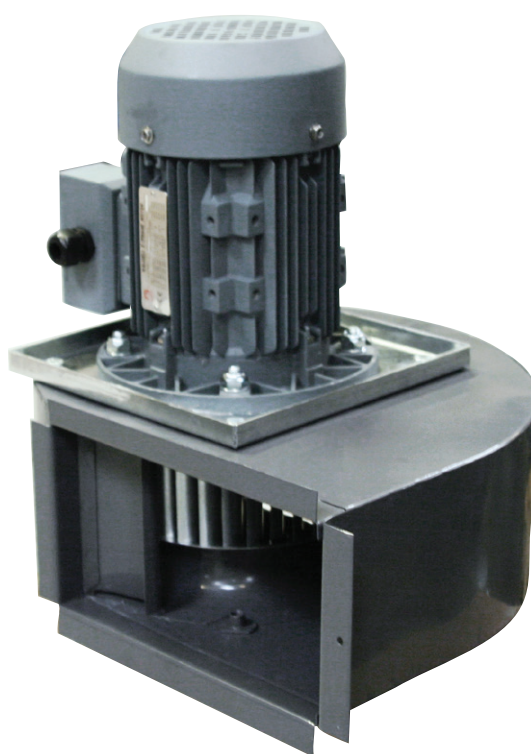




GEOVENT

INSTRUCTION MANUAL



FAN

MSQ-200-1 and MSQ-200-3

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1.0 Introduction

This manual is made and designed in order to facilitate the best and most secure interaction with the product. The manual is relevant for people involved in transportation, stocking, installation, using, maintaining and all other thinkable interaction with the product.

The manual must be read in full and understood before interacting with the product.

When the manual has been read and understood in full, the table of contents can be used to find the relevant information in each case.

The product is manufactured by:

Geovent A/S
Hovedgaden 86
DK-8861 Løgstrup
DENMARK

Tel.: (+45) 86 64 22 11
E-mail: salg@geovent.dk
www.geovent.com

This manual is to be used for all interactions with the product including: Transportation, stocking, installation, operation and maintenance.

This product is marked with: (example)

Type: MSQ-200-3 fan, 0.75kW 2800rpm.		
S/N: 31-209 2713	Weight: 16 kg	04-11-21
Voltage: 3X400 V	Power Class: N=49	
Current Type: AC	VSD: No VSD	
Frequency: 50 Hz	Optimum Q: 1125 m³/h @ 1140 P	
Power: 0,75 kW	Pressure: 1140 Pa	
Rpm: 2900 rpm	Sound pressure: 76 dB(A)	
Meas. Category: D, Static		
Efficiency: η = 47,5%		
Made in Denmark		CE
 GEOVENT	Hovedgaden 86 - DK-8831 Løgstrup	
<small>UNIKAT - geovent.dk</small>	Tel. +45 86642211 Fax +45 86642075	

2.0 Safety

2.1 General safety

Carefully read this manual before use and observe the safety instructions in order to avoid injuries!
Keep this manual in a safe place!

Secure that all users of the product have read this manual and that they follow the instructions as described. Observe all instructions marked on the product! Observe the indications of the manufacturer. Never use the product if you are in doubt about how it works or what you should do.

When doing maintenance follow the instructions in chapter 7.0.

Do not modify the product or use spare parts from other suppliers than Geovent, as this may hamper the product and the function.

2.2 Danger

You must wear safety gloves when handling or using the product to protect your hands from scratches etc.

Be aware that the product may tilt when you move it. You must handle the product with care and tie it safely to the truck or the fork lift when it is in transport.

Follow the instructions in chapter 7.0 when the product is maintained.

When handling the product be sure that there is no risk for the installer, and secure that there are no people around the product, secure that the product cannot fall down risking to injure persons or subjects.

The product is not to be used in areas categorised as ATEX zones, e.g. with dust from aluminium, flour, wood, and other mediums that present an explosion hazard.

In case of problems:

If a repair is not possible you should dispose of the product. Please follow the instruction for disposal in chapter 10.0.

3.0 Machine overview

3.1. Description

Geovent fan MSQ is a centrifugal fan with stable and long-lasting characteristics. To be mounted directly on an extraction arm or hose reel.

3.2 Intended use

The fan MSQ is used for industrial extraction of welding smoke, exhaust gasses, grinding dust and vapours.

The fan is not suitable for extraction of aluminium dust, flour, textile dust nor for sawdust or other media, which are connected with danger of explosion.

3.3 Machine specifications

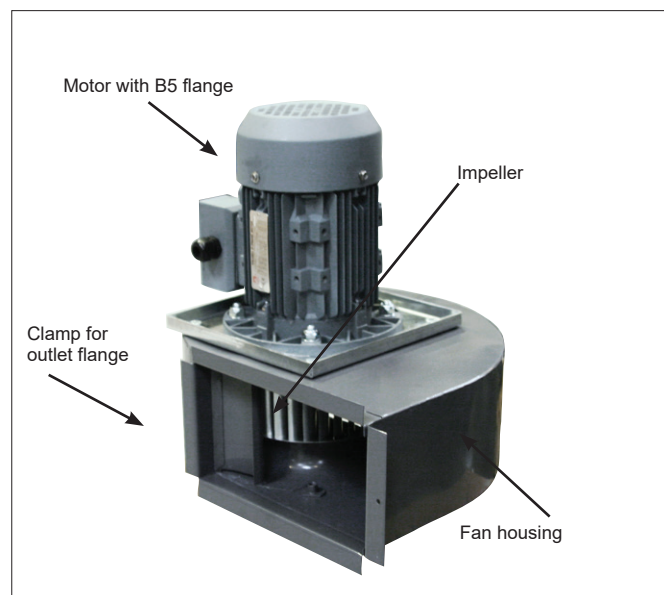
3.3.1 Design

Housing: Powder coated steel (RAL7015) for optimal corrosion resistance.

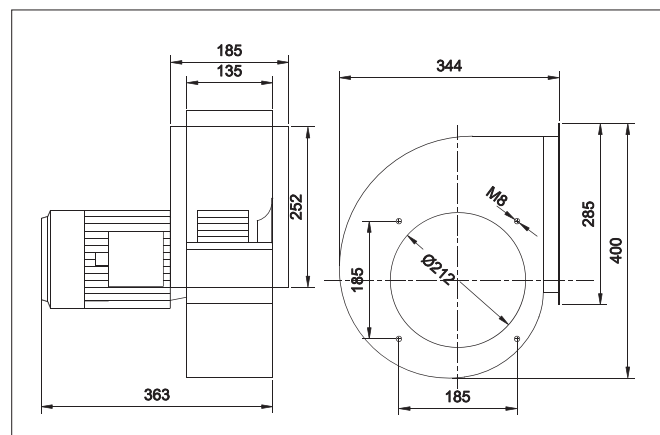
Fan impeller: Forward curved scirocco-Impeller (F-Impeller) of hot-dip galvanised steel.

Motor: B5 flange motor, direct drive. Protection class IP 55.

3.3.2 Technical data



Dimensions



MSQ-200-1 and MSQ-200-3

Model	MSQ-200-1	MSQ-200-3
Weight [kg]	14 kg	16 kg

Temperature

Temperature extracted air	Max. 80°C
Temperature ambient	Max. 40°C

For use at higher temperatures, use special motors. Please enquire at Geovent.

Noise (dB (A))

Type	Lp	Lp, 1m
MSQ-200	78	72

The sound level depends on various factors under different circumstances. For instance, where in the room the fan is installed, the size of the room, the temperature in the room, the acoustic profile of the room and the connection (hose/pipe) of the fan.

The actual ampere consumption and the kW of the motor are shown on the metal sign on the fan.

4.0 Transport, handling and storage

During transport in a truck or in another means of transportation the product must be securely packed in a box or a pallet and covered with a water proof material. The product must be securely stowed in the truck so that it will neither tilt nor shift during transport.

During transport over a short distance e.g. in a stock or a factory, the product can be moved by means of a forklift or a stabeler.

When moved it must be secured that the product does not tilt or shift. And it must be secured that the limitations of the means of transportation is not exceeded.

Secure that there are no people around the product, when the product is moved.

The product must be placed in a dry place and covered securely, in order to secure that moist, metal parts or other substances do not damage the product. It is not allowed to place anything on top of the product.

5.0 Assembly, installation and start of operation

5.1 Location

The fan is mounted directly on a Geovent hose reel or a Geovent extraction arm. A special mounting bracket must be used.

5.2 Installation

The fan is supplied assembled and ready for piping and connection to power supply.

Before installation, please consider the following:

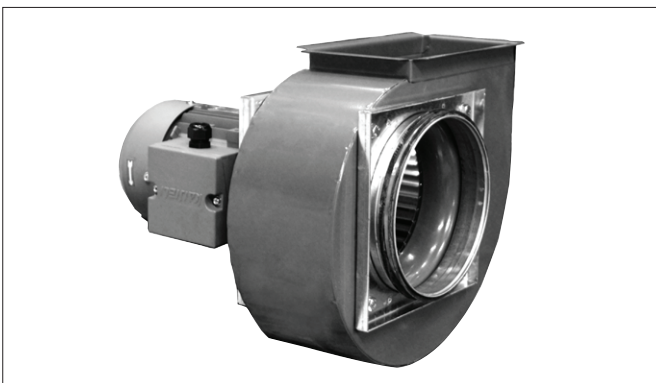
- Placement: Must be placed indoors
- Make room for mounting and servicing of the fan.
- Possible connections and automatics.

Important:

Avoid bends on hoses immediately prior to the intake and after the outlet as it will decrease the performance of the fan.

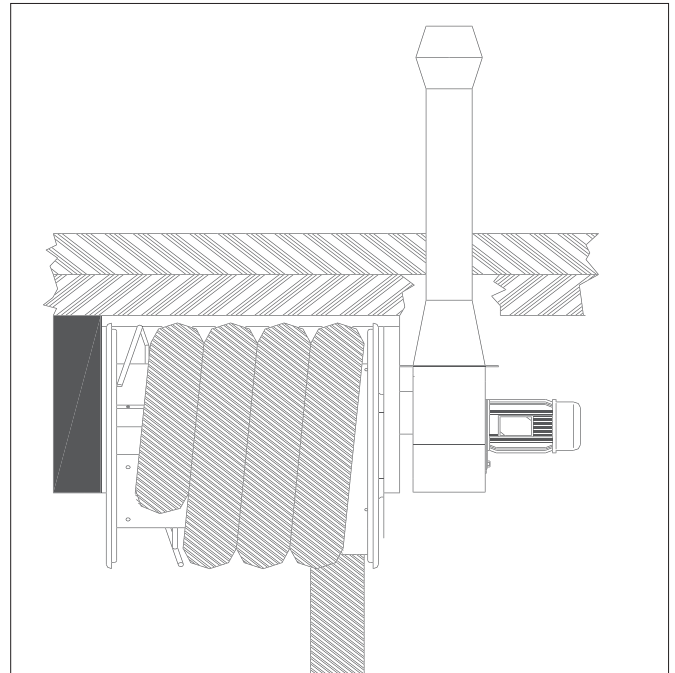


MSQ 200 mounted on a wall console for an extraction arm.

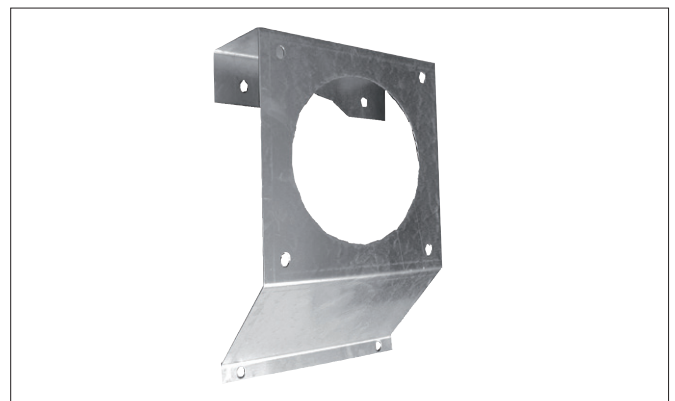


MSQ 200 with flange for extraction arm mounting.

Mounting on hose reel



MSQ mounted on a hose reel.



Mounting bracket for GTE/GTS Hose reel.

The following installation should only be carried out by a trained professional.

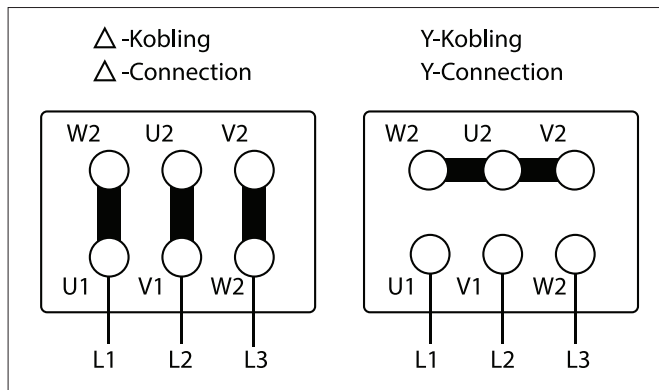
Connect the fan to the power supply:

1. Only a trained electrician should connect the fan to power.
Always use isolation switch and motor protection.
2. 3-phased motors can be configured for both 3x230V and 3x400V.

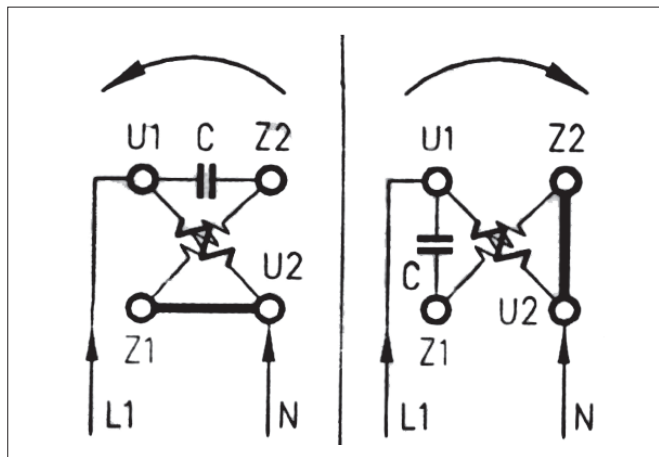
The motor is not configured by default and the supplied jumper bars must be fitted in the terminal box according to voltage.

Note: The following connection diagrams are indicative.

Connection Diagram MSQ



Connection diagram 3 fase



Connection diagram 1 fase

Correct direction

After connecting to the power supply, test that the impeller turns in the right direction.

If this is not the case, the air flow will be reduced by up to 70 - 80%.

To correct the error, simply switch two phases and the fan will now turn in the right direction.

5.3 Control and test of the security system

After installation please check.

- Vibrations: See section 9.0 Trouble shooting.
- Air flow: The fan should deliver the amount of air for which it is designed for. Adjust to the correct airflow using a cut damper.
- Power consumption (Ampere): If the fan has excess capacity (Airflow) the power consumption can exceed the capacity of the motor and damage the fan.

6.0 Commissioning

The fan is activated by default by pressing the start button on the motor guard.

The fan will not work as intended if:

- Unoriginal parts have been fitted, e.g: Unoriginal impeller.
- The impeller turns in the wrong direction. The fan will still function but capacity is reduced by 70-80%. To correct the error, simply switch two phases and the fan will now turn in the right direction.
- If no motor guard is used.

6.1 After installation

Check the installation according to chapter 5.3.

7.0 Control, test and maintenance

7.1 Control

Check the installation according to chapter 5.3.

7.2 Maintenance

Periodic maintenance

- The wheel and house should be cleaned yearly or when needed. Wheel and house can be cleaned with a brush, water and detergent. Remember to disconnect the power supply before washing and dry with a dry clean piece of cloth. This will improve the lifespan of the fan.
- Maintenance of the motor should be carried out according to the manual of the motor. (enclosed)

Only use original spare parts.

8.0 Cleaning

The outside of the product is cleaned with a vacuum cleaner or a cloth.

Remember to disconnect the power supply before cleaning.

9.0 Troubleshooting

The wheel and house should be cleaned yearly or when needed. Wheel and house can be cleaned with a brush, water and detergent.

Always use a repair switch and motor guard.

Always use a cut damper!

In case of trouble with the fan check the following list:

Airflow or pressure is less than indicated:

- Wrong turning direction of the impeller. Switch two phases.
- Leaky duct system.

- Bends close to the inlet or outlet of the fan will decrease performance.
- Damaged impeller.
- The rotation speed is set too low.
- If temperature is significantly different from that of the lab. Measurements are carried out at 20°C and a pressure of 101,4 kPa.
- The dampers are not properly adjusted.
- The intake is blocked by a cloth or similar.

Vibrations and noise:

- Foundation is not level or stable.
- External elements have entered the fan.
- Damaged impeller or motor.
- The impeller has come loose.
- *The impeller is unstable due to filth on the blades.
- The impeller turns in the wrong direction.

The fan delivers more air than it was designed for:

- Use cut damper.
- Loose bolts or screws.

The motor is overloaded

- The wiring of the motor is not correct.
- The axle is bent.
- The fan has an overcapacity in relation to the resistance of the system. Use a damper.
- The engine speed is too high.
- Defective motor - contact the dealer.

10.0 Dismantling, disabling and scrapping

Deactive the product by disconnection the power supply. Dismantle compressed air pipes and other pipes and wires etc.

The inside of the product must be cleaned by means of a vacuum cleaner with a filter which suits the purpose.

Dismantle the electronics, wires and cables and put these into a suitable bag. Afterwards dispose of it according to local regulations.

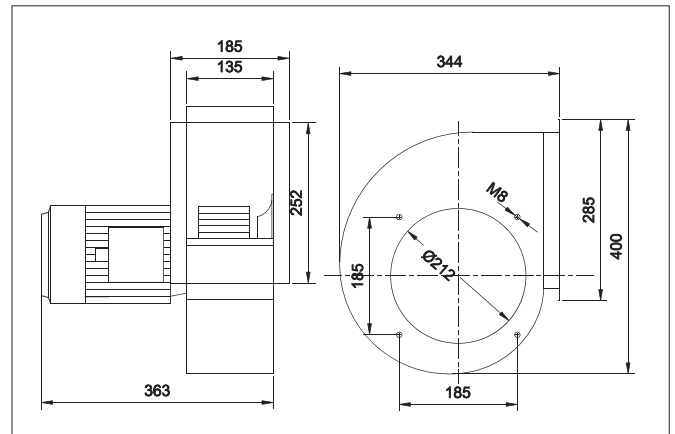
Dismantle plastic parts and dispose of it according to local regulations.

Dismantle the metallic parts by unscrewing screws and bolts. Afterwards cut the larger pieces into smaller pieces and dispose of it according to local regulation.

The packing material must be sorted according to local regulation in order to be able to reuse the material.

11.0 Dimensions

Fan MSQ-200



12.0 Liability

Warranty

Geovent A/S grants a warranty for products, which are defective, when it can be proved that the defects are due to poor manufacture or materials on the part of Geovent. The warranty comprises remedial action (reparation or exchange) until one year after the date of shipment.

No claims can be made against Geovent A/S in relation to loss of earnings or consequential loss as a result of defects on products from Geovent.

Wear on parts such as filter cartridges and hose is not included in the warranty.

User liability

In order for Geovent to be capable of granting the declared warranty, the user/fitter must follow this instruction manual in all respects.

Under no circumstances may the products be changed in any way, without prior written agreement with Geovent A/S.

Please refer to the current sales and delivery conditions at www.geovent.com

13.0 Declaration of conformity

The manufacturer: GEOVENT A/S
HOVEDGADEN 86
DK-8831 LØGSTRUP

Hereby declares that:

The product: Fan
Model: MSQ-200-1 and MSQ-200-3

Complies with the relevant parts of the following directives and standards:

Directive 2006/42 / EC of the European Parliament and of the Council of 17 May 2006 on machines and amending directives 95/16 / EC.


This declaration is no more valid if changes are made to the product by others than the manufacturer.

Authorized to collect the technical file:

Lise Cramer

Date: 01.12.2021

Position: Director
Name: Thomas Molsen

Signature: 



14.0 Spare part list

Art. No.	Description
31-019	Outlet Flange 200/ø160 mm
31-020	Impeller L/MSFG-200
04-460A	Mounting bracket GTS/GTE ø160 mm
31-201	Adapter ø160 mm for WING arm MSQ
31-207	Adapter ø200 mm for WING arm MSQ



GEOVENT

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