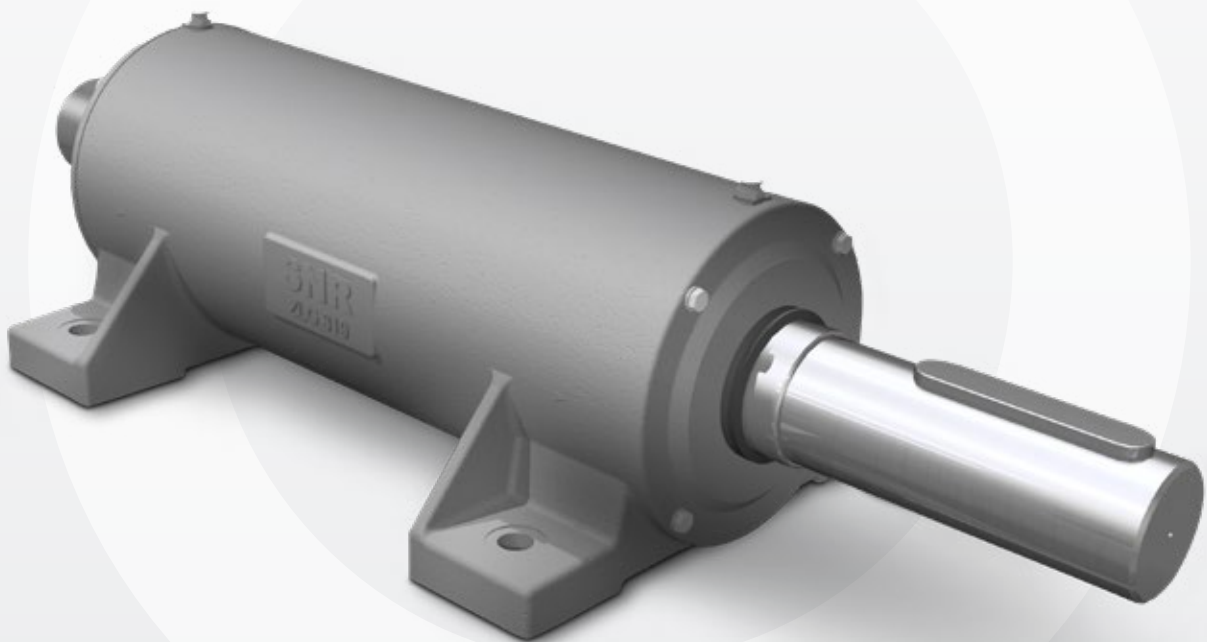




Brand of **NTN Group**

# ASSEMBLY INSTRUCTIONS FOR SNR GREASE LUBRICATED MULTI-BEARING HOUSINGS

ZLG/DLG Series





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# 1. General information

Multi-bearing housings can accommodate two or more rolling bearings. This housing series is particularly suitable for use in applications with high operating speeds and/or high loads. These housings can be configured in a variety of ways by fitting different bearing combinations.

The advantage of this design is that there is no need to align individual plunger block housings with each other and misalignment can be ruled out.

All housings are fitted with grooves for O-rings at the bearing positions. The O-rings required for this are not included in the scope of delivery but can be used depending on the application. The corresponding sizes can be found in the table in chapter 9.

## 2. Assembly preparation



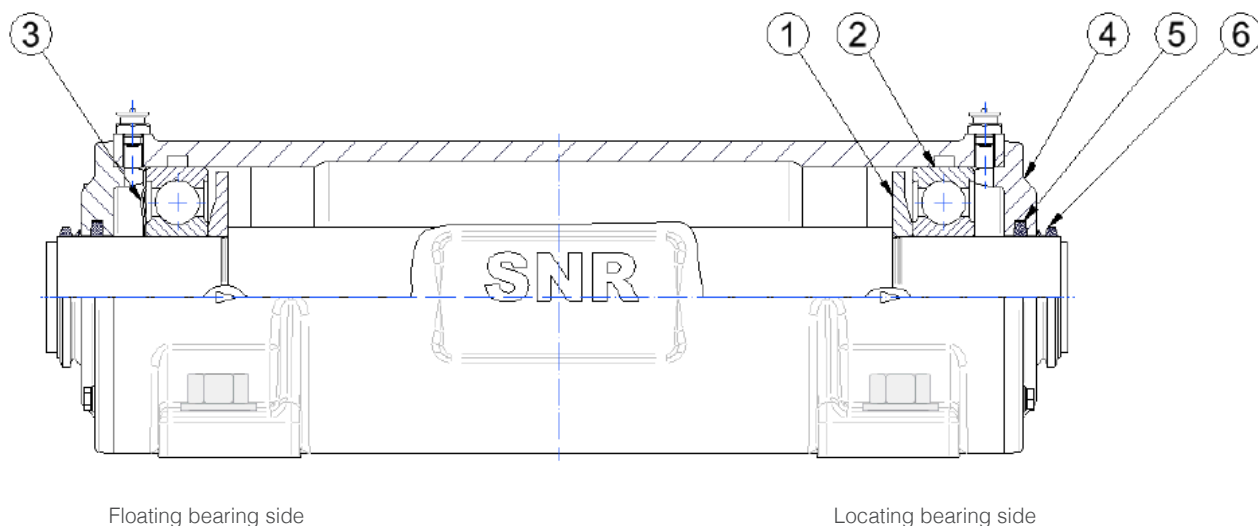
**To avoid personal injury and damage to property during installation, the general safety regulations must be observed!**

1. It must be ensured that the installation is carried out in a dust-free and dry environment.
2. The workplace or assembly area must be cleaned before starting assembly. Make sure that clean tools are used and that all safety instructions for the tools used for assembly are known.  
Please avoid the use of compressed air during assembly.
3. Check the housing body, housing cover, grease regulation disc and shaft for cleanliness.
4. Place the felt ring seals mineral oil at approx. 80°C so that the felt can become completely saturated with oil.
5. Only remove the rolling bearings from their original packaging immediately before mounting, once all preparatory work has been completed. It is not necessary to remove the anti-corrosion oil from the bearings.
6. A surface roughness of Rz 100 and a flatness of IT7/2 are recommended for the adjacent construction.

# 3. Assembly

## Type AA

### 2x deep groove ball bearing



#### Mounting the shaft unit

1. Clamp the shaft firmly into a three-jaw chuck or suitable piece of pipe with the fixed bearing side facing upwards. The shaft surface must be protected from damage in the holding device area.



**To prevent the risk of accidents, make sure that the shaft is securely fixed during the assembly process.**

2. Heat a grease regulation disc (item 1) to approx. 100°C using an induction heating device such as the Smart-Temp from SNR to approx. 100°C and slide it towards the shaft shoulder as shown in the illustration. Hold in position until it cools down.
3. Remove the first deep groove ball bearing (item 2) from the packaging and heat it to approx. 100°C using an induction heating device. Then mount the bearing on the shaft so that the designation on the bearing inner ring points towards the shaft end. Hold the bearing in position against the grease regulation disc until it has cooled down.
4. Turn the shaft through 180° and clamp it into the holding device with the floating bearing side facing upwards.
5. Heat the second grease regulation disc to approx. 100°C using an induction heating device and mount it in the direction of the shaft shoulder as shown in the illustration. Hold in position until it has cooled down.
6. Remove the second deep groove ball bearing from the packaging, heat it to approx. 100°C using the induction heating device and also fit it with the designation towards the shaft end. Hold in position against the grease regulation disc until it has cooled down.
7. Preserve the centre area of the shaft and the grease regulation disc with long-term corrosion protection agent.

8. After cooling down, grease the bearings (item 2) so that the entire free space is completely filled with lubricant. Turning the bearing at the same time helps to distribute the lubricant into all gaps.



*Depending on the application, the high-performance multi-purpose grease LUB HEAVY DUTY, LUB UNIVERSAL or SHELL GADUS S2 V100 2 is recommended as a possible lubricant.*

*For applications outside the standard range, please ask our application engineers for the appropriate grease type.*

*→ Grease quantities can be found in the table in chapter 6.*

9. The pre-assembled shaft must be stored safely and protected from dirt until it is installed.

## Mounting in the housing

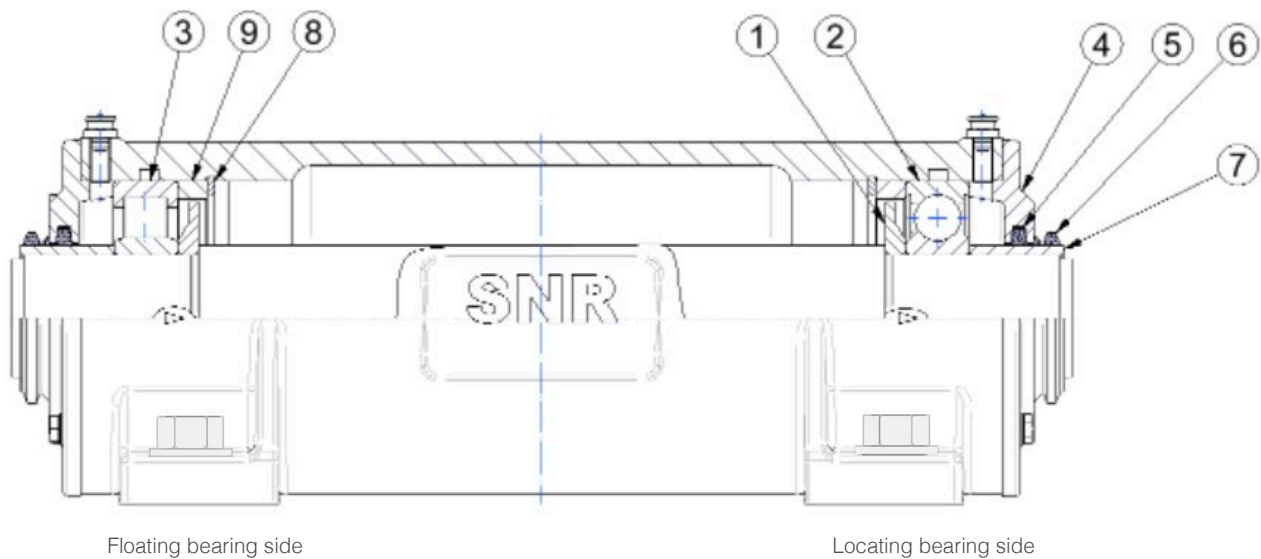
When installing the shaft unit in the housing, ensure that:

- the interior of the housing is cleaned before installation.
- the direction of the arrow on the housing corresponds to the axial load direction.
- the shaft is guided securely during insertion.
- optional O-rings (see chapter 9) should be lightly greased before installation.

1. Insert the prepared felt rings (item 5) into the grooves of the housing cover (item 4).
2. Fill the first cover (item 4) with lubricant (optionally via grease nipple) and fit it to the housing on the fixed bearing side with the recess facing upwards. Tighten the cover screws evenly according to the table (chapter 4).
3. Mount the pre-assembled shaft unit into the floating bearing side of the housing with the locating bearing side first.
4. Fit the spring washer (item 3) in front of the floating bearing.
5. Fill the second cover (item 4) with lubricant. Fit this to the housing with the recess facing upwards. Tighten the cover screws evenly according to the table (chapter 4).
6. Carefully wipe off grease residues from the shaft shoulder.
7. Push the V-ring seals (item 6) onto the shaft until the sealing lip is evenly and lightly in contact with the cover. Ensure that the sealing lip is greased.
8. Screw the housing crosswise onto the bracket using the recommended tightening torque (chapter 4).

# Type AB

## Cylindrical roller bearing NU / deep groove ball bearing



### Mounting the shaft unit

1. Clamp the shaft firmly into a three-jaw chuck or suitable piece of pipe with the fixed bearing side facing upwards. The shaft surface must be protected from damage in the holding device area.



**To prevent the risk of accidents, make sure that the shaft is securely fixed during the assembly process.**

2. Heat a grease regulation disc (item 1) to approx. 100°C using an induction heating device such as the Smart-Temp from SNR and slide it towards the shaft shoulder as shown in the illustration. Hold in position until it cools down.
3. Remove the deep groove ball bearing (item 2) from the packaging and heat it to approx. 100°C using an induction heating device. Then mount the bearing on the shaft so that the designation on the bearing inner ring points towards the shaft end. Hold the bearing in position against the grease regulation disc until it has cooled down.
4. Heat the first sleeve\* (item 7) and mount it on the shaft shoulder against the bearing inner ring. Hold in position until it has cooled down.  
*\* The sleeves are not part of the components provided. Production is the responsibility of the customer and depends on the respective adjacent construction.*
5. Turn the shaft through 180° and clamp it into the holding device with the floating bearing side facing upwards.
6. Heat the second grease regulation disc to approx. 100°C using an induction heating device and mount it in the direction of the shaft shoulder as shown in the illustration. Hold in position until it has cooled down.
7. Remove the inner ring of the cylindrical roller bearing (item 3) from the packaging. Heat the bearing ring to approx. 100°C using the induction heating device and mount it on the shaft with the designation facing outwards. Hold in position against the grease regulation disc until it has cooled down.
8. Heat the second sleeve\* (item 7) and mount it on the shaft shoulder against the bearing inner ring. Hold in position until it has cooled down.

9. Preserve the centre area of the shaft and the grease regulation disc with long-term corrosion protection agent.
10. Grease the deep groove ball bearing (item 2) so that the entire free space is completely filled with lubricant. Turning the bearing at the same time helps to distribute the lubricant into all gaps.



*Depending on the application, the high-performance multi-purpose grease LUB HEAVY DUTY, LUB UNIVERSAL or SHELL GADUS S2 V100 2 is recommended as a possible lubricant.*

*For applications outside the standard range, please ask our application engineers for the appropriate grease type.*

→ *Grease quantities can be found in the table in chapter 6.*

11. The pre-assembled shaft must be stored safely and protected from dirt until it is installed.

## Mounting in the housing

When installing the shaft unit in the housing, ensure that:

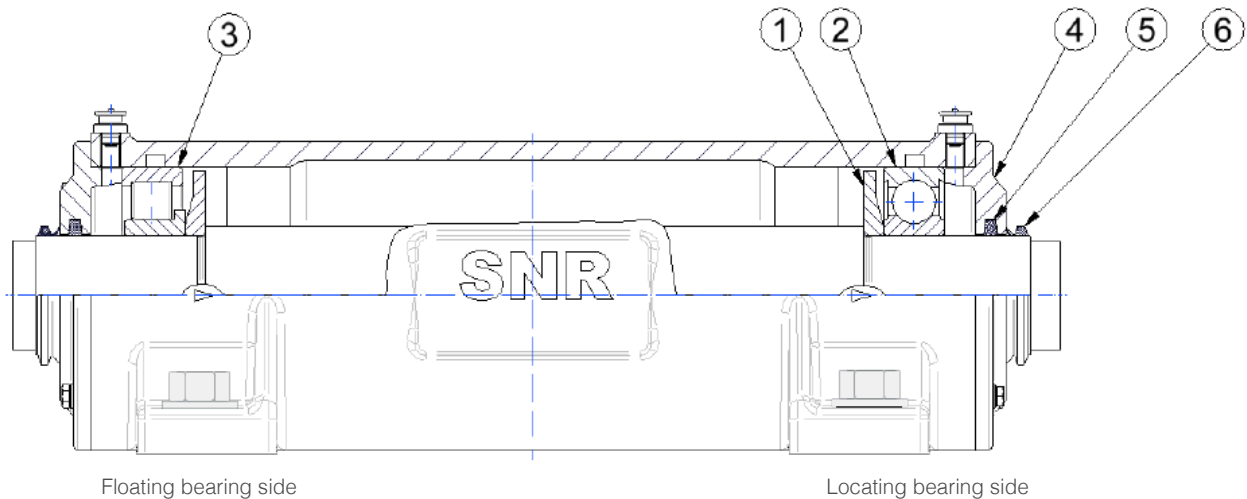
- the interior of the housing is cleaned before installation.
- the shaft is guided securely during insertion.
- optional O-rings (see chapter 9) should be lightly greased before installation.

1. Insert the retaining rings (item 8) into the corresponding grooves in the housing.
2. Fit the spacer rings (item 9) so that they lie flat against the retaining rings.
3. The pre-assembled shaft unit is mounted into the locating bearing side of the housing with the floating bearing side first.
4. Completely fill the outer ring and the roller and cage assembly of the cylindrical roller bearing (item 3) with grease and mount them in the housing with the designation facing outwards. Carefully push the bearing elements over the inner ring up against the spacer ring (item 9). Turn the shaft so that the rolling elements do not jam.
5. Insert the prepared felt rings (item 5) into the grooves of the housing cover (item 4).
6. Fill both covers (item 4) with lubricant (optionally via grease nipple) and fit to the housing with the recess facing upwards. Tighten the cover screws evenly according to the table (chapter 4).
7. Carefully wipe off grease residues from the shaft shoulder.
8. Push the V-ring seals (item 6) onto the sleeve until the sealing lip is evenly and lightly in contact with the cover. Ensure that the sealing lip is greased.
9. Screw the housing crosswise onto the bracket using the recommended tightening torque (chapter 4).



# Type AC

## Cylindrical roller bearing NJ / deep groove ball bearing



### Mounting the shaft unit

1. Clamp the shaft firmly into a three-jaw chuck or suitable piece of pipe with the fixed bearing side facing upwards. The shaft surface must be protected from damage in the holding device area.



**To prevent the risk of accidents, make sure that the shaft is securely fixed during the assembly process.**

2. Heat a grease regulation disc (item 1) to approx. 100°C using an induction heating device such as the Smart-Temp from SNR and slide it towards the shaft shoulder as shown in the illustration. Hold in position until it cools down.
3. Remove the deep groove ball bearing (item 2) from the packaging and heat it to approx. 100°C using the induction heating device. Then mount the bearing on the shaft so that the designation on the bearing inner ring points towards the shaft end. Hold the bearing in position against the grease regulation disc until it has cooled down.
4. Turn the shaft through 180° and clamp it into the holding device with the floating bearing side facing upwards.
5. Heat the second grease regulation disc to approx. 100°C using an induction heating device and mount it in the direction of the shaft shoulder as shown in the illustration. Hold in position until it has cooled down.
6. Remove the inner ring of the cylindrical roller bearing (item 3) from the packaging. Heat the bearing ring to approx. 100°C using the induction heating device and mount it on the shaft with the wide inner ring side facing the grease regulation disc. Hold in position against the grease regulation disc until it has cooled down.
7. Preserve the centre area of the shaft and the grease regulation disc with long-term corrosion protection agent.

- Grease the deep groove ball bearing (item 2) so that the entire free space is completely filled with lubricant. Turning the bearing at the same time helps to distribute the lubricant into all gaps.



*Depending on the application, the high-performance multi-purpose grease LUB HEAVY DUTY, LUB UNIVERSAL or SHELL GADUS S2 V100 2 is recommended as a possible lubricant.*

*For applications outside the standard range, please ask our application engineers for the appropriate grease type.*

→ *Grease quantities can be found in the table in chapter 6.*

- The pre-assembled shaft must be stored safely and protected from dirt until it is installed.

## Mounting in the housing

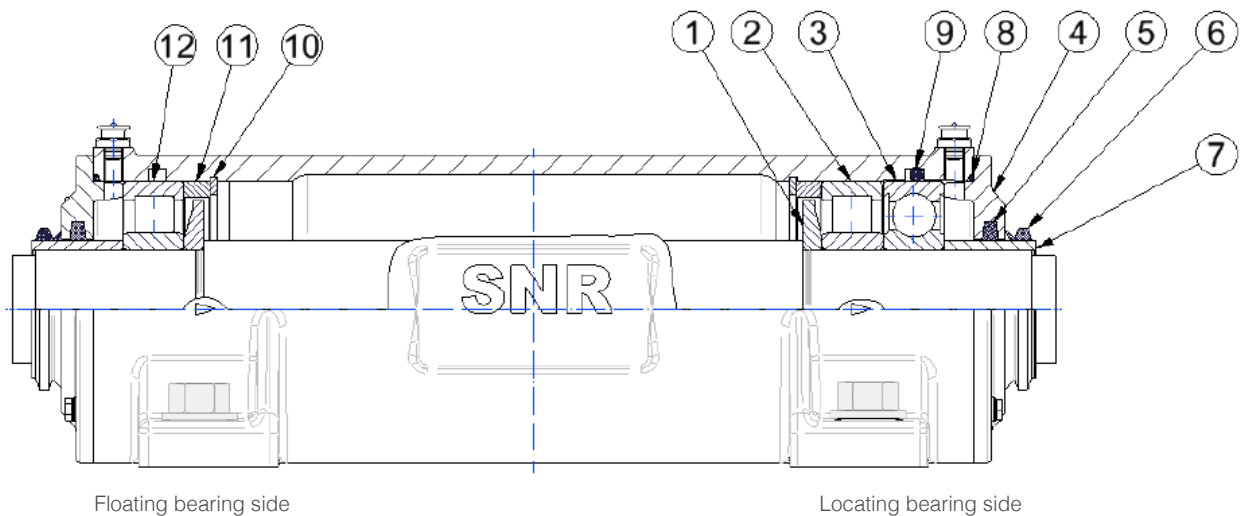
When installing the shaft unit in the housing, make sure that:

- the interior of the housing is cleaned before installation.
- the direction of the arrow on the housing corresponds to the axial load direction.
- the shaft is guided securely during insertion.
- optional O-rings (see chapter 9) should be lightly greased before installation.

- The pre-assembled shaft unit is mounted into the locating bearing side of the housing with the floating bearing side first
- Completely fill the outer ring and the roller and cage assembly of the cylindrical roller bearing (item 3) with grease and mount them in the housing with the designation facing outwards. Carefully slide the bearing elements over the inner ring up to the flange. Turn the shaft so that the rolling elements do not jam.
- Insert the prepared felt rings (item 5) into the grooves of the housing cover (item 4).
- Fill both covers (item 4) with lubricant (optionally via grease nipple) and fit to the housing with the recess facing upwards. Tighten the cover screws evenly according to the table (chapter 4).
- Carefully wipe off grease residues from the shaft shoulder.
- Push the V-ring seals (item 6) onto the shaft until the sealing lip is evenly and lightly in contact with the cover. Ensure that the sealing lip is greased.
- Screw the housing crosswise onto the bracket using the recommended tightening torque (chapter 4).

# Type AD

## Deep groove ball bearing / 2x cylindrical roller bearing



### Mounting the shaft unit

1. Clamp the shaft firmly into a three-jaw chuck or suitable piece of pipe with the fixed bearing side facing upwards. The shaft surface must be protected from damage in the holding device area.



**To prevent the risk of accidents, make sure that the shaft is securely fixed during the assembly process.**

2. Heat a grease regulation disc (item 1) to approx. 100°C using an induction heating device such as the Smart-Temp from SNR and slide it towards the shaft shoulder as shown in the illustration. Hold in position until it cools down.
3. Remove the cylindrical roller bearing (item 2) from the packaging and heat the inner ring to approx. 100°C using the induction heating device. Slide the designation onto the shaft, pointing towards the shaft end, and hold it in position against the grease regulation disc until it has cooled down. Fill the outer ring and the roller and cage assembly completely with grease (designation facing outwards) and carefully slide over the inner ring.
4. Remove the deep groove ball bearing (item 3) from the packaging and heat to approx. 100°C using the induction heating device. Then slide it onto the shaft (with the designation towards the shaft end) and hold it in position against the inner ring of the cylindrical roller bearing until it has cooled down.
5. Grease the bearing after it has cooled down so that the entire free space is completely filled with lubricant. Turning the bearing at the same time helps to distribute the lubricant into all gaps.



Depending on the application, the high-performance multi-purpose grease LUB HEAVYDUTY, LUB UNIVERSAL or SHELL GADUS S2 V100 2 is recommended as a possible lubricant.

For applications outside the standard range, please ask our application engineers for the appropriate grease type.

→ Grease quantities can be found in the table in chapter 6.

6. Heat the first sleeve\* (item 7) and mount it on the shaft shoulder up to the inner ring of the deep groove ball bearing. Hold in position until it has cooled down.  
\* *The sleeves are not part of the components provided. Production is the responsibility of the customer and depends on the respective adjacent construction.*
7. Turn the shaft through 180° and clamp it into the holding device with the floating bearing side facing upwards.
8. Heat the second grease regulation disc to approx. 100°C using an induction heating device and mount it in the direction of the shaft shoulder as shown in the illustration. Hold in position until it has cooled down.
9. Remove the inner ring of the cylindrical roller bearing (item 12) from the packaging. Heat the bearing ring to approx. 100°C using the induction heating device and mount it on the shaft with the designation facing outwards. Hold in position against the grease regulation disc until it has cooled down.
10. Heat the second sleeve\* (item 7) and mount it on the shaft shoulder against the bearing inner ring. Hold in position until it has cooled down.
11. Preserve the centre area of the shaft and the grease regulation disc with long-term corrosion protection agent.
12. The pre-assembled shaft must be stored safely and protected from dirt until it is installed.

## Mounting in the housing

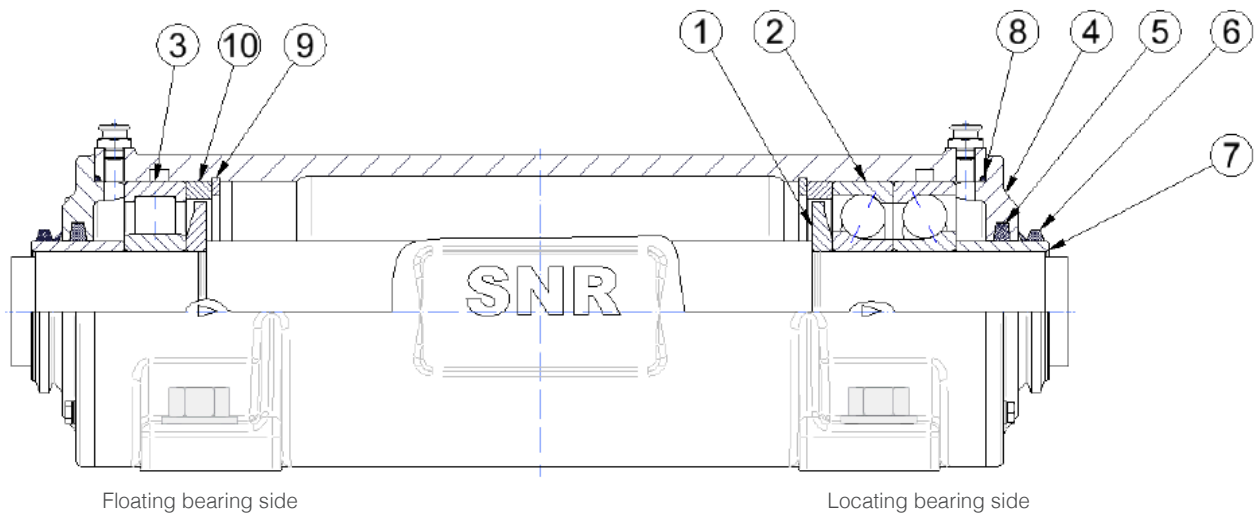
When installing the shaft unit in the housing, make sure that:

- the interior of the housing is cleaned before installation.
- the shaft is guided securely during insertion.
- O-rings should be lightly greased before assembly.

1. Insert the retaining rings (item 10) into the corresponding grooves in the housing.
2. Fit the spacer rings (item 11) so that they lie flat against the retaining rings.
3. The pre-assembled shaft unit is fitted into the locating bearing side of the housing with the floating bearing side first.
4. After the floating bearing has passed the locating bearing seat, the greased O-ring (item 9) is inserted into the groove in the bearing seat on the locating bearing side.
5. Slide the shaft to the final position.
6. On the floating bearing side, fit the outer ring and roller and cage assembly of the cylindrical roller bearing (item 12), completely filled with grease, into the housing with the designation facing outwards. Carefully slide the bearing elements over the inner ring up to the spacer ring (item 11). Turn the shaft so that the rolling elements do not jam.
7. Insert the prepared felt rings (item 5) into the grooves of the housing cover (item 4). Slide the two greased O-rings (item 8) over the centring of the housing cover until they rest against the flange.
8. Fill both covers (item 4) with lubricant (optionally via grease nipple) and fit to the housing with the recess facing upwards. Tighten the cover screws evenly according to the table (chapter 4).
9. Carefully wipe off grease residues from the shaft shoulder.
10. Push the V-ring seals (item 6) onto the sleeve until the sealing lip is evenly and lightly in contact with the cover. Ensure that the sealing lip is greased.
11. Screw the housing crosswise onto the bracket using the recommended tightening torque (chapter 4).

# Type AE

## Cylindrical roller bearing / 2x angular contact ball bearing



### Mounting the shaft unit

1. Clamp the shaft firmly into a three-jaw chuck or suitable piece of pipe with the fixed bearing side facing upwards. The shaft surface must be protected from damage in the holding device area.



**To prevent the risk of accidents, make sure that the shaft is securely fixed during the assembly process.**

2. Heat a grease regulation disc (item 1) to approx. 100°C using an induction heating device and slide it towards the shaft shoulder as shown in the illustration. Hold in position until it cools down.
3. Remove the first angular contact ball bearing (item 2) from the packaging, heat it to approx. 100°C using an induction heating device (e.g. the Smart-Temp from SNR) and fit it with the high inner ring collar facing the grease regulation disc. Hold the bearing flat against the grease regulation disc until it has cooled down. Then grease the cooled bearing so that the entire free space is completely filled with lubricant. Turning the bearing at the same time helps to distribute the lubricant into all gaps.



Depending on the application, the high-performance multi-purpose grease LUB HEAVY DUTY, LUB UNIVERSAL or SHELL GADUS S2 V100 2 is recommended as a possible lubricant.

For applications outside the standard range, please ask our application engineers for the appropriate grease type.

→ Grease quantities can be found in the table in chapter 6.

4. Remove the second angular contact ball bearing from the packaging, heat it up and fit it with the high inner ring collar towards the shaft end. Hold in position, lying flat against the inner ring of the already mounted bearing, until it has cooled down. Then grease (see previous point).
5. Heat the first sleeve\* (item 7) and mount it on the shaft shoulder on the inner ring of the angular contact ball bearing. Hold in position until it has cooled down.  
*\* The sleeves are not part of the components provided. Production is the responsibility of the customer and depends on the respective adjacent construction.*
6. Turn the shaft through 180° and clamp it into the holding device with the floating bearing side facing upwards.

7. Heat the second grease regulation disc to approx. 100°C using an induction heating device and mount it in the direction of the shaft shoulder as shown in the illustration. Hold in position until it has cooled down.
8. Remove the inner ring of the cylindrical roller bearing (item 3) from the packaging. Heat the bearing ring to approx. 100°C using the induction heating device and mount it on the shaft with the designation facing outwards. Hold in position against the grease regulation disc until it has cooled down.
9. Heat the second sleeve\* (item 7) and mount it on the shaft shoulder against the bearing inner ring. Hold in position until it has cooled down.
10. Preserve the centre area of the shaft and the grease regulation disc with long-term corrosion protection agent.
11. The pre-assembled shaft must be stored safely and protected from dirt until it is installed.

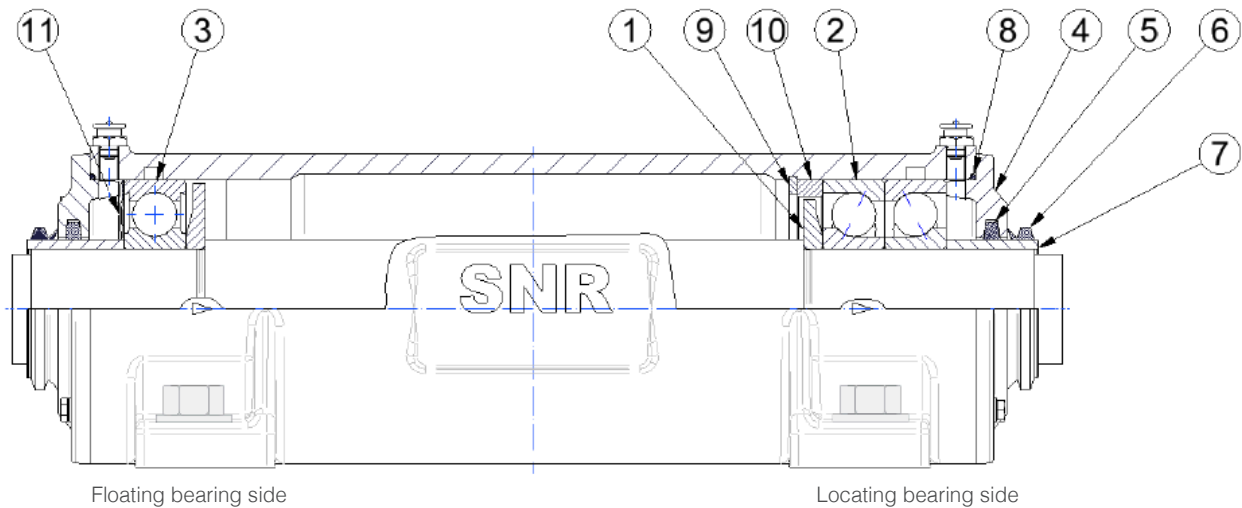
## Mounting in the housing

When installing the shaft unit in the housing, ensure that:

- the interior of the housing is cleaned before installation.
  - the shaft is securely guided during insertion.
  - O-rings should be lightly greased before assembly.
1. Insert the retaining rings (item 9) into the corresponding grooves in the housing.
  2. Fit the spacer rings (item 10) so that they lie flat against the retaining rings.
  3. The pre-assembled shaft unit is fitted into the locating bearing side of the housing with the floating bearing side first.
  4. Completely fill the outer ring and roller and cage assembly of the cylindrical roller bearing (item 3) with grease and fit it into the housing with the designation facing outwards. Carefully slide the bearing elements over the inner ring up to the spacer ring (item 10). Turn the shaft so that the rolling elements do not jam.
  5. Insert the prepared felt rings (item 5) into the grooves of the housing cover (item 4). Slide the two greased O-rings (item 8) over the centring of the housing cover until they rest against the flange.
  6. Fill both covers (item 4) with lubricant (optionally via grease nipple) and fit to the housing with the recess facing upwards. Tighten the cover screws evenly according to the table (chapter 4).
  7. Carefully wipe off grease residues from the shaft shoulder.
  8. Push the V-ring seals (item 6) onto the sleeve until the sealing lip is evenly and lightly in contact with the cover. Ensure that the sealing lip is greased.
  9. Screw the housing crosswise onto the bracket using the recommended tightening torque (chapter 4).

# Type AF

## Deep groove ball bearing / 2x angular contact ball bearing



### Mounting the shaft unit

1. Clamp the shaft firmly into a three-jaw chuck or suitable piece of pipe with the fixed bearing side facing upwards. The shaft surface must be protected from damage in the holding device area.



**To prevent the risk of accidents, make sure that the shaft is securely fixed during the assembly process.**

2. Heat a grease regulation disc (item 1) to approx. 100°C using an induction heating device (e.g. the Smart-Temp from SNR) and slide it towards the shaft shoulder as shown in the illustration. Hold in position until it cools down.
3. Remove the first angular contact ball bearing (item 2) from the packaging, heat it to approx. 100°C using an induction heating device (e.g. the Smart-Temp from SNR) and fit it with the high inner ring collar facing the grease regulation disc. Hold the bearing flat against the grease regulation disc until it has cooled down. Then grease the cooled bearing so that the entire free space is completely filled with lubricant. Turning the bearing at the same time helps to distribute the lubricant into all gaps.
4. Remove the second angular contact ball bearing from the packaging, heat it up and fit it with the high inner ring collar towards the shaft end. Hold it flat against the inner ring of the already mounted bearing until it has cooled down. Then grease (see previous point).



Depending on the application, the high-performance multi-purpose grease LUB HEAVYDUTY, LUB UNIVERSAL or SHELL GADUS S2 V100 2 is recommended as a possible lubricant.

For applications outside the standard range, please ask our application engineers for the appropriate grease type.

→ Grease quantities can be found in the table in chapter 6.

5. Heat the first sleeve\* (item 7) and mount it on the shaft shoulder on the inner ring of the angular contact ball bearing. Hold in position until it has cooled down.

\*The sleeves are not part of the components provided. Production is the responsibility of the customer and depends on the respective adjacent construction.

6. Turn the shaft through 180° and clamp it into the holding device with the floating bearing side facing upwards.
7. Slide the retaining ring (item 9) and the spacer ring (item 10) loosely onto the shaft for later installation in the housing.
8. Heat the second grease regulation disc to approx. 100°C using an induction heating device and mount it in the direction of the shaft shoulder as shown in the illustration. Hold in position until it has cooled down.
9. Remove the deep groove ball bearing (item 3) from the packaging and heat it to approx. 100°C in the induction heating device. The bearing is then mounted on the shaft so that the designation on the bearing inner ring points towards the shaft end. Hold the bearing in position against the grease regulation disc until it has cooled down.
10. After cooling down, grease the deep groove ball bearing so that the entire free space is completely filled with lubricant. Turning the bearing at the same time helps to distribute the lubricant into all gaps.
11. Heat the second sleeve\* (item 7) and mount it on the shaft shoulder on the inner ring of the deep groove ball bearing. Hold in position until it has cooled down.
12. Preserve the centre area of the shaft and the grease regulation disc with long-term corrosion protection agent.
13. The pre-assembled shaft must be stored safely and protected from dirt until it is installed.

## Mounting in the housing

When installing the shaft unit in the housing, make sure that:

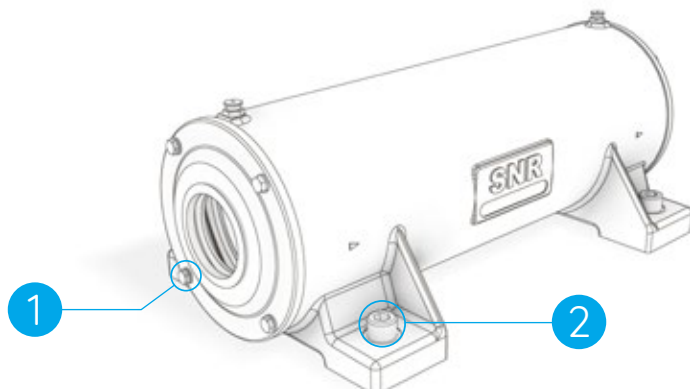
- the interior of the housing is cleaned before installation.
- the direction of the arrow on the housing corresponds to the axial load direction.
- the shaft is guided securely during insertion.
- O-rings should be lightly greased before assembly.

1. Mount the pre-assembled shaft unit into the locating bearing side of the housing with the floating bearing side first.
2. After the floating bearing has passed the locating bearing seat, fit the retaining ring (item 9) into the groove on the locating bearing side in the housing. Then fit the spacer ring (item 10) so that it lies flat against the retaining ring.
3. Mount the shaft unit in its final position in the housing so that the outer ring of the front angular contact ball bearing is in contact with the spacer ring.
4. Fit the spring washer (item 11) in front of the floating bearing / deep groove ball bearing.
5. Insert the prepared felt rings (item 5) into the grooves of the housing cover (item 4). Slide the two greased O-rings (item 8) over the centring of the housing cover until they rest against the flange.
6. Fill both covers (item 4) with lubricant (optionally via grease nipple) and fit to the housing with the recess facing upwards. Tighten the cover screws evenly according to the table (chapter 4).
7. Carefully wipe off grease residues from the shaft shoulder.
8. Push the V-ring seals (item 6) onto the sleeve until the sealing lip is evenly and lightly in contact with the cover. Ensure that the sealing lip is greased.
9. Screw the housing crosswise onto the bracket using the recommended tightening torque (chapter 4).



## 4. Tightening torque of cover and base screws

General guide values for the tightening torque of cover and base screws for SNR bearing housings:



Bearing housing	Cover screws 1		Base screws 2	
	DIN EN 24017 Strength class 8.8	Tightening torque [Nm]	DIN EN ISO 4014 Strength class 8.8	Tightening torque [Nm]
<b>ZLG 306</b>	M6x20	7	M12	65
<b>ZLG 307</b>	M6x25	7	M12	65
<b>ZLG 308</b>	M6x25	7	M12	65
<b>ZLG 309</b>	M6x25	7	M12	65
<b>ZLG 310</b>	M6x25	7	M12	65
<b>ZLG 311</b>	M6x25	7	M16	150
<b>ZLG 312</b>	M6x25	7	M16	150
<b>ZLG 313</b>	M8x25	17	M16	150
<b>ZLG/DLG 314</b>	M8x25	17	M16	150
<b>ZLG/DLG 315</b>	M8x25	17	M16	150
<b>ZLG/DLG 316</b>	M8x25	17	M16	150
<b>ZLG/DLG 317</b>	M8x25	17	M16	150
<b>ZLG/DLG 318</b>	M8x25	17	M16	150
<b>ZLG/DLG 319</b>	M8x25	17	M20	290
<b>ZLG/DLG 320</b>	M8x25	17	M20	290
<b>ZLG/DLG 322</b>	M8x25	17	M24	500
<b>ZLG/DLG 324</b>	M10x30	35	M30	1005

## 5. Scope of delivery

The scope of delivery consists of a housing with screwed-in grease nipples, two open covers and the components listed below:

ZLG 300 Type	Spacer ring	Grease disc	Bearing 1	Bearing 2	Spring washer (FS)	V-ring 2x	Retaining ring	Felt ring 2x	Sleeve *
<b>AA</b>	-	2x	6300C3	6300C3	1x	V-..S	-	DIN 5419	-
<b>AB</b>	2x	2x	NU300C3	6300C3	-	V-..S	2x DIN 472	DIN 5419	2x
<b>AC</b>	-	2x	NJ300C3	6300C3	-	V-..S	-	DIN 5419	-

DLG 300 Type	Spacer ring	O-ring	Grease disc	Bearing 1	Bearing 2	FS	Bearing 3	V-ring 2x	Retaining ring	Felt ring 2x	Sleeve *
<b>AD</b>	2x	3x	2x	NU300C3	NU300EG15C3	-	6300C3	V-..S	2x DIN 472	DIN 5419	2x
<b>AE</b>	2x	2x	2x	NU300C3	7300BG	-	7300BG	V-..S	2x DIN 472	DIN 5419	2x
<b>AF</b>	1x	2x	2x	6300C3	7300BG	1x	7300BG	V-..S	1x DIN 472	DIN 5419	2x

\* The sleeves that are mounted on the shaft are not part of the components provided. The production of the component is the responsibility of the customer and depends on the respective adjacent construction.

## 6. Amounts of grease

Bearing-housing	Initial greasing Quantity of grease per bearing location		Relubrication quantity Quantity of grease per bearing location	
	[cm <sup>3</sup> ]	[g]	[cm <sup>3</sup> ]	[g]
ZLG306	46	41	20	18
ZLG307	85	77	26	23
ZLG308	103	93	36	32
ZLG309	133	120	50	45
ZLG310	168	151	67	60
ZLG311	224	202	86	77
ZLG312	243	219	108	97
ZLG313	333	300	132	119
ZLG314	411	370	160	144
ZLG315	429	386	192	173
ZLG316	590	531	227	204
ZLG317	577	519	271	244
ZLG318	692	623	316	284
ZLG319	734	661	308	277
ZLG320	954	859	368	331
ZLG322	749	674	466	419
ZLG324	966	869	657	591

Bearing housing	Initial greasing Quantity of grease per bearing location				Relubrication quantity Quantity of grease per bearing location			
	Locating bearing side		Floating bearing side		Locating bearing side		Floating bearing side	
	[cm <sup>3</sup> ]	[g]	[cm <sup>3</sup> ]	[g]	[cm <sup>3</sup> ]	[g]	[cm <sup>3</sup> ]	[g]
DLG314	571	514	411	370	320	288	160	144
DLG315	621	559	429	386	384	346	192	173
DLG316	817	735	590	531	454	408	227	204
DLG317	848	763	577	519	542	488	271	244
DLG318	1008	907	692	623	632	568	316	284
DLG319	1042	938	734	661	616	554	308	277
DLG320	1322	1190	954	859	736	662	368	331
DLG322	1215	1093	749	674	932	838	466	419
DLG324	1623	1460	966	869	1314	1182	657	591

**Note:** The grease quantity in [g] applies to lubricants with a density of approx. 0.9 g/cm<sup>3</sup>

## 7. Relubrication interval

In standard cases, we recommend relubricating the above-mentioned quantity every 3,000 operating hours (at least twice a year).

## 8. Permissible circumferential speeds

Felt seals	< 15 m/s
V-ring seals	< 7 m/s

## 9. O-ring dimensions

Size	O-ring
ZLG306	Ø72 x 4
ZLG307	Ø80 x 4
ZLG308	Ø90 x 4
ZLG309	Ø100 x 4
ZLG310	Ø110 x 4
ZLG311	Ø120 x 4
ZLG312	Ø130 x 7
ZLG313	Ø140 x 7
ZLG314	Ø150 x 7
ZLG315	Ø160 x 7
ZLG316	Ø170 x 7
ZLG317	Ø180 x 7
ZLG318	Ø190 x 7
ZLG319	Ø200 x 7
ZLG320	Ø215 x 7
ZLG322	Ø240 x 7
ZLG324	Ø260 x 7







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