

EM52

Assembly manual



Spare part list + Assembling guideline

EM52

Exhaust fan

EM52

Assembly manual

Revision 1.3

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WARNING

All the components and spare parts MUST be stored in dry and clean environment.

Spare part list

EM52

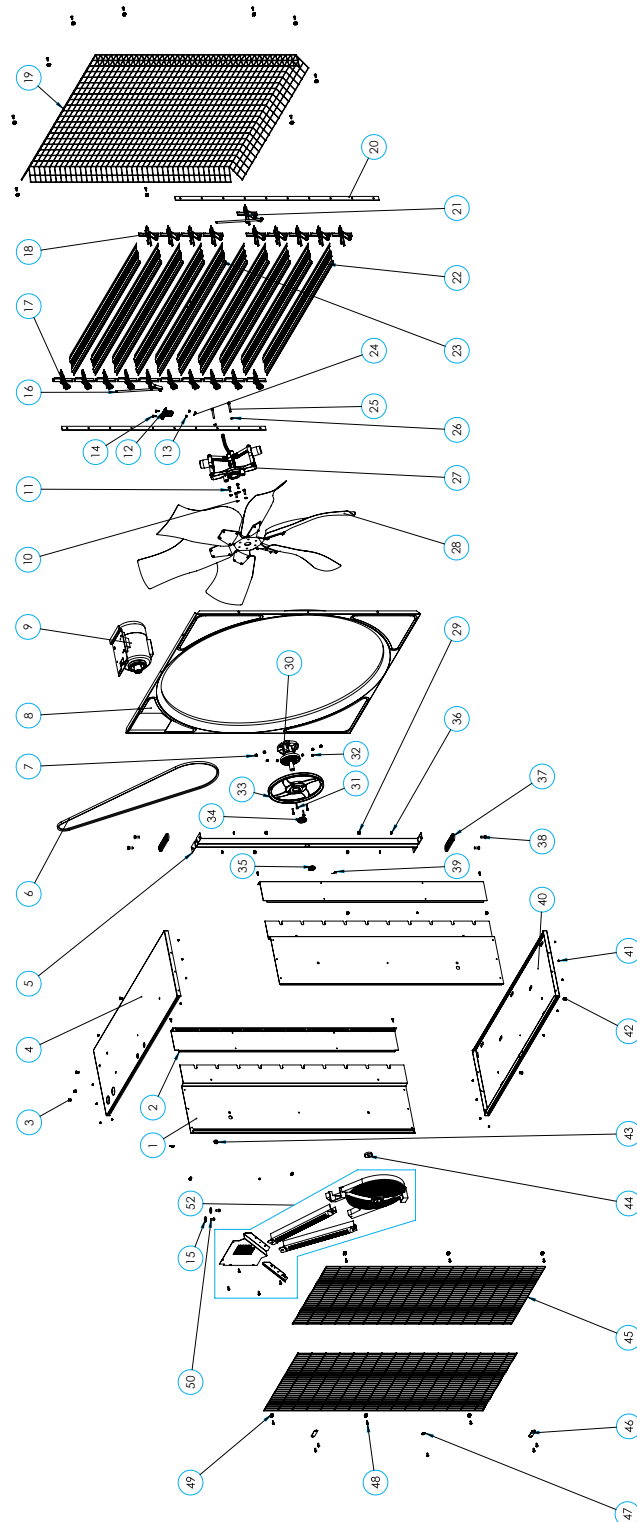










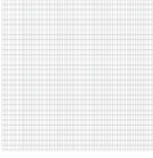









fig.1

Spare parts

Ref.	Picture	Description	Q.ty
1		SIDE PANEL	2
2		CARTER	2
3		THREADED BUSH M8X12.5	2
4		TOP PANEL	1
5		CENTRAL SUPPORT	1
6		V-BELT A90	1
7		HEXAGONAL NUT M8	6
8		CONVEYOR	1

9		MOTOR	1
10		EXT TOOTHED WASHER D8	4
11		HEXAGON SCREW M8x25	4
12		PLASTIC FORK	1
13		HEXAGON NUT M6 THIN	2
14		HEXAGONAL SCREW M6X16	2
15		PLAIN WASHER D8X32	2
16		CENTRAL RIGHT BEARING	1
17		RIGHT BEARING	9

18		LEFT BEARING	9
19		PYRAMIDAL REAR SAFETY MESH	1
20		TIE ROD	2
21		CENTRAL LEFT BEARING	1
22		SHUTTER BLADE	9
23		CENTRAL SHUTTER BLADE	1
24		KNURLED AXLE	1
25		HEXAGON SOCKET HEAD CUP SCREW M8x55	2
26		PLAIN WASHER D8,4x17	2

27		CENTRIFUGAL SYSTEM	1
28		PROPELLER	1
29		HEXAGONAL NUT M10	4
30		COMPLETE CENTRAL HUB	1
31		HEXAGONAL SCREW M6X30	4
32		HEXAGONAL NUT M6 WITH FLANGE	4
33		CENTRAL PULLEY	1
34		WATERPROOF DISTANCE PIECE	1
35		HEXAGONAL NUT M25	1

36		EXT TOOTHED WASHER D10,5X18	4
37		OVAL PLATE	2
38		HEXAGON SOCKET COUNTERSUNK SCREW M10X30	4
39		SPRING HOOK	2
40		BOTTOM PANEL	1
41		POP UP RIVET D6.4X8	20
42		THREADED BUSH D8X17.5	8
43		RUBBER GROMMET	1
44		CAP COVER NUT	1

45		REAR SAFETY MESH	2
46		METAL CLIP FOR MESHES	2
47		PLAIN WASHER D6X24 + SEALING	1
48		SELF TAPPING SCREW D6.3X19	25
49		PLASTIC CLIP FOR MESHES	16
50		HEXAGONAL SCREW M8X16	2

52	A		SAFETY PROTECTION FOR CENTRAL PULLEY (OPTIONAL)	1
	B		SAFETY PROTECTION FOR MOTOR (OPTIONAL)	1
	C		METAL CLIP FOR SAFETY PROTECTION FOR MOTOR (OPTIONAL)	1
	D		SAFETY PROTECTION FOR V-BELT (OPTIONAL)	2
	E		SELF TAPPING SCREW 6.3X19 (OPTIONAL)	4
53			EUROEMME STICKER 18X131	1
54			WARNING STICKER A-1997 35X210	1
55			WARNING STICKER B-1997 70X105	1
56			PRODUCT LABEL G-1998 95X115	1

57		NO HIGH PRESSURE STICKER 42X118	2
58		MUNTERS PROTECT STICKER 70X46	1

Assembling tools

2.

Ref.	Picture	Description	Q.ty
1		RIVETING MACHINE RAC171	1
2		INSERTING MACHINE KJ 45	1
3		PNEUMATIC SCREWDRIVER	1
4		17mm SPANNER	1
5		10mm LONG SPANNER	1
6		13mm LONG SPANNER	1
7		6mm LONG ALLEN SPANNER	1

8		36mm SPANNER	1
9		PHILLIPS SCREW HEAD ADAPTOR	1
10		13mm RING SPANNER	1
11		SMALL HAMMER	1
12		10mm COMBINATION SPANNER	2
13		SCREWDRIVER	1
14		RATCHET DRIVE EXTENSION	1
15		17MM COMBINATION SPANNER	1

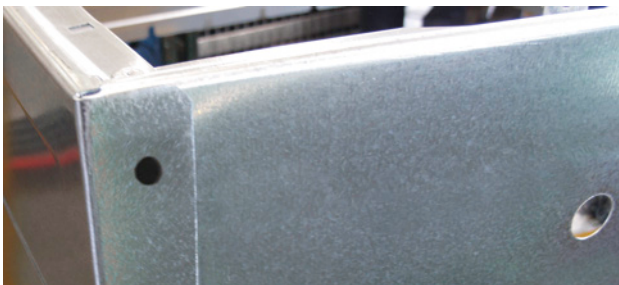
Assembling guidelines

3.

HOUSING ASSEMBLING



Take the bottom panel (*ref. 40*), the side panels (*ref. 1*) and place these taking care that slot for the plastic bearing is downward.



Before fixing the bottom and the side panels make sure that these pieces are in the right position as in the picture.



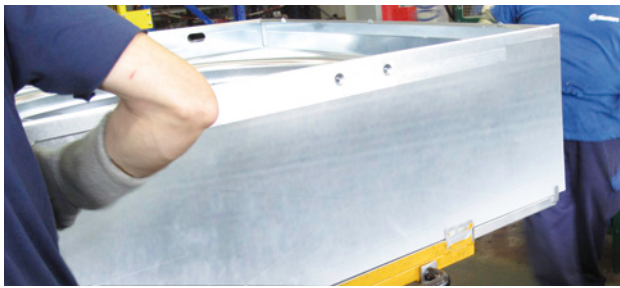
Join bottom panel to side panels and fix qty. 4 pop rivets (*ref. 41*) for each edge by using riveting machine (*ref. 1/Assembling Tools*).



Insert Venturi (*ref. 8*) into the housing on the right side as in the picture.



Fix Venturi to bottom panel and then to side panels with qty. 1 pop rivets for side.



Place the top panel (ref. 4) with motor support in correspondence with motor slot on the Venturi. Then fix it to side panels with qty. 4 pop rivets for side and to Venturi with qty. 1 pop rivet.



Place the qty. 2 short threaded bushes (ref. 3) on the top panel by using inserting machine (ref. 2/ Assembling Tools).



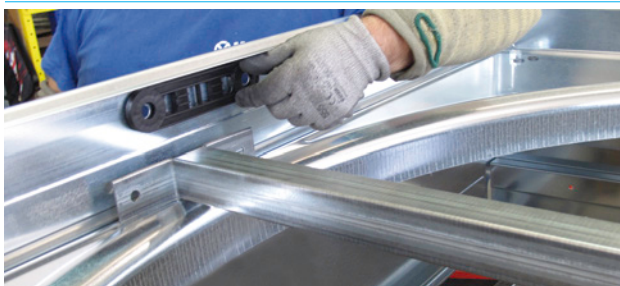
Place long threaded bushes (ref. 42) in correspondence of proper holes around the housing. Qty. 2 long threaded bushes for each panel.
Make sure that Venturi and each panel are joined by the long threaded bushes.



Place the rubber grommet (ref. 43) for electric cable protection on the side panel in correspondence with the motor slot.



The propeller central support (ref. 5) shall be fixed to housing by means of qty. 4 screws (ref. 30), qty. 2 oval plates (ref. 7), qty. 4 toothed washers (ref. 36) and qty. 4 nuts (ref. 29).



Place the oval plates between propeller central support and panels.



Place the oval plate over support frame and then start to screw the nuts.



Tighten the nuts with pneumatic screwdriver (*ref.3/ Assembling tools*) in order to fix the propeller central support to the top and bottom panels.



Insert the electric motor (*ref. 9*) into its slot taking care to fix it over proper track on the top side.



Fix motor slide to top panel by means qty. 2 screws (*ref. 50*) and qty. 2 washers (*ref.15*). Tighten screws by using 13mm spanner (*ref.10/Assembling tools*).

CENTRIFUGAL SYSTEM AND PULLEY TO PROPELLER ASSEMBLING



Place the pulley on the hub (*ref. 30*) and insert the screws (*ref. 31*).



Turn the pulley plus the hub upside down, insert the nuts with flange (*ref. 32*) over the screws.



Tighten the nuts by using pneumatic screwdriver (ref.3/ Assembling tools).



Place the waterproof distance piece (ref. 34) on the axle and then place the axle on a support. Place the V-belt (ref. 6) on the central pulley.



Place the propeller (ref. 28) on the central pulley assembly.



Fix the screws (ref. 11), washers (ref. 10) and nuts (ref. 7) in order to fix the propeller.



Tighten the nuts by using pneumatic screwdriver (ref. 3/Assembling tools).



Place screws (ref. 25) and plain washer (ref. 26) on the centrifugal system (ref. 27) and then place it on the propeller.



Tighten screws, washers and nuts (ref. 7) in order to fix the centrifugal system to the propeller by using pneumatic screwdriver (ref. 3/Assembling tools).



Place the complete assembly you have obtained on the fan, inserting the axle through the central support hole.



Place the nut (ref. 35) on the axle and then tighten it by mean of a 36mm spanner (ref. 8/Assembling tools).



Put cap cover nut (ref. 44) over the nut (only for fan without CE kit).



Place V-belt (ref. 6) on the pulley and then rotate the propeller clock-wise in order to tighten the V-belt on the pulley.

Check tensioning: right tensioning is obtained when maximum deflexion on one side only (half-way from motor and central pulley) is about 15 mm.

SHUTTER BLADES ASSEMBLING



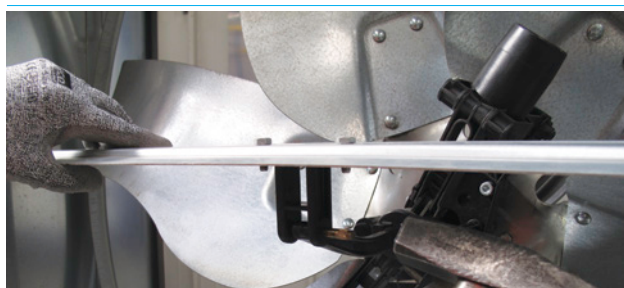
Insert plastic bearings (ref. 17/18) on shutter blades (ref. 22) and plastic bearings with spring (ref. 16/21) on central shutter blade (ref. 23). Both plastic bearings are marked with SX for left side and with DX for right side.



Fix the plastic fork with qty. 2 screws (ref. 14) and qty. 2 nuts (ref. 13) on the central shutter blade. Fit central shutter blade on the central slot on the housing.



Insert knurled axle (ref. 24) by the smooth side on the plastic fork, then take plastic shutter rod on the centrifugal system and fix them together by using a small hammer (ref. 11/Assembling tools).



Insert the spring hooks (ref. 39) in the holes of the side panels (ref. 1).



Insert the free terminal of the spring on the hook.



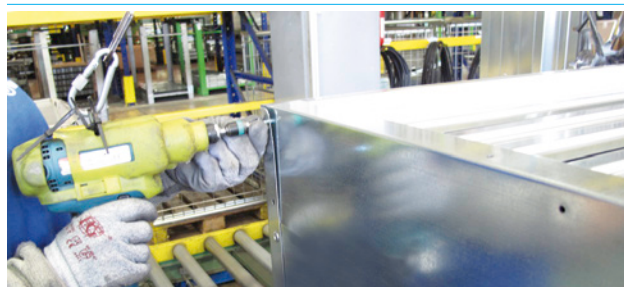
Insert all the shutter blades on the fan housing and then place the fan horizontally.



Place the pvc tie-rod (ref. 20) on plastic bearing pivots.

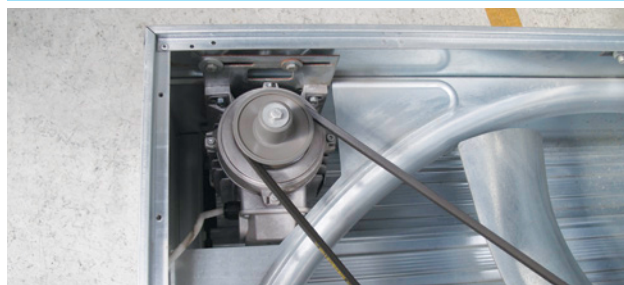


Put cover plate (ref. 2) over the plastic bearing mechanism.



By means of a screwdriver (ref. 13/Assembling tools) insert cover plate over the fan housing. Fix the cover plate on each side by using the screws (ref. 48) with pneumatic screwdriver (ref. 3/Assembling tools).

REAR SAFETY MESHES ASSEMBLING



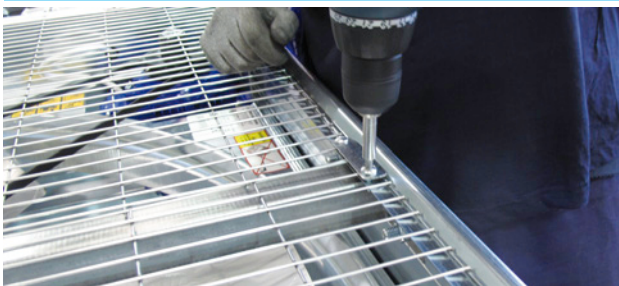
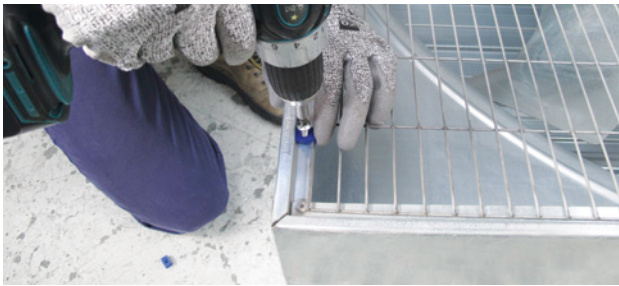
Turn the fan upside down and insert the electric cable into the proper hole placed on the side panel.



Put the qty. 2 safety meshes guard (*ref. 45*) on the inlet side of the fan.



Fix the qty. 6 screws (*ref. 48*) and qty. 6 clips (*ref. 49*) on the fan side (qty. 3 for each side are required).



Fix the screws with the central clips (*ref. 46*) in correspondence of the propeller central support on the top panel and the bottom panel.



Fix the screw with the washer (*ref. 47*) into the central pulley axle. Fix all the components by using the pneumatic screwdriver (*ref. 3/Assembling tools*).

CE KIT ASSEMBLING



Before assembling the safety meshes complete the CE kit. Join the plastic safety protection for central pulley (*ref. 52/A*) with plastic safety protection for the V-belt (*ref. 52/D*).



Place the plastic safety protection for the motor pulley (ref. 52/B) in the motor corner (make sure that the metal square pins are inserted in the proper housing holes). Join the metal safety protection for the motor pulley.



Put the assembled CE plastic kit protection (make sure that the groove of the plastic safety protection for the V-belt are centered along the V-belt). Follow the safety mesh guard assembling procedures and then fix the complete assembled you have obtained by mean of qty.1 screw (ref. 52/E).

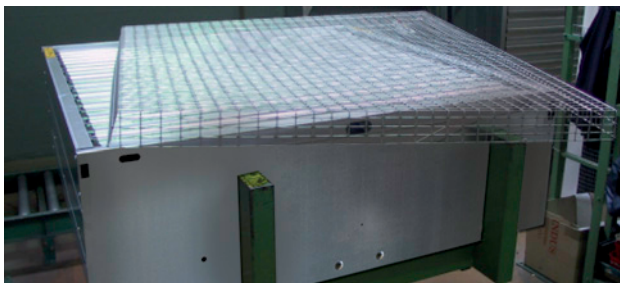


Put the metal clip for safety protection (ref. 52/C) over the 2 safety protection for V-belt.



Fix the metal clip for safety protection with qty. 1 self-tapping screw (ref. 48).

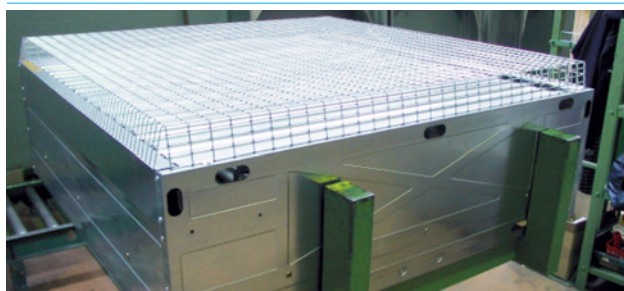
PYRAMIDAL SHAPE MESH ASSEMBLING



Put the pyramidal shape mesh (ref. 19) on the fan as in the picture. The rectangular holes must be positioned horizontally.



Fix it to the bottom and top panels by means of qty. 10 plastic clips and qty. 10 screws (ref. 48). The plastic clips must be fixed in the position as in the picture.



Fix it by using a pneumatic screwdriver (*ref. 3/ Assembling tools*).

Munters EM52 extraction fan is developed and produced by Munters Italy S.p.A., Italy



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