

TTV 4500 / TTV 4500 HP / TTV 7000

EN

OPERATING MANUAL
AXIAL FAN



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Notes regarding the operating manual

Symbols

-  **Hazardous electric current!**
Warns about hazards from electric current which can lead to injuries or even death.
-  **Danger!**
Warns of a hazard which can lead to personal injury.
-  **Caution!**
Warns of a hazard which can lead to property damage.

The current version of the operating manual can be found at:

TTV 4500



<http://download.trotec.com/?sku=1510000010&id=1>



TTV 4500 HP



<http://download.trotec.com/?sku=1510000012&id=1>

TTV 7000



<http://download.trotec.com/?sku=1510000030&id=1>

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Warranty and liability

The device complies with the fundamental health and safety requirements of the applicable EU regulations and was tested at the factory for perfect functionality multiple times.

However, if faults in the functionality occur and cannot be remedied with the measures in the chapter Errors and faults, please get in touch with your dealer or distributor.

When manufacturer's instructions or legal regulations have not been followed, or after unauthorised changes to the device are made, the manufacturer is not responsible for the resulting damages. Changes to the device or unauthorised replacement of individual parts can drastically impact the electrical safety of this product and leads to the forfeit of the warranty. Liability does not extend to damages to people or property caused by the device being used other than as described in the instructions in this operating manual. Subject to changes to technical design and model changes as part of constant development and product improvement without prior notice.

No liability is accepted for damages resulting from improper use. In such a case, any warranty claims be voided also.

Safety

Read this manual carefully before starting or using the device. Always store the manual in the immediate vicinity of the device or its site of use!



Danger!

Improper handling can lead to injuries due to parts being whirled up.

- Do not use the device in potentially explosive rooms.
- Do not use the device in aggressive atmosphere.
- Set the device up in an upright and stable position.
- Let the device dry out after a wet clean. Do not operate it when wet.
- Ensure that the air inlet and outlet are not obstructed.
- Ensure that the side of the device where the air inlet is found is kept free of dirt and loose objects.
- Observe a minimum distance of 1.5 m between walls, objects and the suction side.
- Never reach or put objects into the device.
- Do not cover or transport the device during operation.
- Ensure that all electric cables outside of the device are protected from damage (e.g. from animals). Never use the device if the cable or power connection is damaged!
- Only use extensions to the connecting cable which are appropriate to the device power consumption, the length of its cable and its use. Completely unroll extension cables. Avoid electrical overload.
- Pull the plug from the socket if the device is not in use.
- Unplug the device from the mains before starting with maintenance, service or repair work.

Intended use

The axial fan TTV 4500 / TTV 4500 HP / TTV 7000 may be used for aeration, deaeration, air circulation, dust collection or air transport whilst adhering to the technical data and the safety instructions. The device was designed for the generation of a powerful, large-volume air circulation, e.g. for the accelerated drying of buildings and rooms. The fan can be operated in combination with different accessories.

Improper use

The axial fan TTV 4500 / TTV 4500 HP / TTV 7000 is not suited for installation in fluids or on flooded or boggy grounds. Any unauthorised changes, modifications or alterations to the device are forbidden.

Personnel qualifications

People who use this device must:

- be aware of the dangers that occur when using high-performance fans.
- have read and understood the operating manual, especially the Safety chapter.

Residual risks



Hazardous electric current!

Work on the electrical components must only be carried out by an authorised specialist company!



Hazardous electric current!

Before any work on the device, remove the mains plug from the mains socket!



Danger!

Danger due to strong air current!
Risk of injury from parts being whirled up. Before switching the device on, make sure that there are no loose parts (clothing, hair...) located near the air inlet or outlet!



Danger!

Dangers can occur at the device when it is used by untrained people in an unprofessional or improper way! Observe the personnel qualifications!



Danger!

Do not leave the packaging lying around. Children may use it as a dangerous toy.

Behaviour in the event of an emergency

1. In an emergency, disconnect the device from the mains feed-in: Switch the device off and disconnect it from the mains.
2. Remove persons from the danger area.
3. Do not reconnect a defective device to the mains.

Information about the device

Description of the device

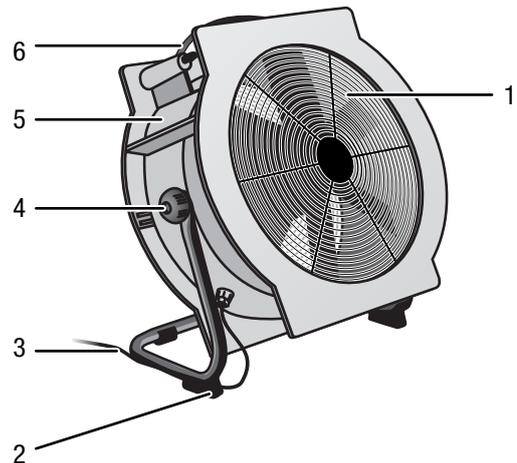
The axial fan TTV 4500 / TTV 4500 HP / TTV 7000 was designed for a high air flow; the TTV 4500 HP was additionally designed for a particularly high air pressure even over long air transport distances.

The device is rated with IP55 type of protection and is thus suitable for application both inside rooms and outdoors.

The fan speed can be set to one of 3 stages.

Depending on the type, the devices can be expanded with a range of accessories. For example, one or two hose adapters may be used for connecting air transport hoses and/or dust bags. Furthermore, some device sizes allow the connection of a combination distributor e. g. for air distribution with up to eight hoses.

Device depiction



No.	Designation
1	Air outlet
2	Foot (lockable)
3	Mains power cable with Schuko plug
4	Locking screw
5	Housing
6	Transport loop

Transport and storage

Transport

To make the device easier to transport, it is fitted with a transport loop.

Before transporting the device, proceed as follows:

1. Switch off the device.
2. Pull the plug from the mains socket. Do not use the power cable to drag the device.

Storage

The devices can also be stacked on top of one another for storage.

When the device is not being used, observe the following storage conditions:

- Dry.
- Protected from dust and direct sunlight.
- With a cover to protect it from invasive dust, if necessary.

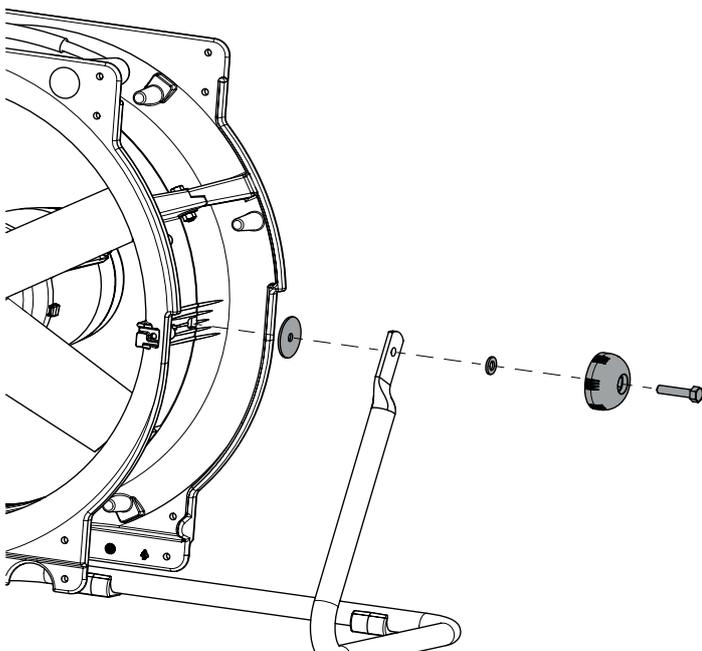
Set-up and installation

Assembly

Take the device out of the cardboard box and remove the plastic packaging.

Mounting the foot

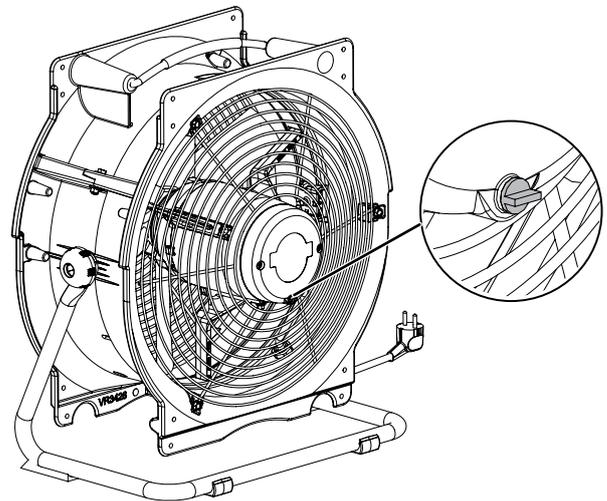
1. Attach the foot, the locking screws and the washers as indicated in the figure below:



Removing the condensate plug

The condensate plug, which is located at the lowest point of the motor, must be removed before start-up. Store the condensate plug safely as it must be reinserted for cleaning and maintenance work.

1. Remove the condensate plug.



Installing the device

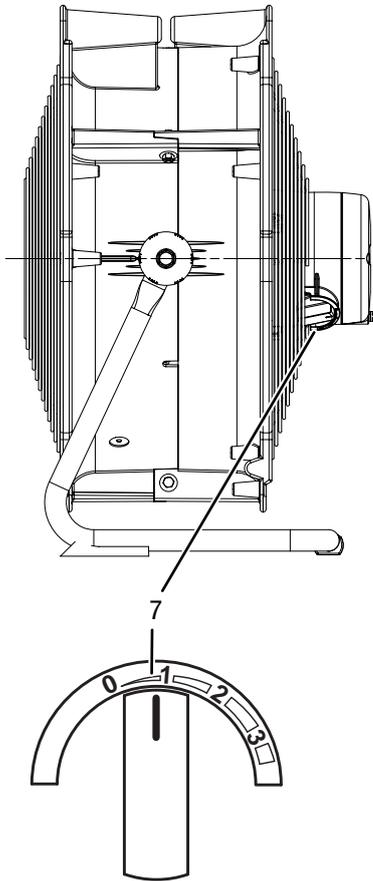
- Set the device up in a level, upright and stable position.
 - Do not create tripping hazards when laying the power cable.
 - Make sure that the air inlet and outlet are not obstructed.
1. Assemble the device according to the field of application along with the corresponding accessories. Always use a tension belt to connect hoses or dust bags.
 2. Set the device up in an upright and stable position.
 3. Plug the device into a properly fused socket.
- ⇒ The fan is now ready for operation.

Operation

On/off switch

Note:

The on/off switch is located on the rear of the device, directly at the motor.



No.	Designation
7	On/off step switch 0 - 1 - 2 - 3

Switching the device on

- Select the desired stage with the on/off switch (7) to switch the device on.

Shutdown

1. Switch off the device by setting the on/off switch to position 0.
2. Pull the plug from the mains socket.
3. Clean the device according to the Maintenance chapter.
4. Store the device according to the Transport and storage chapter.

Errors and faults

The device has been checked for proper functioning several times during production. If malfunctions occur nonetheless, check the device according to the following list.

The fan is not running:

- Check whether the device is switched on.
- Check the power supply.
- Check cable and power plug for defects.

The fan operates only for a short time, then switches off automatically:

- Check whether the protective grid is blocked and clean it if required.
- The motor bearing or cable connections are defective. If so, contact Trotec or your dealer.

The motor or fan is noisy or runs unevenly:

- The fan is soiled. Clean the fan according to the Maintenance chapter.
- The fan or the blower unit is damaged. If so, contact Trotec or your dealer.
- The motor bearing might be damaged. If so, contact Trotec or your dealer.

The fan produces grinding noises:

- The fan blades are dirty or foreign objects are located in the rotation range of the fan. Clean the fan blades or the blower unit according to the Maintenance chapter.
- The fan blades might be damaged. If so, contact Trotec or your dealer.

The device vibrates heavily:

- Check the floor space of the fan. Position the device on a level and firm surface.
- Check the screwed connections, particularly between blower unit and foot. If necessary, retighten the screws.
- Check the fan blades for dirt and clean them if required.
- There might be an imbalance in the fan blades. If so, contact Trotec or your dealer.

The fan changes its position during operation:

- Check the locking screws at the foot for tight fit and retighten them if necessary.

The air flow rate is low:

- Check whether the protective grid is blocked and clean it if required.

Your device still does not operate correctly after these checks?

Have the device repaired by authorised expert staff or by Trotec.

Maintenance

Activities required before starting maintenance

- Do not touch the mains plug with wet or damp hands.
- Before any work, remove the mains plug!

**Danger!**

Maintenance tasks which require the housing or motor to be opened must only be carried out by authorised specialist companies or by Trotec.

Maintenance activities

- Regularly check the housing for its perfect condition or for defects.
- Always be mindful of atypical sounds and consult a specialist dealer if in doubt.
- Keep the fan clean.
- You can use a compressor to remove particles, lint, dust and dirt from the motor, fan wheel and protective grid.
- Maintenance and repair work may only be carried out by Trotec.

Technical annex

Technical data

Parameter	Value		
Model	TTV 4500	TTV 4500 HP	TTV 7000
Article number	1.510.000.010	1.510.000.012	1.510.000.030
Air volume stage 1	2,000 m ³ /h	2,000 m ³ /h	3,000 m ³ /h
Air volume stage 2	3,000 m ³ /h	3,000 m ³ /h	4,500 m ³ /h
Air volume stage 3	4,500 m ³ /h	4,500 m ³ /h	7,000 m ³ /h
Nominal air volume	4,300 m ³ /h @ 50 Pa	3,550 m ³ /h @ 100 Pa	7,050 m ³ /h @ 50 Pa
Air current	blowing out/sucking in	blowing out/sucking in	blowing out/sucking in
Air discharge velocity	10.7 m/s (38.5 km/h)	12.8 m/s (46.1 km/h)	11.7 m/s (42.1 km/h)
Discharge distance	50 m	60 m	65 m
Max. air pressure	80 Pa	250 Pa	80 Pa
Max. transport medium temperature	45 °C	45 °C	45 °C
Mains connection	1 / N / PE ~ 230 V / 50 Hz (1.2 A)	1 / N / PE ~ 230 V / 50 Hz (1.4 A)	1 / N / PE ~ 230 V / 50 Hz (1.9 A)
Power consumption	0.23 kW	0.35 kW	0.46 kW
Fusing	10 A	10 A	10 A
Max. sound level (distance 3 m)	53 dB (A)	64 dB (A)	58 dB(A)
Mobility	portable/stackable	portable/stackable	portable/stackable
Hose connection with hose adapter* and/or combination distributor**	450 mm ** / 8 x 100 mm**	450 mm ** / 8 x 100 mm**	560 mm * / -
Permissible surrounding conditions	- 25 °C to + 40 °C	- 25 °C to + 40 °C	- 25 °C to + 40 °C
Dimensions (length x width x depth)	380 x 480 x 560 (mm)	380 x 480 x 560 (mm)	360 x 580 x 690 (mm)
Weight	12.5 kg	12.5 kg	15 kg
Type of protection	IP 55	IP 55	IP 55

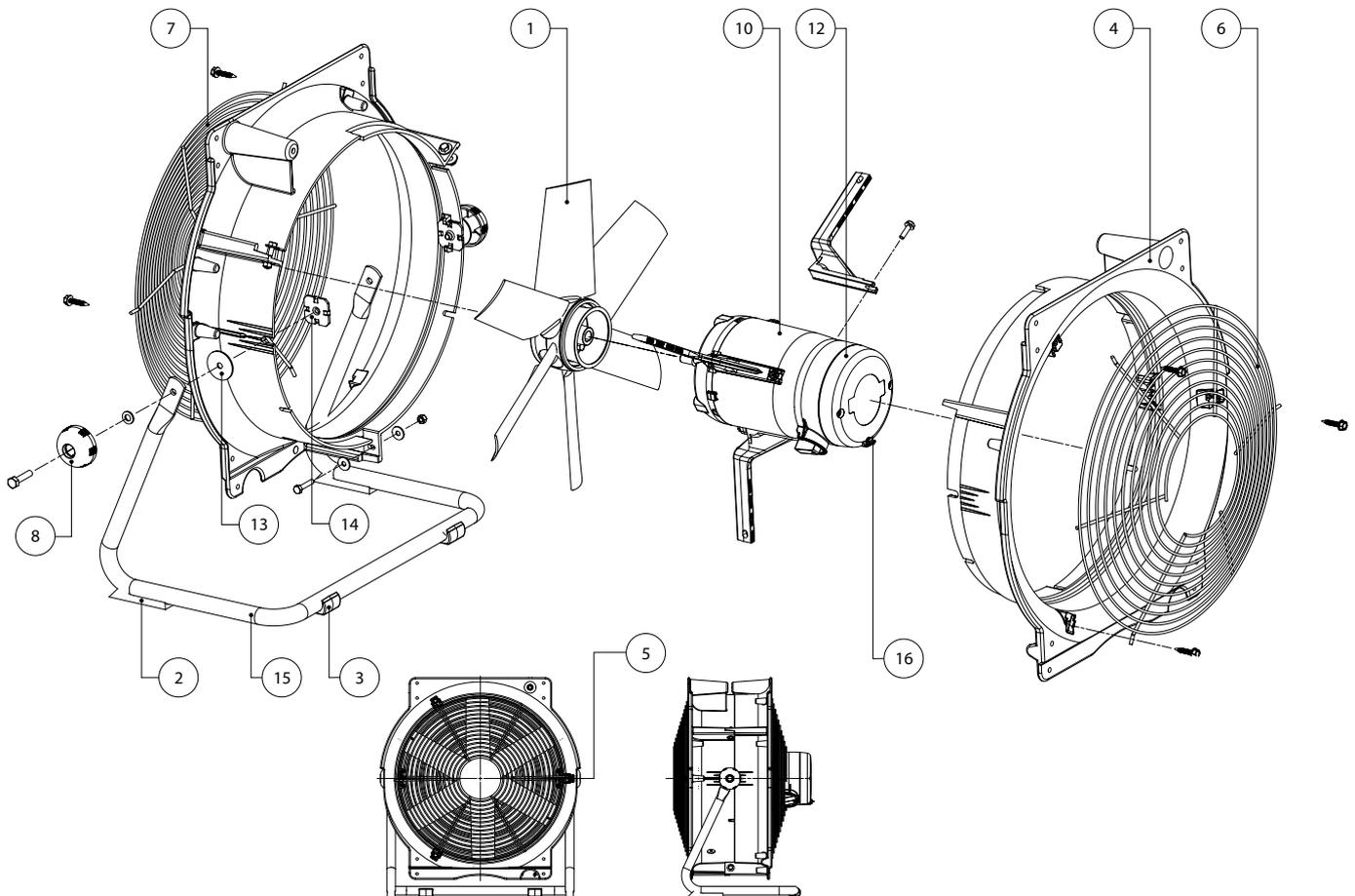
Accessories

Accessories	TTV 4500	TTV 4500 HP	TTV 7000
Combination distributor	6.100.005.011	6.100.005.011	-
Hose adapter	6.100.005.010	6.100.005.010	6.100.005.020
Dust bag class M, l = 3 m	7.160.000.110	7.160.000.110	-
Dust bag class M, l = 5 m	7.160.000.112	7.160.000.112	7.160.000.112

Exploded assembly drawing TTV 4500 / TTV 4500 HP

Note!

The position numbers of the spare parts differ from those describing the positions of other parts mentioned in this operating manual.



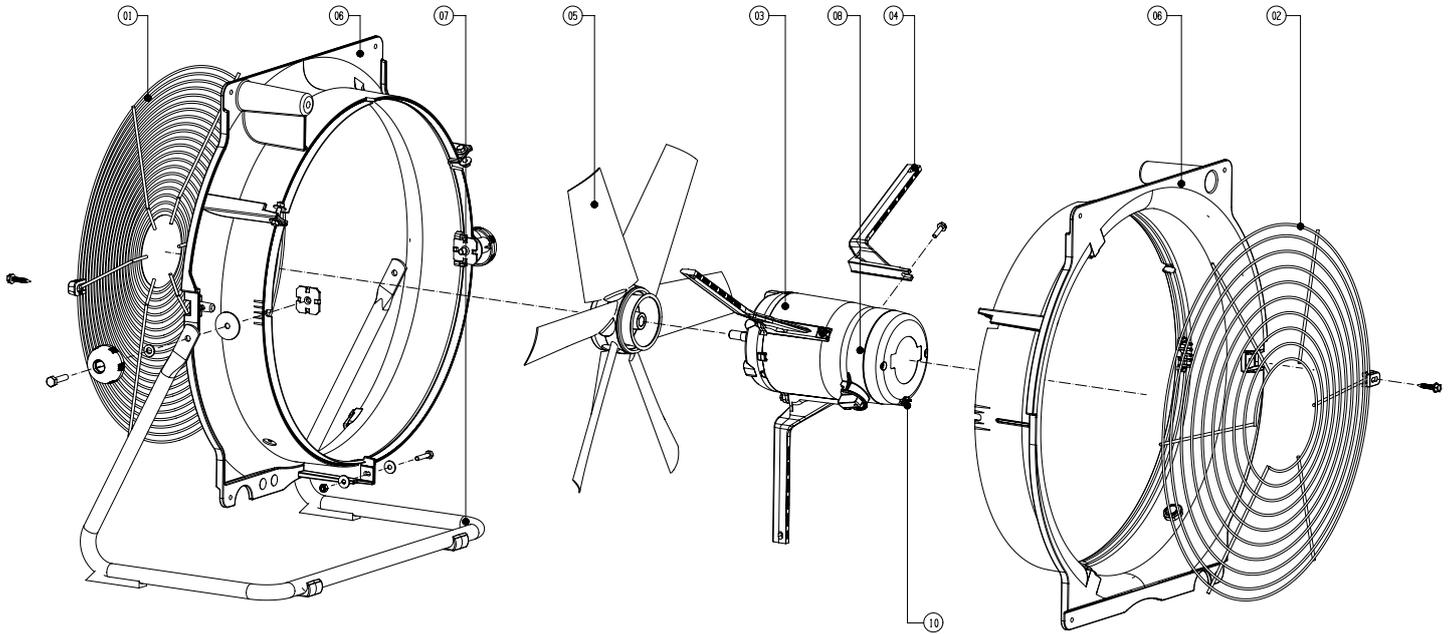
Spare parts list TTV 4500 / TTV 4500 HP

No.	Spare part	Article number
1	fan rotor TTV4500	7310000634
2	rubber feet back TTV4500	7300001246
3	rubber feet front TTV4500	7300001245
4	housing TTV4500/HP	7310000936
5	safety clamp grid BWV0023 TTV-series	7310000642
6	safety grid airoutlet TTV4500	7242000639
7	safety grid airinlet TTV4500	7242000638
8	fixing knob TTV-series	7310000710
9	condensator 6 μ F motor TTV	7140000357
10	motor 4E40 TTV4500	7110000635
11	connector assembly kit TTV-series	7320001271
12	switch TTV4500	7130000628
13	rubber washer TTV 4500	7330001155
14	plastic washer TTV 4500	7310001154
15	tube feet TTV4500	7240000937
16	condense plug	7300001248

Exploded assembly drawing TTV 7000

Note!

The position numbers of the spare parts differ from those describing the positions of other parts mentioned in this operating manual.



Spare parts list TTV 7000

No.	Spare part	Article number
01	Wire guard impeller side	7242000646
02	Wire guard motor side	7242000645
03	Motor	7110000637
04	Bracket	*)
05	Impeller	7310000633
06	Housing (set, 2pieces)	7310000939 (Ventilator) + 7310000938 (Motor)
07	Frame	7240000939
08	Controller (under cap)	*)
10	Condense plug	7300001248

*) on request

Disposal



In the European Union, electronic equipment must not be treated as domestic waste, but must be disposed of professionally in accordance with Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE). At the end of its life, please dispose of this device according to the valid legal requirements.

Declaration of conformity



EC Declaration of Conformity

(Translation of the original)

in accordance with EC Machinery Directive 2006/42/EC

Trotec GmbH & Co. KG

Grebbeener Straße 7

D-52525 Heinsberg

herewith declares, that due to its design and construction, and in the version introduced by us, the following machinery conforms with the relevant fundamental requirements of the listed EC directives.

Important note:

In case of improper use, installation, maintenance etc. or unauthorized changes of the factory-supplied device version, this declaration loses its legal validity.

Device version:

Series: TTV 4500 / TTV 4500 HP / TTV 7000

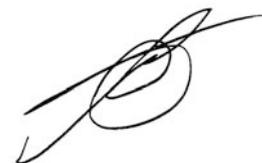
Year of manufacture:

Applicable regulations: 2006/42/EG
2004/108/EG

Applied harmonised standards: EN-ISO 12100:2010, EN-349:1994+A1:2008
EN-ISO 11201:2010, EN-ISO 11203:2009
EN-ISO 11204:2010, EN-953:1998+A1:2009, PR-CEN Guide 414:2014
NEN-EN 60204-1:2006, EN-50178:1997, EN-ISO 13857:2008

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