

GLOBUS



SPREADING BUCKET GSK 1600

User manual and spare parts

Underhaug

WELCOME AS A UNDERHAUG CUSTOMER!

Congratulations on purchasing a Globus product! Before using the equipment, we ask that you carefully read the user manual. You should keep this manual and pass it along if you sell the product to others.

Underhaug manufactures a wide range of products, including stone pickers, stone rakes, seeders, round bale forks, pallet forks, harrows, Cambridge rollers, crosskill rollers, snow blowers, potato machines, excavation buckets, quick coupler attachments, and other construction equipment for excavators.

If you would like to learn more about our products, you can visit our website at www.underhaug.no or contact us by phone or email.

Our goal is for you to be a satisfied Globus customer. To achieve this, we focus on quality and user-friendly products. In collaboration with our dealers, we aim to solve any problems that may arise and guarantee the supply of spare parts for 10 years.

Underhaug is a forward-looking company, and we are committed to continuous product development. We would appreciate receiving feedback from you as a customer. Both positive and negative experiences help strengthen our development and make our products better. Please feel free to send us ideas or suggestions for product modifications or additional equipment via email at arild@underhaug.no. All suggestions will be considered during future product upgrades.

We recommend that you fill out the necessary information about the product you have acquired in the table below. This will make it easier and faster to handle any inquiries for spare parts and/or additional equipment. It is also helpful in case of a product warranty claim.

Best regards,
Underhaug AS

PRODUCT INFORMATION:

Art. no.: (see type plate)	
Serial no.: (see type plate)	
Production year: (see type plate)	
Purchase date:	
Distributor:	

Underhaug AS
Rev. 1.1
01.01.2025

DECLARATION OF CONFORMITY

Producer: Underhaug AS
Address: Torlandsveien 3
4365 Nærbø
N-NORWAY

We hereby declare under our own responsibility that the following product:

Type: *GSK 1600 Spreading bucket*
Serial No.:

Year of Manufacture: 2024->

covered by this declaration, complies with the following standards:

- **NS/EN ISO 13857: 2008**
- **NS/EN 13021: 2003 + A1: 2008**
- **NS/EN ISO 12100: 2010**
- **Directive 2006/42/EC**

Nærbø, October 1, 2024



Sales manager Arild Høien

CONTENT

1	Introduction	Side
	Welcome as customer	2
	Product information	2
	Declaration of conformity	3
2	Safety	
	User manual	5
	Caution	5
	Crushing hazard	5
	Safety labeling	6
3	Product information	
	Intended use	7
	Construction and functions	7
	Technical data	7
	Additional equipment	7
4	Assembly and connection	
	Assembly	8
	Front- and rear mounting	8
	Connection	8
5	User tips	
	Parking	8
	Gritting material	8
	Loading	8
6	Maintenance	
	Retightening	9
	Lubrication points	9
	Hydraulic	9
	Colour code	9
	Cleaning	9
7	Spare parts	
	GSK 1600	12
8	Warranty	
	Warranty terms	14
	Notes	15

2 SAFETY

2.1 Operating instructions

Anyone using the Globus spreading bucket GSK-1600 must familiarize themselves with the contents of the operating manual before the machine is used.

2.2 Caution

Ensure that no one is in the working area of the spreading bucket.

2.3 Crushing hazard at discharge roller during standstill

If the discharge roller becomes blocked by ice, stones, or other foreign objects, the oil pressure must always be disconnected, the engine stopped, and the key removed from the ignition before cleaning begins. If necessary, the feed system can be opened to remove jammed objects. Never insert hands or feet into the opening of the feed system to clean it. Be aware of crushing hazards when the feed vane is returned to position.

2.4 Crushing hazard at discharge roller during operation

Ensure that no one is near the spreading bucket when it is in operation. When the discharge roller and agitator rotate, this represents a significant crushing hazard that can lead to serious personal injury. Never stand within the opening at the front of the spreading bucket or at the opening at the top of the box while it is in operation. Never use your hand or foot to push sand into the spreading bucket. Always disconnect the oil pressure and ensure that the system has stopped when you leave the operator's seat in the tractor.

2.5 Crushing hazard with chain drive

Check that the protective cover around the drive and motor is always in place. Always stop the tractor and remove the keys from the ignition before beginning maintenance.

2.6 Crushing hazard when parking

When the spreading bucket is not in use, it should be placed on a stable surface. If the spreading bucket is disconnected from the tractor and parked with a load, it is important to park it on a firm, nearly level surface to avoid tipping and personal injury. Remember to use the support legs when parking. Fully loaded GSK-1600 may have a high total weight.

2.7 Repairs

Before any maintenance or repairs are performed, the engine must always be stopped and the key removed from the ignition, or the spreading bucket disconnected from the tractor. Never stand under machines that are hanging on the tractor's hydraulics. Therefore, ensure that the spreading bucket is properly supported before work is carried out.

2.8 Hydraulic pressure

The spreading bucket is equipped with hydraulic drive for the discharge roller and agitator. Ensure that no one is nearby when hydraulic functions are being performed. Hydraulic oil under pressure can penetrate the skin and cause serious injuries and infections. Always use eye protection and gloves and be cautious when working with hydraulics. Seek medical attention if you sustain an injury.

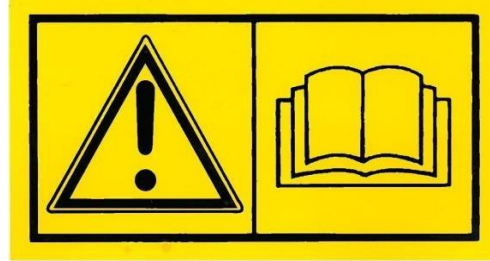
2.1 Safety Marking

Globus spreading bucket are equipped with various warning signs that indicate actions to be taken to avoid injuries and accidents. The symbol appears on warning signs located in various places on the machine. These are shown in the images below.

If the markings are removed from the spreading bucket, new ones can be supplied by the manufacturer or dealer.



Rotating parts.



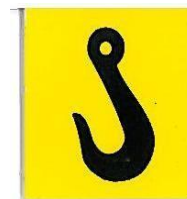
Read the user manual.



During repairs, the key must always be removed from the ignition.

2.9 Lifting points

The strøkkasse frame is equipped with two points marked with the symbol illustrated. Please note that the strøkkasse weighs approximately 360kg, so always use straps designed for this total weight.



2 PRODUCT INFORMATION

2.1 Application

The Globus GSK 1600 is a robust and functional spreading bucket suitable for small and medium-sized tractors or mounted on a front loader in combination with other plowing equipment. The spreading bucket is supplied with optional mounting (Three-point, HVM, or Triangle) compatible with the relevant standards.

The spreading bucket requires trained operators, and the operating manual should be read before connection and activation, even if the operator has experience with similar machines.

2.2 Construction and Functions

The Globus GSK 1600 is a simple and reliable spreading bucket for spreading sand, salt, and gravel. The working width is 2 meters, and the spreading bucket has a capacity of 900 litres. The spreading bucket is self-loading and can be mounted both in front and at the rear of the tractor. For rear mounting, loading is done using a telescopic top link (not included). The angle of the rear wall allows the spreading bucket to be filled to full capacity.

The GSK 1600 is driven by a hydraulic motor. The speed of the discharge roller is regulated using the tractor's hydraulics or an additional flow control valve, which is available as an optional extra. The GSK-1600 is designed so that the agitator operates depending on the discharge roller. This means that when the discharge roller operates, the material is always kept in motion, and new material is constantly transported to the discharge roller. The result is a smooth discharge and a reduced chance of clogging.

Material flow is regulated in two ways:

1. By adjusting the pressure on the discharge vane, which is located next to the discharge roller. Operation is done by adjusting the spring-loaded lever on the left side of the spreading bucket.
2. By regulating the oil supply to the motor, thus controlling the speed of the discharge roller. Operation is done by adjusting the hydraulic valve on the right side of the spreading bucket.

2.3 Technical data

Model	GSK-1600
Working width	240cm
Total width	260cm
Volume	1600l
Power requirement	100hk
Weight spreading bucket	570kg

2.1 Additional equipment

The flow control kit (art. no. 130163) with valve and hose set, and cover (art.no. 140574), can be purchased as optional equipment.

2 ASSEMBLY AND CONNECTION

2.1 Assembly

The spreading bucket is delivered fully assembled and ready for use unless otherwise agreed. The GSK 1600 has a replaceable coupling frame and is supplied with an optional attachment.

2.2 Rear and front mounting

If the GSK-1600 is to be mounted at the rear of the tractor, a hydraulic telescopic top link must be used to maintain the self-loading capability.

For front mounting, the spreading bucket is filled in the same way as a bucket.

Note: Be aware of the tractor's front load capacity and check the front loader's capacity. A fully loaded GSK-1600 can have a weight of up to 3.2 tons, respectively.

It is recommended to use counterweights at the rear.

4.2 Connection

- Ensure that no one is between the tractor and the spreading bucket during connection.
- Reverse the tractor towards the spreading bucket and stop the engine before attaching the drawbars to the three-point hitch. The tractor's stabilizing arms should be used to prevent uncontrolled side movements during operation.
- Hydraulic hoses for operation are to be mounted. Ensure that the hoses are tight and undamaged before hydraulic functions are used.

3 USER TIPS

3.1 Parking

To keep the spreading bucket ready for use, it is recommended to park it in a frost-free location, preferably with a cover. This prevents the sand from becoming moist and reduces the risk of it freezing in the box. If the spreading bucket is parked outdoors, always check that the sand has not frozen before starting the discharge roller.

3.2 Gritting material

For optimal results with the GSK-1600, it is recommended to use crushed gritting material in the size range of 4-8 mm. Gritting material with 0 mm is unsuitable and has poor spreading properties. The material must not contain individual stones larger than 25 mm. Spreading salt may be necessary for some users.

3.3 Loading the GSK-1600

When loading gritting material into the GSK-1600, it is important that the material is thawed so that it flows as easily as possible into the spreading bucket, and the loading process happens without unnecessary effort. For rear mounting, be cautious of the top link load and any potential collisions with the tractor.

2 MAINTENANCE

2.1 Re-tightening

After a few hours of operation with a new spreading bucket, all screw connections should be checked and re-tightened where necessary. Afterward, the screw connections should be checked regularly. The chain should be re-tightened after a few hours of operation, as it stretches when new. Tightening of the chain is done with the tightening device in the chain box.

2.2 Lubrication

- The chain should be lubricated every 8 hours of operation.
- The adjustment arm on the side of the spreading bucket should be moved regularly, and the bearing should be lubricated with oil (Position no. 2).
- Check the load rubber (2 pieces) regularly and adjust it continuously according to wear.
- The roller bearings are equipped with steel seals and have no lubrication points.

6.2 Hydraulics

Regularly check the hoses for leaks or cracks and replace hoses that are damaged.

6.3 Colour Code

Spreading bucket from 2021 are galvanized.

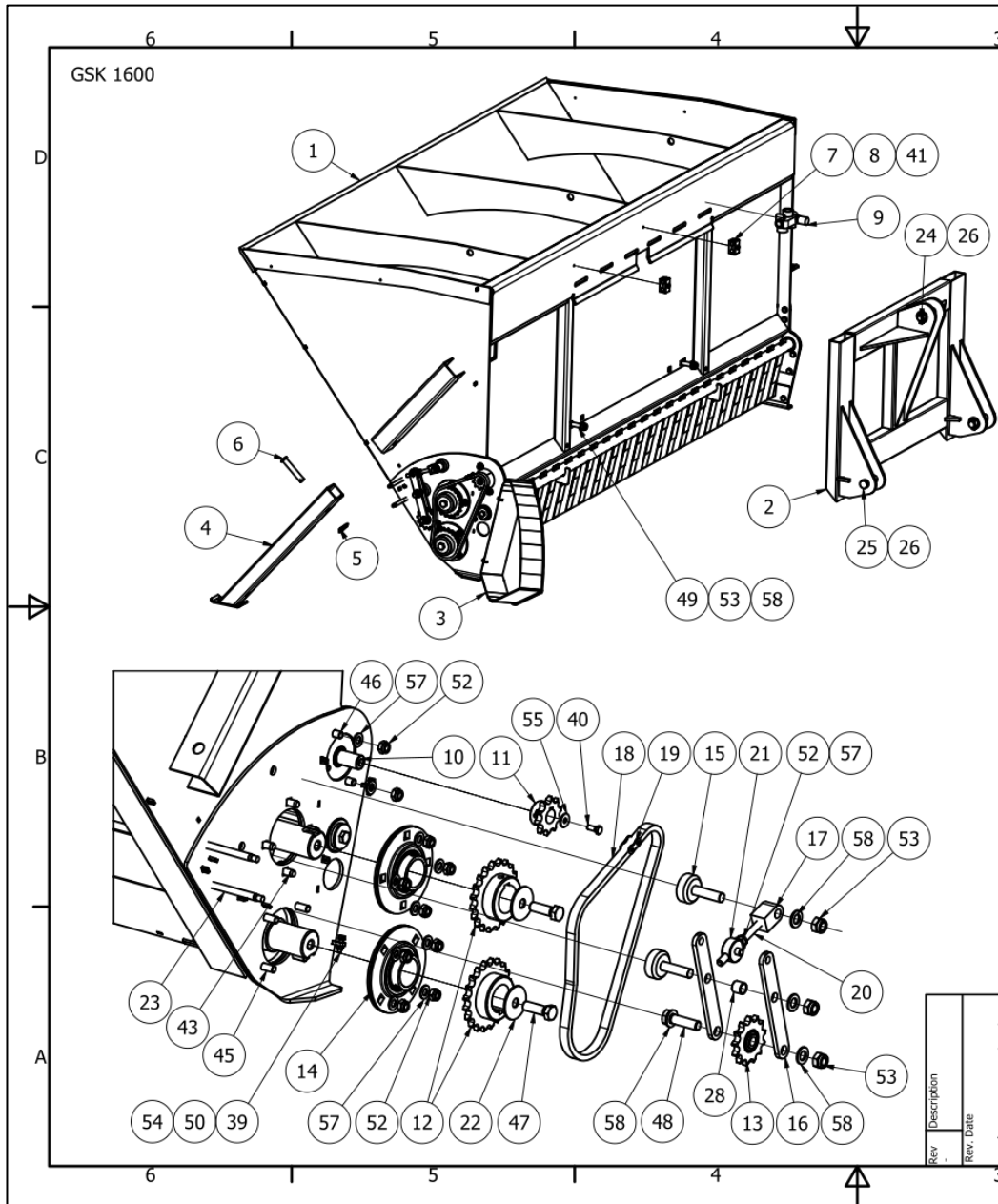
Spreading bucket made before 2021 have red paint with the colour code RAL 3000.

6.4 Cleaning

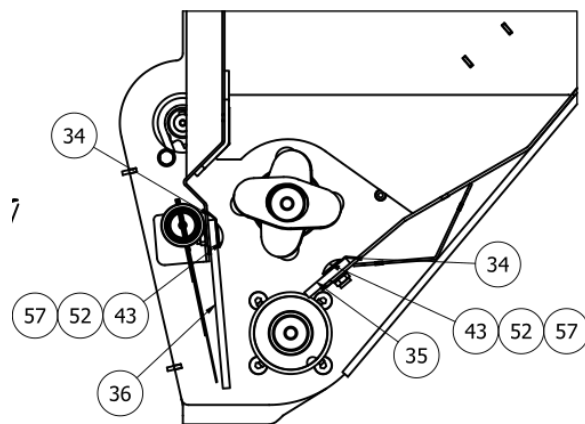
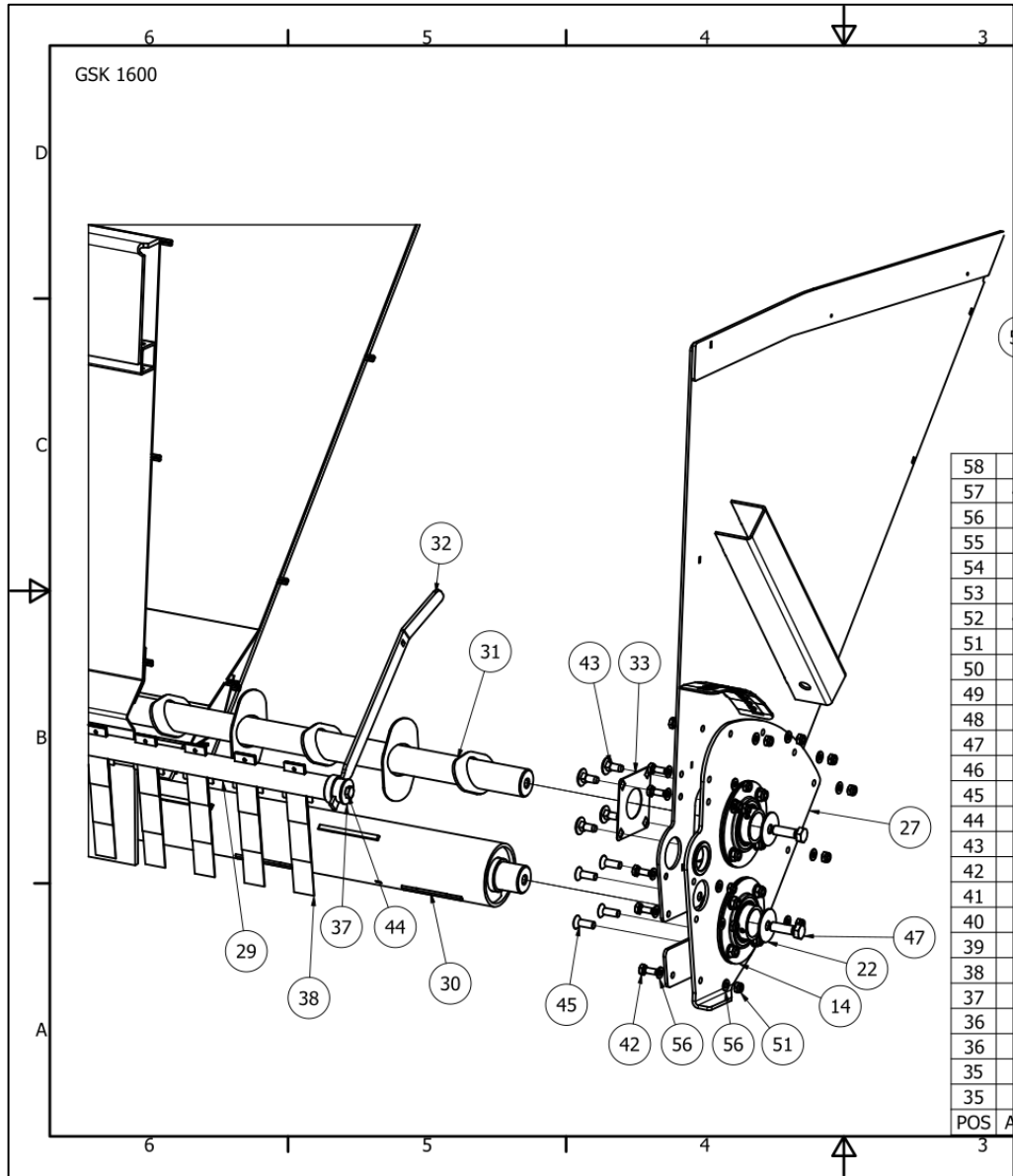
Clean the spreading bucket regularly after use and wash off salt and gravel to prevent rust formation.

Clean and lubricate the equipment before storing it at the end of the season.

2.1 SPARE PARTS GSK 1600



GSK 1600				
POS:	Art. no:	QTY	Description:	Add. info:
34	140549-2	2	Lock vane rubber lip	->2020
34	140549	2	Lock vane rubber lip	2021->
33	129920	1	Internal bearing cover	
32	140522-3	1	Handle	
31	140526	1	Mixer	
30	140527	1	Dispencer roller	
29	140522	1	Dispencer adjustment	
28	140545	1	Sleeve	
27	140524	1	Side plate welded	
26	921702	3	Spindle pin 10x40 mm	
25	190908	2	Draw bolt S 5033	
24	190058	1	Top link bolt \varnothing 25-97 mm	
23	129906	2	Cover bolt	
22	G-500258	4	Washer \varnothing 60/16,5 x 3	
21	140543-2	1	Centre bolt	
20	140543-6	1	Thread bolt	
19	140591	1	Chain lock SIMPLEX 3/4"	
18	140590	1	Chain SIMPLEX 3/4" 52 links	
17	140544	1	Chain tensioner	
16	140543-1	2	Side plate	
15	129882	2	Bolt, chain tensioner	
14	129919	4	Flange bearing PF210 RM 50 mm	
13	140589	1	Chain tensioner 12B1 z=13	
12	140587	2	Sprocket machined \varnothing 50	
11	140588	1	Sprocket \varnothing 25	
10	126626	1	Hydr. Motor BG160 N25	
9	126621	1	Flow contr. L 3/4"0-75L/min	
8	907038	2	Cover plate	
7	907037	4	Clamp	
6	971560	2	Bolt for attaching the harrow board	
5	G-010702	2	Ring splint \varnothing 6 x 45 mm	
4	140528	2	Parking leg welded	
3	140546	1	Chain transmission cover	
2	G-500004	1	Draw frame 3-point	
1	140521	1	Chassis	



GSK 1600				
POS:	Art. no:	QTY	Description:	Add. info:
58	DIN 125 - A 17	6	Washer	
57	DIN 125 - A 13	45	Washer	
56	DIN 125 - A 10,5	22	Washer	
55	DIN 9021 - 8,4	1	Washer	
54	DIN 125 - A 6,4	4	Washer	
53	DIN 985 - M16	5	Hex nut	
52	DIN 985 - M12	43	Hex nut	
51	DIN 985 - M10	11	Hex nut	
50	DIN 985 - M6	2	Hex nut	
49	DIN 603 - M16 x 80	2	Cup head square neck bolt	
48	DIN 933 - M16 x 60	1	Hex-head bolt	
47	DIN 933 - M16 x 50	4	Hex-head bolt	
46	DIN 933 - M12 x 45	2	Hex-head bolt	
45	DIN 7991 - M12 x 35	8	Countersunk screw Umbraco	
44	DIN 933 - M12 x 30	2	Hex-head bolt	
43	DIN 603 - M12 x 30	32	Cup head square neck bolt	
42	DIN 933 - M10 x 25	11	Hex-head bolt	
41	DIN 933 - M8 x 30	2	Hex-head bolt	
40	DIN 933 - M8 x 20	1	Hex-head bolt	
39	DIN 933 - M6 x 25	2	Hex-head bolt	
38	G-500122	24	Spring set GSK1600	
37	G-500259	2	Washer $\varnothing 45/12,5 \times 3$	
36	140548-2	1	Rubber lip long	->2020
36	140548	1	Rubber lip long	2021->
35	140547-2	1	Rubber lip short	->2020
35	140547	1	Rubber lip short	2021->

3 WARRANTY TERMS

3.1 Warranty

Underhaug AS guarantees that the product, including all parts, is manufactured in accordance with the applicable specifications and is free from material or manufacturing defects for a period of 12 months from the date of sale. The sales date is considered to be the invoice date. A receipt for the paid invoice serves as the warranty certificate.

3.2 Valid Warranty

For the warranty to be valid, the following conditions must be met:

- The product must be set up and used according to the user manual and warnings provided by the manufacturer or dealer.
- Warranty claims must be made in writing to the dealer or manufacturer immediately after the fault occurs and within the warranty period.
- Written and/or photographic documentation of the fault must be provided. This must also include information about the product's type designation, serial number, and year of manufacture.

When a warranty is approved, the time and place for the repair are agreed upon, and the necessary parts are sent to the dealer. Costs for rectifying faults covered by the warranty terms will be defined by the manufacturer.

3.3 What is covered by a valid warranty

- The warranty covers the repair of breaks, faults, or deficiencies in the product or its components.
- The warranty covers defects resulting from material failure, manufacturing errors, assembly issues, or consequential errors due to lack of testing and control that should have been performed by the manufacturer.
- The warranty covers new parts delivered free of charge under standard shipping conditions to the dealer. If the parts are needed faster, the customer must cover the additional cost.

3.4 Invalid warranty

- The warranty is invalid if the product has defects or damages caused by improper use, where the instructions in the user manual have not been followed.
- The warranty is invalid if the product is used for purposes other than those described.
- The warranty is invalid if non-original spare parts have been used or if prescribed maintenance of the product has not been followed. Documentation of performed maintenance may be required.

3.5 What is not covered by a warranty

- The warranty does not cover financial loss due to downtime.
- The warranty does not cover consequential damages resulting from improper use.
- The warranty does not cover normal wear and tear.
- The warranty does not cover shipping of the product between the customer and dealer for repairs.
- The warranty does not cover travel, meals, or accommodation for service personnel. The product must be transported to the nearest dealer, or the customer must cover the travel, meals, and accommodation for service personnel if the warranty work is carried out at the product's location.

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