

Product manual

Fixed exhaust extractor

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PLYMOVENT®

Thank you for buying this PlymoVent product. Before you take it out of its box and start to use it, please read this product manual and follow the instructions carefully.

THIS MANUAL SHOULD BE HANDED OVER AND KEPT
BY THE SERVICE DEPARTMENT AFTER THE INSTALLATION!

Sales office
PlymoVent AB
Tangenten 2, Industrigatan 26,
SE-212 14 MALMÖ, Sweden
Tel: +46 40 30 31 30
Fax: +46 40 30 31 40
info@plymovent.se



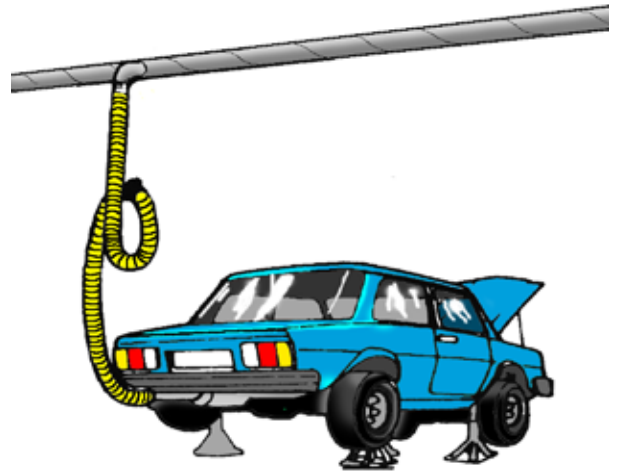
England
PlymoVent Ltd
Marley Way, Southam Road
Banbury, OX16 2RA, England
Tel: +44 1295 25 93 11
Fax: +44 1295 27 17 50
info@plymovent.co.uk

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Fixed exhaust extractor

PlymoVents Fixed Exhaust Extractor is the most economical and simple solution for exhaust problems in smaller workshops. The system consists of a single hose, a balancer all connected to a fan. The extractor, intended for non-mobile extraction, may be upgraded according to the changing requirements of the workshop. An important component is the balancer with lock, which automatically keeps the hose lifted from the floor. Several hoses can be connected to a central ducting system. A wide range of accessories makes the fixed exhaust extractor a flexible extraction system with large variation possibilities.

PlymoVents swinging arm is a simple and space-saving methods to increase the coverage of the exhaust hoses for example in truck workshops and car service halls. The double articulated swinging arm fitted with an exhaust hose enables the connected vehicles to move within a radius of 8-9 meters from the attachment point of the swinging arm. A balancer keeps the hoses away from the floor.



Delivery

Single and double extractors are delivered complete with hoses, balancers and with or without fan and with or without swinging arm.

Mounting

PlymoVent offers a complete installation service.

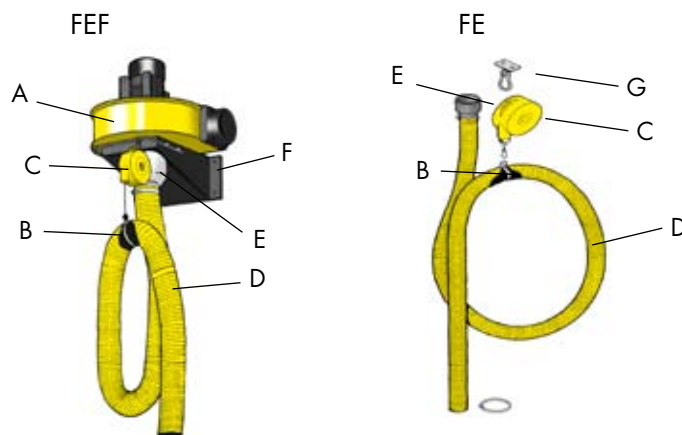
Service and maintenance

PlymoVent offers different levels of service and maintenance, as required.

Advantages

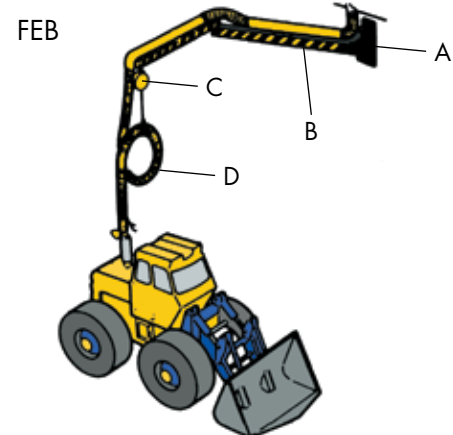
- Simple
- Economic
- Flexible
- Ideal for smaller workshops
- Applicable also for larger vehicles
- Require little space
- Superior range of operation
- Prevents exhaust hoses from trailing all over the floor
- Easy to handle

Construction



Fixed exhaust extractor:

- A. Fan FUA-1300, -2100 for direct connection to the fixed exhaust extractor.
- B. Suspension halter, keeping the hose lifted up.
- C. Balancer, which automatically lifts the hoses from the floor (BRL).
- D. Exhaust hose, standard length 5 m. Ø from 75 to 150 mm. +150°C.
- E. Socket.
- F. Wall mounting bracket
- (G. Special balancer suspension, for attachment in ceiling, to a beam or to a swinging arm).



Fixed exhaust extractor with swinging arm:

- A. Wall mounting bracket, prepared for mounting a fan.
- B. Double articulated swinging arm. Standard lengths 3, 4.5, 6 and 8 m
- C. Balancer, which automatically lifts the hoses from the floor.
- D. Exhaust hose, standard length 5 m. Ø from 75 to 150 mm. +150°C

Technical data

FE – Fixed exhaust extractor without fan, for non-mobile workplaces:

Prod. no.	Connection Ø mm	Hose Ø mm	Hose length meter	Weight kg	Recommended m ³ /h
FE-5-75	80	75	5	7,4	270
FE-5-100	100	100	5	8,4	360
FE-5-125	125	125	5	9,2	540
FE-5-150	160	150	5	10,2	1080

FEF – Fixed exhaust extractor with fan, for non-mobile workplaces:

Prod. no. Ø mm	Connection to ducting	Hose Ø mm	Hose length meter m ³ /h	Airflow per extractor	Weight kg	Fan kW	Fan motor	Voltage
FEF-5-75	160	75	5	520	24,6	FUA-1300	0,37	400 V, 3-ph*
FEF-5-100	160	100	5	650	25,6	FUA-1300	0,37	400 V, 3-ph*
FEF-5-125	160	125	5	1200	30,2	FUA-2100	0,55	400 V, 3-ph*
FEF-5-150	160	150	5	1400	31,2	FUA-2100	0,55	400 V, 3-ph*

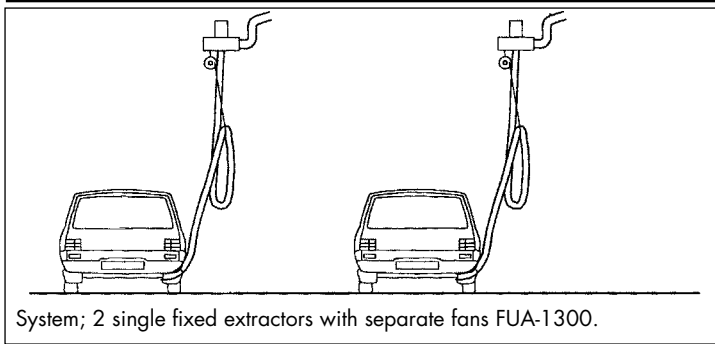
* Also available with a single phase motor.

FEB – Fixed exhaust extractor with swinging arm:

(Complete with EH-hose, BRL-balancer, suspension belt and swinging arm. Nozzle not included.)

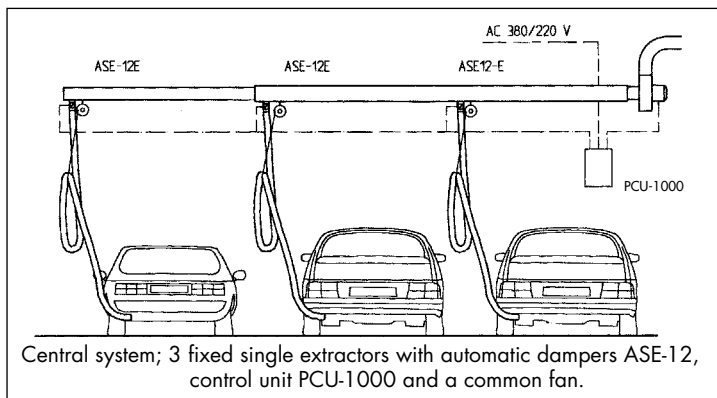
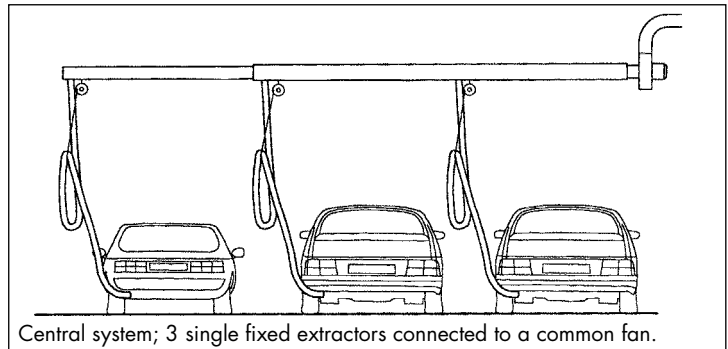
Prod. no.	Hose Ø mm	Hose length meter	Rigid ducting Ø mm	Weight kg	Arm length meter internal + external	Wire length (balancer) meter	Recommended m ³ /h
FEB-4.5-100	100	5	160	56,4	2,50 + 2,00	3,0	360
FEB-4.5-125	125	5	160	57,4	2,50 + 2,00	3,0	540
FEB-4.5-150	150	5	160	58,4	2,50 + 2,00	3,0	1080
FFEB-6-100	100	5	160	83,2	3,50 + 2,50	3,0	360
FEB-6-125	125	5	160	84,2	3,50 + 2,50	3,0	540
FEB-6-150	150	5	160	85,2	3,50 + 2,50	3,0	1080
FEB-8-100	100	5	160	112,4	4,50 + 3,50	3,0	360
FEB-8-125	125	5	160	113,4	4,50 + 3,50	3,0	540
FEB-8-150	150	5	160	114,4	4,50 + 3,50	3,0	1080

System solutions



1. In a small workshop with limited space single extractors can be connected to separate fans. The system permits high flexibility for future demands and it can easily be adapted to the demands and the economy of the workshop. The fan is manually switched on and exhaust duct can go through the wall or roof of the building.

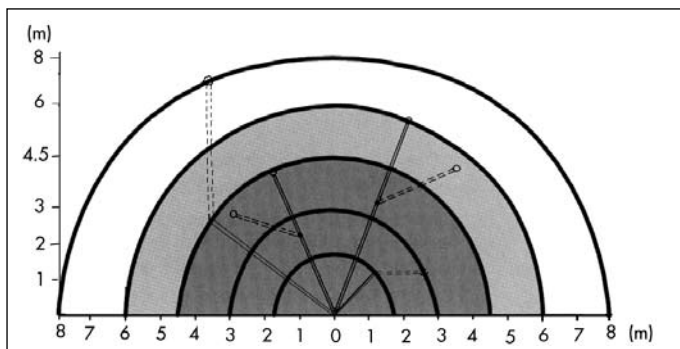
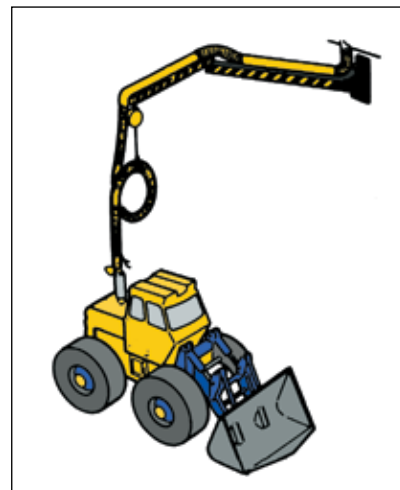
2. In bigger workshops the extractors can be connected to a central ducting fitted with a stronger fan. This solution is suitable when the extracted air volume can be regarded as part of the ordinary air change.



3. If you are aiming at great energy savings or do not want to increase the air change more than necessary then you ought to fit the system with automatic dampers (ASE-12-E), pressure sensor and a control unit (PCU-1000). The system will be running only when extraction is needed.

Fixed extractor mounted on swinging arm/Mounting

In order to have the hose available when needed but simultaneously lifted up to keep the hose clear of the floor the under edge of the mounting bracket is to be mounted 3-3,5 m over the floor. The mounting bracket is prepared for mounting a fan.



Double articulated swinging arm connected to central ducting. The inner arm 1.75 m, 2.5 m, 3.5 m or 4.5 m, the outer arm 1.25 m, 2 m, 2.5 m or 3.5 m. The balancer lifts the exhaust hose providing a free working area.

System

Of course many swinging arms may be installed into a system (see illustration Pressure Loss Calculation). Using many extractors it quickly turns out to be of economic interest to use automatic dampers, control unit and starter.

Mounting height

A fixed exhaust extractor with swinging arm should be mounted with the lower edge of the mounting bracket approx. 3,5 m over the floor.

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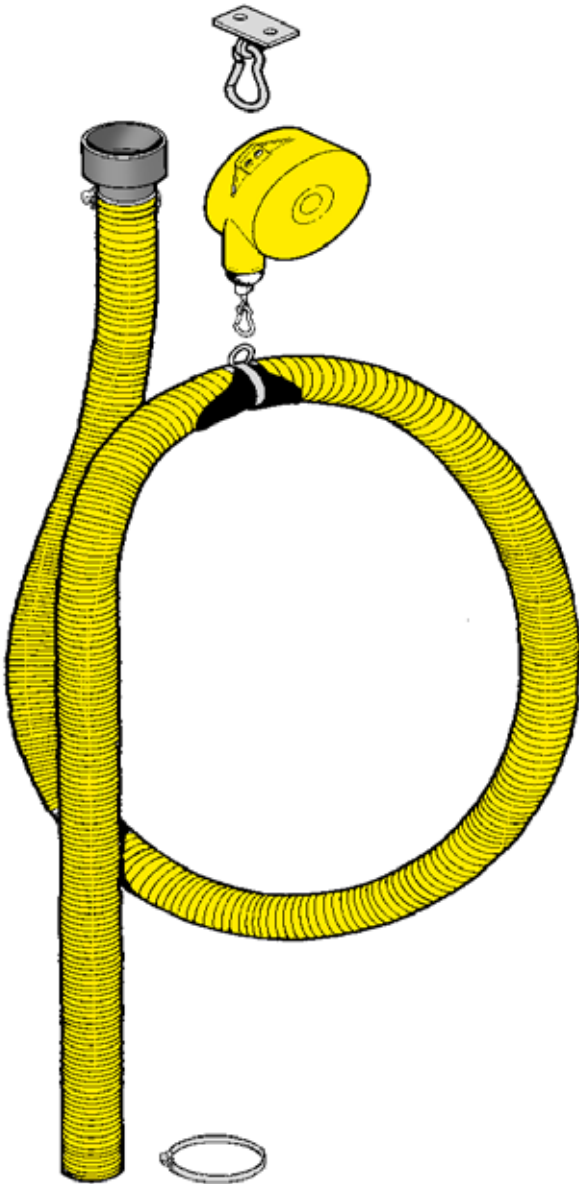
MOUNTING INSTRUCTION

BSAB no: T0.3
Ser.no: FE,FEF/MA
Date: Aug-98
Replace:

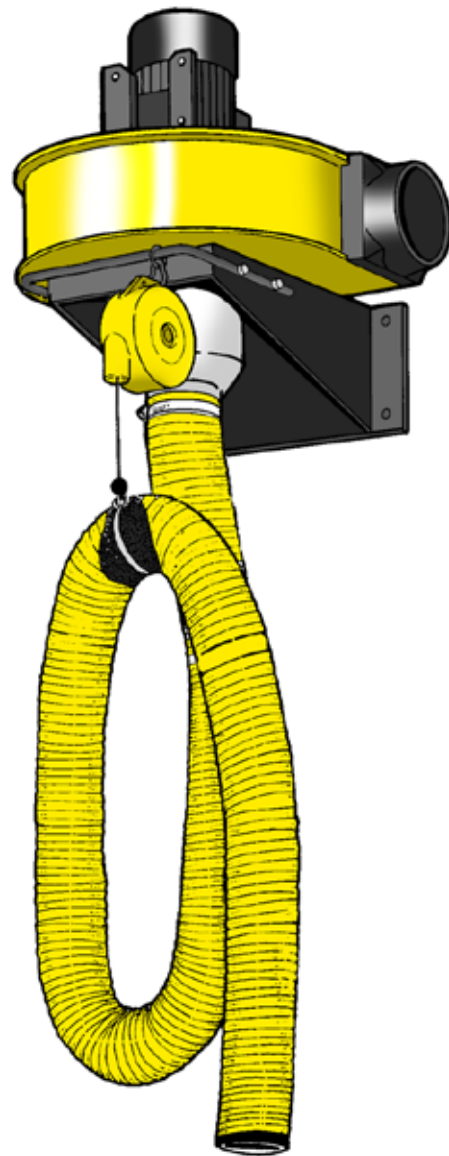
Fixed exhaust extractor with fan

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FE – Fixed exhaust extractor

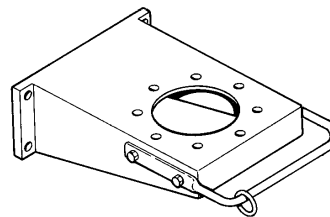


FEF – Fixed exhaust extractor with fan

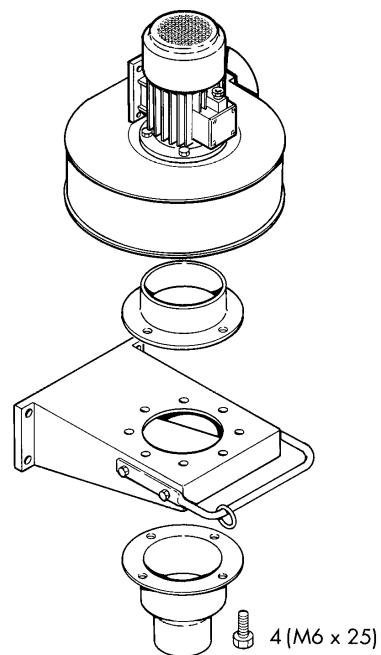


Mounting instruction

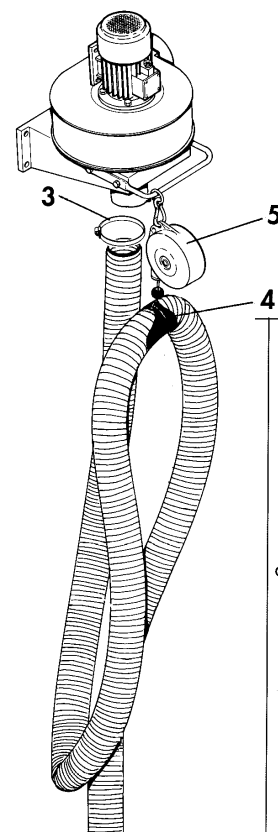
1. Bolt wall mounting bracket to the wall.
Recommended height from the floor: 2,5 - 3,5 m.



2. Attach fan and socket to the mounting bracket.



3. Attach the hose to the socket with a jubilee clip.

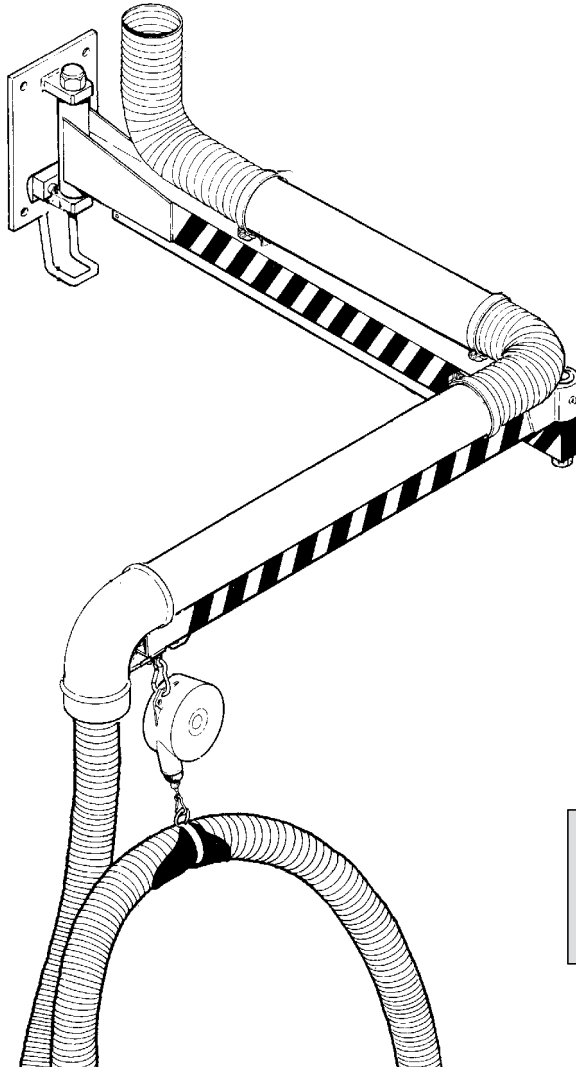


4. Mount the suspension halter approx. 2 m from the hose ending.

5. Attach the balancer with the spring hook to the balancer suspension and then the suspension halter to the wire.
(See sep. product manual for balancer, BRL.)

Fixed exhaust extractor on swinging arm

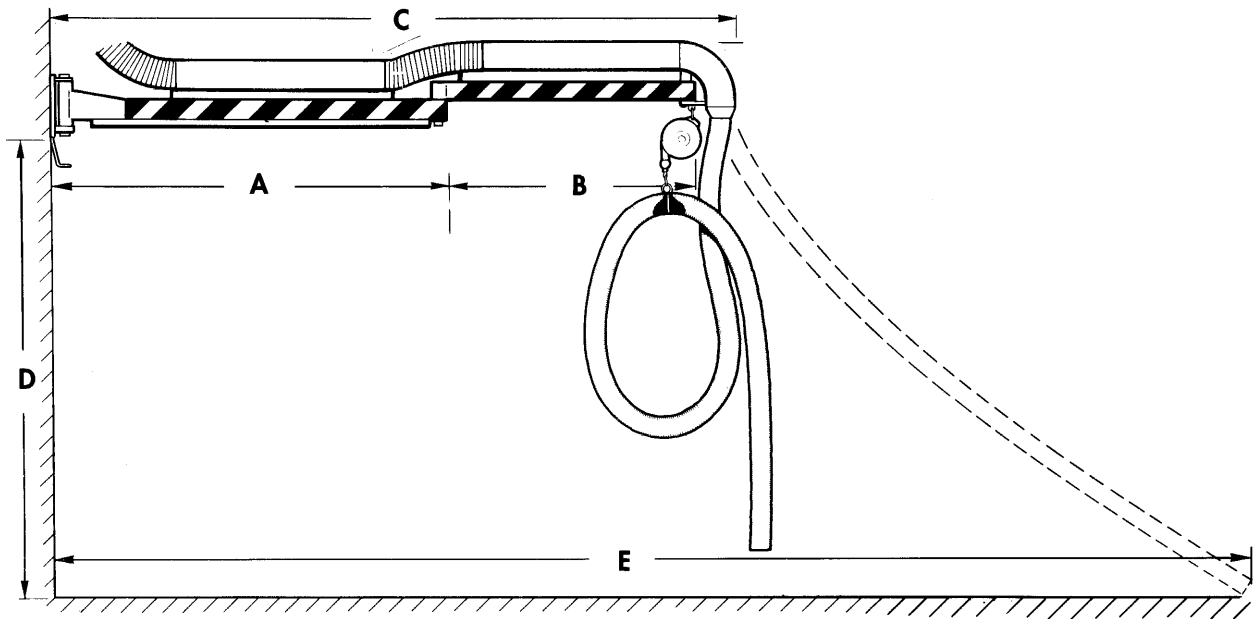
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PlymoVent's exhaust extractors on swinging arms will enable the vehicles to move within a radius of 8 - 9 m from the mounting bracket.

Prod. no.	Hose Ø mm	Weight kg	Rigid ducting	Hose length m	Arm length m
FEB-3-75	75	41.2	160	5	3
FEB-3-100	100	42.2	160	5	3
FEB-3-125	125	43.2	160	5	3
FEB-3-150	150	44.2	160	5	3
FEB-4.5-75	75	55.4	160	5	4.5
FEB-4.5-100	100	56.4	160	5	4.5
FEB-4.5-125	125	57.4	160	5	4.5
FEB-4.5-150	150	58.4	160	5	4.5
FEB-6-75	75	82.2	160	5	6
FEB-6-100	100	83.2	160	5	6
FEB-6-125	125	84.2	160	5	6
FEB-6-150	150	85.2	160	5	6
FEB-8-75	75	111.4	160	5	8
FEB-8-100	100	112.4	160	5	8
FEB-8-125	125	113.4	160	5	8
FEB-8-150	150	114.4	160	5	8

Measurements

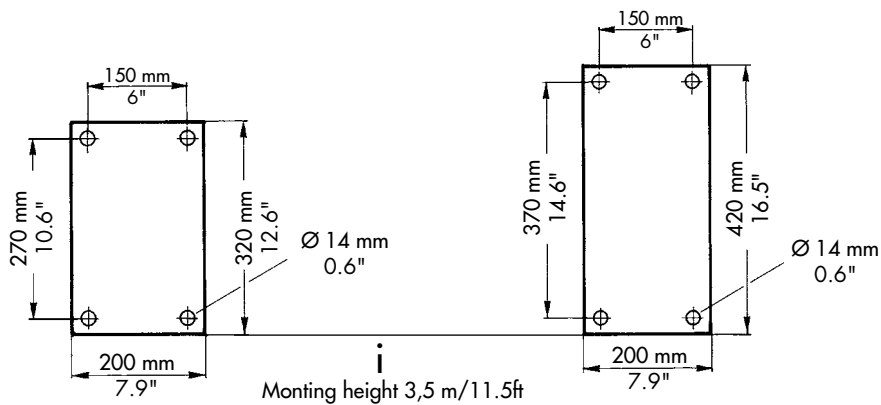


Prod. no.	A mm/inch	B mm/inch	C mm/inch	D mm/inch	E mm/inch
FEB-3-75, -100, -125, -150	1750/69	1250/49	3000/118		
FEB-4.5-75, -100, -125, -150	2500/98	2000/79	4500/177	3500/138	9050/356
FEB-6-75, -100, -125, -150	3500/138	2500/98	6000/236	3500/138	10700/421
FEB-8-75, -100, -125, -150	4500/177	3500/138	8000/315		

Mounting plates and attachment

Mounting plate

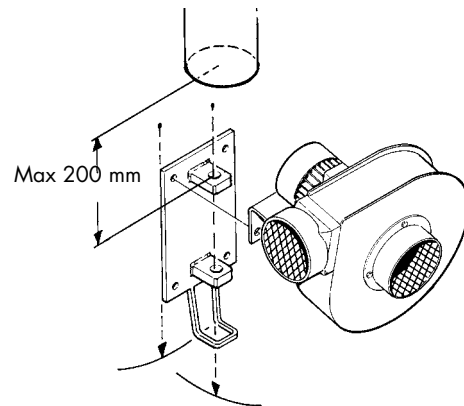
Mounting plate



Prod. no.	Max load force/ bolt	B mm/inch
FEB-3-75, -100, -125, -150	661 lbs	1984 lbs
FEB-4.5-75, -100, -125, -150	1102 lbs	3307 lbs
FEB-6-75, -100, -125, -150	1432 lbs	4299 lbs
FEB-8-75, -100, -125, -150	1984 lbs	5952 lbs

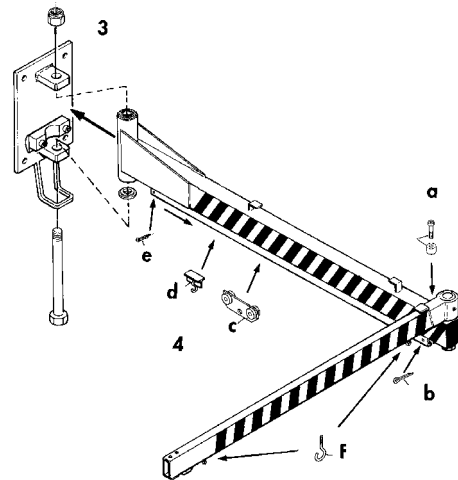
Montageanvisning

1. Bolt mounting bracket to wall.



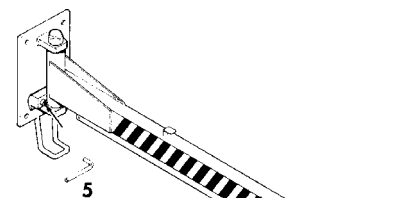
2. Mount the fan (if included).

3. Mount the extractor arm.

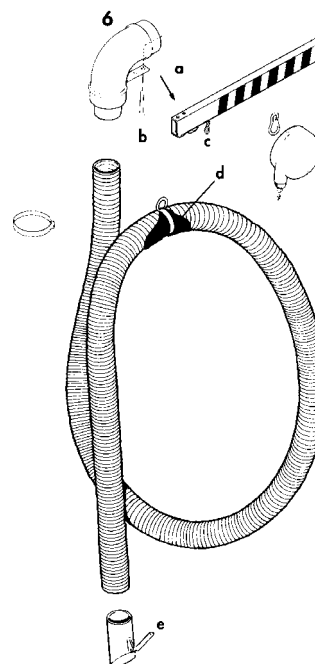


4. Mount the details in order a-b-c-d-e-f.

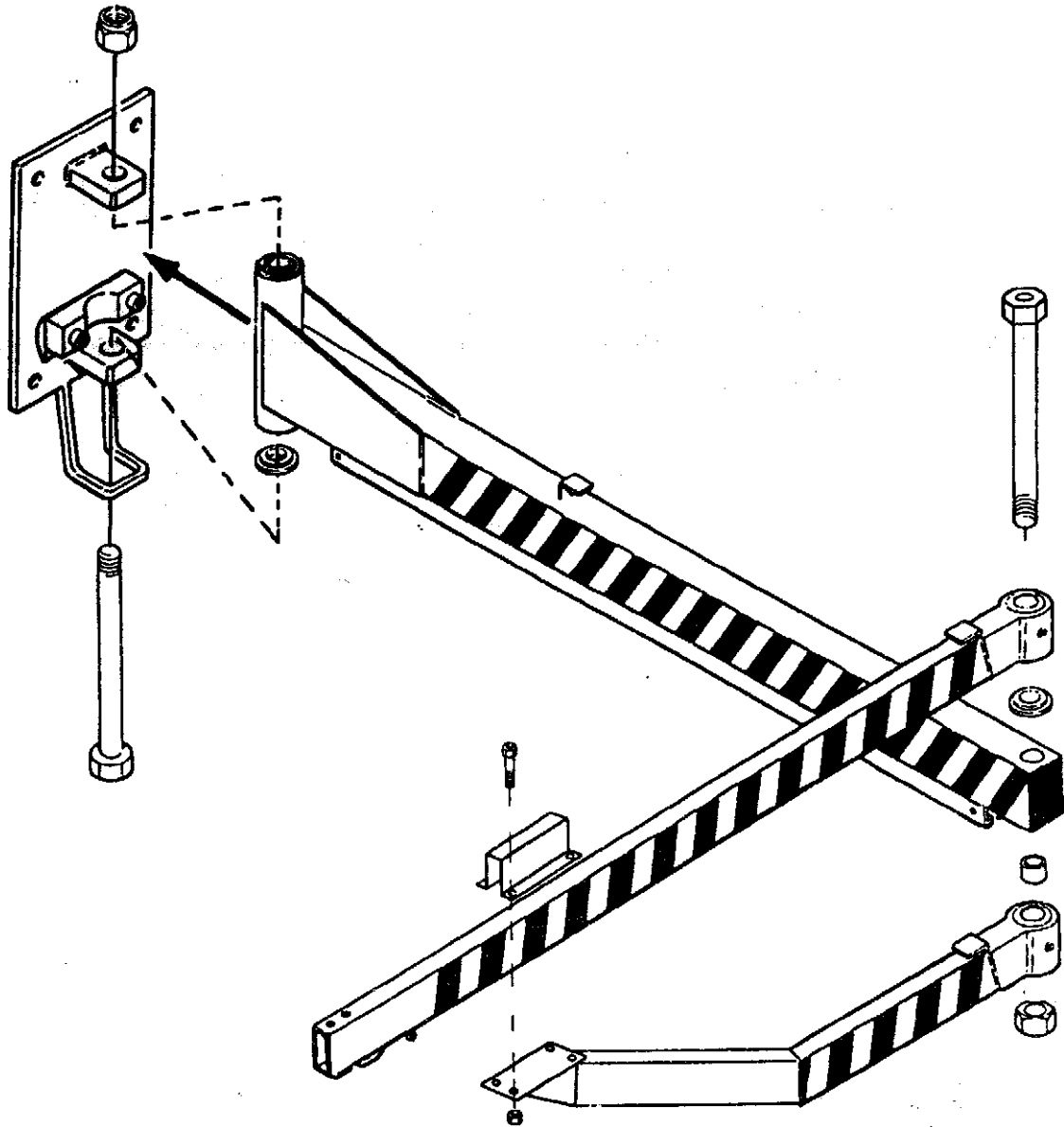
5. Adjust friction until arm remains in one position.



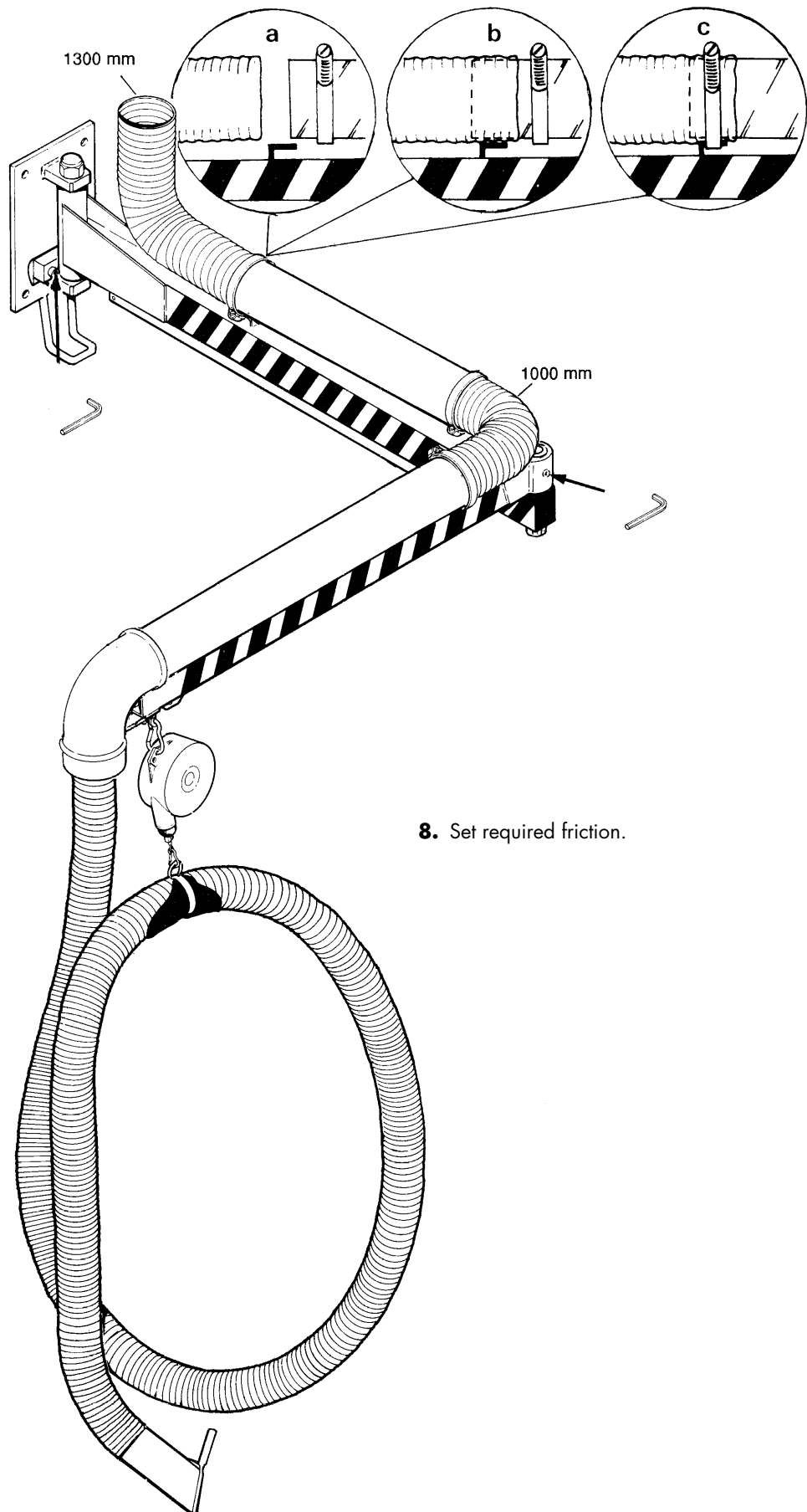
6 a. Mount ducting bend to the outer arm.
b. Mount the hose to the ducting bend.
c. Attach the balancer to the lug.
d. Mount to suspension halter.
e. Mount the exhaust nozzle.



STRENGTHENING ARM UK-8016



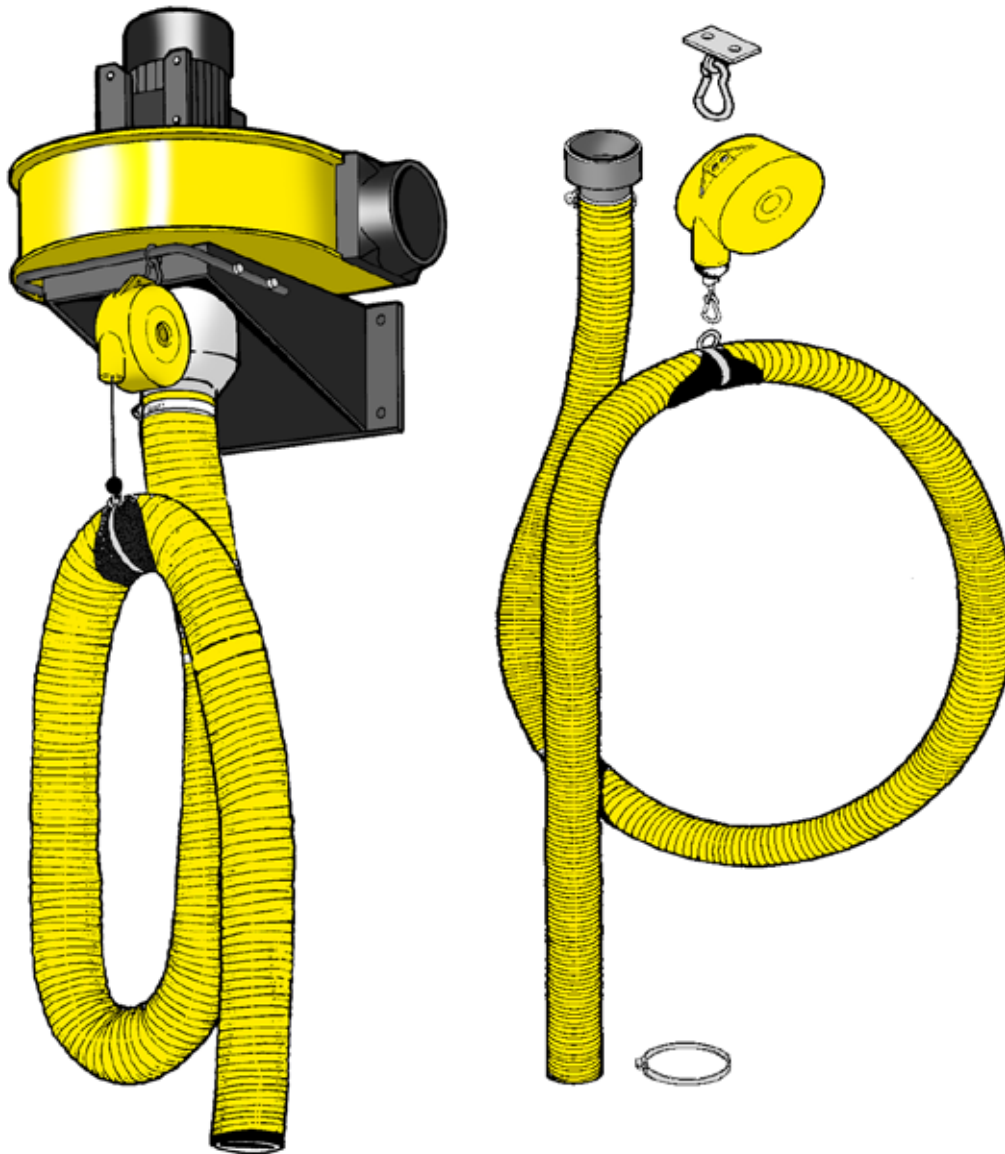
7. Mount spiro-tubing and hose to the extractor arm.



8. Set required friction.

Fixed exhaust extractor with fan

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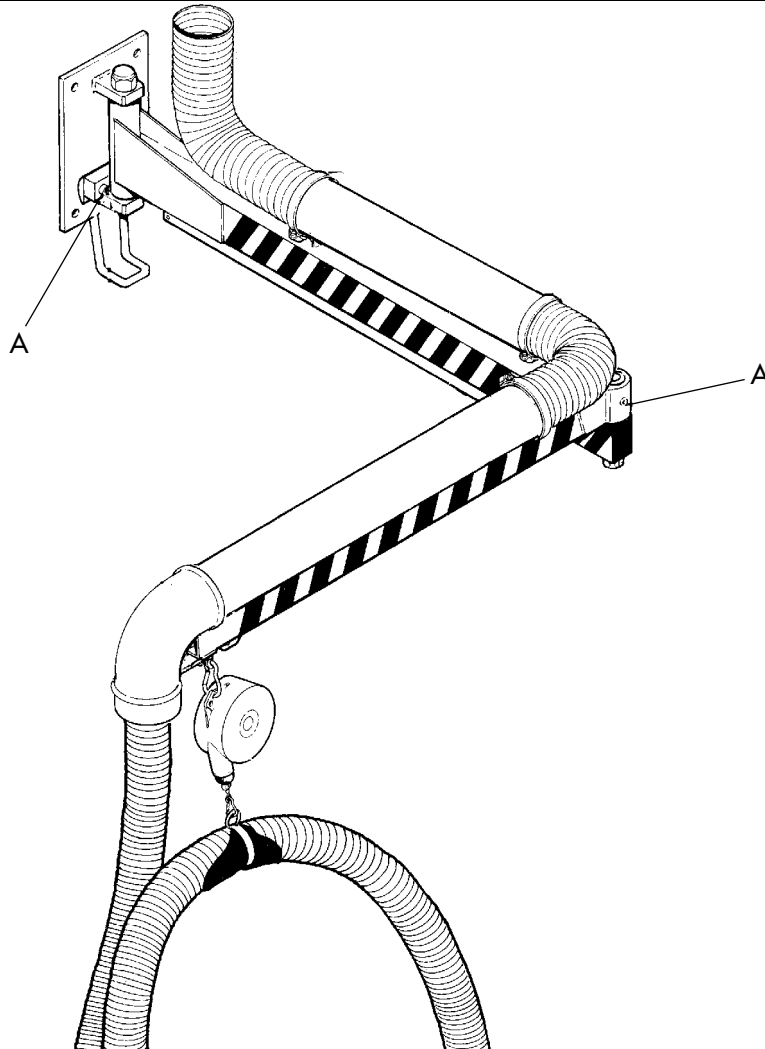


Replacing the exhaust hose

1. Unhook the balancer's hook from the suspension halter.
2. Unscrew the hose clamp attaching the hose to the suction spigot.
3. Move the suspension halter from the old hose to the new one.
4. Mount the new hose by first attaching the hose clamp to the suction spigot.
5. Allow the hose to have a natural loop and after that attach the hook of the balancer to the suspension halter.
6. Mount nozzle, if any.

Fixed exhaust extractor with swinging arm

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A. Adjusting the joint

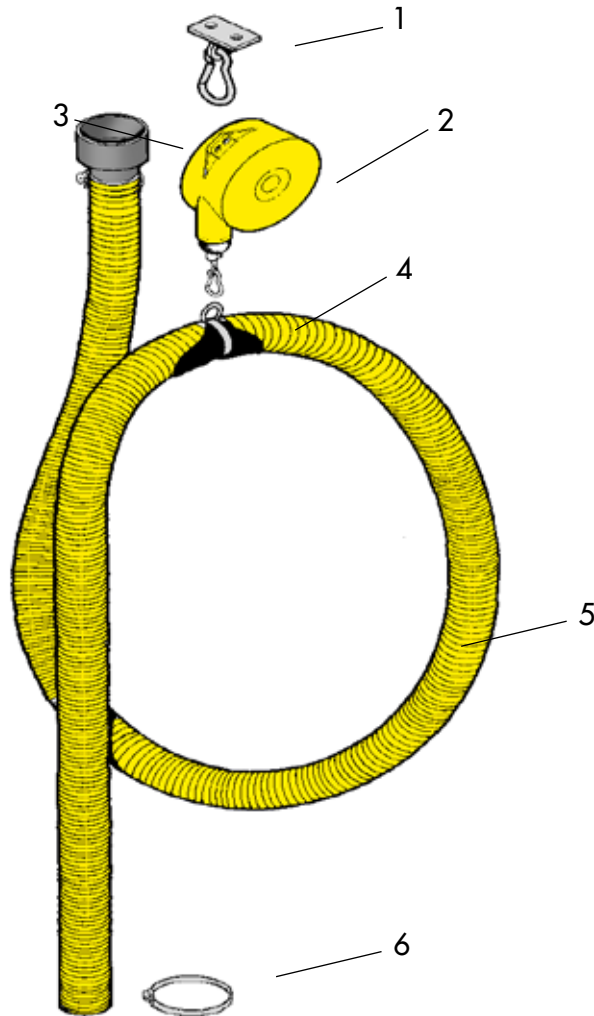
1. Tighten the socket head cap screw (A).

B. Replacing the exhaust hose

1. Unhook the balancer's hook from the suspension halter.
2. Unscrew the hose clamp attaching the hose to the suction spigot.
3. Move the suspension halter from the old hose to the new one.
4. Mount the new hose by first attaching the hose clamp to the suction spigot.
5. Allow the hose to have a natural loop and after that attach the hook of the balancer to the suspension halter.
6. Mount nozzle, if any.

Fixed exhaust extractor

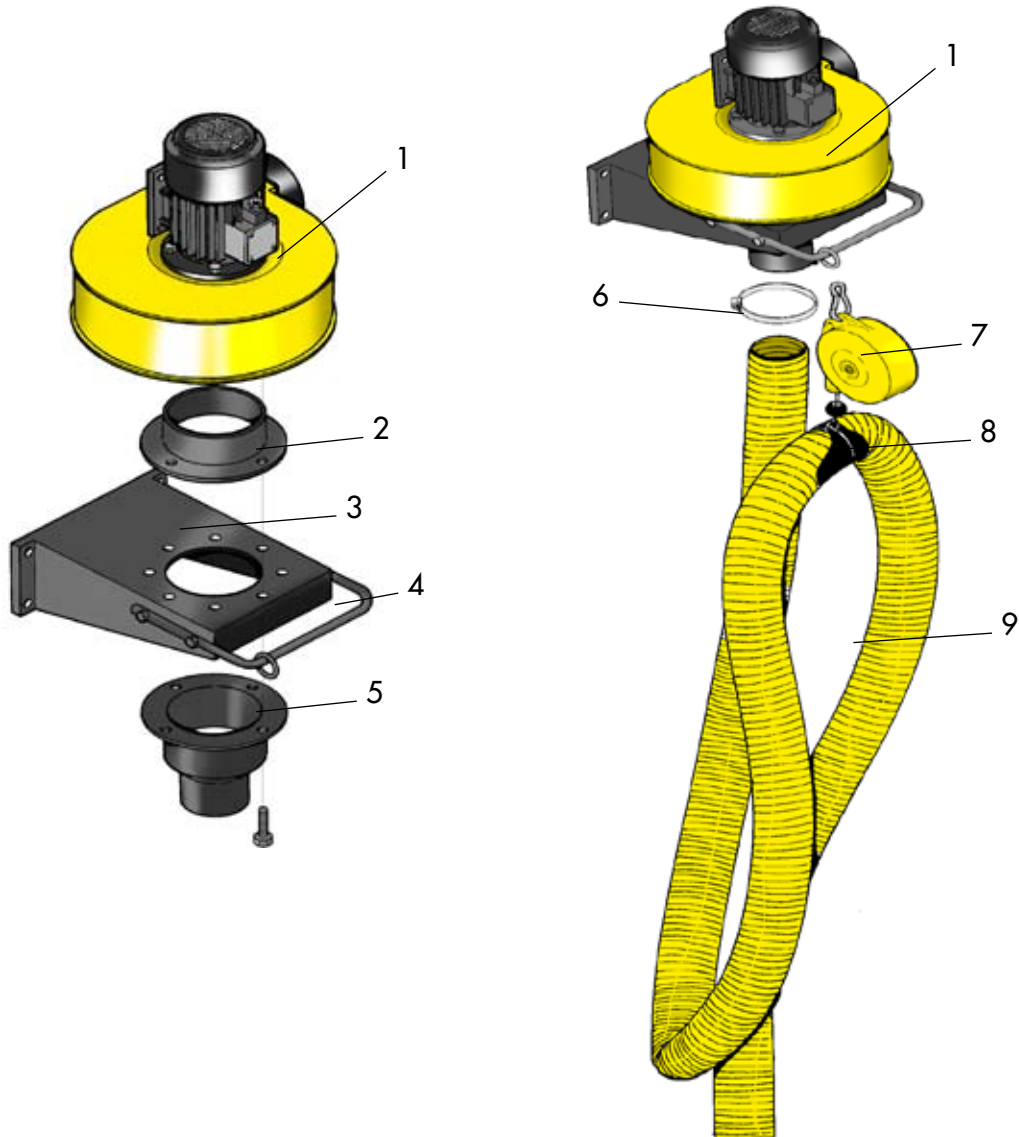
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Pos.no	DESCRIPTION
1	Bracket for balancer
2	Balancer
3	Transition piece
4	Suspension halter
5	Exhaust hose
6	Hose clip

Fixed exhaust extractor with fan

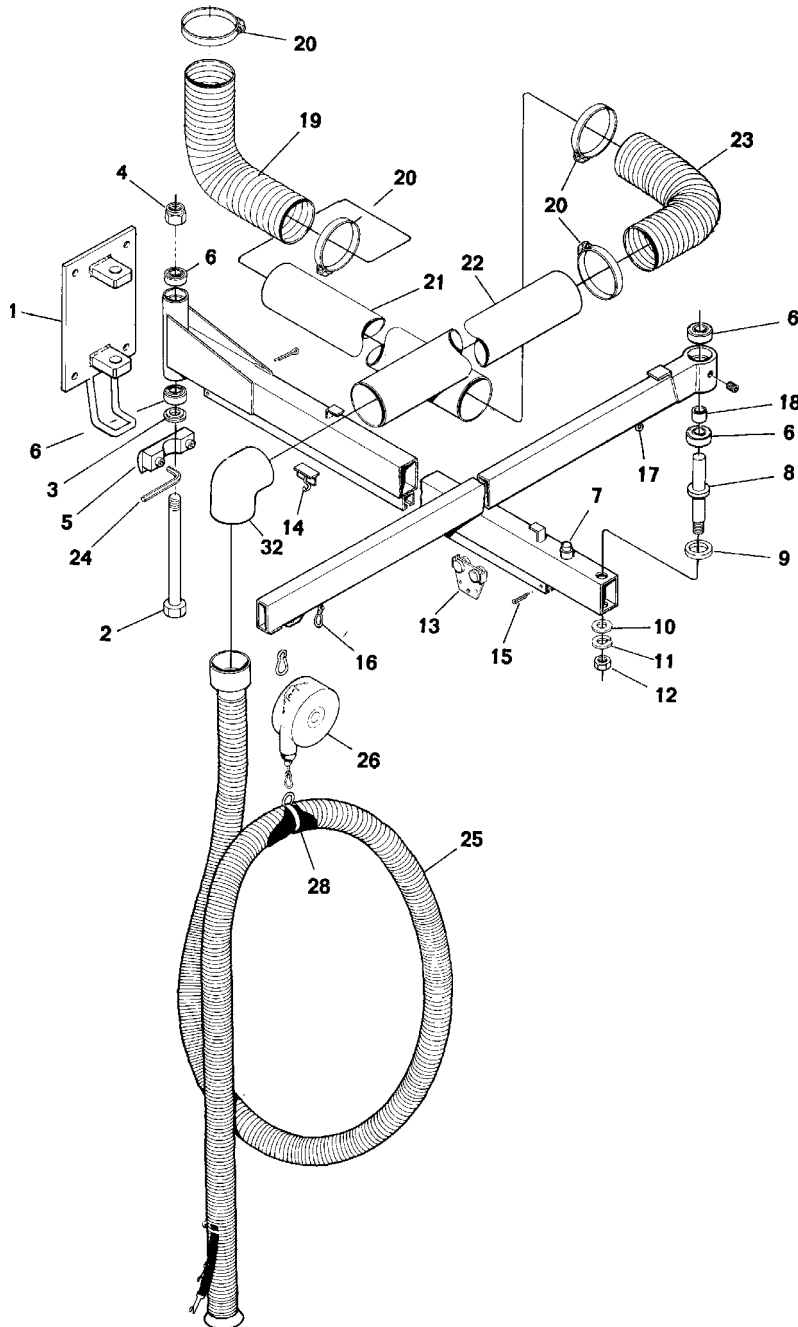
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Pos.no	DESCRIPTION
1	Fan
2	Inlet
3	Wall mounting bracket
4	Bracket for balancer
5	Connection socket
6	Hose clip
7	Balancer
8	Suspension halter
9	Exhaust hose

Fixed exhaust extractor with swinging arm

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Pos. no.	Description	Pos. no.	Description	Pos. no.	Description	Pos. no.	Description
1	Mounting plate	9	Space washer	17	Suspension hook	25	Exhaust hose
2	Swivel pin	10	Washer	18	Friction pads	26	Balancer
3	Space Washer	11	Lock washer	19	Flexible hose	28	Suspension halter
4	Lock nut	12	Lock nut	20	Hose clip	32	Ducting
5	Complete friction brake	13	Runner	21	Inner length rigid ducting		
6	Ball bearings	14	Sliding hanger	22	Outer length rigid ducting		
7	Stop nut	15	Split pin	23	Outer flexible hose		
8	Swivel pin between 2 arms	16	Wire loop	24	Allen key		

PLYMVENT®	SPARE PARTS LIST	BSAB No: T3.1 Ser. No: UK / RR Date: Jan-01 Replace:
	FEB-3- B-4.5-	© Copyright: All right reserved. All information within this printed matter may not be reproduced, written permission from PlymoVent AB. PlymoVent AB reserves the right to make design changes.

Produkt No:	Description
A	All models
B	FEB-3-75
C	FEB-3-100
D	FEB-3-125
E	FEB-3-150
F	FEB-4.5-75
G	FEB-4.5-100
H	FEB-4.5-125
I	FEB-4.5-150

X = Order as required, state required length.

Pos	Art. No:	A	B	C	D	E	F	G	H	I	Description	Note
1	503 581		1	1	1	1	1	1	1	1	MOUNTING PLATE SMALL	
	503 359										MOUNTING PLATE BIG PAINT	
2	500 868		1	1	1	1	1	1	1	1	I-ARM AXLE D.20MM /PART	
	503 458										I-ARM AXLE 25MM /PART	
3	503 631		1	1	1	1	1	1	1	1	SPACE WASHER INNER	
	503 557										SPACE WASHER INNER	
4	957 977		1	1	1	1	1	1	1	1	NUT/ LOCKING M20	
	958 264										NUT/ LOCKING M24	
5	503623-Z		1	1	1	1	1	1	1	1	INNER BRAKE SMALL	
	503565-Z										INNER BRAKE BIG	
6	963 009		2	2	2	2	2	2	2	2	BALL BEARINGS KUA LM-2 SMALL	
	963 017										BALL BEARINGS BIG UK & FM	
7	503 672	1									STOP FOR OUTER ARM	
8	503 953		1	1	1	1	1	1	1	1	OUTER ARM AXLE 20MM	
	503 987										OUTER ARM AXLE 25MM	
9	503 961		1	1	1	1	1	1	1	1	SPACE WASHER OUTER 20MM	
	503 995										SPACE WASHER OUTER 25MM	
10	951 939		1	1	1	1	1	1	1	1	WASHER 21x36x3 FZB	
	952 010										WASHER 26x45x4 FZB	
11	952 911		1	1	1	1	1	1	1	1	WASHER LOCK 21x36 FZB AZ-21	
	952 978										WASHER LOCK 25x45 FZB AZ-25	
12	957 969		1	1	1	1	1	1	1	1	NUT/ M20	
	958 256										NUT/ M24	
13	503656-Z	1									RUNNER C-PROFILE	
14	503748-Z	3									T-SLIDER WITH HOOK	
15	960 484	2									SPLIT PIN	
16	964 098	6									WIRE LOOP	
17	949 537	2									SUSPENSION HOOK	
18	503 946		1	1	1	1	1	1	1	1	FRICION RING 20MM	
	503 979,0										FRICION RING 25MM	
19	999 219	1									FLEXIBLE HOSE L=1,3M Ø 165MM	
20	961 466	4									HOSE CLAMP SMS-168 BLACK	

When ordering spare parts please quote:
-Product No. (see label) - Batch No - Description - Part No - Quantity
For example:
LIK-30 16, 000MD, UNIVERSAL JOINT , 506824-Z, 1 pc

PLYMOVENT®	SPARE PARTS LIST	BSAB No: T3.1 Ser. No: UK / RR Date: Jan-01 Replace:
	FEB-3- B-4.5-	© Copyright: All right reserved. All information within this printed matter may not be reproduced, written permission from PlymoVent AB. PlymoVent AB reserves the right to make design changes.

Produkt No:	Description
A	All models
B	FEB-3-75
C	FEB-3-100
D	FEB-3-125
E	FEB-3-150
F	FEB-4.5-75
G	FEB-4.5-100
H	FEB-4.5-125
I	FEB-4.5-150

X = Order as required, state required length.

Pos	Art. No:	A	B	C	D	E	F	G	H	I	Description	Note
21	979 229,1		1	1	1	1					Ø160 TUBE L-300	
	979 252,1						1	1	1	1	Ø160 TUBE L-1300	
	979 302,1										Ø160 TUBE L-2300	
	979 328,1										Ø160 TUBE L-3300	
22	979 245,1		1	1	1	1					Ø160 TUBE L-1100	
	979 278,1						1	1	1	1	Ø160 TUBE L-1650	
	979 302,1										Ø160 TUBE L-2300	
	979 328,1										Ø160 TUBE L-3300	
23	999 201	1									FLEXIBLE HOSE L=1,0M Ø165MM	
24	962 902	1									ALLEN KEY 6MM	
25	4-1311,1		1	1	1	1					90° BEND 160/75	
	4-1176,1						1	1	1	1	90° BEND 160/100	
26	50100-1011		1				1				EXHAUST HOSE L=5M Ø 75MM	
	50200-1011			1				1			EXHAUST HOSE L=5M Ø 100MM	
	50300-1011				1				1		EXHAUST HOSE L=5M Ø 125MM	
	50400-1011					1				1	EXHAUST HOSE L=5M Ø 150MM	
27	90105-1011	1									BALANCER BRL-300	
28	512 608		1				1				SUSPENSION HALTER Ø 75MM	
	512 616			1				1			SUSPENSION HALTER Ø 100MM	
	512 624				1				1		SUSPENSION HALTER Ø 125MM	
	512 632					1				1	SUSPENSION HALTER Ø 150MM	

When ordering spare parts please quote:
•Product No. (see label) • Batch No • Description • Part No • Quantity
For example:
UK-3016, 00040, UNIVERSAL JOINT , 506824-Z, 1 pc