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### 1.0 Safety Instructions

It is prohibited to enter the gearbox and its attaching parts.



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Any unauthorised changes to the gearbox, its attaching parts and protective equipment are prohibited.



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### 1.1 Fundamental obligations

The operator of the gearbox is responsible for ensuring that these instructions are fully communicated.

Any individual who has been commissioned to work with the gearbox must have read and understood these instructions.

This is necessary in order to

- prevent hazards to life and limb of the user and third parties.
- secure operational safety of the gearbox.
- rule out downtimes and environmental impairments resulting from improper handling.

Relevant work safety and environmental regulations must be complied with during transport, assembly, disassembly, operation and maintenance.

The gearbox may only be operated, serviced and/or repaired by qualified personnel.

Exterior cleaning of the gearbox with a high-pressure cleaner is prohibited.

All work must be conducted with the highest degree of safety precautions.

**Any work conducted on the gearbox may only be performed when at a standstill.**



The drive unit must be secured against unintended reactivation.  
A sign must be mounted to the activating point indicating that work is being performed on the gearbox.

- No electrical welding works may be performed on the entire drive.  
The drives may not be used as a ground pin for welding works.  
Gearing components and bearings can be destroyed by the welding current.
- Equipotential bonding in accordance with pertinent provisions and/or guidelines must be conducted!  
If the gearbox is not equipped with threaded bores for the grounding connection, other suitable measures must be implemented.  
These tasks may only be performed by technical electrical specialists.

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**The drive unit must be immediately deactivated if unexplainable changes have occurred to the gearbox during operation, such as a considerably higher operating temperature or unusual gearbox sounds.**



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Rotating and/or moving parts must be protected by means of suitable protective equipment to prevent accidental contact.



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In the case of gearboxes with an additional fan, reaching into the fan hood is prohibited.  
There is a risk to life and limb of the operator.



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**The machine manufacturer is obligated to integrate the contents of these instructions into their operating manual.  
This applies to machines and systems in accordance with the EC Machinery Directive.**



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- Any protective equipment that has been removed must be reassembled prior to recommissioning.
  - Any information on the gearbox, such as type plate, direction arrows, must be observed.  
They must be free from paint and soiling. Missing or damaged signs and information must be replaced.
  - Screws must be replaced with new ones of the same strength, class and model.

## 1.2 Environmental protection

- Any packaging material must be disposed of as prescribed or it must be recycled.
- When changing oil, store the old oil in suitable containers. Any spilled oil must be cleared away immediately with oil binding agent.
- Preservatives must be stored separate from the old oil.
- Used oil, preservatives, oil binding agents and cleaning rags soaked with oil must be disposed of in accordance with applicable environmental regulations.
- Disposal of the gearbox following the end of service life:
  - Remove all residues of operating oil, preservatives and/or coolant from the gearbox and dispose of as prescribed.
  - Gearbox parts and/or attaching parts must be disposed of pursuant to national regulations, separately if required, or recycled respectively.

## 1.3 Special types of hazards and personal protective equipment

Depending on operating conditions, the gearbox may have hazardous surface temperatures.

There is a risk of burning in the case of hot surfaces (> 55 °C)!



There is a risk of cold damage (pain, numbness, freezing) as a result of cold surfaces (< 0 °C)!



When changing oil, there is a risk of scalding resulting from hot escaping oil!



Skin and eye contact with lubricant and the inhalation of steam should be avoided. Please observe the safety data sheet of the specified lubricant.



Small foreign materials (such as sand, dust, etc.) may enter the rotating parts and be thrown back by them. Risk of eye injury!



In addition to any generally prescribed personal protective equipment (safety shoes, work suit, helmet, etc.), safety gloves and suitable safety goggles must be worn when working with the gearbox.



The gearbox is not suitable for operation in explosive areas.  
Under no circumstances may it be used in such areas, as this would pose a fatal risk.



The exclusion of ATEX applications does not apply to gearboxes that have been specifically identified for such. Please also observe the special operating instructions. The authorised ATEX category can be found here. If in doubt, please contact Wilhelm Vogel GmbH Antriebstechnik.

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## 2.0 Transport

Please observe the instructions in chapter 1 (safety instructions).

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### 2.1 Scope of delivery

The content of the delivery is listed in the shipping documents. Completeness must be checked directly upon receipt.  
Damaged and/or missing parts must be directly reported in writing to Wilhelm Vogel GmbH Antriebstechnik.

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**In the case of apparent damage, the gearbox may not be operated.**



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### 2.2 Transport

During transport, only use lifting gear and lifting accessories with sufficient load-bearing capacity!

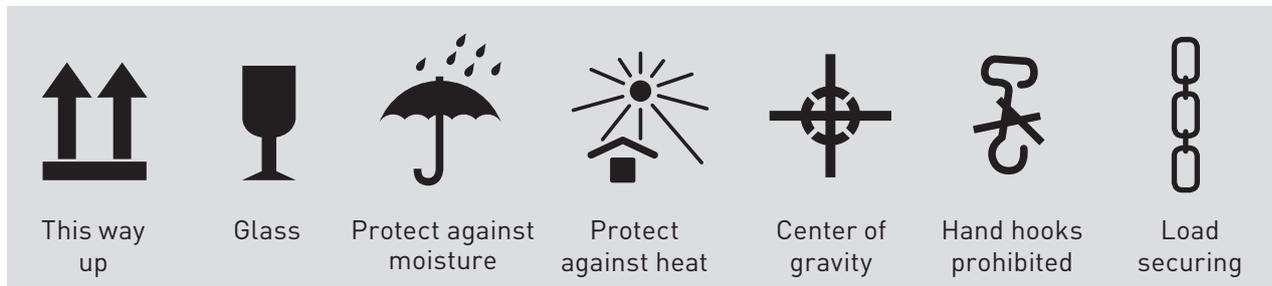
Please observe the load distribution specified on the packaging of the lifting equipment. The gearbox is delivered assembled. If additional equipment is included, it shall be packed separately.



Depending on the transport route and the size, the packaging of the gearbox may vary.

Unless otherwise contractually agreed, the packaging shall correspond to Vogel standard packaging.

All symbols on the packaging must be observed.  
They have the following meaning:



The gearbox must be transported in a manner so as to prevent any harm or damage to persons and objects on the gearbox.  
For instance, blows to the gearbox may cause damages.



The gearbox may only be transported via suitable transport means.

Depending on its classification, the gearbox is either delivered with or without an oil filling. During transport, it must be ensured that no oil can escape as a result of the transport position.

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No tilting may occur when secured to lifting screws.



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During transport, the gearbox may only be secured at the specifically designated bore holes with authorised load-securing means.

Transportation on any existing piping is not permitted. Piping may not be damaged.

The thread in the front sides of the shaft ends may not be used to secure load-securing means for transport.



Load-securing means must be designed to sufficiently and safely accommodate the weight of the gearbox.

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The precise illustration of the gearbox and position of the bore holes for load-securing means is contained in the dimensional drawings of the order-dependent gearbox documentation. Load-securing means and any special load-securing means are not included in the scope of the delivery.

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For drive units with added components, such as a drive motor, fitted coupling, etc., an additional load-securing point may be necessary as a result of the shift of the position of the centre of gravity.

