

Translation of the Original Operating Manual Hand saw – HS400S / HS400F / HS400G / HS400E



**Read operating manual before starting any work!
Keep the operating manual for future use!**

Revision			
Date	Chapter	Reason of changed	Person responsible
02-23		Reissue	Design
03-25		Declaration of Conformity updated	Design

Revisionsstand: 2025-03
Seriennummer:

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2 General**2.1 Operating manual**

This operating manual provides guidance on safe and efficient operation and should form a basis of any actions involving the machine. It is an integral part of the machine, which should be kept in the immediate vicinity accessible for its operating personnel.

Prerequisite of safe operation is adherence to all safety and handling instructions. Therefore, before starting any work, the personnel must read carefully and understand the operating manual.

Moreover, the accident prevention regulations applicable at the site of the machine operation and general safety regulations must be complied with.

2.2 Symbols, acronyms, terminology

Symbols, acronyms and specialist terminology used in this document have the following meaning:

	→	See item
	▶	Enumeration
	-	Enumeration
	1	Position number
	1.	Action step
<i>Text in italics</i>		Explanation of facts
		Refers to the document contained in the enclosed documentation. The source of the document is specified in italics behind the symbol.

2.3 Explanation of symbols**Warnings and safety instructions**

Warnings and safety instructions in the manual are identified with the pictograms and provided in blocks highlighted in grey.

Warnings and safety instructions, which draw attention to fundamental dangers, are additionally precluded by signal words, which specify the scope of damage. Their structure is as follows:

SIGNAL WORD!
Origin of the danger.
Consequences of ignoring the danger.
- Actions to avoid danger

- ▶ All warnings and safety instructions must be implicitly complied with!
- ▶ During the works, always act with caution, to avoid accidents, personal and material damage!

Pictograms combined with signal words mean:



DANGER!

... draws attention to an immediate danger that, if not avoided, may result in heavy or even fatal injuries.



WARNING:

... draws attention to potentially dangerous situations that, if not avoided, may cause heavy or even fatal injuries.



CAUTION!

... draws attention to potentially dangerous situations that, if not avoided, may result in slight injuries.



ATTENTION!

... draws attention to potentially dangerous situations that, if not avoided, may result in material damage.

Tips and recommendations



NOTE!

... highlights tips and recommendations as well as information on efficient and trouble-free operation.

Special safety instructions

To make aware of special dangers, the following pictograms are used in combination with the safety instructions:



... marks danger due to electric current.

Failure to observe the safety instructions leads to danger of heavy or fatal injuries.



... marks danger of crushing.

Failure to observe the safety instructions leads to danger of heavy injuries from moving parts.



... marks danger due to hot surface.

Failure to observe the safety instructions leads to danger of burns and heavy skin injuries caused by heat.



... marks danger from moving cutting wheels.

Failure to observe the safety instructions leads to danger of cuts and heavy skin injuries caused by rotating cutting wheels.

2.4 Liability limitation

All data and instructions provided in this manual were compiled with consideration of applicable standards and regulations, state of the art in this field and our long-standing insights and experience.

The manufacturer accepts no liability for damages caused by:

- ▶ Non-observance of the Operating manual
- ▶ Unintended use
- ▶ Employment of unskilled and uninstructed personnel
- ▶ Unauthorised conversions
- ▶ Technical changes
- ▶ Use of non-approved spare parts

The responsibilities agreed in the delivery contract, the General Terms and Conditions as well as the delivery conditions of the manufacturer and the statutory regulations valid at the time of the conclusion of the contract shall apply.

Warranty

The manufacturer guarantees the functional capability of the applied process technology and performance parameters identified.

The warranty period commences with the defect-free delivery.

Wear parts

Wear parts are all parts having direct contact with the processed or machined material during normal operation.

These parts are excluded from warranty and defect claims, insofar as tear and wear resulting from normal operation.

Service life warranty

Service life warranty is granted for wear parts for the period of 6 months from the acceptance of the defect-free product.

Warranty conditions

12 months after delivery of mechanical and electrical components for one-shift operation, except for the wear parts and tools.

The warranty claim expires, if the system was not installed and started up by our experts.

The warranty extends to the replacement parts.

Consequential damages are excluded.

Damage caused by natural wear, deficient or improper maintenance, failure to comply with the operating regulations, excessive loads and use of inappropriate equipment shall be excluded from the warranty.

2.5 Customer service

Our customer service department is available to provide technical information.

Service hotline
02482 – 12 200

You can obtain tips via the regional competent contact person by phone or via fax, email or website at any time.

Moreover, our employees are interested in new information and experience arising from use and which can be valuable for the improvement of our products.

2.6 Copyright

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3 Safety

This section provides an overview of all safety aspects of protection of operators and users from potential dangers, and safe and trouble-free operation.
Disregarding these handling instructions, warnings and safety instructions may pose serious risks.

3.1 Intended use

The HS400 S/F/G hand saw is designed exclusively for the following purposes in the commercial sector:

The HS 400S/F/G hand saw

- equipped with the mounted exhaust hood or water feed and the appropriate diamond cutting disc is intended for low-dust cutting operations such as concrete, stone, and masonry.

**WARNING:
Risk of unintended use!**

Any use beyond the intended use of the machine may result in dangerous situations.

- The machine must be basically used for the intended purpose according to data contained in this document, in particular, within the application limits provided in the technical data.
- Refrain from any use beyond this scope or different use of the machine.
- Refrain from remodelling, refitting or changing the design or separate parts of the machine for the purpose of changing the field of application or applicability of the machine.

- ▶ Any claims for damages resulting from unintended use are excluded.
- ▶ The operator alone is responsible for all damages due to unintended use.

3.2 Rationally foreseeable misuse

**WARNING:
Risk of injury caused by misuse!**

When misused, the machine may create dangerous situations for persons and cause heavy material damage.

- Refrain from any misuse of the machine.

Any use of the machine going beyond the intended one, shall be deemed unintended and thus prohibited.

This also applies to:

- cutting unauthorised construction materials, e.g., timber, metals, plastics
- cutting any materials other than presented
- cutting with chain or toothed saw blades
- cutting with segmented cutting blades with slots wider than 10 mm
- cutting without safety guard or with the blade guard open
- wet cutting without water
- dry cutting without a dust extractor (M Class)

3.3 Responsibilities of the operator

Operator

An operator is every natural or legal person, who uses the machine or delegates its use to others and is responsible for the safety of the user, personnel or third parties in the course of such use.

Operator's duties

The machine is used in the commercial sector. Therefore, the operator of the machine is subject to statutory obligations regarding occupational safety.

In addition to the warnings and safety instructions in this manual, the occupational safety, accident prevention and environmental protection regulations applicable to the field of the machine operation must be adhered to.

The operator, in particular, must:

- ▶ be informed about current occupational safety regulations,
- ▶ determine, through hazard evaluation, any potential additional dangers resulting from specific usage conditions at the site of the machine operation,
- ▶ put necessary behavioural requirements of the operating instructions into practice during the machine tool operation at the operation site,
- ▶ check regularly throughout the service life of the machine, whether the operating instructions drawn up by the operator are in line with the current status of rules and regulations,
- ▶ adjust the operating instructions, where necessary, to the new regulations, standards and operating conditions,
- ▶ exercise control of the competence for installation, operation, maintenance and cleaning of the machine in a clear and unambiguous manner,
- ▶ make sure that all personnel involved with the machine have read and understood the operating instructions. Moreover, the personnel must undergo training in handling the machine at regular intervals and be informed about potential dangers,
- ▶ provide the persons appointed for operating the machine with the prescribed and recommended protective devices.

Moreover, the operator is responsible for ensuring that the machine

- ▶ is always in a technically perfect condition,
- ▶ is maintained according to the specified maintenance intervals, and
- ▶ that all safety mechanisms of the machine are regularly controlled for completeness and functionality.

3.4 Responsibilities of the personnel

The machine is in the commercial use. Therefore, the personnel are subject to statutory obligations regarding occupational safety.

In addition to the warnings and safety instructions in this manual, the occupational safety, accident prevention and environmental protection regulations applicable to the field of operation must be adhered to.

In particular, the personnel must:

- ▶ be informed about current occupational safety regulations,
- ▶ adhere to behavioural requirements set out in the operating instructions issued at the site of the machine operation,
- ▶ properly exercise the responsibilities entrusted to them as regards installation, operation, maintenance and cleaning of the machine,
- ▶ fully read and understand the operating manual before starting work,
- ▶ use the prescribed and recommended protection equipment,

Moreover, scope of responsibility of every person operating the machine includes the duty of always

- ▶ keeping it in a technically perfect condition,
- ▶ performing maintenance, according to the intervals specified,
- ▶ controlling all safety mechanisms for completeness and functionality on a regular basis.

3.5 Personnel requirements

Fundamentals

Any operation with the machine may only be carried out by the persons, capable of performing their work properly and reliably and meet every requirement mentioned.

- ▶ No works can be carried out by the persons, whose response capability is affected, e.g., by drugs, alcohol or medicines.
- ▶ When deploying personnel at the site of operation, always adhere to the applicable occupational and age-specific regulations.

Qualification



WARNING:
Risk of injury for unqualified personnel!

Improper operation can result in significant personal and material damage.

- Any operations must be only carried out by the persons having required training, knowledge and experience.

Instructed personnel

Instructed personnel are the persons, who have been instructed by the operator on the tasks to be carried out and potential dangers in a detailed and verifiable way.

Specialist personnel

Specialist personnel are the persons, who, due to their professional training, knowledge and experience, as well as knowledge of the relevant provisions, are capable of duly carrying out the works assigned, recognise potential dangers independently and avoid personal and material damage.

Qualified electricians

As a matter of principle, all works on the electrical installations must be carried out by qualified electricians.

Qualified electricians are the persons, who, due to their specialist training, knowledge and experience, as well as knowledge of the relevant provisions, are capable of duly carrying out the works on electrical systems, recognising potential dangers independently and avoiding personal and material damage caused by electric current.

Unauthorised persons



WARNING:
Danger of injuries for unauthorised persons!

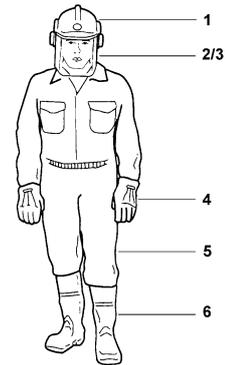
Those who have not been instructed are not aware of the dangers in the area of operation and must be considered unauthorised persons.

- Keep unauthorised persons away from the area of operation; if in doubt, address the persons met and banish them from the area of operation.
- Suspend operations until unauthorised persons leave the area of operation.

3.6 Personal protective equipment

Wearing personal protective equipment is required during the work.

- (1) Helmet with ear protectors
- (2) Visor or protective goggles
- (3) Dust mask / respirator
- (4) Safety gloves
- (5) Suitable protective clothing
- (6) Protective footwear with protection



NOTE!

It is prohibited to wear protective gloves near rotating parts, which pose the danger of pinching. Here, danger created by wearing protective definitely surpasses the intended protection.

3.7 Dangers

The machine has undergone a risk review. Wherever possible, the identified dangers were eliminated and risks reduced. Nevertheless, the machine poses residual risks described in the following section.

- ▶ Strictly observe warnings and safety instructions specified here and in the chapters about handling to avoid potential damage to health and dangerous situations.
- ▶

3.7.1 Residual risks

Even if used as intended, the machine may pose the following residual risks:

- ▶ Danger of finger and hand injury by the rotating tool.
- ▶ Injuries from flying workpieces in case of improper keeping or guiding.
- ▶ Injuries by snapped or ejected cutting disk or faulty diamond segment.
- ▶ Injuries resulting from touching live parts in case of opened or defective electric components.
- ▶ Hearing impairment due to long periods of work without hearing protection.

3.7.1.1 Risks through mechanical hazards

Rotating tools



CAUTION!
Risk of cut injuries!

Reaching into rotating tools may lead to heavy injuries.

- Do not touch rotating cutting wheels in any circumstances
- Never work without cutting wheel guard.
- Only work with cutting wheel guard closed
- Never put down the hand-held saw while the wheel is still rotating

Flying clippings / tool**CAUTION!**
Risk of injury by flying clippings or tool parts!

Failure to wear appropriate protective equipment, working with open cutting wheel guard or with inappropriate cutting wheels may lead to heavy injuries.

- Wear protective goggles
- Only work with cutting wheel guard closed
- Only work with cutting wheels, specifically designed for the material to be cut

Movable parts**CAUTION!**
Risk of injury by pinching in movable parts!

Failure to wear appropriate protective equipment may lead to heavy injuries.

- Wear protective gloves

3.7.1.2 Risks through electrical hazards

Electric current**DANGER!**
Danger to life from electric current!

Touching live parts leads to death. Damaged insulation or individual components can be life-threatening.

- Disconnect the machine from the power supply before any work on the electric system. Verify that the system is disconnected from power supply.
- Switch off power supply before maintenance, cleaning and repair operations and secure the machine against being restarted.
- If the power supply insulation is damaged, switch off immediately and arrange for repairs.
- Never bypass or disable fuses.
- Always use fuses with correct amperage when replacing defective fuses.
- Keep moisture away from live parts.
- Any works on the electrical installations must be carried out by qualified electricians.
- Clean the ventilation slots on a regular basis.

3.7.1.3 Risks through thermal hazards

Hot surfaces**CAUTION!**
Risk of burns on hot surfaces.

Contact with hot parts may cause burns.

- Do not touch the surface.
- Before every work, make sure that the parts have cooled down to the ambient temperature.

3.7.1.4 Risks posed by special physical effects



CAUTION!
Danger of injuries caused by special physical effects

Failure to wear appropriate protective equipment may lead to heavy injuries.

- Wear ear protectors
- Wear protective gloves
- Take adequate breaks
- Regular medical examinations 'G20'

Reaction forces



CAUTION!
The danger of injuries caused by kickbacks!

Failure to wear appropriate protective equipment and a rotating tool that blocks becomes twisted or abruptly stops may lead to fatal injuries.

- Wear ear protectors
- Wear protective gloves
- Wear protective goggles
- Position your body and arms in such a way that you can resist the kickback forces
- Use an additional handle
- Never attempt to pull the blade out of the cut` while the blade is still in motion
- Exercise caution when working on walls or other areas, which may contain gas, water, or electricity lines that are not visible.

3.7.1.5 Risks due to hazardous substances



CAUTION!
Risk of injury by hazardous substances, such as dust and cutting water or slurry!

Failure to wear appropriate protective equipment may lead to damage to health.

- Use personal protective equipment
- Renew the cutting water regularly
- Use the dust mask
- Connect water supply
- Use a dust extractor (M Class) when dry cutting

3.7.1.6 Risks due to work environment conditions



CAUTION!
Risk of injury due to inadequate lighting.

Work in inadequate lighting conditions may lead to heavy injuries.

- Provide for adequate lighting at the workplace.

3.8 Safety devices



WARNING:
Danger to life due to defective or bypassed safety devices!

Inoperable, bypassed or disabled safety devices do not protect from hazards and may lead to heavy or fatal injuries.

- Before commencement of works, always make sure that all safety devices are properly installed and functional.
- Never disable safety devices.
- Ensure that the safety devices are always freely accessible.



NOTE!
 See safety devices in → "Design and function".

Residual current device

The machine has an inrush current limitation, which prevents fast-acting circuit breakers from being unintentionally triggered.



WARNING!
Danger to life due to defective or malfunctioning residual current devices!

To ensure operator safety, the HS400S/F may only be operated with a residual current device when wet cutting. Thus as a standard feature, the unit comes with a portable RCD circuit breaker integrated into the cable.

- The PRCD must not be exposed to water
- Do not use the PRCD to switch the machine on or off
- Before starting work, check proper functioning by pressing the test button



Overload protection

To ensure operator and motor safety, the HS400S/F/G cutting system is equipped with electronic overload protection.

Light-emitting diodes are installed on the operating handle that indicate an overload and alert the operator against overloading the machine by a feed force that is too high.

- ▶ No status is indicated at rest and normal load.

- ▶ In the event of an overload, all four diodes light up. The first is lit green, the second and third amber, and the fourth red. If unnoticed for a longer time, the electronics will automatically switch off the machine.
- ▶ Work can proceed normally after discharge and switching the unit off and on again.



3.9 Spare parts



WARNING:
Risk of injury due to wrong spare parts.

Wrong spare parts can seriously compromise safety and cause damage and malfunction up to total failure.

- As a matter of principle, only original spare parts must be used.

Original spare parts can be obtained via an authorised dealer or directly from the manufacturer.

3.10 Actions in emergency and in case of accidents

Necessary actions

- ▶ Always be prepared for accidents or fire.
- ▶ First aid facilities (first aid box, cloth, etc.) and fire extinguisher must be close at hand.
- ▶ Personnel must familiarise themselves with accident signalling equipment, first aid and rescue facilities.
- ▶ Access roads for rescue vehicles must be always kept free.

If the need arises, act properly

- ▶ Activate emergency stop immediately
- ▶ Initiate first aid measures
- ▶ Remove persons affected from the danger area.
- ▶ Inform persons responsible at the operation site.
- ▶ Alert doctor and/or fire brigade in case of heavy injuries.
- ▶ Keep access roads for rescue vehicles free.

3.11 Signage

Danger of cutting damage



CAUTION!

Risk of cut injuries!

Reaching into moving tools may lead to heavy injuries.

- Do not touch rotating cutting wheels in any circumstances
- De-energise the machine before replacing the cutting wheel

Illegible signs



CAUTION!

Risk of injury due to illegible symbols!

Stickers and signs that got illegible, make danger zones insufficiently recognisable and may become incapable of indicating potential injury risks.

- Always maintain legibility of pictograms, safety, warning and operating instructions.
- Immediately replace the pictograms, labels, signs or stickers that became illegible.

Danger from electric current!



DANGER!

Danger to life from electric current!

Touching live parts leads to death. Damaged insulation or individual parts can be life-threatening.

- Disconnect the machine from the power supply before any work on the electric system. Check that no voltage is present!
- Switch off power supply before maintenance, cleaning and repair operations and secure the machine against being restarted.
- If the power supply insulation is damaged, switch off immediately and arrange for repairs.
- Never bypass or disable fuses.
- Always use fuses with correct amperage when replacing defective fuses.
- Keep moisture away from live parts.
- Any works on the electrical installations must be carried out by qualified electricians.
- Annual check of the electric system according to VDE0701.

There are the following symbols and information signs on the machine that refer to potential dangers:

	<p>Warning of rotating tool!</p>	
	<p>Running direction of the rotating tool</p>	
	<p>Safety pictograms</p>	

4 Technical data

4.1 Dimensions of the machines

4.1.1 HS400S/F

Specification	Value	Unit
Length	820	mm
Width	255	mm
Height	330	mm
Operating weight	11	kg

4.1.2 HS400G

Specification	Value	Unit
Length	800	mm
Width	245	mm
Height	330	mm
Operating weight	10	kg

4.1.3 HS400E

Specification	Value	Unit
Length	1100	mm
Width	255	mm
Height	330	mm
Operating weight	15	kg

4.2 Connection and motor values

Specification	Value	Unit
Rated voltage	230	V
Rated frequency	50-60	Hz
Power input	3300	W
Nominal speed	4000	min ⁻¹
Protection class	II	
Degree of protection of enclosure	IP20	

4.3 Other data

4.3.1 HS400S/F

Specification	Value	Unit
Cutting wheel	400	mm
Bore	25,4	mm
Vibration level	4,1	m/s ²
Measuring tolerance		
Vibration level	0,2	m/s ²

4.3.2 HS400G

Specification	Value	Unit
Grinding disc	180	mm
Bore	25,4	mm
Vibration level	2,4	m/s ²
Measuring tolerance		
Vibration level	0,2	m/s ²

4.3.3 HS400E

Specification	Value	Unit
Chain	400	mm
Vibration level	4,3	m/s ²
Measuring tolerance		
Vibration level	0,2	m/s ²

4 Technical data

4.4 Noise emission

	Without load	Full load	Messtoleranzen		
Sound pressure level	68 dB (A)	110 dB (A)	Sound pressure level	4 dB (A)	
Sound power level	80 dB (A)	115 dB (A)	Sound power level	2,5 dB (A)	
Guaranteed sound power level	120 dB (A)				

The data define the sound level of the noise exposure at the workplace of the operator and sound power level of the machine tool.

The emission values meet standards EN ISO 3744, EN 12418 and Directive 2005/88/EC.

4.5 Operating conditions

Working zone

Specification	Value	Unit
Temperature range	Ambient temperature 5-45	°C
Relative air humidity, maximum	60 (without condensing)	%
Conditions	Only operate the machine tool in the dust-free environment! Avoid direct impact of dampness, dust and frost. Do not operate in strong electric and magnetic fields! Do not operate the machine tool in explosive atmosphere!	

4.6 Cutting tool

Cutting wheel	Cutting wheel diameter	Material	Number of segments	Segment height
TS35	Ø 400 mm	Concrete, reinforced concrete	30	10 mm

Grinding wheel	Grinding wheel diameter	Material	Number of segments	Segment height
DS36	Ø180 mm	Natural and cast stone, granite, hard substrates	-	7
DS42		Medium-hard substrates, concrete, universal construction materials	24	8

Chain	Blade length	Material
DC40	40 cm	Concrete
DC50	50 cm	Concrete
DC50A	50 cm	Concrete



DANGER!
Risk of injury by defective or incorrectly mounted cutting tools!

Wrong rotation direction and damaged cutting wheels may cause serious injuries of personnel!

- Check cutting tools for broken off segments and segment pieces, segment foot cracks, cutting wheel deformations or signs of wear before starting work.
- Pay attention to the rotation direction arrows on the cutting tool and guard!



DANGER!
Risk of injury by unchecked or unapproved tool!

Cutting wheels that have not been checked or approved may cause injuries of personnel!

- Before starting work, check whether a proper cutting tool is mounted.
- Pay attention to the rotation direction arrows on the cutting tool and guard!

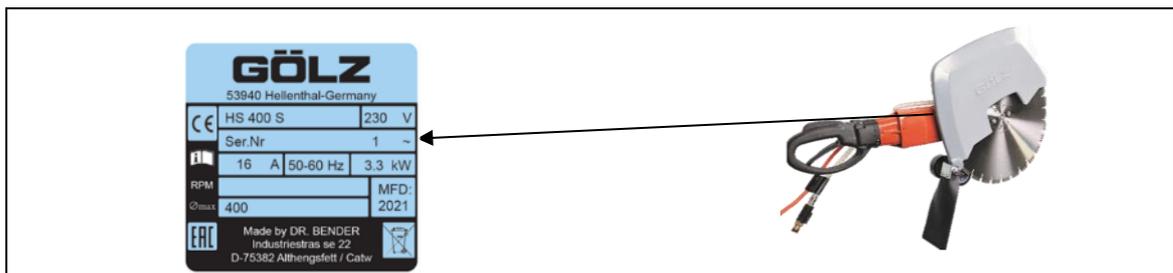


NOTE!

All cutting tools used must be designed in terms of their permissible max. cutting speed to match the max. drive speed and intended application of the machine tool.

4.7 Type plate

The type plate is located on the base frame of the machine tool.



NOTE!

The machine is designed for use in daylight. Ensure adequate workplace lighting in poorly lit or unlit work areas.

4.8 Storage requirements

Storage conditions

As a matter of principle, the machine, its components, assemblies or parts must be only stored in the following conditions:

- ▶ do not store outdoors
- ▶ store in dry and dust-free place
- ▶ do not expose to aggressive media
- ▶ protect from solar radiation
- ▶ avoid mechanical vibrations
- ▶ storage temperature range 5 to 45°C
- ▶ relative air humidity, max. 60%

In case of storage for over 3 months, check general condition of all parts and packaging on a regular basis. If necessary, renew or replace conservation materials.

5 Design and function

The machine consists of a cutter head with a drive spindle, the motor unit, the protective guard for the cutting disc and the water connector.

5.1 Scope of delivery and responsibility

The machine was developed and manufactured under sole responsibility of Gölz GmbH. Upon transfer to the operator, the responsibility for safe handling and instruction of the personnel passes to the operator.

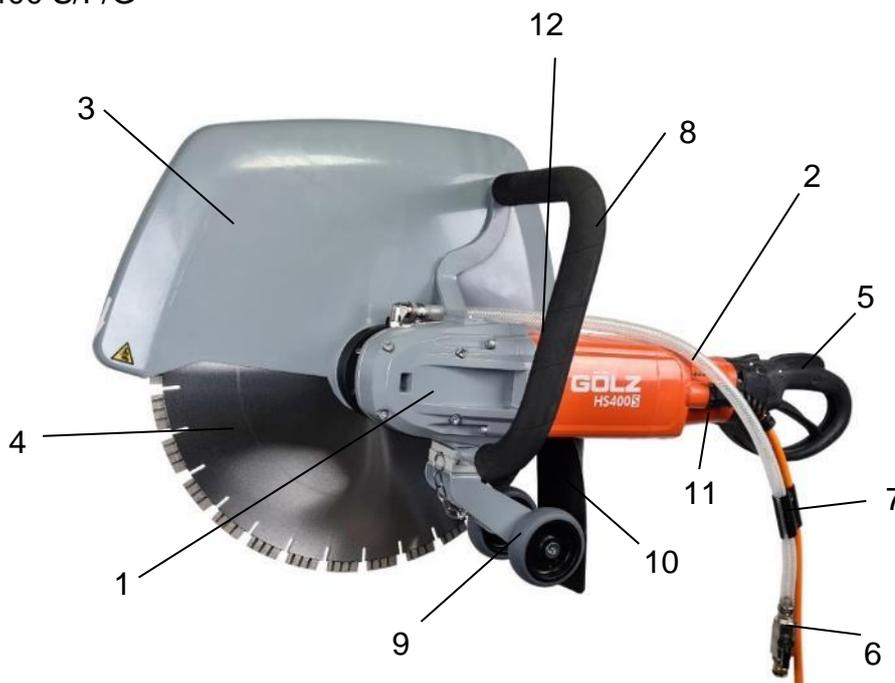
The manufacturer offers training on the machine.

The scope of delivery includes the following components:

Components	Quantity
Hand saw HS400S/F/G	1
Technical documentation	1

Components	Quantity
Dry cutting extractor	1
Set of wheels	1

5.2 HS 400 S/F/G



1	Cutter head	7	Connecting cable
2	Motor unit	8	Cutter head handle
3	Blade guard HS400S Flush guard HS400F Dust extraction guard HS400G Chain guard HS400E	9	Wheel set HS400S/F (does not apply to HS400G and HS400E)
4	Blade guard HS400S/F Grinding disc HS400G Chain HS400E	10	Splash guard HS400S/F/E (does not apply to HS400G)
5	Hand grip	11	Type plate
6	Water connection	12	Overload protection indicator

5.2.1 Functional description HS400S/F

The machine is intended exclusively for professional or industrial purposes. It is used for low-dust cutting of concrete, natural stone and masonry.

During wet cutting, the diamond cutting blade (4) must be cooled with water via the provided water connection (6).

For dry cutting, a dust extractor (M Class) that is connected to the exhaust hood is absolutely necessary.

The handle (5) can be adjusted by 180° depending on the application. To do this, push in the locking knob on the machine until the handle turns easily. There are four 90° latch positions.

The position of the protective hood (3) on the machine is freely adjustable depending on the application. Do this when the saw blade (4) is stationary, by simply turning the protective hood by the desired angle. The protective hood is self-locking in place.

The overload indicator (12) is located on the left side of the machine, embedded in the housing, just in front of the handle.

- ▶ In idle status, no diode is illuminated.
- ▶ At low load, the first diode is green; more cutting pressure can be applied.
- ▶ At medium load, the first is green and the second amber, or the first is green, the second and the third amber. This means that there is optimal cutting pressure.
- ▶ At overload all four diodes are on. The first is green, the second and the third amber, and the fourth red. Work can proceed normally after discharge and switching the unit off and on again.

Working safely with the machine is safeguarded by a residual current device (PRCD).

5.2.2 Functional description HS400G

The machine is intended exclusively for professional or industrial purposes. It is used for low-dust cutting of concrete, natural stone and masonry.

During wet cutting, the diamond cutting blade (4) must be cooled with water via the provided water connection (6).

For dry cutting, a dust extractor (M Class) that is connected to the exhaust hood is absolutely necessary.

The handle (5) can be adjusted by 180° depending on the application. To do this, push in the locking knob on the machine until the handle turns easily. There are four 90° latch positions.

The position of the protective hood (3) on the machine is freely adjustable depending on the application. Do this when the saw blade (4) is stationary, by simply turning the protective hood by the desired angle. The protective hood is self-locking in place.

The overload indicator (12) is located on the left side of the machine, embedded in the housing, just in front of the handle.

- ▶ In idle status, no diode is illuminated.
- ▶ At low load, the first diode is green; more cutting pressure can be applied.
- ▶ At medium load, the first is green and the second amber, or the first is green, the second and the third amber. This means that there is optimal cutting pressure.
- ▶ At overload all four diodes are on. The first is green, the second and the third amber, and the fourth red. Work can proceed normally after discharge and switching the unit off and on again.

Working safely with the machine is safeguarded by a residual current device (PRCD).

5.2.3 Functional description HS400E

The machine is intended exclusively for professional or industrial purposes. It is used for low-dust cutting of concrete, natural stone and masonry.

During wet cutting, the diamond cutting blade (4) must be cooled with water via the provided water connection (6). Dry cutting is not possible here.

The handle (5) can be adjusted by 180° depending on the application. To do this, push in the locking knob on the machine until the handle turns easily. There are four 90° latch positions.

The chain guard (3) position on the machine is fixed, and in this case, it cannot be changed.

The overload indicator (12) is located on the left side of the machine, embedded in the housing, just in front of the handle.

- ▶ In idle status, no diode is illuminated.
- ▶ At low load, the first diode is green; more cutting pressure can be applied.
- ▶ At medium load, the first is green and the second amber, or the first is green, the second and the third amber. This means that there is optimal cutting pressure.
- ▶ At overload all four diodes are on. The first is green, the second and the third amber, and the fourth red. Work can proceed normally after discharge and switching the unit off and on again.

Working safely with the machine is safeguarded by a residual current device (PRCD).

6 Transport & packaging

6.1 Transport safety information



ATTENTION!
Damage through improper transportation!

Improper transportation can result in considerable damage of the transported goods and objects in the vicinity.

- Always act with utmost caution and care when loading and unloading transported goods.
- Pay attention to instructions and symbols on the packaging.
- Never remove transport locks earlier than before assembly.

6.2 Transport inspection

Inspect the condition of the transported goods immediately upon delivery for completeness and damage.

In the event of externally recognisable damages:

- ▶ do not accept the delivery or accept it only conditionally,
- ▶ record the scope of the damage in the transport documents and indicate it in the carrier's consignment note,
- ▶ lodge complaint.



NOTE!
Claim any defect immediately upon delivery of the transported goods!
Claims regarding transport damage can only be lodged within valid complaint periods.

6.3 Transport symbols

On the outside of the transported goods, there are symbols corresponding to the content, which must be strictly observed during transportation and storage.

Meaning of the transport symbols

The following transport symbols can be placed on the transported goods:

	<p>This side up</p> <p>The arrowheads indicate the top end of the transported goods. These should point upwards otherwise the content can be damaged.</p>		<p>Keep dry</p> <p>Protect the transported goods from dampness and keep them dry.</p>
	<p>Anchor point</p> <p>Only attach lifting tackle to the indicated points.</p>		<p>Centre of gravity</p> <p>Indicates the centre of gravity of the transported goods. Pay attention to the centre of gravity position when handling the goods!</p>

6.4 Transport and storage**Handling packaging**

The machine is packed in a safe and environmentally sound manner for the anticipated transport conditions. The packaging protects the parts up to the beginning of assembly from damage and corrosion.

- ▶ Only remove packaging and transport locks before assembly.
- ▶ Dispose of packaging materials according to applicable local regulations.

**ATTENTION!
Environmental damage through improper disposal!**

Packaging material is valuable raw material and can be used again or expediently reprocessed and recycled.

- Always dispose of packaging materials in an environmentally sound manner.
- Follow local regulations. If necessary, employ a specialised company for waste disposal.

Transport of the machine**ATTENTION!
Damage through improper transportation!**

Improper transportation can result in considerable damage of the machine and objects in the vicinity.

Before every transport:

- De-energise the machine
- Only carry the machine by the cutting head handle - cutting disc backward
- Never move the machine with the cutting disc installed

During the operation, the machine is carried either by the cutting head handle by using one hand, or by the cutting head handle and the rear handle bar using two hands.

Secure the machine inside the vehicles against tipping over and damage.

Storage of the machine

Store the machine in the following conditions:

- ▶ indoors only,
- ▶ store in dry and dust-free place,
- ▶ do not expose to aggressive media,
- ▶ protect from solar radiation,
- ▶ avoid mechanical vibrations,
- ▶ storage temperature: 5 to 45 °C,
- ▶ relative air humidity: max. 60%.
- ▶ In case of storage for over 3 months, check general condition of all parts and packaging on a regular basis. If necessary, renew or replace conservation materials.



NOTE!
Store cutting wheels only vertically or suspended!
Protect from humidity!

7 Installation and first commissioning

7.1 Installation safety information



WARNING!
Risk of injury due to improper installation!

Improper work performance and installation errors can result in heavy injuries during work and life-threatening situations during commissioning and operation.

- Any installation works must be only carried out by trained personnel authorised by the operator.
- Sufficient assembly freedom must be ensured before commencement of works.
- Always keep the working zone tidy and clean!



DANGER!
Danger to life from electric current!

Touching live parts leads to death. Damaged insulation or individual parts can be life-threatening.

- Connection, inspection and measurements of electric parts must be carried out by qualified electricians.
- In case of defective electric components switch off immediately and arrange for repairs.
- Keep humidity away from live parts.

7.2 Connection

Before connecting the machine to the power source, make sure that:

- ▶ voltage / phase of the power supply, match the data on the type plate of the motor and machine
- ▶ Voltage deviations of + 6 % and – 10 % are acceptable.

The equipment is designed according to protection class II.

Only use extension cords with a sufficient cross-section. Excessive power drain and overheating of machine and cable may occur, if the cross-section is too small.

Recommended minimum cross sections and maximum cord length

Mains voltage	Cross-section in mm ²	
	1.5	2.5
110V	-	40 m
230V	50 m	80 m



NOTE!
Power losses may occur if the cord length >50m!

Personal protective equipment

- ▶ Protective clothing
- ▶ Protective gloves
- ▶ Safety shoes
- ▶ Ear protectors
- ▶ Protective goggles

7.3 First commissioning and acceptance, general



DANGER!

Risk of injury during the first commissioning or adjustment works. Therefore:

- Before starting work, disable the machine and secure the machine against being restarted. Affix warning signs!
- Ensure that the machine is never operated with a damaged connection cord
- Ensure sufficient lighting
- Keep environment clean and free from objects and cables
- Make sure, there are no unauthorised persons in the vicinity of the machine
- The machine must not get wet and may not be operated in damp environments

The machine is delivered fully assembled. However, the cutting disc still has to be installed on the HS400S/F, and the sanding disc still has to be installed on the HS400G. HS400G is delivered ready for use.

7.3.1 Steps before commissioning

7.3.1.1 Tool change HS400S/F



CAUTION!

Risk of burns caused by contact with hot surfaces!

Contact with hot components can cause burns.

- Wear work gloves when changing tools.
- Ensure all components have cooled down to ambient temperature before starting any work.

To mount a new cutting wheel by HS400S/F or replace the used one, proceed as follows:

1. Switch off the machine and interrupt the power supply by pulling the mains cable from the mains outlet
2. Remove the bolts from the flange that holds the cutter blade
3. Remove the cutting wheel
4. Clean blade flange and motor shaft
5. Inspect components for signs of wear
6. Mount or replace the cutting wheel. While doing so, pay attention to the correct rotation direction of the cutting wheel and motor shaft



NOTE!

The arrow on the cutting wheel indicates correct rotation direction.

7. Install the bolts back into the blade flange
8. Tighten them evenly and crosswise



NOTE!

The cutting wheel must be properly installed and able to rotate freely. Perform a test run of at least 1 minute without load.

7.3.1.2 Tool change HS400G



CAUTION!
Risk of burns caused by contact with hot surfaces!

Contact with hot components can cause burns.

- Wear work gloves when changing tools.
- Ensure all components have cooled down to ambient temperature before starting any work.

To mount a new grinding disc by HS400G or replace the used one, proceed as follows:

1. Switch off the machine and interrupt the power supply by pulling the mains cable from the mains outlet
2. Remove the central bolt from the grinding disc
3. Remove the grinding disc
4. Clean the motor shaft
5. Inspect components for signs of wear
6. Install the new grinding disc
7. Insert the central bolt into the motor shaft
8. Tighten firmly



NOTE!

The grinding disc must be properly installed and able to rotate freely. Perform a test run of at least 1 minute without load.

7.3.1.3 Tool change HS400E



CAUTION!
Risk of burns caused by contact with hot surfaces!

Contact with hot components can cause burns.

- Wear work gloves when changing tools.
- Ensure all components have cooled down to ambient temperature before starting any work.

To mount a new chain by HS400E or replace the used one, proceed as follows:

1. Switch off the machine and interrupt the power supply by pulling the mains cable from the mains outlet
2. Remove both fixing bolts from the chain guard cover
3. Loosen the diamond chain clamp (SW19) and loosen the chain (SW19)
4. Remove the chain
5. Inspect components for signs of wear
6. Install the new chain
7. Tighten the chain again and tighten the chain clamp
8. Reinstall the chain guard cover



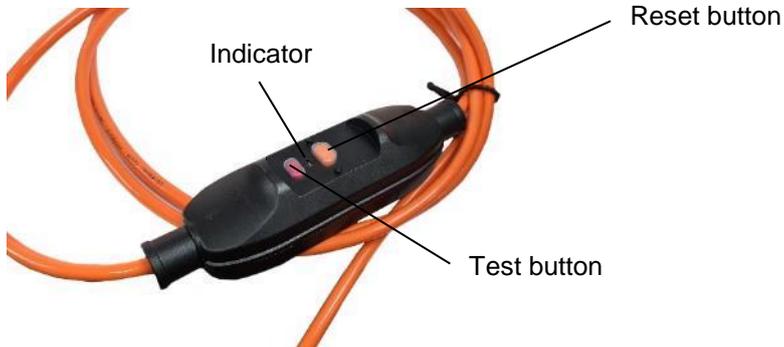
NOTE!

The diamond chain must be properly installed and able to rotate freely. Perform a test run of at least 1 minute without load.

7.3.1.4 PRCD circuit breaker Functional test

Before starting the machine, test the PRCD on functionality. To do this, proceed as follows:

1. Insert the mains plug of the hand-held cut-off saw into a socket with grounding connection
2. Press the Reset button on the Portable Residual Current Device (indicator light should be on).
3. Press the Test button on the Portable Residual Current Device (indicator light should disappear).

**DANGER!**

The danger of death and injuries caused by errors during installation, or a faulty residual current device.

Do not operate the device any longer, if the indicator light does not turn off.

- Qualified personnel should check and repair the machine using original spare parts.

8 Operation

8.1 Operation safety information



WARNING!

Risk of injury due to improper operation!

Improper operation may lead to heavy injuries.

- The machine may only be operated by trained personnel authorised by the operator.
- Before every work, make sure that the safety devices are correctly installed and function without flaws.
- Never disable safety devices.
- Always keep the working zone tidy and clean! Objects, parts, workpieces, tools and cleaning devices loosely lying around are accident sources.



DANGER!

Danger to life from electric current!

Touching live parts leads to death. Damaged insulation or individual parts can be life-threatening.

- In case of defective electric components switch off immediately and arrange for repairs.
- Keep humidity away from live parts.

Personnel

- ▶ Instructed personnel

Personal protective equipment

- ▶ Protective clothing
- ▶ Protective gloves
- ▶ Safety shoes
- ▶ Ear protectors
- ▶ Protective goggles

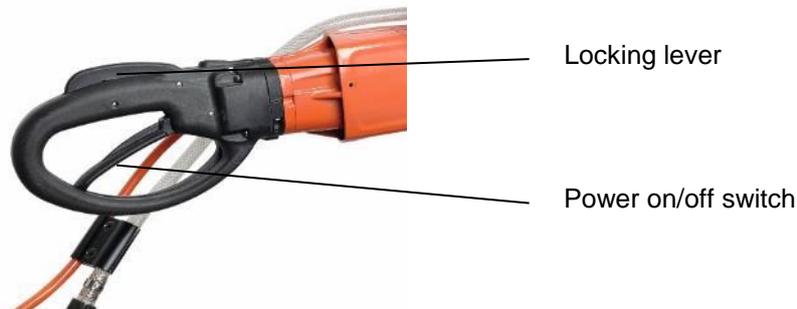
8.2 Start-up preparation

To safely use the machine as intended, the following preconditions must be met:

- ▶ The machine was checked for damage, loose screw connections and completeness
- ▶ The water feed is functional and connected
- ▶ Direction of rotation arrows on the cutting wheel and the cutting wheel guard cover must match (HS400S/F)
- ▶ The appropriate cutting wheel (HS400S/F), appropriate grinding disc (HS400G), appropriate diamond chain (HS400E) that meet optimum requirements should be installed
- ▶ For dry cutting: a dust extractor (M Class) is connected (except HS400E)

8.3 Start-up

Push the locking lever down with the palm of your hand while simultaneously pulling the on/off switch upwards with your fingers.

**8.4 Cutting**

Ensure a firm position on an even surface. The equipment should not touch the ground or any other objects.

Then proceed as follows:

1. Grasp the machine by the cutter head grip with your right hand and the handle with your left hand
2. Regulate the water supply via the mini ball valve so that cutting disc (HS400S/F), grinding disc (HS400G), diamond chain (HS400E) are sufficiently cooled
3. Turn on the machine
4. Wait until cutting disc (HS400S/F), grinding disc (HS400G), diamond chain (HS400E) are at full speed
5. Plunge into the material
6. Guide the tool evenly across the surface of the workpiece until the cut is complete.

**DANGER!**
Danger to life due to improper operation!

The machine must always run in a counter-clockwise direction. Otherwise, there is a risk that it will be thrown out of the cut in a violent unexpected manner.

**NOTE!**

Maintain a straight cutting line and a steady feed rate to achieve clean cuts.

**NOTE!**

Know where cooling and rinsing water as well as cutting sludge is going. Those must be collected, filtered, and disposed of accordingly.

**NOTE!**

Slots in load-bearing walls are subject to DIN 1053 Part 1 or country-specific regulations. It is important to adhere to these regulations. Familiarize yourself before starting work.

8.4.1 Wet cutting

Follow these steps on how to supply the machine with water:

1. Connect the machine via the GARDENA plug-in nipple to the water feed or to the water supply or a water pressure tank.
2. Operate the machine only with clean water and sufficient water supply. This can be adjusted via the mini ball valve.



CAUTION!
Machine damage due to wrong water pressure.

Maximum water pressure should not exceed 3 bar!

3. Make sure that the segments are sufficiently cooled.



NOTE!

If the water is clear, the segments are sufficiently cooled.

4. Grasp the machine by the cutter head grip with your right hand and the handle with your left hand
5. Regulate the water supply via the mini ball valve
6. Turn on the machine
7. Wait until cutting disc (HS400S/F), grinding disc (HS400G), diamond chain (HS400E) are at full speed
8. Pull into the material
9. Guide the tool evenly across the surface of the workpiece until the cut is complete.

8.4.2 Dry cutting



WARNING!
Risk of injury caused by dust.

Dust from materials such as lead-based paint, minerals, and metal can be harmful to health. Touching or inhaling the dust may cause allergic reactions and/or respiratory illnesses in the user or persons in the immediate vicinity.

Certain types of dust are considered carcinogenic. Material containing asbestos may only be processed by specialists.

- Implement dust extraction
- Use a dust extractor (M Class) with the hand-held cut-off saw to achieve a high degree of dust extraction
- Ventilate the workplace
- Use a respirator with a P2 filter

Dust generated during work is harmful to health. Thus, when cutting, use a dust extractor (M Class) and wear a filtering face piece.

Proceed as follows:

1. Dismount the splash guard from the protective hood (HS400S/F)
2. Install the optional dry cutting extractor (HS400S/F)
3. Connect a fitting dust extractor (M Class) to the dry cutting extractor

5 Design and function

4. Turn on the dust extractor
5. Grasp the machine by the cutter head grip with your right hand and the handle with your left hand
6. Turn on the machine
7. Wait until cutting disc (HS400S/F), grinding disc (HS400G), are at full speed
8. Pull into the material
9. Guide the tool evenly across the surface of the workpiece until the cut is complete

8.5 Switching off

In order to turn the machine off, release the power on/off switch.



9 Maintenance & cleaning

9.1 Maintenance safety information



WARNING!
Risk of injury due to improper maintenance!

Improper maintenance may lead to injuries.

- Any maintenance works must be only carried out by instructed specialist personnel authorised by the operator.
- Sufficient assembly freedom must be ensured before commencement of works.



DANGER!
Danger to life from electric current!

Touching live parts leads to death. Damaged insulation or individual parts can be life-threatening.

- Switch off the electric system before maintenance and repair operations and secure it against being restarted.
- Keep humidity away from live parts.



WARNING!
Risk of injury due to wrong spare parts.

Wrong spare parts can seriously compromise safety and cause damage and malfunction up to total failure.

- As a matter of principle, only original spare parts must be used.



CAUTION!
Risk of cut injuries!

Reaching into moving tools may lead to heavy injuries.

- Do not touch rotating cutting wheels in any circumstances
- If any works need to be carried out, disconnect the machine from power supply

9.2 Maintenance plan

Maintenance works necessary for optimum and trouble-free operation are described in the following sections.

- ▶ If an increased wear of parts is revealed by regular inspections, reduce the maintenance intervals!
- ▶ Draw up a maintenance log after every maintenance! The log assists in error analysis, enables adjusting the intervals to actual usage conditions and validating guarantee claims.
- ▶ If you have any queries on maintenance works and intervals:
contact manufacturer.

Interval	Maintenance work	Personnel
Before every commissioning	Visual check <ul style="list-style-type: none"> - of the entire machine - of the tool holder (blade holder) - of the tool (cutting wheel) - of the control elements (handles, rollers, etc.) - water connection - dust exhaust 	Operating personnel
	Visual check <ul style="list-style-type: none"> - of the electric system - of the motor 	Specialist personnel
	Werkzeugaufnahme säubern	Operating personnel
	checking the tool for replacement necessity	Operating personnel
	Functional test (locking lever, water regulation)	Operating personnel
After completion of work	Cleaning of <ul style="list-style-type: none"> - entire machine - control elements (handles, rollers, etc.) - tools 	Operating personnel
	draining and cleaning water hoses	Operating personnel
	Cleaning of <ul style="list-style-type: none"> - Motor housing (ventilation slots) 	Specialist personnel
	tool holder <ul style="list-style-type: none"> - lubrication - greasing - oiling - applying corrosion protection 	Operating personnel
weekly	Re-tightening and adjusting <ul style="list-style-type: none"> - control elements (handles, rollers, etc.) 	Operating personnel
yearly	Safety inspections of <ul style="list-style-type: none"> - electric systems - motor 	Qualified electricians
in case of an error	Visual check <ul style="list-style-type: none"> - of the entire machine 	Operating personnel
in case of damage	change and replacement <ul style="list-style-type: none"> - entire machine - tool holder - tools - control elements (handles, locking rollers, etc.) - water connection 	Operating personnel
	change and replacement <ul style="list-style-type: none"> - electric systems - motor 	Qualified electricians

9.3 Description of the maintenance works to be carried out by the operator



ATTENTION!

Cleaning by a high-pressure cleaner will damage the machine.



ATTENTION!

Foaming and cleaning with water will damage the machine.

**ATTENTION!**

The cutting wheel may not be cleaned by metal cleaning tools (scraper, metal sponge or similar), otherwise it will be damaged.

9.3.1 Replacing the cutting tool

The cutting tool must be replaced if:

- the diamond segments on the cutting tool are fully worn, damaged or broken out
- varying materials are to be cut
- the cutting tool does not rotate smoothly

9.3.2 Checking water supply line

Carry out acoustic and visual check for tightness of the connections and hoses after each work.

9.4 Steps after completing maintenance

After completion of the maintenance works and before switching on, follow the following steps:

1. Check for tightness all threaded joints previously detached.
2. Check the proper installation of all previously removed protective devices and covers.
3. Make sure that all tools, materials and other equipment have been removed from the working zone.
4. Clean the working zone and remove any spilled substances such as liquids, processing materials or similar.
5. Make sure that all safety devices of the system function properly.

9.5 Parts susceptible to wear

Machine parts susceptible to wear are:

- O-ring
- Needle bearing
- Ball bearing
- Drive shaft
- Gear
- Shaft seal ring
- Shaft seal
- Sprocket
- Splash guard
- Sealing
- Shaft protection
- Drive shaft
- Pinion
- Crown gear
- Drive shaft
- Gear
- Spindle
- Gear wheel
- Flange

- Plastic ring
- Sticker
- Pressure spring
- Metal insert
- Cable routing
- Rubber cover
- Gardena connection
- Hose
- Sealing ring
- Fan wheel
- Groove sealing strip
- Binding rope
- Resin
- Insulation paper for rotor coil
- Adhesive tape
- Gear wheel
- Locking plate
- Rubber buffer

Wear of these parts does not present any product defect.

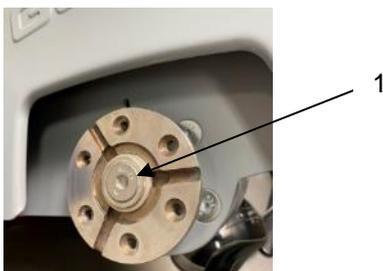


NOTE!
Wear parts are highlighted in grey in the spare parts list!

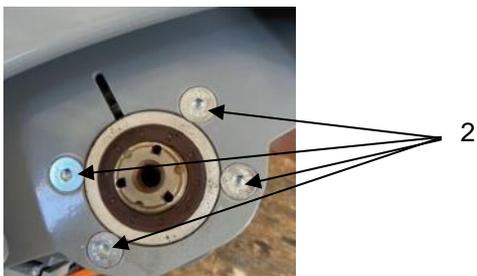
9.6 Carbon brush change

Follow these steps to change the carbon brush:

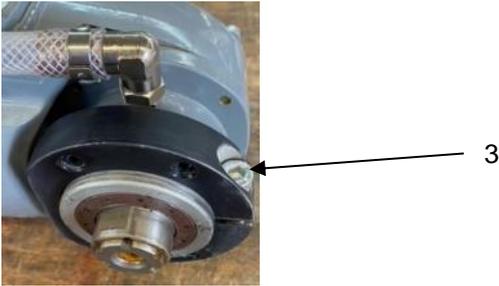
1. Remove the cutting disc as described in Chapter 7.3.1.1.
2. Remove the flange by removing the hexagon socket screw (1).



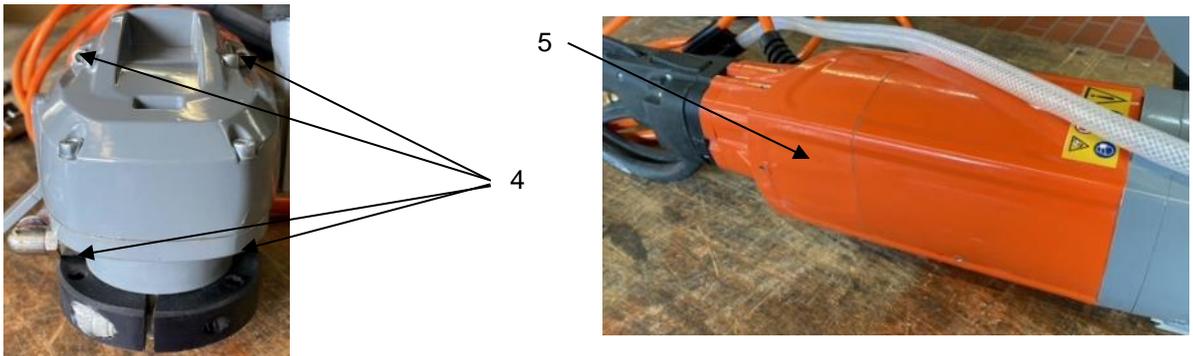
3. Remove the blade guard Blattschutz by removing the four hexagon socket screws (2).



4. Remove the plastic clamping ring of the protective hood by removing the hexagon socket screw (3) and squeeze the clamping ring out of the groove.



5. Remove the four hexagon socket screws (4) and remove the rear part of the machine (5) from the rest of the machine.



6. Pull the carbon brushes out of the carbon brush holder and replace with new carbon brushes.
7. Assemble in reverse order.

10 Errors

10.1 Troubleshooting safety information

**WARNING!****Risk of injury due to improper troubleshooting!**

Improper actions in the course of troubleshooting may lead to heavy injuries.

- Any repair works must be only carried out by instructed specialist personnel authorised by the operator.
- Sufficient assembly freedom must be ensured before commencement of works.
- Always keep the working zone tidy and clean! Objects, parts, workpieces, tools and cleaning devices loosely lying around are accident sources.
- Check correct assembly of spare parts if these have been replaced. Fit properly all fastening elements. Observe screw tightening torques.
- Before recommissioning, make sure that all safety devices are properly installed and functional.

**WARNING!****Risk of injury resulting from unauthorised restarting!**

Personnel working on individual parts can be injured if the machine is restarted unexpectedly.

- Before working on any individual parts, switch off the machine and secure it against being restarted.

**DANGER!****Danger to life from electric current!**

Touching live parts leads to death. Damaged insulation or individual parts can be life-threatening.

- Switch off the electric system before maintenance and repair operations and secure it against being restarted.
- Keep humidity away from live parts.

10.2 Actions in case of errors

The following basically applies:

1. In case of errors posing an immediate danger for personnel or property, immediately activate the emergency stop.
2. Switch off power supply and secure it against being restarted.
3. Inform persons responsible at the operation site.
4. Depending on error reason type, assign responsible authorised specialist personnel to identify and eliminate it.

10.3 Troubleshooting table

Error message / error	Possible cause	Troubleshooting	Personnel
When switched on, the machine does not start	Mains plug is loose	Check proper connection to mains	Operating personnel
	Mains plug is defective	Check the mains plug for operability, replace if necessary	Qualified electricians
	Loose connection in the electric system	Have the entire electric system of the machine checked	
	The drive motor is defective	Have the drive motor checked, replace if necessary	
	The main switch is defective	Have the main switch checked, replace if necessary.	
The machine does not provide sufficient performance	The mains plug is too long, cord reel is wound up	Observe the prescribed length of the mains plug. Unwind the cable cord	Operating personnel
	Capacity of the local - mains is insufficient	Pay attention to and observe the machine connection data	
	The drive motor does not maintain the rotation speed	Have the drive motor checked, replace if necessary	Qualified electricians
Low or no cooling water feed	Hose are clogged	Clean the hoses	Operating personnel
	Hoses bent	Check hose layout	
	A hose is leaky or detached	Replace or re-attach the hose properly	
Motor does not start	Mains plug is not properly plugged.	Check the mains plug for proper connection	Operating personnel
	A fuse at the construction site - distribution board has tripped	Check fuses	
Cutting blade wobbles	Blade tension is poor	Return the cutting blade	Manufacturer
Segments are coming off	Overheating, cooling is poor	Check cooling water line	Operating personnel
		Segments are soldering on	Manufacturer
Cutting blade shows side and radial run-out	Cutting blade is bent or damaged	Have the cutting blade straightened, solder the segments to a new blade or use a new blade	Manufacturer
	Flange is polluted or damaged	Clean or replace the flange	Operating personnel
	Motor shaft is bent	Replace the electric motor	Qualified electricians

Error message / error	Possible cause	Troubleshooting	Personnel
High segment wear!	Segment bonding is too soft	Use cutting wheels with harder segments or reduce feeding pressure	Operating personnel
	Segments are too thin in relation to the motor capacity and feeding pressure	Reduce the feeding pressure, or use cutting - wheels with thicker segments	
	Segment number is too small	Use cutting wheels with segments, or reduce the - feeding pressure	
	The cutting wheel runs out	Use a new cutting wheel, have the old one straightened, check the cutting shaft, use a new one if necessary	
	The cutting wheel deviates	Check the table guides, replace if necessary	
	Abrasive aggregates	Use cutting wheels with harder segments	
	Feeding pressure is too high	Reduce the feeding pressure	
Zero performance when cutting, cutting blade is blunt	The cutting blade does not match the material	Use a proper cutting blade	Operating personnel
	The cutting blade does not match the machine capacity		
	The cutting blade is too hard		
	Diamond on the segment are blunt	sharpen	Specialist personnel
Suboptimal blade course	Blunt segments	sharpen	Specialist personnel
	Cutting blade is overloaded	Use an appropriate cutting blade	Operating personnel
	Poor tension of cutting blade	Return the cutting blade	Manufacturer
Mounting bore of the cutting blade is worn out	The cutting blade rotates on the motor shaft	Check the mounting - flange, replace if necessary	Manufacturer
		The mounting bore must be hollowed out and a ring fitted in	Specialist personnel
The cutting blade is oxide-coated	The cutting blade is overheating, too little cooling water	Check the cooling water	Operating personnel
	Lateral friction in the cut	Lower the feed rate, pull the material slowly	
Cracks on steel core; eccentric wear of the cutting blade	The cutting blade is too hard	Use a softer cutting blade	Operating personnel
	Motor shaft bearing	Replace the motor shaft bearing	

10.4 Steps after troubleshooting

After completion of the troubleshooting and before switching on, follow the following steps:

1. Check for tightness all threaded joints previously detached.
2. Check proper installation of all previously removed protective devices and covers.
3. Make sure that all tools, materials and other equipment have been removed from the working zone.
4. Clean the working zone and remove any spilled substances such as liquids, processing materials or similar.
5. Make sure that all safety devices of the machine function properly.

11 Dismantling and disposal

After the design service life is over, the machine must be dismantled and disposed of in an environmentally sound manner.

11.1 Dismantling and disposal safety information

**WARNING!****Risk of injury resulting from improper dismantling!**

Improper actions in the course of dismantling may lead to heavy injuries.

- Any dismantling works must be only carried out by instructed specialist personnel authorised by the operator.
- Sufficient assembly freedom must be ensured before commencement of works.
- Always keep the working zone tidy and clean! Objects, parts, workpieces, tools and cleaning devices loosely lying around are accident sources.
- Mind sharp-edged parts, corners and points.
- During dismantling operations, always secure parts so that cannot fall or overturn.
- Dismantle parts properly and in a professional way with consideration of local labour and environmental protection regulations.
- In cases of doubt, contact the manufacturer.

**DANGER!****Danger to life from electric current!**

Touching live parts leads to death.

Damaged insulation or individual parts can be life-threatening.

- Before dismantling operations, switch off power supply and secure the machine against being restarted.

Personnel

- ▶ Instructed specialist personnel authorised by the operator

11.2 Dismantling

1. Switch off the machine and secure it against being restarted.
2. Physically disconnect the power supply from the unit and discharge stored energy. Check that no voltage and pressure are present.
3. Remove operating and auxiliary materials, and remaining processing materials and dispose of them in accordance with the environmental regulations
4. Clean properly assemblies and parts, and disassemble them with consideration of the applicable local labour and environmental protection regulations.

11.3 Disposal

If no return or disposal agreement was made, send the dismantled components for recycling:

- ▶ scrap metal parts.
- ▶ hand over plastic parts for recycling.
- ▶ dispose of other components assorted according to material characteristics.



EU countries only

Electric waste is recyclable and must not be disposed of in the household waste!! According to the European directive 2012/19/EU on electrical and electronic waste and version transposed into national law, used power tools must be collected separately and sent for recycling in an environmental-friendly manner.



ATTENTION!

Environmental damage resulting from improper disposal!

Wrong or negligent disposal may result in significant environmental pollution.

- Electrical scrap, electronic components, lubricants, operating and other auxiliary materials must be disposed of by specialised companies.
- In case of hazardous substances, treatment and disposal provisions of the material safety data sheets must be taken into consideration.
- In case of doubts, consult the manufacturer or local municipal authorities or specialised disposal companies on the environmentally safe ways of disposal.

12 Spare parts list

12.1 Using the spare parts list

The spare parts list is not a mounting or dismantling instruction. The only purpose of the spare parts list is to easily and quickly find spare parts which can be ordered with distribution agencies.

**DANGER!****Risk of injury when mounting or dismantling assemblies!**

Use of the spare part lists for mounting or dismantling may result in grave personal damage or death!

- During mounting or dismantling operations, relevant descriptions of the operating manual must exclusively be followed.

12.2 Distribution agencies

<p>Deutschland - Germany - Allemagne - Duitsland GÖLZ® GmbH Dommersbach 51 DE-53940 Hellenthal Tel: +49 (0)2482-12 200 Fax: +49 (0)2482-12 222 E-Mail: info@goelz.de / Internet: www.goelz.de</p>	
<p>Österreich - Austria - Autriche - Oostenrijk GÖLZ® Ges.m.b.H Samstraße 52 A-5020 Salzburg Tel: +43 (0) 662 - 43 81 75 Fax: +43 (0) 662 - 43 07 34 E-Mail: info@goelz.at / Internet: www.goelz.at</p>	<p>Frankreich - France - France - Frankrijk GÖLZ® S.A.S. 1, rue de la Mairie F-67370 Berstett Tel: +33 (0)3.88.59.43.00 Fax: +33 (0)3.88.59.47.77 E-Mail: info@golz.fr / Internet: www.golz.fr</p>
<p>Großbritannien - Great Britain - Grande-Bretagne - Groot-Brittannië GÖLZ® (UK) Ltd. Unit A5, Springhead, Enterprise Park Northfleet Kent DA11 8HB Tel: +44 1 474321679 Fax: +44 1 474321477 E-Mail: info@goelz.co.uk / Internet: www.goelz.co.uk</p>	<p>Benelux GÖLZ® Benelux Eupener Straße 61 BE-4731 Raeren-Eynatten Tel: +49 (0)2482-12 200 Fax: +49 (0)2482-12 222 E-Mail: benelux@goelz.de / Internet: www.goelz-online.com</p>
<p>Australien - Australia - Australie - Australië GOLZ® Pty Ltd. 44 Stanley Street Peakhurst, NSW 2210 Tel: +61 (0) 2 9534 5599 Fax: +61 (0) 2 9534 5588 E-mail: info@golz.com.au / Internet: www.golz.com.au</p>	<p>USA GOLZ® L.L.C. 5860 East Osage Ridge Lane Columbia MO 65203-6018 Tel: +1 573 474 4961 E-Mail: info@golzusa.com / Internet: www.goelz-online.com</p>

*Note!*

In order to avoid wrong deliveries the information the ordering information should be checked for accuracy and completeness before sending it! Completely indicate the delivery address!

		
<p>So bekommen Sie schnell und richtig Ihr Ersatzteil</p>	<p>Always indicate</p>	<p>Pour obtenir rapidement les pièces de rechange indiquer</p>
<ul style="list-style-type: none"> • Maschinentyp gemäß Typenschild • Baujahr gemäß Typenschild • Artikelnummer gemäß Ersatzteilliste • Maschinenummer gemäß Typenschild 	<ul style="list-style-type: none"> • machine type according to nameplate • year of manufacture according to nameplate • order number according to spare part list • serial number according to nameplate 	<ul style="list-style-type: none"> • type de la machine conforme de plaque d'identification • Année de construction selon plaque d'identification • Numéro de l'article selon la liste des pièces de rechange • numéro de la machine suivant plaque d'identification
<p>Für Bestellungen, Fragen und Informationen wenden Sie sich bitte an die zuständigen Stellen.</p>	<p>For orders, questions and information, please contact the competent departments.</p>	<p>Pour les commandes, questions et informations, veuillez-vous adresser aux points de ventes correspondants.</p>

12.3 Exploded view and spare parts list

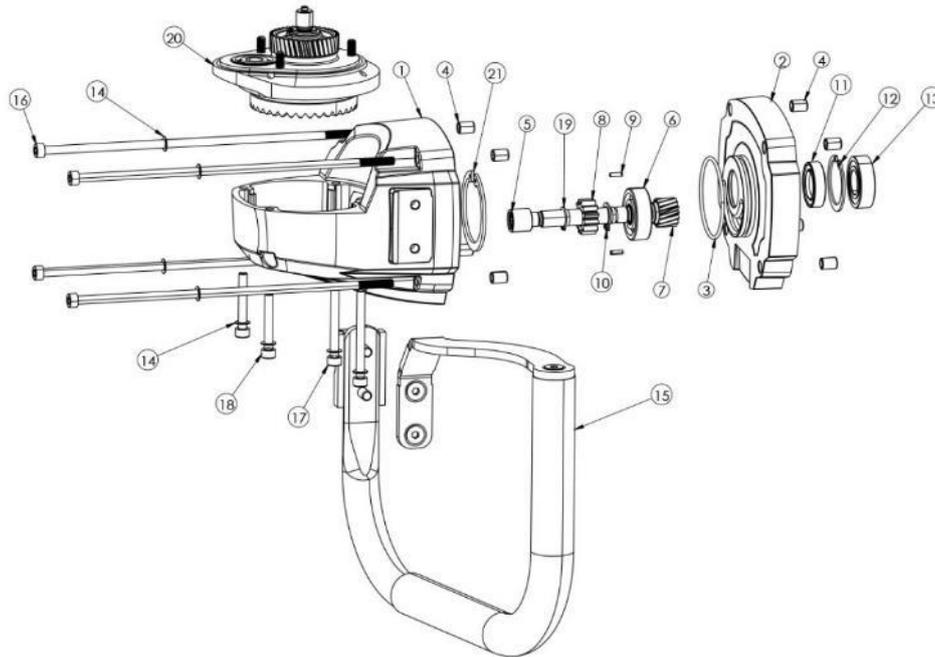
12.3.1 HS400E

12.3.1.1 Machine



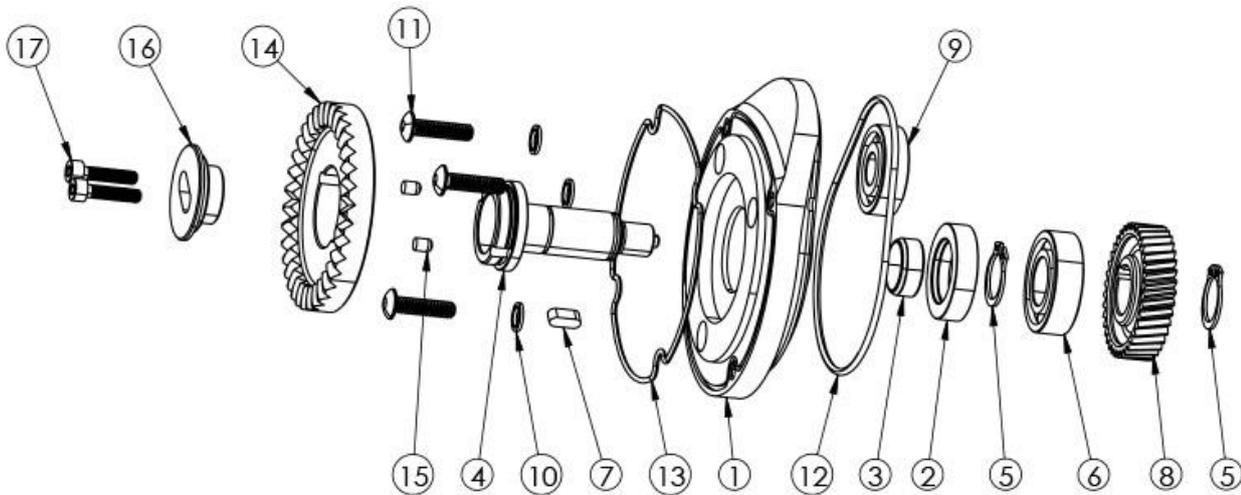
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	CHS000001 -	1			Motoreinheit kpl.	Motor unit cpl.	Unité motrice cpl.
2	CHS000002-3 -	1			Schneidkopf kpl.	Cutter head cpl.	Tête de coupe complète
3	CHS000020 -	1			Kettensägenaufsatz kpl.	Chainsaw attachment cpl.	Embout de scie à chaîne cpl.
4	CHS000003 0288 400 9061	1			Wasseranschluss kpl.	Water connection cpl.	Raccordement d'eau cpl.

12.3.1.2 Cutting head



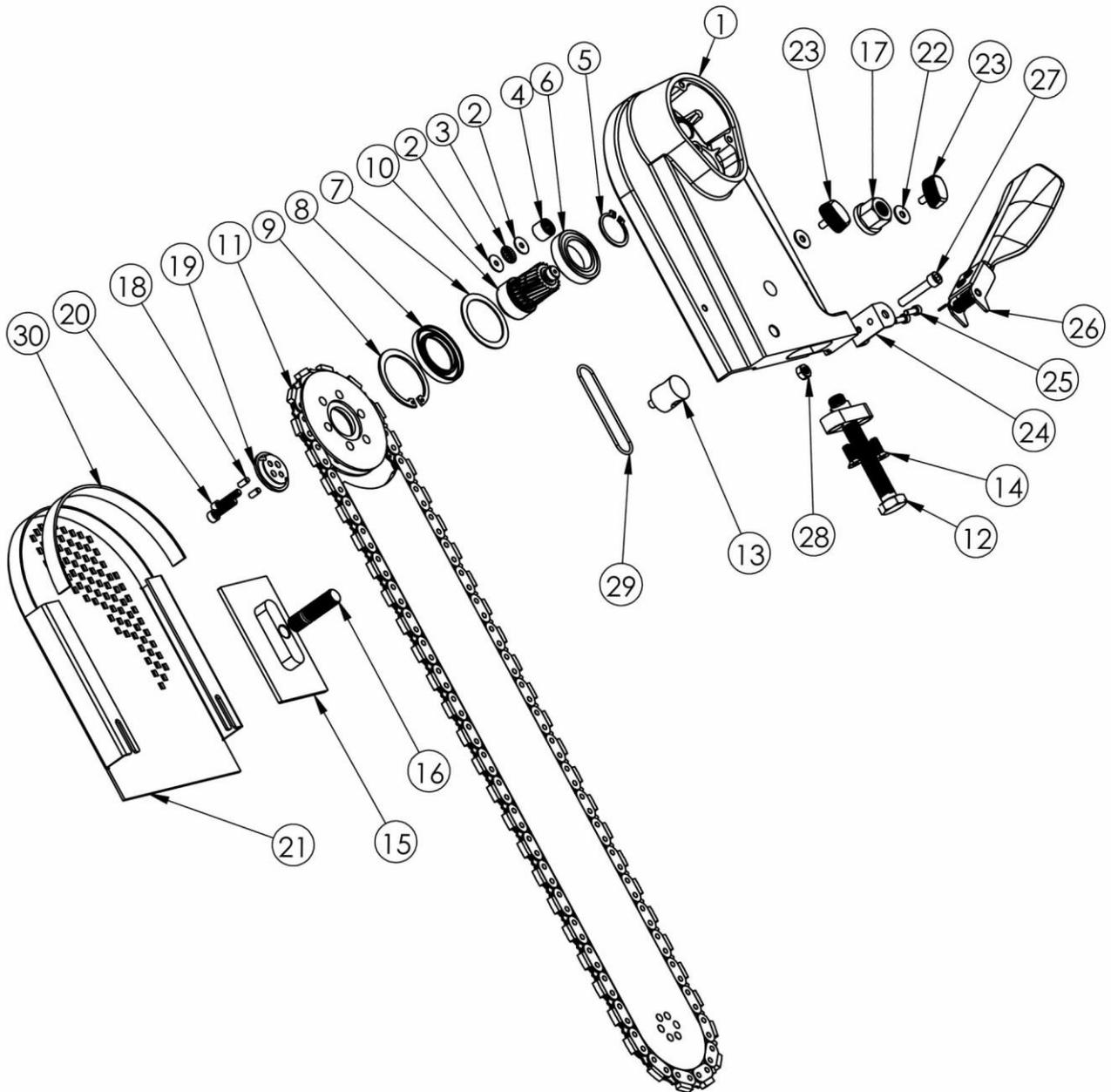
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022298 0288 400 9021	1			Getriebegehäuse	Gearbox housing	Boîtier de la boîte de vitesses
2	C04022300 0288 400 9022	1			Zwischenplatte	Intermediate plate	Plaque intermédiaire
3	C03020191 0288 400 9023	1		47x2	O-Ring	O-ring	O-ring
4	C04022301 0288 400 9011	8		5,2x7x9,5	Zentrierhülse	Centering sleeve	Manchon de centrage
5	C02050037 0288 400 9024	1		HK1012	Nadellager	Needle bearing	Roulement à aiguilles
6	C02050038 B900061	1		6201	Kugellager	Ball bearing	Roulement à billes
7	C04022302 0288 400 9026	1			Antriebswelle	Drive shaft	Arbre de transmission
8	C04022289 0288 400 9027	1			Zahnrad	Gear	Engrenage
9	C02040029 -	2			Zylinderstift	Dowel pin	Goupille de fixation
10	C02030064 0288 400 9028	1		A12	Sicherungsring	Circlip	Circlip
11	C03020183 0288 400 9036	1			Wellendichtring	Shaft seal ring	Joint d'huile
12	C02030065 -	1			Sicherungsring	Circlip	Circlip
13	C02050039 0288 400 9037	1			Kugellager	Ball bearing	Roulement à billes
14	C02030066 -	8			Doppelzahn- sicherungsscheibe	Double tooth lock washer	Rondelle de sécurité à double denture
15	CHS000009 0288 400 9031	1			Griff	Handle	Poignée
16	C02010294 0288 400 9032	4		M5x200	Schraube	Screw	Vis
17	C02010295 -	2			Schraube	Screw	Vis
18	C02010296 -	2			Schraube	Screw	Vis
19	C02030068 0288 4009049	1			Sicherungsring	Circlip	Circlip
20	CHS000016-1	1			Flanscheinheit kpl.	Flange unit cpl.	Unité de bride cpl.
21	C02030068 0288 4009049	1			Sicherungsring	Circlip	Circlip

12.3.1.3 Flange unit



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022500	1			Gehäuse	Housing	Boîtier
2	C03020215	1			Wellendichtring	Shaft seal	Joint d'arbre
3	C04022501	1			Wellenschutzhülse	Shaft protection	Chemise d'arbre
4	C04022502	1			Antriebswelle	Drive shaft	Arbre d'entraînement
5	C02030071	2			Sicherungsring	Circlip	Circlip
6	C02050042	1	DIN625	6002	Kugellager	Ball bearing	Roulements à billes
7	C02010320	1	DIN6885	4x4x10	Passfeder	Flat key	Clavette
8	C04022865	1			Zahnrad	Pinion	Pignon
9	C02050043	1			Kugellager	Ball bearing	Roulements à billes
10	C03020217	3			Dichtring	Shaft seal	Joint d'étanchéité
11	C02010321	3			Schraube	Screw	Vis
12	C03020216	1			O-Ring	O-ring	O-ring
13	C03020194	1			O-Ring	O-ring	O-ring
14	C04022317	1			Kronenrad	Crown gear	Roue à couronne
15	C02040045	2			Zylinderstift	Parallel pin	Goupille cylindrique
16	C04022319	1			Befestigungsscheibe	Fixing washer	Rondelle de fixation
17	C02010301	2			Schraube	Screw	Vis

12.3.1.4 Chainsaw attachment cpl.



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022859 -	1			Gehäuse	Housing	Boîtier
2	C02030096 -	2	DIN5404	AS0414	Scheibe	Washer	Rondelle
3	C02050058 -	1	DIN5404	AXK0414	Nadellager	Needle bearing	Roulements à aiguilles
4	C02050059 -	1			Nadellager	Needle bearing	Roulements à aiguilles
5	C02030067 -	1			Sicherungsring	Circlip	Circlip
6	C02050060 -	1			Kugellager	Ball bearing	Roulements à billes
7	C02030100 -		37x47x1 DIN 988		Passscheibe	Shim ring	Rondelle d'ajustage
8	C03020237 -	1			Wellendichtring	Shaft seal	Joint d'arbre
9	C02030068 -		J47 DIN 472		Sicherungsring	Circlip	Circlip
10	C04022860 -	1			Antriebswelle	Drive shaft	Arbre d'entraînement
11	CHS000021 -	1			Kettenrad	Sprocket	Pignon de chaîne
12	CHS000022 -	1			Spanneinheit	Clamping unit	Unité de serrage
13	C04022877 -	1			Exzenterwelle	Arbre excentrique	Eccentric shaft
14	C02010300 -	2			Senkschraube	Countersunk screw	Vis à tête fraisée
15	C04022861 -	1			Klemmplatte	Clamping plate	Plaque de serrage
16	C04022862 -	1		M12	Stehbolzen	Stud bolt	
17	C02020084 -	1	DIN6331	M12	Mutter	Nut	Ecrou
18	C02010360 02951000187	2	DIN6325	4m6x10	Zylinderstift	Dowel pin	Goupille cylindrique
19	C04022863 -	1			Klemmscheibe	Clamping disk	Rondelle de serrage
20	C02010369 0311000522	2	DIN912	M5x22	Schraube	Screw	Vis
21	C04022878 -	1			Schutzhaube	Protective cover	Capot de protection
22	C02030061 02950000170	2	ISO7093	A5	Scheibe	Washer	Rondelle
23	C03010311 B802191	2		M5x10	Flügelschraube	Wing screw	Vis à oreilles
24	C04022864 B301740	1			Aufnahme Spritzschutz	Splash guard holder	Logement anti-éclaboussures
25	C02010336 02833000243	2	ISO4760	M4x12	Schraube	Screw	Vis
26	CHS000023 B301632	1			Spritzschutz	Splash guard	Protection contre les éclaboussures
27	C02010145 -	1	ISO4762	M6x35x24	Schraube	Screw	Vis
28	C02020013 028530000142	1	ISO4032	M6	Mutter	Nut	Ecrou
29	C03020240 -	1			O-Ring	O-Ring	O-Ring
30	C03020238 -	1			Dichtung	Sealing	Joint

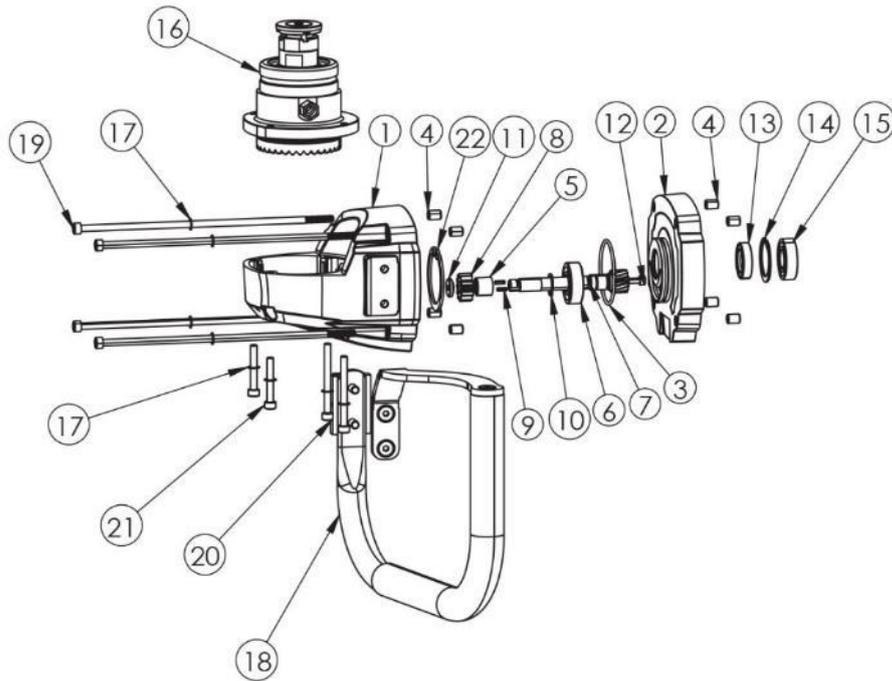
12.3.2 HS400G

12.3.2.1 Machine



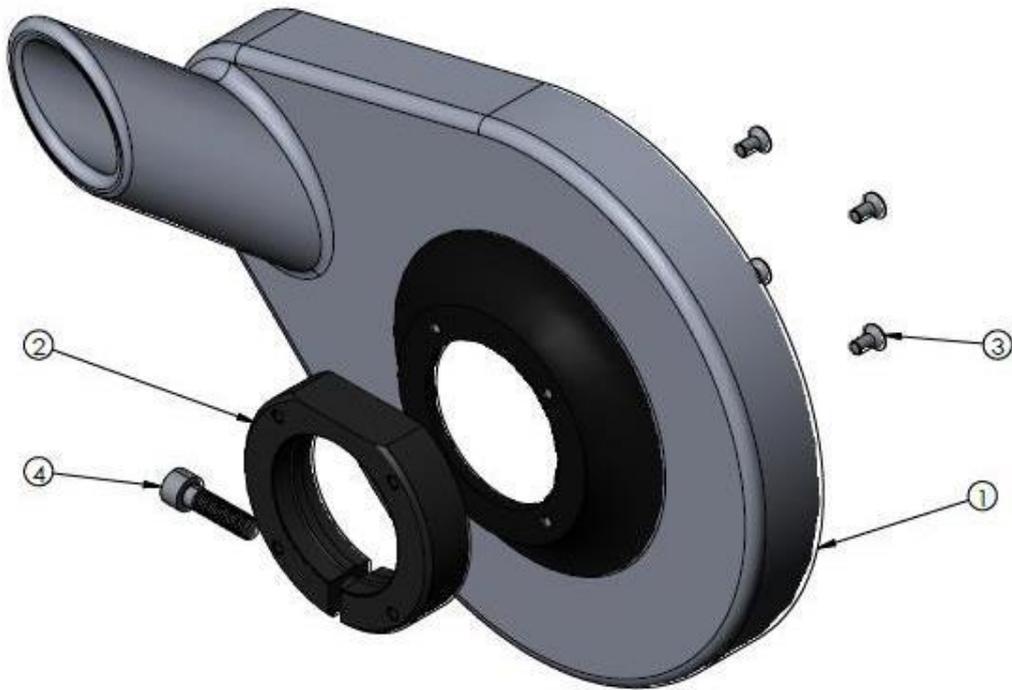
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	CHS000001 -	1			Motoreinheit kpl.	Motor unit cpl.	Unité motrice cpl.
2	CHS000002-2 -	1			Schneidkopf kpl.	Cutter head cpl.	Tête de coupe complète
3	CHS000003 0288 400 9061	1			Wasseranschluss kpl.	Water connection cpl.	Raccordement d'eau cpl.
4	CHS000018 -	1			Schutzhaube kpl.	Blade guard cpl.	Capot protecteur cpl.

12.3.2.2 Cutting head



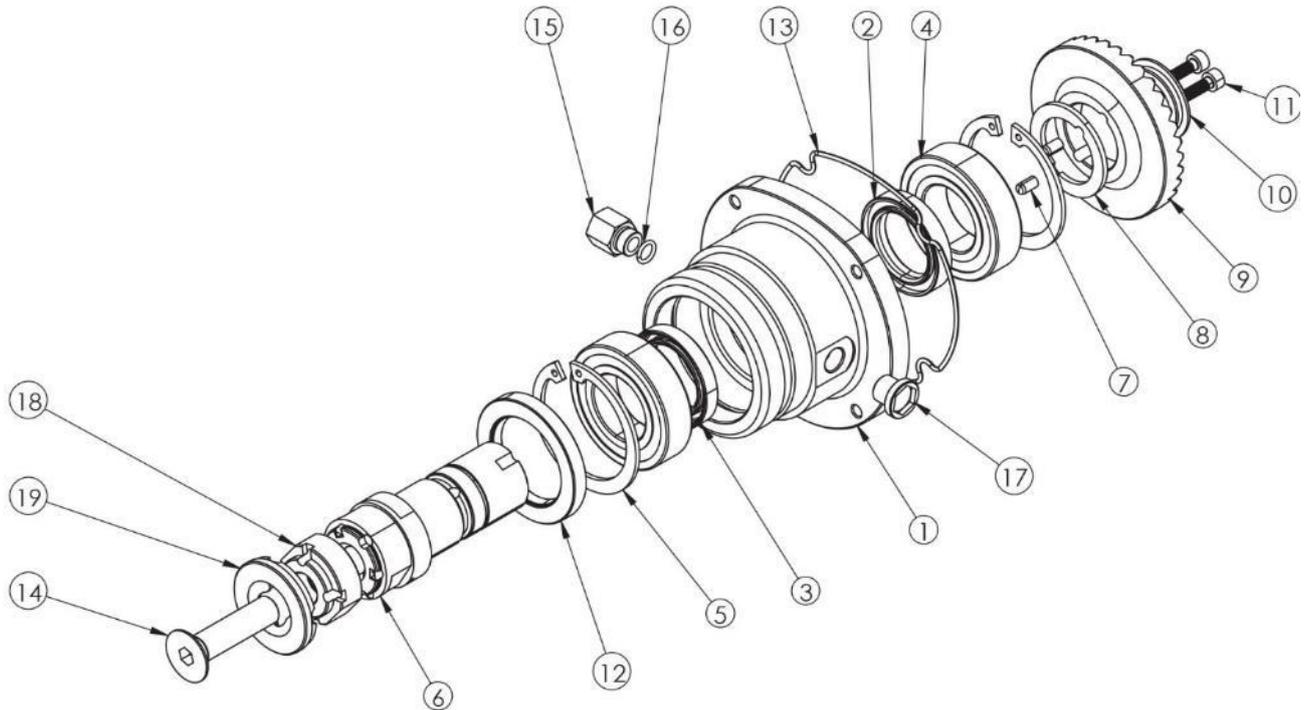
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022298 0288 400 9021	1			Getriebegehäuse	Gearbox housing	Boîtier de la boîte de vitesses
2	C04022300 0288 400 9022	1			Zwischenplatte	Intermediate plate	Plaque intermédiaire
3	C03020191 0288 400 9023	1		47x2	O-Ring	O-ring	O-ring
4	C04022301 0288 400 9011	8		5,2x7x9,5	Zentrierhülse	Centering sleeve	Manchon de centrage
5	C02050037 0288 400 9024	1		HK1012	Nadellager	Needle bearing	Roulement à aiguilles
6	C02050038 B900061	1		6201	Kugellager	Ball bearing	Roulement à billes
7	C04022302 0288 400 9026	1			Antriebswelle	Drive shaft	Arbre de transmission
8	C04022289 0288 400 9027	1			Zahnrad	Gear	Engrenage
9	C02040029 -	2			Zylinderstift	Dowel pin	Goupille de fixation
10	C02030064 0288 400 9028	1		A12	Sicherungsring	Circlip	Circlip
11	C04022303 0288 400 9029	1			Mutter	Nut	Ecrou
12	C02010293 0288 400 9030	1		M4x90	Schraube	Screw	Vis
13	C03020183 0288 400 9036	1			Wellendichtring	Shaft seal ring	Joint d'huile
14	C02030065 -	1			Sicherungsring	Circlip	Circlip
15	C02050039 0288 400 9037	1			Kugellager	Ball bearing	Roulement à billes
16	CHS000008-1 -	1			Flanscheinheit kpl.	Flange unit cpl.	Unité à bride cpl.
17	C02030066 -	8			Doppelzahn- sicherungs-scheibe	Double tooth lock washer	Rondelle de sécurité à double denture
18	CHS000009 0288 400 9031	1			Griff	Handle	Poignée
19	C02010294 0288 400 9032	4		M5x200	Schraube	Screw	Vis
20	C02010295 -	2			Schraube	Screw	Vis
21	C02010296 -	2			Schraube	Screw	Vis
22	C02030068 0288 4009049	1			Sicherungsring	Circlip	Circlip

12.3.2.3 Blade guard



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C03010290 -	1			Schutzhaube	Protective cover	Couverture protectrice
2	C03010291 -	1			Verbinder Schutzhaube	Blade guard connector	Connection capot protecteur
3	C02010306 -	4			Schraube	Screw	Vis
4	C02010297 -	1			Schraube	Screw	Vis

12.3.2.4 Flange unit



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022314 0288 400 9043	1			Flanschgehäuse	Flange housing	Boîtier à bride
2	C03020184 0288 400 9046	1		25x37x6 Duo	Wellendichtring	Shaft seal	Joint d'arbre
3	C03020196 0288 400 9048	1		25x37x6 BA	Wellendichtring	Shaft seal	Joint d'arbre
4	C02050040 0288 400 9040	2		6005-2RS	Rillenkugellager	Ball bearing	Roulement à billes
5	C02030068 0288 400 9049	2			Sicherungsring	Circlip	Bague d'arrêt
6	C04022316 0288 400 9041	1			Spindel	Spindle	Broche
7	C02040033 -	2			Zylinderstift	Dowel pin	Goupille cylindrique
8	C04022318 0288 400 9067	1		25x35x2	Unterlegscheibe	Washer	Rondelle
9	C04022317 -	1			Zahnrad	Gear wheel	Roue dentée
10	C04022319 0288 400 9052	1			Endkappe für Welle	End cap for shaft	Embout pour arbre
11	C02010301 -	2			Zylinderschraube	Screw	Vis
12	C03020185 0288 400 9050	1		32x47x6 BABSL	Wellendichtring	Shaft seal	Joint d'arbre
13	C03020194 0288 400 9051	1		90x1,5	O-Ring	O-ring	O-ring
14	C02010334 -	1			Senkschraube	Screw	Vis
15	C04022331 0288 400 9054	1		1/8"	Wasseranschluss	Water connection	Raccordement à l'eau
16	C03020195 0288 400 9055	1		8x1,3	O-Ring	O-ring	O-ring
17	C04022334 -	1			Verschlussstopfen	Closing plug	Bouchons de fermeture
18	C04022554 -	1			Flansch Schleifscheibe	Flange	Flasque
19	C04022555 -	1			Scheibe	Washer	Rondelle

12.3.3 HS400F

12.3.3.1 Machine



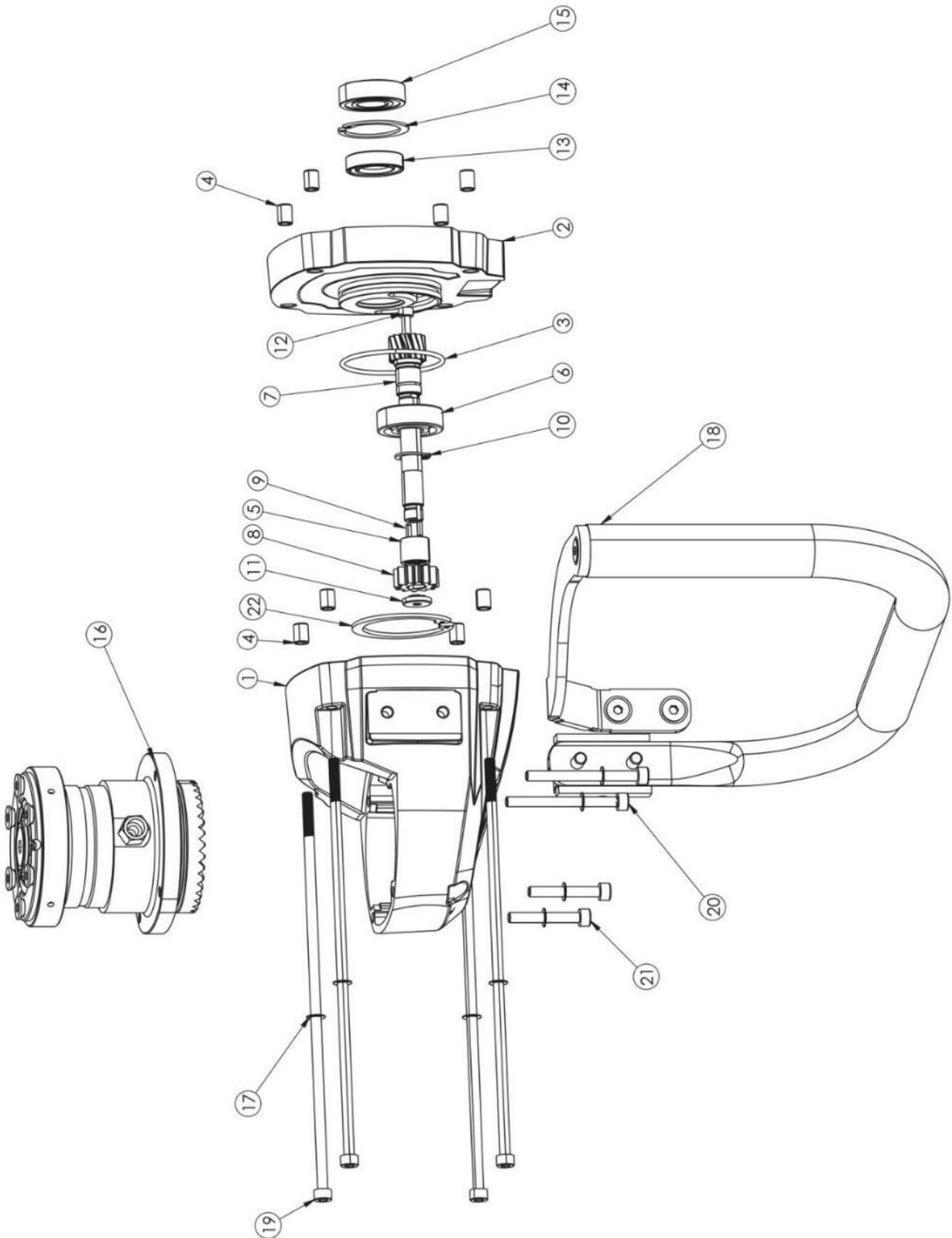
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	CHS000001 -	1			Motoreinheit kpl.	Motor unit cpl.	Unité motrice cpl.
2	CHS000002 -	1			Schneidkopf kpl.	Cutter head cpl.	Tête de coupe complète
3	CHS000003 0288 400 9061	1			Wasseranschluss kpl.	Water connection cpl.	Raccordement d'eau cpl.
4	CHS000012 -	1			Schutzhaube kpl.	Blade guard cpl.	Capot protecteur cpl.
5	CHS000014 0288 400 9060	1			Radsatz kpl.	Wheel set compl.	Kit de roues cpl.

12.3.3.2 Protective cover



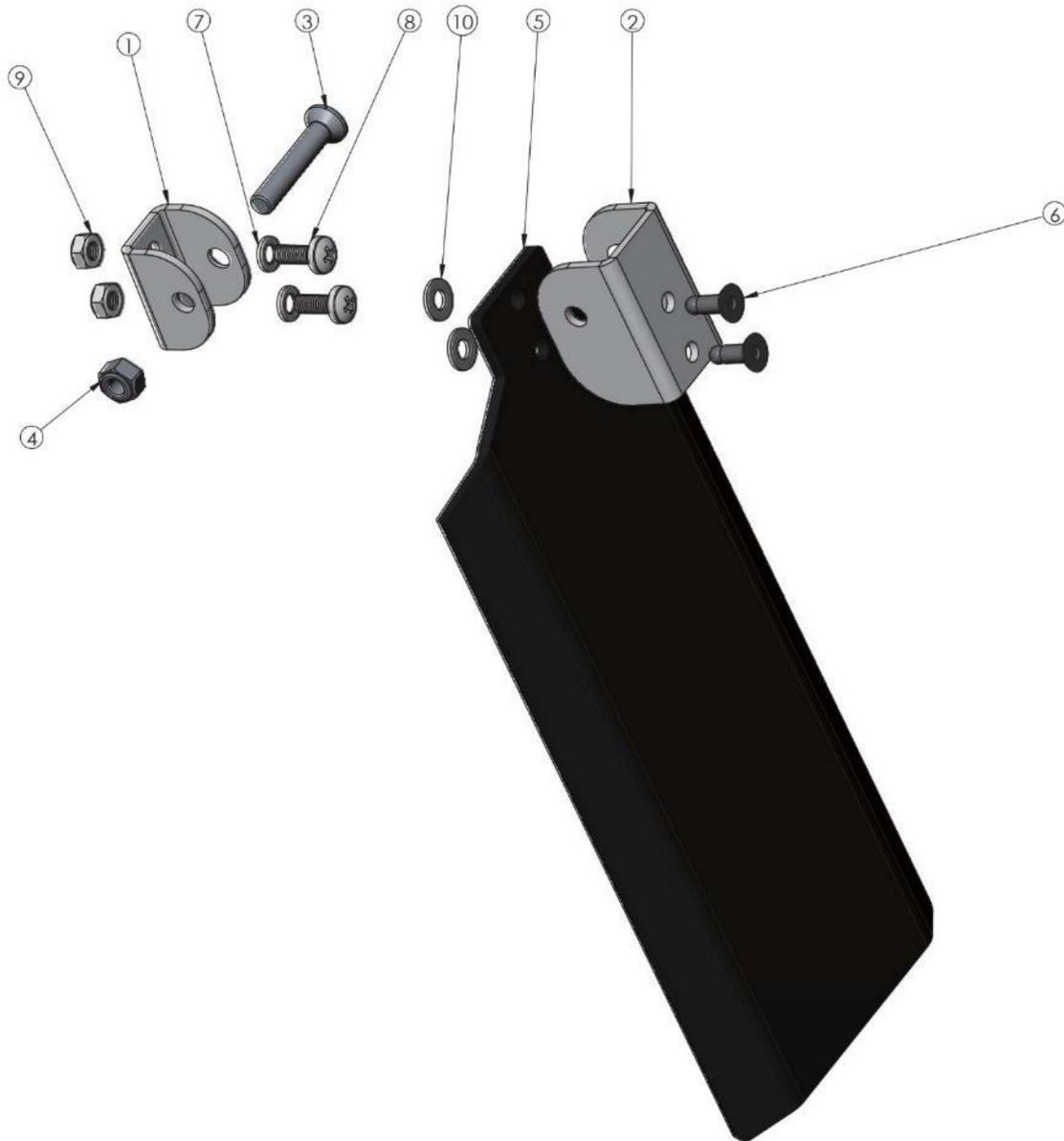
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022377 0288 400 9066	1			Schutzhaube	Protective cover	Couverture protectrice
2	C03010256 0288 400 9038	1			Kunststoffring	Plastic ring	Anneau en plastique
3	C02010297 0295 000 0771	1	ISO 4762	M8x30	Schraube	Screw	Vis
4	C02010298 0282 240 0039	4	ISO 10642	M8x20	Schraube	Screw	Vis
5	CHS000013 -	1			Spritzschutz kpl.	Splash guard cpl.	Protection contre les éclaboussures compl.
6	C06020026 0282 175 9031	1		Drehrichtungspfeil	Aufkleber	Sticker	Autocollant
7	C06020022 0295 899 0348	1		Schneidefahr	Aufkleber	Sticker	Autocollant

12.3.3.3 Cutting head



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022298 0288 400 9021	1			Getriebegehäuse	Gearbox housing	Boîtier de la boîte de vitesses
2	C04022300 0288 400 9022	1			Zwischenplatte	Intermediate plate	Plaque intermédiaire
3	C03020191 0288 400 9023	1		47x2	O-Ring	O-ring	O-ring
4	C04022301 0288 400 9011	8		5,2x7x9,5	Zentrierhülse	Centering sleeve	Manchon de centrage
5	C02050037 0288 400 9024	1		HK1012	Nadellager	Needle bearing	Roulement à aiguilles
6	C02050038 B900061	1	DIN 625	6201	Kugellager	Ball bearing	Roulement à billes
7	C04022302 0288 400 9026	1			Antriebswelle	Drive shaft	Arbre de transmission
8	C04022289 0288 400 9027	1			Zahnrad	Gear	Engrenage
9	C02040029 -	2	ISO 8734	2,5x8	Zylinderstift	Dowel pin	Goupille de fixation
10	C02030064 0288 400 9028	1	DIN 471	A12	Sicherungsring	Circlip	Circlip
11	C04022303 0288 400 9029	1			Mutter	Nut	Ecrou
12	C02010293 0288 400 9030	1	ISO 4762	M4x90	Schraube	Screw	Vis
13	C03020183 0288 400 9036	1			Wellendichtring	Shaft seal ring	Joint d'huile
14	C02030065 -	1	DIN 472	J32	Sicherungsring	Circlip	Circlip
15	C02050039 0288 400 9037	1		6002 2RSL	Kugellager	Ball bearing	Roulement à billes
16	CHS000008	1			Flanscheinheit kpl.	Flange unit cpl.	Unité à bride cpl.
17	C02030066 0295 000 0170	8	DIN 9250	M5	Doppelzahn- sicherungsscheibe	Double tooth lock washer	Rondelle de sécurité à double denture
18	CHS000009 0288 400 9031	1			Griff	Handle	Poignée
19	C02010294 0288 400 9032	4	ISO 4762	M5x200	Schraube	Screw	Vis
20	C02010295 0281 073 0084	2	ISO 4762	M5x55	Schraube	Screw	Vis
21	C02010296 0295 100 0189	2	ISO 4762	M5x35	Schraube	Screw	Vis
22	C02030068 0288 400 9049	1			Sicherungsring	Circlip	Circlip

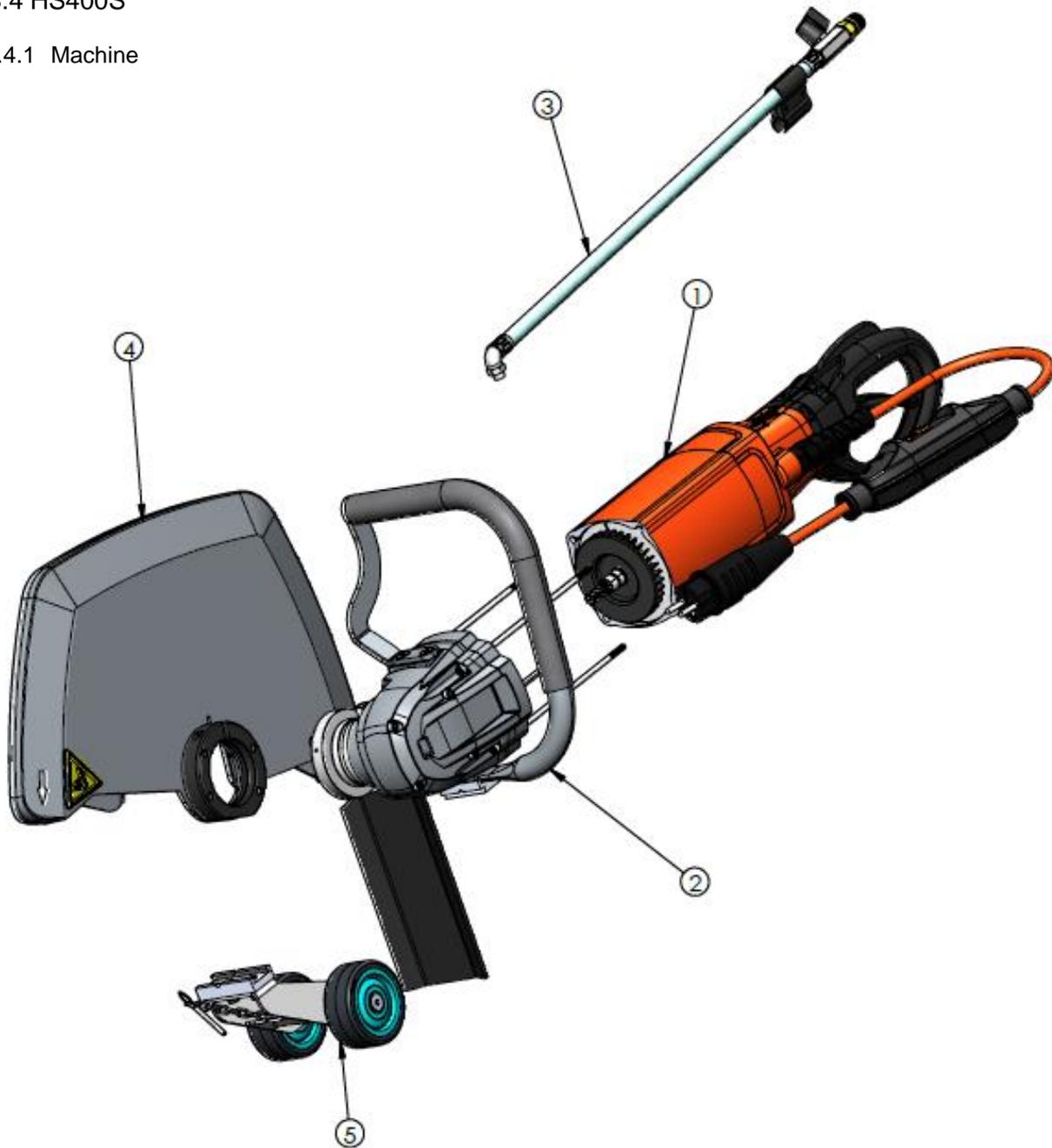
12.3.1.4 Splash guard



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022378 -	1			Halter Spritzschutz	Holder splash guard	Support bavette anti-protection
2	C04022504 -	1			Aufnahme Spritzschutz	Splash guard acceptance	Logement bavette anti-projection
3	C02010322 -	1			Schraube	Screw	Vis
4	C02020045 0295 000 0177	1		M5	Sicherungsmutter	Lock nut	Écrou de blocage
5	C03020218 -	1			Spritzschutz	Splash guard	Bavette anti-projection
6	C02010193 -	2	DIN 7337	4x8	Blindniete	Rivet	Rivet aveugle
7	C02030010 -	2			Federring	Spring washer	Rondelle-ressort
8	C02010180 -	2			Schraube	Screw	Vis
9	C02020015	2			Mutter	Nut	Ecrou
10	C02030015 0267 112 5648	2	ISO 7089	4	Scheibe	Washer	Rondelle

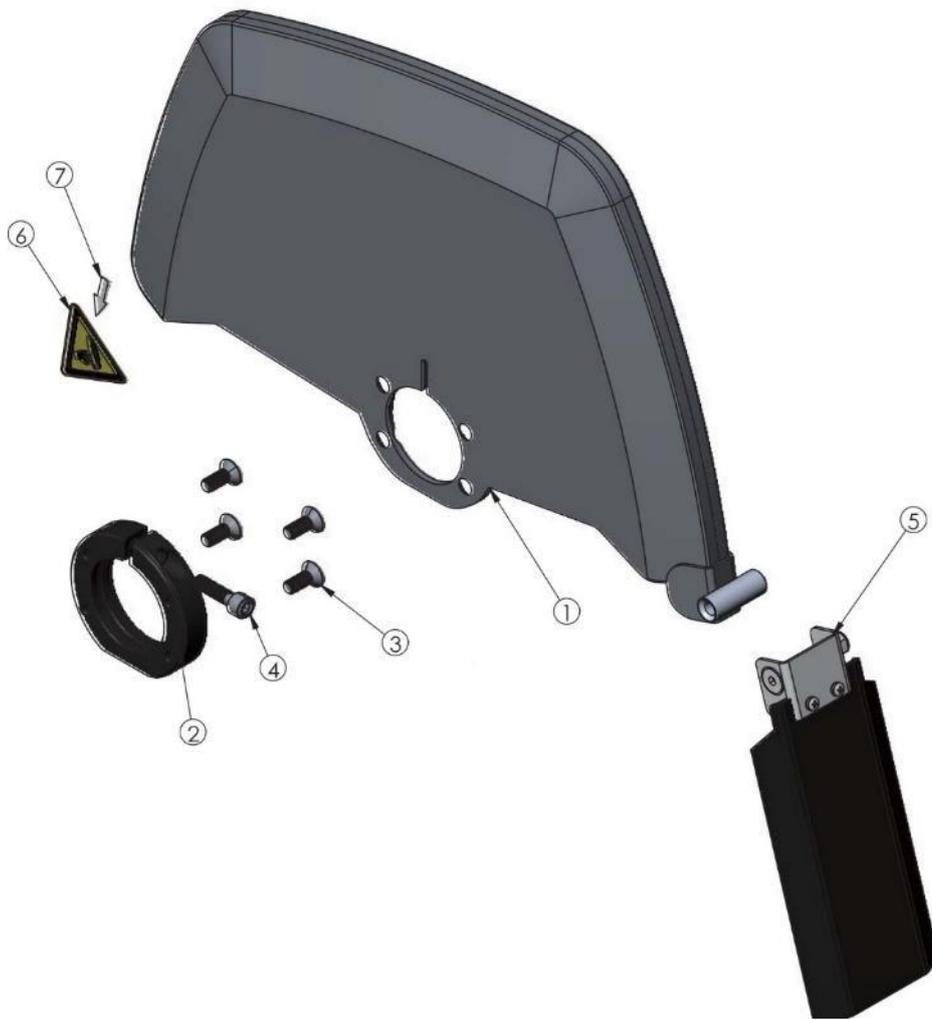
12.3.4 HS400S

12.3.4.1 Machine



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	CHS000001 -	1			Motoreinheit kpl.	Motor unit cpl.	Unité motrice cpl.
2	CHS000002 -	1			Schneidkopf kpl.	Cutter head cpl.	Tête de coupe complète
3	CHS000003 0288 400 9061	1			Wasseranschluss kpl.	Water connection cpl.	Raccordement d'eau cpl.
4	CHS000004	1			Schutzhaube kpl.	Blade guard cpl.	Capot protecteur cpl.
5	CHS000014 0288 400 9060	1			Radsatz kpl.	Wheel set compl.	Kit de roues cpl.

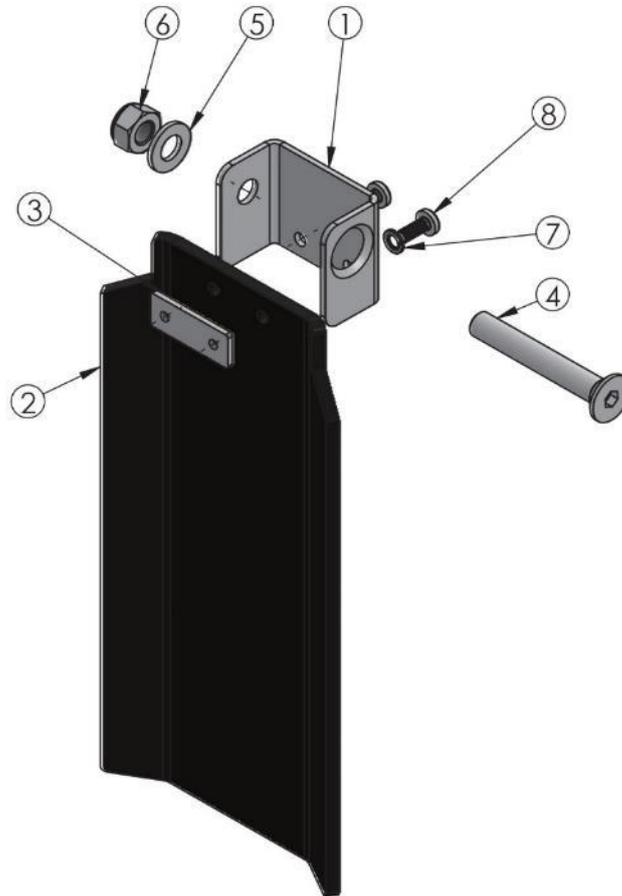
12.3.4.2 Blade guard



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022326 0295 150 0080	1			Schutzhaube	Protective cover	Couverture protectrice
2	C03010256 0288 400 9038	1			Kunststoffring	Plastic ring	Anneau en plastique
3	C02010298 0282 240 0039	4	ISO 10642	M8x20	Schraube	Screw	Vis
4	C02010297 0295 000 0771	1	ISO 4762	M8x30	Schraube	Screw	Vis
5	CHS000010 0288 400 9035	1			Spritzschutz kpl.	Splash guard cpl.	Protection contre les éclaboussures compl.
6	C06020022 0295 899 0348	1		Schneidgefahr	Aufkleber	Sticker	Autocollant
7	C06020026 0282 175 9031	1		Drehrichtungspfeil	Aufkleber	Sticker	Autocollant

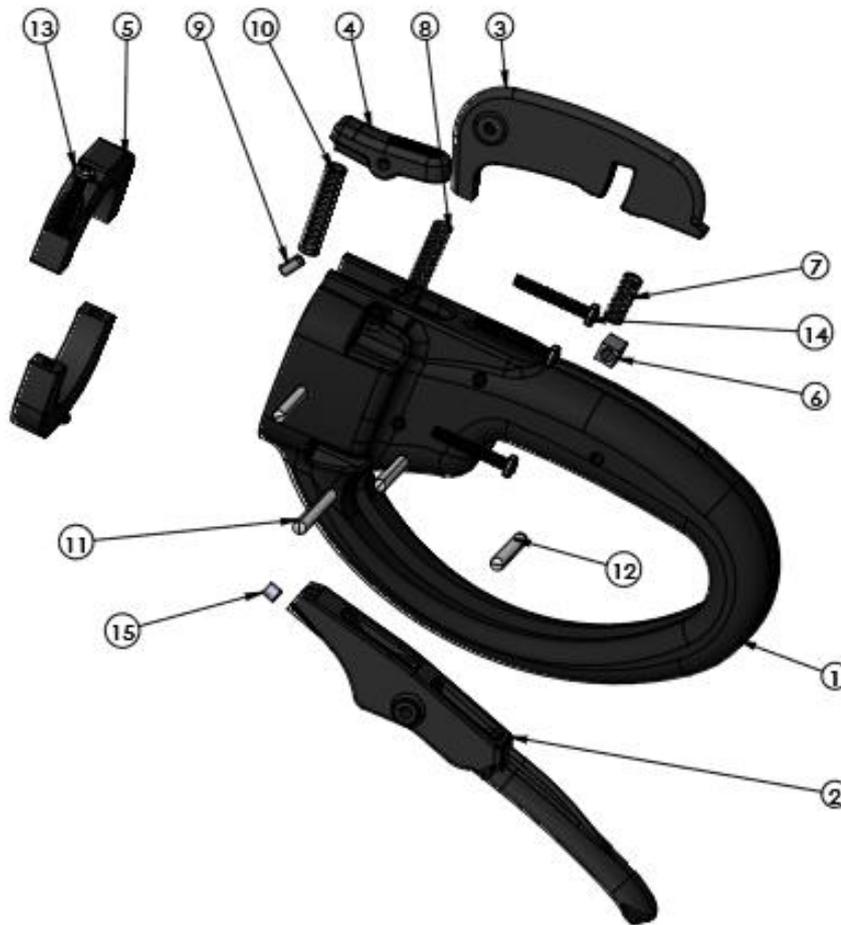
12.3.5 HS400 generally

12.3.5.1 Splash guard



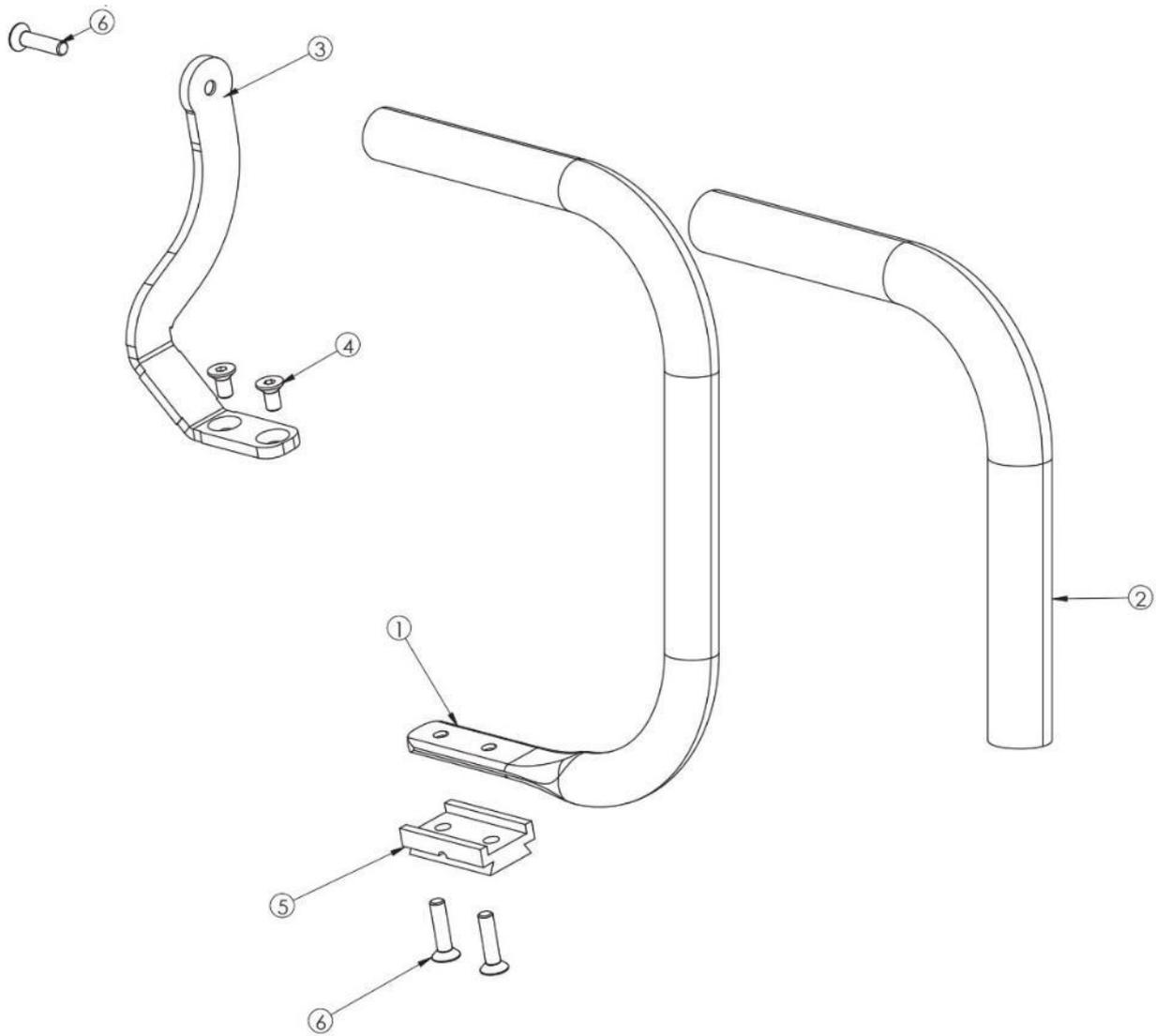
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022281	1			Aufnahme Spritzschutz	Splash guard acceptance	Logement bavette anti-projection
2	C03020197	1			Spritzschutz	Splash guard	Bavette anti-projection
3	C04022282	1			Druckplatte	Pressing plate	Plaque de pressage
4	C02010314	1			Schraube	Screw	Vis
5	C02030017 0282 250 0006	1	ISO 7089	8	Scheibe	Washer	Rondelle
6	C02020010 0282 065 0005	1		M8	Sicherungsmutter	Lock nut	Écrou de blocage
7	C02030010 -	2			Federring	Spring washer	Rondelle-ressort
8	C02010180 -	2			Schraube	Screw	Vis

12.3.5.2 Hand grip rear



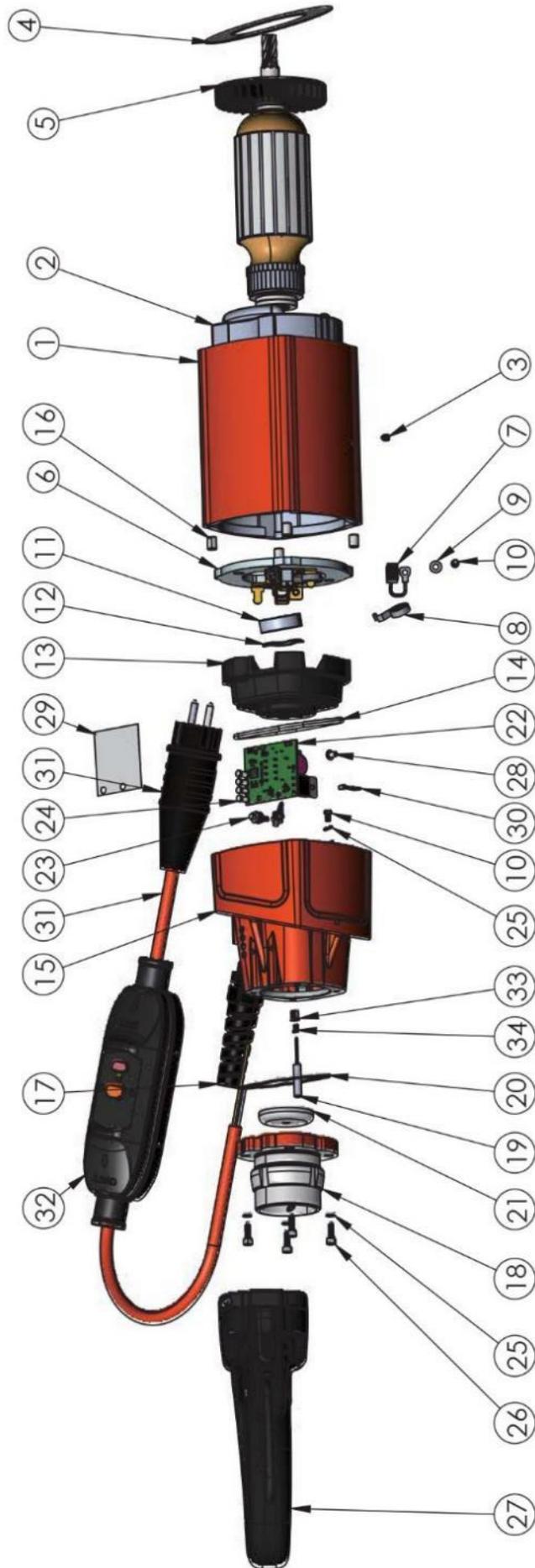
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C03010248 0288 400 9059	1			Gehäuse hinterer Handgriff	Housing rear handle	Boîtier poignée arrière
2	C03010249 B102345	1			Gasgriff	Throttle grip	Poignée des gaz
3	C03010250 -	1			Sperrklinke	Locking pawl	Cliquet d'arrêt
4	C03010251 B102346	1			Verstellhebel	Adjustment lever	Levier de réglage
5	C03010252 -	2			Aufnahme	Holder	Support
6	C04022310 -	1			Metallaufnahme	Metal receptacle	Prise de vue en métal
7	C04022311 -	1		0.8x6.3x15.5x5.5	Druckfeder	Pressure spring	Ressort de pression
8	C04022312 B802562	1		0.8x6.3x33x12.5	Druckfeder	Pressure spring	Ressort de pression
9	C02040030 B900616	1		4m6x8	Zylinderstift	Dowel pin	Goupille cylindrique
10	C04022313 B802805	1		1.25x6.3x35.5x12.5	Druckfeder	Pressure spring	Ressort de pression
11	C02040031 -	1		5m6x40	Zylinderstift	Dowel pin	Goupille cylindrique
12	C02040032 -	3		5m6x30	Zylinderstift	Dowel pin	Goupille cylindrique
13	C02010307 -	2		M4x25	Kreuzschraube	Screw	Vis
14	C02010308 -	4		M4x30	Kreuzschraube	Screw	Vis
15	C04022496 -	1		15x25x0.3	Metalleinlage	Metal insert	Insert métallique

12.3.5.3 Vordergriff



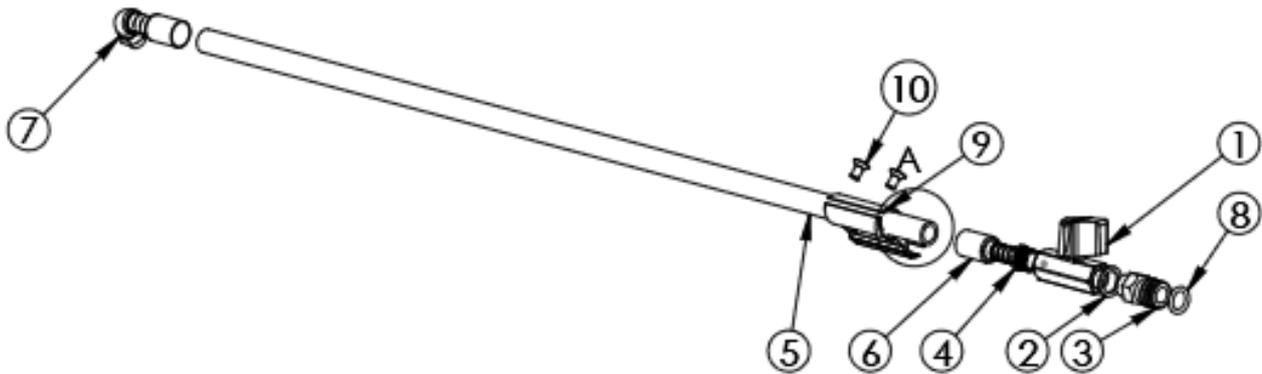
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022292 -	1			Vordergriff	Fronde handle	Poignée devant
2	C03010253 -	1			Vordergriff Abdeckung	Front handle cover	Couverture de poignée
3	C04022284 -	1			Verbindungsplatte für Vordergriff	Front handle connecting plate	Plaque de connexion de la poignée devant
4	C02010299 -	2			Schraube	Screw	Vis
5	C04022373 -	1			Adapterstück Radsatz	Adapter piece wheels	Adaptateur pour les roues
6	C02010313 -	3			Schraube	Screw	Vis

12.3.5.4 Motor unit



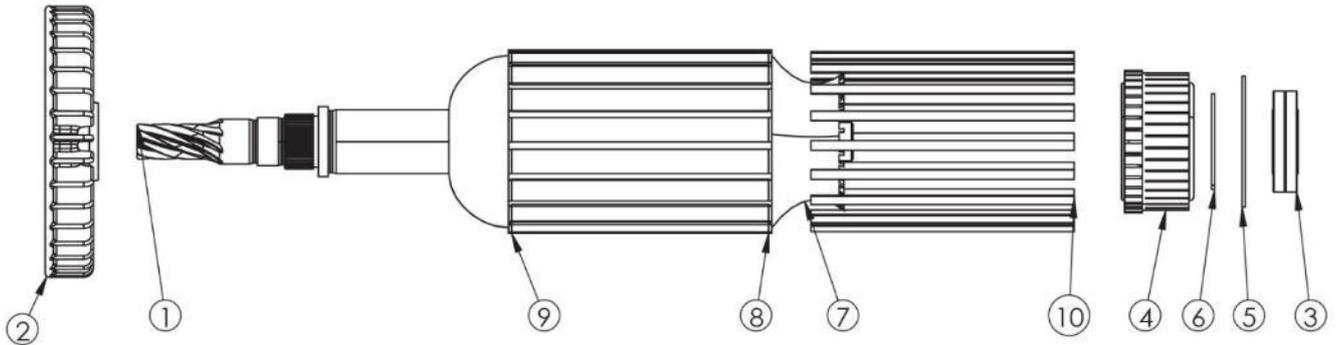
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022294 0288 400 9001	1			Motorgehäuse	Motor housing	Boîtier du moteur
2	C05010111 B401552	1			Stator	Stator	Stator
3	C02010289 0284 280 9012	1	DIN 914	M5x6	Gewindestift	Threaded pin	Vis sans tête
4	C03010254 0288 400 9002	1			Luftleitring	Air guide ring	Anneau de guidage d'air
5	C05010112 B400905	1			Rotor	Rotor	Rotor
6	CHS000005 0288 400 9003	1			Bürstenbrücke	Bust bridge	Pont des bustes
7	C05010138 0288 400 9004	2			Kohlebürste	Carbon brush	Brosse à charbon
8	C04022293 0288 400 9005	2			Kohlebürstenfeder	Carbon brush spring	Ressort de balai de charbon
9	C02030015 0267 112 5648	3	ISO 7089	4	Scheibe	Washer	Rondelle
10	C02010305 0288 400 9063	3		M4x6	Zylinderkopfschraube	Screw	Vis
11	C02050036 B900329	1	DIN 625	6201 2RSH	Kugellager	Ball bearing	Roulement à billes
12	C04022327 0288 400 9007	1		24.4x31.7x035	Kugellager- ausgleichsscheibe	Ball bearing shim	Rondelle de compensation du roulement à billes
13	CHS000006 0288 400 9010	1			Lagerkappe	Bearing cap	Chapeau de palier
14	C03020186 0288 400 9009	1		72x4	O-Ring	O-ring	O-ring
15	C03010255 0288 400 9008	1			Lagergehäuse	Bearing housing	Boîtier de roulement
16	C04022301 0288 400 9011	4		5,2x7x9,5	Zentrierhülse	Centering sleeve	Douille de centrage
17	C03020187 B802733	1		BS-M M20x1.5	Kabelführung	Cable routing	Passage de câbles
18	C04022495 0288 400 9012	1			Schaltergehäuse	Switch housing	Boîtier de l'interrupteur
19	C05010125 -	1			Nährungssensor	Proximity sensor	Capteur de proximité
20	C03020188 0288 400 9014	1		71,5x1,5	O-Ring	O-ring	O-ring
21	C03010274 -	1			Halter Nährungssensor	Holder proximity sensor	Support capteur de proximité
22	C05010139 B803269	1			Soft Start Platine	Soft start board	Carte de démarrage en douceur
23	C03010265 0288 400 9064	2			Distanzstück	Spacer	Entretoise
24	C03010266 0288 400 9019	4			Lichtleiter	Light guide	Fibre optique
25	C02030062 B800076	5	DIN 9250	M4	Doppelzahn- sicherungsscheibe	Double tooth lock washer	Rondelle de sécurité à double denture
26	C02010291 B900689	4	DIN 912	M4x12	Zylinderkopfschraube	Screw	Vis
27	CHS000007 0288 400 9020	1			Handgriff hinten kpl.	Handle rear cpl.	Poignée arrière cpl.
28	C02010312 0295 600 0550	1	DIN 912	M3x8	Zylinderkopfschraube	Screw	Vis
29	C03010269 0288 400 9065	1			Dämmplatte	Insulation board	Panneau isolant
30	C04022332 -	3		d=4,2	Verbinder	Connector	Connecteur
31	C05010101 -	1		Schuko	Anschlusskabel	Connector cable	Câble de raccordement
32	C05010102 0295 150 0062	1			Fehlstromschutz- einrichtung	Residual current protection device	Dispositif (à courant) différentiel résiduel
33	C03020224 -	1		PH2.0	Gummiabdeckung	Rubber cover	Capuchon en caoutchouc
34	C04022562 -	2		PH2.0	Anschlussklemme	Conneting terminal	Borne de raccordement

12.3.5.5 Water connection



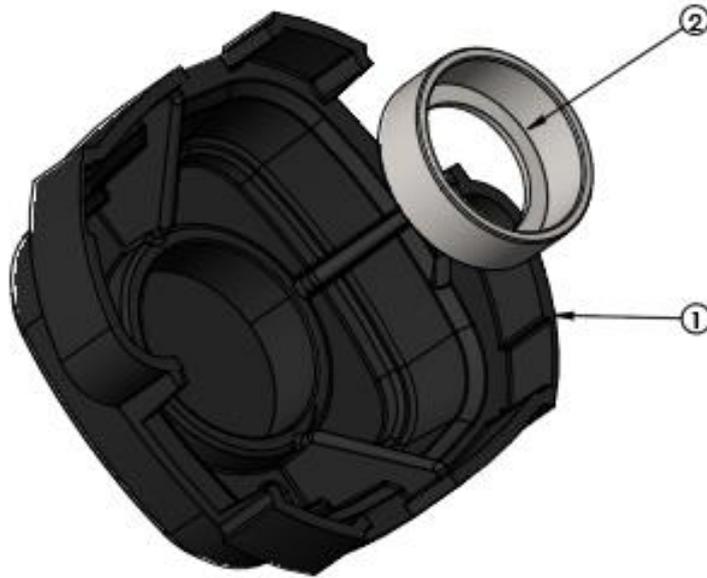
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022335 -	1		¼"	Kugelhahn	Ball valve	Vanne à bille
2	C03020128 -	1		Ø13xØ18	Dichtring	Sealing ring	Bague d'étanchéité
3	C04022527 -	1			Gardena Anschluss	Gardena connection	Raccordement de Gardena
4	C04022328 -	1		¼"- Ø10	Schlauchtülle	Hose nozzle	Buse de tuyau
5	C03010263 0288 400 9034	1		Ø10x2	Schlauch	Hose	Tuyau
6	C04022367	2		Ø16,2	Rohrschelle	Pipe clamp	Collier pour tuyau
7	C04022329	1		R1/8"- Ø10	Schlauchtülle	Hose nozzle	Buse de tuyau
8	C03020126	1	DIN 3771	11.2x2.5	O-Ring	O-ring	O-ring
9	C04022330 0288 400 9033	1		11-23mm	Klemme	Clamp	Clamp
10	C02010306 0284 280 9018	2	ISO 10642	M5x10	Schraube	Screw	Vis

12.3.5.6 Rotor



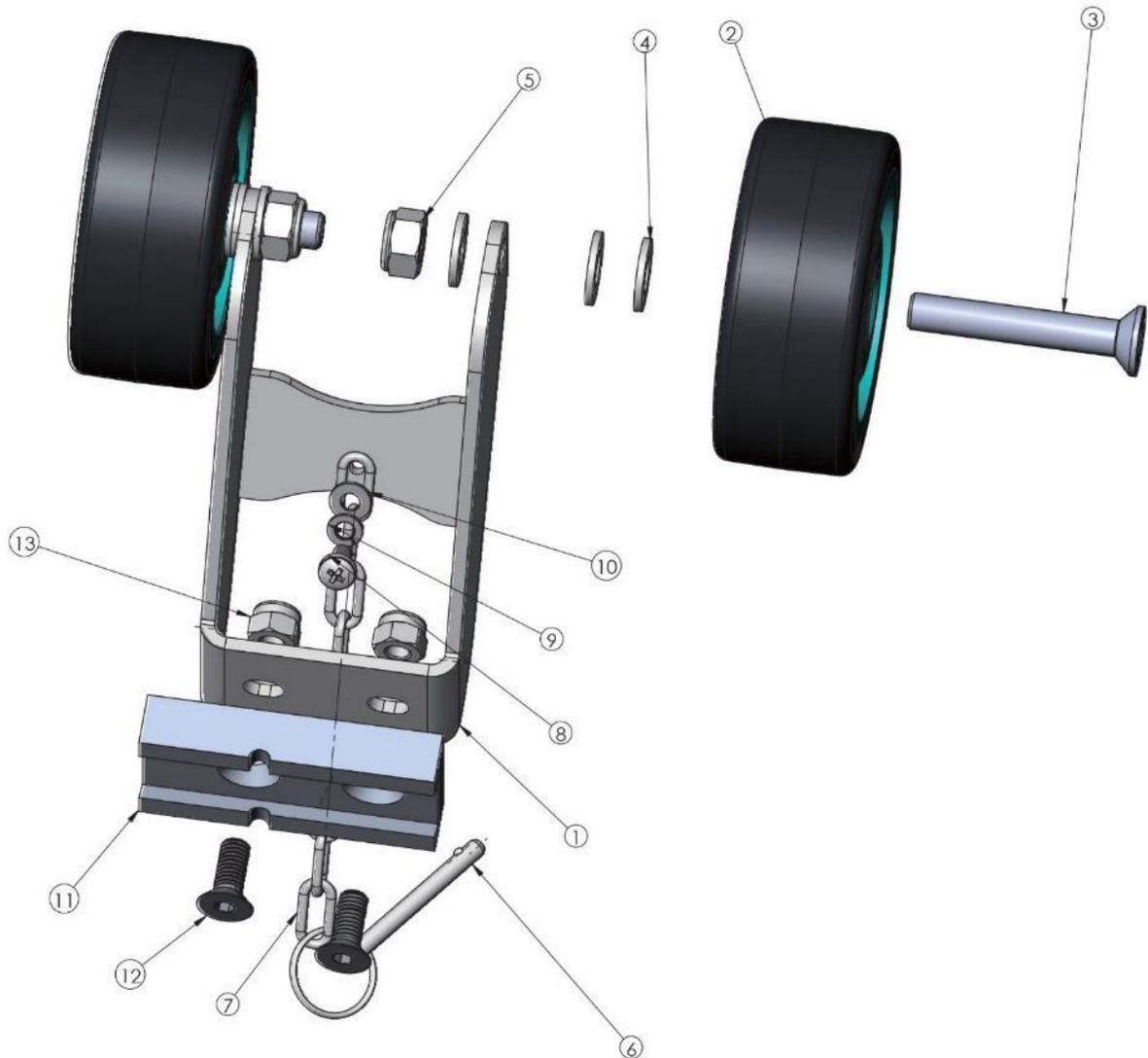
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022305 -	1			Rotorwelle	Rotor shaft	Arbre du rotor
2	C03010258 -	1			Lüfterrad	Fan wheel	Roue de ventilateur
3	C04022306 -	1			Ausgleichsring	Balance ring	Anneau d'équilibre
4	C04022307 -	1			Kommutator	Commutator	Commutateur
5	C03010259 -	1			Scheibe	Washer	Rondelle
6	C03010260 -	1			Scheibe	Washer	Rondelle
7	C05010104 -	1			Läufer-spule	Rotor coil	Bobine de rotor
8	C04022308 -	1			Rotorlamellierung	Rotor lamination	Laminage du rotor
9	C03010261 -	2			Endplatte	End plate for rotor	Plaque d'extrémité pour rotor
10	C03010264 -	18		3x2x84 GRP polyester half-round	Nutdichtband	Groove sealing strip	Bande d'étanchéité de rainure
11	C06030030 -	0.001			Bindeseil	Binding rope	Corde de liaison
12	C06030031 -	0.05		Dobeckan B	Harz	Resin	Résine
13	C05010108 -	18			Isolierpapier	Insulation paper for rotor coil	Papier isolant
14	C06020228 -	0.3			Klebeband	Adhesive tape	Ruban adhésif

12.3.5.7 Bearing holder



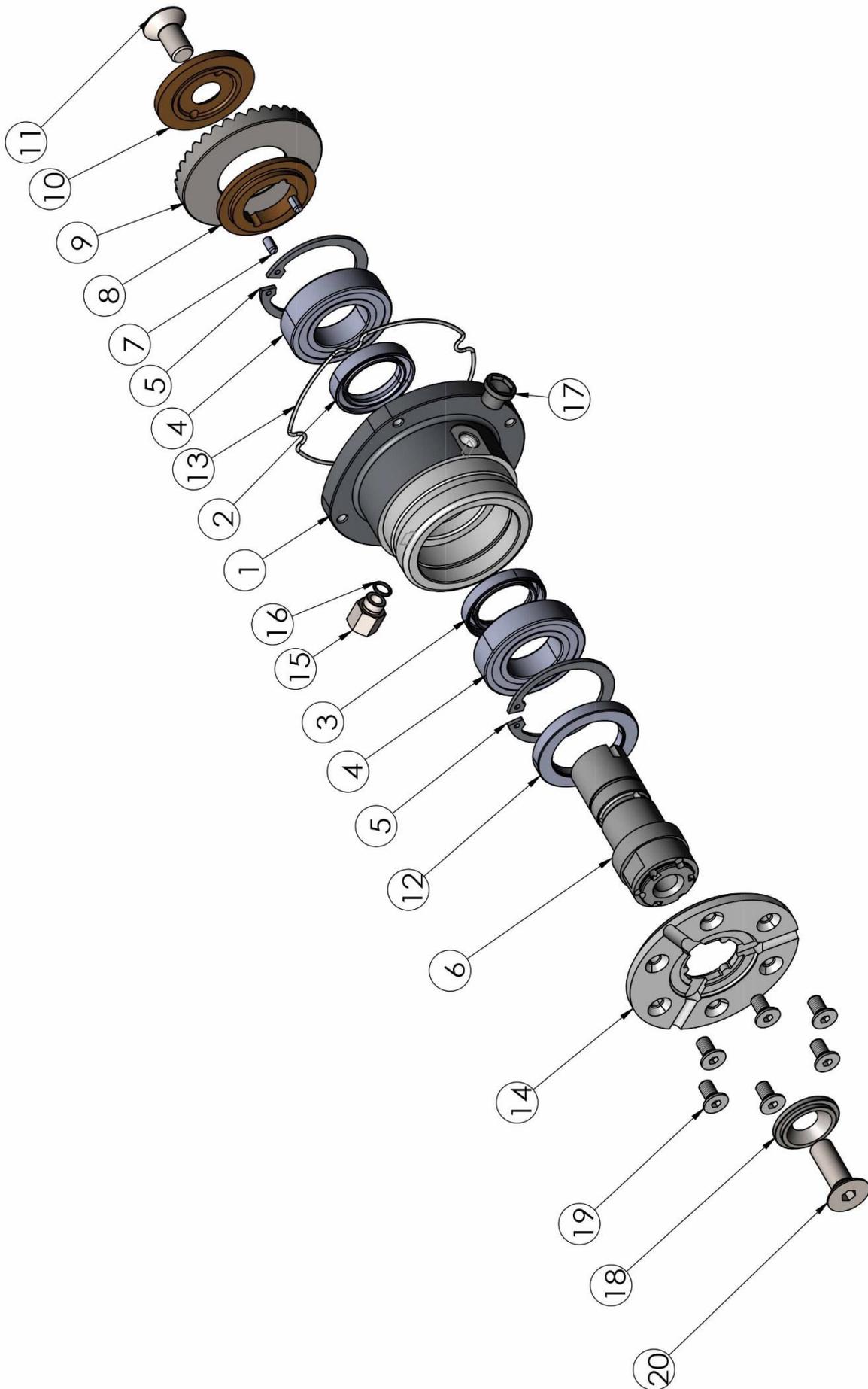
Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C03010262 -	1			Lagerhalter	Bearing holder	Support de roulement
2	C04022309 -	1			Lagerbuchse	Bearing bushing	Coussinet de roulement

12.3.5.8 Wheel set



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022368 -	1			Blech für Radsatz	Sheet metal for wheelset	Tôle pour jeu de roues
2	C03010268 0288 400 9068	2		D75x30	Rad	Wheel	Roue
3	C02010317	2	ISO 10642	M8x50	Senkschraube	Screw	Vis
4	C02030017 0282 250 0006	6	ISO 7089	B8,4	Scheibe	Washer	Rondelle
5	C02020010 0282 065 0005	2	ISO 7040	M8	Sicherungsmutter	Lock nut	Écrou de blocage
6	C04022370 -	1		Ø4	Sicherungssplint	Safety split pin	Goupille de sécurité
7	C04022371 -	1			Kette	Chain	Chaîne
8	C02010065 -	1	ISO 7045	M4x8	Kreuzschraube	Screw	Vis
9	C02030010	1	DIN127	A4	Federring	Spring washer	Rondelle élastique
10	C02030015 0267 112 5648	1	ISO 7089	B4,3	Scheibe	Washer	Rondelle
11	C04022372 -	1			Schwalbenschwanzverbinder	Dovetail connector	Connecteur à queue d'aronde
12	C02010300	2	DIN7991	M6x16	Senkschraube	Screw	Vis
13	C02020037 0281 045 0027	2	ISO 7040	M6	Sicherungsmutter	Lock nut	Écrou de blocage

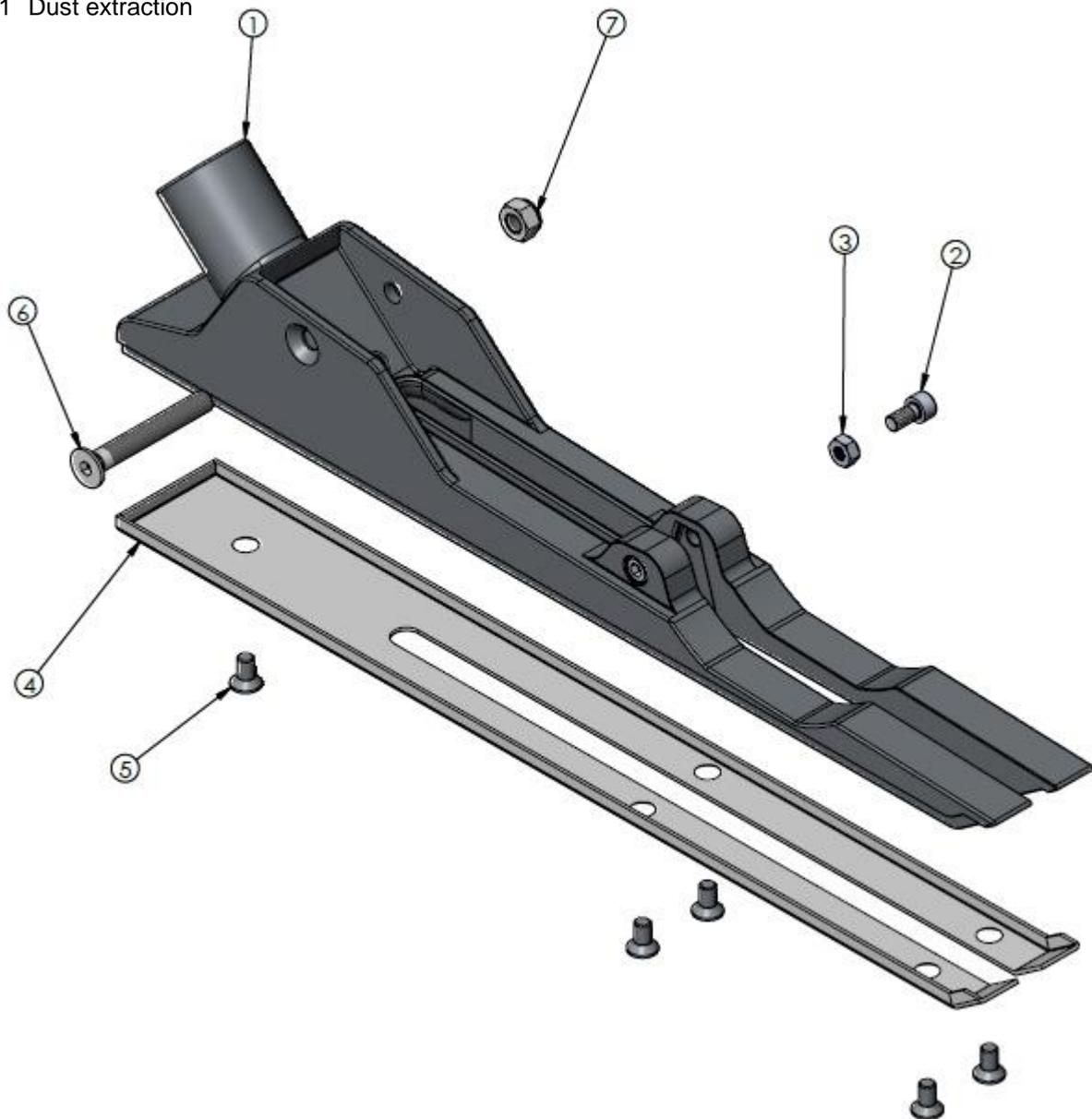
12.3.5.9 Flange unit



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	C04022314 0288 400 9043	1			Flanschgehäuse	Flange housing	Boîtier à bride
2	C03020184 0288 400 9046	1		25x37x6 Duo	Wellendichtring	Shaft seal	Joint d'arbre
3	C03020185 -	1			Wellendichtring	Shaft seal	Joint d'arbre
4	C02050040 0288 400 9040	2		6005-2RS	Rillenkugellager	Ball bearing	Roulement à billes
5	C02030068 0288 400 9049	2		J47	Sicherungsring	Circlip	Bague d'arrêt
6	C04023047 0288 400 9088	1			Spindel	Spindle	Broche
7	B900568	2		4m6x10	Zylinderstift	Dowel pin	Goupille cylindrique
8	C04023048 0288 400 9085	1			Kupplungsscheibe	Friction plate	Disque d'embrayage
9	C04023049 0288 400 9091	1			Zahnrad	Gear wheel	Roue dentée
10	C04023050 0288 400 9086	1			Kupplungsscheibe	Friction plate	Disque d'embrayage
11	C02010395 -	1			Schraube	Screw	Vis
12	C03020185 0288 400 9050	1		32 x 47 x 6	Wellendichtring	Shaft seal	Joint d'arbre
13	C03020194 0288 400 9051	1		90x1,5	O-Ring	O-ring	O-ring
14	C04022320 0288 400 9042	1			Flansch	Flange	Flasque
15	C04022331 0288 400 9054	1			Wasseranschluss	Water connection	Raccordement à l'eau
16	C03020195 0288 400 9055	1		8 x 1,3	O-Ring	O-ring	O-ring
17	C04022334 B802402	1			Verschlussstopfen	Closing plug	Bouchons de fermeture
18	C04022321 0288 400 9053	1			Endkappe für Welle	End cap for shaft	Embout pour arbre
19	C02010381 0282 300 0019	6			Schraube	Screw	Vis
20	C02010302 B901065	1			Schraube	Screw	Vis

12.3.6 Optional accessory HS400S and HS400F

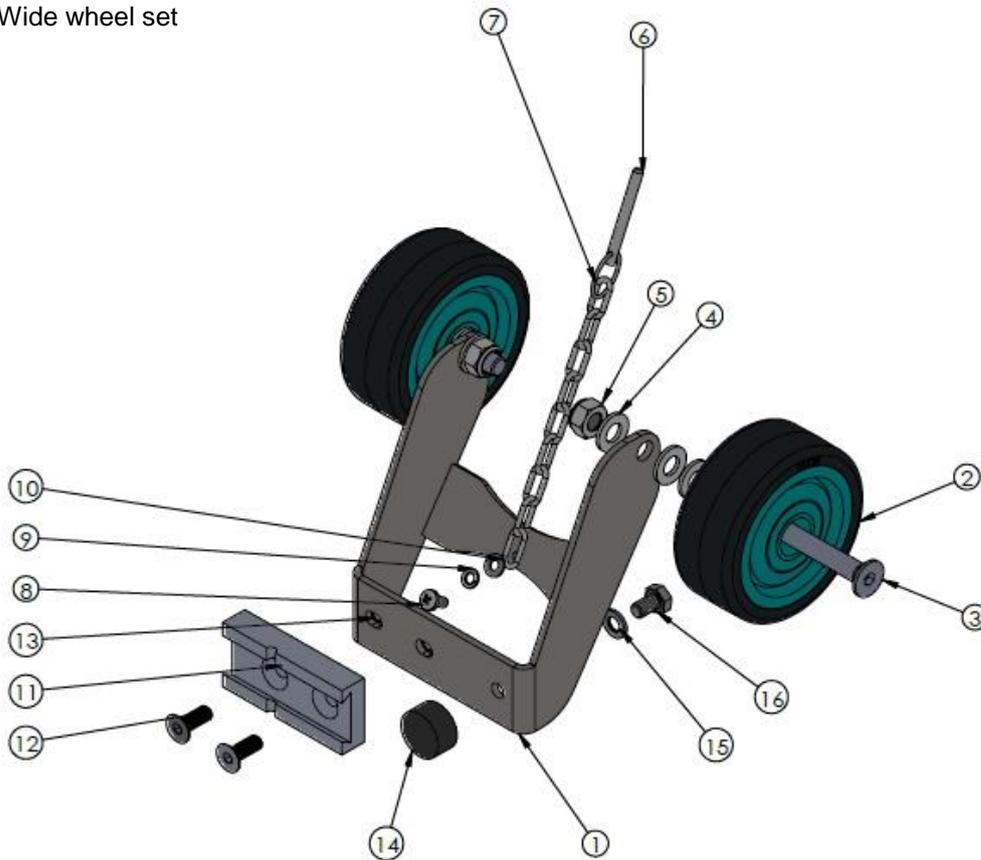
12.3.6.1 Dust extraction



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
-	HS400SVAC	1			Staubabsaugung kpl.	Dust extraction cpl.	Aspiration de la poussière cpl.

Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	-	1			Gussteil Staubabsaugung	Casting dust extraction	Pièce moulée Aspiration des poussières
2	0282 450 0128	2	ISO 4762	M6x12	Zylinderschraube	Screw	Vis
3	0285 300 0142	2	ISO4032	M6	Sechskantmutter	Nut	Écrou
4	-	1			Verschlussblech	Locking plate	Tôle de fermeture
5	0282 300 0019	5	DIN7991	M6x12	Senkschraube	Screw	Vis
6	-	1	ISO 10642	M8x60	Senkschraube	Screw	Vis
7	0282 065 0005	1	ISO7040	M8	Sicherungsmutter	Lock nut	Écrou de blocage

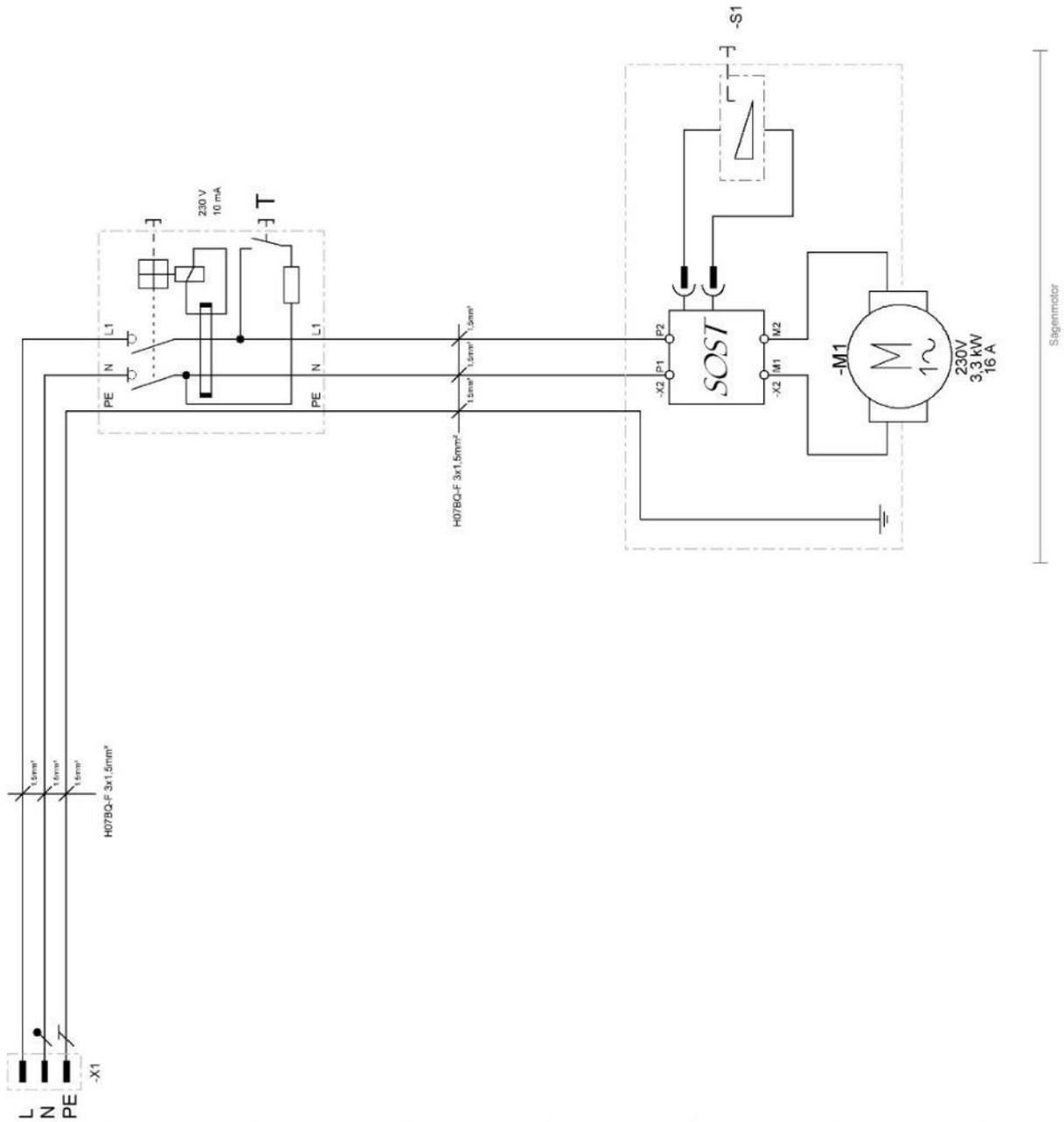
12.3.6.2 Wide wheel set



Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
-	0288 400 9056	1			Breiter Radsatz kpl.	Wide wheel set cpl.	Jeu de roues larges cpl.

Pos.	Art.-Nr.	Qty.	Norm	Info	Bezeichnung	Description	Désignation
1	-	1			Blech für breiten Radsatz	Sheet metal for wide wheelset	Tôle pour essieu large
2	0288 400 9068	2		D75x30	Rad	Wheel	Roue
3	-	2	ISO 10642	M8x50	Senkschraube	Screw	Vis
4	0282 250 0006	6	ISO 7089	B8,4	Scheibe	Washer	Rondelle
5	0282 065 0005	2	ISO 7040	M8	Sicherungsmutter	Lock nut	Écrou de blocage
6	-	1		Ø4	Sicherungssplint	Safety split pin	Goupille de sécurité
7	-	1			Kette	Chain	Chaîne
8	-	1			Schraube	Screw	Vis
9	-	1			Scheibe	Washer	Rondelle
10	0267 112 5648	1	ISO 7089	B4,3	Scheibe	Washer	Rondelle
11	0288 400 9083	1			Schwalbenschwanzverbinder	Dovetail connector	Raccord à queue d'aronde
12	0284 730 1005	2	DIN 7991	M6x16	Senkschraube	Screw	Vis
13	0281 045 0027	2	ISO 7040	M6	Sicherungsmutter	Lock nut	Écrou de blocage
14	-	1			Gummipuffer	Rubber buffer	Tampons en caoutchouc
15	0286 570 0069	1	DIN 127	A6	Scheibe	Washer	Rondelle
16	0282 170 0067	1	ISO 4017	M6x10	Sechskantschraube	Screw	Vis

13 Wiring diagram



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EU conformity declaration**GÖLZ® GmbH**

Dommersbach 51
D-53940 Hellenthal
Deutschland

declares under sole responsibility that

Model:	Hand saw
Make:	GÖLZ
Type:	HS400G HS400S HS400F HS400E

comply with the relevant provisions of the Directives

2006/42/EG	Machinery directive
2014/30/EU	Electromagnetic compatibility
2011/65/EU	Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment
2014/35/EU	Low Voltage
2005/88/EG	Noise emission
2012/19/EU	Electrical and electronic waste

and has been developed and fabricated in compliance with the following standards valid as at the production date:

DIN EN 62841-1:2023-03 VDE 0740-1:2023-03	Hand-Held Motor-Operated Electric Tools-Safety - Part 1: General Requirements
DIN EN ISO 12100 Corrigendum to 1:2013-08	Safety of machinery - General principles for design
DIN EN ISO 13849-1:2023-12	Safety of machinery - Safety-related parts of control systems
DIN EN IEC 61000-3-2:2023-10; VDE 0838-2:2023-10 DIN EN IEC 61000-3-11:2021-03; VDE 0838-11:2021-03	Electromagnetic compatibility (EMC)
DIN EN IEC 55014-1:2022-12; VDE 0875-14-1:2022-12 DIN EN IEC 55014-2:2022-10; VDE 0875-14-2:2022-10	Electromagnetic Compatibility
DIN EN 60204-1:2019-06; VDE 0113-1:2019-06	Safety of machinery - Electrical equipment of machines

Technical documentation kept by:

GÖLZ® GmbH

Development and design

Year of construction and machine number are indicated on the unit.

Hellenthal, 25.03.2025
GÖLZ® GmbH


Managing Director
Donghai Zheng