

# **Operating Instructions**

\_\_\_\_ Mobile Fan

\_\_\_\_\_ MV 300 P, MV 400 P

MVT 200 P SET, MVT 300 P SET



MV 300 P



MV 400 P



MVT 200 P SET

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# **Imprint**

#### **Product identification**

 Mobile Fan
 Item number

 MV 300 P
 6261030

 MV 400 P
 6261040

 MVT 200 P SET
 6261021

MVT 300 P SET 6261031

#### Manufacturer

Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26 D-96103 Hallstadt

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#### Indications regarding the operating instructions

Original instruction

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#### Content

ı	IIIII Oduction	J
	1.1 Copyright	
	1.2 Customer service	3
	1.3 Limitation of liability	3
2	Safety	3
_	2.1 Symbol explanation	
	2.2 Personal protective equipment	
	2.3 Safety labels on the mobile fan	
	2.4 General safety instructions	
3	Technical Data	5
•	3.1 Type plate	
	3.2 Accessories - air delivery hose	
1	•	
+	Transport, Packaging and Storage	
	4.1 Delivery and Transport	
	4.3 Storage	
_	•	
3	Connecting the fan	
	5.1 Electrical connection	
_		
	Description of device	
7	Operation	7
8	Maintenance, care and repair	8
	8.1 Care by cleaning	8
	8.2 Maintenance and repair	8
9	Troubleshooting	9
	0 Disposal, recycling of used equipment	
•	10.1 Decommission	
	10.2 Disposal of electrical equipment	
1	1 Spare parts	
•	11.1 Spare parts order	
	11.2 Spare parts drawings	
1	2 Electrical circuit diagrams	
	_	
Į,	3 EC Decleration of Conformity	13



#### 1 Introduction

You have made a good choice by purchasing the UNICRAFT mobile fan.

# Read the operating manual thoroughly before commissioning the machine.

It gives you information about the proper commissioning, intended use and safe and efficient operation and maintenance of your mobile fan.

The operating manual is part of the mobile fan. Always keep this operating manual in the location where your mobile fan is being operated. All local accident prevention regulations and general safety instructions for the operating range of your mobile fan must also be complied with.

#### 1.1 Copyright

The contents of this manual are protected by copyright. Their use is permitted when using the mobile fan. Any further use is not permitted without the written permission of Stuermer GmbH.

We report for the protection of our products brand, Patent and design rights, if this is possible in individual cases. We vigorously oppose any infringement of our intellectual property.

#### 1.2 Customer service

Please contact your dealer if you have any questions about your mobile fan or technical information. There you will be happy to help with expert advice and information.

#### Germany:

Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26 D-96103 Hallstadt

Repair - Service:

**Fax:** 0951 96555-111

**Email:** service@stuermer-maschinen.de

Internet: www.unicraft.de

Ordering spare parts:

**Fax:** 0951 96555-119

**Email:** ersatzteile@stuermer-maschinen.de

We are always interested in information and experiences that arise from the application and can be valuable for the improvement of our products.

#### 1.3 Limitation of liability

All information and instructions in this manual have been compiled taking into account the applicable standards and regulations, the state of the art as well as our many years of knowledge and experience.

In the following cases, the manufacturer assumes no liability for damages:

- Non-observance of the operating instructions,
- Inappropriate use
- Use of untrained staff,
- unauthorised modifications
- technical changes,
- Use of not allowed spare parts.

The actual scope of delivery may deviate from the explanations and presentations described here in case of special models, when using additional ordering options or due to latest technical modifications.

The obligations agreed in the delivery contract, the general terms and conditions as well as the delivery conditions of the manufacturer and the legal regulations at the time of the conclusion of the contract are applicablen.

#### 2 Safety

This section provides an overview of all important safety packages for the protection of the operating personnel as well as for safe and fault-free operation. Other task based safety notes are included in the paragraphs of the individual phases of life.

#### 2.1 Symbol explanation

#### Safety instructions

The safety notes in these operating instructions are highlighted by symbols. The safety notes are introduced by signal words which express the concern of the risk.



#### **DANGER!**

This combination of symbol and signal words indicates an imminently dangerous situation which may lead to death or severe injuries if they are not avoided.



#### **WARNING!**

This combination of symbols and signal words indicates a possibly dangerous situation which may lead to death or severe injuries if they are not avoided





#### **CAUTION!**

This combination of symbol and signal words indicates a possibly dangerous situation which may lead to minor or light injuries if they are not avoided



#### ATTENTION!

This combination of symbol and signal words indicates a possibly dangerous situation which may lead to property and environmental damages if they are not avoided.



#### NOTE!

This combination of symbol and signal words indicates a possibly dangerous situation which may lead to property and environmental damages if they are not avoided.

#### Tips and recommendation



#### Tips and recommendation

This symbol highlights useful tips and recommendation as well as information for all efficient and trouble-free operation.

It is necessary to observe the safety notes written in these operating instructions in order to reduce the risk of personal injuries and damages to property.

#### 2.2 Personal protective equipment

The personal protective equipment serves to protect persons against impairments of safety and health while working. The staff member has to wear personal protective equipment while performing different tasks on and with the machine which are indicated in the individual paragraphs of these instructions.

The personal protective equipment is explained in the following paragraph:



#### **Head protection**

The industrial helmet protects the head against falling objects and bumping against fixed objects.



#### **Protective gloves**

The protective gloves are used to protect the hands from sharp-edged components, as well as from friction, abrasions or deeper injuries.



#### Safety boots

The safety shoes protect the feet against bruising, falling parts and slipping on slippery surfaces.



#### **Protective clothing**

Protective clothing is tight-fitting work clothing, with no protruding parts, with low tear resistance.

#### 2.3 Safety labels on the mobile fan

The following safety markings are attached to the mobile fan (Fig. 1), which must be observed and followed:



Fig. 1: Safety labels

- 1 Warning of dangerous electrical voltage I
- 2 Warning of hand injuries I
- 3 Flow direction I 4 Safety instructions

The safety markings attached to the machine must not be removed. Damaged or missing safety markings can lead to incorrect actions, personal injury and damage to property. They must be replaced immediately. If the safety markings are not recognisable and comprehensible at first glance, the mobile fan must be taken out of operation until new safety markings have been applied.

#### 2.4 General safety instructions

#### Observe the following:

- Use the guards and secure them firmly. Never work without guards and keep them functional.
- Always keep the fan and its working environment clean. Provide sufficient lighting.
- The fan must not be modified in its design and must not be used for purposes other than those foreseen by the manufacturer.
- Never work under the influence of concentration-disturbing diseases, fatigue, drugs, alcohol or medication.
- Keep children and persons not familiar with the fan away from their working environment.
- Do not pull the power cord to unplug the plug from the outlet. Protect the cable from heat, oil and sharp edges.
- Never use the power cord to move or lift the fan.
- Immediately eliminate any faults that impair safety.



- The fan must not be connected via an external switching device, e.g. a timer.
- Never immerse the unit in water for cleaning or use water jets.
- Ensure a minimum fan distance of 1 meter.
- Before each use, make sure that no parts of the fan are damaged. Damaged parts must be replaced immediately to avoid sources of danger.
- Never stack more than 2 fans on top of each other and ensure a stable surface (MV 300 P).
- Do not insert any objects into the openings. Do not use the device with blocked openings; keep it free of dust, lint, hair, and anything that can reduce airflow.

Keep your hair, clothing, fingers, and all body parts away from openings and moving parts.

- Do not drop or throw. Such handling can cause damage to components and dangerous situations.
- Do not immerse the fan in water and do not stand in the water while using the fan. There is a risk of electric shock. To avoid electric shock, do not expose the product to rain.
- Store fan only indoors. Do not expose the unit to frost temperatures.
- Machines can cause explosions if they are close to flammable materials or vapors. Do not use or store this equipment near fuels, flour, dust, thinners, or other flammable materials.
- Do not use flammable detergents to clean this unit.
- Do not allow water to reach the motor. If the motor becomes wet for any reason, turn off the fan and dry the motor thoroughly before re-using.
- Do not overload the fan! You will work better and safer in the specified power range.
- Do not hang the fan on the wall or ceiling.
- Always use the fan with the protective cover installed to prevent contact with the propeller.
- Do not pour flammable solvents or petroleum-based chemicals through the inlet grille.
- The fan is not designed for use in wet or humid areas. Do not place the fan in places where it could fall into a water container.
- Do not look into the blower nozzle. Discharged particles can be dangerous.
- Operate the unit on a solid, even surface to prevent it from falling and to avoid injury or damage.
- Use only original spare parts and accessories to avoid possible hazards and accident risks.



#### ATTENTION!

To avoid the risk of fire or electric shock, do not operate the fan with an electric speed controller or timer.

#### 3 Technical Data

	MV 300 P	MV 400 P
Dimensions [mm]	495x385x520	560x545x590
Weight [kg]	13,5	17
Input power	750 W	750 W
Output power	617 W	708 W
Motor speed	2850 'min <sup>-1</sup>	2850 'min <sup>-1</sup>
Degree of protection	IP 44	IP 44
Current draw	2.7 A	3.2 A
Voltage	230 V	230 V
Max. air flow	3230 'm³/h	7220 'm³/h
Intake Ø	285 mm	392 mm
Sound pressure level	53 db(A)	62 db(A)
Air outlet velocity	15.6 m/s	14.6 m/s
Outlet size	Ø 285 mm	Ø 392 mm
Ø Rotor	303 mm	368 mm

	MVT 200 P SET	MVT 300 P SET
Dimensions [mm]	335x330x370	450x450x495
Weight [kg]	7	12
Input power	225 W	750 W
Output power	162 W	617 W
Motor speed	2900 'min <sup>-1</sup>	2850 'min <sup>-1</sup>
Degree of pro- tection	IP 44	IP 44
Current draw	0.75 A	2.6 A
Voltage	230 V	230 V
Max. air flow	1560 'm³/h	3220 'm³/h
Intake Ø	216 mm	320 mm
Sound pressure level	43 dB(A)	50 db(A)
Air outlet velocity	13.2 m/s	17.4 m/s
Outlet size	Ø 183 mm	Ø 248 mm
Ø Rotor	208 mm	303 mm



#### 3.1 Type plate



Fig. 2: Type plate MV 300 P

#### 3.2 Accessories - air delivery hose



Fig. 3: Accessories - Air delivery hose

#### MV 300 P and MV 400 P

- Air delivery hose Ø 300 mm; Length: 10m
- Air delivery hose Ø 400 mm; Length: 10m

#### MVT 200 P SET und MVT 300 P SET

- Air delivery hose Ø 200 mm; Length: 10m
- Air delivery hose Ø 300 mm; Length: 10m

# 4 Transport, Packaging and Storage

#### 4.1 Delivery and Transport

Check the mobile fan after delivery for visible transport damage. If you discover any damage, immediately report it to the transport company or the dealer.



#### NOTE!

Protect the device from moisture.

#### 4.2 Packaging

All packaging materials and packaging aids used are recyclable and must always be recycled.

Packing components made of cardboard are shredded for waste paper collection.

The foils are made of polyethylene (PE), the upholstery parts made of polystyrene (PS). You can hand over these substances to a recycling center or to the disposal company responsible for you.

#### 4.3 Storage

Clean the fan and store it in a frost-free and dry environment. Do not place anything on the fan.

# 5 Connecting the fan

#### 5.1 Electrical connection

- Step 1: Make sure that mobile fan is switched off before connecting the power cord.
- Step 2: Insert the plug into the socket and make sure that the specified voltage corresponds to the device.



#### ATTENTION!

Incorrect earth connection may result in electric shock. Contact a qualified electrician or service technician if you are in any doubt as to whether the equipment is properly grounded. Do not modify the supplied plug if it does not fit into your outlet; have a qualified electrician install a suitable outlet. This equipment operates at a standard of 2.0/2.5/3.0A, 230 V, 50 Hz AC. Voltages below 220 V or above 240 V can seriously damage the motor.



#### ATTENTION!

Use only three-core 16/3 or larger diameter approved extension cords that have a grounded plug with three contacts and three-pin connectors that fit the plug of the unit. Replace or repair defective cables.

#### 5.2 Installation conditions

To ensure safe operation of the fan and a long service life, the following points must be observed:

- The ambient temperature should be between +5 and +55°C. Furthermore, an ambient temperature of +50°C should not be exceeded during continuous operation.



#### NOTE!

This fan does not prevent the formation of mould. To prevent the formation of mould, the fan must be used together with a dehumidifier.



# 6 Description of device

#### MV 300 P



Fig. 4: Description of device MV 300 P

- 1 Handle
- 2 Hose bracket
- 3 Air inlet / air outlet
- 4 ON / OFF switch (covered)

#### MVT 200 P SET



Fig. 5: Description of device MVT 200 P SET

- 1 Handle (Fan)
- 2 Handle (Transport box)
- 3 Air transport hose
- 4 Transport box
- 5 Locking device (Transport box on fan)
- 6 Air outlet

# 7 Operation



#### Use rotective gloves!



#### Wear protective clothing!



#### **DANGER!**

#### Risk of fatal electric shock!

Contact with live components may result in fatal injury.



#### **CAUTION!**

#### Danger of crushing!

Improper work on the mobile fan may result in injury to fingers and hands.

Never insert your fingers into the protective grille for the impeller!



#### **ATTENTION!**

- The device is not to be used in potentially explosive atmospheres.
- The device must not be operated in humid workplaces or outdoors in wet conditions.



#### ATTENTION!

Children must be under supervision and must not play with the device!

#### MV 300 P and MV 400 P

- Step 1: Install the device at the location where it is to be used. Make sure that the surface is stable.
- Step 2: Connect the air hose to the fan.

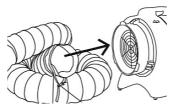


Fig. 6: Connecting the air hose



#### ATTENTION!

Never install the hose while the fan is operating. Guide the duct tip over the adapter, secure it and check the direction of the air flow.



Step 3: Insert the mains plug into the socket and switch on the device at the rear.



#### **ATTENTION!**

To ensure safe operation, operate the fan only if you carry out regular gas tests at the same time.



#### NOTE!

The MV 300 P fan is designed so that 2 fans can be stacked on top of each other. Make sure that the fans are properly secured.

Never stack more than 2 fans on top of each other.

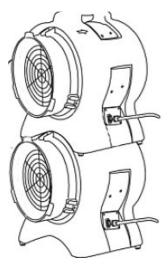


Fig. 7: Stacking the fans

#### MVT 200 P SET and MVT 300 P SET

- Step 1: Use a sufficiently sized hose to connect the fan.
- Step 2: Ensure sufficient air supply to ensure proper operation.
- Step 3: Connect the air hoses to the machine as described in chapter 5.1. If you no longer use the fan, disconnect it from the mains. Make sure that you pull the plug and not the cable to pull the plug out of the socket.
- Step 4: Switch the machine on and off at the on/off switch. During normal operation, always use these switches to switch the machine on and off. Do not move the machine during operation.



8

#### ATTENTION!

If a hose has to be installed, do not do so while the fan is operating. Ensure that there is a sufficient distance to the wall so that good air supply and exhaust is possible.

# 8 Maintenance, care and repair

#### 8.1 Care by cleaning

The mobile fan must always be kept in a clean condition.



#### ATTENTION!

Before starting cleaning, maintenance and repair work, switch off the unit and pull out the mains plug!



#### Use protective gloves!



#### NOTE!

Never use aggressive cleaning agents for any cleaning work. This can damage or destroy the device.

Clean all plastic parts and painted surfaces with a soft, damp cloth and some neutral cleaner. Check all closures and the individual components for strength and functionality.

The air inlet must be regularly cleaned of dust and dirt. Remove fluff and dust from the fan wheel, motor and sides using a vacuum cleaner or compressed air.

The fan blades must be kept clean. If dust, dirt, paint, etc. accumulate on the blade, the blade will not rotate evenly, which can lead to damage. To clean the fan blades, make sure the blades are at a standstill. Remove one of the grilles and remove the dirt with a wet cloth and soapy water. Dry all parts. THE FAN MUST NOT BE CLEANED UNDER PRESSURE. Replace the grille before the next operation.

#### 8.2 Maintenance and repair



#### ATTENTION!

- Maintenance and repair work may only be carried out by qualified personnel.
- Only use original spare parts in case of repair.
- After maintenance/repair, all safety devices must be reattached to the device before it can be put into operation.

If the mobile fan does not function properly, contact a specialist dealer or our customer service. The contact details can be found in chapter 1.2 Customer service. All protective and safety devices must be reinstalled immediately after completion of repair and maintenance work.



# 9 Troubleshooting



#### ATTENTION!

Switch off the unit and disconnect the mains plug before starting to correct the fault!

Error	possible cause	Solution
The fan does not operate.	1.The device is not connected to mains.	Connect the device to mains. Check the electrical switch.
	The device is not switched on.     The switch is damaged.	<ul><li>2. Switch the device on.</li><li>3. Replace the switch.</li></ul>
	The power cord or electrical wires of the motor are damaged.	Check continuity with a voltmeter or ammeter.     Repair/replace damaged wire.
The device operates but the fan pro-	The device may have been strongly shaken and the fan touches the casing.	1.Take the motor out and replace damaged motor fixing.
duces loud creaky noise.	The device may have been strongly shaken and the casing has been deformed.	2. Replace the casing / device if necessary.
Slow air flow	1. Air intake blocked	1. Check the air intake
The device works, but it vibrates very strongly.	A strong shock has bent the shaft, causing the device to be unstable.	Remove the motor and replace it. Replace the fan blades if necessary.
	2. The fan blade is defective.	2. Replace the fan blade.
	3. The dirt has accumulated on the fan blade.	3. Clean the fan blade.
The device operates but the fan	The fan got stuck against the casing.	Take the motor out and replace damaged motor fixing. Replace the fan blade if necessary.
does.	Condenser wires are damaged, loose or the condenser is faulty.	Repair / replace cables / condenser if necessary.
	The casing was damaged and it presses against the fan blade.	3. Replace the casing / device if necessary
The device operates fast and then	1.The bearings in the motor do not operate correctly or motor short circuited.	1.Replace the motor.
turns off as a result of overload.	2. Inlet grate and/or outlet grate is blocked.	2. Remove the obstacle.
oi ovenoau.	3. Excessively long power cord.	Reduce the power cord length to the recommended maximum length.



### 10 Disposal, recycling of used equipment

In your own interest and in the interest of the environment, please ensure that all components of the equipment are only disposed of in the designated and approved ways

#### 10.1 Decommission

Disused equipment must be taken out of service immediately in order to avoid later misuse and endangering the environment or people.

- Step 1: Remove all environmentally hazardous fluids from the old devices.
- Step 2: If necessary, dismantle the devices into manageable and usable components and components.
- Step 3: The device components and operating materials must be routed to the appropriate disposal routes.

#### 10.2 Disposal of electrical equipment

Please note that electrical equipment contains a variety of recyclable materials and environmentally harmful components. Contribute to the separation and proper disposal of these components.

In case of doubt, please contact your municipal waste disposal. If necessary, the help of a specialist disposal company should be consulted for processing.

# 11 Spare parts



#### DANGER!

# Risk of injury due to use of incorrect spare parts!

The use of incorrect or faulty replacement parts may cause danger to the operator and cause damage and malfunction.

- Only use original spare parts from the manufacturer or replacement parts approved by the manufacturer.
- In case of doubt, always contact the manufacturer.



#### Tips and recommendations

If non-approved spare parts are used, the manufacturer's warranty expires.

#### 11.1 Spare parts order

The spare parts can be obtained from the dealer or directly from the manufacturer. The contact details are in chapter 1.2 Customer Service.

Specify the following key data for inquiries or ordering spare parts:

- device type
- item number
- Position number
- Construction year
- amount
- desired shipping method (post, freight, sea, air, express)
- delivery address

Spare parts orders without above given information can not be considered. If the shipping method is missing, shipping will be at the discretion of the supplier. Information on the device type, article number and year of manufacture can be found on the type plate, which is attached to the device.

#### Example

The motor for the mobile fan MV 300 P must be ordered. The motor is identified in the spare parts drawing with the number 5.

When ordering spare parts, send a copy of spare parts drawing with marked motor component and marked position number 5 to the authorised dealer or to the spare parts department and provide the following information:

Type of device: Mobile Fan MV 300 P

Item number: **6261030** 

Position number: 05

#### The article number of your device:

MV 300 P: 6261030 MV 400 P: 6261040 MVT 200 P SET: 6261021 MVT 300 P SET: 6261031



#### 11.2 Spare parts drawings

In case of service, the following drawings shall help to identify the necessary spare parts. If necessary, send a copy of the parts drawing with the marked components to your authorised dealer..

#### Spare parts drawing MV 300 P

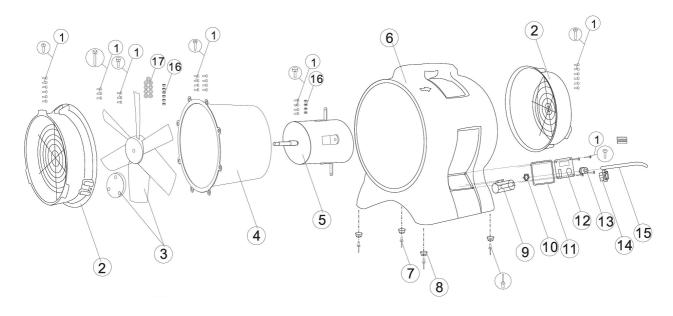


Fig. 8: Spare parts drawing MV 300 P

#### Spare parts drawing MV 400 P

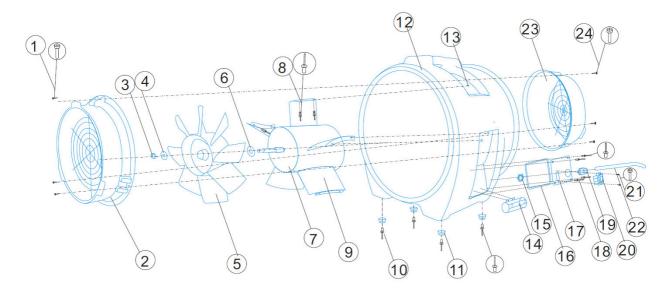


Fig. 9: Spare parts drawing MV 400 P



#### Spare parts drawing MVT 200 P and MVT 300 P

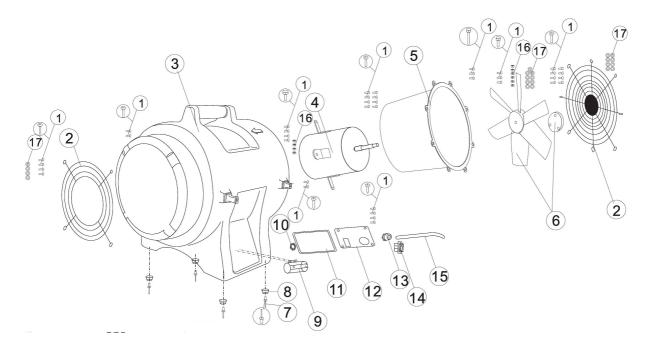


Fig. 10: Spare parts drawing MVT 200 P and MVT 300 P

# 12 Electrical circuit diagrams

#### Electrical circuit diagram MV 300 P, 400 P and MVT 200 P, 300 P

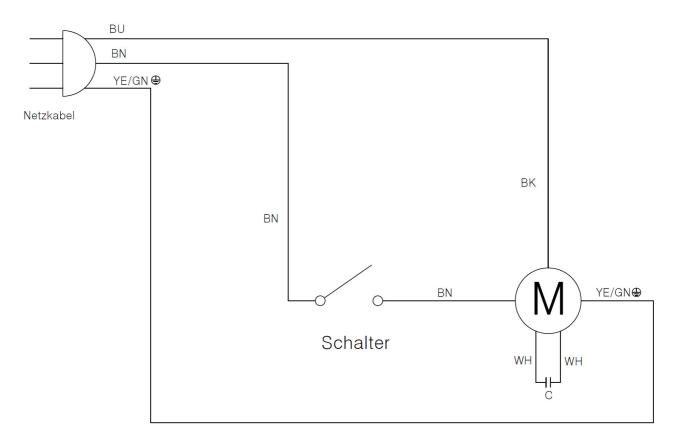


Fig. 11: Electrical circuit diagram MV 300 P, 400 P and MVT 200 P, 300 P



## 13 EC Decleration of Conformity

According to Machinery Directive 2006/42/EC Annex II 1.A

Manufacturer / distributor: Stürmer Maschinen GmbH Dr.-Robert-Pfleger-Str. 26 D-96103 Hallstadt hereby declares that the following product Product group: Unicraft® Werkstatttechnik Mobile Fan Type of machine: **Designation of the Machine:** Item number: MV 300 P 6261030 MV 400 P 6261040 MVT 200 P 6261021 MVT 300 P 6261031 Serial number: Year of manufacture: 20\_\_\_ complies with all relevant provisions of the above mentioned directive as well as the other applied directives (below) -

including their applicable modifications at the time of the declaration.

**EU directive:** 2014/30/EU EMC directive

The following harmonised standards have been applied:

DIN EN 60335-2-80 Household and similar electrical appliances - Safety - Part 2-80:

Particular requirements for fans

DIN EN 60335-1 Household and similar electrical appliances - Safety -

Part 1: General requirements

DIN EN 62233:2008 Measurement methods for electromagnetic fields of household

appliances and similar apparatus with regard to human exposure

Responsible for documentation: Kilian Stürmer, Stürmer Maschinen GmbH,

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Hallstadt, 09.02.2018

Kilian Stürmer CEO, Director CE



