Process valves of the CLASSIC and ELEMENT series, manually operated and electromotive valves as well as valves with stainless steel actuator housings

MAN 1000637335 EN Version: B Status: RL (released | freigegeben) printed: 14.02.2026

Replacement instructions

Operating Instructions 2512/01_ENgb_00815426 / Original DE

1 About these replacement instructions

These instructions describe the procedures for changing the spindle guide and packing gland.

- Read and observe safety chapters in the operating instructions for the respective device.
- Before working on the product, read and observe the relevant sections of the instructions.
- Store the instructions and keep them to hand for reference, and pass them on to the next user.
- Please contact the Bürkert sales department with any questions.

Further product-related information available from country.burkert.com

1.1 Manufacturer

Bürkert Fluid Control Systems
Christian-Bürkert-Str. 13–17
D-74653 Ingelfingen

The contact addresses can be found at country.burkert.com under the "Contact" menu item.

1.2 Validity of the instructions

These instructions apply to two replacement processes:

- The spindle guide can be replaced with the help of these instructions for the following types: 2100, 2101, 2300, 2301, 2920, 2921, 2960, 2961, 3320, 3321, 3360, 3361
- The packing gland can be replaced with the help of these instructions for the following types: 2012, 2060, 2100, 2101, 2300, 2301, 2702, 2712, 2920, 2921, 2960, 2961, 3320, 3321, 3360, 3361

1.3 Symbols

DANGER!

Warns about a danger that will result in death or serious injuries.

WARNING!

Warns about a danger that may result in death or serious injuries.

CAUTION!

Warns about a danger that may result in mild or minor injuries.

CAUTION!

Warns of damage to the product or system.

Highlights important additional information, tips and recommendations.

Refers to information in these operating instructions or in other documentation.

- ▸ Indicates an instruction for action.
- ✓ Indicates a result

1.4 Recommended lubricants

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- ▸ Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- ▸ Observe the lubricant manufacturer's data sheet specifications.

The following lubricants are recommended:

Lubricant	Manufacturer information	Figure
Klüber paste	Klüberpaste UH1 96-402 Klüber Lubrication München GmbH & Co. KG	
Barrieta	Klüber Lubrication München GmbH & Co. KG	
OKS	OKS Schmierstoffe GmbH Maisach	

1.4.1 Recommended use of the lubricant

Part designation	Lubricant	Note
Packing gland v-seals	OKS or Barrieta	Not carried out if only the spindle guide is replaced
Spindle guide	Klüber paste	-
Valve body	Klüber paste	-

Table 1: Recommended use of the lubricant

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2 Pneumatically actuated valves without control unit

2.1 Unscrew actuator from the valve body

DANGER!

Risk of injury due to high pressure and escaping medium.

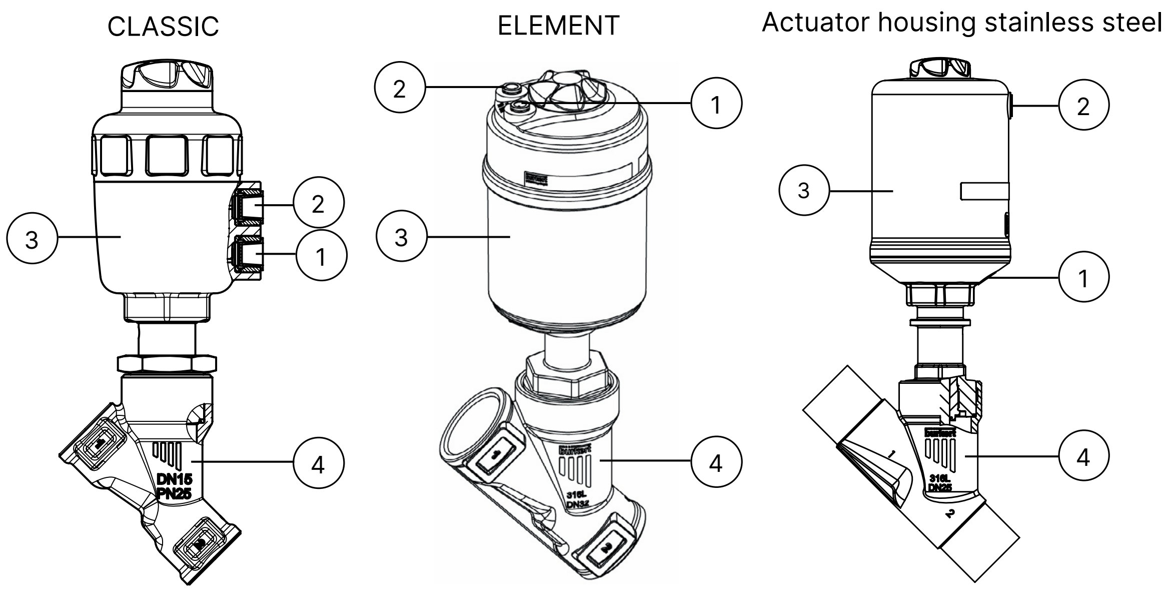
- Only work on depressurised systems. Vent and drain the lines.

CAUTION!

Damage to the valve seat seal or the seat contour.

- When dismantling, the valve must be in the open position.

- For CFA and CFI: pressurise pilot air port 1 with compressed air (5 bar).
- Use a suitable open-end wrench and unscrew the valve body.



Position	Description
1	Pilot air port 1
2	Pilot air port 2

Position	Description
3	Actuator
4	Valve body

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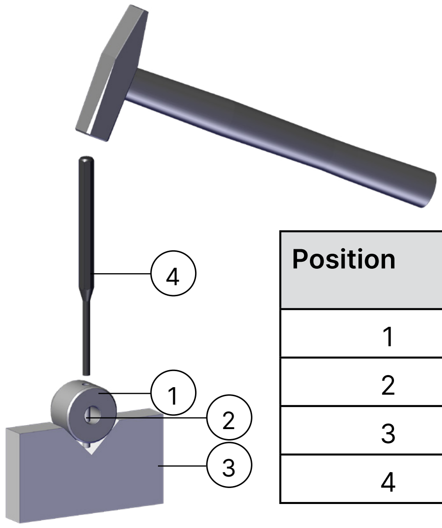
2.2 Dismantle the swivel plate/control cone

- Support the swivel plate/control cone at the cylindrical part using a prism.
- Knock out the pin/spring-type straight pin with a suitable pin punch.
- Pull off the swivel plate/control cone.

CAUTION!

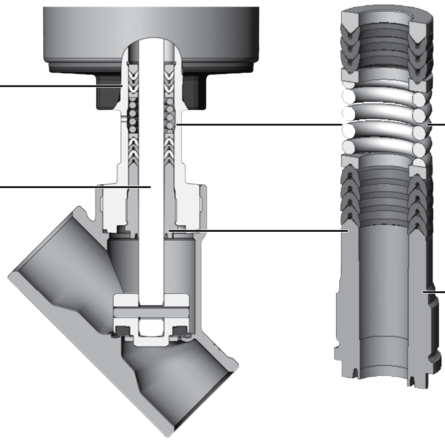
Do not damage the seal surface or the control contour of the swivel plate/control cone.



Position	Description of open/ close valves	Description of control valves
1	Swivel plate	Control cone
2	Pin	Spring pin
3	Prism	
4	Pin punch	

2.3 Replacing the spindle guide/packing gland

2.3.1 Dismantling the spindle guide



- Move the valve to the rest position (if necessary, depressurise and vent).
- Unscrew spindle guide using a modified socket wrench.

The requisite tool is not included in the scope of delivery. This can be found on the country.burkert.com website by entering the article number of the respective wearing part set. Please contact the Bürkert sales department with any questions.

2.3.2 Changing the packing gland

This chapter is not applicable if only the spindle guide is being replaced.

- Close the relief bore on the pipe.

WARNING!

Risk of injury from parts being ejected.

- Before pressurising with pilot air, secure the area around the outlet opening (e.g. place the spindle on a solid surface).

- Push the packing gland out.
  For control functions A and I, pressurise pilot air port 1 with 6...8 bar.
  For control function B, pressurise pilot air port 2 with 6...8 bar.

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

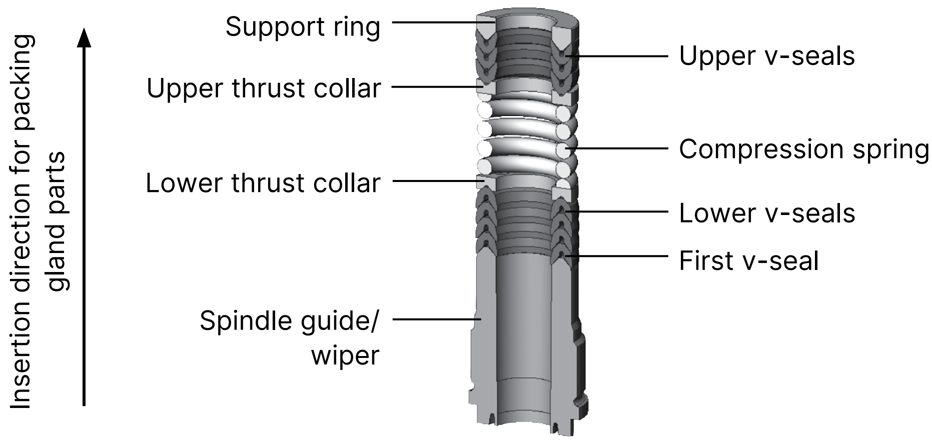
- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer's data sheet specifications.

For the water version up to 200 °C, the material of the first v-seal (with green marking) differs from the material of the remaining v-seals.

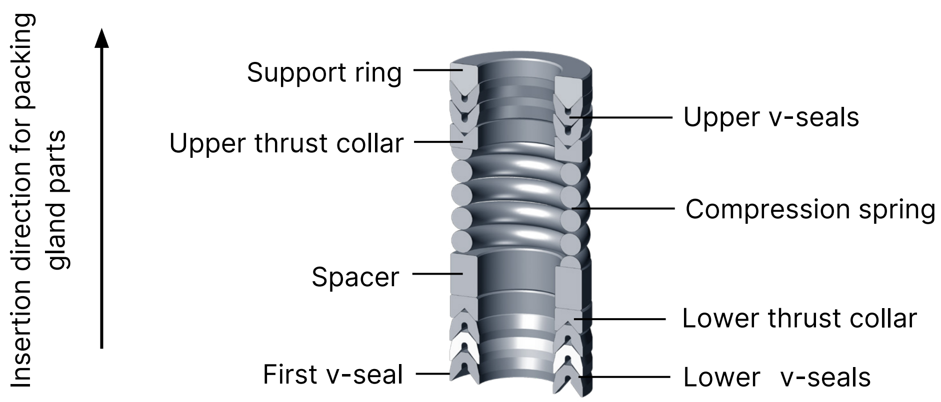
- Grease the v-seals of the new packing gland individually with the supplied lubricant. Observe "Table 1".

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

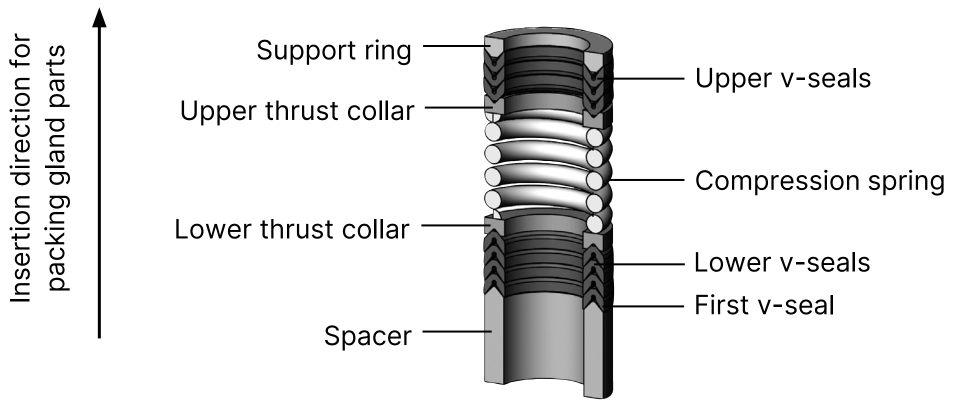
Packing gland for Type 2000, 2012, 2100, 2101 and 2060 with spindle diameter Ø10 mm and Ø14 mm:



Packing gland for Type 2300 and 2301 with spindle diameter Ø10 mm and Ø14 mm:



Packing gland for Type 2101, 2300 and 2301 with spindle diameter Ø22:



Packing gland for Type 2012 and 2712 with spindle diameter Ø22 contains fully lubricated packing gland module. Lubricant OKS.

- Place the packing gland onto the spindle according to the illustration and push it into the packing gland tube.

2.3.3 Mounting the spindle guide

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer’s data sheet specifications.

- Lubricate the thread of the spindle guide. Observe “Table 1”.
- Screw in spindle guide. Note tightening torque values according to “Table 2”.

Spindle diameter	Nominal diameter of valve body	Spindle guide material	Tightening torque [Nm]
10 mm		PEEK	6
	15	Stainless steel	15
	20, 25		25
	32		50
14 mm		PEEK	15
	25	Stainless steel	25
	32 to 50		60
22 mm	65 to 100	Stainless steel	60

Table 2: Spindle guide tightening torque in pneumatically operated valves without control unit

2.4 Mounting the swivel plate/control cone

CAUTION!

Do not damage the seal surface or the control contour of the swivel plate/control cone.

- Place the new swivel plate/control cone and, if needed, the reducing sleeve, onto the spindle.
- Align the bores of the swivel plate/control cone/reducing sleeve and spindle with each other.
- On/off valves:
  Insert the pin into the bore and stake the pin bores on both sides of the swivel plate using a chisel or centre punch.
- Control valves:
  Position the spring pin and carefully drive it in using a hammer. Then bring the spring pin into a central position relative to the spindle axis.

2.5 Screw the actuator onto the valve body

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer's data sheet specifications.

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

- Check seal between actuator and valve body and replace if necessary.
- Type 2002 only: Use sealing tape.
- For stainless steel bodies: apply lubricant to the thread between actuator and valve body. Observe "Table 1".

CAUTION!

Damage to the valve seat seal or the seat contour.

- During installation, the valve must be in the open position.

- Move the valve to the open position.
- Screw the actuator into the valve body. Observe the tightening torques in "Table 3".

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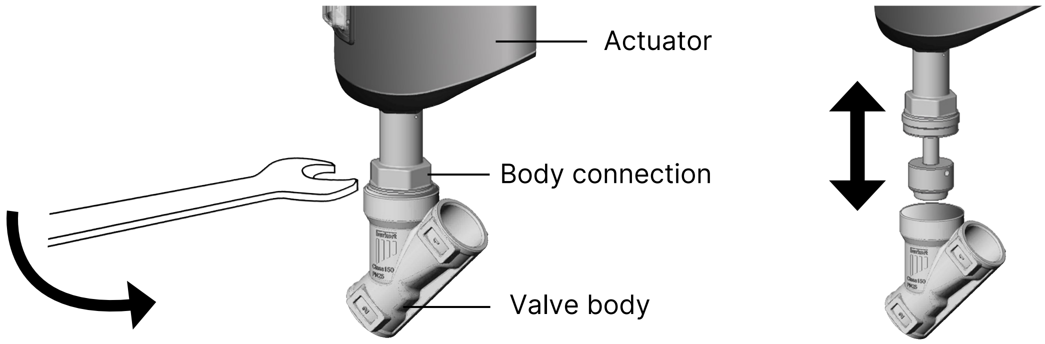
Nominal diameter	Tightening torque
15	45 ±3 Nm
20	50 ±3 Nm
25	60 ±3 Nm
32	65 ±3 Nm
40	65 ±3 Nm

Nominal diameter	Tightening torque
50	70 ±3 Nm
65	100 ±3 Nm
80	120 ±5 Nm
100	150 ±5 Nm

Table 3: Tightening torque for valve body in pneumatically operated valves without control unit

3 Pneumatically operated valves with control unit

3.1 Unscrew actuator from the valve body



CAUTION!

Damage to the valve seat seal or the seat contour.

- When dismantling, the valve must be in the open position.

Type 2000, 2012 and 2060:

- CFA and I: Loosen the external tubing on pilot air port 1 of the valve.
- CFA and I: Pressurise pilot air port 1 of the actuator with compressed air (5 bar).
- Place a suitable open-end wrench on the body connection and unscrew the actuator from the valve body.

Type 2100, 2101, 2300 and 2301:

Precondition: Control unit must be in the MANUAL operating state (MANU).

Manually move the valve to the open position:

a) Control head

- Control head with position feedback indicator (without built-in pilot valve): pressurise with compressed air (5 bar) at port 1 of the control unit.
- Control head with pneumatic control unit (with built-in pilot valve): Pressurise pilot air port 1 of the control unit with compressed air (5 bar) and operate the red hand lever on the pilot valve.
- Positioner or process controller: Switch the process controller to the MANUAL operating state and move the valve manually to the open position.
- Place a suitable open-end wrench on the body connection and unscrew the actuator from the valve body.

b) Side control

- Remove the compressed air supply from the supply pressure connection of position sensor 1 and pressurise manually with 5 bar.
- Place a suitable open-end wrench on the body connection and unscrew the actuator from the valve body.

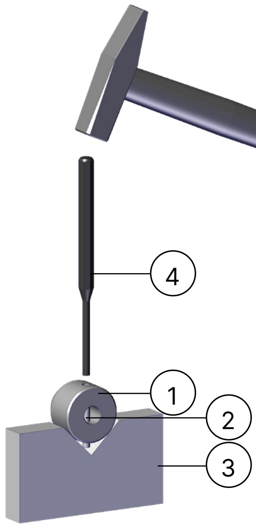
The exact procedure for manually opening the valve depends on the type of control unit. For this, follow the operating instructions for the control unit.

3.2 Dismantle the swivel plate/control cone

- Support the swivel plate/control cone at the cylindrical part using a prism.
- Knock out the pin/spring-type straight pin with a suitable pin punch.
- Pull off the swivel plate/control cone.

CAUTION!

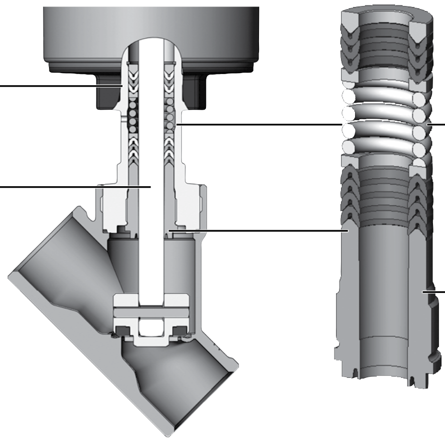
Do not damage the seal surface or the control contour of the swivel plate/control cone.



Position	Description of open/close valves	Description of control valves
1	Swivel plate	Control cone
2	Pin	Spring pin
3	Prism	
4	Pin punch	

3.3 Replacing the spindle guide/packing gland

3.3.1 Dismantling the spindle guide



- Move the valve to the rest position (if necessary, depressurise and vent).
- Unscrew spindle guide using a modified socket wrench.

The requisite tool is not included in the scope of delivery. This can be found on the country.burkert.com website by entering the article number of the respective wearing part set. Please contact the Bürkert sales department with any questions.

3.3.2 Changing the packing gland

This chapter is not applicable if only the spindle guide is being replaced.

- Close the relief bore on the pipe.

WARNING!

Risk of injury from parts being ejected.

- Before pressurising with pilot air, secure the area around the outlet opening (e.g. place the spindle on a solid surface).

- Push the packing gland out.
  For control functions A and I, pressurise pilot air port 1 with 6...8 bar.
  For control function B, pressurise pilot air port 2 with 6...8 bar.

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

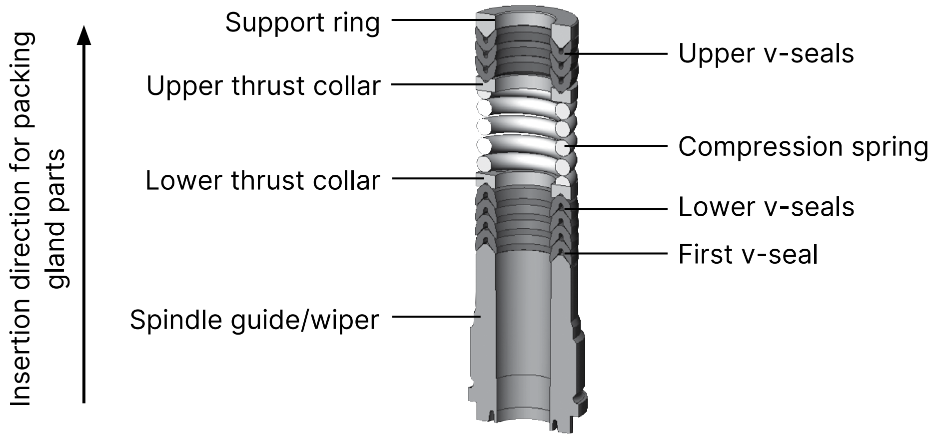
- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer's data sheet specifications.

For the water version up to 200 °C, the material of the first v-seal (with green marking) differs from the material of the remaining v-seals.

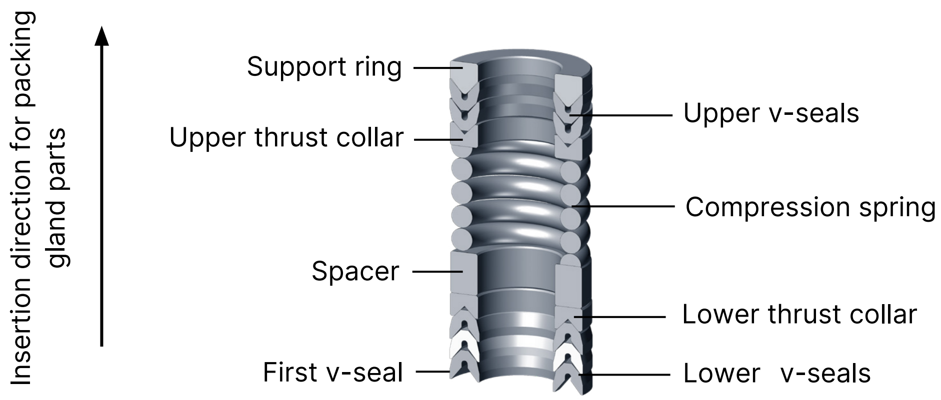
- Grease the v-seals of the new packing gland individually with the supplied lubricant. Observe "Table 1".

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

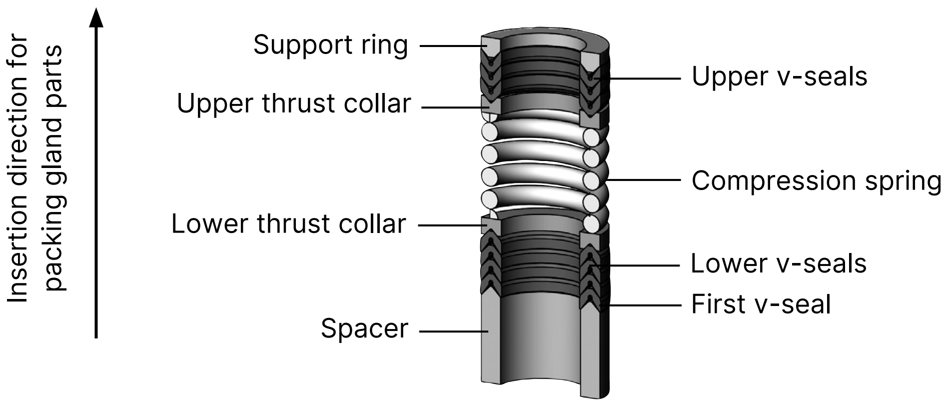
Packing gland for Type 2000, 2012, 2100, 2101 and 2060 with spindle diameter Ø10 mm and Ø14 mm:



Packing gland for Type 2300 and 2301 with spindle diameter Ø10 mm and Ø14 mm:



Packing gland for Type 2101, 2300 and 2301 with spindle diameter Ø22:



Packing gland for Type 2012 and 2712 with spindle diameter Ø22 contains fully lubricated packing gland module. Lubricant OKS.

- Place the packing gland onto the spindle according to the illustration and push it into the packing gland tube.

3.3.3 Mounting the spindle guide

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer's data sheet specifications.

- Lubricate the thread of the spindle guide. Observe "Table 1".
- Screw in spindle guide. Note tightening torque values according to "Table 4".

Spindle diameter	Nominal diameter of valve body	Spindle guide material	Tightening torque [Nm]
10 mm		PEEK	6
	15	Stainless steel	15
	20, 25		25
	32		50
14 mm		PEEK	15
	25	Stainless steel	25
	32 to 50		60
22 mm	65 to 100	Stainless steel	60

Table 4: Tightening torque for spindle guide in pneumatically operated valves with control unit

3.4 Mounting the swivel plate/control cone

CAUTION!

Do not damage the seal surface or the control contour of the swivel plate/control cone.

- Place the new swivel plate/control cone and, if needed, the reducing sleeve, onto the spindle.
- Align the bores of the swivel plate/control cone/reducing sleeve and spindle with each other.
- On/off valves:
  Insert the pin into the bore and stake the pin bores on both sides of the swivel plate using a chisel or centre punch.
- Control valves:
  Position the spring pin and carefully drive it in using a hammer. Then bring the spring pin into a central position relative to the spindle axis.

3.5 Screw the actuator onto the valve body

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer's data sheet specifications.

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

- Check seal between actuator and valve body and replace if necessary.
- Type 2002 only: Use sealing tape.
- For stainless steel bodies: apply lubricant to the thread between actuator and valve body. Observe "Table 1".

CAUTION!

Damage to the valve seat seal or the seat contour.

- During installation, the valve must be in the open position.

- Move the valve to the open position.
- Screw the actuator into the valve body. Observe the tightening torques in "Table 5".

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Nominal diameter	Tightening torque
15	45 ±3 Nm
20	50 ±3 Nm
25	60 ±3 Nm
32	65 ±3 Nm
40	65 ±3 Nm

Nominal diameter	Tightening torque
50	70 ±3 Nm
65	100 ±3 Nm
80	120 ±5 Nm
100	150 ±5 Nm

Table 5: Tightening torque for valve body in pneumatically operated valves with control unit

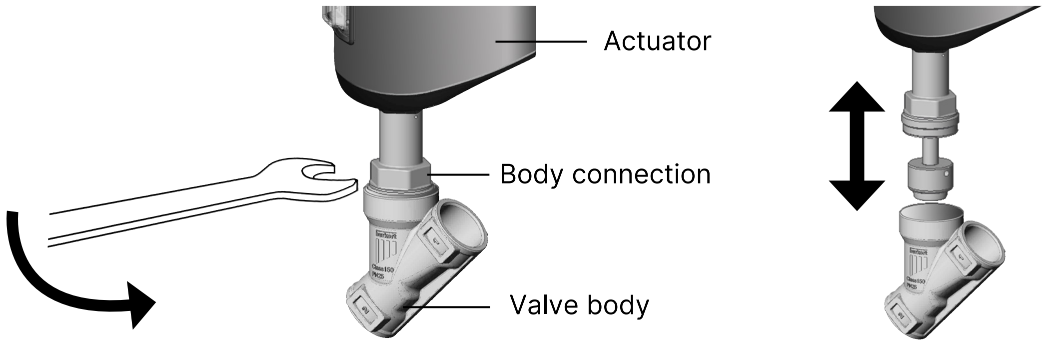
3.6 Execute X.TUNE or teach function

- After installing the actuator, execute X.TUNE or teach function to ensure that the valve closes tightly.

For detailed information on X.TUNE or the teach function, refer to the relevant operating instructions for your control unit.

4 Type 3320, 3321, 3360 and 3361 electromotive valves

4.1 Unscrew actuator from the valve body



CAUTION!

Damage to the valve seat seal or the seat contour.

- When dismantling, the valve must be in the open position.

4.1.1 Opening the valve electrically

Precondition: Device must be in MANUAL operating state.

Device with display module:

- Press the upper navigation button to open the valve.
- Switch off the supply voltage. Wait until the LED goes out.
- Place a suitable open-end wrench on the body connection and unscrew the actuator from the valve body.

Devices without display module:

- Turn the blind cover and remove it.
- Press the OPEN key until the valve is completely open.
- Switch off the supply voltage. Wait until the LED ring goes out.
- Place a suitable open-end wrench on the body connection and unscrew the actuator from the valve body.

4.1.2 Open valve mechanically

Precondition: valve must be de-energised.

In the de-energised state, the mechanical manual override can be used. Observe the exact description in the respective operating instructions for your unit.

- Turn and remove the blind cover or display module.
- Apply light pressure to engage the manual override and turn it anticlockwise with the appropriate Allen key until the valve is open.
- Place a suitable open-end wrench on the body connection and unscrew the actuator from the valve body.

For fieldbus gateway variants, the fieldbus module must be removed. Observe the exact description in the respective operating instructions for your unit.

4.2 Dismantle the swivel plate/control cone

- Support the swivel plate/control cone at the cylindrical part using a prism.
- Knock out the pin/spring-type straight pin with a suitable pin punch.
- Pull off the swivel plate/control cone.

CAUTION!

Do not damage the seal surface or the control contour of the swivel plate/control cone.

Position	Description of open/close valves	Description of control valves
1	Swivel plate	Control cone
2	Pin	Spring pin
3	Prism	
4	Pin punch	

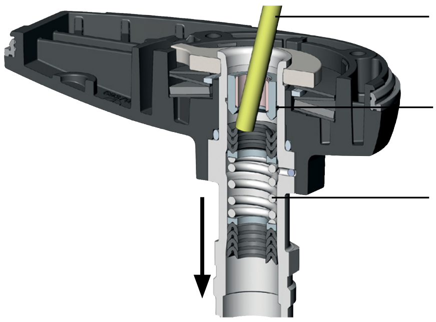
4.3 Replacing the spindle guide/packing gland

4.3.1 Valves with connection size 10 or 15 (DN4-15) or vacuum variants

- Clamp the body connection in a holding device.
- Loosen the 4 screws on the actuator base (Torx TX25).
- Pull the actuator together with the spindle out of the actuator base.
  Depending on the condition of the packing gland, the spindle may be stuck in the actuator base.
- Unscrew spindle guide using a modified socket wrench.

The requisite tool is not included in the scope of delivery. This can be found on the home page country.burkert.com by entering the article number of the wearing part set. Please contact the sales department with any questions.

- Using a suitable tool (e.g. screwdriver), carefully push out the packing gland.
  Caution: Do not damage the guide!



4.3.2 Valves with connection sizes of 20 to 100

- Unscrew spindle guide using a modified socket wrench.

The requisite tool is not included in the scope of delivery. This can be found on the home page country.burkert.com by entering the article number of the wearing part set. Please contact the sales department with any questions.

4.3.3 Changing the packing gland

This chapter is not applicable if only the spindle guide is being replaced.

DANGER!

Risk due to parts being ejected.

When compressed air is applied to the relief bore, the individual parts of the packing gland are ejected at an unpredictable speed.

- Before applying compressed air, secure the area around the outlet.

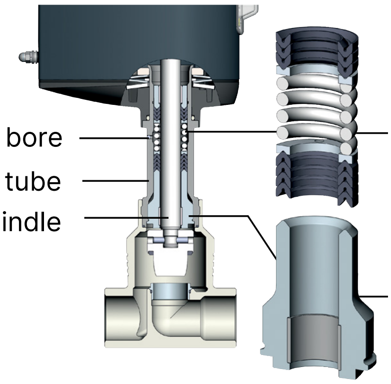
Not all individual parts of the packing gland are ejected by applying compressed air. The upper v-seals remain in the packing gland tube. Only the individual parts that have been pushed out can be replaced.

- Place the spindle on a firm surface.
- Pressurise the relief bore with approx. 6 bar of compressed air.

CAUTION!

Individual parts of the packing gland can get stuck in the threaded part of the packing gland tube. The individual parts can be made accessible as follows:

1. Before applying compressed air to the relief bore: Move the spindle to the upper position using the mechanical manual override.
2. After applying compressed air to the relief bore: Move the spindle to the lower position using the mechanical manual override.



DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer’s data sheet specifications.

For the water version up to 200 °C, the material of the first v-seal (with green marking) differs from the material of the remaining v-seals.

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

- Grease the v-seals of the new packing gland individually with the supplied lubricant. Observe “Table 1”.

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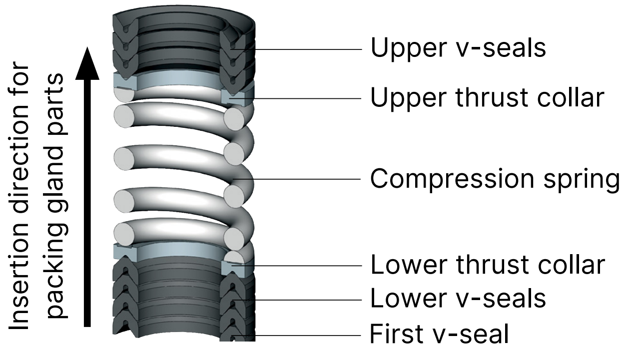


- Place the packing gland box onto the spindle and push it into the packing gland tube.

4.3.4 Mounting the spindle guide

- Move the actuator to the open position with the mechanical manual override.
- Lubricate the thread of the spindle guide. Observe “Table 1”.
- Screw in spindle guide. Observe the tightening torques in “Table 6”.

On/off valve Type 3320 and 3321	
Valve body	Tightening torque
DN15 (N1)–DN40 (N5)	6 Nm
DN50 (N6)	15 Nm
DN65 (N7)–DN100 (N9)	60 Nm

Control valve Type 3360 and 3361	
Valve body	Tightening torque
DN15 (N1)	15 Nm
DN20 (N2)–DN25 (N3)	25 Nm
DN32 (N4)–DN100 (N9)	60 Nm

Table 6: Tightening torque for spindle guide in electromotive valves

4.4 Mounting the swivel plate/control cone

CAUTION!

Do not damage the seal surface or the control contour of the swivel plate/control cone.

- Place the new swivel plate/control cone and, if needed, the reducing sleeve onto the spindle.
- Align the bores of the swivel plate/control cone/reducing sleeve and spindle with each other.
- On/off valves:
  Insert the pin into the bore and stake the pin bores on both sides of the swivel plate using a chisel or centre punch.
- Control valves:
  Position the spring pin and carefully drive it in using a hammer. Then bring the spring-type straight pin into a central position in relation to the spindle axis.

4.5 Screw the actuator onto the valve body

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer's data sheet specifications.

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

- Check seal between actuator and valve body and replace if necessary.
- For stainless steel bodies: apply lubricant to the thread between actuator and valve body. Observe "Table 1".

CAUTION!

Damage to the valve seat seal or the seat contour.

- During installation, the valve must be in the open position.

- Move the valve to the open position.
- Screw the actuator into the valve body. Observe the tightening torques in "Table 7".

Nominal diameter	Tightening torque
15	45 ±3 Nm
20	50 ±3 Nm
25	60 ±3 Nm
32	65 ±3 Nm
40	65 ±3 Nm

Nominal diameter	Tightening torque
50	70 ±3 Nm
65	100 ±3 Nm
80	120 ±5 Nm
100	150 ±5 Nm

Table 7: Tightening torque for valve body in electromotive valves

4.6 Execute X.TUNE or teach function

- After installing the actuator, execute X.TUNE to ensure that the valve closes tightly.

For detailed information on X.TUNE or the teach function, refer to the relevant operating instructions for your control unit.

5 Manually operated valve Type 2920, 2921, 2960 and 2961

5.1 Unscrew actuator from the valve body

CAUTION!

Damage to the valve seat seal or the seat contour.

- When dismantling, the valve must be in the open position.

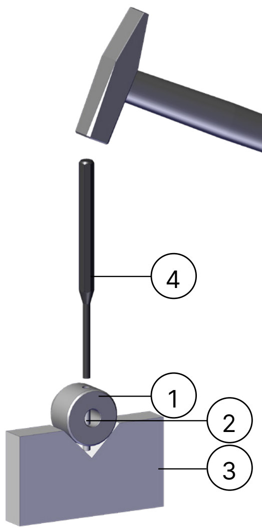
- Turn the valve approx. twice to open it and to release the valve seat seal.
- Place a suitable open-end wrench on the body connection and unscrew the actuator from the valve body.

5.2 Dismantle the swivel plate/control cone

- Support the swivel plate/control cone at the cylindrical part using a prism.
- Knock out the pin/spring-type straight pin with a suitable pin punch.
- Pull off the swivel plate/control cone.

CAUTION!

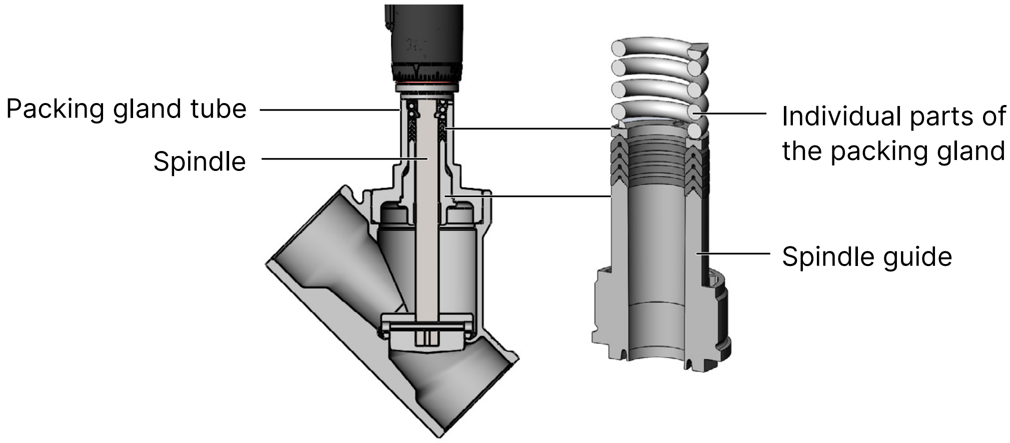
Do not damage the seal surface or the control contour of the swivel plate/control cone.



Position	Description of open/close valves	Description of control valves
1	Swivel plate	Control cone
2	Pin	Spring pin
3	Prism	
4	Pin punch	

5.3 Replacing the spindle guide/packing gland

5.3.1 Dismantling the spindle guide



- Close valve (turn clockwise until it stops turning).
- Unscrew spindle guide using a modified socket wrench.

The requisite tool is not included in the scope of delivery. This can be found on the home page country.burkert.com by entering the article number of the wearing part set. Please contact the sales department with any questions.

5.3.2 Changing the packing gland

This chapter is not applicable if only the spindle guide is being replaced.

DANGER!

Risk due to parts being ejected.

When compressed air is applied to the relief bore, the individual parts of the packing gland are ejected at an unpredictable speed.

- Before applying compressed air, secure the area around the outlet.

- To push out the packing gland,
  pressurise the relief bore with 6...8 bar compressed air.

Caution! More components than required are delivered.

DANGER!

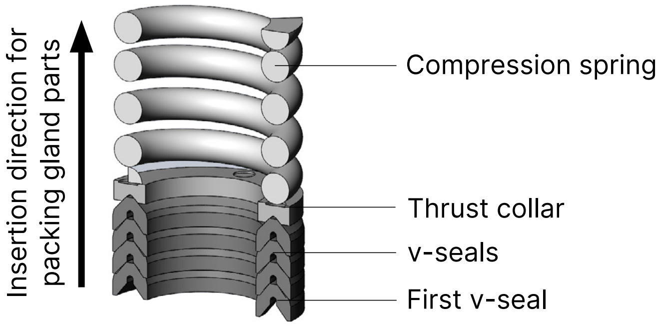
Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer’s data sheet specifications.

For the water version up to 200 °C, the material of the first v-seal (with green marking) differs from the material of the remaining v-seals.

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.



- Place the packing gland onto the spindle according to the illustration and push it into the packing gland tube.

5.3.3 Mounting the spindle guide

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer’s data sheet specifications.

- Lubricate the thread of the spindle guide. Observe “Table 1”.

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

- Screw in spindle guide. Observe the tightening torques in “Table 8”.

Spindle diameter	Nominal diameter of valve body	Spindle guide material	Tightening torque [Nm]
10 mm		PEEK	6
	15	Stainless steel	15
	20, 25		25
	32		50
14 mm		PEEK	15
	25	Stainless steel	25
	32 to 50		60
22 mm	65 to 100	Stainless steel	60

Table 8: Tightening torque for spindle guide in manually operated valves

5.4 Mounting the swivel plate/control cone

CAUTION!

Do not damage the seal surface or the control contour of the swivel plate/control cone.

- Place the new swivel plate/control cone and, if needed, the reducing sleeve onto the spindle.
- Align the bores of the swivel plate/control cone/reducing sleeve and spindle with each other.
- On/off valves:
  Insert the pin into the bore and stake the pin bores on both sides of the swivel plate using a chisel or centre punch.
- Control valves:
  Position the spring pin and carefully drive it in using a hammer. Then bring the spring-type straight pin into a central position in relation to the spindle axis.

5.5 Screw the actuator onto the valve body

DANGER!

Danger due to lubricant.

Lubricant may contaminate the medium. There is a risk of explosion in oxygen applications.

- Only use lubricants that are suitable for the application. Please contact the Bürkert sales department with any questions.
- Observe the lubricant manufacturer's data sheet specifications.

- Check seal between actuator and valve body and replace if necessary.
- For stainless steel bodies: apply lubricant to the thread between actuator and valve body. Observe "Table 1".

Use only the lubricants approved by Bürkert. Please contact the Bürkert sales department with any questions.

CAUTION!

Damage to the valve seat seal or the seat contour.

- During installation, the valve must be in the open position.

- Move the valve to the open position.
- Screw the actuator into the valve body. Observe the tightening torques in "Table 9".

Nominal diameter	Tightening torque
15	45 ±3 Nm
20	50 ±3 Nm
25	60 ±3 Nm
32	65 ±3 Nm
40	65 ±3 Nm

Nominal diameter	Tightening torque
50	70 ±3 Nm
65	100 ±3 Nm
80	120 ±5 Nm
100	150 ±5 Nm

Table 9: Tightening torque for valve body in manually operated valves