard"	"side outlet"
MDB-4 GO	0000120874	0000120938
MDB-6 GO	0000120875	0000120939
MDB-8/H GO	0000120876	
MDB-8/V GO	0000120877	0000120940
MDB-10/V GO	0000120878	0000120941
MDB-12 GO	0000120879	
MDB-12/H GO	0000120880	
MDB-12/V GO	0000120881	
MDB-16 GO	0000120882	
MDB-16/H GO	0000120883	
MDB-16/V GO	0000120884	
MDB-18 GO	0000120885	
MDB-20 GO	0000120886	
MDB-24/H GO	0000120887	
MDB-24/V GO	0000120888	
MDB-32/H GO	0000120889	
MDB-32/V GO	0000120890	
MDB-36 GO	0000120891	

ControlPro (control panel + HMI)

Type	Art. no.		
Configuration:	"standard"	"side outlet"	"cylindrical"
MDB-4 PRO	0000120892	0000120934	0000120135
MDB-6 PRO	0000120893	0000120935	0000120136
MDB-8/H PRO	0000120894		0000120137
MDB-8/V PRO	0000120895	0000120936	0000120138
MDB-10/V PRO	0000120896	0000120937	0000120139
MDB-12 PRO	0000120897		0000120140
MDB-12/H PRO	0000120898		0000120141
MDB-12/V PRO	0000120899		0000120142
MDB-16 PRO	0000120900		0000120143
MDB-16/H PRO	0000120901		0000120144
MDB-16/V PRO	0000120902		0000120145
MDB-18 PRO	0000120903		0000120146
MDB-20 PRO	0000120904		0000120147
MDB-24/H PRO	0000120905		
MDB-24/V PRO	0000120906		
MDB-32/H PRO	0000120907		
MDB-32/V PRO	0000120908		
MDB-36 PRO	0000120909		

LOGISTICS DATA

Type	Art. no.	Description	Gross weight		Packing dimensions		
			kg	lbs.	mm	inch	
MDB-BM/2	0000112249	Module for 2 filter cartridges	76	168	1000 x 1200 x 630	39⅜ x 47¼ x 24¾	*
MDB-BM/4	0000112252	Module for 4 filter cartridges	121	267	1000 x 1200 x 1080	39⅜ x 47¼ x 42½	*
MDB-COVER/S	0000301181	Cover plate 890 x 275 mm	3,5	8	1200 x 300 x 25	47¼ x 11¾ x 1	
MDB-COVER/M	0000301394	Cover plate 890 x 500 mm	6	13	1200 x 510 x 25	47¼ x 20⅛ x 1	
MDB-COVER/U	0000301398	Cover plate 890 x 275 mm	3	6⅝	1200 x 300 x 25	47¼ x 11¾ x 1	
MDB-COVER/2	0000301400	Cover plate 1050 x 440 mm	6	13	1200 x 460 x 25	47¼ x 18⅛ x 1	
MDB-FRAME	0000100877	Mounting frame	60	132	1350 x 430 x 270	53⅛ x 16⅞ x 10⅝	
MDB-HOPPER/80	0000302278	Hopper	25	55	800 x 1200 x 570	31½ x 47¼ x 22½	
DB-80	0000111381	Dustbin	12,5	28	600 x 600 x 670	23⅝ x 23⅝ x 26⅜	
DB-TROLLEY/80	0000111387	Dustbin trolley	3,5	8	660 x 660 x 130	26 x 26 x 5⅛	
MDB-INLET/400 square	0000300749 0000300760	Air inlet module Ø 400 mm Air inlet module Ø 16 inch	#	 #	###	 ###	
MDB-INLET/500 square	0000300750 0000300761	Air inlet module Ø 500 mm Air inlet module Ø 20 inch	#	 #	###	 ###	
MDB-INLET/630 square	0000300759 0000300763	Air inlet module Ø 630 mm Air inlet module Ø 24 inch	#	 #	###	 ###	
MDB-OUTLET/400 round	0000117066 0000117148	Air outlet Ø 400 mm Air outlet Ø 16 inch	#	 #	###	 ###	
MDB-OUTLET/500 round	0000115091 0000117149	Air outlet Ø 500 mm Air outlet Ø 20 inch	#	 #	###	 ###	
MDB-JOIN-KIT	0000100885	Connection material	0,15	⅜	250 x 330 x 40	9⅞ x 13 x 1⅝	
Filter cartridge	*Depends on specific type*				335 x 335 x 780	13¼ x 13¼ x 30¾	

***** incl. pallet