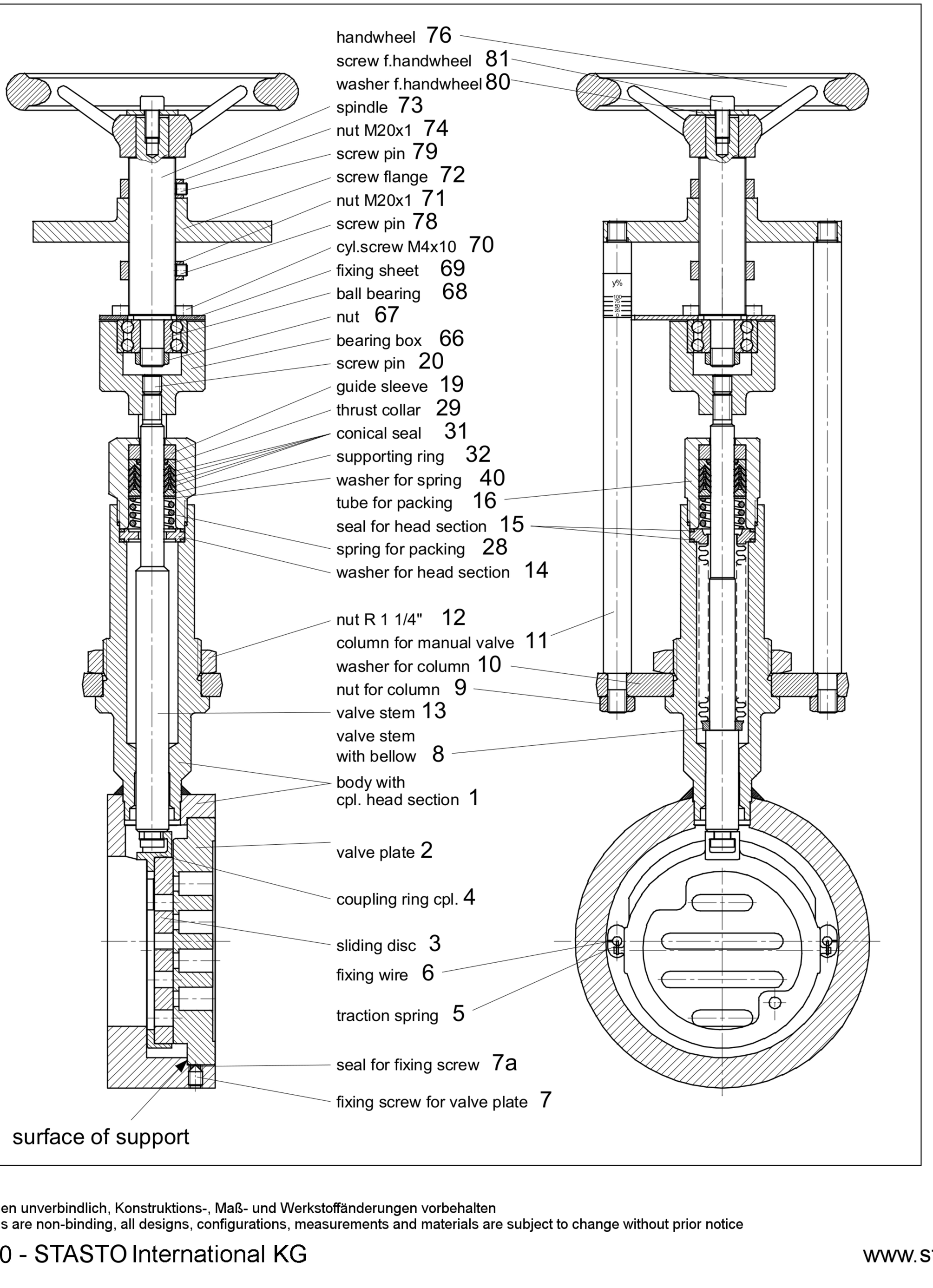
operating instructions
series SG01, SG22

Abbildungen unverbindlich, Konstruktions-, Maß- und Werkstoffänderungen vorbehalten
illustrations are non-binding, all designs, configurations, measurements and materials are subject to change without prior notice

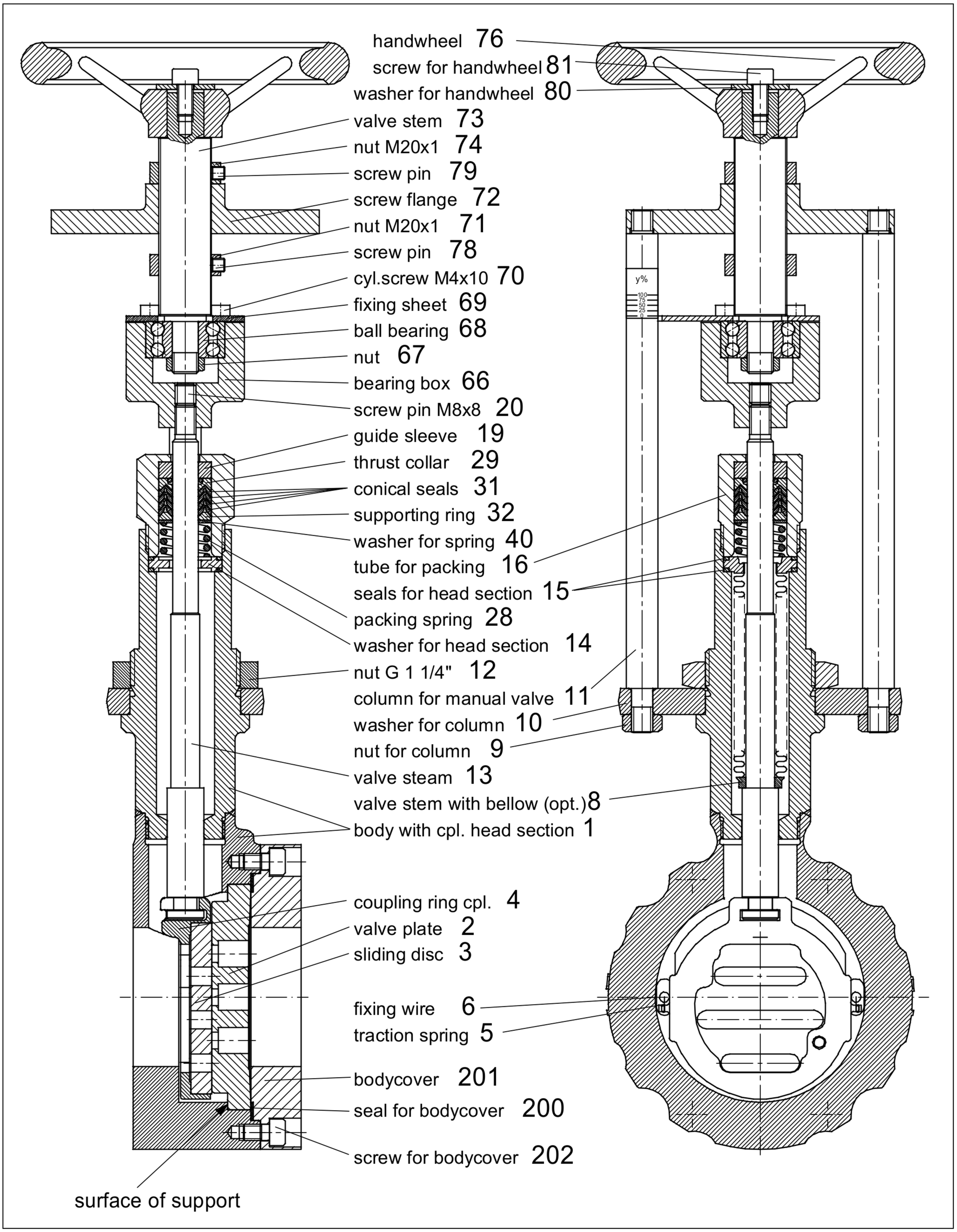
2.1 Spare Parts List

2.1.1 Series GS1

(Use original spare parts only!)



2.1.2 Series GS2 and GS3



Besides the individual spare parts, repair kits are available for all valves containing all seals and parts subject to wear.

2.2 Technical Data

Series GS1	wafer-type design (body length acc. DIN EN 558-1 series 20)	
Series GS2 and GS3	wafer-type design	
Nominal sizes	DN 15 up to DN 250 (1/2" up to 10")	
Nominal pressure acc. DIN	PN 40 (fits also to PN 10-25)	DN 15 -DN 150 (1/2" - 6")
	PN 100 (GS3 series only)	DN 15 - DN 80 (1/2" - 3")
	PN 16 (GS3 series only)	DN 200 - DN 250 (8" - 10")
Nominal pressure acc. ANSI	ANSI 150 (GS3 series only)	DN 15 - DN 250 (1/2" - 10")
	ANSI 300 (GS3 series only)	DN 15 - DN 150 (1/2" - 6")
	ANSI 600 (GS3 series only)	DN 15 - DN 80 (1/2" - 3")
Fluid pressure	carbon steel: -10°C up to +300°C (14F up to 572F)	
	stainless steel: -60°C up to +350°C (-76F up to 662F)	
Leakage rate (% of Kvs/Cv-value)	Functional unit carbon-stainless steel < 0,0001	Functional unit STN2 < 0,001

2.3 Installation

Remove all packing materials from the valve.

Prior to the installation the pipeline should be checked for contamination and foreign particles and cleaned if necessary.

The control valve has to be mounted to the pipeline according the direction of flow which is indicated by an arrow on the valve body. The sliding gate valve only shuts off the fluid in the direction of flow (direction of arrow). In case of operating conditions in which the inlet pressure falls below the outlet pressure, we recommend the installation of check valves in the outlet pressure pipeline.

Use flange seals acc. to DIN EN 1514-1 or ANSI B16.21 in the respective nominal pressure.

We recommend flange seals made from pure graphite with a stainless steel backup.

The proper function of the completely mounted valve has to be checked prior to putting the installation into service.

Mounting position:

The mounting position is arbitrary.

2.4 Actuation

The valve closes when the hand wheel is turned clockwise.
The valve opens when the hand wheel is turned anticlockwise.

The stroke travels 1 mm with each turn of the hand wheel.

Nominal size	DN15 - DN40	DN50 -DN 80	DN100 - DN250
Rotations / full stroke	6,25	8,25	8,75

2.5 Replacing the Functional Unit

2.5.1 Series GS1

Dismantling

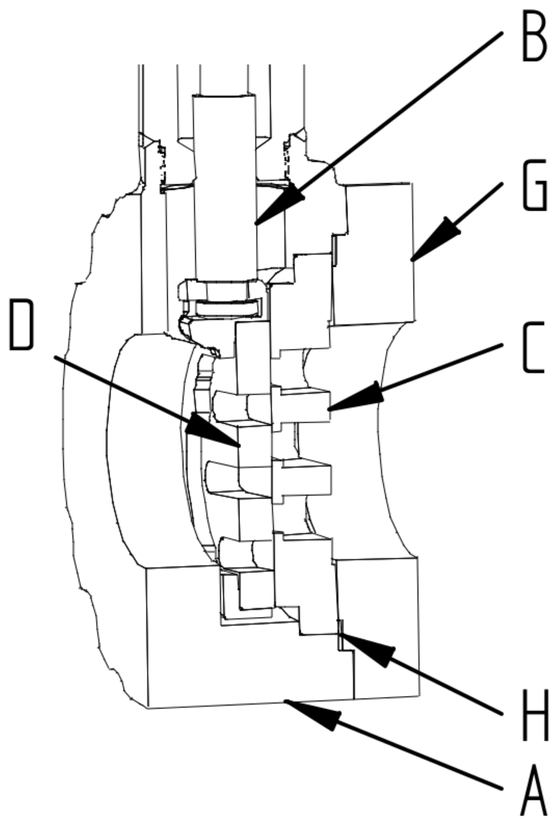
1. Remove fixing screw (E).
2. Lower valve stem (B).
3. Press functional unit out of body (A).
4. (CAUTION: Do not strike the valve plates (C and D) with a hammer or similar hard tool).
5. Remove seal (F).

Assembling

Pay attention to lubrication and bonding plan.

1. Clean face of valve plate (C) and in body (A) and, if necessary, remove particle and seal residues.
2. Refit the functional unit in the body. Check if the slots in the valve plates are parallel when closing. If necessary, rotate the valve plate (C) as needed.
3. Place seal (F) in the body.
4. Secure with fixing screw (E).

2.5.2 Series GS2 and GS3



Dismantling

1. Lower valve stem (B).
2. Loosen screws in cover (G).
3. Remove cover (G) and cover seal (H).
4. Press functional unit out of body.
5. (CAUTION: Do not strike the valve plates (C and D) with a hammer or similar hard tool).

Assembling

Pay attention to lubrication and bonding plan.

1. Clean face of valve plate (C) and in body (A) and, if necessary, remove particle and seal residues.
2. Refit the functional unit in the body (A).
3. Insert seal (H) and cover (G). Check if the slots in the valve plates are parallel when closing. If necessary, rotate the valve plate (C) as needed.
4. Screw the cover to the body and tighten the screws.

2.6 Dismantling and Assembling the Valve

2.6.1 Dismantling the Valve

1. Remove the functional unit (see “Replacing the functional unit“).
2. Remove cylinder screws (70) on the top side of the bearing box (66).
3. Loosen pillar nut (9) and take off complete actuator.
4. Unscrew packing tube (16) and remove from body with valve spindle (13).
5. Loosen threaded pin (20) and unscrew bearing box (66). When doing this, the valve spindle can be gripped carefully at its lower end.
6. Pull valve spindle out of the packing.
7. Press out guide ring (19) and packing completely (please note sequence of individual parts for later assembly).

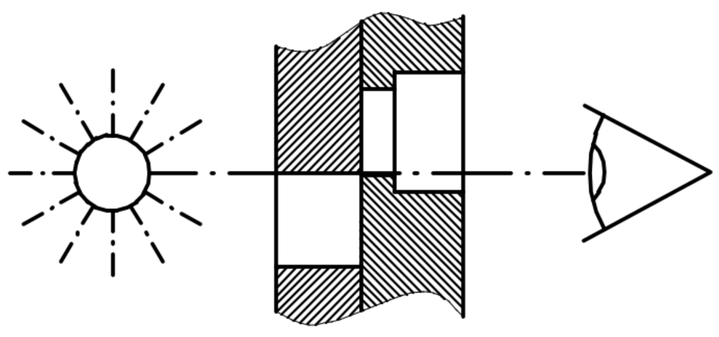
2.6.2 Assembling the Valve

⚠	Note lubrication and bonding plan! Use original Schubert & Salzer spare parts only!

1. Clean all parts of the actuator individually with white spirit (or any other suitable solvent).
2. Insert seals (15) and washer (14) into the body (1). (Do not forget second seal above the washer!)
3. Insert packing with guide ring and spring in the right order into the packing tube (16) (using a suitable tool).
4. Push valve spindle (13) into the body (1).
5. Screw packing tube (16) to the body.
6. Screw bearing box (66) on to the valve spindle.
7. Secure bearing box with threaded pin (20). The top of the threaded pin should be flush with the floor of the bearing box.
8. Fit the actuator while working the bearing into the bearing box.
9. Tighten cylinder screws (70).
10. Tighten nuts for column (9).

2.6.3 Adjusting Stroke and Disc Overlap

1. Move valve spindle up by turning a few times.
2. Turn the hand wheel clockwise to lower the valve spindle until a light gap just appears between the sliding discs.

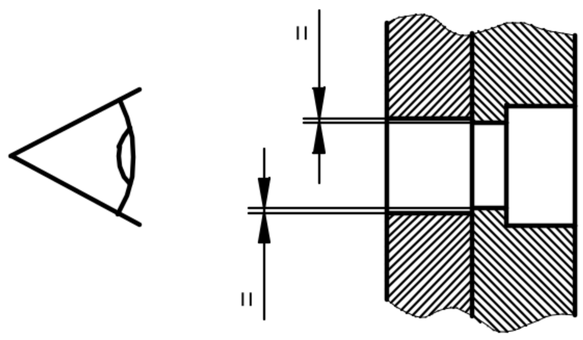


3. Lower the valve spindle further until the correct overlap is obtained.

Nominal size	DN15	DN20 -DN 125	DN150 - DN250
Turns to obtain overlap	1	1,5	2

4. Place stop nut (74) on threaded flange (72) from above und and secure with screw pin (79).

5. Turn the hand wheel clockwise to raise the valve spindle until the sliding discs cover each other completely.

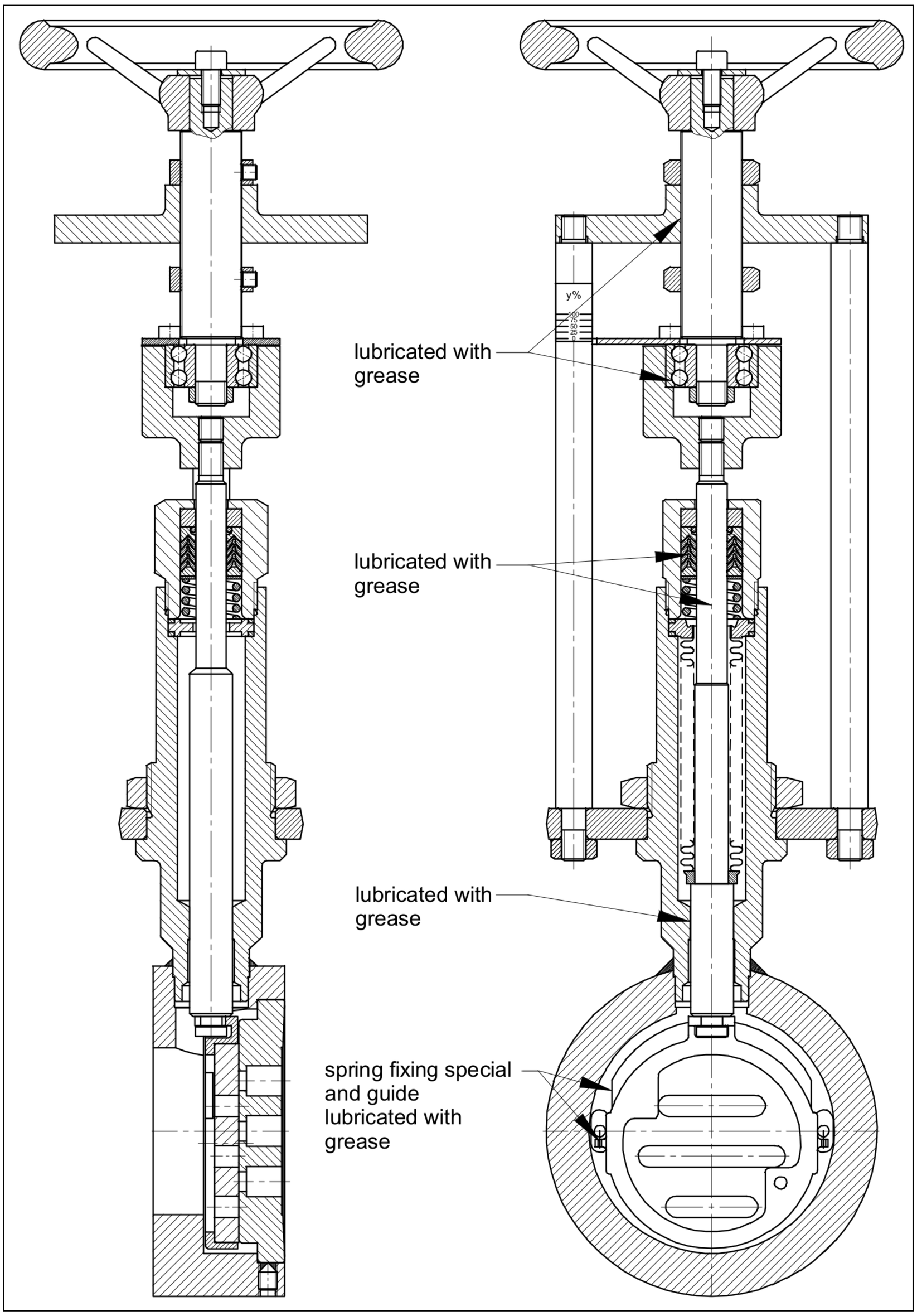


6. Place stop nut (71) on threaded flange (72) from below and secure with screw pin (78).

2.7 Lubrication and Bonding Plan

⚠	The lubrication and bonding plan is valid for all standard versions of this valve type. Contact the manufacturer for suitable lubricants. Special versions (e.g. silicon free, oxygen service or food applications) may require other lubricant qualities.

2.7.1 Series GS1



2.7.2 Series GS2 and GS3