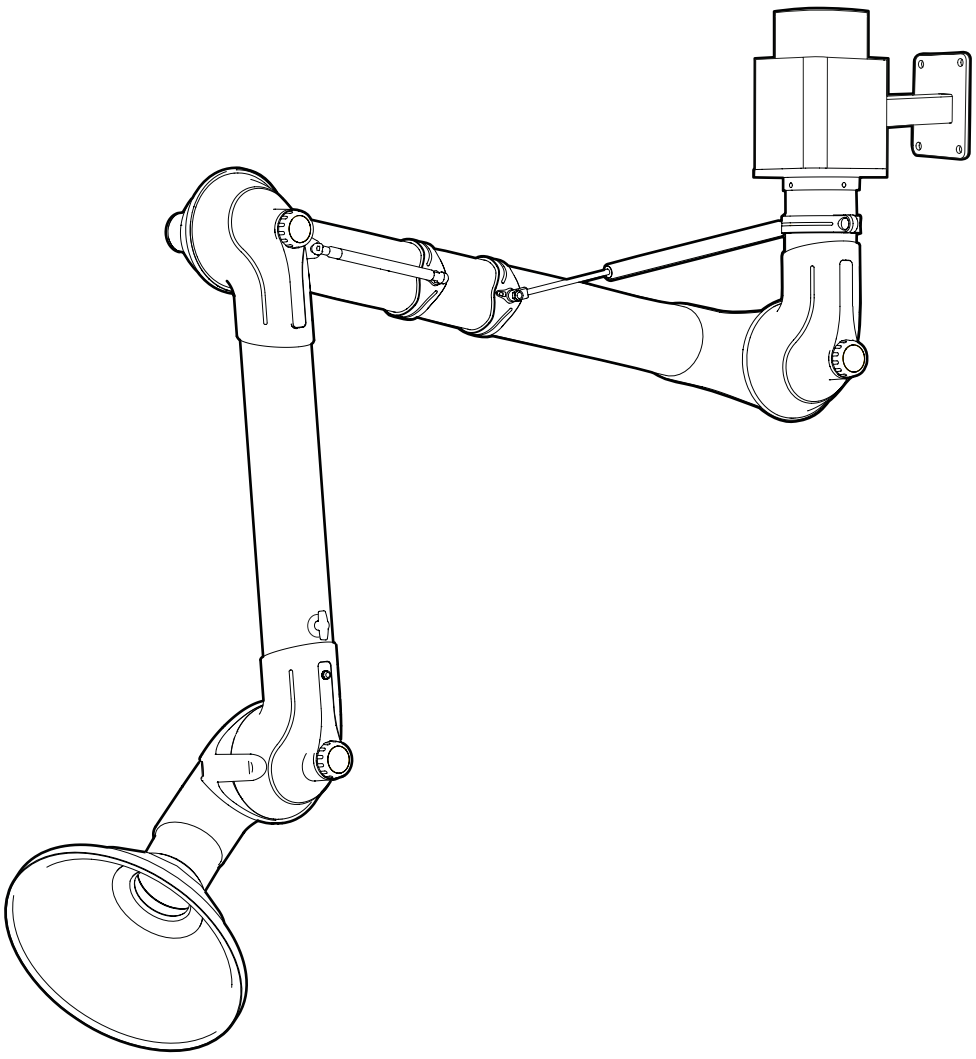
Manual

ME EX



FUMEX
PURE ADVANTAGE

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Subject to change.

Foreword

FUMEX operates in the environmental technology sector and specialises in extraction arms, fans, and filters for all work environments. The company strives to create work environments free from airborne contaminants.

Our products are manufactured using modern methods and undergo extensive quality inspections. The products comply with applicable safety- and environmental requirements.

If you have any questions about FUMEX or our products, please contact your dealer or the FUMEX sales department.

1 Introduction

1.1 The manual

To ensure your knowledge of the product, you must read this manual before use.

The information in this manual is intended to facilitate the installation, operation, maintenance, troubleshooting, and repair of the product. The manual also provides the user with a technical understanding and basic safety instructions to minimise risks when working with the product, as well as to increase the product's service life.

The manual should be considered a part of the product and should always be accessible and in close proximity to the product.

The following symbols are referred to in the manual:



Safety instructions (applicable to people or product) that must always be adhered to. Risk of death or risk of personal injury or damage to property.



Recommendations which convey important information for an optimally functioning product.

1.2 Warranty

To preserve the validity of the warranty, it is forbidden to modify or re-engineer the product during the warranty period without first obtaining prior approval from FUMEX. This is also applicable to any spare parts used which do not correspond to the manufacturer's specifications.

Damage caused by improper use of the product will result in:

- the warranty being voided
- the EC Declaration and CE certification being voided.

The warranty period is one year from the date of purchase and covers the product and its constituent parts. All manufacturing defects are covered by the warranty. FUMEX replaces defective parts in accordance with NL 17.

FUMEX is not liable for any consequential or incidental damage, or any loss of income as a result of or in connection with the warranty case.

The onus is on the buyer to select the appropriate product for the intended use. Any modifications to the FUMEX product or its intended use will void the warranty.

1.3 Manufacturer

FUMEX AB
Tel. no.: +46 910-361 80
Email: info@fumex.se

Verkstadsvägen 2
SE-931 61 Skellefteå
Sweden

2 Safety

2.1 General

This product is safe to use and designed to minimise any potential risks. Even so, if the product is not used correctly or as intended, it may be hazardous to the user or cause damage to the product. The user should therefore be informed and trained to handle the product's safety features.

2.2 Warning levels (on product)

Safety signs on Fumex products make use of colour codes and signal words in accordance with ISO 3864-2.

DANGER — **Red (DANGER)**: used to indicate an imminently dangerous situation which, if not avoided, will result in death or serious personal injury.

WARNING — **Orange (WARNING)**: used to indicate a potentially dangerous situation which, if not avoided, may result in death or serious personal injury.

CAUTION — **Yellow (CAUTION)**: used to indicate a potentially dangerous situation which, if not avoided, may result in moderate or minor personal injury.

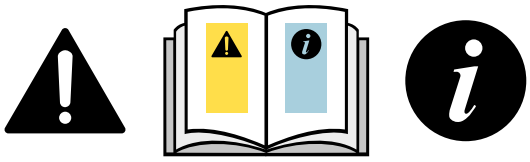
2.3 Safety signs

Refer to **3.2 Labels and safety signs.**

2.4 Protective equipment

As the extraction arm is earthed, electrostatic discharge can be experienced when touching the product.

People can become electrostatically charged either directly (friction from clothes or shoes) or by induction (proximity to highly charged objects). Electrostatic charges can be produced when a person walks across a floor with a high resistance. This can usually be prevented with the use of floor coverings with a resistance to earth of less than 100 MΩ and the use of electrostatic dissipative shoes.



2.5 General warnings and information

The product must not be modified.

The product may only be used in perfect technical condition and according to its intended use as described in Section **3.3 Area of use**. Faults that may compromise safety must be rectified immediately.

The product's moving parts always constitute a risk (e.g. cutting, clamping or gripping points).

The product is not intended for the extraction of non-conductive dust with an MIE (Minimum Ignition Energy) of less than 4 mJ.

The product must not be used in environments containing substances that can affect or react with the materials from which it is made. See **10.1 Technical data**.

The earth cable must be connected to the appropriate earthing point.

The earth cable resistance must not exceed 10 Ω.

There may be sharp edges. Be careful when mounting.

For maintenance work where contact with dust occurs, personal protective equipment such as safety glasses, respiratory protection and safety gloves must be worn.

The product should only be used by personnel with good knowledge of the product and its area of use.

Please note that the facility owner is responsible for the classification and zoning of the workplace.

Waste disposal must be carried out in accordance with applicable national legislation.

3 Product Description

3.1 Serial number & product name

Refer to the product nameplate.

3.2 Labels and safety signs

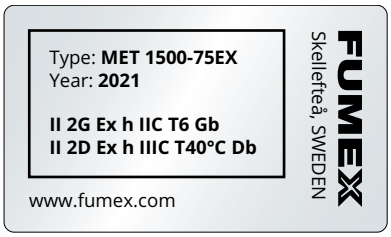
Safety signs that are missing or illegible must be replaced before the product is used.

According to **Fig. 1.**

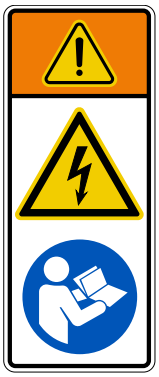
1. Nameplate

2. Safety sign

1



2



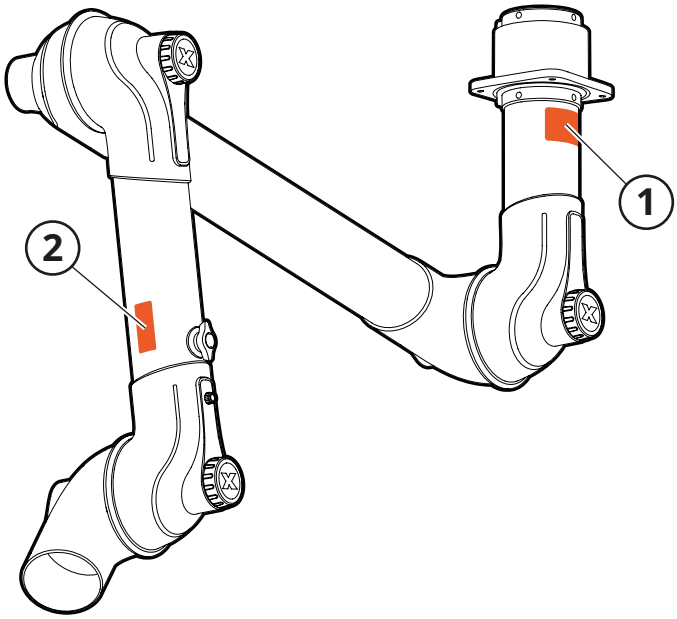


Fig. 1

3.3 Area of use

Since the product does not have an internal ignition source, it cannot be classified under the ATEX directive 2014/34/EU.

The ME EX extraction arm is designed for the safe extraction of gas and dust in explosive atmospheres.

The product complies with the requirements of the ATEX directive for category 2 equipment for gas and dust, and it is suitable for use in zones 1 and 21 as well as 2 and 22.

3.4 Design

See **Fig. 2**.

1. Hood*
2. Joint
3. Damper
4. Tube B
5. Tension knob
6. Tube A
7. Gas spring**
8. Swivel
9. Bracket*
10. Earth cable
11. Earthing screw
12. Connection tube
13. Earthing plate***
14. Earth measuring point***

** Accessories*
*** On certain models*
**** MEB only*

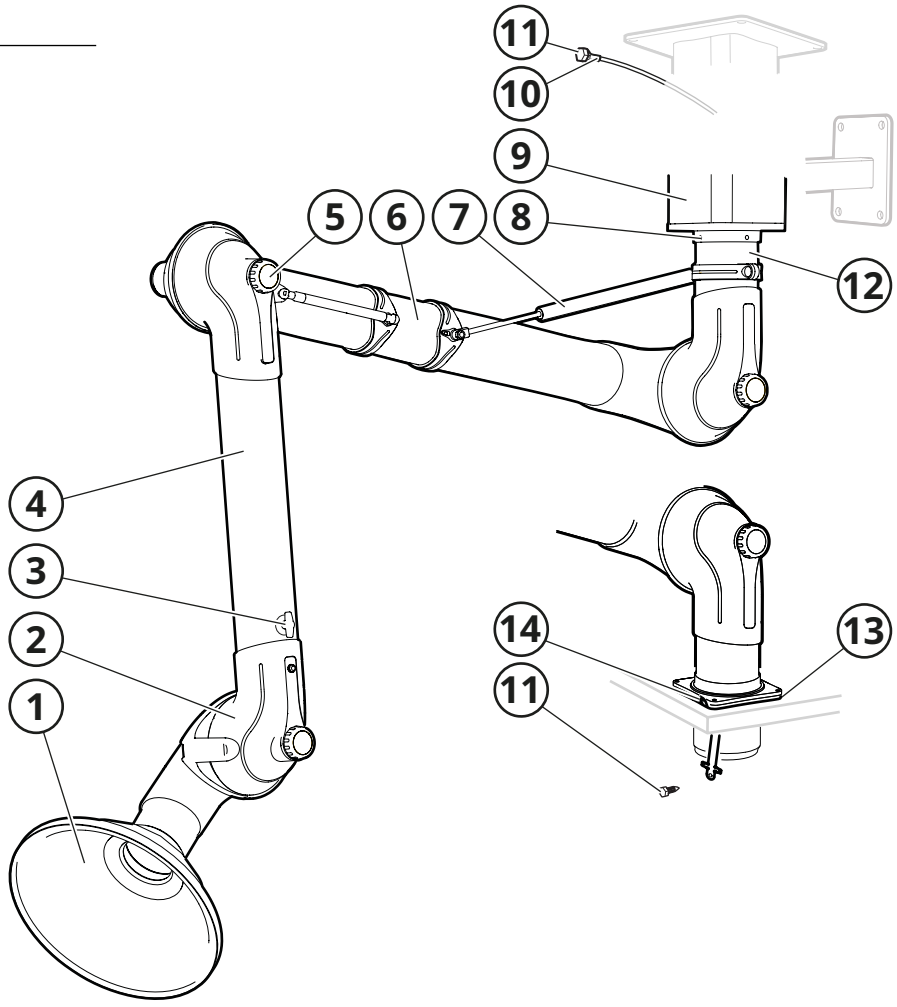


Fig. 2

3.5 Function

The ME EX extraction arm is an extractor arm for capturing and extracting gases and dust-filled air in explosive atmospheres.

The extraction arm's swivel (8) rotates a full 360° and can be mounted on a table, wall- or ceiling bracket (9). The arm is fitted with a torsion spring (inside the joint) or gas springs (7) to counterbalance the weight of the arm. The joint friction (2) can be altered with the tension knob (5) found on each joint. An adjustable damper (3) is used to completely block or adjust the airflow. Each bracket comes with an earth cable (10) to be connected to the earth at the facility.

For hoods and brackets, see Chapter **11 Accessories & Spare Parts**.

4 Preparation for use

4.1 Transport and storage

Protect the product and its parts from rain, snow, aggressive atmospheres and other harmful effects.

4.2 Assembly and installation

National rules and regulations must always be adhered to during assembly work.

4.2.1 Unpacking

1. Unpack the product.
2. Check for any damage and missing parts. Contact a local Fumex representative directly if there is damage or parts are missing.
3. Dispose of the packaging material in accordance with local recycling rules.

4.2.2 Installation

The extraction arm is delivered partially assembled. Assemble and install the extraction arm as per the illustrated assembly instructions in **Fig. 3** to **Fig. 11**.

MTI

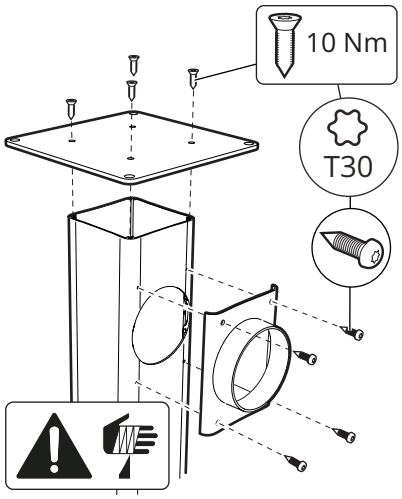


Fig. 3

MVK

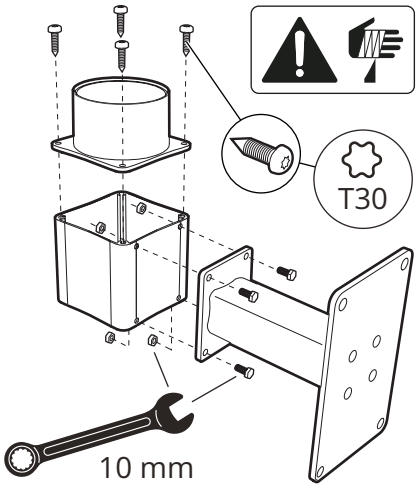


Fig. 4

MTF

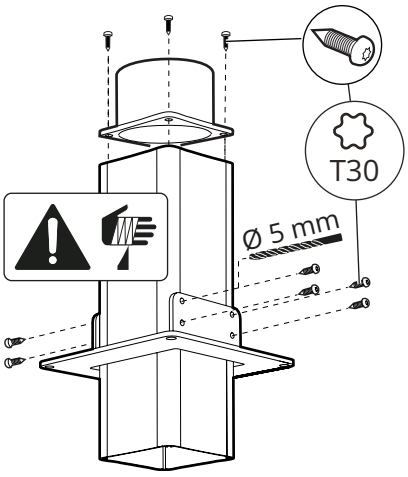
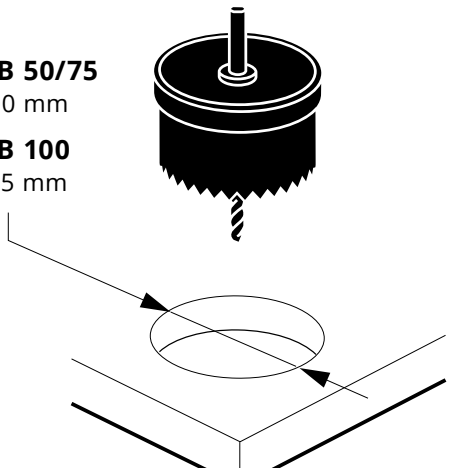


Fig. 5

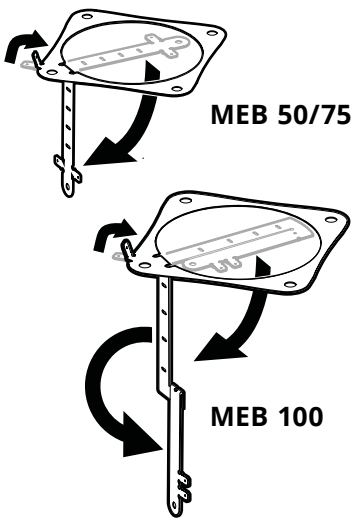
MEB A

MEB 50/75
Ø100 mm

MEB 100
Ø125 mm



B



C

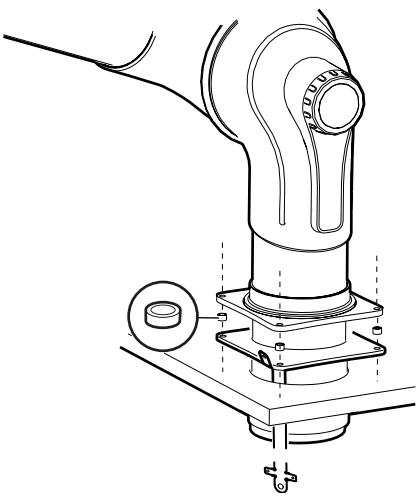


Fig. 6

MET

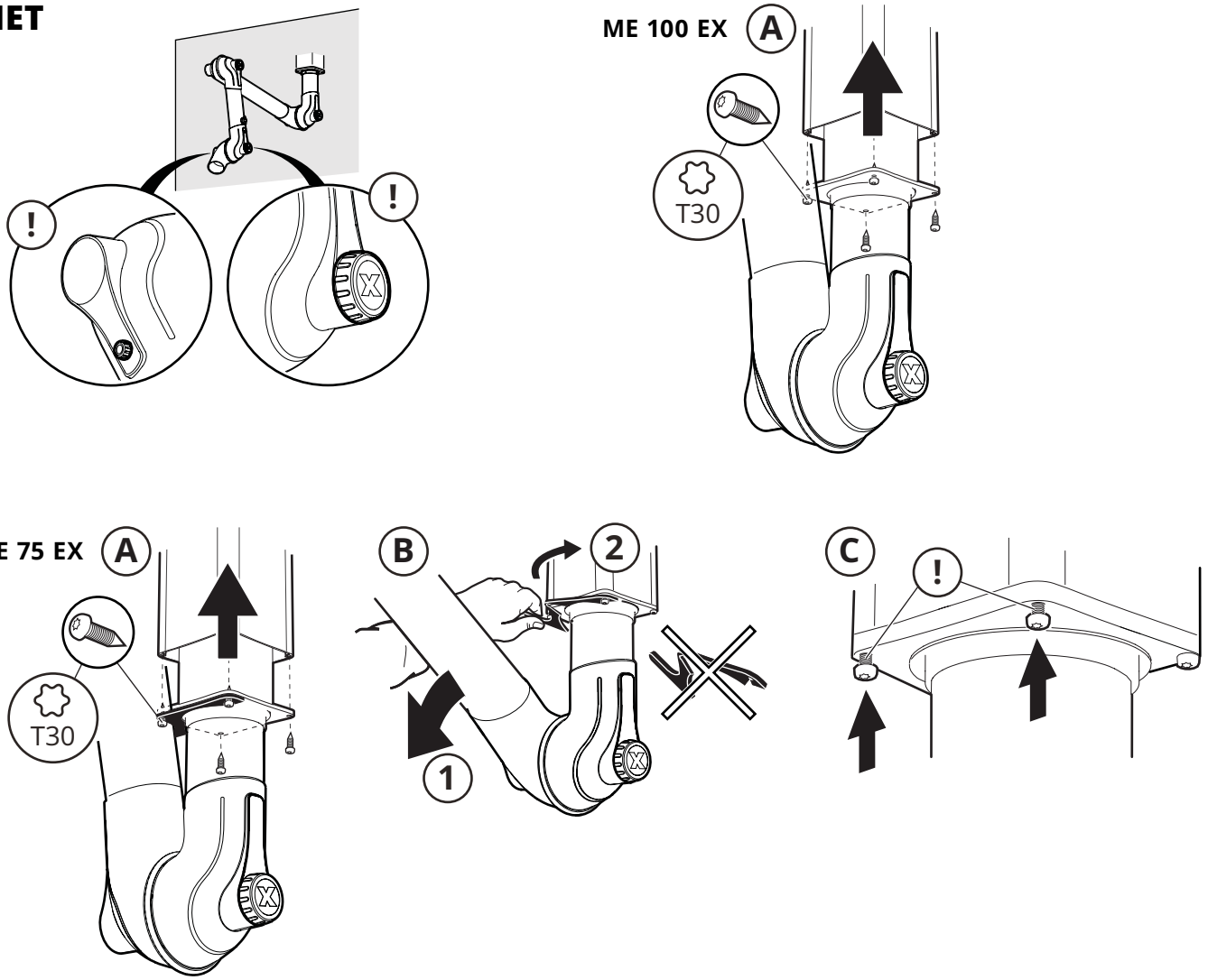


Fig. 7

MET

METS 1500-75 EX
METS 2000-75 EX
MET 1650-100 EX
MET 1900-100 EX
MET 2100-100 EX
MET 2650-100 EX

MEB

MEB 1650-100
MEB 1900-100

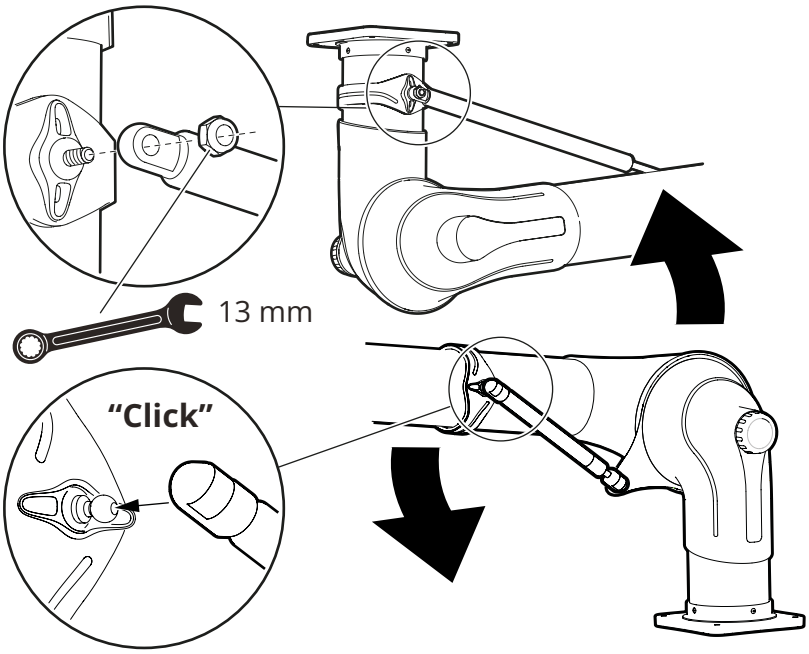


Fig. 8

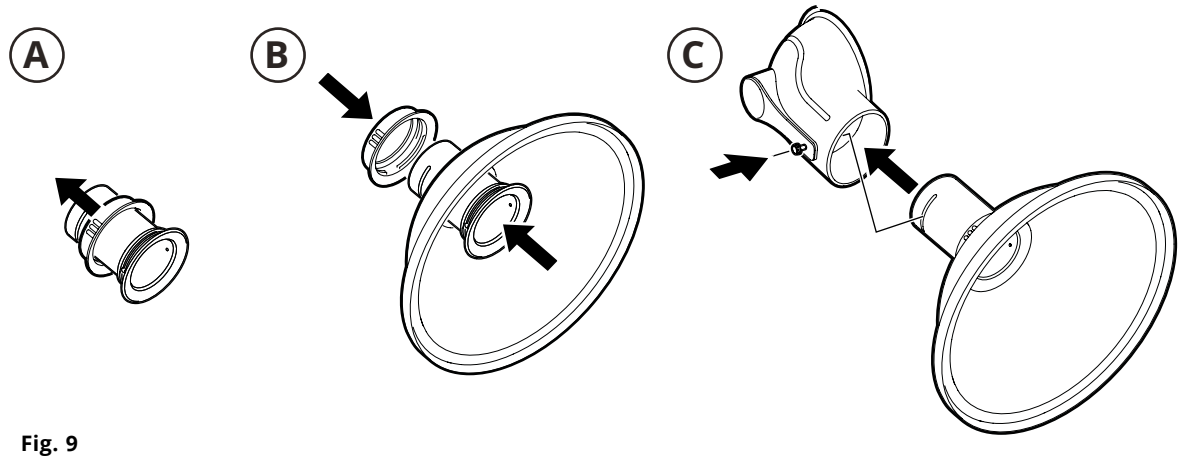
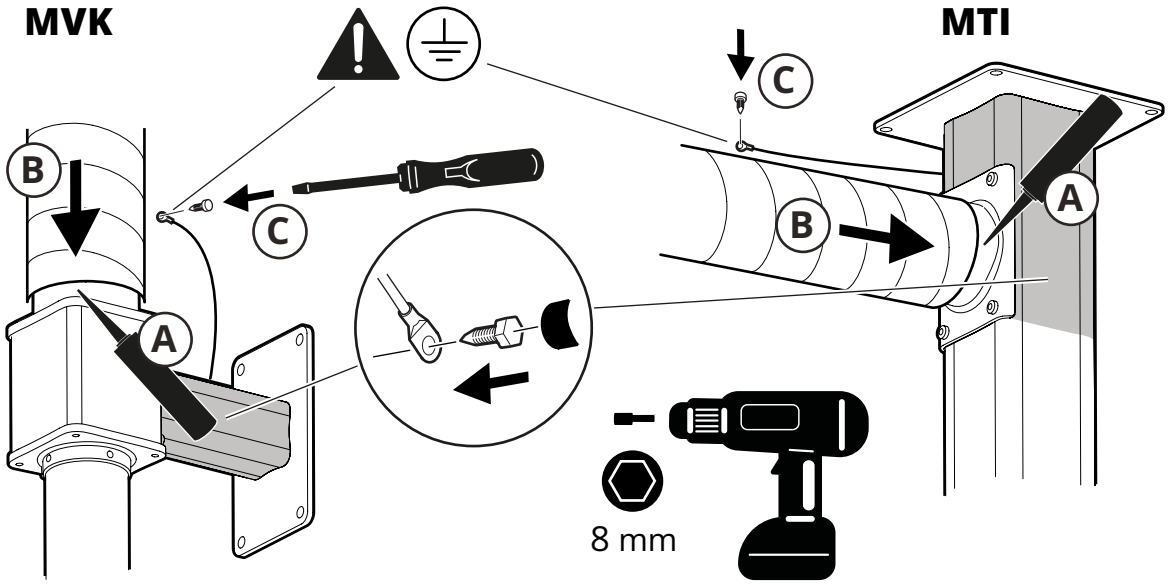


Fig. 9



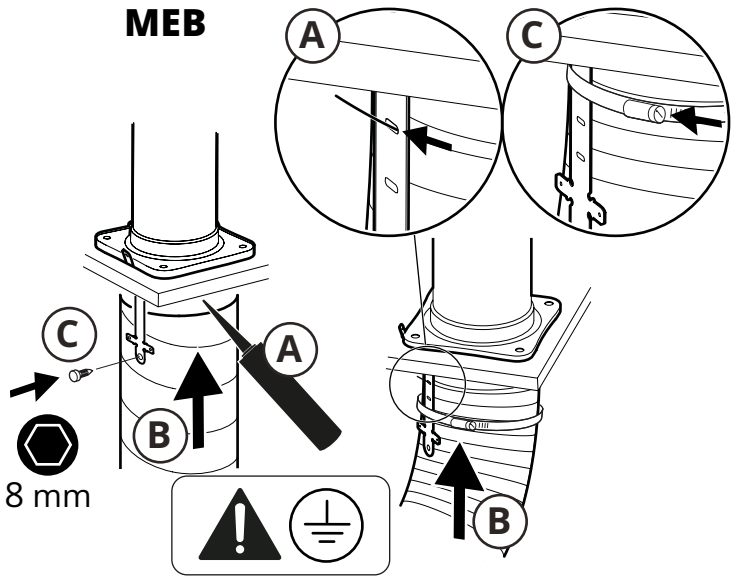


Fig. 10

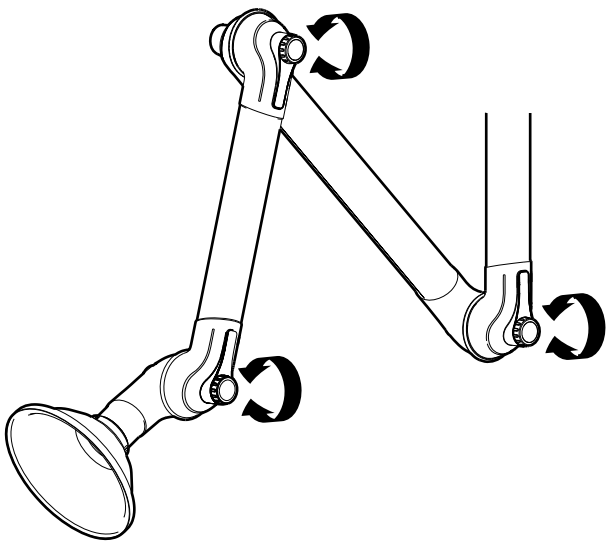


Fig. 11

5 Commissioning

5.1 Start-up

1. Check that all joints are adjusted to the correct friction.
2. Check the suction tubes for foreign objects. Remove any such objects immediately.
3. Check the resistance of the extraction arm with a calibrated ohmmeter. See **Fig. 12**. The resistance between the measuring points must be less than 1 MΩ.
4. Check the earth resistance with a calibrated ohmmeter. See **Fig. 13**. The resistance between the measuring points (earth plane/product) must be less than 1 MΩ.

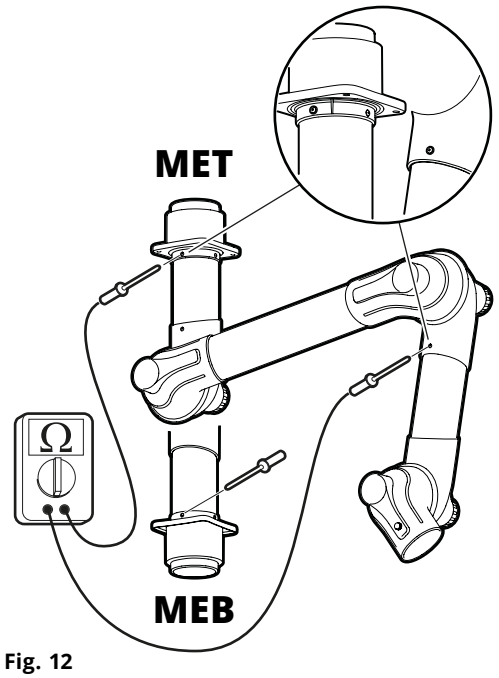


Fig. 12

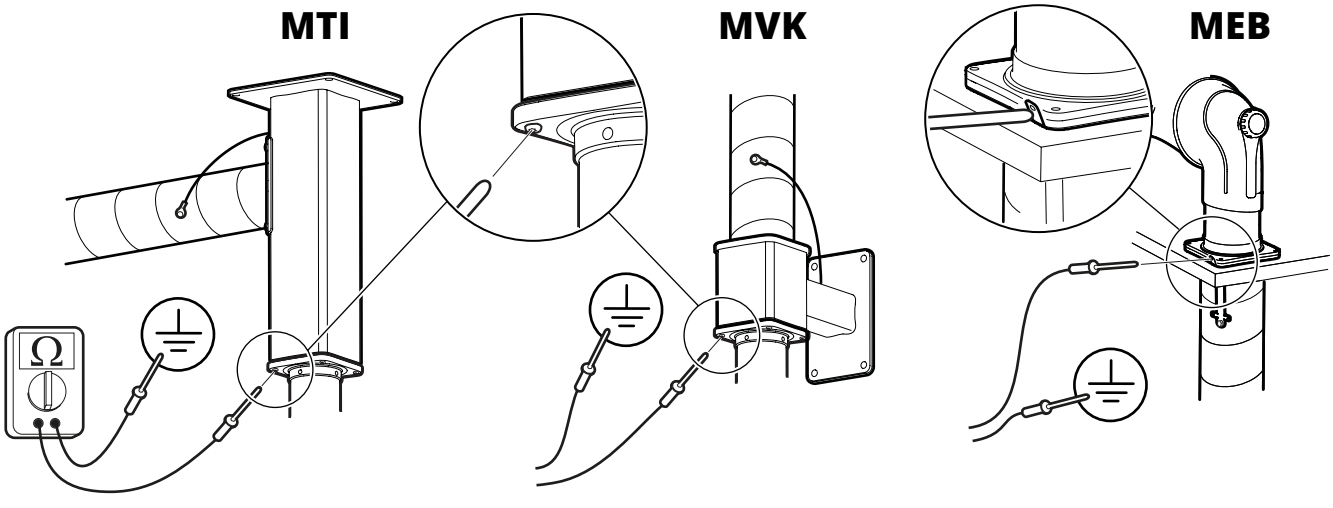


Fig. 13

6 Operation

Ensure that any objects or people that may be electrostatically charged cannot come into contact with the equipment.

When extracting different dust combinations, first ensure that the combination itself is not an ignition hazard, such as iron filings and aluminium dust.

Avoid causing an electrostatic charge on non-conductive dust.

Avoid hygroscopic dust and dust that risks sticking to the product.

Caution must be exercised with hybrid gas/dust mixtures as they may prove more flammable than the separate gas and dust safety data indicate.

The extraction arm is easily positioned within the work area by hand. For the best result, the suction nozzle should be positioned as close to the contaminant source as possible, and the result can be further improved if the suction nozzle rests on a surface (the so-called Coanda effect).

7 Troubleshooting

7.1 Troubleshooting guide

The troubleshooting guide contains information for identifying faults which are simple to rectify. Always perform the troubleshooting procedures before contacting FUMEX.

TROUBLESHOOTING GUIDE		
Symptom	**Possible cause**	**Recommended action**
1. Difficulty moving the extraction arm into the desired position.	Friction joints incorrectly adjusted.	Adjust the tension.
	Friction joints worn.	Contact your dealer to replace the friction rings.

8 Maintenance

Please remember that only original spare parts may be used.

Make sure that all moving parts are secured to prevent unintentional movement.

8.1 Cleaning

Consider the risk of electrostatic discharge from your person or cleaning tool when removing dust deposits.

Cleaning must be performed when the atmosphere is not potentially explosive. When dust with an MIE of less than 30 mJ is being extracted, personnel should wear electrostatic dissipative shoes and clothing.

To avoid damage, the product should be cleaned with a clean cloth dampened with a neutral detergent.

8.1.1 Dry cleaning

Vacuum and dry the product inside and outside.

8.1.2 Wet cleaning

Check that the detergent is neutral and will not affect any of the materials from which the product is made. See the material specification in Section **10.1 Technical data**.

Allow the equipment to dry before use.

8.2 Maintenance schedule

Depending on the changing operating conditions between the different systems, the intervals for recommended maintenance may differ. Users should therefore determine their own maintenance intervals.

The checklist for maintenance is designed for normal use of the product. The recommended intervals are approximate and refer to the time after the first start-up.

FUMEX recommends the following maintenance schedule:

MAINTENANCE SCHEDULE				
Interval	**Item**	**Inspection module**	**Maintenance instructions**	**Date**
As necessary	**1.1**	Extraction arm	Clean externally. Refer to Section **8.1 Cleaning**.	
	1.2		Adjust the friction joints to achieve the desired tension.	
Every three months	**4.1**	Earthing	Visually inspect the earth cable for damage. Replace as necessary.	
Every six months	**5.1**	Earthing	Check the earth resistance with an ohmmeter as per step 4 of Section **5.1 Start-up**. Replace as necessary.	
	5.2	Extraction arm	Check that the extraction arm fittings and connection are as they should be. Rectify if necessary.	

8.3 Adjusting friction joints

Adjust the friction joints as shown in **Fig. 11.**

9 Decommissioning

9.1 Final decommissioning/ disassembly/disposal

Final decommissioning and dismantling of the product may only be done by authorised personnel wearing protective gear. The management and correct removal of the various types of materials must be in accordance with the applicable legal requirements.

Please contact FUMEX if you have any questions about the various types of waste.

10 Technical information

10.1 Technical data

General

Dimensions: .....See Section **10.2 Dimensional drawing**

Weight: .....See Section **10.2 Dimensional drawing**

Size: .....Ø75/100 mm

EX classification

Zoning: .....1, 21 & 2, 22

Gas group: IIC

Dust group: IIIC

Temperature limits

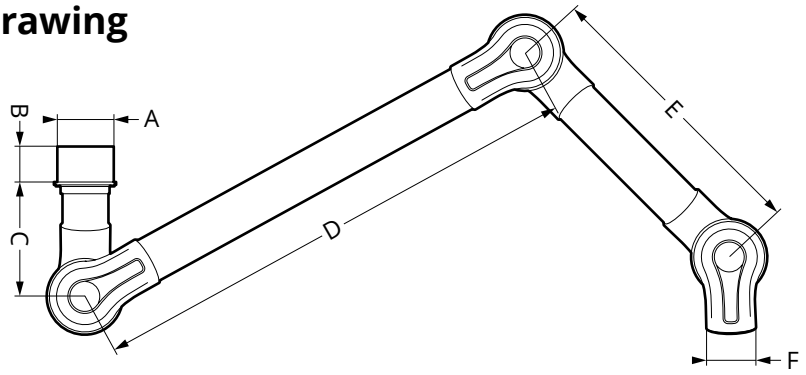
Operating temperature:.....5 °C to 60 °C

Ambient temperature: .....10 °C to 40 °C

Transport and storage temperature: .....-25 °C to 60 °C

10.2 Dimensional drawing

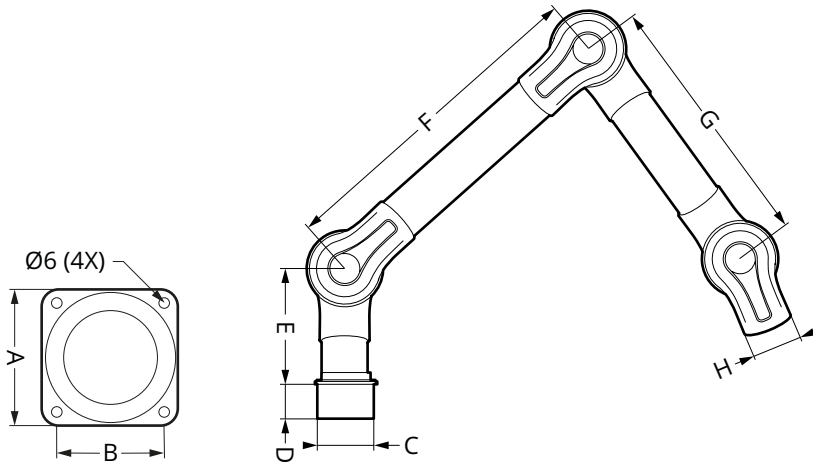
10.2.1 MET



MET	Dimensions (mm)							Weight (kg)
	A	B	C	D	E	F	Lenght	
MET 1000-75EX	Ø98.5	80	250	400	300	Ø75	1000	2,3
MET 1300-75EX	Ø98.5	80	250	550	450	Ø75	1300	2,5
MET 1500-75EX	Ø98.5	80	250	750	450	Ø75	1500	2,7
METS 1500-75EX*	Ø98.5	80	250	750	450	Ø75	1500	3,3
METS 2000-75EX*	Ø98.5	80	250	1000	650	Ø75	2000	3,7
MET 1150-100EX	Ø125	135	260	450	350	Ø100	1150	4,3
MET 1350-100EX	Ø125	135	260	550	450	Ø100	1350	4,6
MET 1650-100EX*	Ø125	135	260	750	550	Ø100	1650	5,4
MET 1900-100EX*	Ø125	135	260	1000	550	Ø100	1900	5,6
MET 2100-100EX**	Ø125	135	260	1000	750	Ø100	2100	6,2
MET 2650-100EX**	Ø125	135	260	1300	1000	Ø100	2650	6,7

* Including external gas spring. ** Including two external gas springs.

10.2.2 MEB

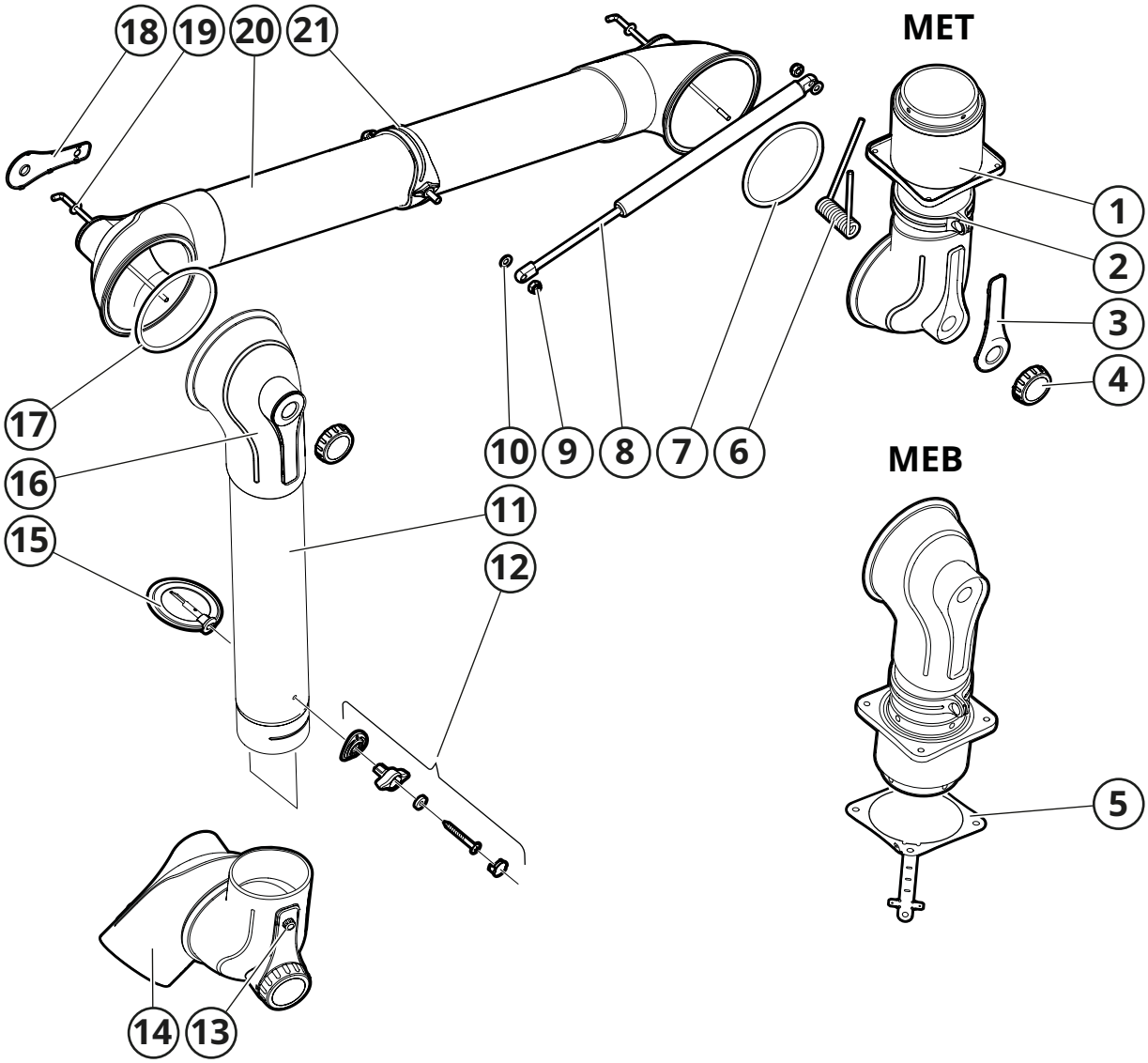


MEB	Dimensions (mm)									Weight (kg)
	A	B	C	D	E	F	G	H	Lenght	
MEB 1000-75EX	Ø114	Ø92	Ø98.5	80	250	400	300	Ø75	1000	2,3
MEB 1300-75EX	Ø114	Ø92	Ø98.5	80	250	550	450	Ø75	1300	2,5
MEB 1500-75EX	Ø114	Ø92	Ø98.5	80	250	750	450	Ø75	1500	2,7
MEB 1150-100EX	Ø142	Ø119	Ø125	135	260	450	350	Ø100	1150	4,3
MEB 1350-100EX	Ø142	Ø119	Ø125	135	260	550	450	Ø100	1350	4,6
MEB 1650-100EX*	Ø142	Ø119	Ø125	135	260	750	550	Ø100	1650	5,4
MEB 1900-100EX*	Ø142	Ø119	Ø125	135	260	100	550	Ø100	1900	5,6

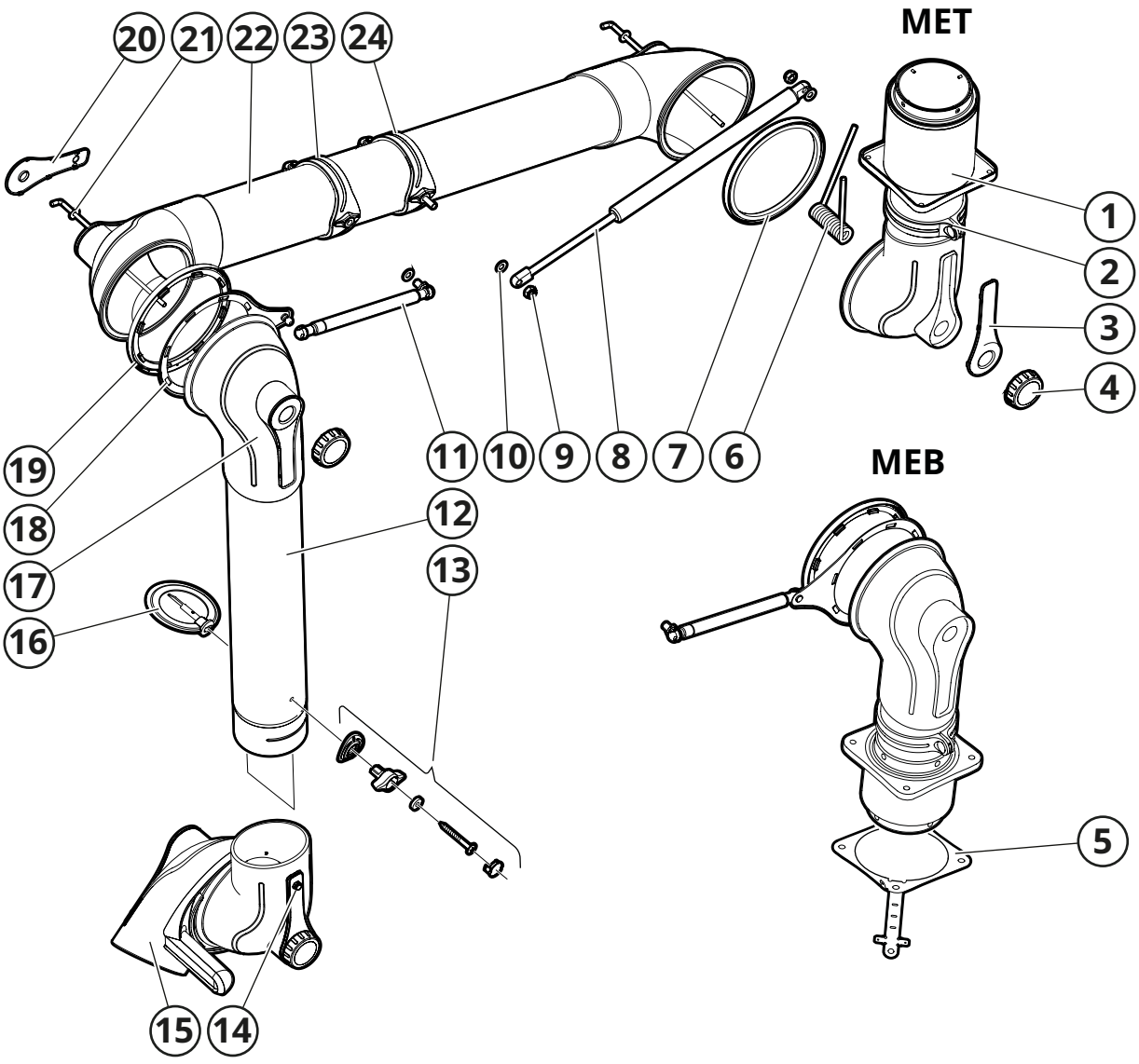
* Including external gas spring.

10.3 Exploded-view drawing

10.3.1 ME EX 75

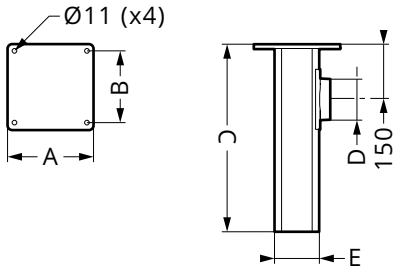


10.3.2 ME EX 100



11 Accessories & Spare Parts

11.1 Brackets



CEILING BRACKET **MTI EX**

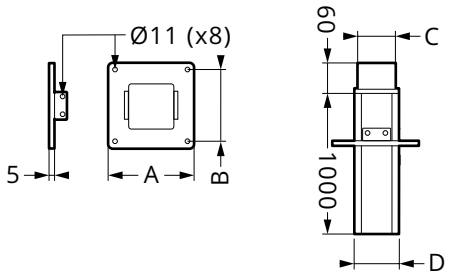
Ceiling bracket with internal exhaust duct. Can be supplied in lengths exceeding 2 metres upon request.

ME 75EX	Dimensions (mm)					Weight (kg)
Article	A	B	C	D	E	
MTI 250EX	⧄200	⧄180	250	Ø98.5	⧄107	2,5
MTI 500EX	⧄200	⧄180	500	Ø98.5	⧄107	3.2
MTI 750EX	⧄200	⧄180	750	Ø98.5	⧄107	3,8
MTI 1000EX	⧄200	⧄180	1000	Ø98.5	⧄107	4,4
MTI 1250EX	⧄200	⧄180	1250	Ø98.5	⧄107	5,2
MTI 1500EX	⧄200	⧄180	1500	Ø98.5	⧄107	5,8
MTI 1750EX	⧄200	⧄180	1750	Ø98.5	⧄107	6,6
MTI 2000EX	⧄200	⧄180	2000	Ø98.5	⧄107	7,2

ME 100EX	Dimensions (mm)					Weight (kg)
Article	A	B	C	D	E	
MTI 500-125EX	⧄250	⧄220	500	Ø125	⧄134	4,7
MTI 750-125EX	⧄250	⧄220	750	Ø125	⧄134	6,9
MTI 1000-125EX	⧄250	⧄220	1000	Ø125	⧄134	7,9
MTI 1250-125EX	⧄250	⧄220	1250	Ø125	⧄134	8,5
MTI 1500-125EX	⧄250	⧄220	1500	Ø125	⧄134	9,9
MTI 1750-125EX	⧄250	⧄220	1750	Ø125	⧄134	10,9
MTI 2000-125EX	⧄250	⧄220	2000	Ø125	⧄134	11,9

CEILING BRACKET **MTF EX**

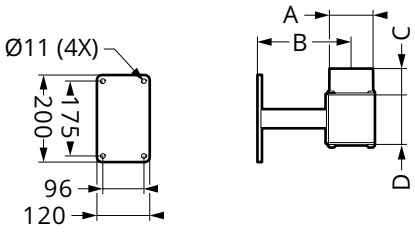
Ceiling bracket with internal exhaust duct for installation through, for example, a floor structure. Duct connection at the top. Height-adjustable mounting plate. Can be cut to size.



Article	Dimensions (mm)				Weight (kg)
	A	B	C	D	
MTF 1000EX (ME 75EX)	⧄200	⧄180	Ø98.5	⧄107	4,5
MTF 1000-125EX (ME 100EX)	⧄250	⧄220	Ø125	⧄134	6,5

WALL BRACKET **MVK EX**

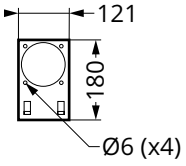
Wall bracket with internal exhaust duct. For special orders, wall bracket length can be customised both horisontally and vertically.



Article	Dimensions (mm)				Weight (kg)
	A	B	C	D	
MVKEX (ME 75EX)	Ø98.5	219	65	125	2,3
MVK-125EX (ME 100EX)	Ø125	232	60	150	2,7

FLEXIBLE TABLE BRACKET **MBFE***

Flexible bracket for attachment to a tabletop or shelf. Supplied complete with two screw clamps. Weight: 0,8 kg.



* Only suitable for MEB 75EX

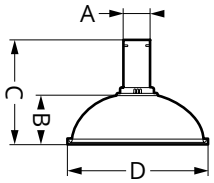
11.2 Hoods and suction nozzles

DOME HOOD **MEK EX**

Suitable for gases with high lift, completely or partially covering the contaminant source. Temp. range: -15 °C to +80 °C.

Article:	**Material:**	**Colour:**
MEK 350-75EX	PP (conductive)	Svart
MEK 351-100EX	PP (conductive)	Svart
MEK 500-100EX	PE (dissipative)	Svart

Article	Dimensions (mm)				Weight (kg)
	A	B	C	D	
MEK 350-75EX	Ø75	120	255	Ø350	0,6
MEK 351-100EX	Ø100	110	295	Ø350	0,6
MEK 500-100EX	Ø100	180	360	Ø500	1,0

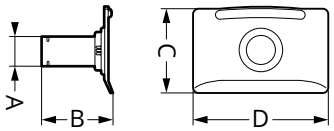


FLAT HOOD **MEPH EX**

Designed to maximise the work area without obscuring the object from the user. The flat hood offers the best suction effect when working at a table or a bench. Temp. range: -15 °C to +80 °C.

Material: PE (dissipative) **Colour:** Black

Article	Dimensions (mm)				Weight (kg)
	A	B	C	D	
MEPH 300-75EX	Ø75	150	195	300	0,3
MEPH 375-100EX	Ø100	200	250	375	0,5

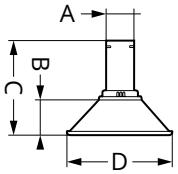


METAL HOOD **MEM EX**

For work in harsher environments. For capturing hot gases, dust spray, etc. Temp. range: -15 °C to +80 °C.

Material: Al **Colour:** Black

Article	Dimensions (mm)				Weight (kg)
	A	B	C	D	
MEM 250-75EX	Ø75	70	215	Ø250	0,3
MEM 251-100EX	Ø100	90	260	Ø250	0,5

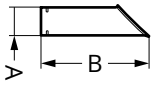


SUCTION NOZZLE **MES EX**

For harsh environments and for getting close to the source of contamination without disrupting the work. Temp. range: -15 °C to +80 °C.

Material: PE (dissipative) **Colour:** Black

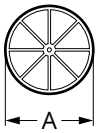
Article	Dimensions (mm)		Weight (kg)
	A	B	
MES 300-75EX	Ø75	225	0,1



11.3 Other accessories

PROTECTIVE GRILLE **MESG**

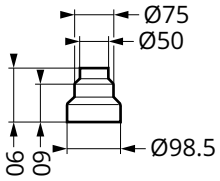
Stainless steel protective grille to prevent objects from being sucked into the system. Fitted to joints. Temp. range: -15 °C to +80 °C.



Dimensions (mm)	MESG-50	MESG-75	MESG-100
A	Ø90	Ø113.5	Ø163

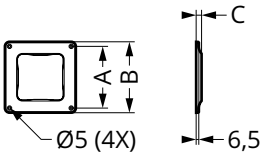
REDUCING SLEEVE **MRM**

Polypropylene reducer, suitable for Ø 98.5 mm standard attachment, for reducing down to Ø 50/75 mm.



COVER PLATE **MTI CT**

Polyethylene cover plate, used with ceiling bracket MTI for stabilisation and to cover ducting in false ceilings.



Dimensions (mm)	MTI CT	
	ME 75	ME 100
A	Ø148	Ø188
B	Ø170	Ø212
C	13	15

12 Notes

EXTRACTION ARMS · VEHICLE EXHAUST EXTRACTION · FANS · FILTERS · CURTAINS · CONTROLS

FUMEX

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