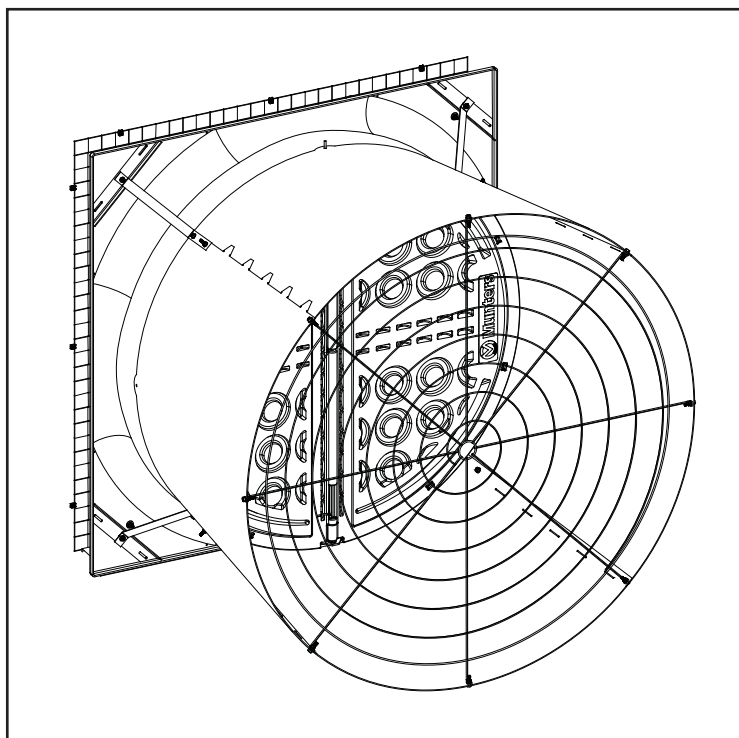


Manual for use and maintenance including assembling instructions

WM54F Wall Mount Fan with Damper Door



+CE Declaration of conformity

WM54 Fiberglass Wall Mount Fan

with Damper Door

Air extraction fan

WM54F Fiberglass Wall Mount Fan with Damper

Manual for use and Maintenance

Thank You:

Thank you for purchasing a Munters WM54F Fiberglass with Damper! Munters equipment is designed to be the highest performing, highest quality equipment you can buy. With the proper installation and maintenance it will provide many years of service.

Please Note:

To achieve maximum performance and insure long life from your Munters product it is essential that it be installed and maintained properly. Please read all instructions carefully before beginning installation.

This manual for use and maintenance is an integral part of the apparatus together with the attached technical documentation and has been produced with reference to Directive 2006/42/EC, paragraph A, Annex II, and to ErP Directive 2009/125/CE Commission Regulation 327/2011.

This document is destined for the user of the apparatus: it may not be reproduced in whole or in part, committed to computer memory as a file or delivered to third parties without the prior authorisation of the assembler of the system. Munters Italy S.p.A. reserves the right to effect modifications to the apparatus in accordance with technical and legal developments and to make alterations to specifications, quantities, etc., for production or other reasons, subsequent to publication.

Conditions and Limitations:

Products and Systems involved in a warranty claim under the "Warranty Claims and Return Policy" shall have been properly installed, maintained and operated under competent supervision, according to the instructions provided by Munters.

Malfunction or failure resulting from misuse, abuse, negligence, alteration, accident or lack of proper installation or maintenance shall not be considered a defect under the Warranty.

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

CE Declaration

1.

CE Declaration of conformity

(complies with Subparagraph A Annex II Directive 2006/42/EC)

Munters Italy S.p.A.

with registered offices in Strada Piani, 2 - 18027 Chiusavecchia (IM) - Italy
(Company Registration nr. 00081050080)

declares on its own responsibility that the apparatus:

Designation	Fan designed for moving air to control temperature and humidity in livestock.
Model	WM54F
Year of Manufacture	2017

conforms with the essential safety requirements stated by Apparatus Directive 2006/42/EC

and performance requirements comply with the ErP Directive 2009/125/CE,

with particular reference to the following provisions: UNI EN 953:2009, UNI EN ISO 12100:2010,

UNI EN ISO 12499:2009, UNI EN ISO 13857:2008, CEI EN 60204-1:2006 (CEI 44-5)

UNI EN ISO 5801:2009

Chiusavecchia, 5th July 2017



Marco Scomparin
Legal Representative

1.1 Disclaimer

Munters reserves the right to make alternations to specifications, quantities, dimensions etc. for production or other reasons, subsequent to publication. The information contained herein has been prepared by qualified experts within Munters. While we believe the information is accurate and complete, we make no warranty or representation for any particular purposes. The information is offered in good faith and with the understanding that any use of the units or accessories in breach of the directions and warnings in this document is at the sole discretion and risk of the user.

1.2 Introduction

In order to realize the full benefit from this product it is important that it is installed, commissioned and operated correctly. Before installation or using the fan, this manual should be studied carefully. It is also recommended that it is kept safely for future reference. The manual is intended as a reference for installation, commissioning and day-to-day operation of the Munters fans.

1.3 Data for Fan Eco Design Directive

Product information requirements* → (according to ANNEX I-3.2 of regulation)	1	2	3	4	optional	5	6a	6b	6c	7	8
Fan description(*)	Overall efficiency $\eta\%$	Efficiency grade	Measurement category	Efficiency category	Target efficiency grade 2015	VSD must be installed with the fan	Motor power input at optimum energy efficiency [W]	Flow rate at optimum energy efficiency [m ³ /h]	Pressure at optimum energy efficiency [Pa]	RPM at optimum energy efficiency	Speific ratio
WM54F 1.5hp 3ph 50Hz OS	39,3	A	static	44,9	34,4	no	1310	30562	60,71	510	1
WM54F 2hp 3ph 50Hz OS	39,8	A	static	44,4	35,4	no	1852	34755	76,35	566	1

* Fans tested are configured according to COMMISSION REGULATION (EU) No 327/2011 of 30th March 2011 - ANNEX II - 1.5. Efficiency values, according to Commission Regulation (EU) 327/2011, refers to exhaust fans only.

Unpacking the Equipment

2.

2.1 Parts List

Each WM54F Fan Requires:

- 1 - 54" Fiberglass Orifice
- 1 - 54" Propeller
- 1 - Central Support
- 1 - Motor
- 1 - Motor Pulley
- 1 - Drip Shield
- 1 - Main Frame Assembly
- 1 - Plastic Door Assembly
- 4 - Plastic Cone Sections
- 1 - Round safety mesh
- 1 - Flat safety mesh
- 1 - Motor slide
- 1 - Tensioner Bracket
- 4 - Cone Support Brackets
- 4 - Cone/Strut Mounting Bracket
- 1 - V-Belt (A61)
- 1 - Hub with Bearings & Shaft
- 1 - Central pulley
- 1 - Tensioner Pulley
- 1 - Belt Tensioner
- 1 - Motor Stiffener Bracket
- 2 - Tension spring
- 1 - Cable
- Bolts and nuts



WARNING Failure to respect safety or behavioural rules can produce hazardous situations for users as well as damage to the machine and the place where it is installed. The fan must only be used if it is in perfect operating condition, by personnel who are perfectly aware of the safety measures and possible hazards, and in strict compliance with the instructions given in this manual.



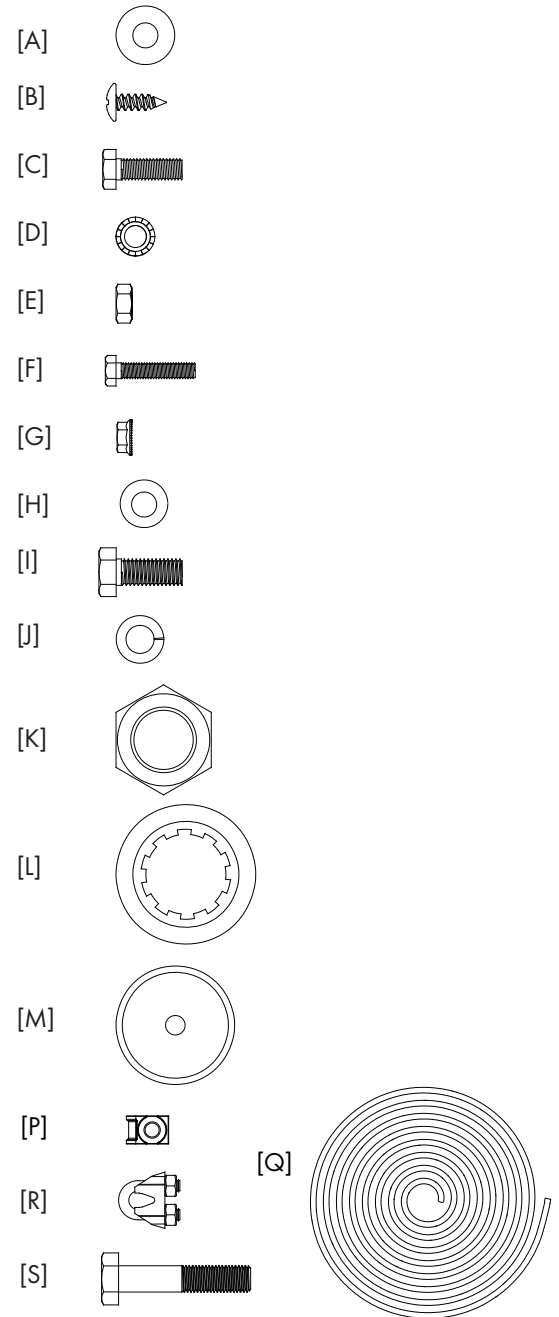
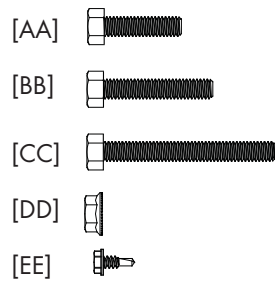
WARNING Operators must be trained to deal with the occurrence of possible faults, malfunctions or dangerous conditions to themselves or others, and in such an event must:

- stop the fan immediately by operating the emergency stop device (mushroom-shaped pushbutton/main switch mounted on the electrical panel);
- not carry out operations which are beyond their duties and/or technical knowledge.

Bolts and nuts for 1 - WM54F Fan Installation

- [A]....12 - Ø8x32 Washer
- [B].... 2 - Ø6.3x19 Self-tapping Screw
- [C].... 4 - M8x25 Hex Screw
- [D].... 4 - Ø8 Ext Toothed Washer
- [E].... 4 - M8 Hex Nut
- [F].... 4 - M6x30 Hex Screw
- [G].... 4 - M6 Hex Nut with Flange
- [H].... 4 - Ø8x24 Washer
- [I].... 1 - M10x25 Hex Bolt
- [J].... 1 - Spring Washer D10
- [K]..... 1 - M25 Hex Nut
- [L].... 1 - Waterproof Distance Piece
- [M].... 1 - Cup Cover Nut
- [P]....12 - Plastic Clip
- [Q]....1 - Cable
- [R].... 3 - Cable Clamp
- [S].... 1 - M10x50 Hex Bolt

- [AA]....18 - Ø8x30 Hex Screw
- [BB]..... 4 - Ø8x45 Hex Screw
- [CC]..... 7 - Ø8x65 Hex Screw
- [DD]....37 - M8 Hex Nut with Flange
- [EE].... 4 - Ø4.8x13 Self-tapping Screw



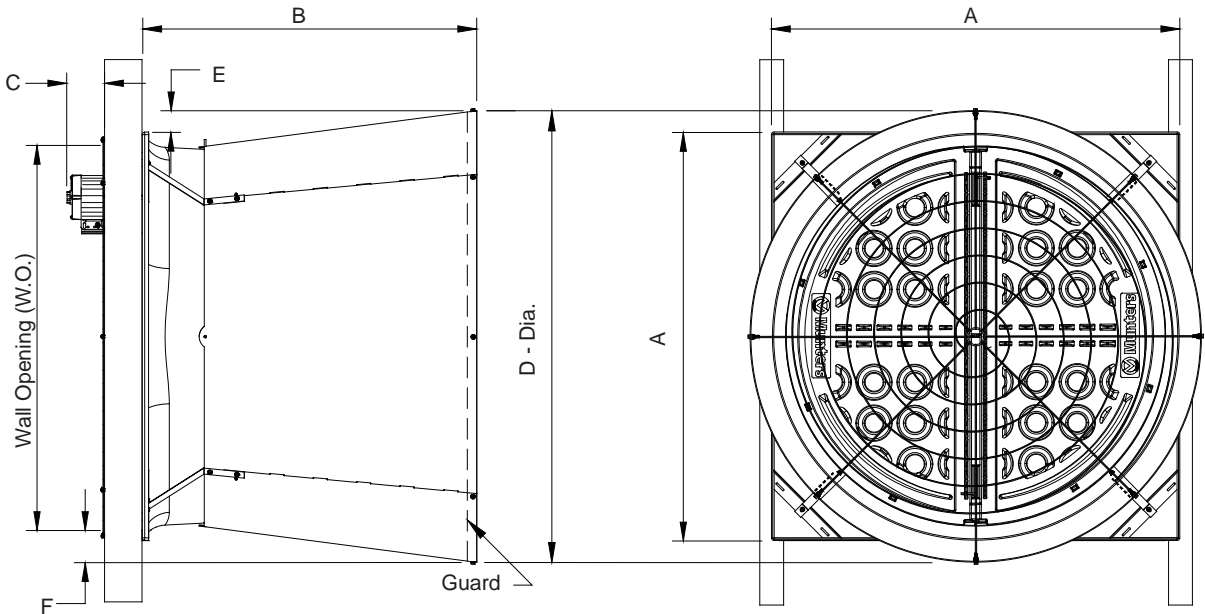
WARNING Unauthorized tampering/replacement of one or more parts of the machine, or the use of accessories, tools or materials other than those recommended by the manufacturer, are prohibited and release the manufacturer from all liability.

2.2 FAN DIMENSIONS

Fan Specifications: 50Hz shown

Voltage: 230/400 VAC

Phase: 3



Dimensions:

Size	A	B	C	D - Dia.	E	F	Wall Openings
54"	1524 x 1524	1245	185 max	1684	81	121	1435 x 1435

2.3 TOOLS REQUIRED FOR INSTALLATION

Pneumatic screwdriver

8mm Spanner

17mm Spanner

10mm Long Spanner

13mm Long Spanner

36mm Spanner

Screw Head Adaptor

Small Hammer

10mm Combination Spanner

Screwdriver

17mm Combination Spanner



WARNING The user and the employer must comply with current national law in terms of protection against daily personal exposure of operators to noise, by providing the use of personal protective equipment (earmuffs, earplugs, etc.) if necessary, depending on the overall level of sound pressure in the installation area, and the daily personal exposure of the employees. In areas where the overall sound level reaches excessive values, personal protective equipment must be used.

Installation Instructions

3.

3.1 INSTALL

Step 1

Construct framed opening to correct size according to the Wall Opening listed in chart A below. See Figure 1. When installing exterior sheet metal before fan, leave 50mm of the framing exposed on all sides so the orifice can mount flush to the frame.

Chart A

Fan Dia.	Wall Opening (W. x H.)	Minimum Spacing 'Z'	Center To Center Dimension
54"	1435 x 1435	305 recommended; 90 minimum	1524 Minimum

Note:

Damper doors should be carefully set aside out of direct sunlight until needed.

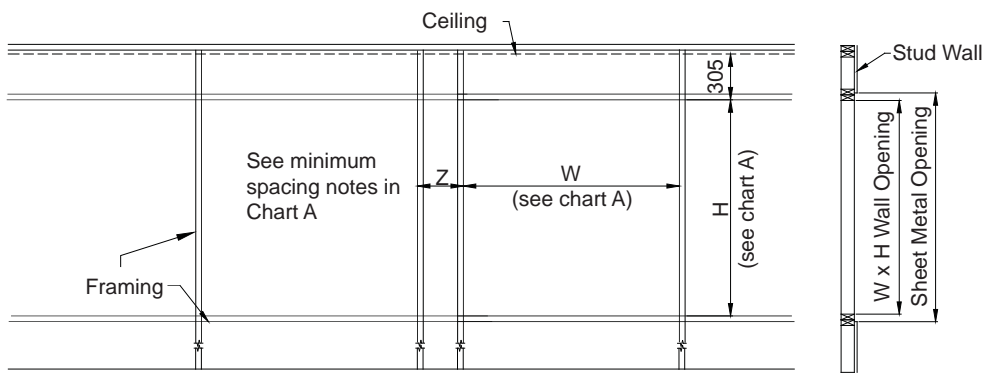
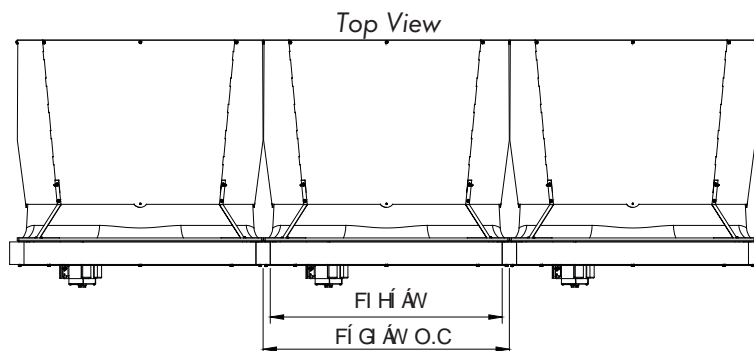


Figure 1 Frame Construction



WARNING In case of a sandwich panel installation, the fans cannot be fixed directly on the "foam" sidewall, but a proper metal supporting structure shall be used for steadily holding the fans in place as shown in Figure 1.



WARNING There must be no obstacle neither in front or behind the fans. The outgoing airflow must be kept free at least of a length of 3-times fan diameter and the ingoing airflow must be kept free at least in a radius of 1.5 m distance in front of the fan.

Step 2

Place the Central Support on saw horses or a flat work surface. The large center hole should be pointing horizontally. Attach the Motor Slide and the Tensioner Bracket to the Central Support using (3) Long Bolts [CC], (4) Washers [A] and (3) Nuts [DD]. The Motor Slide and the Tensioner Bracket share the middle hole. See Figure 2A.

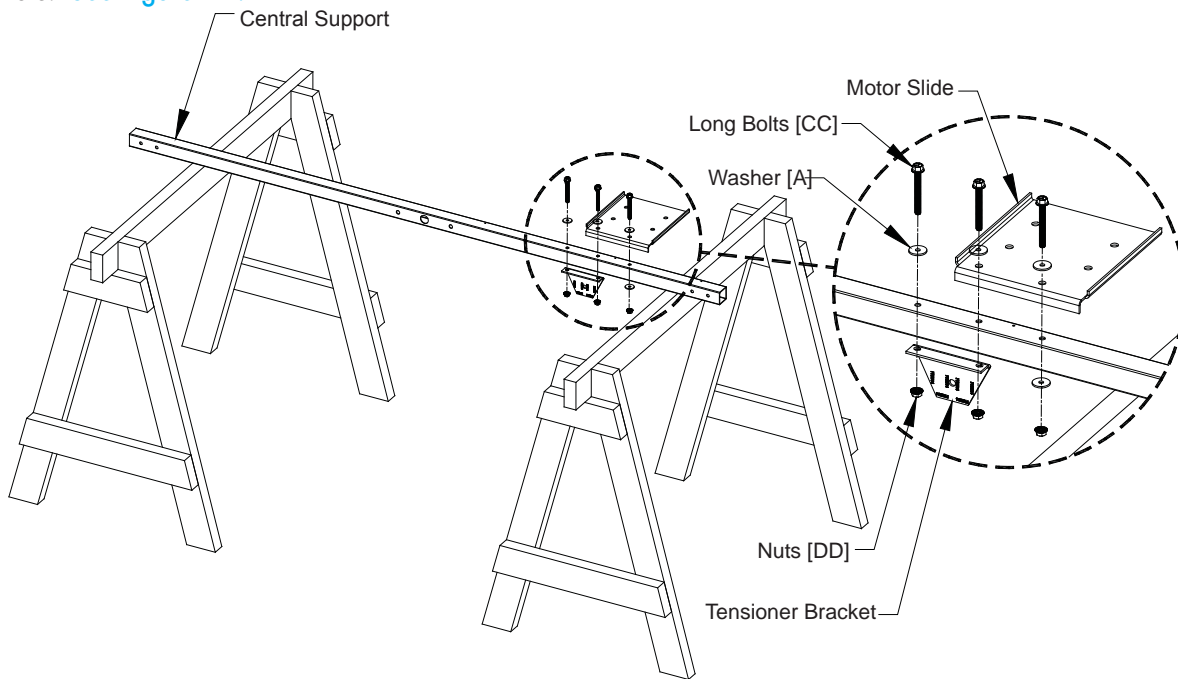


Figure 2A

Step 2B

Attach the 3" Tensioner Pulley to the Belt Tensioner using Bolt [S]. Then attach the Belt Tensioner assembly to the Tensioner Bracket using Bolt [I] and Washer [J]. The Belt Tensioner has to be perpendicular to the Central Support. Hold tensioner at this setting and tighten the 10mm bolt to 50 Nm. See Figure 2B.

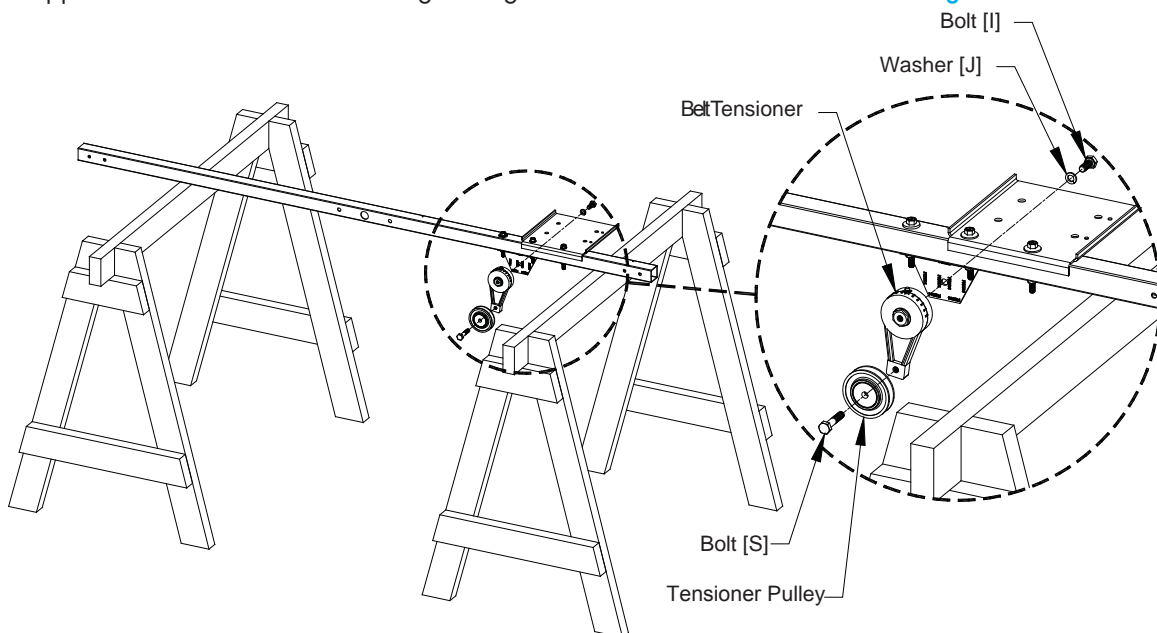


Figure 2B

Step 3

Attach Central Pulley to Hub using (4) Bolts [F] and Nuts [G] and tighten to 14 Nm.. See Figure 3.

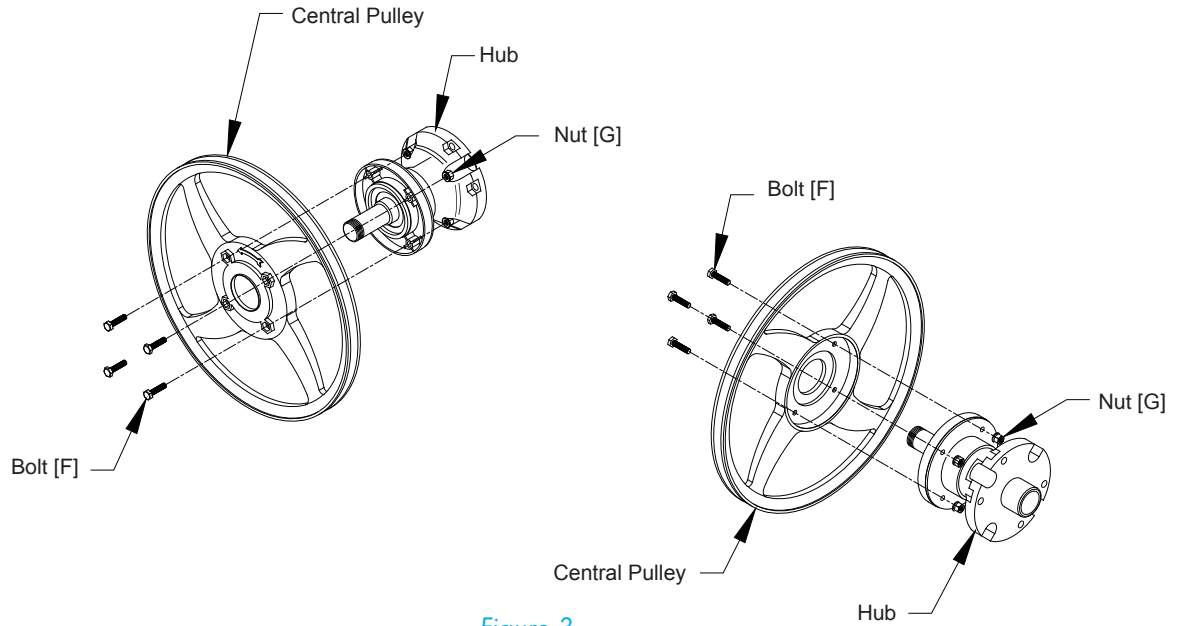


Figure 3

Step 4

Rotate the Central Support on the saw horses so the Motor Slide is pointing up. Then slide the Waterproof Distance Piece [M] over the hub shaft as shown in Figure 4. Attached the Pulley/Hub Assembly to the Central Support using (1) Hex Nut [K] and tighten to 60 Nm. See Figure 4. Then place the Cup Cover Nut [M] over the Hex Nut and fasten in place with (1) Tapping Screw [B]. See Figure 4. Set aside the Support Assembly for use in a later step.

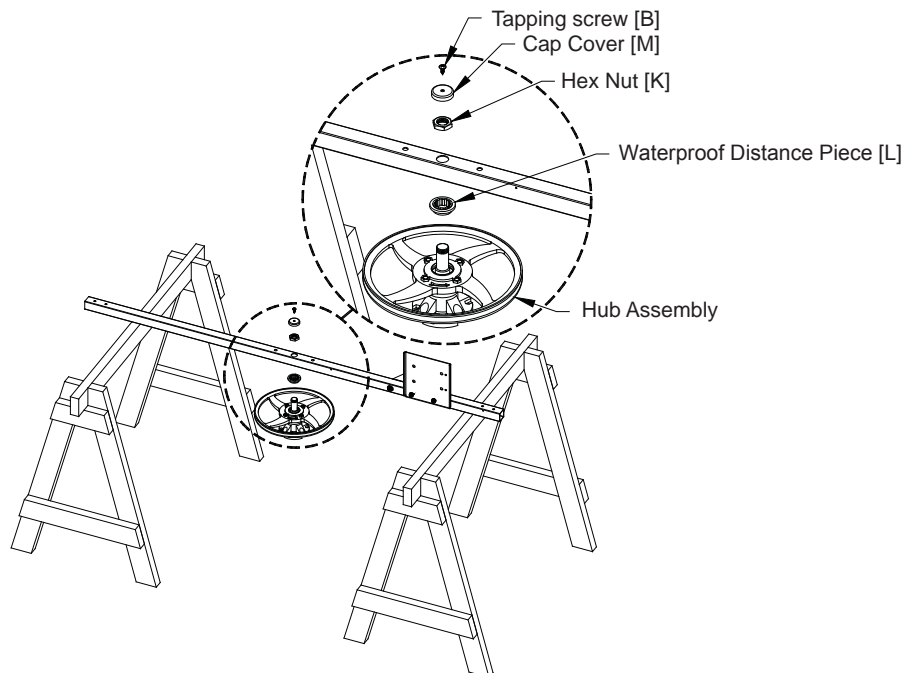


Figure 4

Step 5

Place Fiberglass Orifice on saw horses with the round orifice pointing up and place (1) Cone/Strut Mounting Bracket in each corner of the Fiberglass Orifice. See Figure 5.

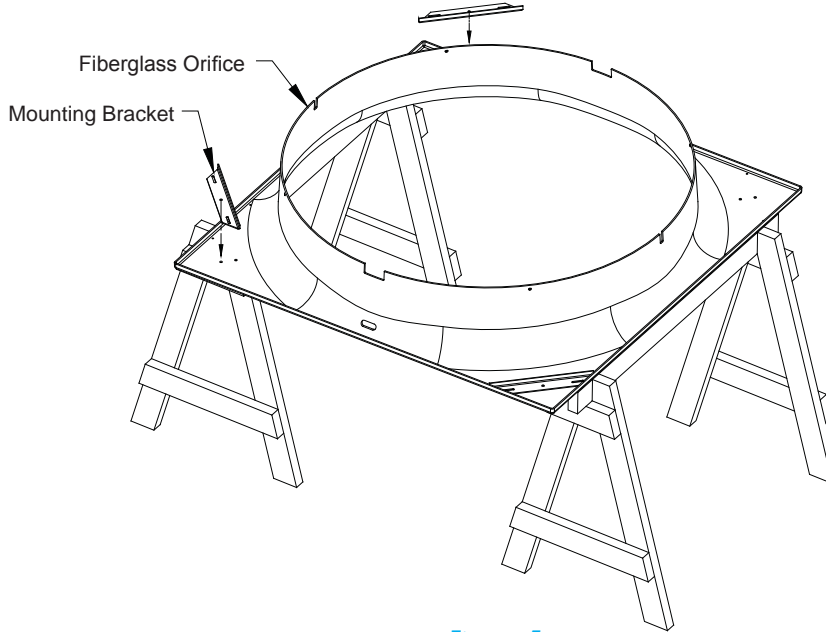


Figure 5

Step 6

The corners of the Fiberglass Orifice with 2 holes are the corners where the Support Assembly attaches. Attach the Support Assembly using (4) Long Bolts [CC], (6) Washers [A] and (4) Nuts [DD] and in the opposite corners attach the Cone/Strut Mounting Bracket to the orifice using Short Bolt [AA], Washer [A] and Nut [DD]. See Figure 6

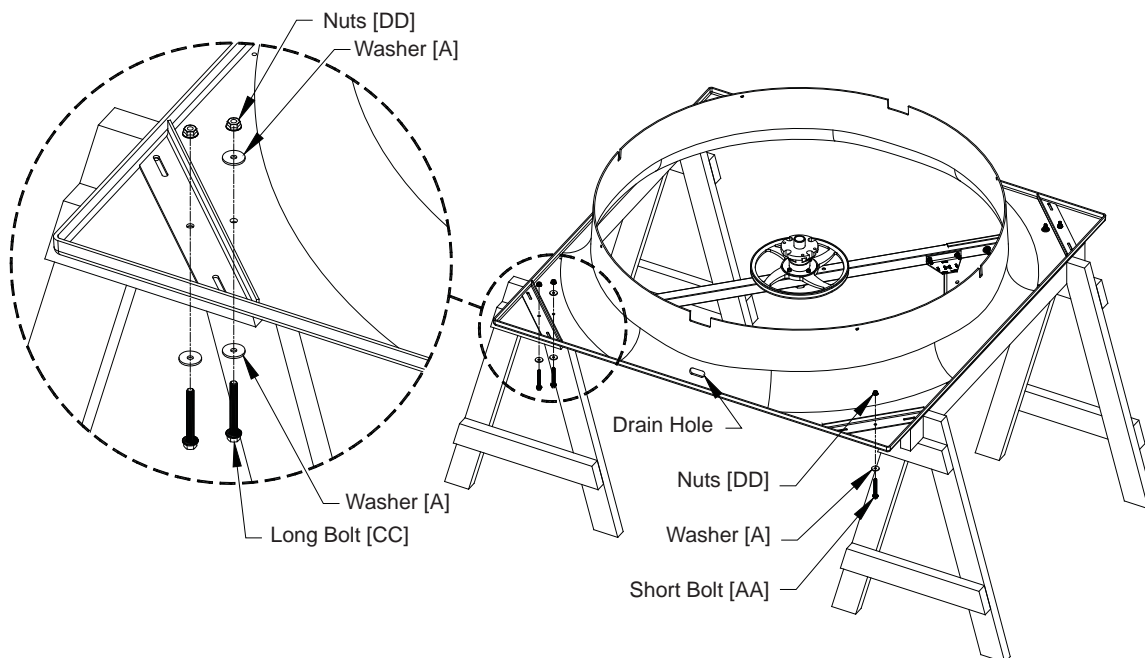


Figure 6

Step 7

Attach Propeller to Hub Assembly using (4) Bolts [C], Washers [D] and Nuts [E] and tighten to 22 Nm. See Figure 7.

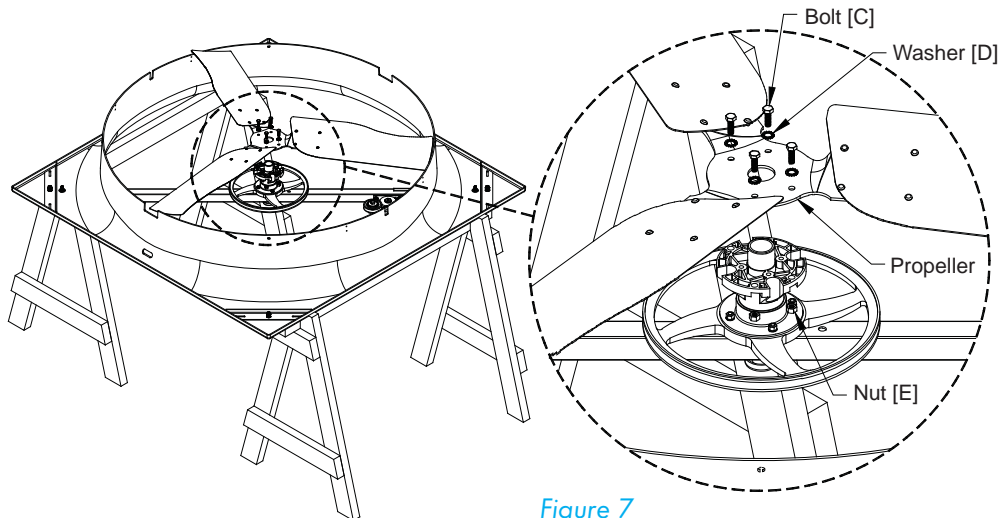


Figure 7

3.2 Damper Door Installation**Step 8**

Slide the Main Frame Assembly onto the Fiberglass Orifice with the pin on the Main Frame opposite the drain hole. See Figure 8A. Line up the 4 holes in the Main Frame with the holes in the orifice and fasten using (4) Self-tapping Screws [EE] paying attention to stay at least 15 mm from the Orifice edge to avoid damaging it. See Figure 8B.

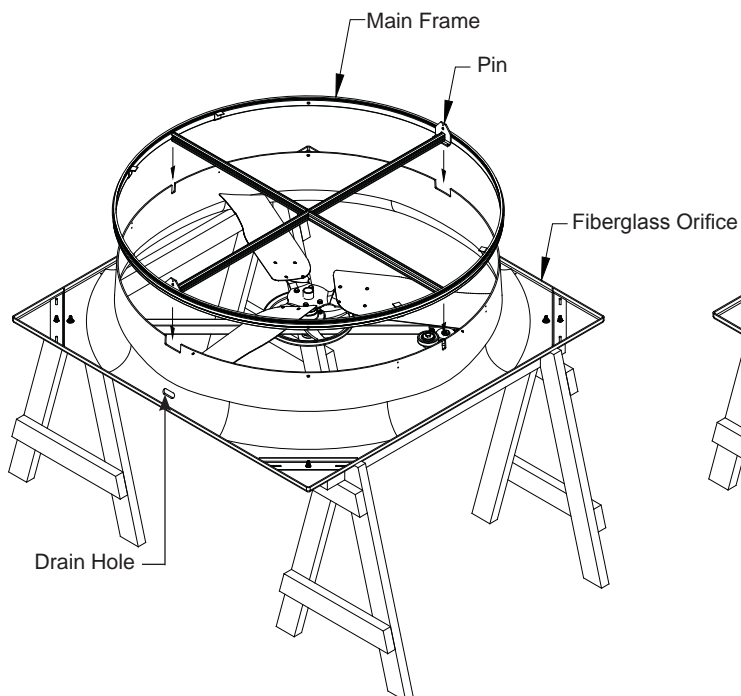


Figure 8A

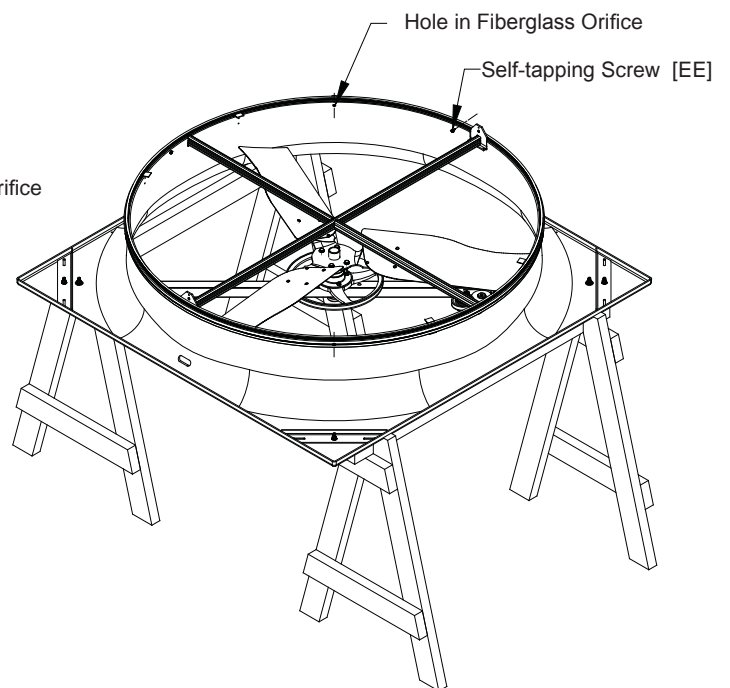


Figure 8B

Step 9

Attach Drip Shield to bottom of framed opening using (3) proper Screws (Not Provided). See Figure 9A and 9B. If a 100mm wall is used a support board must be installed as shown in Figure 9B. Be sure not to deform Drip Shield when installing screws.

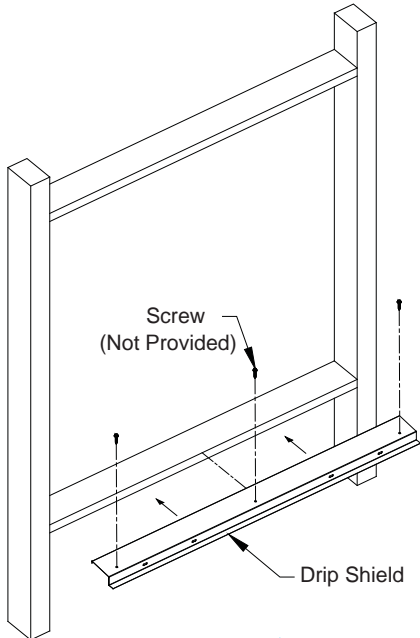


Figure 9A

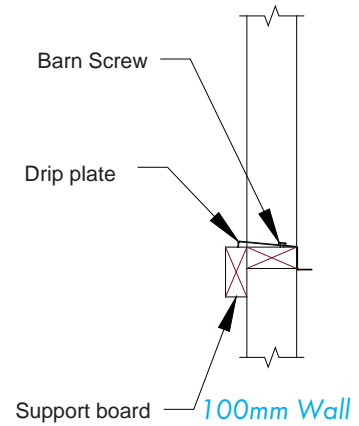
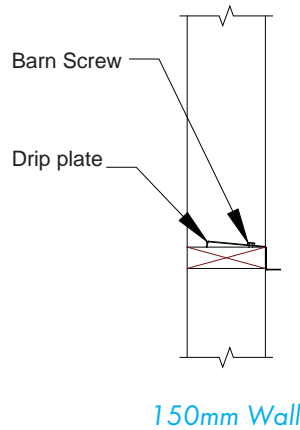


Figure 9B

Step 10

Locate the Drain hole in the Fiberglass Orifice. This is the bottom of the Orifice. Set the bottom edge of the panel on the Drip Shield ledge and center the panel on the opening. Then secure the Orifice to the wall using (16) proper Screws (Not Provided). See Figure 10A and 10B.

NOTE: the proper type of fixing screw has to be selected depending on the material of the wall of the installation.

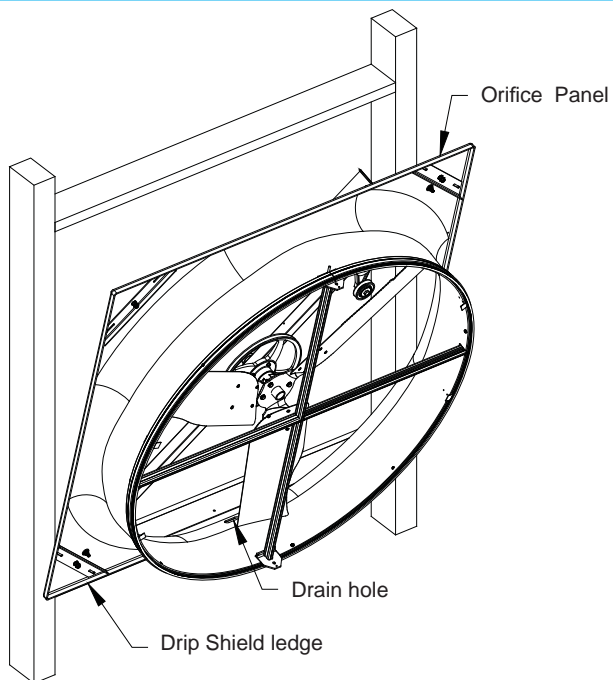


Figure 10A

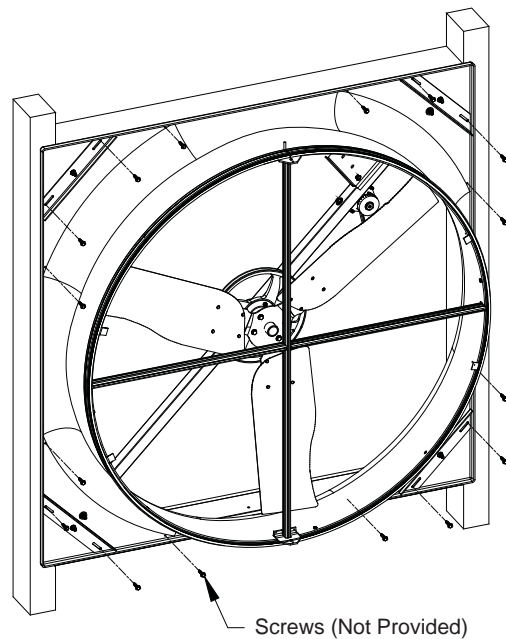


Figure 10B

Step 11A

Carefully remove folded door assembly from box. Open the doors enough to reach the latch pin and pull it down until the end of the latch pin is flush with the top of the doors. Make sure the Long Hinge Pin does not fall out. [See Figure 11A](#)

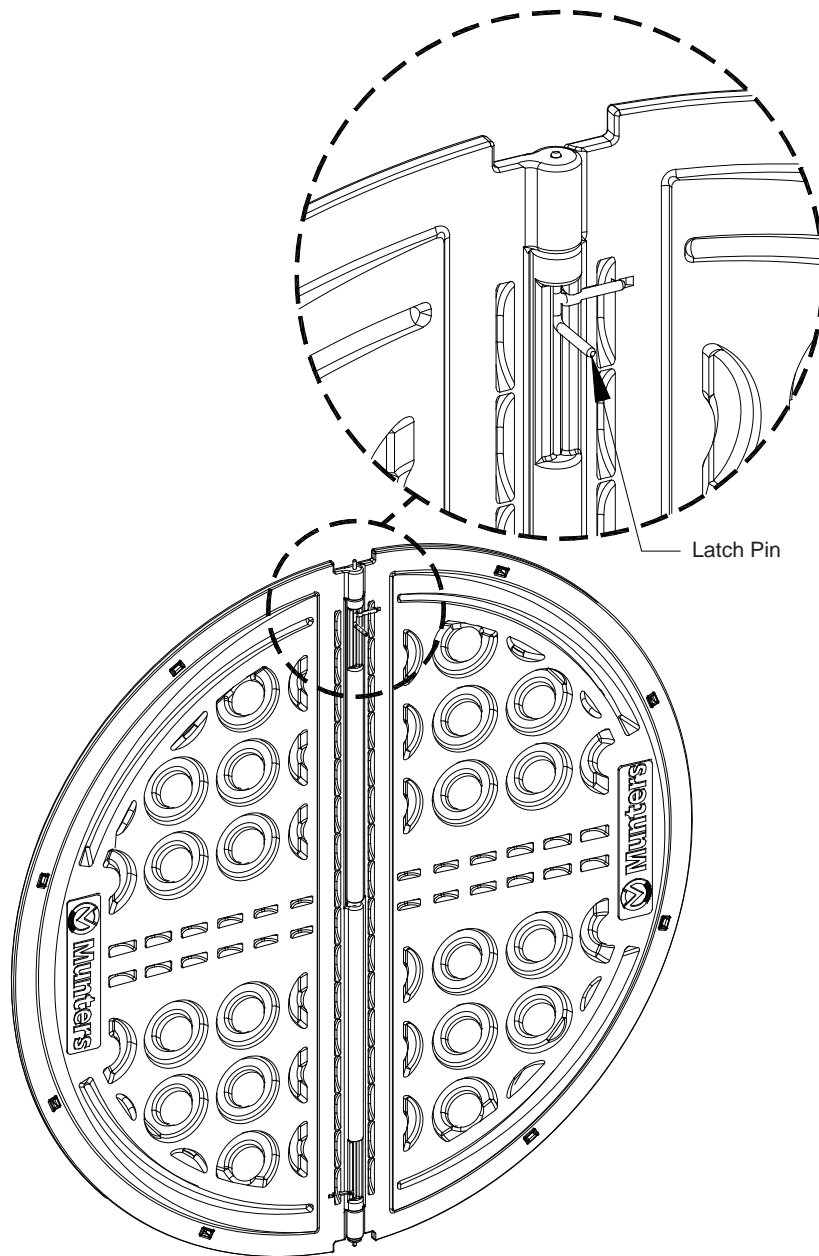
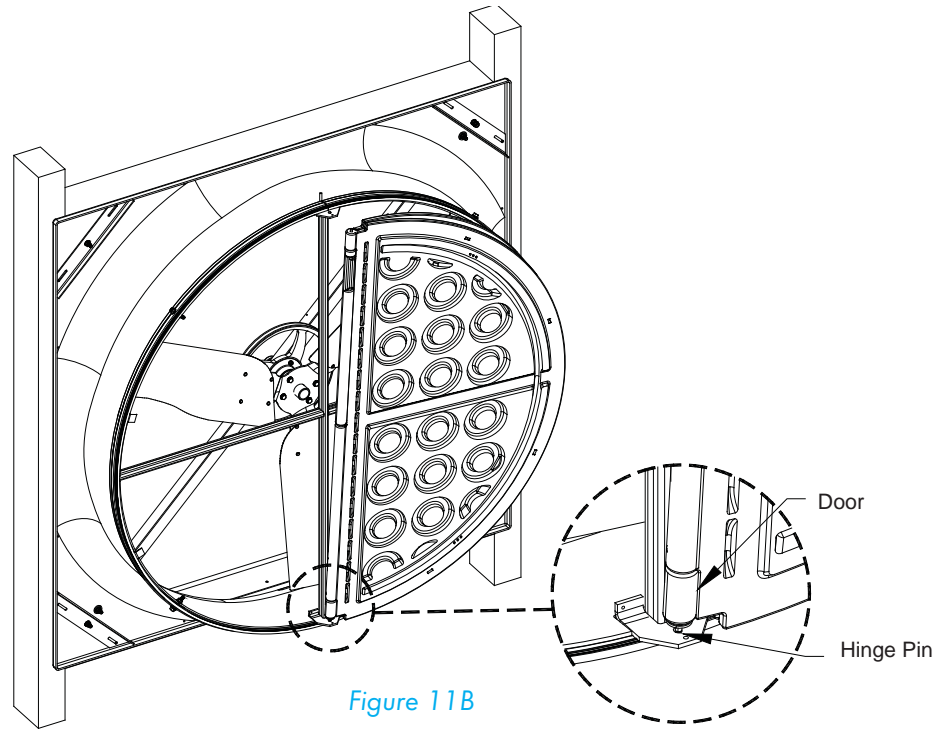


Figure 11A

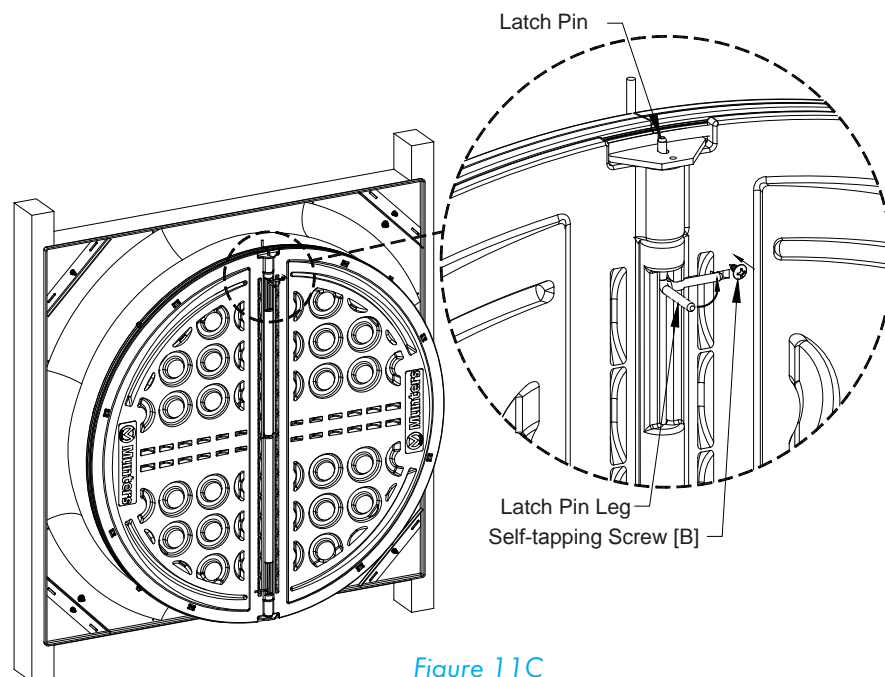
Step 11B

Being careful not to let pin fall out, set Doors into Main Frame with the Hinge Pin in the hole at the bottom plate of the Main Frame and push the top of the Doors into place. See Figure 11B.



Step 11C

Separate the doors and push them into the closed position. Now push Latch Pin up into place, then turn the short leg of the Latch Pin into place against the door and secure in place using Self-tapping screw [B]. Latch Pin should extend up through the upper plate in the Main Frame. See Figure 11C.



Step 12A

Find the Cable [Q], insert it into the small hole in the upper plate of the Main Frame and pull it through until the ferrule stops at the plate. See Figure 12A.

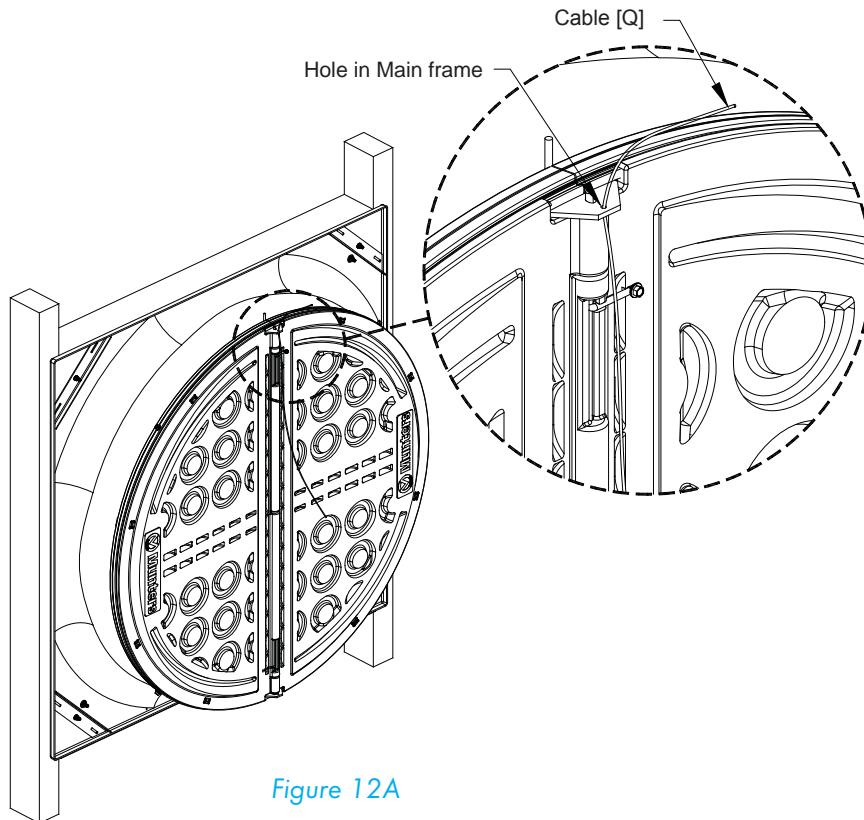


Figure 12A

Step 12B

On the room side of each door drill a 3mm dia. Hole in each door through the center of the middle dimple shown. See Figure 12B.

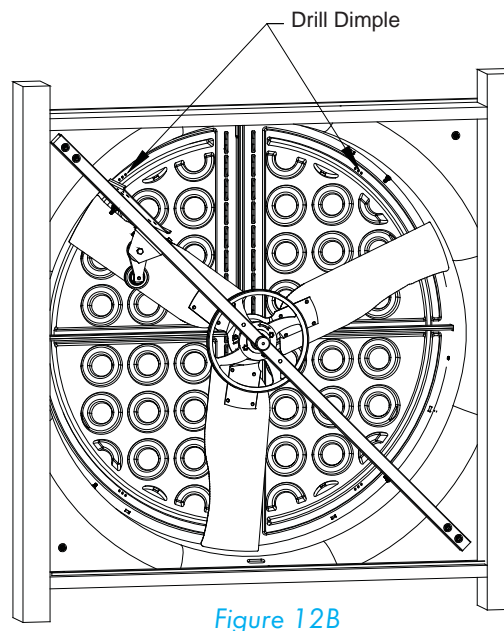


Figure 12B

Step 12C

From the inside attach each of the Tension Springs to the hole in the upper plate of the Main Frame using the end of the spring with the loop, then stretch the spring and insert the other end of the spring into the hole drilled in the door in the previous step. See Figure 12C

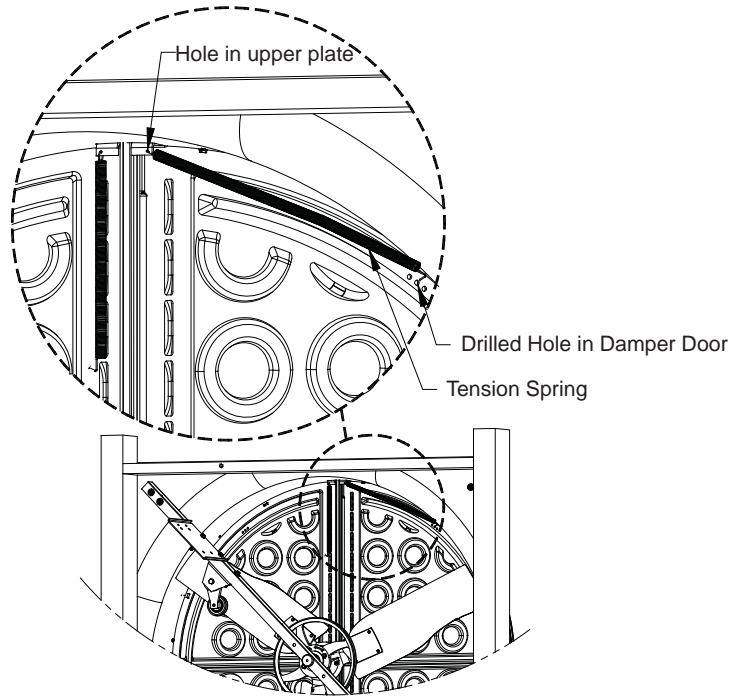


Figure 12C

3.3 Cone Installation

Step 13

Place all 4 cone sections on a flat surface with the tabs from one facing the slots of the next. See Figure 13A. Curl up the tab end of the first cone section and insert the tabs up into the slots in the next cone section, a mallet may be needed to seat the slots over the tabs completely. See Figure 13B. Repeat this step until all 4 cone sections are connected and laying flat

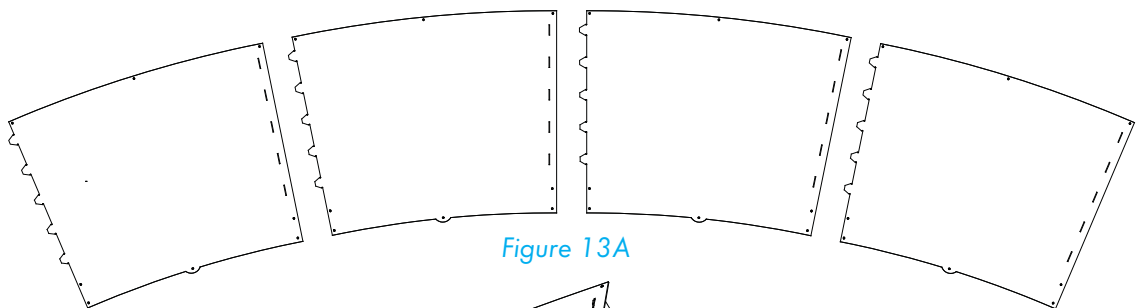


Figure 13A

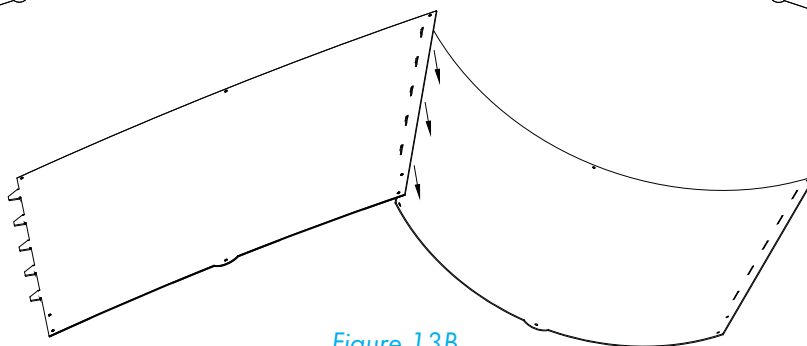


Figure 13B

Step 14A

Fasten each of the joints in the single outer hole using (1) Short Bolt [AA], Washer [A] and Nut [DD], with the nut on the side with the tabs. At the inner pair of holes of each joint attach (1) Cone Support Bracket to the inner hole using (1) Bolt [AA], Washer [A] and Nut [DD] with the bolt head on the side with the tabs. See Figure 14A.

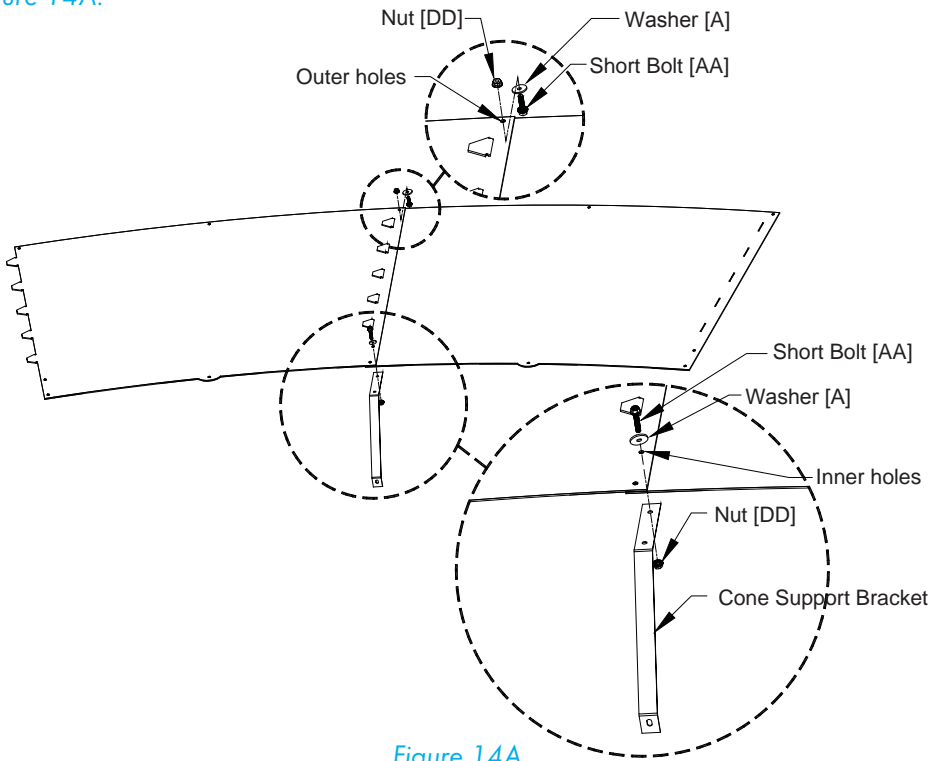


Figure 14A

Step 14B

Stand the cone sections on end and curl ends around to form cone with the Cone Support Bracket on the outside and the tabs on the inside. Then insert the remaining tabs into slots so the tabs are inside the cone and fasten final joint using (1) Short Bolt [AA], Washer [A] and Nut [DD], with the nut on the inside of the cone. At the inner pair of holes attach (1) Cone Bracket to the inner hole using (1) Short Bolt [AA], Washer [A] and Nut [DD] with the bolt head on the outside of the cone. See Figure 14B.

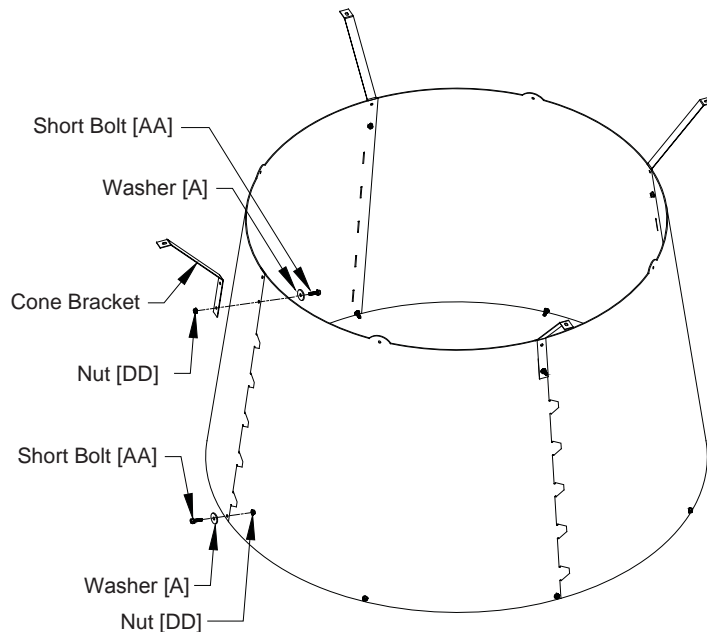


Figure 14B

Step 15A

Install cone onto fan by putting the top of the cone over the top of the fan. The hole in the tab of the upper cone section should slide down over the pin in the Main Frame assembly, then allow the rest of the cone to slide over the rest of the orifice panel making sure the cone brackets remain on the outside of the cone. See Figure 15A.

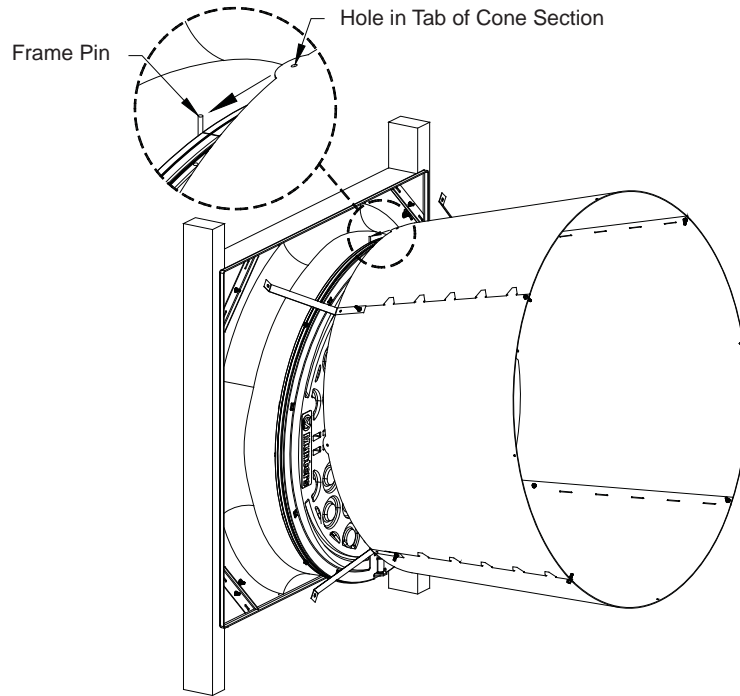


Figure 15A

Step 15B

Place the end of the Cone Brackets with the single hole over the bolt holding the Cone/Strut Mounting Bracket to the orifice and secure with Nut [DD]. See Figure 15B. Secure the Cone to the Fan installing Medium Bolt [BB] and Washer [A] through the remaining hole in the Cone Brackets and fastening with Nut [DD]. A long screwdriver may be needed to help align the holes through the Cone Bracket, Cone, Damper Frame and Orifice. See Figure 15B..

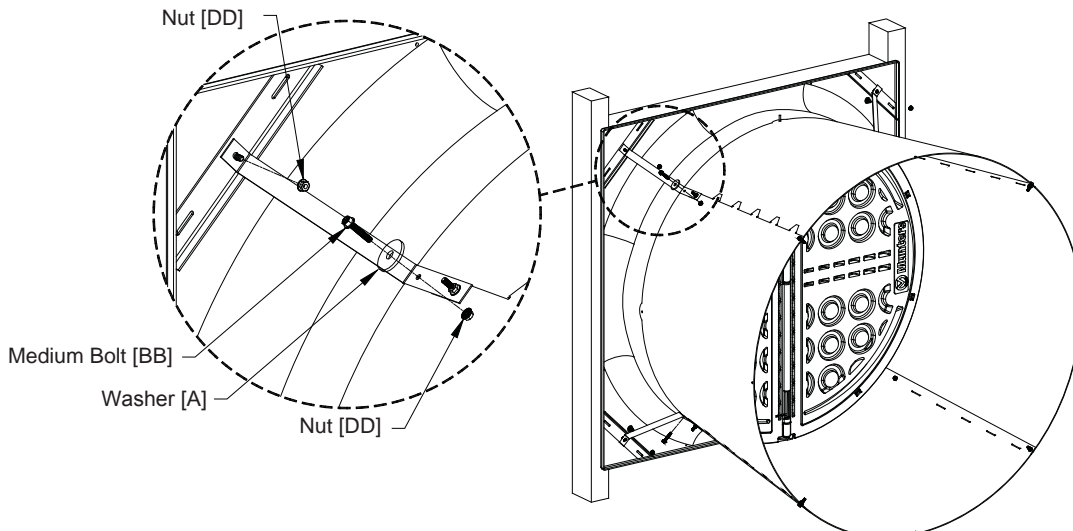


Figure 15B

Step 16

Insert guard into cone with the eyelets facing you. Install eyelets over bolts already installed in cone and fasten with Nut [DD] and then secure remaining eyelets using Short Bolt [AA], Washer [A] and Nut [DD]. See [Figure 16](#).

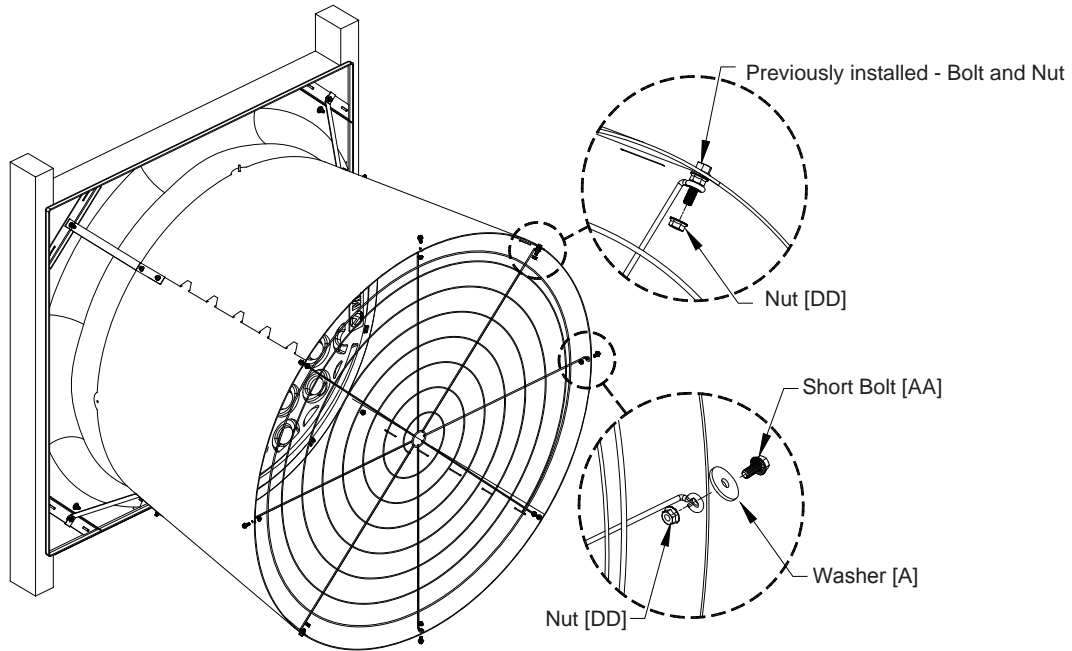


Figure 16

Step 17

Loop Cable [Q] that was installed in a previous step, around the lower, middle joint in guard and fasten to itself with Cable Clamp [R]. Make sure cable is pulled snug. See [Figure 17](#).

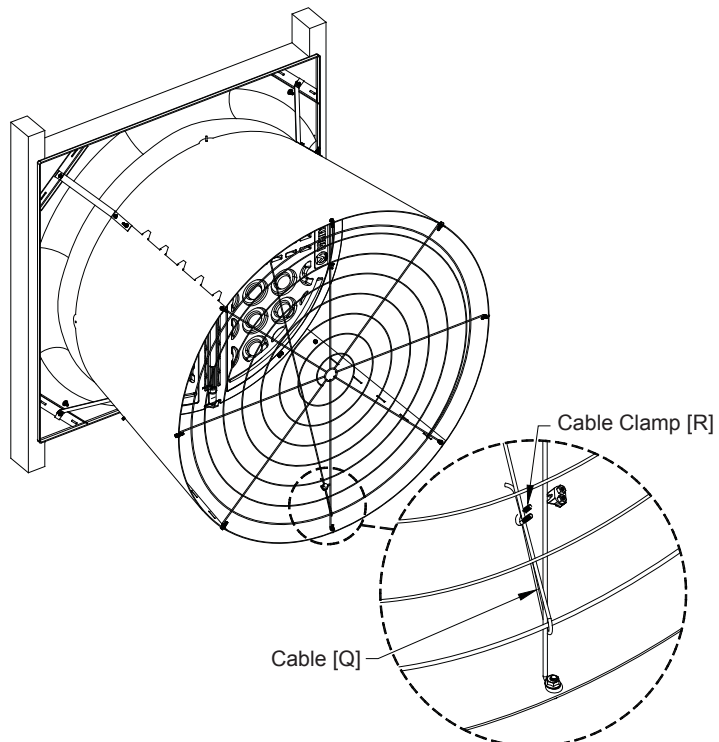


Figure 17

Step 18

If Fans are to be installed 1524mm O.C., cut the 3 o'clock and 9 o'clock guard wire in the position shown and push the side of the cone in as far as possible and fasten the cut guard wire to the attached guard wire using Clamp [R]. See Figure 18.

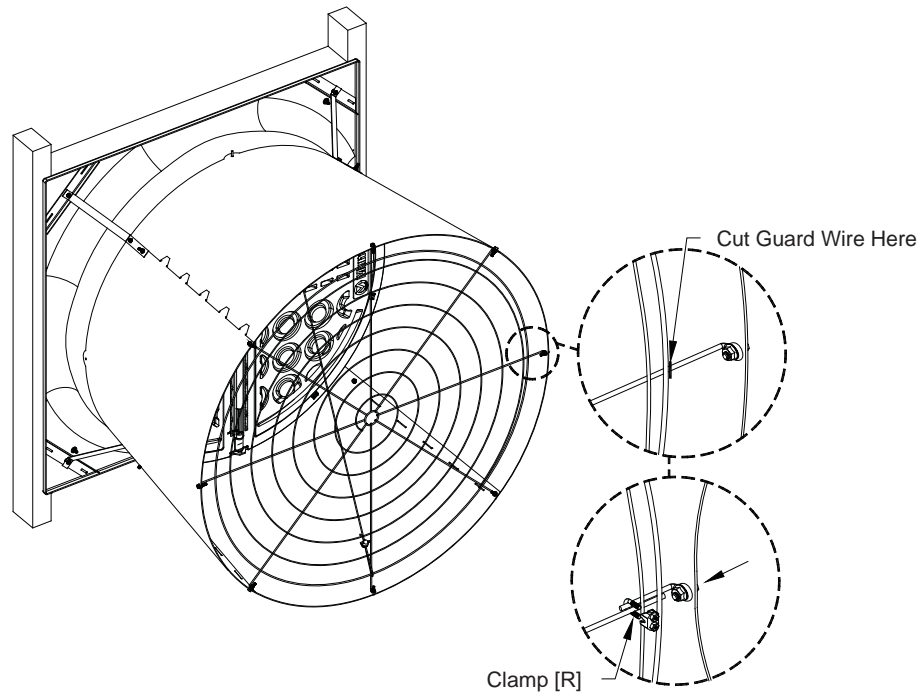


Figure 18

3.4 Motor Installation

Step 19

The Motor Pulley is already assembled on the Motor by means of a Screw M8x20 and a Washer Ø8x32. See Figure 19.

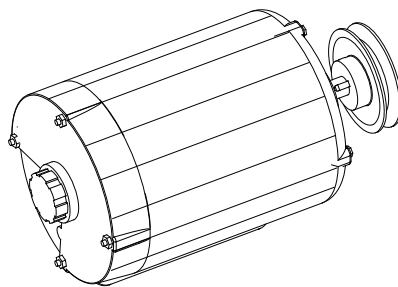


Figure 19

Step 20

Set the Motor on the Motor Slide. See Figure 20

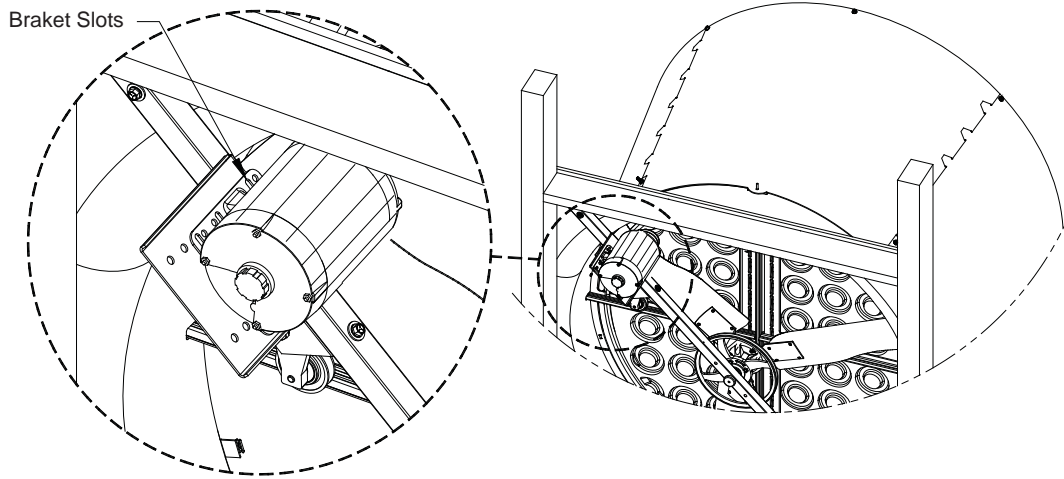


Figure 20

Step 21A

Secure Motor to Motor Slide and Motor Bracket Stiffener using (4) Bolts [AA], Washers [H] and Nuts [DD]. The rear upper bolt is where the motor bracket stiffener is attached. See Figure 21A.

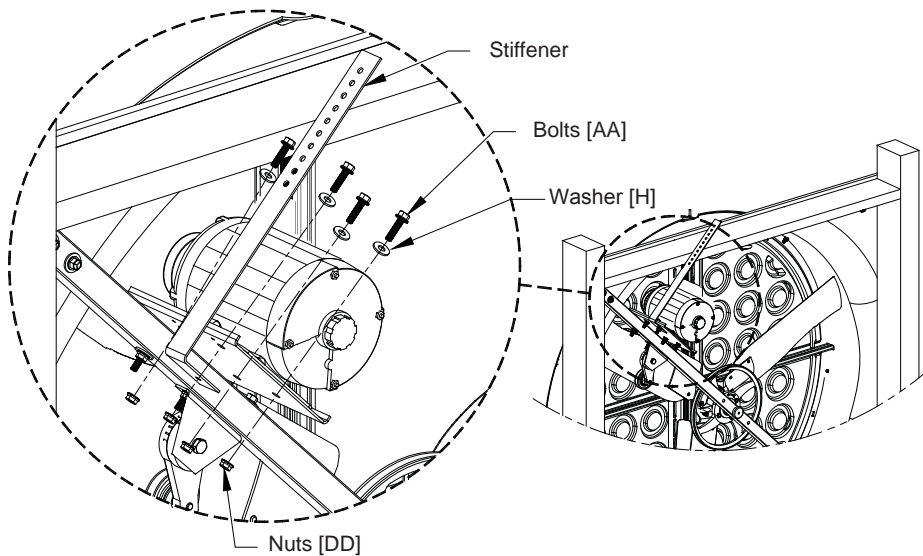


Figure 21A

Step 21B

Using channel locks and/or a hammer twist the motor bracket stiffener so that the holes in the bracket lay flat against the framing. Then attach bracket to framing using (1) proper Screw (Not Provided). See Figure 21B.

NOTE: the proper type of fixing screw has to be selected depending on the material of the wall of the installation.

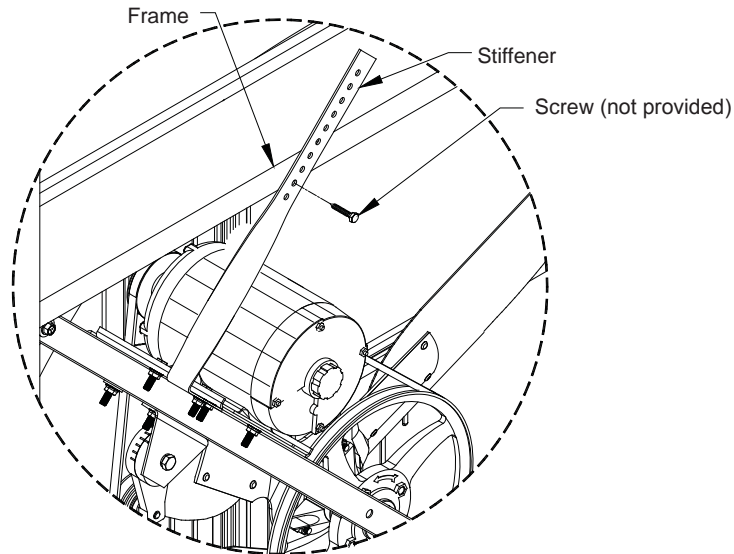


Figure 21B

Step 22

Use a straight edge or level to check the alignment of the Central Pulley, Tensioner Pulley and the Motor Pulley. See Figure 22.

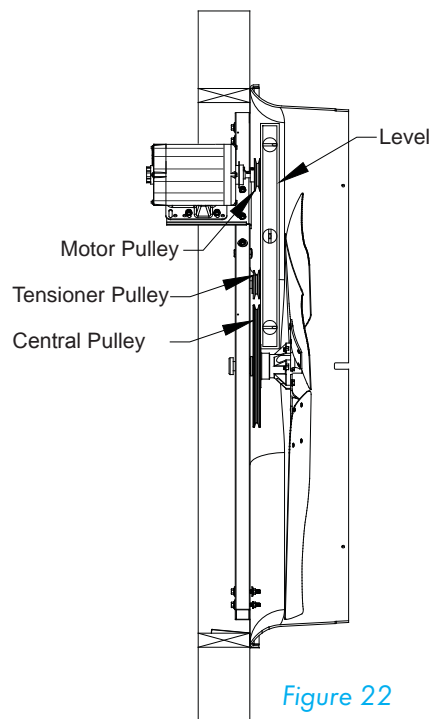


Figure 22

Step 23

Slide V-belt over Propeller and install by wrapping it around the 2 smaller pulleys and starting it over the larger pulley, continue rolling it onto the larger pulley until it fits onto pulley. See [Figure 23A](#).

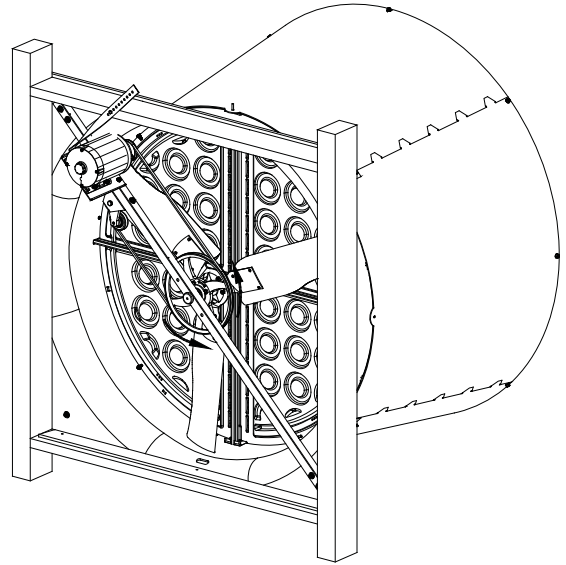


Figure 23

Step 24A

Take the flat mesh. See [Figure 24A](#).

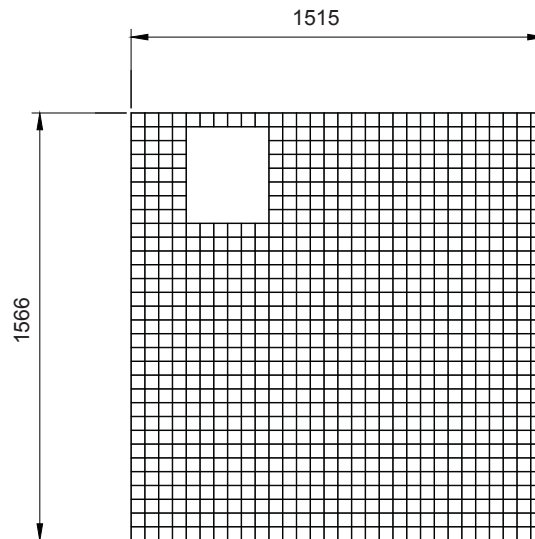


Figure 24A

Step 24B

Place the mesh against the framing and fasten it in place using (12) Plastic clips [P] and proper Screws (Not Provided).
See Figure 24B.

NOTE: the proper type of fixing screw has to be selected depending on the material of the wall of the installation.

NOTE: The flat mesh can be installed in case of a thickness wall $\geq 120\text{mm}$. For lower thicknesses, if the fan is at a height of less than 2,7m from the ground, a dedicated mesh must be ordered separately.

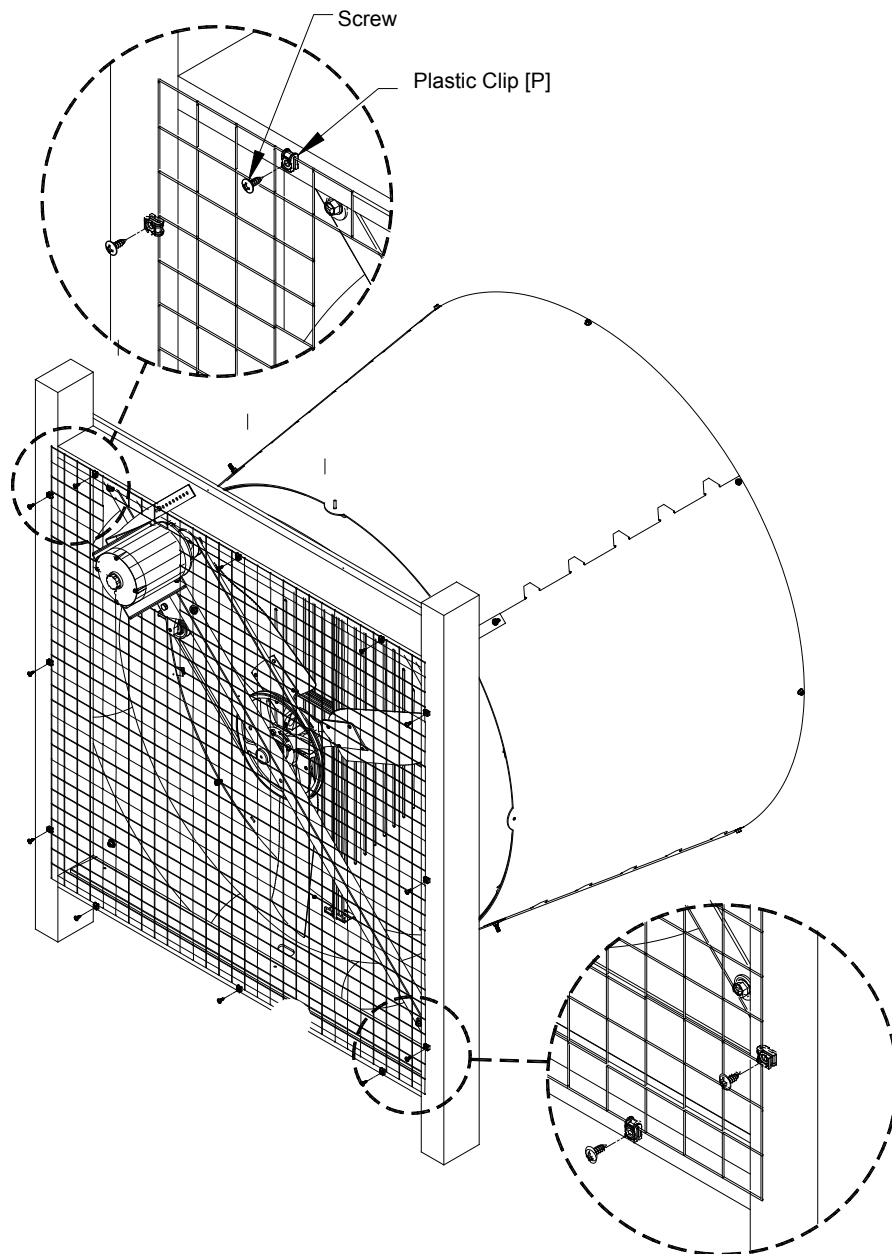


Figure 24B

Electrical Wiring

4.

All wiring should be installed in accordance with all national and local electrical codes. Fans used to ventilate livestock buildings or other rooms where continuous air movement is essential should be connected to individual electrical circuits, with a minimum of two circuits per room. For electrical connection requirements, refer to diagram on motor nameplate and to information enclosed with the Munters environmental control to be used.

Three Phase Fans: motor overload protection should be provided for each fan. A three-poles safety switch or slow blow motor fuses must be used. See Figure 25.

If a frequency drive (inverter) is used, confirm that motors are rated for inverter duty at the voltage used. The installation of line filters is recommended to reduce voltage spikes and harmonic distortion. Supplemental motor overload protection is also recommended.

NOTE: A safety cut-off switch should be located adjacent to each fan.

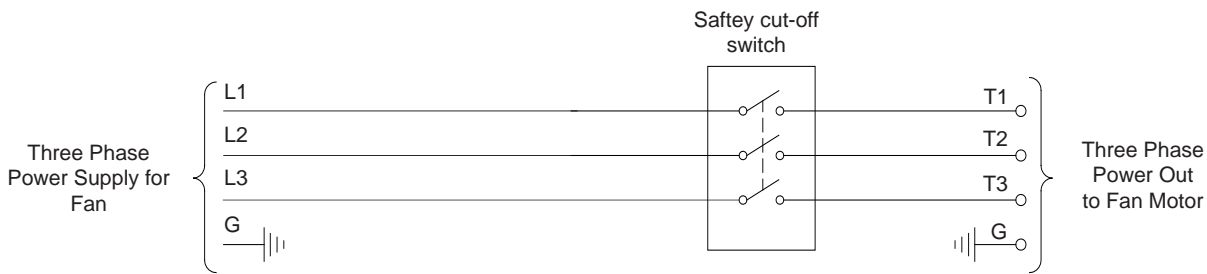


Figure 25
Three Phase - Motor Overload Protection with Disconnect

KEY:
L1=Line 1
L2=Line 2
L3=Line 3
G=Ground

4.1 Recommended Wiring

Step 1

As the power cable exits the back of the motor form a drip loop and then run cable to power source. See *Figure 26A and 26B.*

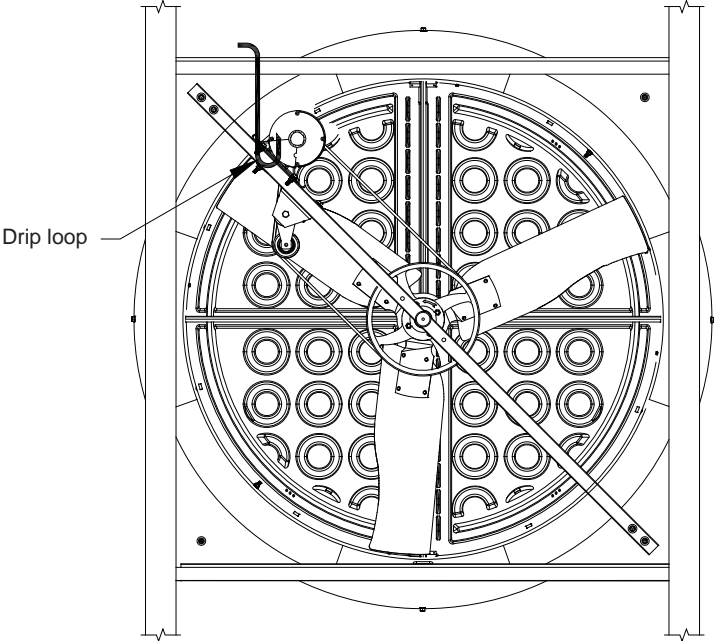


Figure 26A

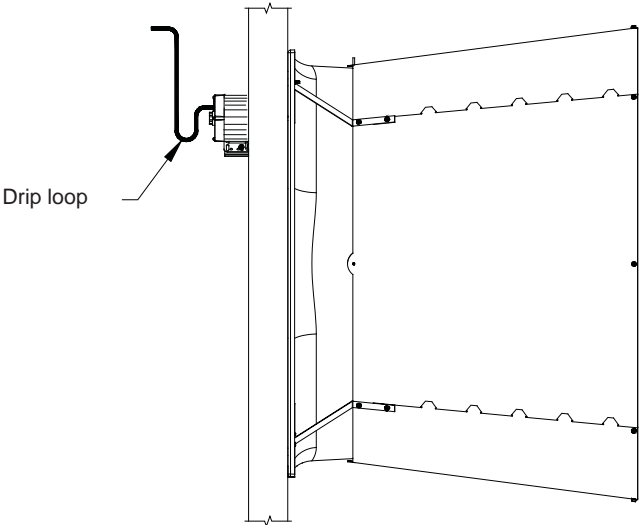


Figure 26B

Operation

5.

4. Operation

- 1) **INITIAL START-UP:** With electrical power off, verify that the fan propeller turns freely and that all fasteners are secure. Turn on electrical power and confirm that the fan operates smoothly.
- 2) **ADJUSTMENTS:** Set the fan control to the temperature shown on your Munters ventilation system drawing, or to a value which will provide the desired environmental conditions.



Some models of our fans allow to adjust the number of revolutions through inverter (also called VFD). In case of adjustment made by VFD the installer has to pay particular attention to the following aspects:

- it is necessary that the resistance of the ground line to which the equipment are connected has a very low values (about 15-20 ohm) in order to avoid high currents that can flow through the motor bearings and damage them.
- It is necessary to install the proper line filters, to avoid interference and allow proper operation of the equipment.
- The minimum frequency of operation of the engines in the case of absence of a forced external ventilation is 30 Hz. In the case of an operating frequency below 30 Hz is necessary to provide an external forced ventilation to the engine.



It is absolutely normal for the damper door not to open completely. The air flow is calculated in the configuration with the two doors not completely open but with an angle of 20° between them.

Ambient temperature during operation	Ambient humidity during operation
- 15°C / + 40 °C	< 90%
Max. operating pressure	
50 Pa	

Maintenance

6.

6. Maintenance

The following inspection and cleaning procedures should be performed monthly:

Tools Needed for Maintenance:

Spanner 10mm, 13mm, 17mm, pneumatic screwdriver

- 1) **INSPECT PROPELLER:** Check that propeller is secure on drive hub and that there are no signs of damage. The blades are of a self-cleaning design and should not require maintenance.
- 2) **CLEAN** regularly for best results:
 - **FAN MOTOR:** Remove any dust accumulation from motor using a brush or cloth. (DO NOT use a pressure washer). A clean motor will run cooler and last longer. At the same time, verify that the motor is secure in its mount.
 - **DAMPER:** Carefully clean dust from damper door and frame so that damper door opens and closes freely. A brush or cloth should be used.
 - **GUARD:** Clean any dust or feathers from fan guards using a brush. Dirty guards can reduce airflow.
- 3) **CHECK FASTENERS:** For safety, all fasteners should be inspected. Tighten any loose connections.
- 4) **INSPECT FAN CONTROL:** With power disconnected, inspect all electrical connections. Wiring should be secure and in good condition. Remove any dust build-up from control case and sensor using a soft brush or cloth. **NEVER CLEAN ELECTRICAL EQUIPMENT WITH A PRESSURE WASHER!**



WARNING Keep motor body clean. Dust deposit on motor body will lead to overheating and failure of bearings and motor itself.

Do not use water for motor cleaning. Use compressed air only. Water spraying will cause rust inside the bearings and lead to their failure.



WARNING We recommend to avoid to use water for washing fans since the electric motors and the bearings of the central hub and centrifugal system support might get damaged by water infiltration.

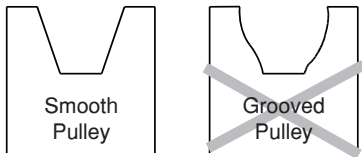
In case there is an unbreakable need to use water for cleaning the fans, the electric motor, the central hub and the centrifugal weight mechanism have to be adequately protected by water sprays.



WARNING Do not operate the fan with the safety protections removed: safety meshes can be removed only with specific tools by qualified technicians when the fan reaches a complete standstill.

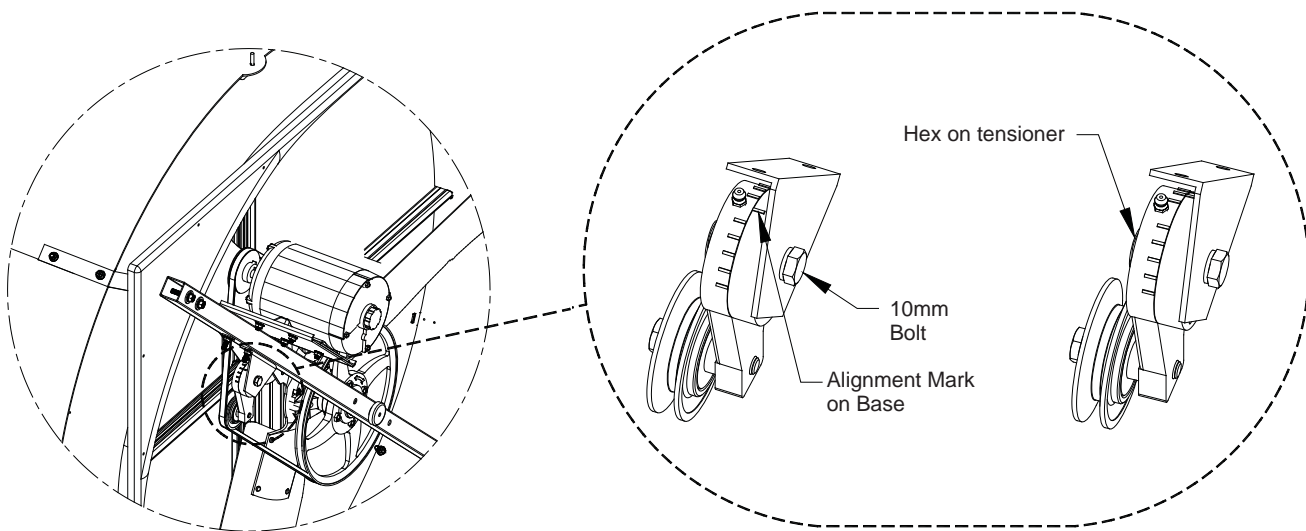
The fixing systems of the safety protections are not interchangeable with other devices. Therefore, if for maintenance reasons the user damages or loses any component, this must be definitely ordered from the manufacturer as spare parts and it cannot just be replaced with other components, even similar, not supplied by the constructor itself. In this particular event the manufacturer refuses all responsibility on consequent damages caused to things and people and considers any kind of warranty lost.

- 5) **CHECKING PULLEYS:** Roll the belt off and look at both pulleys. If the pulley has grooves in it or is no longer smooth, it needs replacement. A loose or slipping belt will reduce fan performance up to 60% and cause premature belt failure.



- 6) **BELT TIGHTENING:** To adjust the belt tensioner to the proper setting, remove the V-belt and loosen 10 mm bolt (using 17mm spanner) to allow tensioner arm to rotate. The Belt Tensioner has to be perpendicular to the Central Support. Hold tensioner at this setting and tighten the 10mm bolt to 50 Nm.

Slide V-belt over Propeller and install by wrapping it around the 2 smaller pulleys and starting it over the larger pulley, continue rolling it onto the larger pulley until it fits onto pulley.



Winterizing

7.

7.1 Winterizing

In most climates, it is probable that the ventilation system will never need to operate at a total capacity during the colder winter months. Consequently, it is advisable to “winterize” those fans which will not be used in cold weather to avoid unnecessary heat loss and condensation.

To winterize, turn fan control “off”. Install the insulated closure panel over the fan intake. If you don’t have an insulated closure panel, a piece of rigid insulation material can be used. Remember the insulation panel must be removed before warmer weather returns.

NOTE: At least one single speed fan should be left uncovered and with power available to provide air movement in the event of variable speed control difficulties.

7.2 Winter Weather Protection

To prevent cone or fan damage from snow or ice sliding off building roof, weather protection must be provided. A weather shelter may be constructed to cover the entire fan, *See Figure 27*, or snow guards may be placed on the roof, *See Figure 28*.

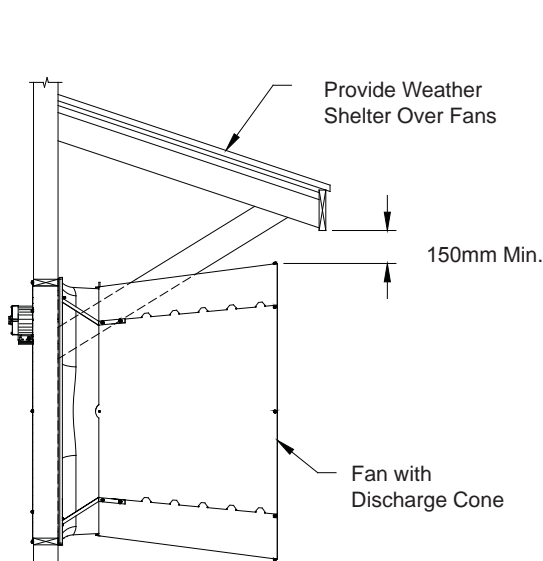


Figure 27

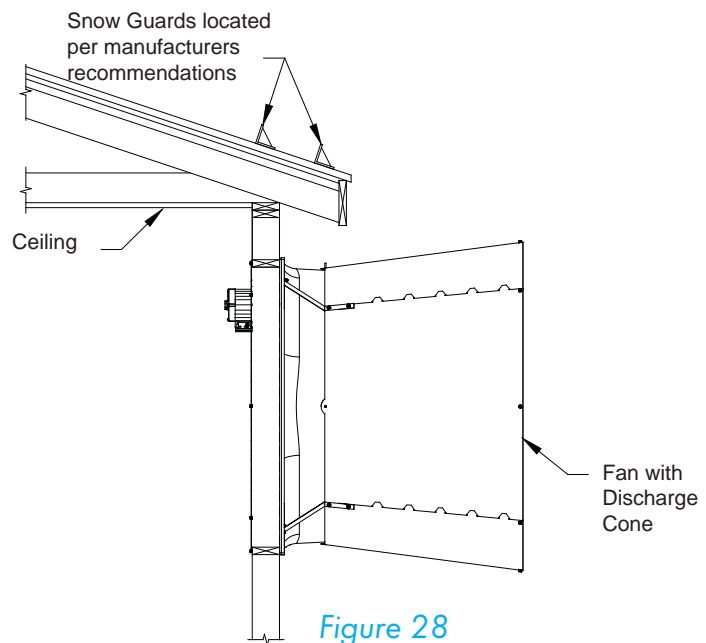


Figure 28

IMPORTANT

Munters Product and System Warranties do not cover cone or fan damage from external sources.

Note: Snow guards are designed to prevent sudden, dangerous snow and ice slides when attached to the building roof according to manufacturers recommendations. The supplier listing above is given as a reference only. Munters does not endorse any specific snow guard product and no performance warranty is implied.

Troubleshooting

8.

7.1 Troubleshooting

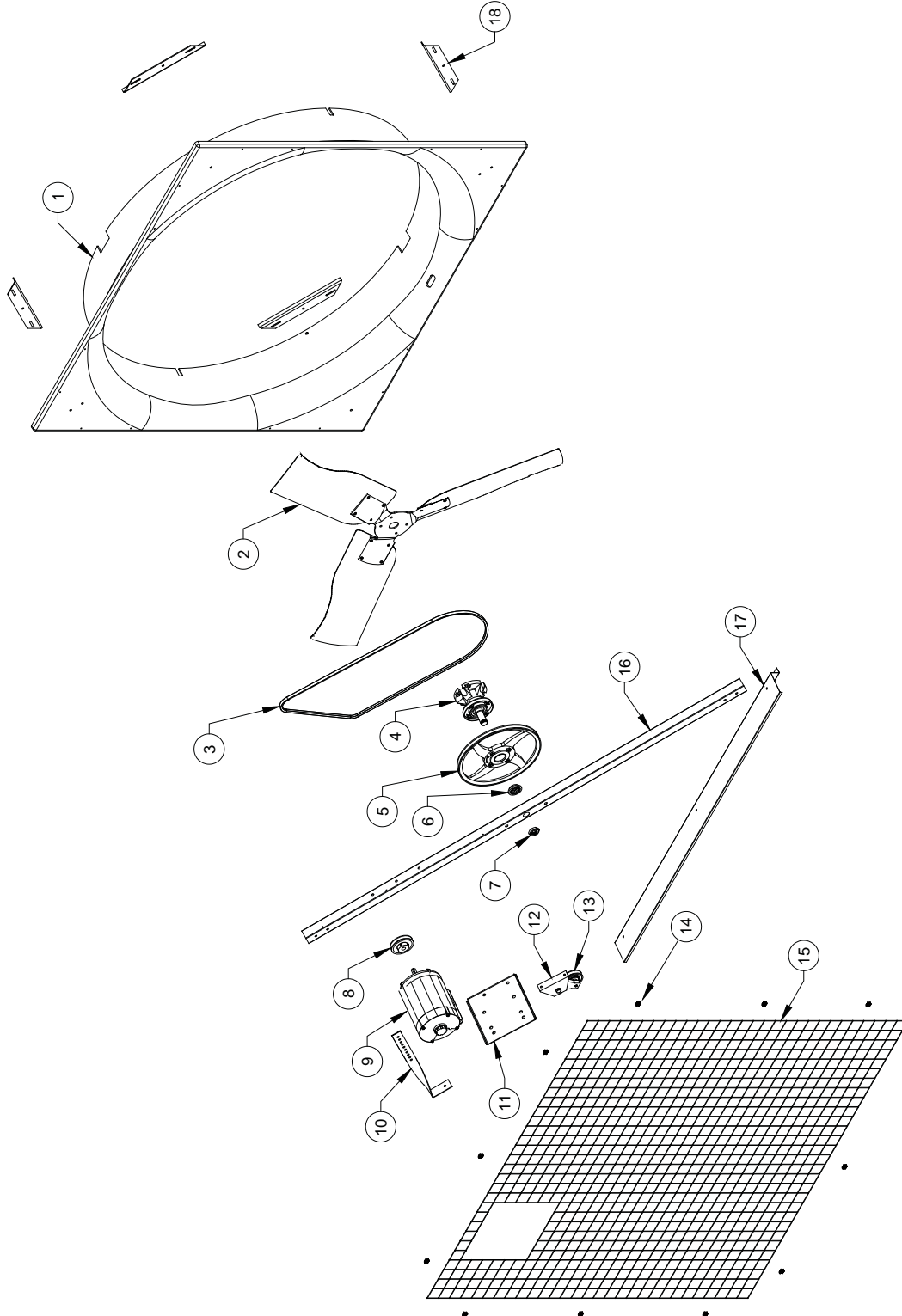


SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
Fan Not Operating	<ol style="list-style-type: none"> 1. Fan control set above room temperature 2. Blown fuse or open circuit breaker 3. Propeller blade contacting fan housing 4. Fan control defective 5. Motor defective 	<ol style="list-style-type: none"> 1. Set to a lower temperature 2. Replace fuse or reset breaker 3. Realign motor in fan housing 4. Repair or replace control 5. Repair or replace motor
Fan Operating- Insufficient Airflow	<ol style="list-style-type: none"> 1. Damper door jammed 2. Guard dirty 	<ol style="list-style-type: none"> 1. Clean damper door & fan housing 2. Clean guard
Excessive Noise	<ol style="list-style-type: none"> 1. Propeller blade contacting fan housing 	<ol style="list-style-type: none"> 1. Sand fan housing to remove high spot
Excessive Vibration	<ol style="list-style-type: none"> 1. Motor loose on mount 2. Propeller damaged 3. Motor or propeller shaft bent 	<ol style="list-style-type: none"> 1. Tighten fasteners 2. Replace propeller 3. Repair or replace motor or propeller shaft
Fan Never Turns Off	<ol style="list-style-type: none"> 1. Override thermostat set incorrectly 2. Control set for continuous operation 	<ol style="list-style-type: none"> 1. Set to the correct temperature 2. Set control correctly

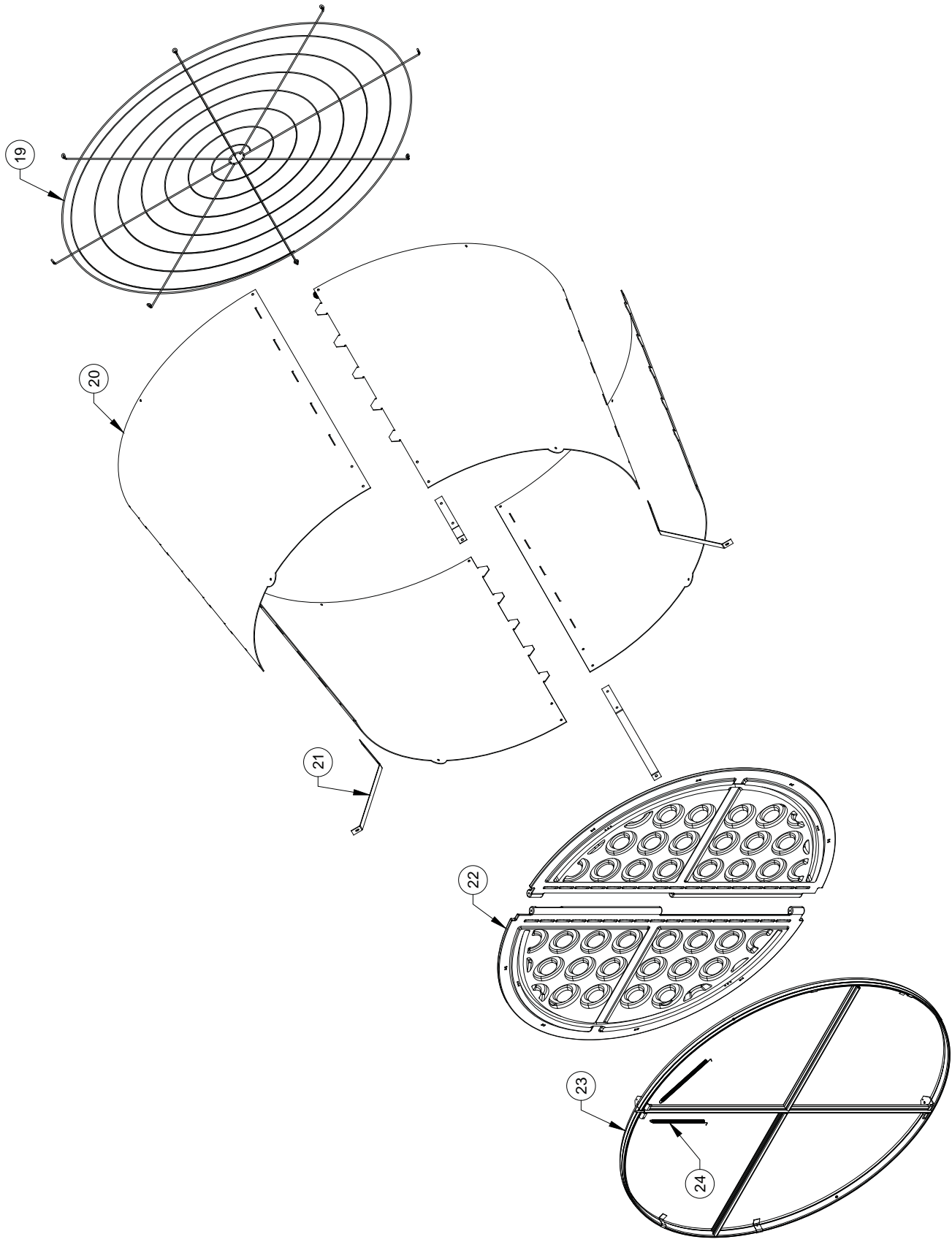
It is normal that the damper does not open completely. No corrective actions are needed.

Exploded View

9.



Fan Components



Damper/Cone Components

Catalog No.			
Item	WM54F	Part Name/Description	
1	2200761	Fiberglass orifice	1
2	2515360	Propeller	1
3	2245861	V-belt (A61)	1
4	2465692	Hub with bearing and shaft	1
5	2248001	Central pulley	1
6	2472000	Waterproof distance piece	1
7	2273600	M25 Hex nut	1
8	2248711	Motor pulley	1
9	*	Motor	1
10	2446040	Motor stiffener	1
11	2446010	Motor slide	1
12	2447080	Belt tensioner bracket	1
13	2515362-K	Belt tensioner assembly with 3" pulley	1
	2234035	3" tensioner pulley	1
	2234050	Belt tensioner	1
14	2268110	Plastic clip	12
15	2200767	Flat safety mesh	1
16	2273707P	Central support	1
17	2446030	Drip shield	1
18	2446020	Cone/Strut mounting bracket	4
19	2200763	Round safety mesh	1
20	2200762	Cone sector	4
21	2446050	Cone support bracket	4
22	2200765	Door Assembly	2
23	2200765	Main Frame Assembly	1
24	2200766	Tension spring	2

* The motor code changes depending on the configuration utilized.

Warranty and technical assistance


Munters products are designed and built to provide reliable and satisfactory performance but cannot be guaranteed free of faults; although they are reliable products they can develop unforeseeable defects and the user must take this into account and arrange adequate emergency or alarm systems if failure to operate could cause damage to the articles for which the Munters plant was required: if this is not done, the user is fully responsible for the damage which they could suffer.

Munters extends this limited warranty to the first purchaser and guarantees its products to be free from defects originating in manufacture or materials for 1 year from the date of delivery, provided that suitable transport, storage, installation and maintenance terms are complied with. The warranty does not apply if the products have been repaired without express authorisation from Munters, or repaired in such a way that, in Munters' judgement, their performance and reliability have been impaired, or incorrectly installed, or subjected to improper use. The user accepts total responsibility for incorrect use of the products.

The warranty on products from outside suppliers fitted to Breeze fan, (for example electric motors, etc.) is limited to the conditions stated by the supplier: all claims must be made in writing within eight days of the discovery of the defect and within 12 months of the delivery of the defective product. Munters has thirty days from the date of receipt in which to take action, and has the right to examine the product at the customer's premises or at its own plant (carriage cost to be borne by the customer).

Munters at its sole discretion has the option of replacing or repairing, free of charge, products which it considers defective, and will arrange for their despatch back to the customer carriage paid. In the case of faulty parts of small commercial value which are widely available (such as bolts, etc.) for urgent despatch, where the cost of carriage would exceed the value of the parts, Munters may authorise the customer exclusively to purchase the replacement parts locally; Munters will reimburse the value of the product at its cost price.

Munters will not be liable for costs incurred in demounting the defective part, or the time required to travel to site and the associated travel costs. No agent, employee or dealer is authorised to give any further guarantees or to accept any other liability on Munters' behalf in connection with other Munters products, except in writing with the signature of one of the Company's Managers.

 **WARNING** In the interests of improving the quality of its products and services, Munters reserves the right at any time and without prior notice to alter the specifications in this manual.

The liability of the manufacturer Munters ceases in the event of:

- dismantling the safety devices;
- use of unauthorised materials;
- inadequate maintenance;
- use of non-original spare parts and accessories.

Barring specific contractual terms, the following are directly at the user's expense:

- preparing installation sites;
- providing an electricity supply (including the protective equipotential bonding (PE) conductor, in accordance with CEI EN 60204-1, paragraph 8.2), for correctly connecting the equipment to the mains electricity supply;
- providing ancillary services appropriate to the requirements of the plant on the basis of the information supplied with regard to installation;
- tools and consumables required for fitting and installation;
- lubricants necessary for commissioning and maintenance.

It is mandatory to purchase and use only original spare parts or those recommended by the manufacturer.

Dismantling and assembly must be performed by qualified technicians and according to the manufacturer's instructions.

The use of non-original spare parts or incorrect assembly exonerates the manufacturer from all liability.

Requests for technical assistance and spare parts must be made directly to the manufacturer, at the following address:

[Munters Italy S.p.A](#)

Strada Piani, 2

18027 Chiusavecchia (IM), Italy

Tel: +39 0183 52 11

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