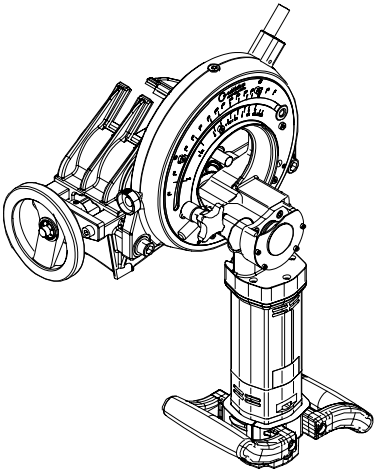
GFX 3.0 / GFX 6.6

en **Pipe cutting and beveling machines**

Translation of original operating instructions and spare parts list



790 144 761 REV 00 | 2402

orbitalum
tools for piping systems

An ITW Company

Table of Contents

1 About these instructions

1.1 Warning messages

The warnings used in these instructions warn you of injuries or damage to property.

Always read and observe these warnings!

This is a warning icon. It warns against dangers of injury. In order to avoid injuries or death observe the measures marked with a safety sign.

	WARNING LEVEL	MEANING
⚠	**DANGER**	Imminently hazardous situation that results in death or serious injuries if the safety measures are not observed.
⚠	**WARNING**	Potentially hazardous situation that may result in death or serious injuries if the safety measures are not observed.
⚠	**CAUTION**	Potentially hazardous situation that may result in slight injuries if the safety measures are not observed.
❗	*NOTE!*	Potentially hazardous situation that may result in material damage if the safety measures are not observed.

1.2 Further icons and displays

SYMBOL	MEANING
	Important information for comprehension.
1. 2. 3. …	Request for action in a sequence of actions: Action is required here.
►	Single request for action: Action is required here.

1.3 Abbreviations

ABBREVIATION	MEANING
GF	Pipe cutting and beveling machines
AVM	Automatic feed module [Automatisches Vorschubmodul (AVM)] on GF machines
MVM	Manual feed module [Manuelles Vorschubmodul (MVM)] on GF machines
GFX	Pipe cutting and beveling machines
PS 4.5 Plus	Portable pipe saw for cutting pipes with electric drive
PS 4.5 Plus battery	Portable pipe saw for cutting pipes with battery drive

2 Information and safety instructions for the owner

2.1 Requirements for the owner-operator

Workshop/outdoor/field use: The owner is responsible for safety in the danger zone around the machine, and should allow only qualified personnel to enter the zone or operate the machine in the danger zone.

Employee safety: The safety instructions described in the chapter *Information and safety instructions* of the operating instructions and the general safety instructions described in the safety regulations as well as safety-conscious work with all required safety equipment must be maintained.

2.2 Using the machine

2.2.1 Proper use

- **GF and GFX machines:** The machine must only be used for cutting and beveling materials and pipe dimensions, as listed in *chapt.* Scope of application of the operating instructions.
  PS machines: The machine must only be used for cutting and beveling materials and pipe dimensions, as listed in *chapt.* Scope of application of the operating instructions.
  The machine casing (vice) can be fastened directly onto the work bench/tripod using screws or by means of a mounting plate on it. The mounting plate is also screwed to the work bench.
  Only operate the machine within the voltages specified on the type plate of the drive (*see chapt*. Technical specifications).
- Only the motors listed below are to be used as drives for the following machines:
  - For GF saws: Motor GF07 (code 790 142 460 and 790 142 463).
  - For GFX saws: Motor GF10 (code 790 144 382 and 790 144 383).
  - PS 4.5 Plus: Motor (code 790 048 190 and 790 048 192).
  - PS 4.5 Plus battery: Motor (code 790 037 530 and 790 037 531)
- The drive motor may only be used in connection with the machine.
- Only GF machines: The automatic or manual feed module AVM/MVM may only be operated in connection with Orbitalum Tools pipe saws GF 4, GF 6, GF 8 or GF 12.
- The machine may only be used on pipes and tanks that are empty, unpressurized, do not have explosive atmospheres and are not contaminated.

Intended use also includes:

- Observing all safety and warning information of these operating instructions and the general pipe cutting and beveling machine safety information.
- Complying with all inspection and maintenance work.

- Using it only in its original condition with genuine accessories, spare parts and operating materials.
- Processing only those materials named in the operating instructions.

2.2.2 Improper use

- Any use that differs from or goes beyond the use and stated limits specified under *chapt.* "Intended use" is improper due to the danger involved.
- The owner shall be responsible for any damage which results from improper use. The manufacturer accepts no liability.
- No tools should be used that have not been authorized by the manufacturer of this machine.
- The removal of safety devices is not permissible.
- Do not misuse the machine.
- The machine is not intended for use by private consumers.
- The machine is intended solely for commercial and industrial use.
- It is impermissible to exceed the technical values specified for normal operation.
- Do not use the machine as a drive for any applications other than those named under *chapt.* "Intended use".

2.2.3 Machine constraints

- Keep your working area clean. Disorder or unlit working areas can lead to accidents.
- Work lighting: min. 300 Lux.
- Operation by one person.
- Climate conditions: Temperature range for machine operation: –15 °C to 40 °C.
- Only operate the machine in dry surroundings (not in misty, rainy or stormy conditions (< 80% rel. humidity)).

2.2.4 Shutting down the machine

EMERGENCY STOP or shutdown function descriptions, *see chapter* Shutdown (including in case of emergency) in the operating instructions.

2.3 Environmental protection and disposal

2.3.1 REACh (Registration, Evaluation, Authorization and Restriction of Chemicals)

The regulation (EC) 1907/2006 of the European Parliaments and of the Council concerning the registration, evaluation, authorization and restriction of chemicals (REACh) regulates the production, placing on the market and use of chemical substances and the mixtures produced from these.

Our products are "products" in the sense of the REACh regulation. In accordance with Article 33 of the REACh regulation, suppliers of products must inform their customers if the supplied product contains a substance specified in the REACh SVHC candidate list exceeding 0.1 percent by mass of the object. On June 27, 2018, lead (CAS: 7439-92-1 / EINECS: 231-100-4) was included in the SVHC candidate list. This inclusion activates an obligation to inform along the chain of delivery.

We herewith inform you that individual partial components of our products contain lead in quantities exceeding 0.1 % by mass of the object as an alloy component in steel, aluminum and copper alloys as well as in solders and capacitors of electronic components. The lead content lies within the exceptions specified in the RoHS Directive.

Since lead as an alloy component is firmly bound and therefore no exposure is to be expected in the case of proper use, no additional specification of its safe use are required.

2.3.2 Chips and gear lubricant

Dispose of chips and replaced gear lubricant as prescribed.

2.3.3 Electric tools and accessories

(as per RL 2012/19/EU)

Used-up power tools and accessories contain a large amount of valuable raw materials and plastics which can be recycled. For this reason:

- Electrical and electronic devices marked with the symbol at the right may not be disposed of with household garbage as per EU directive.
- By actively using the offered return and collection systems, you are doing your part to reuse and recycle used electrical and electronic devices.
- Used electric and electronic devices contain parts which must be handled specially as per EU directives. Separate collection and selective treatment are the basis for environmentally responsible disposal and protection of human health.
- We will properly dispose of devices and machines from us purchased after August 13, 2005, if they are sent to us postage-paid.
- In the case of used devices which may represent a risk to human health or safety due to contamination during use, we have the option of refusing return.
- The user is responsible for disposing of used devices purchased before August 13, 2005. For this purpose, please contact a professional disposal company in your area.
- **Important note for Germany:** Our devices and machines may not be disposed of at communal dumps, as they are only used in the commercial sector.

2.3.4 Return of accumulators and batteries

Cd

- Accumulators and batteries that are marked with the adjacent symbol may not be disposed of with household garbage as per EU Directive 2006/66/EC.
- In the case of accumulators and batteries containing hazardous materials the chemical sign for the heavy metal contained is specified below the refuse bin: Cd = cadmium Hg = mercury Pb = lead
- **Applies for Germany:** The end consumer is obliged to return defective or used accumulators and batteries to the distributor or to the returning facilities set up to this purpose.

2.4 Basic safety precautions

The machine is a state-of-the-art accessory designed for safe use. Remaining risks are described in the following operating instructions. Use other than that described in these instructions can lead to severe personal injury and damage to property. For this reason:

- Warning information must be observed.

- PS 4.5 Plus (battery) only: Along with these safety instructions, the general warning information for electric tools (see supplement) also applies, which must always be kept.
- Store all documentation near the machine.
- Generally valid regulations for the prevention of accidents must be observed.
- Observe country-specific regulations, standards and guidelines.
- Use the machine only in perfect technical condition. Observe the maintenance information (*see chapt.* Maintenance) of the operating instructions.
- Only operate the machine if all the safety equipment such as the restart inhibitor, overload protection and chips guard are in good working order. The machine must have a solid footing. Check whether the substrate is able to take sufficient loads. A radial space requirement/freedom of movement of approx. 2 meters around the machine is required for people.
- Report deviations in operating behavior of the machine to the person in charge immediately.
- Use only the dimensions and materials listed in these instructions. Other materials may only be used after consulting with Orbitalum Tools customer service.
- Use only genuine tools, spare parts, operating materials and accessories from Orbitalum Tools.
- Repair and maintenance work on the electrical equipment may only be carried out by a qualified electrician.

At the end of each working cycle, before transportation, changing tools, cleaning and performing any maintenance, adjustment or repair work, switch off the machine, wait until the machine/tool stops running and pull the mains plug. In the case of battery drives remove the battery and cover the battery.

- Do not carry the machine by its cable and do not use the cable to pull the power plug out of the socket outlet (except in case of an emergency). Protect the cable against heat, oil and sharp edges (chips).
- Do not reach into the tools while machining is being carried out.
- Allow heated tools to cool down and only touch them with safety gloves.
- Ensure that the workpiece is clamped properly.
- Only switch on the machine if a pipe is clamped.
- Only GF machines: When working with the AVM in case of danger press the EMERGENCY STOP button immediately.
- Only GF machines: When working with the AVM shutdown occurs automatically after each cutting action. When processing manually at the end of each working cycle shut the machine down (pipe saw ON/OFF button), wait until the machine/tool comes to a halt and unplug the power plug.
- Only GF machines: When working with the AVM do not stop in the swivel range during the slide housing rotation.
- Only GF machines: When working with the AVM: The machine may only be operated with the AVM protective web installed (*see chapt.* Automatic feed module AVM of the operating instructions).
- Do not use the machine in wet surroundings. Only work in surroundings having a roof or canopy.

- In extreme conditions of use, conductive dust or lubricant can settle inside the machine. For this reason and for better safety, an on-site SPE-PRCD or ground-fault circuit is required between the mains network and the machine, to be installed and tested if necessary by a professional electrician.
- When working with the machine wear safety shoes (as per EN ISO 20345 at least S1), safety goggles (as per DIN EN 166 Class 2, basic strength S), snug-fitting safety gloves (as per DIN EN 388, Class 2 resistance to abrasion, cut resistance Class 3, tear resistance Class 2, perforation resistance Class 3 and as per EN 407 at least Performance level 1 against contact heat) and hearing protection (as per DIN EN 352-4 or comparable).
- Operator age: The respectively valid country-specific laws/standards/guidelines/directives have to be followed.
- Do not use click-in socket outlets and click-in power plugs (blue CEE power plugs) for the power connection, otherwise the EMERGENCY STOP does not function. The user must check whether the power plug can be pulled out of the outlet by the cable (*see operating instructions chapt.* Shutdown of the machine).
- Do not use angled power plugs.

NOTICE!

The suggestions for personal safety equipment apply exclusively and specifically to the product described. Other requirements arising from ambient conditions at the location of use, other products or the link with other products are not taken into account. These suggestions do not relieve the owner (employer) of his/her legal duties regarding work-safety and health protection of employees in any way.

DANGER

If the power cable is damaged, exposed parts can be energized with lethal voltage!

Fatal electric shock.

- ► Keep the mains cable of the saw motor **away** from the saw blade/ bevel cutter.
- ► Do **not** allow a cut pipe section to fall uncontrollably.
- ► Do **not** operate the machine unattended.
- ► Keep an eye on the power cable at all times when processing is being carried out.
- ► Keep machine clean and thoroughly remove lubricant residue on the machine.

DANGER		**Damaged insulation!** Fatal electric shock. ► Do **not** screw signs to the drive motor. ► Use adhesive signs.
DANGER		**Loss of insulation due to collection of metal dust in the motor housing!** Fatal electric shock. ► Clean the machine at least once daily with the brush supplied according to its level of soiling.
DANGER		**Damaged plug.** Fatal electric shock. ► Do **not** use adapter plugs together with protectively grounded power tools. ► Connecting plugs of the machine must fit into the outlet
DANGER		**Risk of danger through the use of the machine outdoors!** Fatal electric shock. ► Do **not** use the machine in wet surroundings.
WARNING		**Danger! The electrical motor can overheat with operation of less than 230 V network!** Severe injury or death. ► Only use the machine in the specified temperature range.
DANGER		**Grounded body!** Fatal electric shock. ► Avoid contact with grounded surfaces such as tubes, heating, cookers or refrigerators.
DANGER		**Catching of loose/long clothing, long hair or jewelry by rotating machine parts!** Severe injury or death. ► Wear tight-fitting clothing when using the machine. ► Secure long hair against being caught.

DANGER

Defective safety parts due to soiling and wear!

Bodily injury due to failure of safety parts.

- ► Do **not** misuse the cable, for example by suspending or carrying the machine by the cable.
- ► Replace defective safety parts immediately and check daily for proper functioning.
- ► Have an expert replace defective power cables immediately.
- ► Clean and maintain machine after every use.
- ► Keep cable away from heat, oil, sharp edges and moving device parts.
- ► Check machine daily for externally visible damage and defects and have them remedied by a professional if necessary.

WARNING

Parts thrown off/tool breakage and rotating pipe!

Various injuries and damage to property.

- ► Do **not** process pipe loose in the vice.
- ► **No** damaged or deformed saw blades and bevel cutters should be used.
- ► In the event of tool breakage do not run a new tool into the old cut because this can cause a repeat tool breakage.
- ► Firmly clamp the pipe to be processed in the vice.
- ► Change worn tool immediately.
- ► Ensure proper mounting of the cutting tools.
- ► The pipe dimension must be adjusted properly; when cutting, the saw blade must plunge through the pipe wall entirely.
- ► Prevent tool breakage by means of low (adequate) feed force, correct adjustment of the dimension and speed (*see operating instructions chapt.* Clamping pipe and adjusting pipe dimension *and instructions chapt.* Adjusting speed).
- ► Hold on to the motor unit tightly by the handle, and guide it with low (adequate) feed force during the machining process.

WARNING

Falling objects or tilting and bending tubes!

Irreversible crushing.

- ► Wear safety shoes (in accordance with EN ISO 20345, at least S1).
- ► Place sufficient supports under the tube.
- ► Transport the machine as shown in chapter *Transporting the machine* of the operating instructions.

WARNING

Danger from vibration and unergonomic, monotonous work!

Discomfort, fatigue and malfunctioning of the moving apparatus! Limited response capability and cramps.

- ► Perform "loosening-up" exercises.
- ► Ensure a varied range of activities.
- ► Assume an upright, fatigue-free and comfortable body position during operation

WARNING

Pressing the ON/OFF button unintentionally!

Various injuries and damage to property.

- ► At the end of each working cycle, before transportation, changing tools, cleaning and performing any maintenance, adjustment or repair work, shut the machine down, wait until the machine/tool stops running and pull the mains plug or remove the battery and cover the battery.

WARNING

Dangerous laser radiation!

The eye retina or eye vision can be impaired.

- ► **Do not** look at the laser beam or view it using optical instruments.
- ► **Do not** point the laser beam at other people.
- ► **Do not** misuse the line laser and do not remove it from the pipe saw.
- ► Ensure that the line laser is switched off during mounting/dismantling.

DANGER

Danger of fire from charging the battery with a wrong charger!

Severe injury or death.

- ► Only charge the batteries with chargers recommended by the manufacturer.

WARNING

Liquid leaking from the battery due to wrong use!

Various injuries and damage to property.

- ► Wash with water if touched accidentally.
- ► If liquid enters the eyes, contact a doctor.

WARNING

High speed when transporting the machine!

Risk of being hurt by lifting in the packaged state.

- ► Only transport and raise the pipe saw on a pallet over longer distances using appropriate lifting equipment.
- ► Transport the machine in the transport case using 2 persons. The case has adequate carry handles.

2.5 Warning signs

The warning signs and safety signs located on the machine must be observed.

The warning signs are part of the machine. They must not be removed or modified. Missing or illegible warning signs must be replaced immediately.

2.5.1 GF machines

IMAGE	MACHINE TYPE	POSITION ON MACHINE	MEANING	CODE
	GF 4 (AVM/MVM), GF 6 (AVM/MVM), GF 8 (AVM/MVM), GF 12 (AVM/MVM)	Chips guard, frontal	Warning: Risk of injury due to sharp cutting edges.	790 086 200
	GF 4 (AVM/MVM), GF 6 (AVM/MVM), GF 8 (AVM/MVM), GF 12 (AVM/MVM)	Motor, on the side	Rule: • Wear safety goggles in accordance with DIN EN 166. • Wear hearing protection in accordance with DIN EN 352. • Wear snug-fitting safety gloves in accordance with DIN EN 388 and EN 407. • Read operating instructions.	790 046 196
	GF 4 (AVM/MVM), GF 6 (AVM/MVM), GF 8 (AVM/MVM), GF 12 (AVM/MVM)	Directly on laser	Warning: Laser class I.	**For lasers 790 142 125 (230 V machines):** 790 142 288 **For lasers 790 142 135 (120 V machines):** 790 142 298

IMAGE	MACHINE TYPE	POSITION ON MACHINE	MEANING	CODE
	GF 4 (AVM/MVM), GF 8 (AVM/MVM), GF 12 (AVM/MVM)	Line laser holder	Warning: Dangerous laser radiation.	790 142 289
	GF 6 (AVM/MVM)	Slide housing	Warning: Dangerous laser radiation.	

2.5.2 GFX machines

IMAGE	POSITION ON MACHINE	MEANING	CODE
	Motor, frontal	Warning: Risk of injury due to sharp cutting edges.	790 046 196
	Motor, on the side	Rule: Wear safety goggles according to DIN EN 166, hearing protection according to DIN EN 352 and snug-fitting safety gloves according to DIN EN 388 and EN 407. Read operating instructions.	790 086 200

IMAGE	POSITION ON MACHINE	MEANING	CODE
	Directly on laser	Warning: Laser class I.	**For lasers 790 142 125 (230 V machines):** 790 142 288 **For lasers 790 142 135 (120 V machines):** 790 142 298
	Line laser holder	Warning: Dangerous laser radiation.	790 142 289

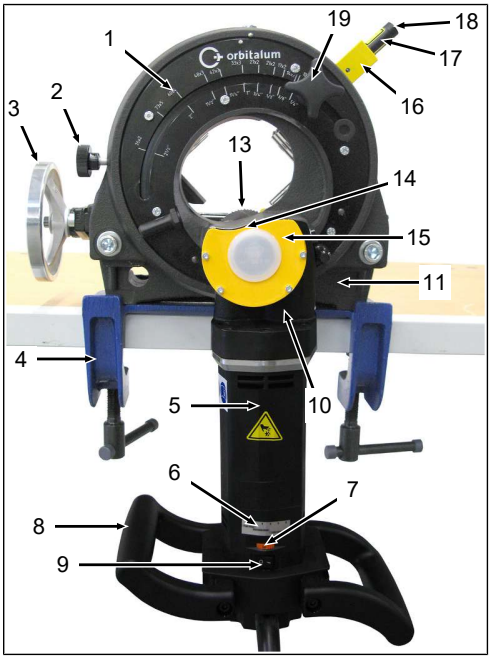
2.5.3 PS machines

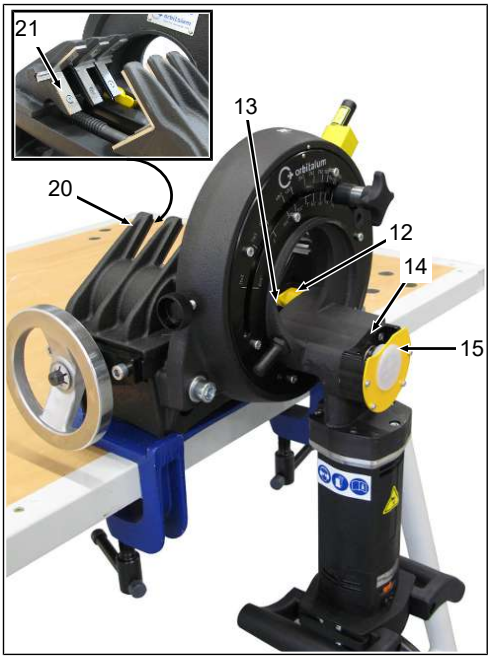
IMAGE	POSITION ON MACHINE	MEANING	CODE
	Chips guard, top	Warning: Risk of injury due to sharp cutting edges.	790 046 196
	Vice, on the left	Rule: Wear safety goggles according to DIN EN 166, hearing protection according to DIN EN 352 and snug-fitting safety gloves according to DIN EN 388 and EN 407. Read operating instructions.	790 086 200

IMAGE	POSITION ON MACHINE	MEANING	CODE
	Directly on laser	Warning: Laser class I.	**For lasers 790 142 125 (230 V machines):** 790 142 288 **For lasers 790 142 135 (120 V machines):** 790 142 298
	Line laser holder	Warning: Dangerous laser radiation.	790 142 289

3 Description

3.1 GFX 3.0

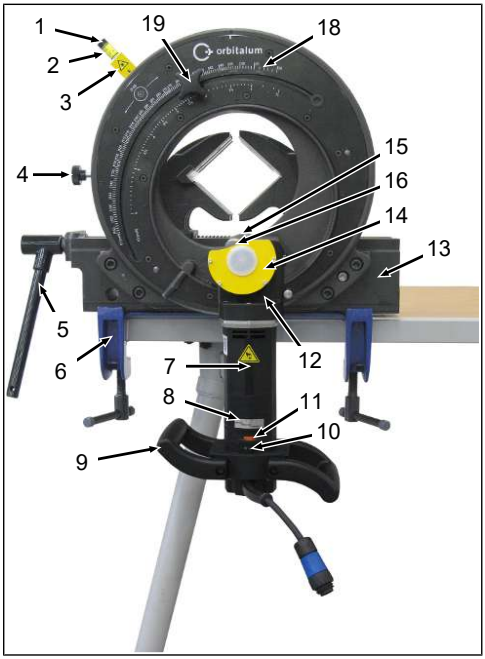


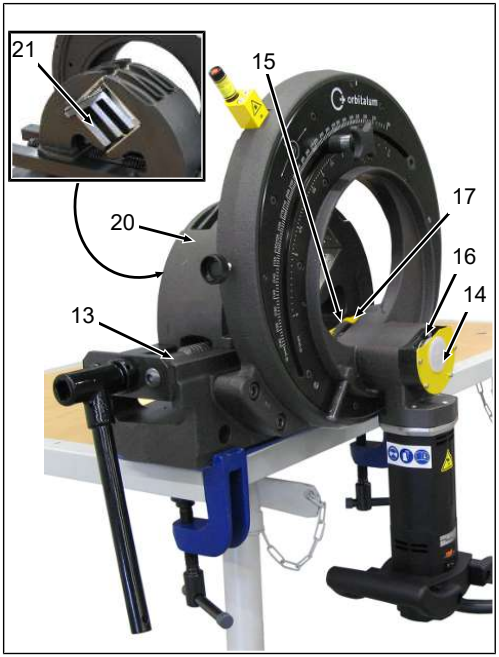


POS.	DESIGNATION	POS.	DESIGNATION
1	Scale for setting the pipe dimension	12	Chips guard, can be swiveled
2	Locking screw	13	Saw blade clamping point 1
3	Hand wheel for clamping jaws	14	Saw blade clamping point 2 (for cutting pipe elbows)
4	Quick-mounting plate with screw clamps (optionally available, *see chapt.* Accessories and consumables [▶ 24])	15	Chips guard
5	Motor (details *see chapt.* Characteristics [▶ 22])	16	Line laser holder
6	Rotating-speed indicator	17	Line laser (details see *chapt.* Line laser [▶ 30])
7	Speed controller	18	Line laser ON/OFF switch
8	Motor handle	19	Star knob for setting the pipe dimension

POS.	DESIGNATION	POS.	DESIGNATION
9	Motor ON/OFF switch	20	Cast steel clamping jaws
10	Slide housing	21	Stainless steel caps
11	Vice		

3.2 GFX 6.6





POS.	DESIGNATION	POS.	DESIGNATION
1	Line laser ON/OFF switch	12	Slide housing
2	Line laser (details see *chapt.* Line laser [▶ 30])	13	Vice
3	Line laser holder	14	Chips guard
4	Locking screw	15	Saw blade clamping point 1
5	Multifunctional crank (details *see chapt.* Characteristics [▶ 22])	16	Saw blade clamping point 2 (for cutting pipe elbows)
6	Quick-mounting plate with screw clamps (optionally available, *see chapt.* Accessories and consumables [▶ 24])	17	Chips guard, can be swiveled

POS.	DESIGNATION	POS.	DESIGNATION
7	Motor (details *see chapt.* Characteristics [▶ 22])	18	Scale for setting the pipe dimension
8	Rotating-speed indicator	19	Star knob for setting the pipe dimension
9	Motor handle	20	Cast steel clamping jaws
10	Motor ON/OFF switch	21	Stainless steel caps
11	Speed controller		

3.3 Characteristics

The pipe saws are characterized by the following properties:

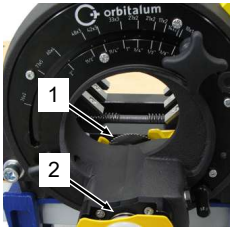
- Self-centering vice
- Right-angled, burr-free cutting surface and deformation-free pipe cross section
- Production of standardized welding bevels
- Cold machining process
- Quick cutting action
- Quick tool change
- Easy assembly and little space required
- Simultaneous cutting and beveling of thin-walled metal pipes possible
- Optimized chip flow thanks to vice design
- Environmentally friendly
- Long service life
- Good handling thanks to its low weight
- Increased productivity
- Low-maintenance and service-friendly

Motor

With continuously variable speed control and ergonomic handles. Enables a safer operating position and cutting of pipe elbows without alteration. Additional advantages:

- Electronic overload protection with integrated temperature monitor and tachometer control.
- Inhibitor protection prevents an inadvertent startup of the machine after repeated power supply or in case of voltage recovery after power failure.
- Drive with high performance (1,200 W) and adjustable speed range for cutting a wide range of materials.
- Increased the service life of the tools thanks to tachometer control.
- Rotating-speed indicator (1) for speed selection.
- Ergonomically positioned speed adjustment wheel (2) and ON/OFF switch (3).

Additional saw blade clamping point for cutting pipe elbows



Which saw blade clamping point for which application?

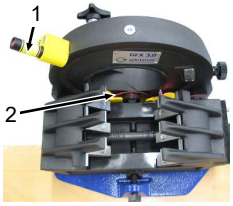
Saw blade clamping point 1:

Cutting pipes

Saw blade clamping point 2:

Cutting pipe elbows only

Line laser for identifying the cutting point



For identifying the cutting point on the pipe. Ideal for checking whether the pipe is adjusted to the desired cutting point. By pressing the red button on the line laser (1) a red line marking (2) appears on the clamped pipe, which identifies the cutting point. If necessary, the pipe position can be readjusted until the desired cutting point is marked.

The line laser switches itself off automatically after 2 min. To switch the line laser back on, press the red ON button twice.

Plug connection with a quick-disconnect coupler

For a quick and easy replacement of the power cable. Additional advantages:

- If there is a cable fracture, then the cutter motor does not have to be opened and a qualified electrician is not required to replace the flex cable.
- As the flex cable is locked away, misuse can be prevented.

Sliding clamping jaws with stainless steel clamping surfaces

The GFX is equipped by default with stainless steel sliding clamping jaws and stainless-steel clamping surfaces. The 6 stainless steel clamping surfaces are already mounted on the clamping jaws on delivery and prevent contact corrosion between the tube and the clamping jaws.

Multifunctional crank

Allows up to 3 different settings on the machine:

- Saw blade/bevel cutter fixture
- Tightening and loosening the vice (with GFX 6.6 only)
- Saw fixture for the quick-mounting plate

3.4 Accessories and consumables

Not included in scope of delivery.

WARNING

Danger presented by using accessories that have not been approved.

Various injuries and damage to property.

► Use only genuine tools, spare parts, operating materials and accessories from Orbitalum Tools.

► See product catalog "Orbital Cutting" for a comprehensive overview of suitable accessories.

Download links PDF:

https://www.orbitalum.com/de/download.html

► Connect suitable accessories, see operating instructions of accessories.

Saw blades and bevel cutters

All saw blades and bevel cutters are developed specifically for our pipe saws for extreme demands and maximum service life. 4 different saw blades and bevel cutter versions are available for the various applications:

- **Economy series** for low-alloyed and unalloyed steels as well as cast materials
- **Performance series** for high-alloyed steels (special steel)
- **High-Performance series** for high-performance materials and high-alloyed steels
- **Premium series** specifically for special steel applications with extra high service life

Saw blade lubricant GF TOP

- Synthetic high quality lubricant for sawing and milling.
- Increases the service life of the saw blade.
- Fulfills the requirements for H2 lubricants.
- Thanks to the screw-on brush, simple and even lubrication of the saw blade is ensured.

Code 790 060 228

Saw blade lubricating paste GF LUB

- Chlorine-free high quality lubricant for sawing and milling.
- Increases the service life of the saw blade.
- The ecological lubricating paste is the environment-friendly successor of ROCOL; with new name and improved quality.
- GF LUB complies with latest environmental guidelines and ecological standards.

Code 790 041 016

Pipe feeder basic unit and extension unit

The pipe feeder allows you to feed long and heavy pipes effortlessly and coaxially to the pipe saws.
Very robust and stable design with powder-coated frame and stainless steel rollers. The ideal supplement for all Orbitalum pipe saws (except for GF 20 AVM. RA 2, GFX 3.0, PS 4.5, PS 6.6 possible on request).

- Extreme stability and structural stability
- Rapid adjustment of dimensions
- Centering of pipes in seconds
- Specially coated, maintenance-free steel frame
- Stainless-steel rollers
- Extension of pipe feeder possible with add-on module
- Saves time and money
- No contamination
- Suitable for all steels

Code 790 068 051

Code 790 068 061

Mobile workstation

- For mobile construction site and workshop use.
- The ideal supplement for all Orbitalum pipe saws (except for GF 20 AVM. RA 2, PS 4.5, PS 6.6 possible on request).

Code 790 068 071

Quick-mounting plate with screw clamps

- For fast mounting of the machines on workbenches.
- Ideal for frequently changing operation locations.

Code 790 041 027

Tripod

- Suitable for GFX 3.0, PS 4.5 (battery), PS 6.6.
- Made of aluminum.
- Simple mounting of the saws directly on the tripod
- without mounting plate.
- Space-saving – usable quickly – good handling.

Code 790 048 390

Hard-sided transport case

- High-quality, blue transport case with insert.
- • Especially robust design.
- • Suitable only for GFX 3.0.

Code 790 144 019

Mandatory action and warning signs

Mandatory action and warning signs overview with order numbers, *see chapter*

4 Scope of application

4.1 Application range

MACHINE MODEL		GFX 3.0	GFX 6.6
Pipe AD	[mm]	6.0 - 78.0	21.3 - 168.3
	[inch]	0,236 - 3,071	0,838 - 6,659
Wall thickness	[mm]	0.8 - 7.0	0.8 - 7.0
	[inch]	0,031 - 0,275	0,031 - 0,275
Pipe ID min.	[mm]	0	23.0
(saw blade Ø 63/2.248")	[inch]	0	0,905
OD range	[mm]	6.0 - 78.0	24.6 - 168.3
(saw blade Ø 63/2.248")	[inch]	0,236 - 3,071	1,008 - 6,659
Pipe ID min.	[mm]	0	18
(saw blade Ø 68/2.677")	[inch]	0	0,708
OD range	[mm]	6.0 - 73.0	21.3 - 168.3
(saw blade Ø 68/2.677")	[inch]	0,236 - 2,874	0,838 - 6,659
Pipe ID min.	[mm]	–	6.0
(saw blade Ø 80/3.149")	[inch]	–	0,236
OD range	[mm]	–	21.3 - 156.0
(saw blade Ø 80/3.149")	[inch]	–	0,838 - 2,205

4.2 Materials

- Unalloyed, low-alloyed, high-alloyed steel
- Stainless steel
- Non-ferrous metal
- Aluminum alloys
- Titanium alloys
- Composite materials
- Plastic

5 Technical specifications

5.1 Pipe cutting and beveling machines

MACHINE MODEL		GFX 3.0	GFX 6.6
Dimensions (lxhxb)	[mm]	570 x 280 x 330	575 x 671 x 350
	[inch]	22.44 x 11.02 x 12.99	22.64 x 26.42 x 13.78
Weight incl. vice	[kg]	28.500	74.400
	[lbs]	62.83	164.02
Power	[W]	1200	1200
Protection class	[Class]	II	II
Continuously variable electric speed control with restart inhibitor	[rpm]	30 - 200	30 - 200
Versions	[V, Hz]	230 V, 50/60 Hz EU	230 V, 50/60 Hz EU
(1-phase alternating current)	[V, Hz]	120 V, 50/60 Hz US	120 V, 50/60 Hz US
Vibration level in accordance with EN 50144	[m/s²]	< 2.5	< 2.5
Sound pressure level at the workplace*)	[dB (A)]	79.7	79.7

** The sound pressure level measurement was carried out under normal operating conditions according to EN 23741.*

5.2 Line laser

Dimensions (l x w)	[mm]	68 x 15
	[inch]	2.7 x 0.59
Weight	[g]	30
	[lbs]	0,012
Total emitted power	[mW]	5
	[HP]	5x10-6
Power for the classification	[µW]	< 390
Beam range	[m]	1
	[inch]	39.37
Wave length	[nm]	650

Operating voltage	[V DC]	2.8 to 4.5
Operating current	[mA]	20
Operating temperature	[°C]	-10 to 40
Storage temperature	[°C]	-40 to 80
Laser class	[Class]	1
Automatic switch-off laser	[min]	2 (To switch the line laser back on, press the red ON button twice.)
Battery type		2 x LR44 / AG13

6 Commissioning

6.1 Scope of delivery

ITEM	PCS.	GFX 3.0	GFX 6.6
Pipe cutting and beveling machine	1	x	x
Transportation case	1	x	x
Saw blade, code 790 ...	1	... 041 035	... 042 064
Quick-mounting plate without screw clamps*	1	–	x
Line laser with holder and fastening screws and 10 button cells 1.5 V (code 790 142 124)**	1	x	x
Multifunctional wrench (code 790 142 152), brush (code 790 041 017), offset screwdriver - 8 (code 243 870 089), offset screwdriver - 5 (code 243 870 059)	1	x	x
Tube of saw blade lubricant GF TOP (code 790 060 228)	1	x	x
General pipe cutting and beveling machine safety information	1		
GFX 3.0, GFX 6.6 operating instructions and spare parts list Download links PDF: https://www.orbitalum.com/de/download.html	PDF	x	x

We reserve the right to make changes.

* *The GFX 3.0 can be mounted directly on the workbench without a quick-mounting plate. Quick-mounting plates with screw clamps for GFX 3.0 and GFX 6.6 are available optionally.*

** *The line laser has to be mounted on the GFX before commissioning (mounting, see chap. 8.2, page 26).*

► Check the delivery for completeness and damage caused by transport.

► Report any missing parts or damage caused by transport to your supplier immediately.

7 Storage and transport

7.1 Storage

CAUTION

Improper machine storage!

Various injuries and damage to property.

► Store the machine in its original case and in dry conditions.

7.1.1 Supplying the machine in the transport crate

1. Pull the conveyor belt through the machine rotating body and secure with a crane (or similar lifting equipment).
2. Dismantle the machine from the working or mounting plate.
3. Hold the machine at the handle and at the same time lift it using the crane.
4. Lift the machine with the crane over the transport crate and lower it.
5. Close the transport crate with a cover.

7.2 Transport

DANGER

Fatal electric shock!

► Before transportation or changing the workplace, switch off the machine, wait until the machine/tool stops running and pull the mains plug. In the case of battery drives remove the battery and cover the battery.

WARNING

During transport, the ON/OFF button could be pressed inadvertently, starting up the machine!

Various injuries and damage to property.

► Before transportation or changing the workplace, switch off the machine, wait until the machine/tool stops running, pull the mains plug and set the transport lock.

► In the case of battery drives remove the battery and set the transport lock (switch lock) (center setting of the clockwise/counter-clockwise rotation). Cover the battery.

WARNING		**Heavy weight when transporting the machine** Danger of injury due to overstraining. ► Transport the machine over longer distances with suitable lifting gear.

7.2.1 Transporting the machine

NOTICE!

► Transport the machine packed in the transport crate or on a pallet with appropriate lifting aids (e.g. lift truck).

1. Pull the lifting belt through the machine rotating body and secure it with a crane (or similar lifting equipment) (machine weight, *see chapt.* Pipe cutting and beveling machines [▶ 30])
2. Hold the machine at the handle and at the same time lift it out of the transport crate using the crane.
3. Use the crane to place the machine on a suitable working or mounting plate and fasten it (*see chapt.* Mounting the machine on the work bench [▶ 38]).
4. Ensure that the machine stands securely.

Transport packed in the transport crate or on a pallet with appropriate lifting aids (e.g. lift truck).

Lift the machine with a crane (or similar lifting equipment) out of the transport crate and supply it again.

8 Setup and mounting

DANGER

Machine startup due to unintentionally pressing the ON/OFF button!

Fatal electric shock.

Various injuries and damage to property.

- ► At the end of each working cycle, before transportation, changing tools, cleaning and performing any maintenance, adjustment or repair work, switch off the machine, wait until the machine/tool stops running and pull the mains plug. In the case of battery drives remove the battery and cover the battery.

WARNING

Parts thrown off/tool breakage!

Various injuries and damage to property.

- ► Do **not** process pipe loose in the vice.
- ► **No** damaged or deformed saw blades and bevel cutters should be used.
- ► In the event of tool breakage do **not** run a new tool into the old cut because this can cause a repeat tool breakage
- ► Firmly clamp the pipe to be processed in the vice.
- ► Change worn tool immediately.
- ► Ensure proper mounting of the cutting tools.
- ► The pipe dimension must be adjusted properly; when cutting, the saw blade must plunge through the pipe wall entirely.
- ► Prevent tool breakage by means of low (adequate) feed force, correct adjustment of the dimension (*see chapt.* Clamping pipe and adjusting pipe dimension [▶ 46]) and speed (*see chapt.* Determining and setting the speed [▶ 40]).
- ► Hold on to the motor unit tightly by the handle, and guide it with low (adequate) feed force during the machining process.

WARNING

When switching the motor on, the machine may revolve around the pipe uncontrollably, automatically!

Various injuries and damage to property.

- ► In their home position, the saw blade or bevel cutter must not touch the pipe.
- ► Make sure that the slide housing is in the home position when the cutting process starts.
- ► Firmly clamp the pipe to be processed in the vice.
- ► Before switching the motor on, make sure that the gap between the saw blade or bevel cutter and the pipe is sufficient, and that the pipe is securely clamped in the vice.
- ► Place sufficient supports under the tube.

CAUTION

Damage to property!

- ► When using a supplemental bevel cutter do **not** use the clamping disk included in the scope of delivery for the saw.
- ► Saw blades must be free of chips and dirt.
- ► Only use original Orbitalum Tools saw blades.
- ► Put the saw blade onto the shaft with the result that the inscription points to slide. The toothing then points in the right direction.

8.1 Mounting the machine on the work bench

WARNING

The pipe saws are top-heavy and can cause a workbench that is not load-bearing and not secure against tilting to tilt!

Irreversible crushing and material damage.

- ► Mount pipe saws only on stable, load-bearing and non-tilting workbenches.

Mount the GFX; either:

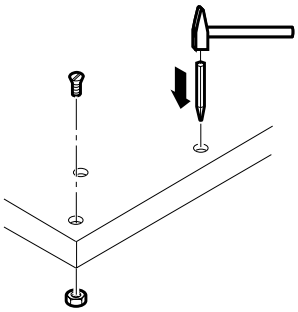
- directly on the workbench **without** a quick-mounting plate (*see chapt.* Mounting directly on the workbench (GFX 3.0 only) [▶ 39]) or
- on the workbench **with** a quick-mounting plate **with** screw clamps (*see chapt.* Mounting on the workbench with quick-mounting plate with screw clamps [▶ 39]) or
- on the workbench **with** a quick-mounting plate **without** screw clamps (*see chapt.* Mounting on the workbench with quick-mounting plate without screw clamps [▶ 40]).

In addition, the GFX saws can be mounted on the tripod (only GFX 3.0), on the pipe feeder or on the mobile workstation (all optionally available, *see chapt.* Accessories and consumables [▸ 24]).

8.1.1 Mounting directly on the workbench (GFX 3.0 only)

Only possible with the GFX 3.0.

1. Mark and punch the screw holes on the workbench. Use the GFX 3.0 as a template.
2. Drill holes with 13 mm Ø.
3. Fasten the GFX 3.0 with the supplied countersunk screws M10x70 (8.8) onto the workbench.



8.1.2 Mounting on the workbench with quick-mounting plate with screw clamps

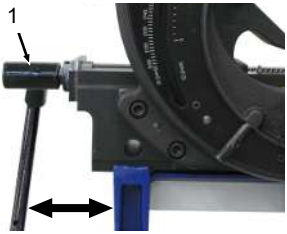
Possible with all the machines of the GFX series.

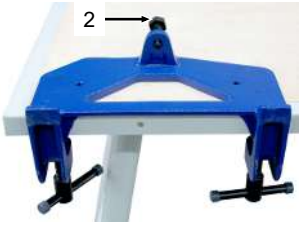
Quick-mounting plates with screw clamps are not included in the scope of delivery for the GFX series and can be retrofitted (*see chapt* Accessories and consumables [▸ 24]).

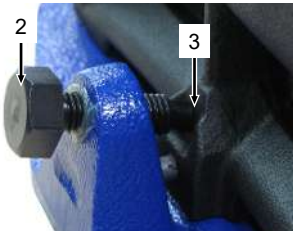
NOTICE!

With the GFX 6.6 the quick-mounting plate has to be mounted directly on the left-hand workbench edge so that the multifunctional crank (1) at the side of the GFX 6.6 can be turned in its full radius with sufficient distance to the workbench edge.

1. Fasten the quick-mounting plate on the workbench using the screw clamps.
2. Guide the pipe saw sideways onto the fitted quick-mounting plate.
3. Tighten the hexagon screw (2) so that it rests firmly against the retainer on the vice of the saw (3).







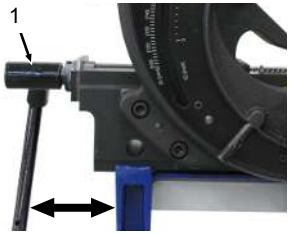
8.1.3 Mounting on the workbench with quick-mounting plate without screw clamps

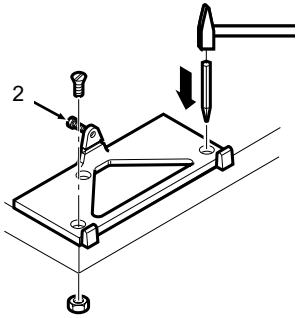
Only possible with the GFX 6.6.

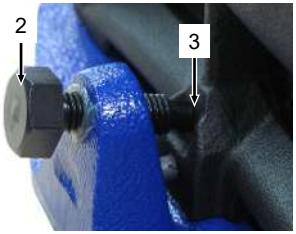
NOTICE!

With the GFX 6.6 the quick-mounting plate has to be mounted directly on the left-hand workbench edge so that the multifunctional crank (1) at the side of the GFX 6.6 can be turned in its full radius with sufficient distance to the workbench edge.

1. Mark and punch the screw holes on the workbench. Use the quick-mounting plate as a template.
2. Drill holes with 13 mm Ø.
3. Fasten the quick-mounting plate with screws.
4. Introduce the GFX 6.6 from the side to the mounted quick-mounting plate.
5. Tighten the hexagon screw (2) so that it rests firmly against the retainer on the vice of the saw (3).







8.2 Determining and setting the speed

PIPE MATERIAL	RPM REGULATOR (LEVEL)	SPINDLE SPEED (RPM)
High-alloyed stainless steels	1 - 3	30 - 98
Low-alloyed stainless steels	3 - 5	98 - 166
Construction steels	5 - 6	166 - 200

Speed controller

NOTICE!

► Select low speed for large pipe diameters and for thick-walled pipes.

8.3 Mounting the line laser

NOTICE!

The line laser is supplied separately with the machine and has to be mounted on the GFX before commissioning.

WARNING

Dangerous laser radiation!

The eye retina or eye vision can be impaired.

- ► **Do not** look at the laser beam or view it using optical instruments.
- ► **Do not** point the laser beam at other people.
- ► **Do not** misuse the line laser and do not remove it from the pipe saw.
- ► Ensure that the line laser is switched off during mounting/dismantling.

1. Place the line laser on the intended location surface (1) on the housing.
2. Tighten the line laser **lightly** with 2 hexagon socket head screws (2) so that it can still be aligned.
3. Switch on the line laser and align it so that the line laser beam lies flush with the saw blade (3).
4. Tighten the 2 hexagon socket head screws (2) and switch the line laser off again (automatic switch-off, 2 min).

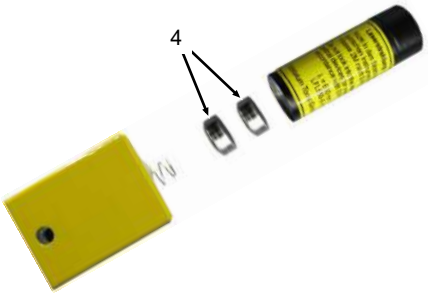
8.4 Replacing the batteries of the line laser

NOTICE!

Opening, modifying or removing the protective covers and housings is prohibited, except to change the batteries. Follow the maintenance instructions (*see chapt.*).

1. Unscrew the line laser and replace the batteries (4) (pack with 10 button cells, 1.5 V = code 790 142 124).
2. Screw the parts of the line laser again.

3. Place the line laser back onto the holder, align and retighten it using the threaded pin M6x5 (3).



8.5 Mounting the saw blade/bevel cutter

8.5.1 Mounting the saw blade at saw blade clamping point 1

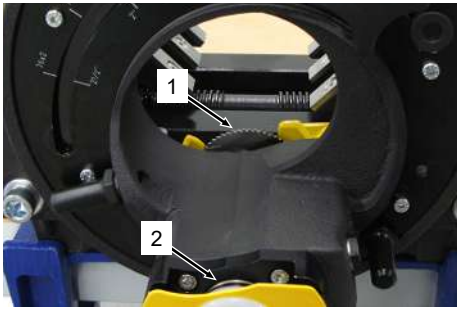
WARNING

Hot components!

Danger of injury to hands.

- ► When changing the saw blade, wear suitable safety gloves (according to DIN EN 388 and EN 407, *see chapt.* Basic safety instructions).
- ► Lay down the tools and fastening parts rapidly.

Use **saw blade clamping point 1 to cut and bevel pipes only**. If you want to cut pipe elbows, use saw blade clamping point 2 (see chapt. Mounting the saw blade at saw blade clamping point 2).



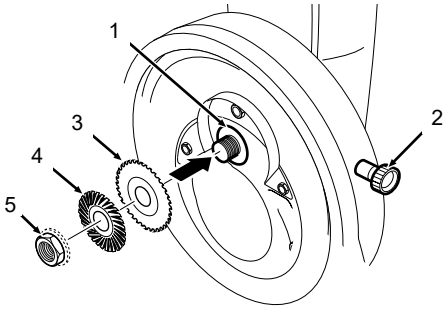
NOTICE!

Mounting or replacing the saw blades cannot be done when a pipe is clamped in the vice.

- ► If necessary, remove the pipe before fitting the saw blade.

8.5.1.1 Inserting the saw blade

1. Turn the pipe saw clockwise and upward by 180°.
2. Tighten the locking screw (2).
3. Loosen the nut (5) **clockwise** (left-hand thread).
4. Clean the saw blade shaft (1) and surroundings using a brush.
5. Place the saw blade (3) and clamping disc (4) onto the shaft (1).



NOTICE!

Put the saw blade onto the shaft so that the inscription points to the machine. The toothing then points in the right direction.

1. Tighten the nut (5) **counterclockwise** (left-hand thread).
2. Loosen the locking screw (2).
3. Turn the pipe saw clockwise and downward to the home position.

8.5.1.2 Inserting the saw blade/bevel cutter combination or bevel cutter

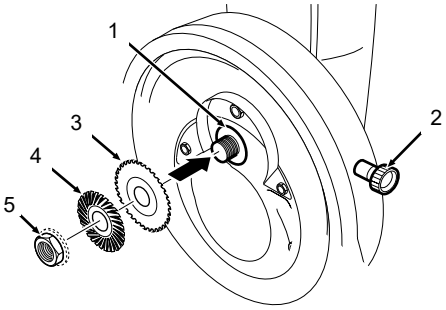
WARNING

Parts thrown off/tool breakage!

Various injuries and damage to property.

- ► Do **not** process pipe loose in the vice.
- ► **No** damaged or deformed saw blades and bevel cutters should be used.
- ► In the event of tool breakage do **not** run a new tool into the old cut because this can cause a repeat tool breakage
- ► Firmly clamp the pipe to be processed in the vice.
- ► Change worn tool immediately.
- ► Ensure proper mounting of the cutting tools.
- ► The pipe dimension must be adjusted properly; when cutting, the saw blade must plunge through the pipe wall entirely.
- ► Prevent tool breakage by means of low (adequate) feed force, correct adjustment of the dimension (*see chapt.* Clamping pipe and adjusting pipe dimension [▶ 46]) and speed (*see chapt.* Determining and setting the speed [▶ 40]).
- ► Hold on to the motor unit tightly by the handle, and guide it with low (adequate) feed force during the machining process.

1. Turn the pipe saw clockwise and upward by 180°.
2. Tighten the locking screw (2).
3. Loosen the nut (5) **clockwise** (left-hand thread).
4. Clean the saw blade shaft (1) and surroundings using a brush.
5. Place the saw blade/bevel cutter combination (3) or bevel cutter (4) onto the shaft (1).



NOTICE!

Put the saw blade onto the shaft so that the inscription points to the machine. The toothing then points in the right direction.

1. Tighten the nut (5) **counterclockwise** (left-hand thread).
2. Loosen the locking screw (2).
3. Turn the pipe saw clockwise and downward to the home position.

8.5.2 Mounting the saw blade at saw blade clamping point 2

WARNING

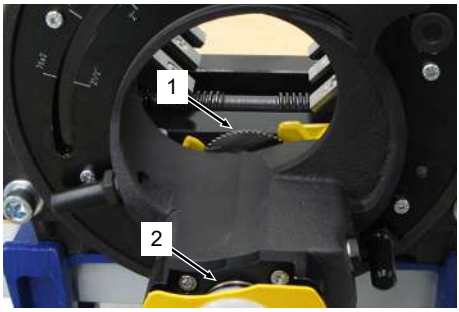
Hot components!

Danger of injury to hands.

► When changing the saw blade, wear suitable safety gloves (according to DIN EN 388 and EN 407, *see chapt.* Basic safety instructions).

► Lay down the tools and fastening parts rapidly.

Use **saw blade clamping point 2 to cut elbows only**. If you want to cut or bevel pipes, saw blade clamping point 1 has to be used (*see chapt.* Mounting the saw blade at saw blade clamping point 1 [▶ 42]).



NOTICE!

Mounting or replacing the saw blades cannot be done when a pipe is clamped in the vice.

► If necessary, remove the pipe before fitting the saw blade.

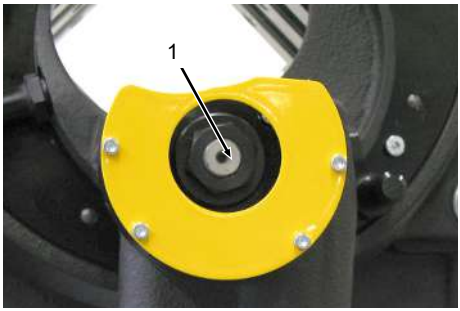
8.5.2.1 Inserting the saw blade

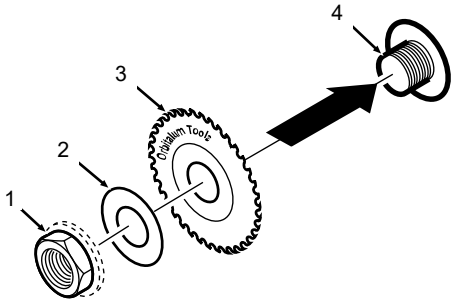
1. Loosen the nut (1) **counterclockwise**.
2. Clean the saw blade shaft (4) and surroundings using a brush.
3. Place the saw blade (3) and clamping disc (2) onto the shaft (4).

NOTICE!

Put the saw blade onto the shaft so that the inscription points to the machine. The toothing then points in the right direction.

► Tighten the nut (1) **clockwise**.





8.6 Clamping pipe and adjusting pipe dimension

NOTICE!

The steps required for adjusting the pipe dimension are identical for both saw blade clamping points.

8.6.1 Setting the pipe dimension with a scale

1. Loosen the star knob (1).
2. Select the pipe dimension on the scale (2).
3. Slide the star knob (1) in the direction of the arrow to the desired pipe dimension.
4. Tighten the star knob (1).

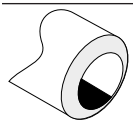
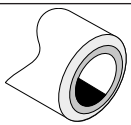
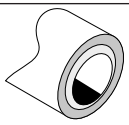
8.6.2 Setting the pipe dimension without a scale

1. Place the pipe in the vice.
2. Slide the pipe forward until it is close to the saw blade.
3. Clamp the pipe firmly in the vice.
4. Loosen the star knob (1) and adjust to the maximum dimension possible. Do not tighten.
5. Raise the pipe saw motor in the direction of the arrow as for sawing until the teeth of the saw blade protrude approx. 1.5 mm/0.059" (approx. height of saw blade teeth) into the pipe interior.
6. Tighten the star knob (1).
7. Turn the pipe saw back to the home position.

8.6.3 Setting the pipe dimension when using a supplemental bevel cutter

Steel pipes with a wall thickness of 7 mm (0.276") can be cut and beveled at the same time.

1. Place the pipe in the vice.
2. Slide the pipe forward until it is close to the supplemental bevel cutter.
3. Clamp the pipe firmly in the vice.
4. Loosen the star knob (1) and set at the maximum dimension possible. Do not tighten.
5. Raise the pipe saw motor in the direction of the arrow as for sawing until the bevel cutter covers the pipe wall.
6. Tighten the star knob (1).
7. Turn the pipe saw back to the home position.
8. Make a test bevel (*see chapt.* Cutting and beveling pipes [▶ 52]) and assess the bevel.

Bevel OK	*Move the star knob (1) slightly to the right*	*Move the star knob (1) slightly to the left*

9 Operation

DANGER

Machine startup due to unintentionally pressing the ON/OFF button!

Fatal electric shock.

Various injuries and damage to property.

► At the end of each working cycle, before transportation, changing tools, cleaning and performing any maintenance, adjustment or repair work, switch off the machine, wait until the machine/tool stops running and pull the mains plug. In the case of battery drives remove the battery and cover the battery.

DANGER

When the slide housing is rotating, excess lubricant can get into the motor unit!

Fatal electric shock.

► Remove excess lubricant from the machine after every cut.

DANGER

Unexpected start up!

Severe injury or death.

► Electric drive: Before connecting the machine to the power supply the ON/OFF switch must be switched off.

► Battery drive: When connecting the battery to the motor, do not press the ON/OFF button.

DANGER

Catching of loose/long clothing, long hair or jewelry by rotating machine parts!

Severe injury or death.

► Wear tight-fitting clothing when using the machine.

► Secure long hair against being caught.

WARNING

Parts thrown off/tool breakage!

Various injuries and damage to property.

- ► Do **not** process pipe loose in the vice.
- ► **No** damaged or deformed saw blades and bevel cutters should be used.
- ► In the event of tool breakage do **not** run a new tool into the old cut because this can cause a repeat tool breakage.
- ► Firmly clamp the pipe to be processed in the vice.
- ► Change worn tool immediately.
- ► Ensure proper mounting of the cutting tools.
- ► The pipe dimension must be adjusted properly; when cutting, the saw blade must plunge through the pipe wall entirely.
- ► Prevent tool breakage by means of low (adequate) feed force, correct adjustment of the dimension (*see chapt.* Clamping pipe and adjusting pipe dimension [▸ 46]) and speed (*see chapt.* Determining and setting the speed [▸ 40]).
- ► Hold on to the motor unit tightly by the handle, and guide it with low (adequate) feed force during the machining process.

WARNING

Danger from falling machine and pipe!

Irreversible crushing.

- ► Check machine condition and secure it to prevent it falling.
- ► Ensure that the machine has a solid footing and stands on a sufficiently stable substrate.
- ► Place sufficient supports under the tube.

WARNING

Fingers jammed between the clamping unit, clamping shells and tube!

Irreversible crushing.

- ► Do **not** place fingers between the clamping unit, clamping shells and pipe.
- ► At the end of each working cycle, before transportation, changing tools, cleaning and performing any maintenance, adjustment or repair work, switch off the machine, wait until the machine/tool stops running and pull the mains plug.

WARNING

Body parts can get caught between the cutting tool and the pipe!

Severe injury.

Do not put body parts between the cutting tool and the pipe.

WARNING

Flying hot and sharp chips, pipe surfaces, cutting edges and tools!

Danger of injury to eyes and hands.

- ► Do **not** reach into the rotating tool while working.
- ► **Never** work without a cover hood installed or protection.
- ► Wear recommended protective clothing, as described in chap. Basic safety precautions [▶ 9].
- ► At the end of each working cycle, switch off the machine, wait until the machine/tool stops running and pull the mains plug or remove the battery. Remove chips with snug-fitting safety shoes (according to DIN EN 388 and EN 407) with a suitable tool (e.g. tongs).
- ► Ensure that the cover hood or protection is functional.

CAUTION

Restarting the machine after blockage!

Various injuries and damage to property.

- ► In case of blockage, always disconnect the machine from the power supply before eliminating the problem. In the case of battery drives remove the battery.
- ► If necessary, remove tensioned parts before restarting the machine.

CAUTION

Vapor when working with lubricants!

Damage to lungs, skin and the environment.

- ► Only use original lubricant recommended by Orbitalum Tools.

NOTICE!

The chips guard is a safety-relevant component. It has to be checked every day for function. The chips guard on every machine has to be able to move back to the original position (see the following illustrations) by itself.

9.1 Shutdown (including in case of emergency)

WARNING

EMERGENCY STOP function not available by unplugging the power plug!

Various injuries and damage to property.

- ► **Do not** use angled power plugs.
- ► **Do not** use click-in socket outlets and click-in power plugs (blue CEE power plugs) for power connection, otherwise the EMERGENCY STOP does not function. The user must check whether the power plug can be pulled out of the outlet by the cable.
- ► Only use genuine spare parts from Orbitalum Tools.
- ► Ensure free access to the power plug.
- ► Remove from the danger zone until the machine stops.
- ► A radial space requirement/freedom of movement of approx. 2 m around the machine is required for people.

ON/OFF toggle switch on the motor

► Activate by switching the ON/OFF toggle switch. If the ON/OFF toggle switch fails to work, pull the plug or vacate the danger zone as quickly as possible and then pull the plug.

9.2 Cutting and beveling pipes

CAUTION

Damage to property!

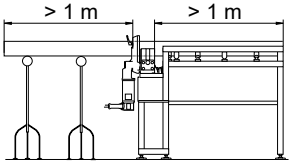
- ► For the GFX 6.6: Pull the multifunctional crank off of the spindle before the slide housing starts to rotate.

1. Mounting the saw blade or bevel cutter (saw blade clamping point 1, *see chapt.* Mounting the saw blade at saw blade clamping point 1 [▸ 42]; saw blade clamping point 2 for cutting pipe elbows, *see chapt.* Mounting the saw blade at saw blade clamping point 2 [▸ 45]).
2. Set the pipe dimension (*chapt.* Clamping pipe and adjusting pipe dimension [▸ 46]).
3. Connect the pipe saw to the power supply.
4. Place the pipe in the vice (2).

WARNING

Falling objects or tilting and bending pipes!

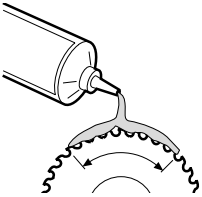
- ► Wear safety shoes (in accordance with EN ISO 20345, at least S1).
- ► Support pipes whose length exceeds 1 m with a pipe support or a pipe feeder or extension unit.



1. Slide the pipe forward in the vice until the desired pipe length is reached; mark the cutting point on the pipe by means of the line laser (1) (automatic switch-off, 2 min).
2. Tighten the pipe firmly in the vice using the handwheel (3) for the GFX 3.0 or using the multifunctional crank for the GFX 6.6.
3. Switch the saw motor on via the ON-/OFF switch (4).

NOTICE!

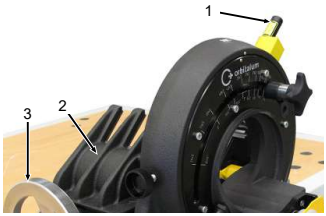
- ► Apply saw blade lubricant to the saw blade **every 3 cuts**.
- ► Use only saw blade lubricant/lubricating paste (no oils) from Orbitalum Tools (e.g. GF LUB or GF TOP).
- ► Keep machine clean and thoroughly remove lubricant residue on the machine.
- ► The clamping area of the clamping jaws must be free of dirt, chips and lubricant.

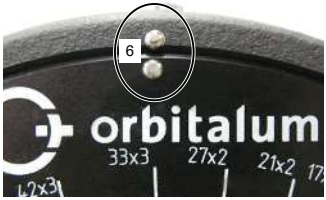


1. Adjust the desired RPM lever via the RPM regulator (5) (*see chapt.* Determining and setting the speed [▸ 40]).
2. Slowly turn the pipe saw clockwise until the pipe wall is pierced.
3. Continue to turn rapidly until the pipe is cut and the markings (6) on the slide housing and body are aligned.
4. Turn the pipe saw counterclockwise to the home position.
5. Switch the saw motor off via the ON-/OFF switch (4).

NOTICE!

► For continuous operation: After sawing loosen the hexagon nut on the saw blade to prevent damage caused by tension.





9.3 Cutting and beveling pipes at the same time

When using a supplemental bevel cutter the saw motor has to be turned more slowly than when sawing because two machines are being used at the same time.

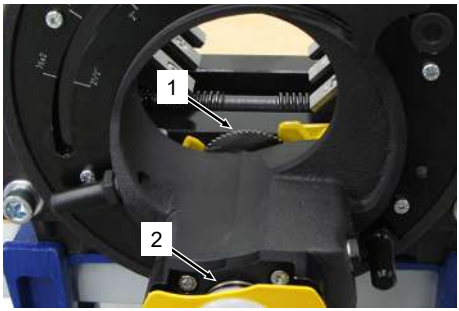
► Mounting the saw blade and/or bevel cutter (*see chapt.* Mounting the saw blade at saw blade clamping point 1 [▸ 42]).

The working procedure is the same as described in *chapt.* Cutting and beveling pipes [▸ 52].

9.4 Cutting pipe elbows

Pipe elbows are cut at saw blade clamping point 2 (2) (saw blade assembly, *see chapt.* Mounting the saw blade at saw blade clamping point 2 [▸ 45]).

The working procedure is the same as described in *chapt.* Cutting and beveling pipes [▸ 52].



10 Maintenance, service and troubleshooting

DANGER

Risk of death from electric shock!

Non-compliance can result in death or severe injury.

► At the end of each working cycle, before transportation, changing tools, cleaning and performing any maintenance, adjustment or repair work, switch off the machine, wait until the machine/tool stops running and pull the mains plug. In the case of battery drives remove the battery and cover the battery.

DANGER

Electrical hazards from improperly assembled electrical system!

Fatal electric shock.

► At the end of each working cycle, before transportation, changing tools, cleaning and performing any maintenance, adjustment or repair work, switch off the machine, wait until the machine/tool stops running and pull the mains plug. In the case of battery drives remove the battery and cover the battery.

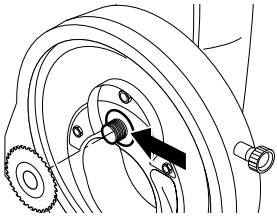
► Repair and maintenance work on the electrical equipment may only be carried out by a qualified electrician.

► Check components for damage, e.g. cables, plugs

NOTICE!

Some of the tasks named are heavily dependent on use and ambient conditions. The stated cycles are minimum values. In individual cases, different maintenance cycles are possible. To ensure machine safety, have the maintenance performed annually by authorized service points with VDE testing. Should the machine not function as described above, it must also be sent to an authorized service point.

10.1 Maintenance

TIME FRAME	ACTIVITY	
Weekly	► Remove the saw blade and brush away any chips.	
	► Lubricate the 4 points indicated by the arrows (use thin-bodied oil only, **no** grease).	
During every cleaning, During every tool change	► Use a cloth or brush to clean the area at the end of the shaft indicated by the arrow. **Do not** use compressed air to clean because the shaft seal will be damaged by invasive chips.	

10.1.1 Line laser

► Own maintenance work on the laser is not permitted. The laser is to be returned to the factory for any maintenance or repair work that may be required.

► Opening, modifying or removing the protective covers or housings is prohibited, except to change the batteries.

10.2 What to do if...? – General troubleshooting

MALFUNCTION	POSSIBLE CAUSE	REMEDY
The pipe saw cannot turn.	The locking screw is tight.	► Loosen the locking screw.
	Incorrect pipe dimension set.	► Set the pipe dimension correctly.
The saw blade is not cutting and is slipping.	The hexagon nut on the saw blade shaft is not tight enough.	► Tighten the hexagon nut.
The saw blade is not cutting.	The saw blade was inserted the wrong way round.	► Insert the saw blade properly. The labeling on the saw blade has to be visible.

MALFUNCTION	POSSIBLE CAUSE	REMEDY
The pipe is not cut concentrically.	The pipe saw has been flanged incorrectly. The flange surfaces are dirty.	► Remove the pipe saw, clean the fastening parts and flange surfaces, reflange the saw.
The pipe is not cut through.	The pipe dimension has not been set correctly.	► Set the pipe dimension (*see chapt.* Clamping pipe and adjusting pipe dimension [▷ 46]).
	The clamping lever is not tightened.	► Tighten the clamping lever.
Overload protection has been triggered. Inhibitor protection has been triggered.	Overload protection has been triggered.	► Set the switch to "□", switch the pipe saw back on and allow to idle approx. 1 min.
	Inhibitor protection has been triggered.	► Set the switch to "□", then switch the pipe saw back on.

10.3 Servicing/Customer service

The following data are required to order spare parts:

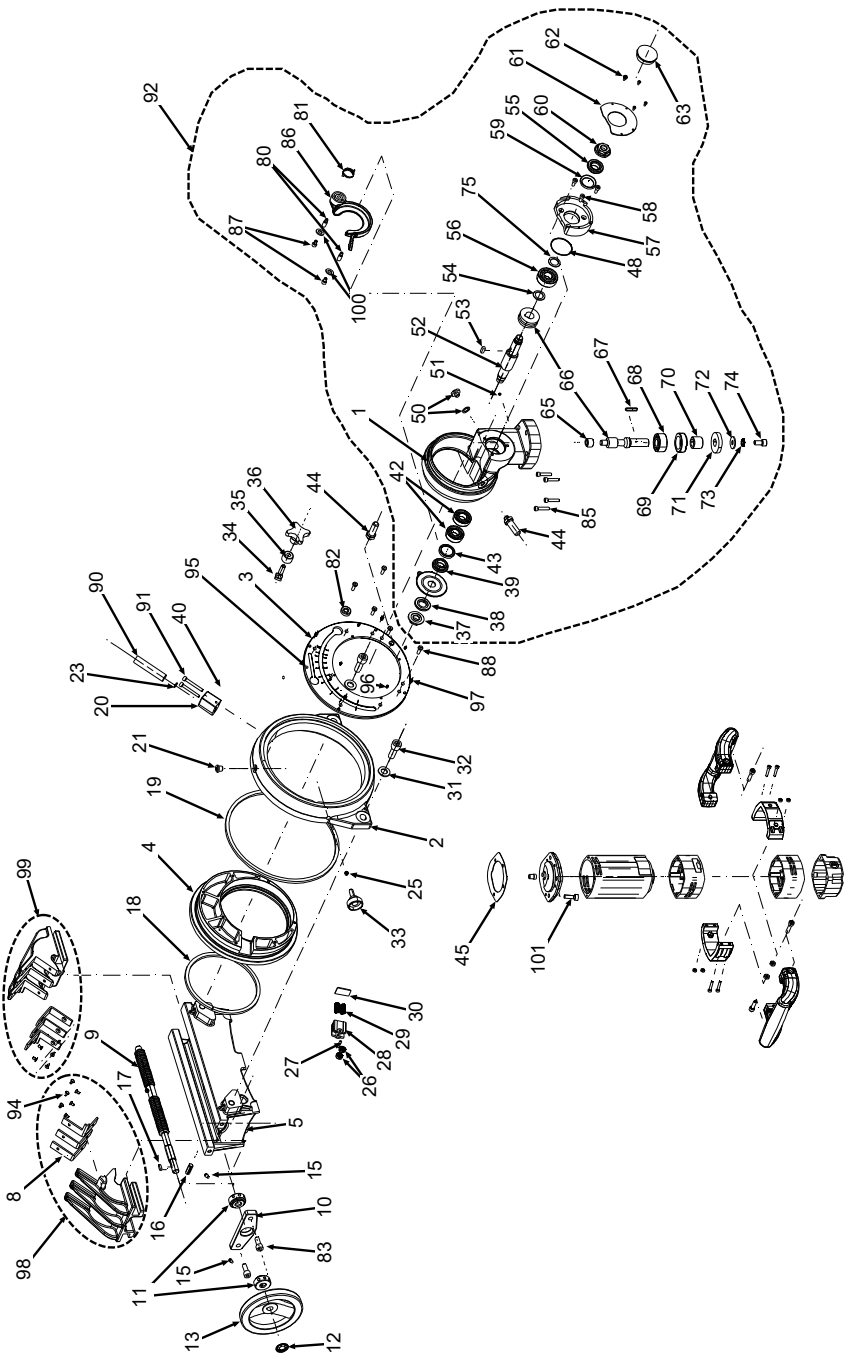
- Machine model: For example, Pipe Cutting and Beveling Machine GFX 3.0
- Machine No.: See type plate

► For ordering spare parts, see the spare part list.

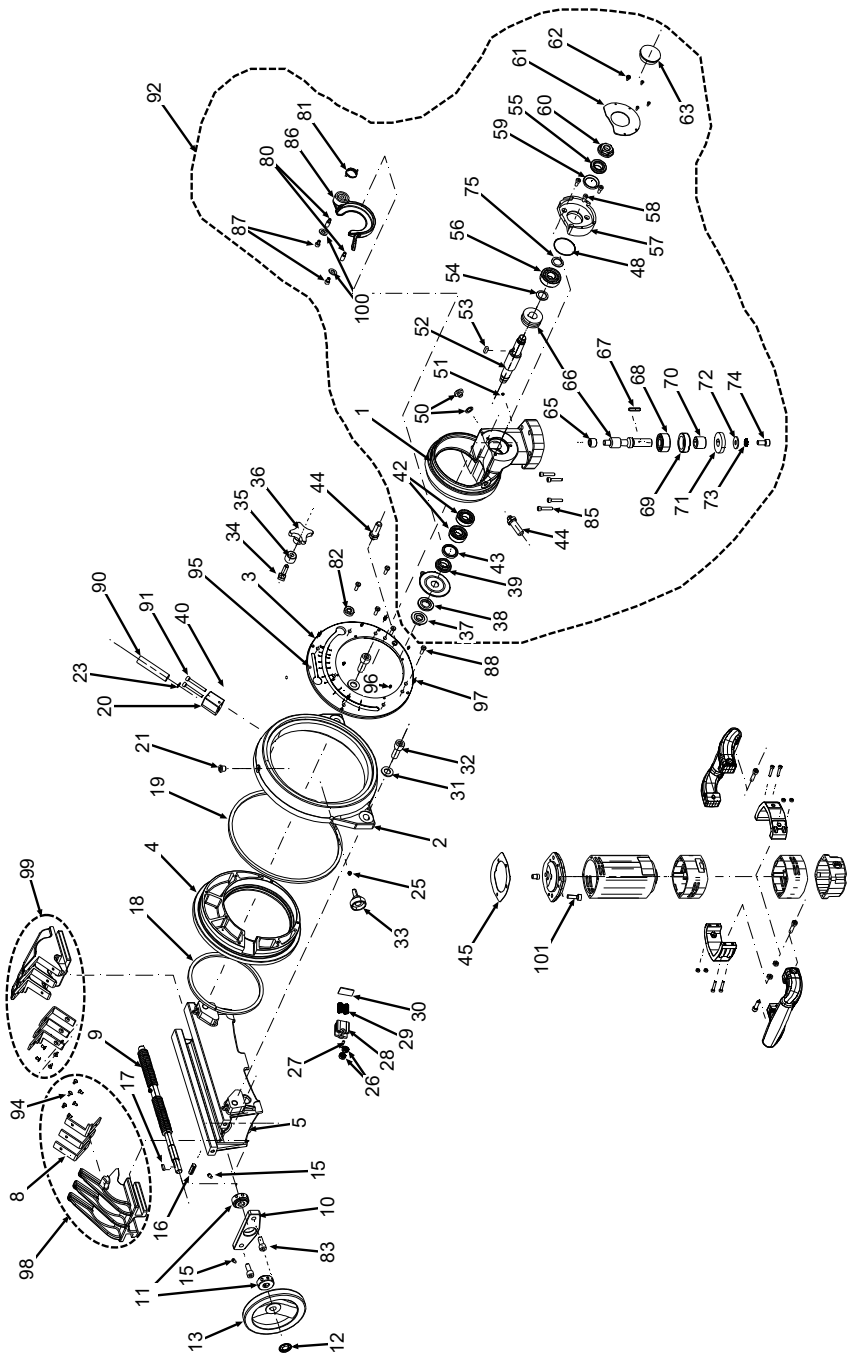
► Contact your local branch directly in order to eliminate problematic situations.

11 ERSATZTEILLISTE / SPARE PARTS LIST

11.1 GFX 3.0: Gehäuse und Schraubstock | GFX 3.0: Housing and vice



POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
1	790 144 171	1	GFX 3.0 Drehkörper GFX 3.0 slide housing	13	790 048 252	1	Handrad Handwheel
2	790 044 102	1	Lagerflansch Bearing flange	15	445 201 213	2	Gewindestift DIN915-M6x10-45H Grub screw DIN915-M6x10-45H
3	790 144 162	1	Skalaring Scale ring	16	566 320 422	1	Kerbstift ISO8740-8x25-ST Grooved pin ISO8740-8x25-ST
4	790 144 163	1	Exzenterring Eccentric ring	17	565 000 116	1	Passfeder DIN6885-A4x4x14 Fitting key DIN6885-A4x4x14
5	790 144 152	1	Schraubstockgehäuse Vice housing	18	790 044 157	1	Filzstreifen 5/6.5x460 Felt strip 5/6.5x460
8	790 144 200	1	Spannaufsatz V4A, kpl. Clamping insert V4A, cpl.	19	790 044 156	1	Filzstreifen 5/6.5x740 Felt strip 5/6.5x740
9	790 144 158	1	Schraubstockspindel Vice spindle	20	790 144 161	1	Laser, Halter Laser, holder
10	790 144 156	1	Schraubstockplatte Vice plate	21	311 400 312	1	Verschlussschraube M10x1.0 Screw plug M10x1.0
11	790 144 172	2	Stellring Adjusting ring	23	790 142 479	1	PLEXIGLAS D15 mm PLEXIGLAS D15 mm
12	790 048 251	1	Sicherungsscheibe STARLOCK D12 Lock washer STARLOCK D12	25	554 990 213	1	Druckbutzen, Nylon 6x10 Pressure part, nylon 6x10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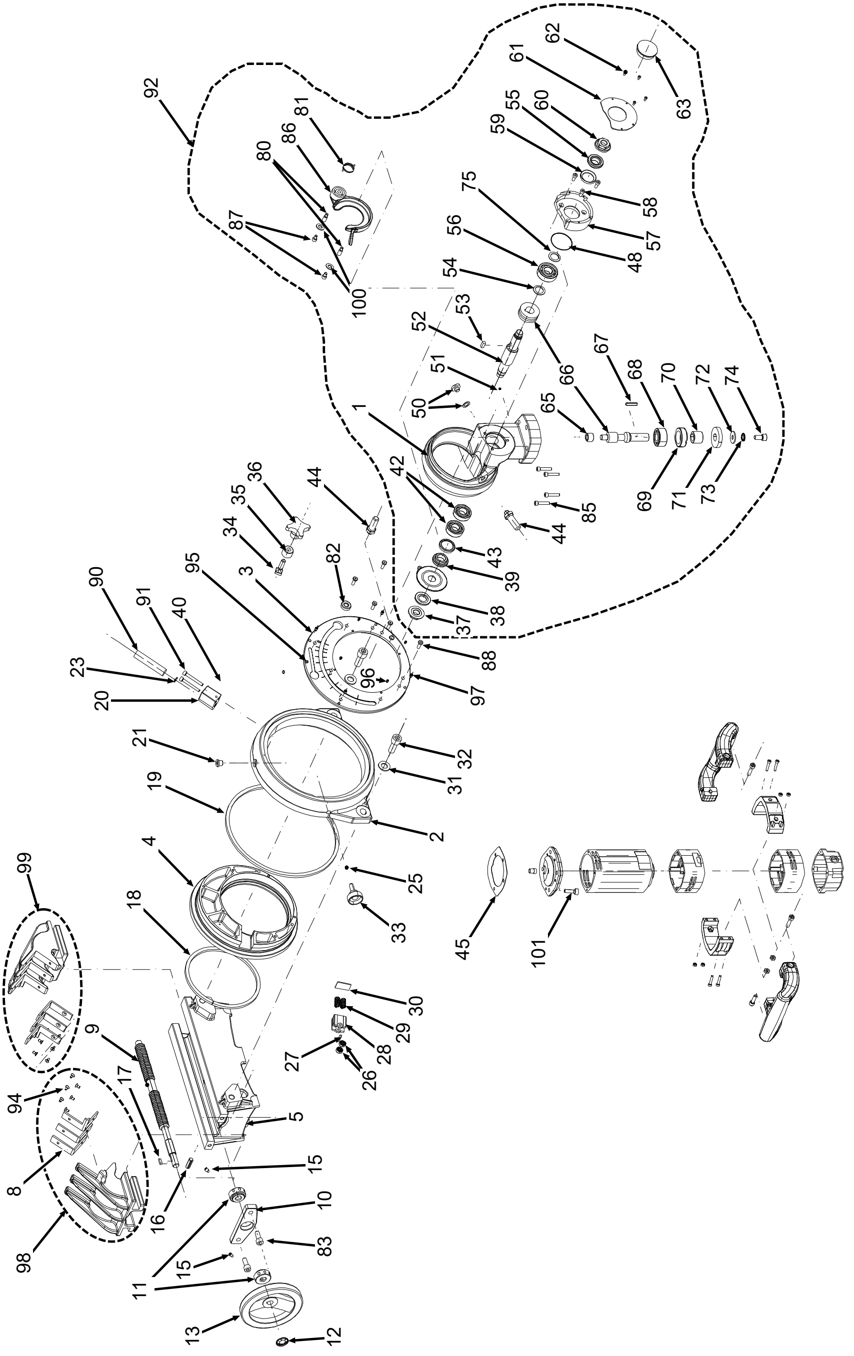
POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
26	790 044 134	2	Rillenkugellager DIN625-624-2Z Grooved b.bearing DIN625-624-2Z	36	790 144 120	1	Kreuzgriff Star knob
27	790 021 109	1	Scherstift 4x17 Shearing pin 4x17	37	790 044 191	1	Mutter SPEZIAL ab 6 mm Nut SPECIAL from 6 mm
28	790 044 129	1	Schieber Slide block	38	790 044 192	1	Scheibe SPEZIAL ab 6 mm Washer SPECIAL from 6 mm
29	790 044 132	2	Druckfeder 1.5x10x25.5 Pressure spring 1.5x10x25.5	39	790 041 208	1	Klemmbuchse Clamping sleeve
30	790 044 131	1	Stützplatte Support plate	40	445 001 003	1	Gewindestift M4x4 Grub screw M4x4
31	542 500 314	2	Scheibe ISO7090-12-200HV Washer ISO7090-12-200HV	42	610 110 017	2	Rillenkugellager Grooved ball bearing
32	305 501 424	2	Zylinderschraube M12x30 Cylinder screw M12x30	43	790 041 207	1	INA-Dichtring GR 24x32x4 INA seal GR 24x32x4
33	790 044 155	1	Rändelhohlschraube M8x20 Knurled banjo screw M8x20	44	790 044 121	2	Anschlagbolzen Limit stop bolt
34	790 144 167	1	T-Nutenschraube T-bolt	45	790 144 126	1	Motordichtung Motor seal
35	790 144 165	1	Anschlag Stop				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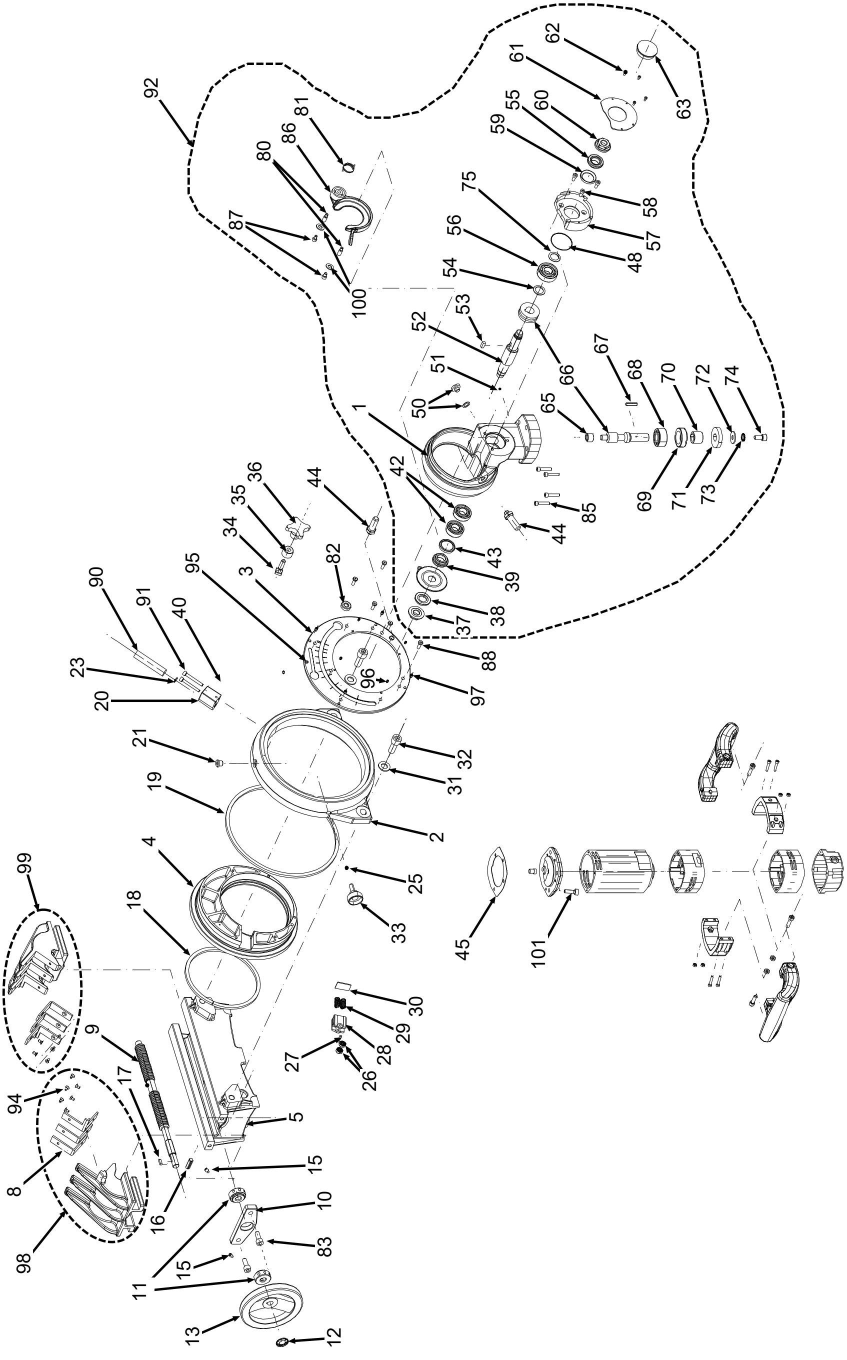
POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
48	790 041 209	1	O-Ring 42x1 O-ring 42x1	59	790 041 207	1	INA-Dichtring GR 24x32x4 INA seal GR 24x32x4
50	790 050 191	1	Ölstopfen G 1/8" Oil plug G 1/8"	60	790 144 192	1	Mutter SPEZIAL M14x1.5, rechts Nut SPECIAL M14x1.5, right
51	445 201 213	1	Gewindestift DIN915-M6x10-45H Grub screw DIN915-M6x10-45H	61	790 144 195	1	Schutzdeckel Protective cover
52	790 144 193	1	Arbeitsspindel Work spindle	62	305 005 072	4	Zylinderschraube M3x8 Cylinder screw M3x8
53	790 041 186	1	Passscheibe DIN988-17x24x1.0 Adj. washer DIN988-17x24x1.0	63	790 048 250	1	Verschlussstopfen GPN300 F30 Sealing plug GPN300 F30
54	554 307 017	1	Passscheibe 17x24x1,0 Spacer 17x24x1,0	65	790 041 190	1	Lagerbuchse 10x16x11 Bearing bush 10x16x11
55	790 041 208	1	Klemmbuchse Clamping sleeve	66	790 041 400	1	Schneckenwelle und Rad Worm shaft and wheel
56	610 102 017	1	Rillenkugellager Grooved ball bearing	67	790 041 181	1	Passfeder DIN6885-AB5x3x24 Fitting key DIN6885-AB5x3x24
57	790 144 198	1	Lagerdeckel Bearing cover	68	612 032 015	1	Schrägkugellager Angular ball bearing
58	305 801 163	3	Zylinderschraube M5x10 Cylinder screw M5x10	69	790 041 189	1	Gewindering Threaded ring



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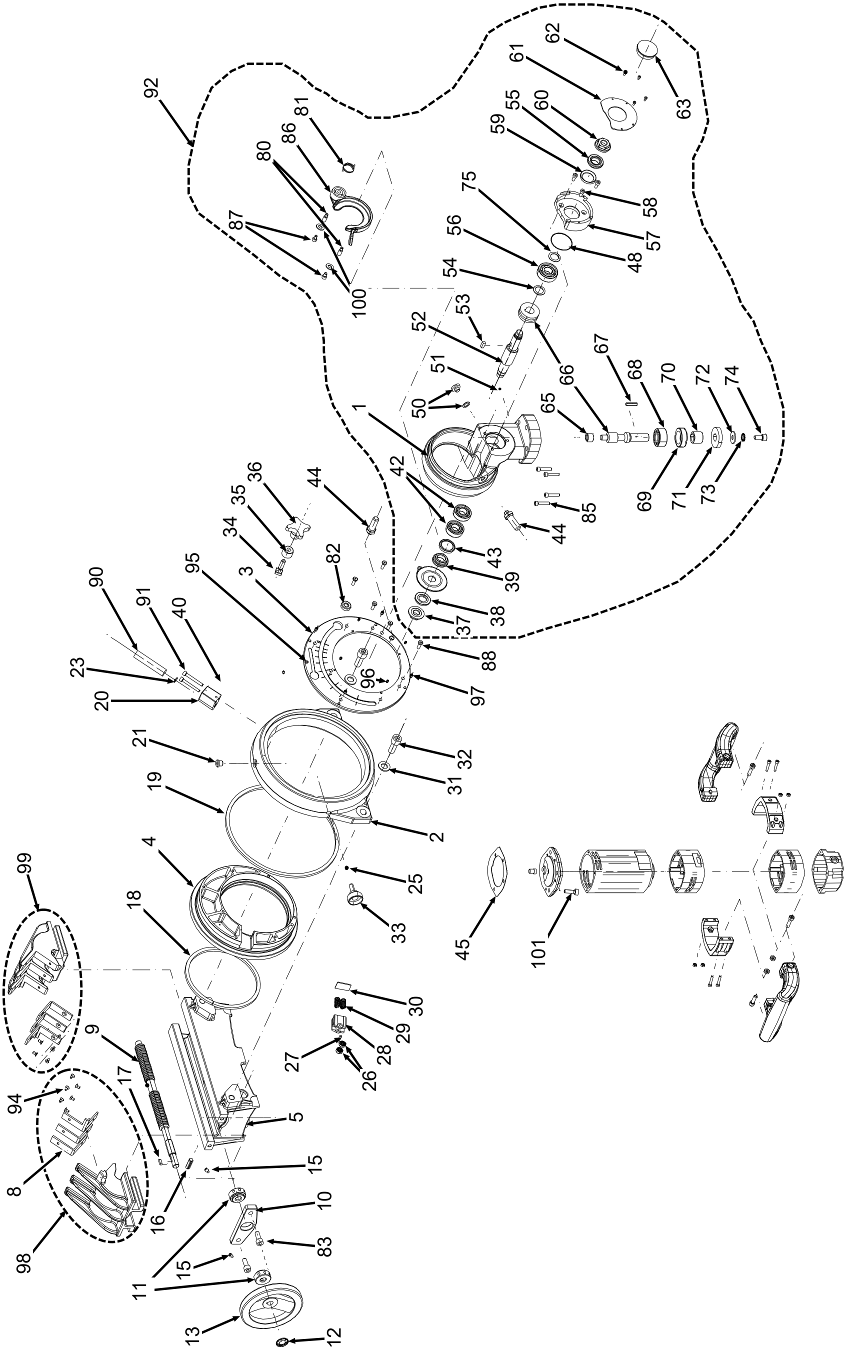
POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
70	790 144 169	1	Distanzhülse Spacer sleeve	85	305 505 170	4	Zylinderschraube M5x22 Cylinder screw M5x22
71	790 144 557	1	Stirnrad zu GF 10 Spur gear for GF 10	86	790 144 196	1	Späneschutz, schwenkbar Chip protection, swiveling
72	542 105 312	1	Scheibe ISO7093-M8.4-ZN Washer ISO7093-M8.4-ZN	87	305 505 162	2	Zylinderschraube M5x8 Cylinder screw M5x8
73	553 458 312	1	Fächerscheibe DIN6798-A8.4-FST Serrated washer DIN6798-A8.4-FST	88	305 805 166	7	Zylinderschraube M5x16 Cylinder screw M5x16
74	305 501 266	1	Zylinderschraube M8x16 Cylinder screw M8x16	90	790 142 125	1	INDICUT INDICUT
75	790 144 199	1	Wellenfeder AD40 Shaft spring OD40		790 142 135	1	INDICUT US INDICUT US
80	790 144 194	2	Bolzen Bolt	91	305 505 176	2	Zylinderschraube M5x35 Cylinder screw M5x35
81	790 144 197	1	Schenkelfeder Leg spring	92	790 144 420	1	Getriebegehäuse, kpl. 2 SB Gear housing, cpl. 2 SB
82	790 144 191	1	Stopfen/Membran Durchf.-Tüllen Plug/membrane grommets	94	302 303 112	12	Senkschraube M4x8 Countersunk screw M4x8
83	307 001 269	2	Linsenschraube ISO7380-M8x20-10.9 Oval-head screw ISO7380-M8x20-10.9	95	588 723 209	1	Kerbnagel 2.3x5 Dowel pin 2.3x5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POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
96	790 146 184	4	Druckschraube M4x6.5 Pressure screw M4x6.5
97	790 046 165	4	Druckschraube M5x8.5 Pressure screw M5x8.5
98	790 144 245	1	Gleitspannbacke links inkl. Spannaufsatz Slide jaw left-hand incl.clamping insert
99	790 144 246	1	Gleitspannbacke rechts inkl. Spannaufsatz Slide jaw right-hand incl. clamping insert
100	542 505 310	2	Scheibe Washer
101	305 501 148	1	Zylinderschraube M5x14 Cylinder screw M5x14

POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
–	790 142 076	1	Flexdrehkabel 230 V EU Swivel cable 230 V EU
	790 142 077	1	Flexdrehkabel 120 V USA Swivel cable 120 V USA
	790 142 078	1	Flexdrehkabel 230 V CH Swivel cable 230 V CH
	790 142 079	1	Flexdrehkabel 120 V GB Swivel cable 120 V GB
	790 142 080	1	Flexdrehkabel 230 V AUS Swivel cable 230 V AUS

Ohne Abbildung | Without Illustration

790 144 014 Putzbeutel mit Inhalt GFX3.0/6.6/Accessory bag with contents GFX3.0/6.6

Inhalt/content:

1x 790 041 017 Pinsel Nr. 8/Brush no. 8

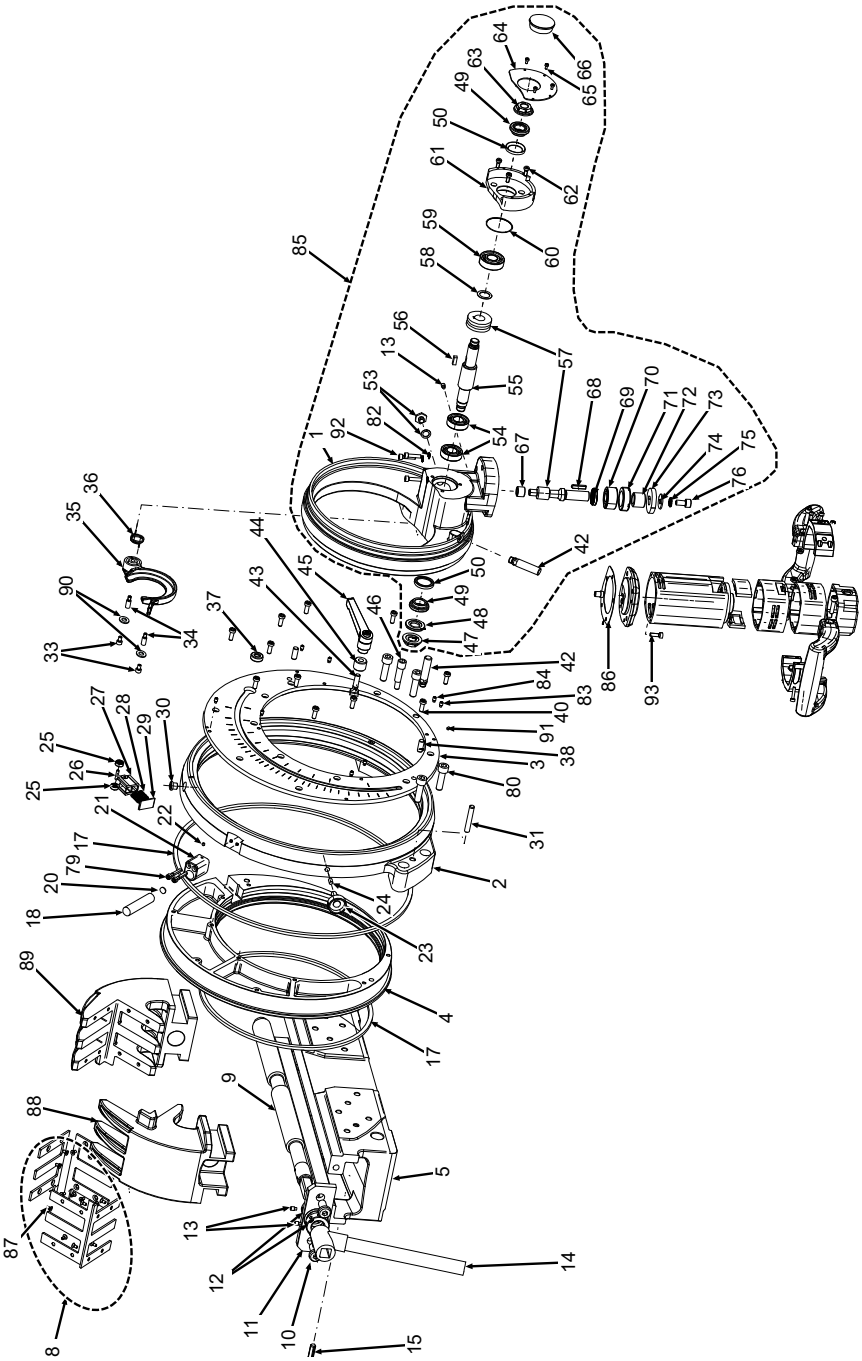
1x 790 060 228 GF TOP Schmierstoff/ GF TOP Lubricant

1x 790 142 124 Knopfzelle 1.5 V (10 ST)/Button cell 1.5 V (10 pc.)

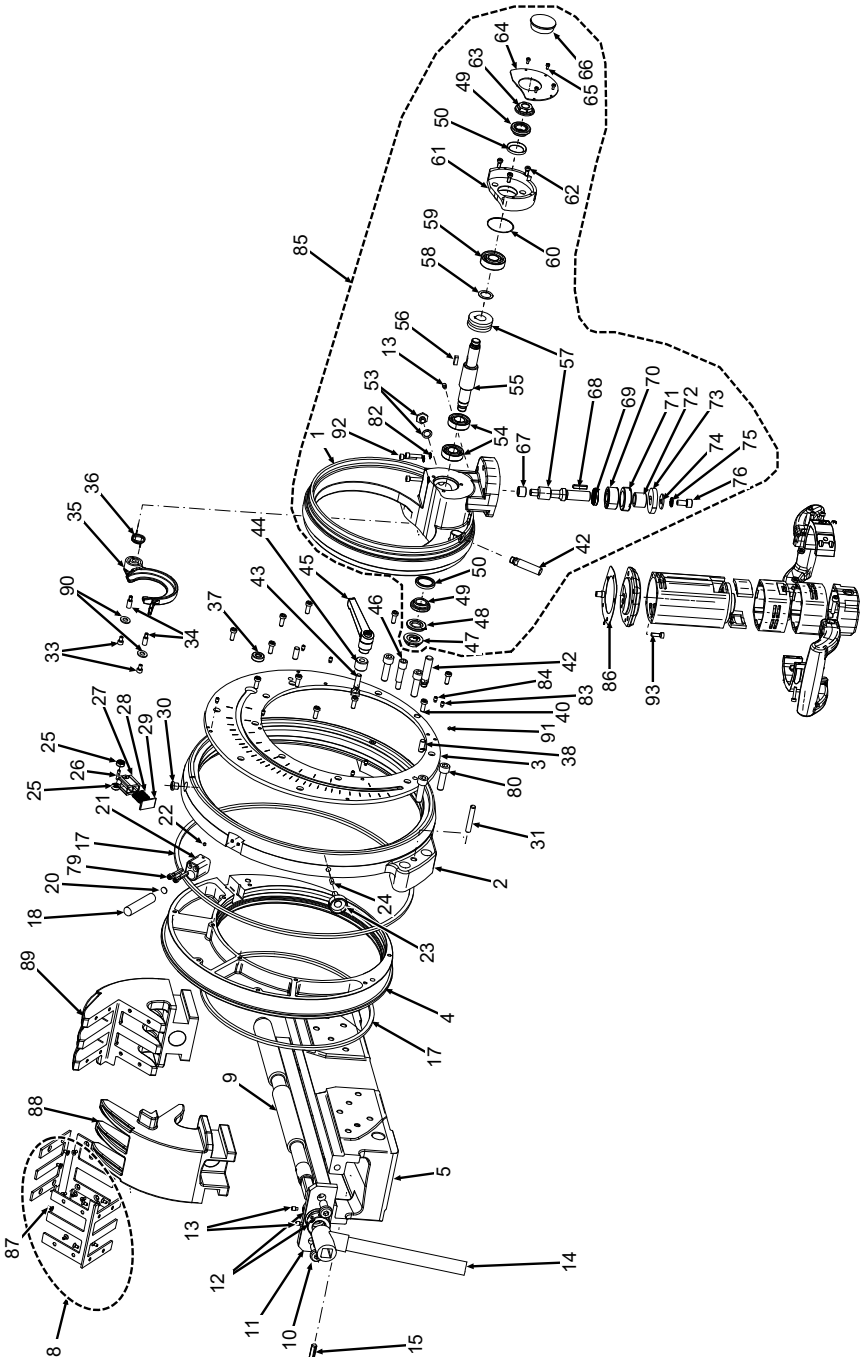
1x 790 142 152 Multifunktionskurbel/Multifunctional crank

1x 243 870 089 Winkelschraubendreher ISO2936-8/Hexagon key ISO2936-8

11.2 GFX 6.6: Gehäuse und Schraubstock | GFX 6.6: Housing and vice



POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
1	790 146 102	1	Drehkörper Slide housing	13	445 201 213	2	Gewindestift DIN915-M6x10-45H Grub screw DIN915-M6x10-45H
2	790 146 104	1	Lagerflansch Bearing flange	14	790 142 152	1	Schraubstockkurbel Vice crank handle
3	790 146 110	1	Skalaring Scale ring	15	566 320 422	1	Kerbstift ISO8740-8x25-ST Grooved pin ISO8740-8x25-ST
4	790 146 106	1	Exzenterring Excentric ring	17	790 146 164	2	Filzstreifen Felt strip
5	790 143 108	1	Schraubstockgehäuse Vice housing	18	790 142 125	1	INDICUT INDICUT
8	790 146 200	1	Spannaufsatz V4A, kpl. Clamping insert V4A, cpl.		790 142 135	1	INDICUT US INDICUT US
9	790 047 158	1	Schraubstockspindel Vice spindle	20	790 142 479	1	PLEXIGLAS D15 mm PLEXIGLAS D15 mm
10	307 001 422	2	Linsenschraube M12x25 Oval-head screw M12x25	21	790 144 161	1	Laser, Halter Laser, holder
11	790 012 474	1	Schraubstockplatte Vice end plate	22	445 001 003	1	Gewindestift DIN913-M4x4-45H Grub screw DIN913-M4x4-45H
12	790 011 511	2	Stellring Adjusting ring	23	790 044 155	1	Rändelhohlschraube M8x20 Knurled banjo screw M8x20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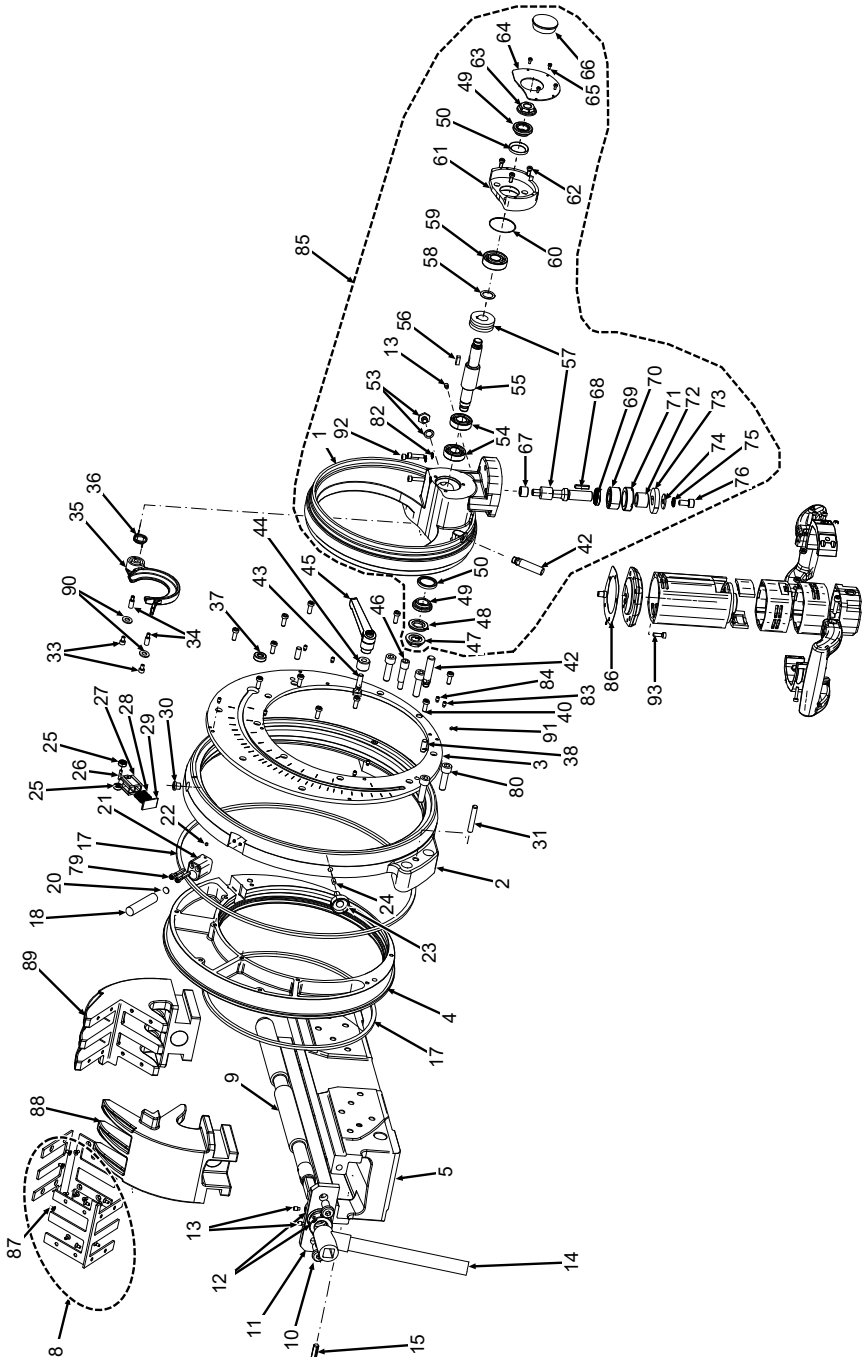
POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
24	554 990 213	1	Druckbutzen, Nylon 6x10 Pressure part, nylon 6x10	35	790 146 160	1	Späneschutz Chip protection
25	790 044 134	2	Rillenkugellager DIN625-624-2Z Grooved b.bearing DIN625-624-2Z	36	790 144 197	1	Schenkelfeder Leg spring
26	790 021 109	1	Scherstift 4x17 Shear pin 4x17	37	790 144 191	1	Stopfen/Membran Durchf.-Tüllen Plug/membrane grommets
27	790 044 129	1	Schieber Slide block	38	565 808 519	2	Zylinderstift ISO8734-8x20-A-ST Cylinder pin ISO8734-8x20-A-ST
28	790 044 132	2	Druckfeder 1.5x10x25.5 Pressure spring 1.5x10x25.5	40	305 801 216	11	Zylinderschraube M6x16 Cylinder screw M6x16-8.8
29	790 044 131	1	Stützplatte Retaining plate	42	790 146 130	2	Anschlagbolzen Limit stop bolt
30	311 400 312	1	Verschlussschraube M10x1.0 Screw plug M10x1.0	43	790 144 167	1	T-Nutenschraube T-bolt
31	565 800 532	1	Zylinderstift DIN7979/ISO8735-8x50-A-ST Cylinder screw DIN7979/ISO8735-8x50-A-ST	44	790 144 165	1	Anschlag Stop
33	305 505 162	2	Zylinderschraube M5x8 Cylinder screw M5x8	45	790 146 140	1	Klemmhebel 300-78-M8-SW Clamping lever 300-78-M8-SW
34	790 144 194	2	Bolzen Bolt	46	790 146 128	1	Exzenterbolzen Eccentric bolt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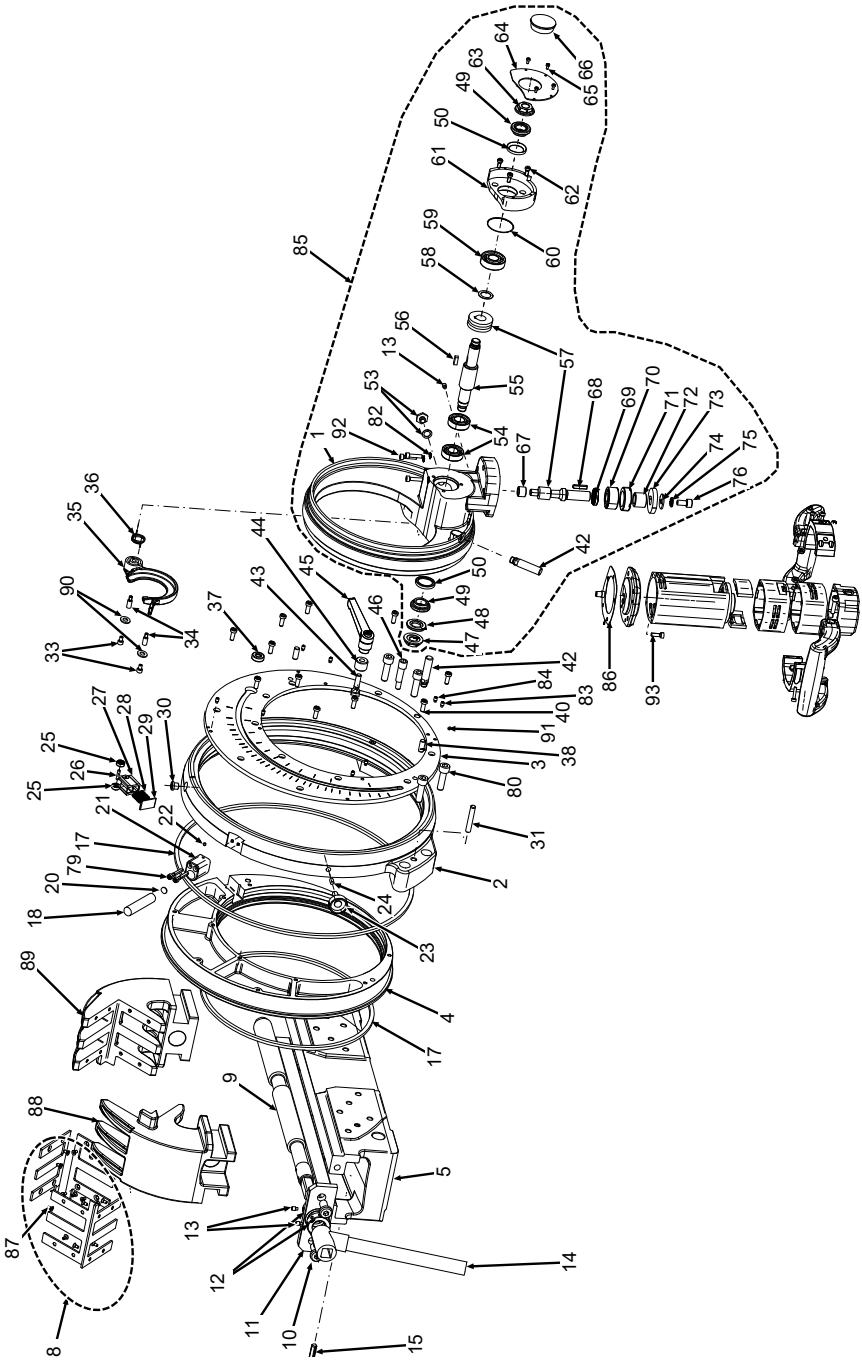
POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
47	790 044 191	1	Mutter SPEZIAL ab 6 mm, Linksgewinde Nut SPECIAL from 6 mm, left-hand thread	58	554 307 017	1	Passscheibe DIN988-17x24x1.0 Adj. washer DIN988-17x24x1.0
48	790 044 192	1	Scheibe SPEZIAL ab 6 mm Washer SPECIAL from 6 mm	59	610 102 017	1	Rillenkugellager Grooved ball bearing
49	790 041 208	2	Klemmbuchse Clamping sleeve	60	790 041 209	1	O-Ring 42x1 O ring 42x1
50	790 041 207	2	INA-Dichtring GR 24x32x4 INA seal GR 24x32x4	61	790 146 198	1	Lagerdeckel Bearing cover
52	621 144 107	1	Dichtring 7x16x1 Retentive washer 7x16x1	62	305 801 163	3	Zylinderschraube M5x10 Cylinder head screw M5x10
53	790 050 191	1	Ölstopfen G 1/8" Oil plug G 1/8"	63	790 144 192	1	Mutter SPEZIAL M14x1.5 Nut SPECIAL M14x1.5
54	610 110 017	2	Rillenkugellager Groove ball bearing	64	790 146 195	1	Schutzdeckel Protective cover
55	790 144 193	1	Arbeitsspindel Work spindle	65	305 505 071	4	Zylinderschraube M3x6 Cylinder head screw M3x6
56	790 041 186	1	Passfeder DIN6885-B5x5x14 Fitting key DIN6885-B5x5x14	66	790 048 250	1	Verschlussstopfen GPN300 F30 Sealing plug GPN300 F30
57	790 041 400	1	Schneckenwelle und Rad Warm shaft and wheel	67	790 041 190	1	Lagerbuchse 10x16x11 Bearing bush 10x16x11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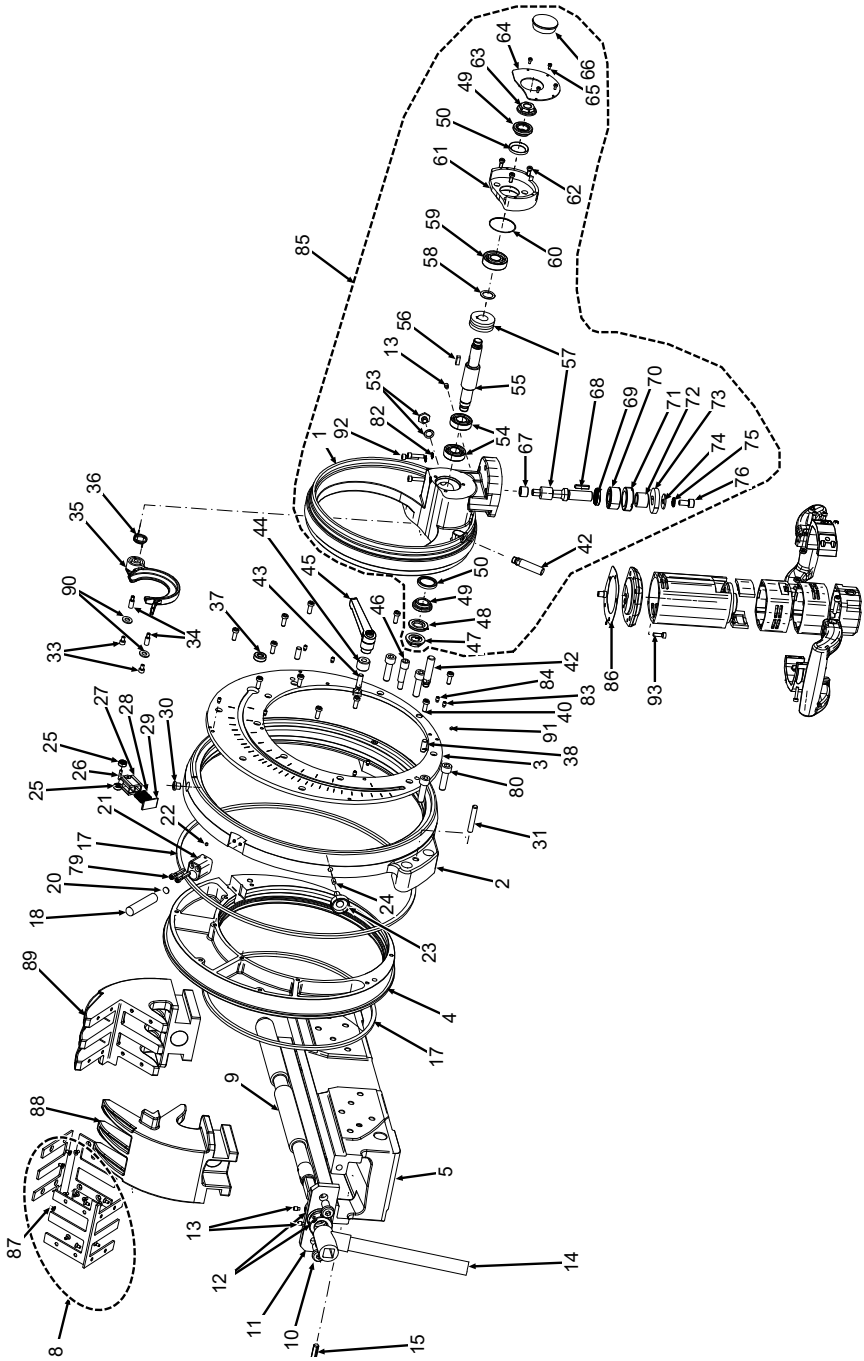
POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
68	790 041 181	1	Passfeder DIN6885-AB5x3x24 Fitting key DIN6885-AB5x3x24	80	305 501 328	4	Zylinderschraube M10x45 Cylinder head screw M10x45
69	790 146 178	1	Dichtring 19x27x6 FPM Seal ring 19x27x6 FPM	82	553 458 234	3	Fächerscheibe DIN67981-5.1-AV2A Serrated washer DIN67981-5.1-AV2A
70	612 032 015	1	Schrägkugellager Angular ball bearing	83	790 046 165	4	Druckschraube M5x8.5 Pressure screw M5x8.5
71	790 041 189	1	Gewindering Threaded ring	84	790 146 184	4	Druckschraube M4x6.5 Pressure screw M4x6.5
72	790 144 169	1	Distanzhülse Spacer sleeve	85	790 146 420	1	Getriebegehäuse, kpl. Gear housing, cpl.
73	790 144 557	1	Stirnrad zu GF 10 Spur gear for GF 10	86	790 144 126	1	Motordichtung Motor seal
74	542 105 312	1	Scheibe ISO7093-M8.4-ZN Washer ISO7093-M8.4-ZN	87	302 303 112	16	Senkschraube M4x8 Countersunk screw M4x8
75	553 458 312	1	Fächerscheibe Serrated lock washer	88	790 146 245	1	Gleitspannbacke links inkl. Spannaufsatz Slide jaw left-hand incl. clamping insert
76	305 501 266	1	Zylinderschraube M8x16 Cylinder head screw M8x16	89	790 146 246	1	Gleitspannbacke rechts inkl. Spannaufsatz Slide jaw right-hand incl. clamping insert
79	305 505 176	2	Zylinderschraube M5x35 Cylinder head screw M5x35	90	542 505 310	2	Scheibe Washer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POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
91	445 209 164	1	Gewindestift M5x12 Grub screw M5x12
92	305 505 170	3	Zylinderschraube M5x22 Cylinder screw M5x22
93	305 501 148	1	Zylinderschraube M5x14 Cylinder screw M5x14

Ohne Abbildung | Without Illustration

790 144 014 Putzbeutel mit Inhalt GFX3.0/6.6/Accessory bag with contents GFX3.0/6.6

Inhalt/content:

1x 790 041 017 Pinsel Nr. 8/Brush no. 8

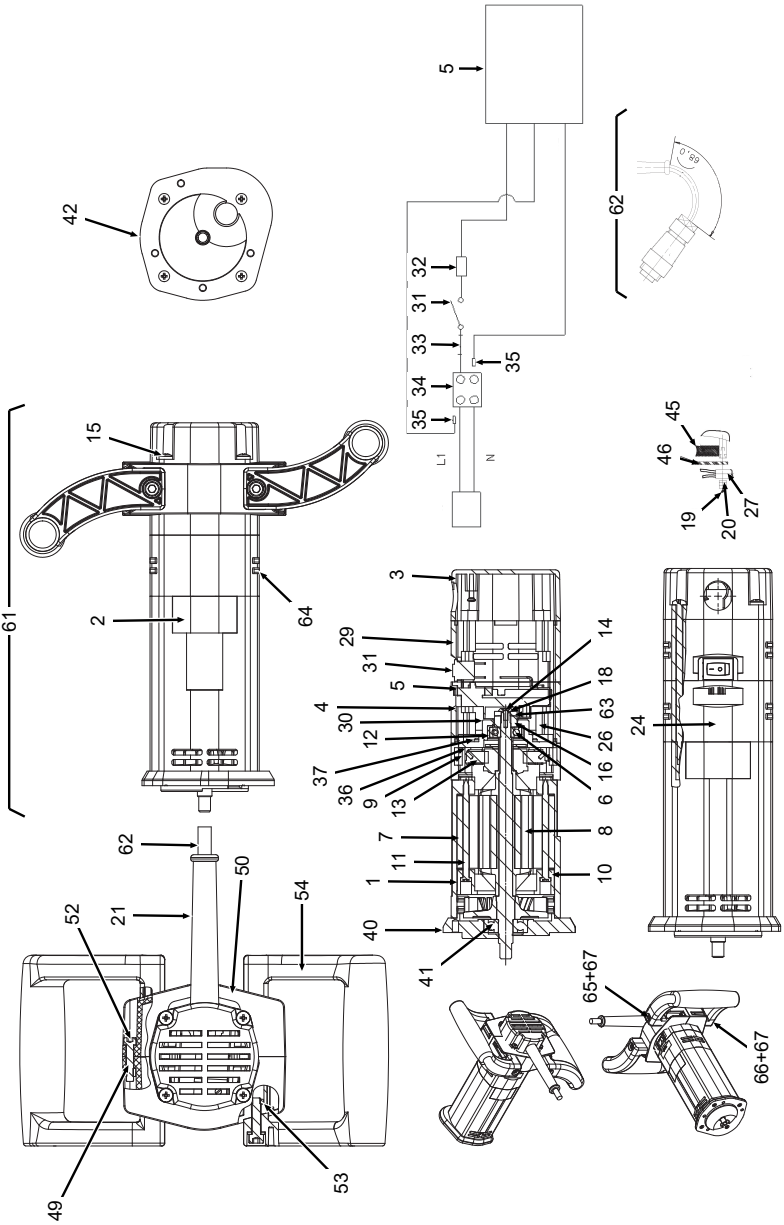
1x 790 060 228 GF TOP Schmierstoff/ GF TOP Lubricant

1x 790 142 124 Knopfzelle 1.5 V (10 ST)/Button cell 1.5 V (10 pc.)

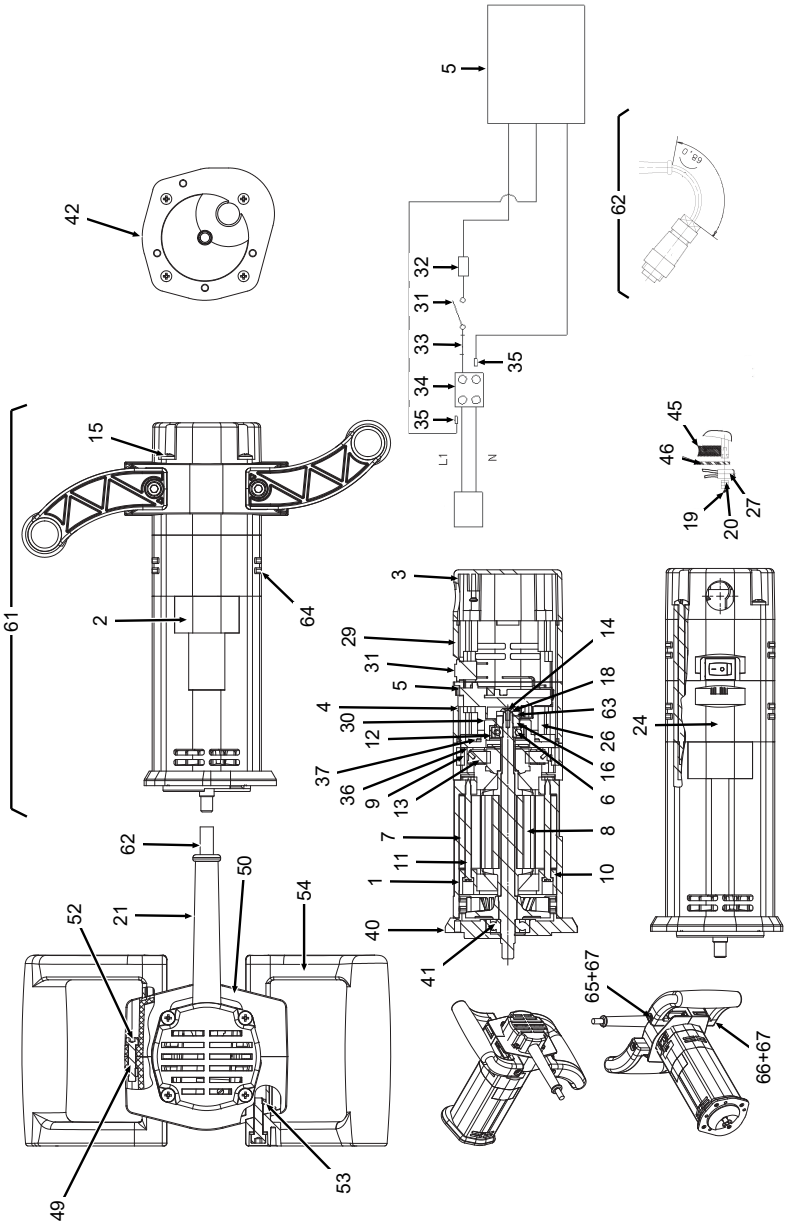
1x 790 142 152 Multifunktionskurbel/Multifunctional crank

1x 243 870 089 Winkelschraubendreher ISO2936-8/Hexagon key ISO2936-8

11.3 Motor | Motor



POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
1	790 144 500	1	Motorgehäuse, schwarz Motor housing, black	8	790 144 509	1	Anker mit Lüfter 230 V Rotor with aerator 230 V
2	790 144 501	2	Abdeckung, schwarz Cover, black		790 144 510	1	Anker mit Lüfter 120 V Rotor with aerator 120 V
3	790 144 502	1	Kappe, schwarz Cap, black	9	790 144 511	2	Federring A3 Spring washer A3
4	790 144 503	1	Zwischenflansch, schwarz Intermediate flange, black	10	790 093 603	1	Lüfterabdeckung Aerator cover
5	790 144 504	1	Elektronik mit Pot. 230 V digital Electronics with pot. 230 V digital	11	790 144 513	2	Blechschraube 3.9x68 Tapping screw 3.9x68
	790 144 505	1	Elektronik mit Pot. 120 V digital Electronics with pot. 120 V digital	12	790 144 514	1	GF10 Lagergummi zu Motor GF10 bearing rubber for motor
6	790 093 608	1	Rillenkugellager 627 2RS C3 Grooved ball bearing 627 2RS C3	13	790 144 515	2	Kohle, 230 V 6.4x8x16 Carbon, 230 V 6.4x8x16
7	790 144 507	1	Stator 230 V Stator 230 V		790 144 516	2	Kohle, 120 V 6.4x8x16 Carbon, 120 V 6.4x8x16
	790 144 508	1	Stator 120 V Stator 120 V	14	302 301 051	1	Senkschraube ISO10642-M3x8-A2 Coutner sunk screw ISO10642-M3x8-A2
				15	790 144 518	4	Linsenblechschraube 4.8x120 Filister head screw 4.8x120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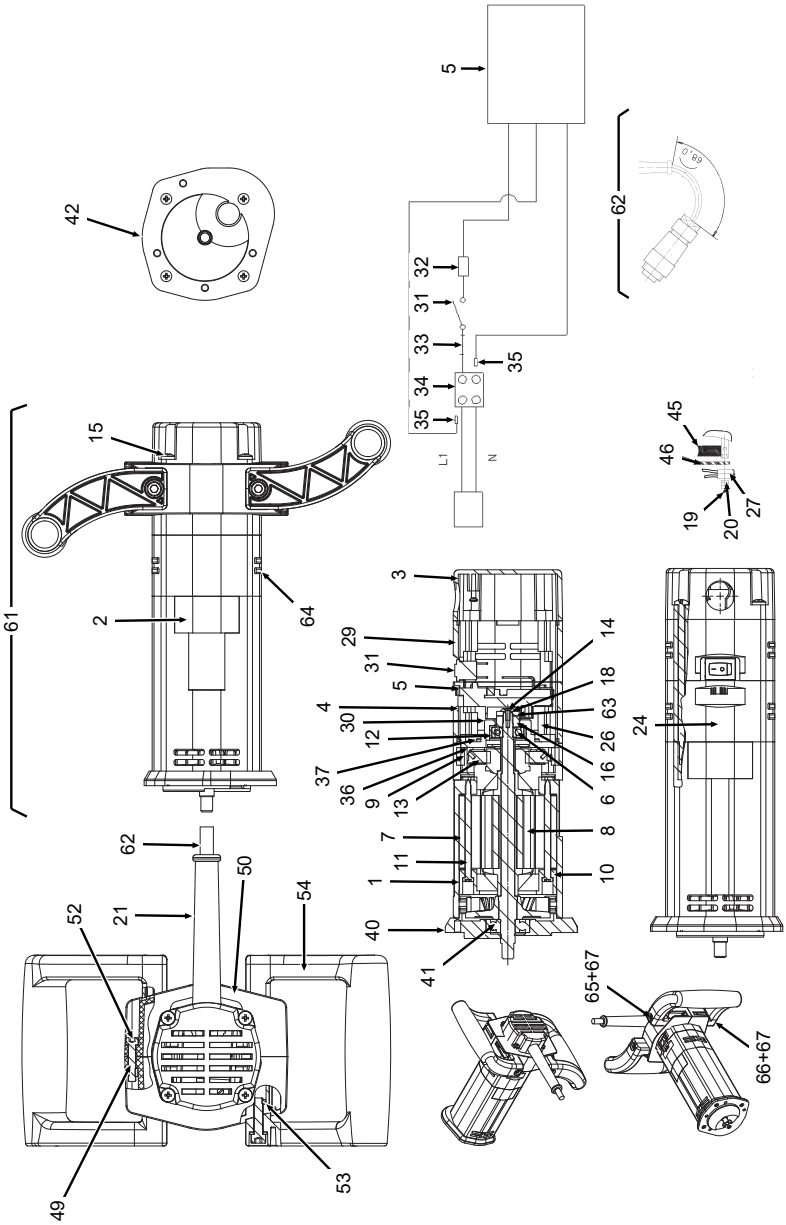
POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
16	790 144 519	1	Stützring Support ring	32	790 144 536	1	Flachstecker Flat-ping plug
18	790 144 521	1	Scheibe Washer	33	790 144 537	1	Litze komplett Strand complete
19	790 142 519	2	Blechschraube BZ 3.5x13 Tapping screw BZ 3.5x13	34	790 144 538	1	Lüsterklemme Insulation screw joint
20	790 144 523	1	Kabelbride Cable bride	35	790 144 539	2	Aderendhülsen Cable end sleeve
21	790 041 493	1	F/FE680 Kabelschutzschlauch F/FE680 cable protective hose	36	790 144 540	2	Bürstenhalter Brush holder
24	790 142 280	1	Drehzahlschild Speed range plate	37	790 144 541	4	Blindniet Blind rivet
26	790 144 528	1	Glasseidenschlauch Fiber glass hose	40	790 144 543	1	Motorflansch Motor flange
29	790 144 533	1	Zwischenstück ohne Poti Spacer w/o potentiometer	41	790 144 544	1	Rillenkugellager 6200 RS C3 Grooved ball bearing 6200 RS C3
30	790 144 514	1	GF/REB 10 Lagergummi zu Motor GF/REB 10 bearing rubber for motor	42	790 093 627	4	Blechschraube B 3.5x25 Tapping screw B 3.5x25
31	790 144 535	1	Schalter Switch	46	790 144 548	1	Druckrahmen Pressure frame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POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION	POS. NO.	CODE PART NO.	STK. QTY.	BEZEICHNUNG DESCRIPTION
49	501 607 310	4	Sechskantmutter ISO10511-M5-05-ZN Hexagon nut ISO10511-M5-05-ZN	63	790 052 634	1	Ringmagnet Ring magnet
50	790 144 550	2	Griffschelle Grip bracket	64	790 144 559	1	Filtermattensatz zu GF10 Motor Filter mat set for GF10 motor
52	305 505 172	4	Zylinderschraube ISO4762-M5x25-8.8-ZN Cylinder screw ISO4762-M5x25-8.8-ZN	65	305 501 224	2	Zylinderschraube M6x30 Cylinder screw M6x30
53	790 144 552	4	Vierkantmutter M6 Square nut M6	66	305 501 222	2	Zylinderschraube M6x25 Cylinder screw M6x25
54	790 144 553	2	Griff Grip	67	542 505 311	4	Scheibe Washer
60	790 144 557	1	Stirnrad zu GF 10 Spur gear for GF 10	**Ohne Abbildung | Without Illustration**			
61	790 144 382	1	Motor GF10 230 V, 50/60 Hz kpl. Motor GF10 230 V, 50/60 Hz cpl.	–	790 144 385	1	Getriebefett GFX/PS, 30 g Gear grease GFX/PS, 30 g
	790 144 383	1	Motor GF10 120 V, 50/60 Hz kpl. Motor GF10 120 V, 50/60 Hz cpl.				
62	790 142 516	1	Kabel mit Steckkupplung 230 V Cable with plug coupling 230 V				
	790 142 517	1	Kabel mit Steckkupplung 120 V Cable with plug coupling 120 V				

12 Declaration of Conformity

ORIGINAL

de EG-Konformitätserklärung
en EC Declaration of conformity
fr CE Déclaration de conformité
it CE Dichiarazione di conformità
es CE Declaración de conformidad
nl EG-conformiteitsverklaring
cz ES Prohlášení o shodě
sk EÚ Prehlásenie o zhode
pl Deklaracja zgodności WE

Orbitalum Tools GmbH
Josef-Schüttler-Straße 17
78224 Singen, Deutschland
Tel. +49 (0) 77 31 792-0

Maschine und Typ (inklusive optional erhältlichen Zubehörartikeln von Orbitalum): / Machinery and type (including optionally available accessories from Orbitalum): / Machine et type (y compris accessoires Orbitalum disponibles en option): / Macchina e tipo (inclusi gli articoli accessori acquistabili opzionalmente da Orbitalum): / Máquina y tipo (incluidos los artículos de accesorios de Orbitalum disponibles opcionalmente): / Machine en type (inclusief optioneel verkrijgbare accessoires van Orbitalum): / Stroj a typ stroje (včetně volitelného příslušenství firmy Orbitalum): / Stroj a typ (vrátane voliteľne dostupného príslušenstva od Orbitalum): / Maszyna i typ (wraz z opcjonalnie dostępnymi akcesoriami firmy Orbitalum):

Rohrtrenn- und Anfasmaschinen:
- **GFX 3.0**
- **GFX 6.6**

Seriennummer: / Series number: / Nombre de série: / Numero di serie: / Número de serie: /
Serienummer: / Sériové číslo: / Sériové číslo / :Numer seryjny

Baujahr: / Year: / Année: / Anno: / Año: / Bouwjaar: / Rok výroby: / Rok výroby:

Hiermit bestätigen wir, dass die genannte Maschine entsprechend den nachfolgend aufgeführten Richtlinien gefertigt und geprüft worden ist: / Herewith our confirmation that the named machine has been manufactured and tested in accordance with the following standards: / Par la présente, nous déclarons que la machine citée ci-dessus a été fabriquée et testée en conformité aux directives: / Con la presente confermiamo che la macchina sopra specificata è stata costruita e controllata conformemente alle direttive qui di seguito elencate: / Por la presente confirmamos que la máquina mencionada ha sido fabricada y comprobada de acuerdo con las directivas especificadas a continuación: / Hiermee bevestigen wij, dat de vermelde machine in overeenstemming met de hieronder vermelde richtlijnen is gefabriceerd en gecontroleerd: / Tímto potvrzujeme, že uvedený stroj byl vyroben a testován v souladu s níže uvedenými směrnicemi: / Týmto potvrdzujeme, že uvedený stroj bol zhotovený a odskúšaný podľa nižšie uvedených smerníc: / Niniejszym potwierdzamy, że powyższa maszyna została wyprodukowana i przetestowana zgodnie z wymienionymi poniżej wytycznymi:

- **Maschinen-Richtlinie 2006/42/EG**
- **EMV-Richtlinie 2014/30/EU**
- **RoHS-Richtlinie 2011/65/EU**

Folgende harmonisierte Normen sind angewandt: / The following harmonized norms have been applied: / Les normes suivantes harmonisées où applicables: / Le seguenti norme armonizzate ove applicabili: / Las siguientes normas armonizadas han sido aplicadas: / Onderstaande geharmoniseerde normen zijn toegepast: / Jsou použity následující harmonizované normy: / Boli aplikované tieto harmonizované normy: / Stosowane są następujące normy zharmonizowane:

- **EN ISO 12100:2011-03**
- **EN ISO 62841-1:2016-07**

Bevollmächtigt für die Zusammenstellung der technischen Unterlagen: / Authorised to compile the technical file: / Autorisé à compiler la documentation technique: / Incaricato della redazione della documentazione tecnica: / Autorizado para la elaboración de la documentación técnica: / Gemachtigde voor het samenstellen van het technisch dossier: / Osoba zplnomocněná k sestavení technické dokumentace: / Splnomocnenec pre zostavenie technických podkladov: / Uprawniony do sporządzania dokumentacji technicznej:

Gerd Riegraf
Orbitalum Tools GmbH
D-78224 Singen

Bestätigt durch: / Confirmed by: / Confirmé par: /
Confermato da: / Confirmado por: / Bevestigd door: / Potvrdil: / Potvrdil: / Bestätigt durch:

Singen, 22.06.2023:

Jürgen Jäckle - Product Compliance Manager

ORIGINAL

de UKCA-Konformitätserklärung
en UKCA Declaration of conformity

Orbitalum Tools GmbH
Josef-Schüttler-Straße 17
78224 Singen, Deutschland
Tel. +49 (0) 77 31 792-0

Maschine und Typ (inklusive optional erhältlichen Zubehörartikeln von Orbitalum): / Machinery and type (including optionally available accessories from Orbitalum):	**Rohrtrenn- und Anfasmaschinen:** • **GFX 3.0** • **GFX 6.6**
Seriennummer: / Series number:	
Baujahr: / Year:	
Hiermit bestätigen wir, dass die genannte Maschine entsprechend den nachfolgend aufgeführten Richtlinien gefertigt und geprüft worden ist: / Herewith our confirmation that the named machine has been manufactured and tested in accordance with the following regulations:	• **S.I. 2008/1597 Supply of Machinery (Safety)** • **S.I. 2016/1091 Electromagnetic Compatibility** • **S.I. 2012/3032 Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment**
Schutzziele folgender Richtlinien werden eingehalten: / Protection goals of the following guidelines are observerd:	• **S.I. 2016/1101 Electrical Equipment (Safety)**
Folgende harmonisierte Normen sind angewandt: / The following harmonized standards have been applied:	• **EN ISO 12100:2011-03** • **EN ISO 62841-1:2016-07**
Bevollmächtigt für die Zusammenstellung der technischen Unterlagen: / Authorised to compile the technical file:	
Bestätigt durch: / Confirmed by:	
Singen, 11.08.2023:	Jürgen Jäckle - Product Compliance Manager

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