



Multi-turn gearboxes  
GP 10.1 – GP 30.1



**Read operation instructions first.**

- Observe safety instructions.
- These operation instructions are part of the product.
- Store operation instructions during product life.
- Pass on instructions to any subsequent user or owner of the product.

**Target group:**

This document contains information for assembly, commissioning and maintenance staff.

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## 1. Safety instructions

### 1.1. Basic information on safety

<b>Standards/directives</b>	<p>Our products are designed and manufactured in compliance with recognised standards and directives.</p> <p>The end user or the contractor must ensure that all legal requirements, directives, guidelines, national regulations and recommendations with respect to assembly, electrical connection, commissioning and operation are met at the place of installation.</p>
<b>Safety instructions/warnings</b>	<p>All personnel working with this device must be familiar with the safety and warning instructions in this manual and observe the instructions given. Safety instructions and warning signs on the device must be observed to avoid personal injury or property damage.</p>
<b>Qualification of staff</b>	<p>Assembly, electrical connection, commissioning, operation, and maintenance must be carried out exclusively by suitably qualified personnel having been authorised by the end user or contractor of the plant only.</p> <p>Prior to working on this product, the staff must have thoroughly read and understood these instructions and, furthermore, know and observe officially recognised rules regarding occupational health and safety.</p> <p>Work performed in potentially explosive atmospheres is subject to special regulations which have to be observed. The end user or contractor of the plant are responsible for respect and control of these regulations, standards, and laws.</p>
<b>Electrostatic charging</b>	<p>Das Getriebe muss am Installationsort geerdet werden.</p> <p>Highly efficient charge generating processes (processes more efficient than manual friction) on the device surface must be excluded at any time, since they will lead to propagating brush discharges and therefore to ignition of a potentially explosive atmosphere.</p> <p>This also applies to fireproof coatings or covers available as an option.</p>
<b>Ignition hazards</b>	<p>Gearboxes were subjected to an ignition hazard assessment in compliance with the currently applicable standard according to ISO 80079-36/-37. Hot surfaces, mechanically generated sparks as well as static electricity and stray electric currents were identified and assessed as major potential ignition sources. Protective measures to prevent the likelihood that ignition sources arise were applied to the gearboxes. This includes in particular lubrication of the gearbox, the IP protection codes and the warnings and notes contained in these operation instructions.</p>
<b>Commissioning</b>	<p>Prior to commissioning, it is important to check that all settings meet the requirements of the application. Incorrect settings might present a danger to the application, e.g. cause damage to the valve or the installation. The manufacturer will not be held liable for any consequential damage. Such risk lies entirely with the user.</p>
<b>Operation</b>	<p>Prerequisites for safe and smooth operation:</p> <ul style="list-style-type: none"> <li>• Correct transport, proper storage, mounting and installation, as well as careful commissioning.</li> <li>• Only operate the device if it is in perfect condition while observing these instructions.</li> <li>• Immediately report any faults and damage and allow for corrective measures.</li> <li>• Observe recognised rules for occupational health and safety.</li> <li>• Observe the national regulations.</li> <li>• During operation, the device warms up and increased surface temperature may occur. To prevent possible burns, we recommend checking the surface temperature using an appropriate thermometer and wearing protective gloves, if required, prior to working on the device.</li> </ul>
<b>Protective measures</b>	<p>The end user or the contractor are responsible for implementing required protective measures on site, such as enclosures, barriers, or personal protective equipment for the staff.</p>

- Maintenance** To ensure safe device operation, the maintenance instructions included in this manual must be observed.
- Any device modification requires prior written consent of the manufacturer.

## 1.2. Range of application

AUMA multi-turn gearboxes are designed for the operation of industrial valves, e.g. gate valves and globe valves.

Other applications require explicit (written) confirmation by the manufacturer.

The following applications are not permitted, e.g.:

- Industrial trucks according to EN ISO 3691
- Lifting appliances according to EN 14502
- Passenger lifts according to DIN 15306 and 15309
- Service lifts according to EN 81-1/A1
- Escalators
- Continuous duty
- Radiation exposed areas in nuclear power plants

No liability can be assumed for inappropriate or unintended use.

Observance of these operation instructions is considered as part of the device's designated use.

## 1.3. Warnings and notes

The following warnings draw special attention to safety-relevant procedures in these operation instructions, each marked by the appropriate signal word (DANGER, WARNING, CAUTION, NOTICE).



**Indicates an imminently hazardous situation with a high level of risk. Failure to observe this warning results in death or serious injury.**




**Indicates a potentially hazardous situation with a medium level of risk. Failure to observe this warning could result in death or serious injury.**



**Indicates a potentially hazardous situation with a low level of risk. Failure to observe this warning could result in minor or moderate injury. May also be used with property damage.**



**Potentially hazardous situation. Failure to observe this warning could result in property damage. Is not used for personal injury.**

Safety alert symbol  warns of a potential personal injury hazard.

The signal word (here: DANGER) indicates the level of hazard.

## 1.4. References and symbols

The following references and symbols are used in these instructions:

**Information** The term **Information** preceding the text indicates important notes and information.



Symbol for CLOSED (valve closed)



Symbol for OPEN (valve open)



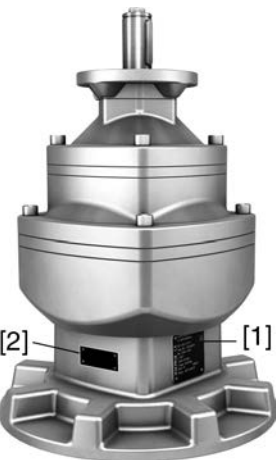
**Result of a process step**

Describes the result of a preceding process step.

2. Identification

2.1. Name plate

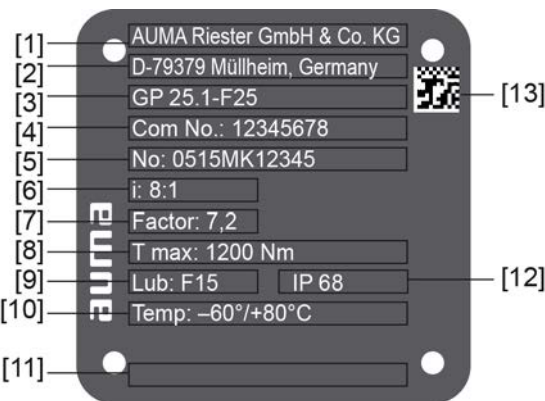
Figure 1: Arrangement of name plates



- [1] Gearbox name plate
- [2] Additional plate, e.g. KKS plate (Power Plant Classification System)

Description of gearbox name plate

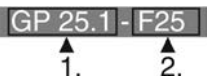
Figure 2: Gearbox name plate (example GP 25.1)



- [1] Name of manufacturer
- [2] Address of manufacturer
- [3] **Type designation** - valve attachment (flange)
- [4] **Order number**
- [5] **Serial number**
- [6] **Reduction ratio**
- [7] **Factor**
- [8] Max. valve torque (output torque)
- [9] Type of lubricant
- [10] Permissible ambient temperature
- [11] Can be assigned as an option upon customer request
- [12] Enclosure protection
- [13] **Data Matrix code**

Type designation

Figure 3: Type designation (example)



- 1. Type and size of gearbox

## 2. Flange size for valve attachment

**Type and size**

These instructions apply to the following devices types and sizes:

Part-turn gearboxes type **GP**, sizes **10.1 – 30.1**

**Order number** The product can be identified using this number and the technical data as well as order-related data pertaining to the device can be requested.

Please always state this number for any product inquiries.

On the Internet at <http://www.auma.com> > Service & Support > myAUMA, we offer a service allowing authorised users to download order-related documents such as wiring diagrams and technical data (both in German and English), inspection certificate and the operation instructions when entering the order number.

**Serial number**

Table 1:

Description of the serial number (with the example of 0515MK12345)			
05	15	MK12345	
05	Positions 1+2: Assembly in week = week 05		
	15	Positions 3+4: Year of manufacture = 2015	
		MK12345	Internal number for unambiguous product identification

**Reduction ratio** The reduction ratio within gearing reduces the required input torques and increases the operating time.

**Factor** Mechanical conversion factor for actuator size determination:

Input torque = required valve torque (output torque)/factor

**Data Matrix code** When registered as authorised user, you may use our **AUMA Assistant App** to scan the Data Matrix code and directly access the order-related product documents without having to enter order number or serial number.

Figure 4: Link to AUMA Assistant App:



For further Service & Support, Software/Apps/... refer to [www.auma.com](http://www.auma.com)

## 2.2. Short description

AUMA GP multi-turn gearboxes are coaxial planetary gearings transmitting a rotary movement to a valve. They are driven either via electric motor (by means of a multi-turn actuator) or manually (via a handwheel).

They are typically used with stem gates, wedge gate valves, and ball valves. Due to their compact design – the input shaft is in the extended valve shaft – this gearbox can also be used in confined spaces, e.g. pit applications.

### 3. Transport, storage and packaging

#### 3.1. Transport

For transport to place of installation, use sturdy packaging.

Transport gearbox and actuator separately.

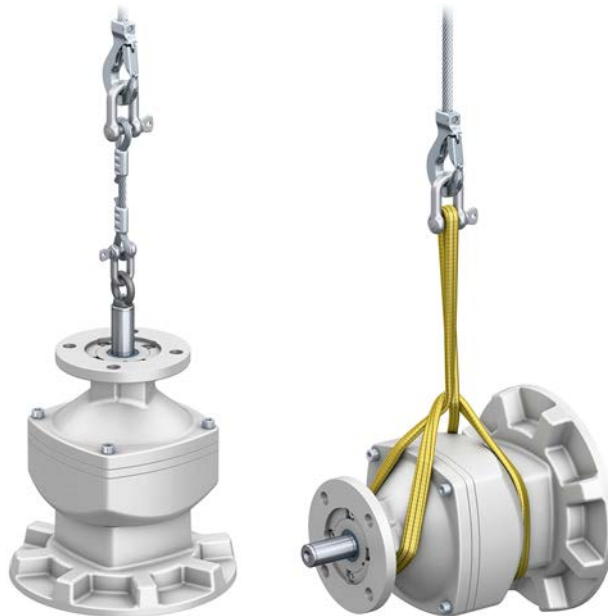


#### Hovering load!

*Risk of death or serious injury!*

- Do NOT stand below hovering load.
- Do NOT attach hoist with ropes or hooks to handwheel.
- Fix hoist with ropes or hooks as well as eyebolt to gearbox or wrap around the gearbox and actuator housings.
- Respect total weight of combination.
- Lifting via eyebolt is only permissible for the net weight of the gearbox.

Figure 5: Example: Lifting the gearbox



**Information** Eyebolt and hoist with lifting accessories are not included in the AUMA scope of delivery.

Table 2:

Weights	
Type	[kg]
GP 10.1	6.0
GP 14.1	6.0
GP 16.1	19.5
GP 25.1	55
GP 30.1 (4:1/8:1)	63.5
GP 30.1 (16:1)	75.5

### 3.2. Storage

**NOTICE**
**Danger of corrosion due to inappropriate storage!**

- Store in a well-ventilated, dry room (maximum humidity 70 %).
- Protect against floor dampness by storage on a shelf or on a wooden pallet.
- Cover to protect against dust and dirt.
- Apply suitable corrosion protection agent to uncoated surfaces.

**Long-term storage**

For long-term storage (more than 6 months), observe the following points:

1. Prior to storage:  
Protect uncoated surfaces, in particular the output drive parts and mounting surface, with long-term corrosion protection agent.
2. At an interval of approx. 6 months:  
Check for corrosion. If first signs of corrosion show, apply new corrosion protection.

### 3.3. Packaging

Our products are protected by special packaging for transport when leaving the factory. The packaging consists of environmentally friendly materials which can easily be separated and recycled. We use the following packaging materials: wood, cardboard, paper, and PE foil. For the disposal of the packaging material, we recommend recycling and collection centres.

## 4. Assembly

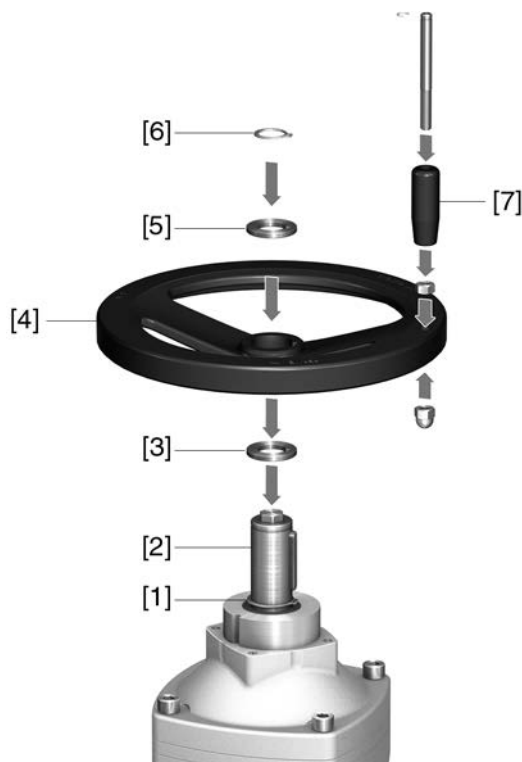
### 4.1. Mounting position

The gearboxes described here can be operated without restriction in any mounting position.

### 4.2. Handwheel fitting

Gearboxes designed for manual operation are supplied with a separate handwheel. Fitting is performed on site according to the description below.

Figure 6: Handwheel



- [1] Retaining ring for input shaft (partly required)
- [2] Gear input shaft
- [3] Spacer (partly required)
- [4] Handwheel
- [5] Spacer (partly required)
- [6] Retaining ring
- [7] Ball handle

1. For input shafts with keyway: Place retaining ring [1] onto input shaft [2].
2. If required, fit spacer [3].
3. Slip handwheel [4] onto input shaft.
4. If required, fit spacer [5].
5. Secure handwheel [4] using the retaining ring [6] supplied.
6. Fit ball handle [7] to handwheel.

### 4.3. Multi-turn actuators for motor operation

Refer to the operation instructions pertaining to the multi-turn actuator for indications on how to mount multi-turn actuators to gearboxes.

This chapter supplies basic information and instructions which should be considered in addition to the operation instructions of the multi-turn actuator.

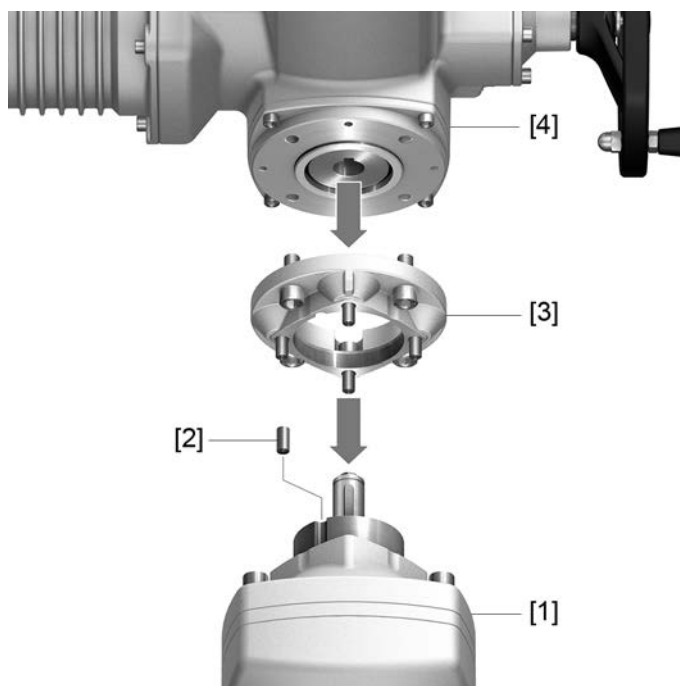
### 4.3.1. Input mounting flange: mount

An input mounting flange is required for mounting a multi-turn actuator. Depending on the version, the flange for mounting the multi-turn actuator is already fitted in the factory.

Table 3:

Suitable input mounting flanges				
Gearboxes	Reduction ratio	Input shaft [mm]	Input mounting flange for mounting multi-turn actuator	
			EN ISO 5210	DIN 3210
GP 10.1	2.4 : 1	20	F10	G0
	3 : 1	20	F10	G0
	4 : 1	20	F10	G0
GP 14.1	2.4 : 1	30	F14	G1/2
	3 : 1	20/30	F14	G1/2
	4 : 1	20	F10	G0
GP 16.1	4 : 1	30	F14	G1/2
	8 : 1	20	F10	G0
GP 25.1	4 : 1	30	F14	G1/2
	8 : 1	30	F14	G1/2
	16 : 1	20	F10	G0
GP 30.1	4 : 1	40	F16	G3
	8 : 1	30	F14	G1/2
	16 : 1	30	F14	G1/2

- Assembly steps**
1. Clean mounting faces, thoroughly degrease uncoated mounting surfaces.  
Figure 7: Mounting example, input mounting flange with AUMA multi-turn actuator



- [1] Gearboxes
- [2] Parallel pin
- [3] Input mounting flange
- [4] AUMA multi-turn actuator

2. Mount parallel pin [2].
3. Place input mounting flange [3] and fasten with screws.

4. Fasten screws crosswise to a torque according to table.

Table 4:

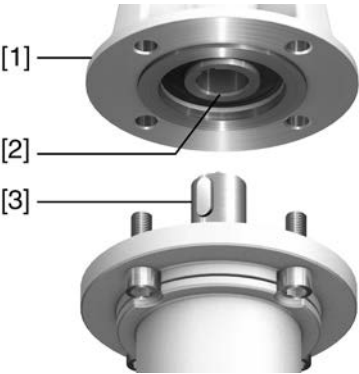
Tightening torques for screws (for mounting multi-turn actuator and input mounting flange)	
Threads	Tightening torque [Nm]
	Strength class A2-80
M10	48
M12	82
M16	200
M20	392

5. Mount AUMA actuator in compliance with the operation instructions pertaining to the multi-turn actuator.

4.4. Mount gearbox to valve

4.4.1. Output drive types B

Figure 8: Output drive type B



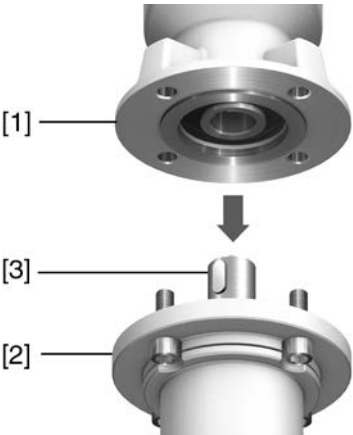
- [1] Gearing flange
- [2] Hollow shaft with keyway
- [3] Valve shaft with parallel key

**Short description** Output drive type B with bore and keyway

**Information** Spigot at valve flanges should be loose fit.

4.4.1.1. Gearbox with output drive types B: mount to valve

Figure 9: Mounting output drive types B



- [1] GP gearbox
- [2] Valve
- [3] Valve shaft

1. Check if mounting flanges fit together.
2. Check, if output drive of gearbox [2] matches the output drive of valve/valve shaft [2/3].
3. Apply a small quantity of grease to the valve shaft [3].
4. Fit gearbox [1].  
**Information:** Ensure that the spigot fits uniformly in the recess and that the mounting faces are in complete contact.
5. Fasten gearbox with screws.  
**Information:** We recommend applying liquid thread sealing material to the screws to avoid contact corrosion.
6. Fasten screws crosswise to a torque according to table.

Table 5:

Tightening torques for screws	
Threads	Tightening torque Nm]
	Strength class A2-80
M10	48
M12	82
M16	200
M20	392

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## 5. Commissioning

### 5.1. Seating via multi-turn actuator

This chapter supplies basic information and instructions which should be considered in addition to the operation instructions of the multi-turn actuator.

- The valve manufacturer has to determine whether the valve is limit or torque seated.
- End position seating must be set in compliance with the operating instructions pertaining to the multi-turn actuator.
- For limit seating, determine overrun, i.e. how much does the valve move after the motor has been switched off?
- When setting the torque switching within the multi-turn actuator, make sure that the tripping torque for both directions does not exceed the max. gearbox input torque (refer to technical data or name plate).
- Set the torque switching within the multi-turn actuator to the following value to prevent damage to the valve:  
Tripping torque = valve torque/factor (refer to name plate)

## 6. Servicing and maintenance



### Damage caused by inappropriate maintenance!

- Servicing and maintenance must be carried out exclusively by suitably qualified personnel having been authorised by the end user or the contractor of the plant. Therefore, we recommend contacting our service.
- Only perform servicing and maintenance tasks when the device is switched off.

### AUMA Service & Support

AUMA offers extensive service such as servicing and maintenance as well as customer product training. For the contact addresses, refer to our website ([www.auma.com](http://www.auma.com)).

### 6.1. Preventive measures for servicing and safe operation

- Before commissioning, perform visual inspection for grease leakage and paint damage (corrosion).
- Thoroughly touch up any possible damage to paint. Original paint in small quantities can be supplied by AUMA.

After six months and then once a year: Check gearbox for damage as well as for grease and oil leakage.

### 6.2. Maintenance intervals

#### Recommendation for plants subject to strong vibration

- For plants subject to strong vibration, 6 months after commissioning and then once a year: Check fastening screws between actuator and gearbox/valve for tightness. If required, fasten screws while applying the tightening torques as indicated in chapter <Assembly>. For screws sealed and secured with e.g. thread sealing material, this action is not required.

#### Recommendation for grease change and seal replacement:

- If rarely operated (typically in buried service), the gearboxes are maintenance-free. Grease change or re-lubrication is not necessary.
- If operated frequently (typically in modulating duty), we recommend changing both grease and seals after 4 – 6 years.

### NOTICE

#### Gearing damage due to using inappropriate grease!

- Only use original lubricants supplied by AUMA.
- Do not mix lubricants.

When deployed in areas where dust formation represents a potential explosion hazard, perform visual inspection for deposit of dirt or dust on a regular basis. Clean devices if required.

Check gearbox for unusual running or grinding noise or vibration which might be an indication of bearing or gear damage.

### 6.3. Disposal and recycling

Our devices have a long lifetime. However, they have to be replaced at one point in time. The devices have a modular design and may, therefore, easily be separated and sorted according to materials used, i.e.:

- Various metals
- Plastic materials
- Greases and oils

The following generally applies:

- Greases and oils are hazardous to water and must not be released into the environment.

- Arrange for controlled waste disposal of the disassembled material or for separate recycling according to materials.
- Observe the national regulations for waste disposal.

## 7. Technical data

**Information** The following tables include standard and optional features. For detailed information on the customer-specific version, refer to the order-related data sheet. The technical data sheet can be downloaded from the Internet in both German and English at <http://www.auma.com> (please state the order number).

### 7.1. Technical data Multi-turn gearboxes

#### General information

Coaxial planetary gearing for motor or manual operation of valves (e.g. gate valves and globe valves).

Valve			Gearboxes					
Max. valve torque	Valve attachment		Gearboxes	Reductionratio	Factor <sup>1)</sup>	Max. input torques	Input shaft	Weight
up to [Nm]	Flange according to EN ISO 5210	Shaft diameter <sup>2)</sup> [mm]				[Nm]	[mm]	[kg]
100	F10	20	GP 10.1	2.4 : 1	2.2	46	20	6.0
				3 : 1	2.7	37	20	6.0
				4 : 1	3.6	28	20	6.0
400	F14	30	GP 14.1	2.4 : 1	2.2	185	30	6.0
				3 : 1	2.7	148	20/30	6.0
				4 : 1	3.6	111	20	6.0
700	F16	40	GP 26.1	4 : 1	3.6	194	30	19.5
				8 : 1	7.2	97	20	19.5
1,200	F25	50	GP 25.1	4 : 1	3.6	333	30	55
				8 : 1	7.2	167	30	55
				16 : 1	14.4	83	20	65
2,500	F30	60	GP 30.1	4 : 1	3.6	694	40	63.5
				8 : 1	7.2	347	30	63.5
				16 : 1	14.4	174	30	75.5

1) Conversion factor from output torque to input torque to determine the actuator size

2) Bore with keyway according to DIN 6885-1.

Possible combinations with multi-turn actuators				
Gearboxes	Reduction ratio	Suitable AUMA multi-turn actuator <sup>1)</sup>	Input mounting flange for mounting multi-turn actuator	
			EN ISO 5210	DIN 3210
GP 10.1	2.4 : 1	SA 07.6	F10	G0
	3 : 1	SA 07.6	F10	G0
	4 : 1	SA 07.2	F10	G0
GP 14.1	2.4 : 1	SA 14.2	F14	G1/2
	3 : 1	SA 14.2	F14	G1/2
	4 : 1	SA 10.2	F10	G0
GP 16.1	4 : 1	SA 14.2	F14	G1/2
	8 : 1	SA 10.2	F10	G0
GP 25.1	4 : 1	SA 14.6	F14	G1/2
	8 : 1	SA 14.2	F14	G1/2
	16 : 1	SA 10.2	F10	G0
GP 30.1	4 : 1	SA 16.2	F16	G3
	8 : 1	SA 14.6	F14	G1/2
	16 : 1	SA 14.6	F14	G1/2

1) Standard flange according to EN ISO 5210

#### Features and functions

Type of duty	<ul style="list-style-type: none"> <li>Short-time duty S2 - 15 min (open-close duty)</li> <li>Intermittent duty S4 - 25 % (modulating duty)</li> </ul>
Direction of rotation	Clockwise rotation at input shaft results in clockwise rotation at output drive
Input shaft	Input shaft with metallic surface protection, cylindrical with parallel key according to DIN 6885-1
Motor operation	<ul style="list-style-type: none"> <li>Directly via electric multi-turn actuator</li> <li>Input mounting flanges for mounting multi-turn actuators</li> </ul>

**Features and functions**

Manual operation	Available handwheel diameters according to EN 12570, selection according to output torque:								
	Type	GP 10.1			GP 14.1			GP 16.1	
	Reduction ratio	2.4:1	3:1	4:1	2.4:1	3:1	4:1	4:1	8:1
	Input shaft	20			30	20/30	20	30	20
	Handwheel Ø [mm]	250			500	315	250	500	250
		315			630	400	315	630	315
		400			800	500	400	800	
	Type	GP 25.1			GP 30.1				
	Reduction ratio	4:1	8:1	16:1	4:1	8:1	16:1		
	Input shaft	30	30	20	30	20/30	20		
	Handwheel Ø [mm]	630	500	250	500	315	250		
		800	630	315	630	400	315		
			800	400	800	500	400		
	Standard:		<ul style="list-style-type: none"><li>Handwheel made of aluminium</li><li>Handwheel with ball handle</li></ul>						
Option:		<ul style="list-style-type: none"><li>Handwheel made of GJL-200</li><li>Handwheel lockable</li></ul>							
Valve attachment	B3 according to EN ISO 5210 (bore with parallel keyway)								

**Service conditions**

Mounting position	Any position	
Ambient temperature	Standard:	–60 °C to +80 °C
	Options:	0 °C to +140 °C (up to +150 °C for a short time with reduced lifetime)
Enclosure protection according to EN 60529	Standard:	IP68-8, dust and water tight up to max. 8 m head of water
	Option:	IP68-20, dust-tight and water-tight up to max. 20 m head of water
Corrosion protection	Standard:	KN: Suitable for installation in industrial units, in water or power plants with a low pollutant concentration
	Options:	KS: Suitable for use in areas with high salinity, almost permanent condensation, and high pollution.
		KX: Suitable for use in areas with extremely high salinity, permanent condensation, and high pollution.
Paint	Two-component iron-mica combination	
Colour	Standard:	AUMA silver-grey (similar to RAL 7037)
	Option:	Available colours on request
Lifetime	AUMA multi-turn gearboxes meet or even exceed the lifetime requirements of EN 15714-2. Detailed information can be provided on request.	
Housing	Cast iron	

**Special features for use in potentially explosive atmospheres in accordance with ATEX 2014/34/EU**

Explosion protection in accordance with ATEX 2014/34/EU	Standard:	II 2G Ex h IIC T4 Gb
Applied standards	EN ISO 80079-36:2016-12 EN ISO 80079-37:2016-12	
Type of duty	Standard:	Restricted to manual operation, no motor operation permissible.
Ambient temperature	Standard:	–30 °C to +70 °C
Lifetime	GP 10.1 – GP 16.1: 500 cycles GP 25.1 – GP 30.1: 250 cycles according to EN ISO 22109: 2020	

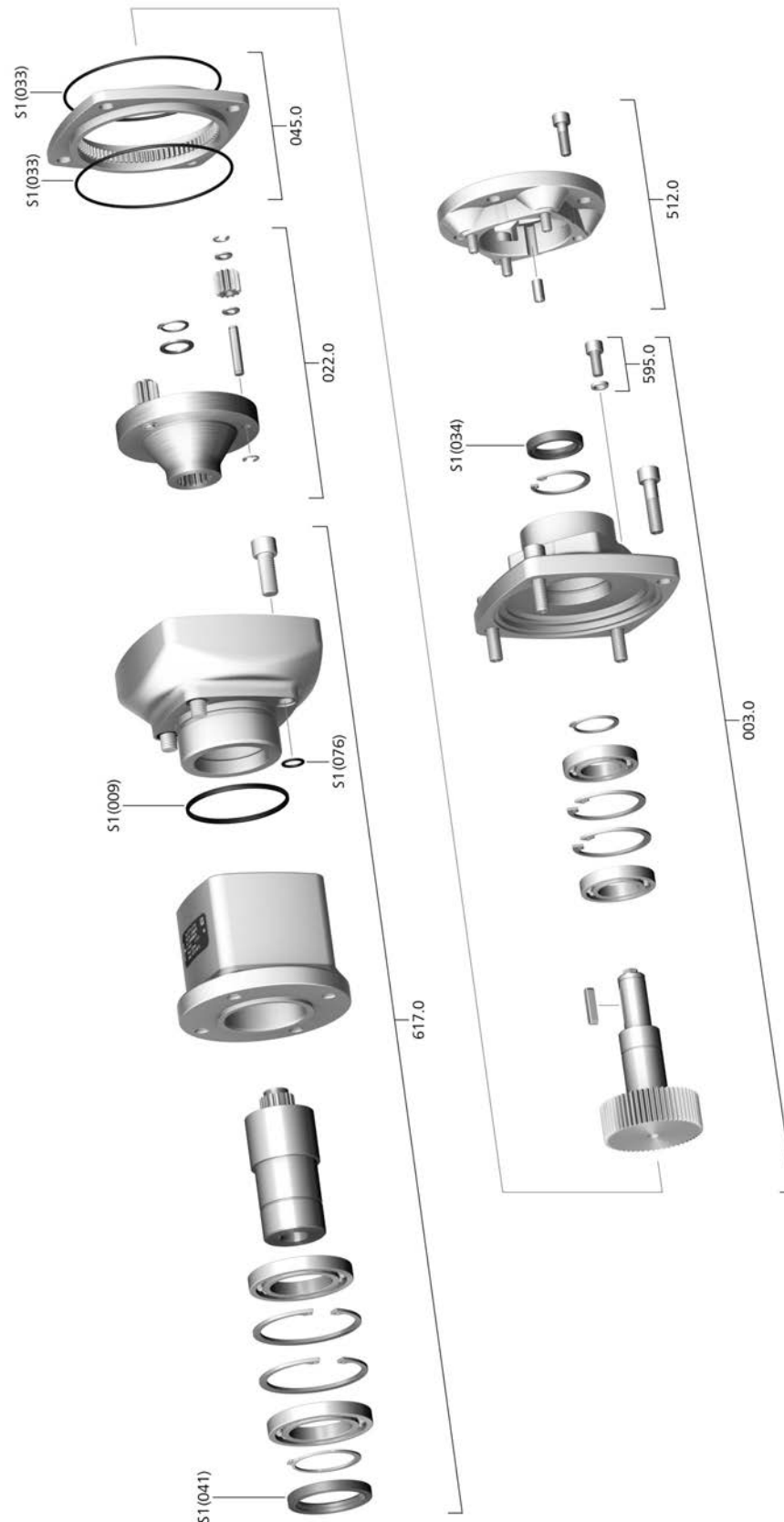
Technical data

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Further information	
EU Directives	ATEX Directive: (2014/34/EU) Machinery Directive: (2006/42/EC)

## 8. Spare parts

### 8.1. Multi-turn gearboxes GP 10.1 – GP 14.1 (2.4:1/3:1/4:1)



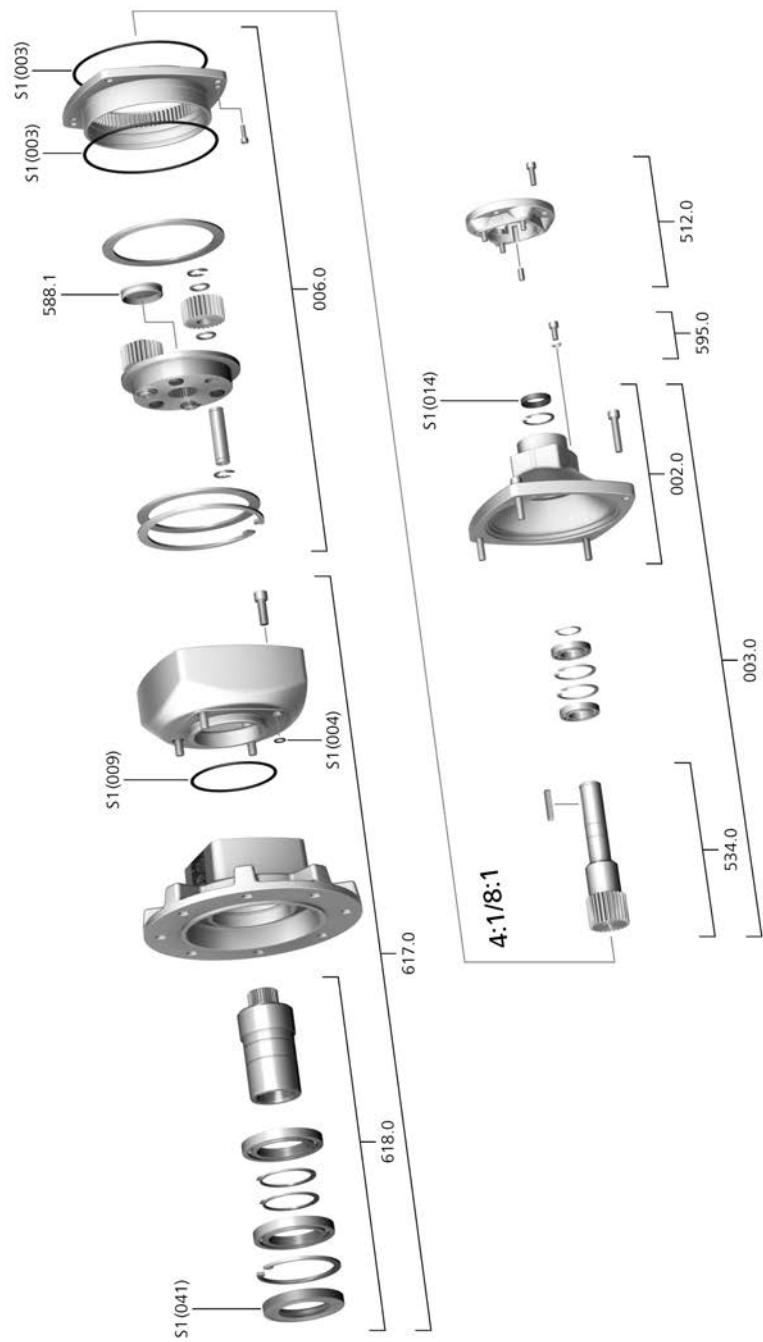
## Spare parts

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Please state device type and our order number (see name plate) when ordering spare parts. Only original AUMA spare parts should be used. Failure to use original spare parts voids the warranty and exempts AUMA from any liability. Representation of spare parts may slightly vary from actual delivery.

Ref. no.	Designation	Type
003.0	Housing cover with drive shaft	Sub-assembly
022.0	Planet carrier	Sub-assembly
045.0	Internal geared wheel	
512.0	Input mounting flange	Sub-assembly
595.0	Screw kit for manual gearbox	Sub-assembly
617.0	Output drive housing	Sub-assembly
S1	Seal kit	Set

8.2. Multi-turn gearboxes GP 14.1 (4:1/8:1)



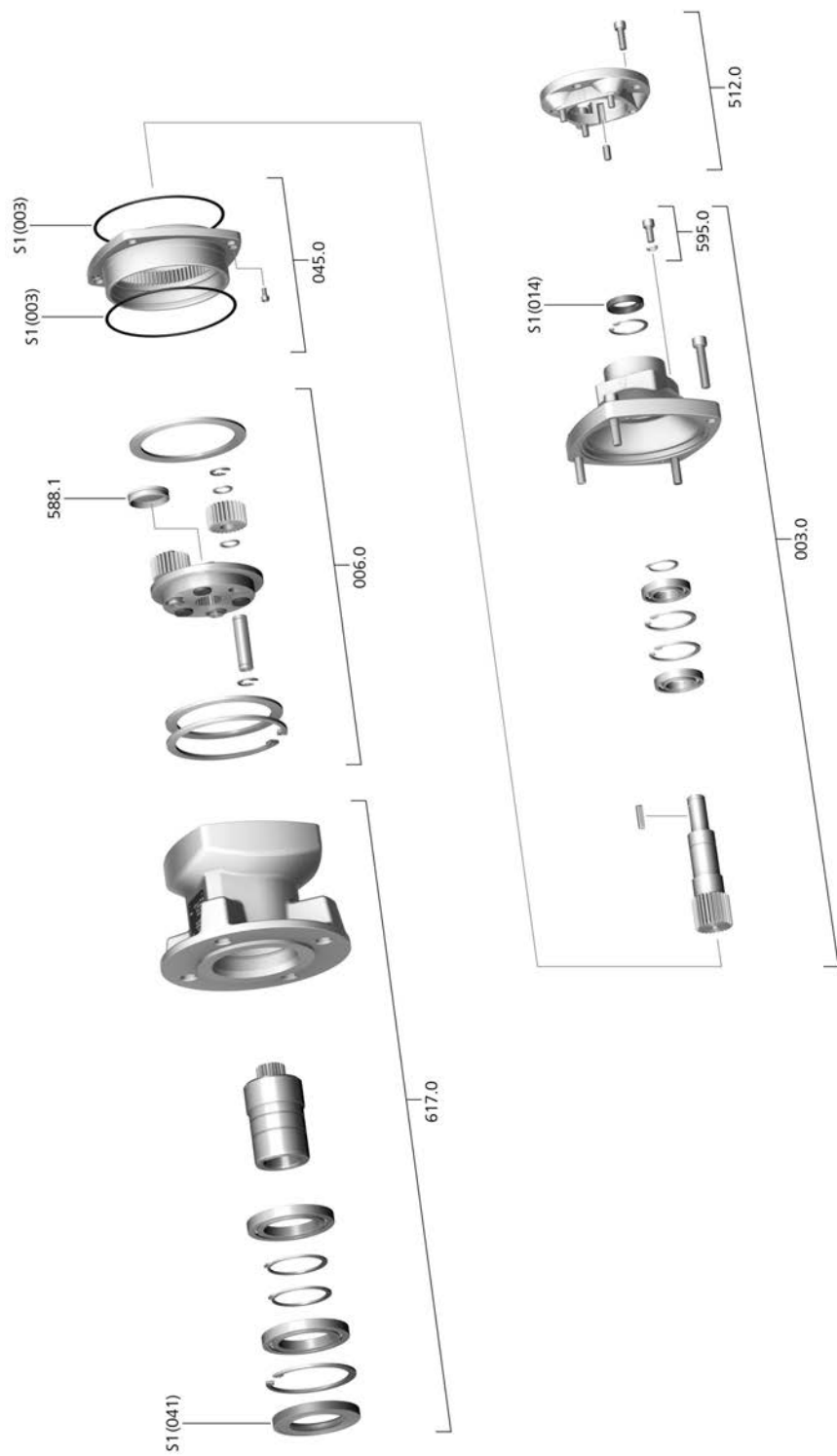
## Spare parts

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Please state device type and our order number (see name plate) when ordering spare parts. Only original AUMA spare parts should be used. Failure to use original spare parts voids the warranty and exempts AUMA from any liability. Representation of spare parts may slightly vary from actual delivery.

Ref. no.	Designation	Type
002.0	Housing cover	Sub-assembly
003.0	Housing cover with drive shaft	Sub-assembly
006.0	Planetary gearing	Sub-assembly
512.0	Input mounting flange	Sub-assembly
534.0	Drive shaft	Sub-assembly
588.1	Blanking plug	
595.0	Screw kit for manual gearbox	Sub-assembly
617.0	Output drive housing	Sub-assembly
618.0	Output drive sleeve	Sub-assembly
S1	Seal kit	Set

**8.3. Multi-turn gearboxes GP 16.1 (4:1/8:1)**



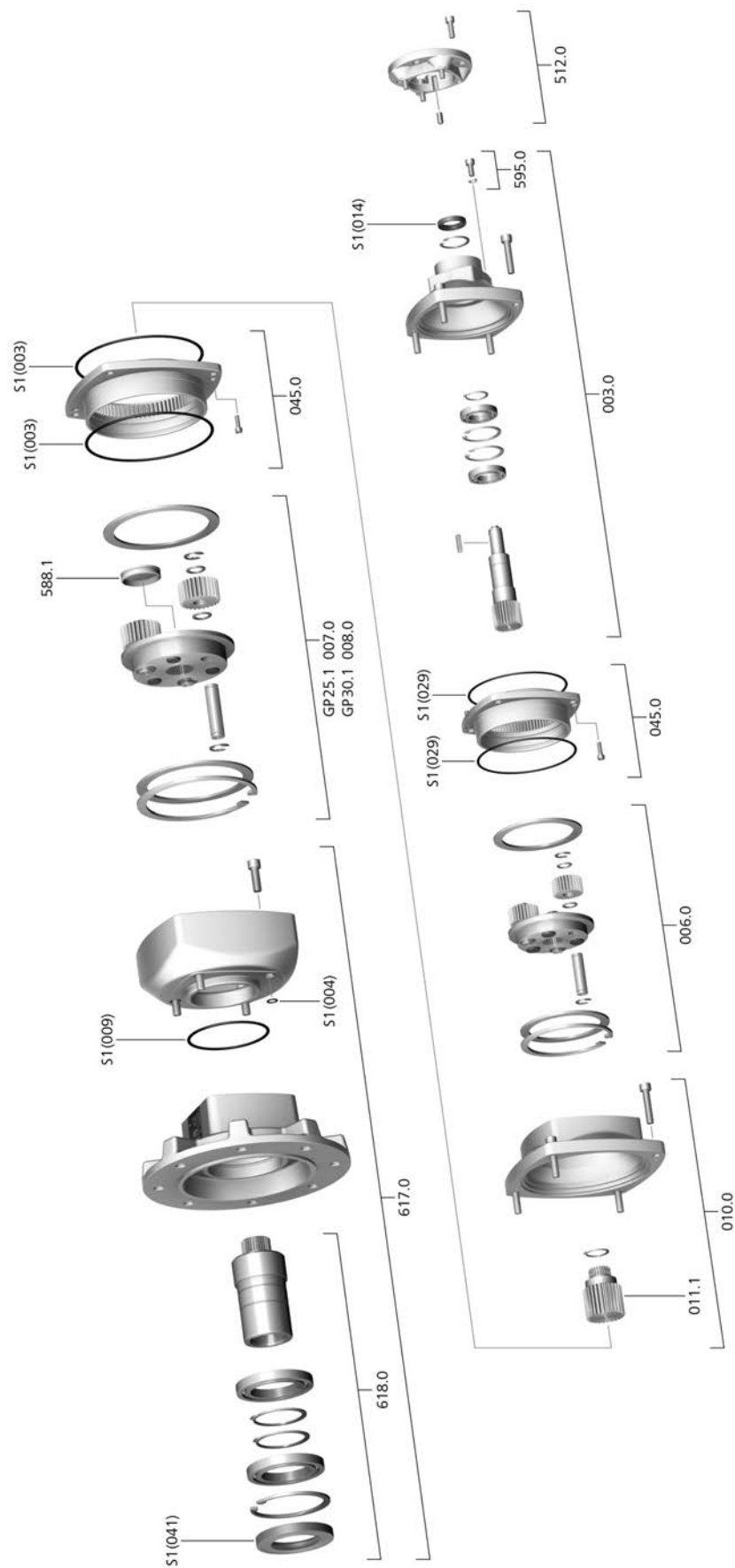
## Spare parts

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Please state device type and our order number (see name plate) when ordering spare parts. Only original AUMA spare parts should be used. Failure to use original spare parts voids the warranty and exempts AUMA from any liability. Representation of spare parts may slightly vary from actual delivery.

Ref. no.	Designation	Type
003.0	Housing cover with drive shaft	Sub-assembly
006.0	Planetary gearing	Sub-assembly
045.0	Internal geared wheel	
512.0	Input mounting flange	Sub-assembly
588.1	Blanking plug	
595.0	Screw kit for manual gearbox	Sub-assembly
617.0	Output drive housing	Sub-assembly
S1	Seal kit	Set

8.4. Multi-turn gearboxes GP 25.1 – 30.1(16:1)

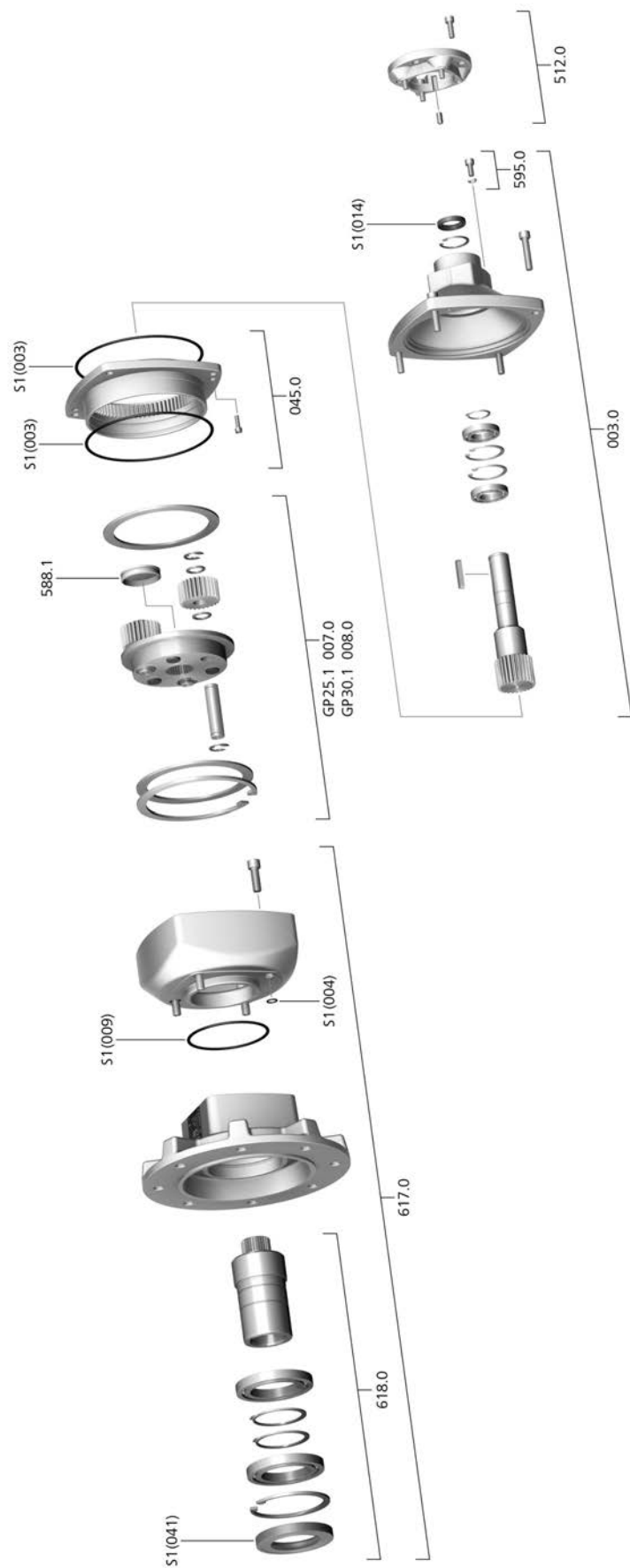


## Spare parts

Please state device type and our order number (see name plate) when ordering spare parts. Only original AUMA spare parts should be used. Failure to use original spare parts voids the warranty and exempts AUMA from any liability. Representation of spare parts may slightly vary from actual delivery.

Ref. no.	Designation	Type
003.0	Housing cover with drive shaft	Sub-assembly
006.0	Planetary gearing first stage	Sub-assembly
007.0	Planetary gearing second stage (GP 25.1)	Sub-assembly
008.0	Planetary gearing second stage (GP 30.1)	Sub-assembly
010.0	Intermediate housing	Sub-assembly
011.1	Pinion	Sub-assembly
045.0	Internal geared wheel	
512.0	Input mounting flange	Sub-assembly
588.1	Blanking plug	
595.0	Screw kit for manual gearbox	Sub-assembly
617.0	Output drive housing	Sub-assembly
618.0	Output drive sleeve	Sub-assembly
S1	Seal kit	Set

8.5. Multi-turn gearboxes GP 25.1 30.1 (4:1/8:1)



## Spare parts

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Please state device type and our order number (see name plate) when ordering spare parts. Only original AUMA spare parts should be used. Failure to use original spare parts voids the warranty and exempts AUMA from any liability. Representation of spare parts may slightly vary from actual delivery.

Ref. no.	Designation	Type
003.0	Housing cover with drive shaft	Sub-assembly
007.0	Planetary gearing (GP 25.1)	Sub-assembly
008.0	Planetary gearing (GP 30.1)	Sub-assembly
045.0	Internal geared wheel	
512.0	Input mounting flange	Sub-assembly
588.1	Blanking plug	
595.0	Screw kit for manual gearbox	Sub-assembly
617.0	Output drive housing	Sub-assembly
618.0	Output drive sleeve	Sub-assembly
S1	Seal kit	Set





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**AUMA Riester GmbH & Co. KG**

P.O. Box 1362  
**DE 79373 Muellheim**  
Tel +49 7631 809 - 0  
Fax +49 7631 809 - 1250  
info@auma.com  
www.auma.com