



# Water pump bearings

Integral shaft bearings

**SCHAEFFLER**



# Foreword

## High load carrying capacity

Water pump bearings do not have an inner ring but instead have raceways directly machined into the shaft. As a result, there is more space available for the rolling elements, giving a higher load carrying capacity than in solutions with conventional single bearings. In water pump bearings, rows of balls and rollers can be economically combined with each other. This gives a broad range of load carrying capacity values.

## No misalignment defects

The use of a common outer ring for two or more rows of rolling elements prevents misalignment defects, eliminating the risk of undesirable distortion of the bearings.

## Ready-to-fit units

In water pump bearings, the ends of the shaft normally extend beyond the outer ring on both sides. The length and diameter of these extended sections can be matched to the specific application. The ready-to-fit bearing unit is predominantly used in coolant pumps for road vehicles.

## Application

Water pump bearings are not only used in coolant pumps, however, and are therefore also described as integrated shaft bearings.

Due to the characteristics stated, they have a wide range of possible applications, for example in:

- fans
- tension pulleys
- vane pumps
- angle grinders.

The bearing solution appropriate to the specific application is developed, by agreement, by the application engineers responsible for the region, see page 40.

# Foreword

**Worldwide** Water pump bearings are manufactured locally by Schaeffler around the world.

At all manufacturing plants, the design and production are standardised by means of identical:

- specifications
- processes
- quality guidelines
- designations
- design guidelines.

Bearings from the different manufacturing plants differ from each other only in the indication on the shaft of the country of manufacture and the brand logo used, *Figure 1*.



*Figure 1*  
Manufacturing locations,  
brand logos

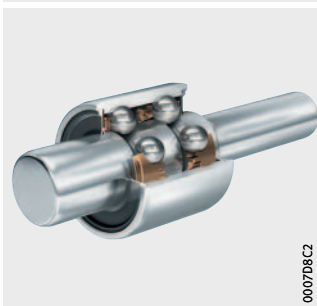
# Water pump bearings

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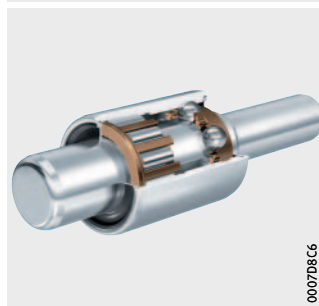
# Product overview Water pump bearings

## Double row

WA, WB

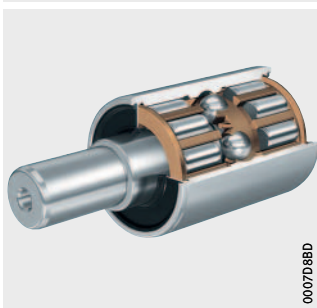


WF, WR, WT



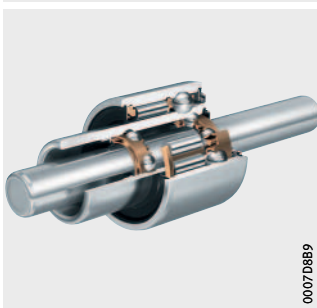
## Triple row

WM



## Double decker

WD

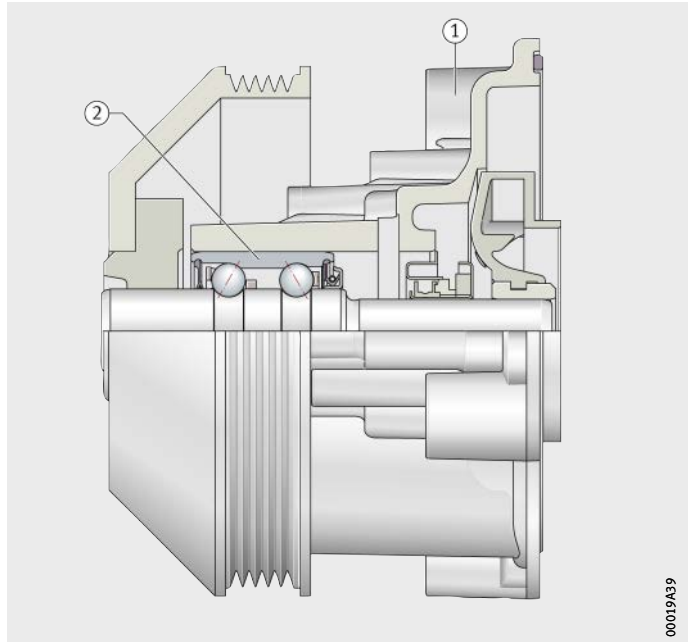


# Water pump bearings

**Features** Water pump bearings are used predominantly in coolant pumps for road vehicles, *Figure 1*.

- ① Coolant pump for passenger car
- ② Water pump bearing

*Figure 1*  
Coolant pump



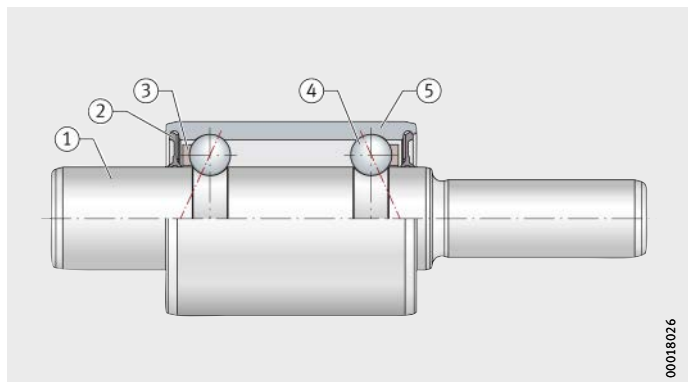
## Bearing unit

A water pump bearing is a ready-to-fit bearing unit. It comprises a shaft that is supported by means of several rows of rolling elements in a through hardened outer ring. The standard material for the shaft and outer ring is 100Cr6/SAE52100. In special cases, the shaft is made from case hardened steel 16MnCr5.

The bearings are greased for life and are protected against environmental influences by seals, *Figure 2*.

- ① Shaft
- ② Seal
- ③ Cage
- ④ Rolling element row
- ⑤ Outer ring

*Figure 2*  
Structure of water pump bearing



# Water pump bearings

## Designs

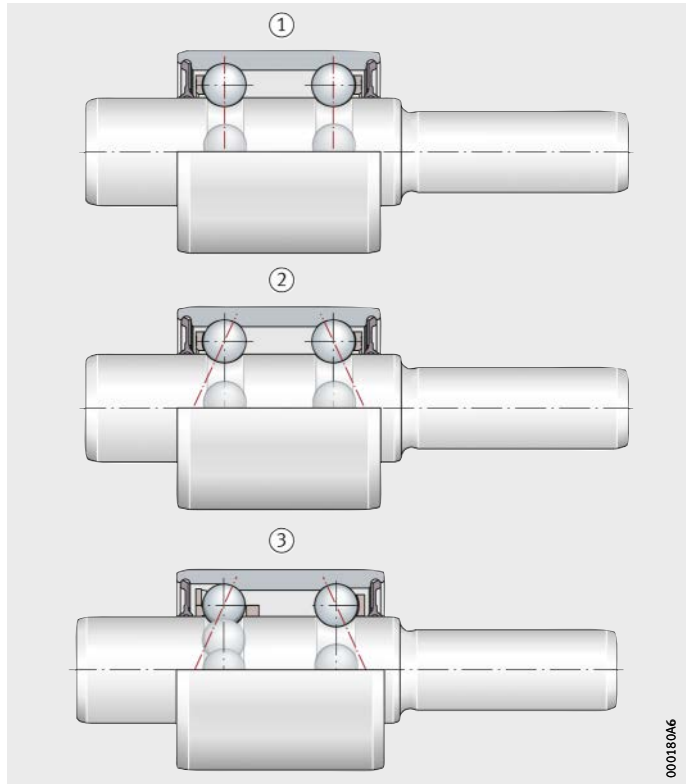
Water pump bearings with a single bearing level are available in double row and triple row designs. The double decker design has two bearing levels.

### Double row design, ball/ball

The simplest and most economical design is the ball/ball design as a deep groove or angular contact ball bearing, *Figure 3*. This design is used for moderate loads.

- ① Deep groove ball bearing (WB)
- ② Angular contact ball bearing, symmetrical (WB)
- ③ Angular contact ball bearing, asymmetrical (WA)

*Figure 3*  
Double row design,  
ball/ball



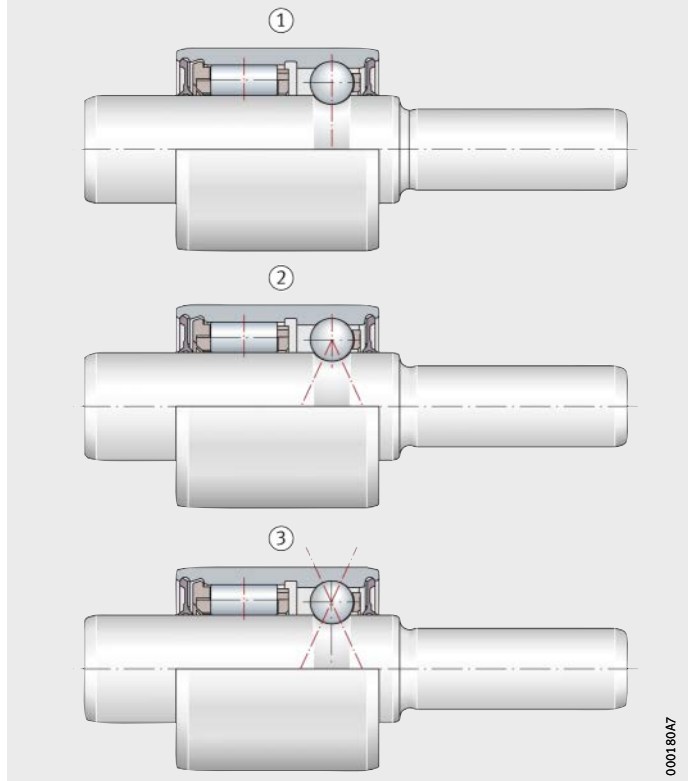


**Double row design,  
roller/ball**

Under heavier loads, water pump bearings of the roller/ball design are used. The function can be significantly improved in the case of this design too by a combination of a row of rollers with a three or four point contact bearing, *Figure 4*.

- ① Roller bearing/  
deep groove ball bearing (WR)
- ② Roller bearing/  
three point contact bearing (WT)
- ③ Roller bearing/  
four point contact bearing (WF)

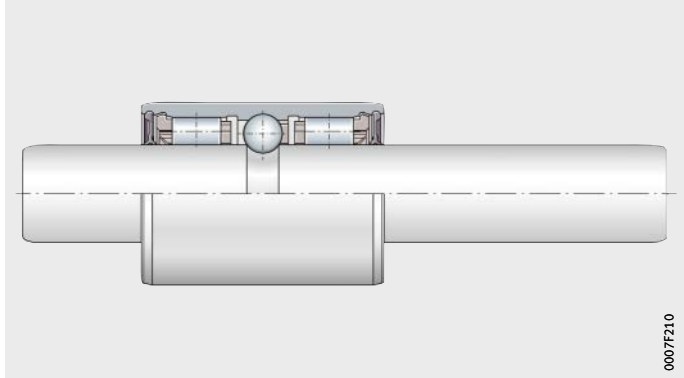
*Figure 4*  
Double row design,  
roller/ball



# Water pump bearings

## Triple row design

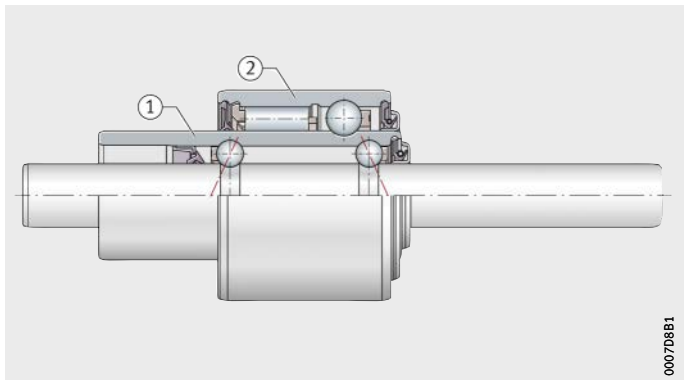
A water pump bearing with three bearing rows has particularly high load carrying capacity, *Figure 5*. This design is particularly suitable for use in fans.



*Figure 5*  
Triple row design

## Double decker

With a water pump bearing of the double decker design, two components can be supported for rotation independently of each other, *Figure 6*. A typical application is in adjustable coolant pumps.



- ① Innermost ring
- ② Outermost ring

*Figure 6*  
Double decker design

The bearing solution appropriate to the specific application is developed, by agreement, by the application engineers responsible for the region, see page 40.

**Sealing** Seals give protection against the ingress of contaminant and the egress of grease. Selection of the correct seals is a decisive factor for the operating life of the bearing. The appropriate material and type must be selected.



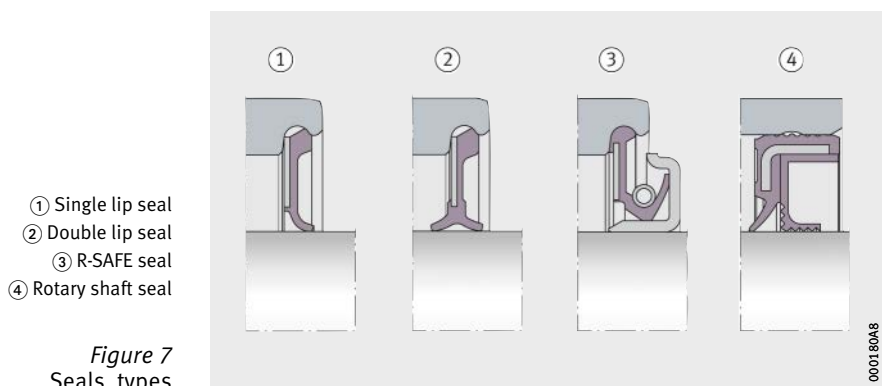
No seal can give absolute protection in the long term against the ingress of water.

**Material** Three different elastomer materials are available for the seals:

- FPM
- HNBR
- NBR.

The appropriate material is selected in accordance with the application and the environmental influences; seals made from different materials can be used on the two sides of the bearing.


**Type** Four different types of seals can be used, *Figure 7*.



*Figure 7*  
Seals, types

Since the seal undercuts are of a standardised design, single lip, double lips and R-SAFE seals are interchangeable with each other.

# Water pump bearings

- Single lip seal** This is the most economical seal, offers minimum protection and has low frictional resistance. Single lip seals are still widely used at present but are being replaced in the medium term by double lip seals.
- Double lip seal** The double lip seal has slightly higher frictional resistance than the single lip seal. It is economical and offers a higher level of protection against contamination than the single lip seal. Double lip seals are currently the standard seals used in water pump bearings.
- R-SAFE seal** This seal was specially developed for sealing the impeller-facing side of water pump bearings. The R-SAFE has demonstrated superior sealing action against the ingress of water and water vapour over many years, including usage in high volume production.
- Rotary shaft seal** The rotary shaft seal is used in preference in water pumps driven by chains or gears.
- Lubrication** Water pump bearings are lubricated for life. The standard lubricant used has been selected in relation to use in water pump bearings. We check and ensure its compatibility with the seals used.
-  Never use seals other than the original seals. Unsuitable seals will be attacked by the lubricant and will lose their sealing effect. Lubricant will then escape, while water and contamination will penetrate the bearing. The bearing will then be destroyed very quickly.

**Designation** The design of the bearing can be deduced from the designation, *Figure 8*.

- ① Design
- ② Number of shaft shoulders
- ③ Number, consecutive
- ④ Variant, such as seal



*Figure 8*  
Designation

The two letters indicate the design, see table.

**Design**

Code letters	Design
WA	Double row, asymmetrical angular contact ball bearing
WB	Double row, symmetrical deep groove or angular contact ball bearing
WD	Double decker
WF	Double row, roller bearing and four point contact bearing
WM	Triple row
WR	Double row, roller bearing and deep groove ball bearing
WT	Double row, roller bearing and three point contact bearing

The first digit indicates the number of shaft shoulders, see table.

**Shaft shoulders**

Code	Shaft shoulders
0	No shaft shoulder
1	One end of the shaft has a shoulder
2	Both ends of the shaft have a shoulder

# Water pump bearings

## Design and safety guidelines

The specifications in the section Technical principles, Catalogue HR 1, Rolling Bearings, also apply to water pump bearings.

### Rating life

The rating life of water pump bearings is calculated using the calculation methods for rolling bearings. The decisive influencing factors are the loads, speeds, lubrication, temperature, bearing clearance and load plane or load planes. In many cases, a practical application is highly complex. We can provide support in design by means of appropriate software.



Excessive load will lead to premature failure of the bearing.

Never subject the bearing to a heavier load than intended.

If it is not possible to determine the load clearly, please consult the application engineers responsible for the region.

## Design of bearing arrangements

Water pump bearings are normally located in the housing by means of a press fit.

### Housing tolerances

When determining a suitable press fit, the material combination of the housing and bearing must be taken primarily into consideration. As approximate guide values, we recommend housing fits in accordance with the table.

### Housing material and fits

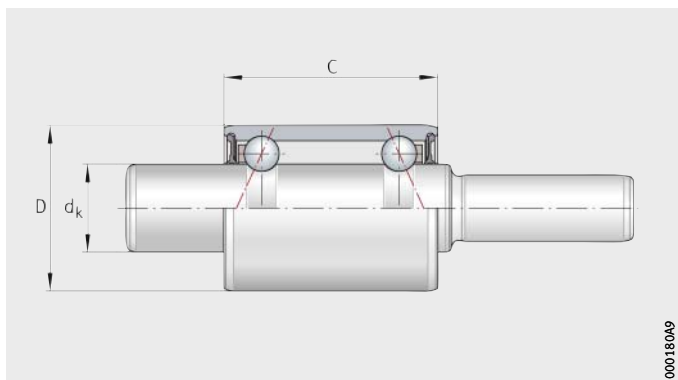
Housing material	Fit according to ISO
Pressure diecast aluminium	S6, S7 to X6, X7
Flake graphite cast iron	P6, P7 to R6, R7

For precise calculation of the required press fit, please consult the relevant application engineers.

### Mounting dimensions

Water pumps are standardised in terms of their outer ring diameter, *Figure 9*. Appropriate diameter of the standard shaft and preferred lengths of the outer ring: see table.

D = outer ring diameter  
 $d_k$  = diameter of standard shaft  
 C = preferred length of outer ring



*Figure 9*  
 Mounting dimensions

Water pump bearings with standard dimensions according to the table can be supplied quickly and economically in large quantities.

### Standard dimensions

D mm	$d_k$ mm	C mm
24	12,038	27
30	15,918	22 – 27 – 30 – 34 – 38,9 – 44
	17,2	23 – 30 – 38,9
34	17,008	38,9 – 47
35	18	30 – 36 – 38,9
38,1	18,961	47 – 54
40	20,004	50
42	22	32 – 46 – 56
47	24	38 – 50
55	25,061	60
	30	60

# Water pump bearings

## Mounting

Correct mounting is a prerequisite for a long rating life of the bearing arrangement.



Damaged raceways or rolling elements can lead to premature failure of the bearing.

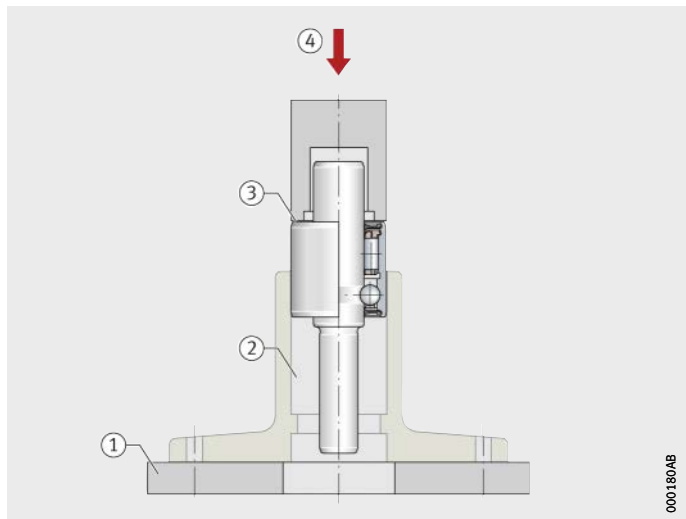
Mounting forces must be transmitted via the shaft or outer ring. Transmission of mounting forces via the rolling elements must always be avoided.

Mounting in a housing:

- Place the housing on a flat support surface.
- Align the outer ring of the bearing concentrically and axially parallel to the bore of the housing.
- Apply the mounting force uniformly to the end face of the outer ring, *Figure 10*.

- ① Support surface, flat
- ② Housing, bore
- ③ Outer ring, end face
- ④ Mounting force

*Figure 10*  
Mounting in a housing



000180/AB

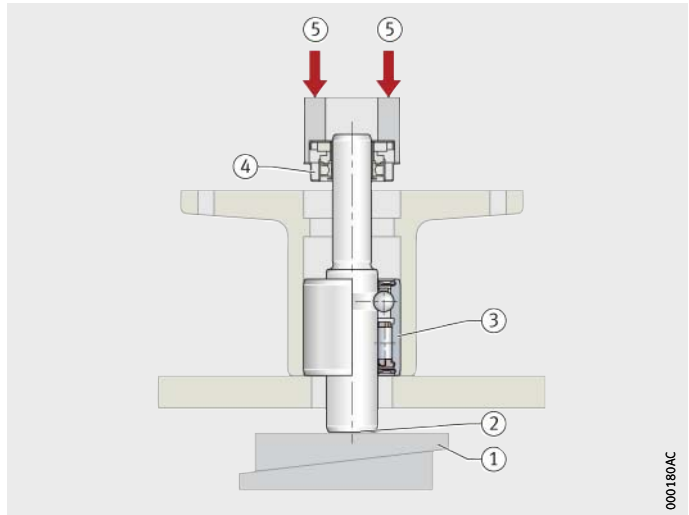


Mounting of a coolant seal:

- Place the shaft and outer ring simultaneously on a flat support surface.
- Align the coolant seal concentrically and axially parallel to the shaft and bore in the housing.
- Apply the mounting force uniformly to the coolant seal, *Figure 11*.

- ① Support surface, flat
- ② Shaft, end face
- ③ Outer ring
- ④ Coolant seal
- ⑤ Mounting force

*Figure 11*  
Mounting of a coolant seal



000180AC

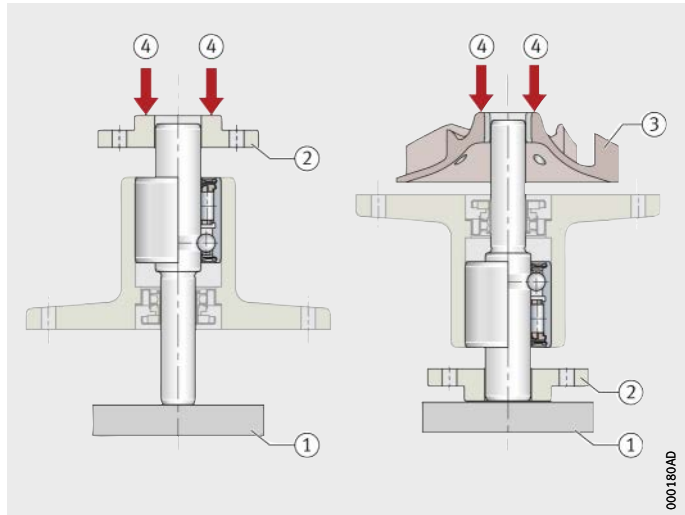
## Water pump bearings

Mounting of a drive pulley and impeller:

- Place the opposite end of the shaft on a flat support surface.
- Align the drive pulley and impeller concentrically and axially parallel to the shaft.
- Apply the mounting force uniformly to the drive pulley and impeller, *Figure 12*.

- ① Support surface, flat
- ② Drive pulley
- ③ Impeller
- ④ Mounting force

*Figure 12*  
Mounting of a drive pulley and  
impeller



000180AD

**Fans** If angular offset or axial offset are present as a result of incorrect design or mounting, imbalance forces will occur in operation, *Figure 13*.

The resulting bearing load will increase with the square of the speed. In the case of heavy components such as fans, the load may increase rapidly to such an extent that it exceeds the material strength of the bearing components.

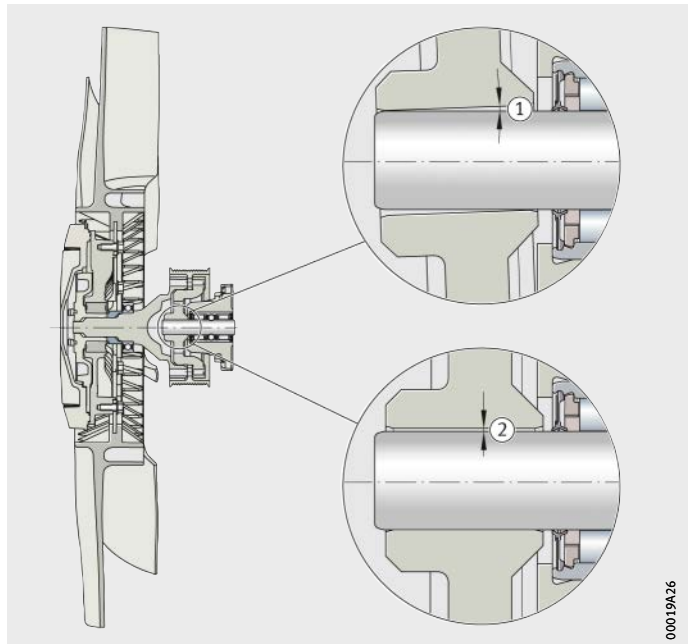


If heavy and sharp-edged parts break away from the water pump bearing at high velocity, this can lead to injury and in the worst case to loss of life.

Never subject the components to a heavier load than permissible. If it is not possible to determine the bearing load clearly, please consult the relevant application engineers.

- ① Angular offset
- ② Axial offset

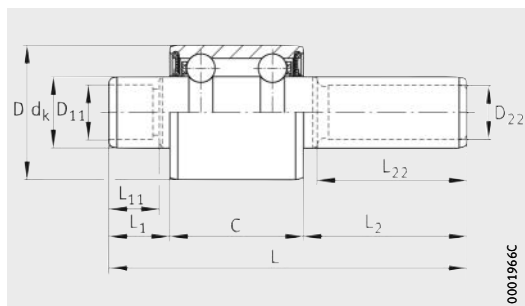
*Figure 13*  
Imbalance



# Water pump bearings

Double row

Ball/ball



WA, WB

0001966C

**Dimension table** - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WB02030.01</b> <sup>3)</sup>	24	56,9	9	28	19,9	12,038	-	-	-	-	-
<b>WB01919</b> <sup>3)</sup>	24	59,9	9	31	19,9	12,038	-	-	-	-	-
<b>WB21849</b> <sup>1)4)</sup>	24	62	7	30,4	24,5	12,038	-	-	5,6	10	-
<b>WB11857</b> <sup>1)</sup>	24	64	8	34,1	21,9	12,038	-	-	-	-	-
<b>WB01693.05</b> <sup>3)</sup>	24	65	14	31,1	19,9	12,038	-	-	-	-	-
<b>WB01351.01</b> <sup>1)4)</sup>	24	76,6	13,3	36,4	26,9	12,055	-	-	-	-	-
<b>WB01700.03</b>	24	77	13,6	36,6	26,9	12,008	-	-	-	-	-
<b>WB01027.03</b>	24	80	16,6	36,5	26,9	12,008	-	-	-	-	-
<b>WB01028.01</b>	24	81,5	19	32,6	29,9	12,038	-	-	-	-	-
<b>WB01632</b> <sup>1)4)</sup>	24	81,6	18,3	36,4	26,9	12,055	-	-	-	-	-
<b>WB01083</b>	24	85	21	37,1	26,9	12,038	-	-	-	-	-
<b>WB01210</b>	24	86,6	14,2	39,02	33,38	12,738	-	-	-	-	-
<b>WB01902</b> <sup>3)</sup>	24	89,9	20	50	19,9	12	-	-	-	-	-
<b>WB11875</b> <sup>1)3)4)</sup>	24	98,5	30,48	41,12	26,9	12,038	-	-	21	-	-
<b>WB11768</b>	24	100	16	57,1	26,9	12,055	10	-	15	-	-
<b>WB01842</b> <sup>1)</sup>	24	104,5	8	76,6	19,9	12,038	-	-	-	-	-
<b>WB01852</b> <sup>1)4)</sup>	24	109,6	46,3	36,4	26,9	12,055	-	-	-	-	-
<b>WB21838</b> <sup>1)</sup>	30	64	8	32,6	23,4	15,918	12	12,038	7	30,3	-
<b>WB11098</b>	30	65	14,2	28,9	21,9	15,918	-	10	-	27,4	-
<b>WA07066</b>	30	65,85	25,01	2,04	38,8	15,918	-	-	-	-	WS2263
<b>WB21225</b>	30	66,65	8,4	31,35	26,9	15,918	13,038	12,038	6,5	30,2	-
<b>WB11743.02</b> <sup>1)4)</sup>	30	66,9	9	31	26,9	15,918	-	12,038	-	28,7	-
<b>WB01005</b>	30	68	3,7	25,5	38,8	16	-	-	-	-	-
<b>WB07486</b> <sup>6)</sup>	30	68,12	13,6	27,62	26,9	15,918	-	-	-	-	-
<b>WB21848</b> <sup>1)4)</sup>	30	68,9	8,5	33,5	26,9	15,918	12,5	12,038	6,6	31,2	-
<b>WB11853</b> <sup>1)4)</sup>	30	69,4	9	33,5	26,9	15,918	-	12,038	-	31,2	-
<b>WB11825</b> <sup>4)</sup>	30	69,5	11,6	31	26,9	15,918	-	12	-	29,05	-
<b>WB21318.01</b> <sup>1)5)6)</sup>	30	71	14	39	17,8	15,918	-	12,038	11	31,3	-
<b>WB11519.01</b> <sup>3)</sup>	30	71,12	13,1	35,12	22,9	17,2	-	12	-	32,02	-

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

5) No seal.

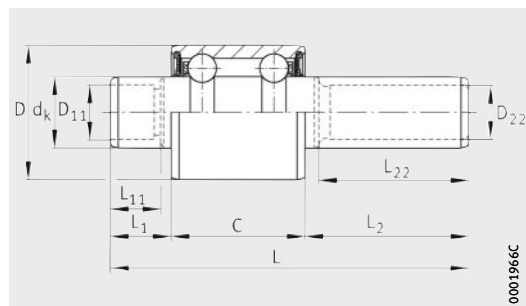
6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row

Ball/ball



WA, WB

**Dimension table** (continued) · Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WB07385</b> <sup>1)6)</sup>	30	73,41	4,18	30,43	38,8	15,918	–	–	–	–	W2289-3.T1545
<b>WB07072</b> <sup>6)</sup>	30	73,41	4,05	30,56	38,8	15,918	–	–	–	–	W2289
<b>WB07073</b> <sup>1)6)</sup>	30	73,41	4,05	30,56	38,8	15,918	–	–	–	–	W2289-1.T1805
<b>WB07082</b> <sup>1)6)</sup>	30	74,63	4,08	31,75	38,8	15,918	–	–	–	–	W2293.T1638
<b>WB17250.03</b> <sup>6)</sup>	30	77,95	12,45	38,6	26,9	15,918	–	12,038	–	36,3	–
<b>WB11294.06</b> <sup>6)</sup>	30	77,95	15	36,05	26,9	15,918	–	12	–	34,95	–
<b>WB11597</b>	30	77,95	15	36,05	26,9	15,918	–	12,038	–	34,95	–
<b>WA11698.01</b> <sup>3)7)</sup>	30	78	19,1	32	26,9	15,918	–	12,038	–	29,7	–
<b>WB11831.01</b> <sup>3)</sup>	30	78,2	17,7	37,6	22,9	15,918	–	12	–	35,3	–
<b>WB07012</b> <sup>1)6)</sup>	30	79,1	13,6	38,6	26,9	15,918	–	–	–	–	WS2311
<b>WB01138.01</b>	30	80	14,1	38	27,9	15,918	–	–	–	–	–
<b>WB11647</b> <sup>3)</sup>	30	80	15,5	41,6	22,9	17,2	–	12	–	39,2	–
<b>WB07068</b> <sup>6)</sup>	30	80,04	15,85	37,29	26,9	15,918	–	–	–	–	WS2315-2
<b>WB07075</b> <sup>6)</sup>	30	82,55	4,06	39,69	38,8	15,918	–	–	–	–	W2325
<b>WB11753</b> <sup>3)</sup>	30	82,8	14,5	38,4	29,9	15,918	–	12	–	36,1	–
<b>WB01069</b>	30	83,15	16,05	42,1	25	15,918	–	–	–	–	–
<b>WB11357</b>	30	83,32	16,15	37,27	29,9	15,918	–	12,738	–	30,84	–
<b>WA11280</b>	30	83,5	15,5	40,1	27,9	15,918	–	12,038	–	38	–
<b>WB05090</b>	30	84,3	15,4	41,5	27,4	15,912	–	–	–	–	–
<b>WB11413</b>	30	84,3	20,8	36,6	26,9	15,918	–	12,008	–	34,5	–
<b>WA11680</b> <sup>3)</sup>	30	84,4	16,9	40,6	26,9	15,918	–	12	–	38,3	–
<b>WB07071</b> <sup>1)6)</sup>	30	84,5	17,34	40,26	26,9	15,977	–	–	–	–	WS6332-1
<b>WB17069</b> <sup>6)</sup>	30	84,63	17,37	40,36	26,9	15,918	–	12,038	–	38,06	WS2333-3
<b>WA11065.03</b>	30	85	17	40,1	27,9	15,918	–	12,038	–	38	–
<b>WA11238.01</b>	30	85	13,5	43,6	27,9	15,918	–	12,038	–	38	–
<b>WA27126</b>	30	85	17	41,1	26,9	15,918	15,008	12,038	14,2	38,8	WS2334-6
<b>WB11074</b>	30	85	17	41,1	26,9	15,918	–	12,038	–	35	–
<b>WB11074.08</b>	30	85	17	41,1	26,9	15,918	–	12,038	–	35	–
<b>WB07076</b> <sup>1)6)</sup>	30	85,89	3	44,09	38,8	15,918	–	–	–	–	W2338.T2363

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

5) No seal.

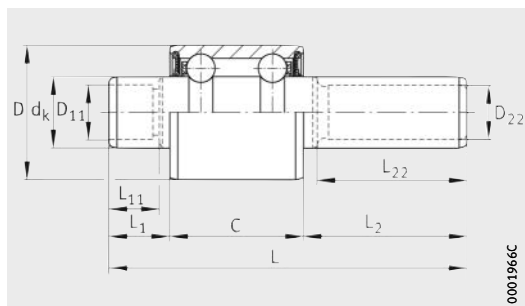
6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row

Ball/ball



WA, WB

0001964C

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WA11349.02</b> <sup>3)</sup>	30	86,5	13,5	46,1	26,9	15,918	–	12,038	–	44	–
<b>WA12006</b>	30	86,5	16,5	43,1	26,9	15,918	–	12,038	–	40,8	–
<b>WB01001</b> <sup>2)</sup>	30	87,5	13,6	38	35,9	15,008	–	–	–	–	–
<b>WB11132.02</b> <sup>6)</sup>	30	87,5	15,5	50,1	21,9	15,918	–	12,038	–	48,5	–
<b>WB01070</b>	30	88	18,1	43	26,9	15,918	–	–	–	–	–
<b>WB11397</b>	30	88	16,1	45	26,9	15,918	–	12,038	–	42	–
<b>WB11073</b>	30	88,6	14,2	44,5	29,9	15,918	–	12,038	–	39	–
<b>WB11097.01</b>	30	89	21	41,1	26,9	15,918	–	12	–	35	–
<b>WB17070</b> <sup>6)</sup>	30	89	18,1	44	26,9	15,918	–	12,038	–	41,7	WS2350-1
<b>WB01322</b>	30	90,1	16	49,1	25	15,918	–	–	–	–	–
<b>WB17305</b> <sup>6)</sup>	30	90,19	15,6	35,79	38,8	15,918	–	12	–	33,49	W2355S
<b>WA11721</b>	30	90,5	17,5	46,1	26,9	15,918	–	12,038	–	43,8	–
<b>WB05119</b>	30	92,2	15,3	49,4	27,5	15,918	–	–	–	–	F-45566.3
<b>WB11464</b>	30	92,5	15,6	50	26,9	15,918	–	12,038	–	47	–
<b>WB17653</b> <sup>6)</sup>	30	94	18,1	49	26,9	15,918	–	12,038	–	46,7	–
<b>WA15158</b>	30	94,35	17,55	38	38,8	15,918	–	12,008	–	34,95	–
<b>WB01121.01</b>	30	94,35	17,5	38,05	38,8	15,918	–	–	–	–	–
<b>WB15077</b>	30	94,35	17,5	38,05	38,8	15,918	–	12,008	–	34,95	–
<b>WB11529.01</b> <sup>4)</sup>	30	94,37	20,91	46,56	26,9	15,918	–	12	–	44,61	–
<b>WA17129</b>	30	95,43	20,91	47,62	26,9	15,918	–	12	–	45,32	WS2376.J3760
<b>WA11425</b>	30	95,8	16	41	38,8	15,918	–	12,038	–	38,9	–
<b>WB01176</b>	30	97,5	23,6	35,1	38,8	15,008	–	–	–	–	–
<b>WB07381</b> <sup>1)6)</sup>	30	97,79	4,23	54,76	38,8	15,918	–	–	–	–	W2385-2.TJ1427
<b>WB05074</b>	30	98	17,1	42,1	38,8	15,918	–	–	–	–	F-110398
<b>WA01086</b>	30	98	17,1	42,1	38,8	15,918	–	–	–	–	–
<b>WB05092</b>	30	98	17,1	42,1	38,8	15,918	–	–	–	–	F-112009
<b>WB07151</b> <sup>1)6)</sup>	30	98	17,1	42,1	38,8	15,977	–	–	–	–	W6385
<b>WB17078</b> <sup>6)</sup>	30	98,5	22,54	37,16	38,8	15,918	–	12	–	34,86	W2387S
<b>WB27131</b> <sup>1)6)</sup>	30	100,99	24,09	38,1	38,8	15,921	14,051	12,05	21,79	35,8	W6397-2S

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

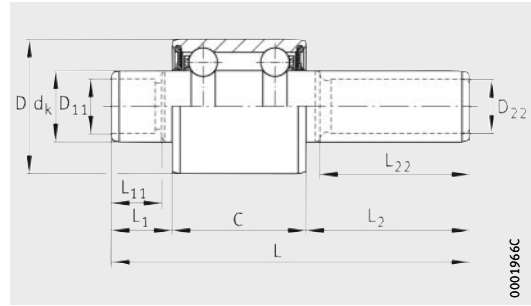
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Ball/ball



WA, WB

**Dimension table** (continued) · Dimensions in mm

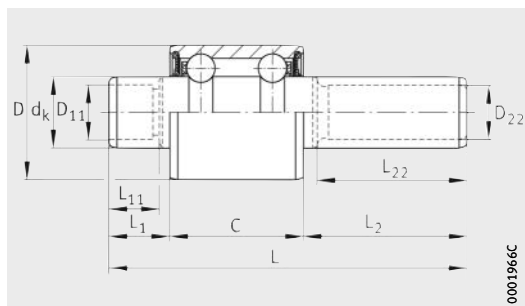
Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
WB17160 <sup>1)6)</sup>	30	101,5	17,59	45,11	38,8	15,989	-	12,089	-	42,81	W7399-2S
WB07079 <sup>1)6)</sup>	30	102	17,1	46,1	38,8	15,918	-	-	-	-	W2401-3
WB07152 <sup>1)6)</sup>	30	102	17,04	46,16	38,8	15,977	-	-	-	-	W6401-3
WB21780	30	105	15	51,2	38,8	15,918	12	12	14,5	48,9	-
WB07138 <sup>1)6)</sup>	30	105,4	20,39	46,21	38,8	15,918	-	-	-	-	W2415-1
WB07153 <sup>1)6)</sup>	30	105,4	20,39	46,21	38,8	15,977	-	-	-	-	W6415-1
WB07306 <sup>1)6)</sup>	30	105,66	31,93	34,93	38,8	15,918	-	-	-	-	W2416.T1447
WB05104	30	105,9	21,3	45,8	38,8	15,918	-	-	-	-	F-112045
WB07139 <sup>1)6)</sup>	30	105,97	20,74	46,43	38,8	15,918	-	-	-	-	W2417-2
WB17140 <sup>6)</sup>	30	105,99	30,09	37,1	38,8	15,918	-	12,007	-	34,8	W2417S
WB01158	30	106	20	47,16	38,84	15,918	-	-	-	-	-
WB12171	30	106	18,1	61	26,9	15,918	-	12,038	-	52,45	-
WB11136	30	109,5	25,12	45,54	38,84	15,918	-	12,038	-	42,22	-
WB07141 <sup>6)</sup>	30	109,52	14,72	56	38,8	15,918	-	-	-	-	W2431
WB07154 <sup>1)6)</sup>	30	110,39	21,45	50,14	38,8	15,977	-	-	-	-	W6434
WB07379 <sup>1)6)</sup>	30	110,39	21,45	50,14	38,8	15,918	-	-	-	-	W2434-1
WB07506 <sup>1)6)</sup>	30	103,17	23,5	40,87	38,8	15,918	-	-	-	-	W2406-1
WB07429 <sup>1)6)</sup>	30	113,19	33,44	40,95	38,8	15,918	-	-	-	-	W2445-5.T2425
WB07386 <sup>1)6)</sup>	30	113,51	27,49	47,22	38,8	15,918	-	-	-	-	W2446
WB05089 <sup>1)</sup>	30	115,5	36,7	40	38,8	15,008	-	-	-	-	F-112002
WB01006	30	115,75	26,95	50	38,8	15,918	-	-	-	-	-
WB07142 <sup>1)6)</sup>	30	119,04	37,4	42,84	38,8	15,918	-	-	-	-	W2468
WB05094 <sup>1)</sup>	30	119,1	37,4	42,9	38,8	15,918	-	-	-	-	F-112017
WB07143 <sup>1)6)</sup>	30	119,89	36,62	44,47	38,8	15,918	-	-	-	-	W2472
WB07443 <sup>1)6)</sup>	30	120,9	29,55	52,55	38,8	15,977	-	-	-	-	W6476
WB17144 <sup>6)</sup>	30	122,5	26,38	57,32	38,8	15,918	-	12,038	-	55,22	W2482S.J3177
WB07155 <sup>1)6)</sup>	30	123	19,09	65,11	38,8	15,977	-	-	-	-	W6484-1
WB07145 <sup>1)6)</sup>	30	123,19	19,49	64,9	38,8	15,918	-	-	-	-	W2485
WB07146 <sup>1)6)</sup>	30	123,67	31,84	53,03	38,8	15,918	-	-	-	-	W2486-2

- 1) Special shaft.
- 2) Flinger sleeve.
- 3) R-SAFE seal.
- 4) Rotary shaft seal.
- 5) No seal.
- 6) Special outer ring.
- 7) Rolling element sets laterally transposed.

# Water pump bearings

Double row

Ball/ball



WA, WB

0001966C

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WB17650</b> <sup>6)</sup>	30	124,5	20,92	64,78	38,8	15,918	-	12,038	-	62,48	-
<b>WA11733</b> <sup>3)</sup>	30	125,5	11,1	75,6	38,8	15,918	-	12	-	73,3	-
<b>WB05095</b> <sup>1)</sup>	30	126,1	44,5	42,8	38,8	15,918	-	-	-	-	F-112022
<b>WB05096</b>	30	127,1	25,6	62,7	38,8	15,918	-	-	-	-	F-112023
<b>WB07156</b> <sup>1)6)</sup>	30	127,79	25,9	63,09	38,8	15,977	-	-	-	-	W6503
<b>WB07157</b> <sup>1)6)</sup>	30	128,98	31,84	58,34	38,8	15,977	-	-	-	-	W6507
<b>WB07161</b> <sup>1)6)</sup>	30	132,13	40,27	53,06	38,8	15,989	-	-	-	-	W7520-2
<b>WB05097</b>	30	133	29,96	64,24	38,8	15,918	-	-	-	-	F-112025
<b>WB07147</b> <sup>1)6)</sup>	30	133,9	25	70,1	38,8	15,918	-	-	-	-	W2527-2.T3706
<b>WB05098</b>	30	136,4	39,16	58,53	38,8	15,918	-	-	-	-	F-112027
<b>WB07158</b> <sup>1)6)</sup>	30	136,4	39,16	58,44	38,8	15,977	-	-	-	-	W6537
<b>WB07458</b> <sup>1)6)</sup>	30	138,11	40,97	58,34	38,8	15,977	-	-	-	-	W6543
<b>WB07159</b> <sup>1)6)</sup>	30	142,87	40,12	63,95	38,8	15,977	-	-	-	-	W6562
<b>WB07148</b> <sup>1)6)</sup>	30	151,59	23,84	88,95	38,8	15,918	-	-	-	-	W2596.T2556
<b>WB05099</b> <sup>1)</sup>	30	161,9	58,4	64,7	38,8	15,918	-	-	-	-	F-112029
<b>WB07149</b> <sup>1)6)</sup>	30	162,31	40,96	82,55	38,8	15,918	-	-	-	-	W2639.T2358
<b>WB07150</b> <sup>1)6)</sup>	30	168,28	58,44	71,04	38,8	15,918	-	-	-	-	W2662.T1652
<b>WA21622.01</b> <sup>3)</sup>	34	78	14,3	33,8	29,9	17,008	15,918	12,038	13,3	31,5	-
<b>WB21472.02</b>	34	78	14,3	33,8	29,9	17,008	15,918	12,038	13,3	31,5	-
<b>WB11272.01</b>	34	80	12,1	34	33,9	17,008	-	12,038	-	33	-
<b>WA11435.02</b> <sup>3)</sup>	34	80	12,1	34	33,9	17,008	-	12,038	-	31,7	-
<b>WA11654</b> <sup>3)</sup>	34	98	14	37,1	46,9	17,008	-	12,055	-	34,8	-
<b>WA11794</b> <sup>3)</sup>	34	122	24	51,1	46,9	17,008	-	12,055	-	48,8	-

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

5) No seal.

6) Special outer ring.

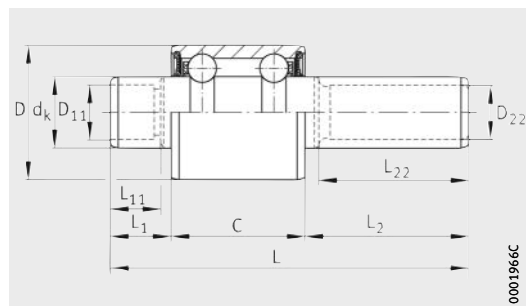
7) Rolling element sets laterally transposed.



# Water pump bearings

Double row

Ball/ball



WA, WB

**Dimension table** (continued) · Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WB11085.06</b> <sup>2)</sup>	<b>36</b>	90,7	14	37,9	38,8	17,008	–	15,008	–	34	–
<b>WB11133.02</b>	<b>36</b>	92,5	17,8	35,9	38,8	17,008	–	15,008	–	34,5	–
<b>WB27065.01</b> <sup>4)</sup>	<b>36</b>	96	17	42	37	20	15,918	15,918	17	41,6	–
<b>WB11066.01</b> <sup>1)</sup>	<b>36</b>	104,5	49,6	2	52,9	23,502	16,984	–	8,5	–	–
<b>WB11081.01</b>	<b>36</b>	112	20	62,1	29,9	20	–	12,008	–	45,85	–
<b>WB21064.01</b> <sup>1)</sup>	<b>36</b>	116,7	27,9	35,9	52,9	23,502	16,984	15,008	8,5	32,2	–
<b>WB11044.03</b> <sup>1)</sup>	<b>36</b>	126,4	17,1	49,4	59,9	20,004	–	15,002	–	43,7	–
<b>WB21043.01</b>	<b>36</b>	135,2	25	50,3	59,9	20,004	15,944	15,002	8	41	–
<b>WB21049.01</b> <sup>1)</sup>	<b>36</b>	145,7	33,3	64,4	48	20	14,984	15,002	14,7	63,4	–
<b>WB21109.01</b>	<b>36</b>	156,7	22,3	86,4	48	20	14,984	15,002	3,7	74,4	–
<b>WB21050.01</b> <sup>1)</sup>	<b>36</b>	159,2	33,3	77,9	48	20	14,984	15,002	14,7	76,2	–
<b>WB07162</b> <sup>1)6)</sup>	<b>38,1</b>	63,5	4,74	4,78	53,98	18,961	–	–	–	–	WK2250.T1428
<b>WB27251.01</b> <sup>5)6)</sup>	<b>38,1</b>	105,76	39,64	39,22	26,9	19,861	15,861	13,776	39,54	12,7	–
<b>WB27395</b> <sup>6)</sup>	<b>38,1</b>	112,67	28,59	42,8	41,28	18,961	15,918	15,918	25,4	40,5	WS2443
<b>WB17622</b> <sup>6)</sup>	<b>38,1</b>	113	26,59	45,13	41,28	18,918	–	12,038	–	42,83	–
<b>WB17109</b> <sup>6)</sup>	<b>38,1</b>	119,05	26,59	51,18	41,28	18,961	–	15,918	–	48,88	WS2468-2
<b>WB17088</b> <sup>1)6)</sup>	<b>38,1</b>	120,5	25,8	40,72	53,98	19,012	–	12,089	–	38,42	WK6474-2D
<b>WB17311</b> <sup>6)</sup>	<b>38,1</b>	121,69	30,09	50,32	41,28	18,961	–	12,038	–	48,02	WS2479
<b>WB27163</b> <sup>6)</sup>	<b>38,1</b>	125,73	30,86	40,89	53,98	18,961	15,918	15,918	27,43	38,59	WK2495
<b>WB17313</b> <sup>6)</sup>	<b>38,1</b>	125,98	30,6	41,4	53,98	18,961	–	15,918	–	39,1	WK2496-2
<b>WB17089</b> <sup>1)6)</sup>	<b>38,1</b>	127	31,37	41,65	53,98	19,012	–	15,977	–	39,35	WK6500-2
<b>WB17164</b> <sup>6)</sup>	<b>38,1</b>	127	31,36	41,66	53,98	18,961	–	15,918	–	39,36	WK2500-2
<b>WB17165</b> <sup>6)</sup>	<b>38,1</b>	127,25	29,13	44,14	53,98	18,961	–	15,918	–	41,84	WK2501
<b>WB27090</b> <sup>1)6)</sup>	<b>38,1</b>	127,48	31,03	42,47	53,98	19,012	15,918	15,977	13,72	40,17	WK6501-3B
<b>WB27166</b> <sup>6)</sup>	<b>38,1</b>	127,48	31,03	42,47	53,98	18,961	15,918	15,918	13,72	40,17	WK2501-3
<b>WB15100</b>	<b>38,1</b>	131,3	28,37	48,95	53,98	18,961	–	15,918	–	44,68	F-112032
<b>WB15101</b> <sup>2)</sup>	<b>38,1</b>	131,6	24,47	53,15	53,98	18,961	–	15,918	–	49,1	F-112033
<b>WB17091</b> <sup>1)6)</sup>	<b>38,1</b>	134,87	37,34	43,55	53,98	19,012	–	15,977	–	41,25	WK6531

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

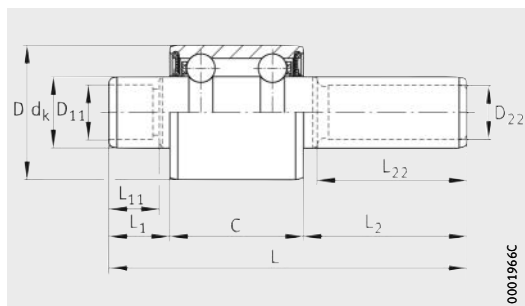
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Ball/ball



WA, WB

0001966C

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WB17092</b> <sup>1)6)</sup>	<b>38,1</b>	135,64	31,88	49,78	53,98	19,012	–	15,977	–	47,48	WK6534
<b>WB17093</b> <sup>1)6)</sup>	<b>38,1</b>	141,98	31,75	56,25	53,98	19,012	–	15,977	–	53,95	WK6559-2
<b>WB27094</b> <sup>1)6)</sup>	<b>38,1</b>	143,48	30,83	58,67	53,98	19,012	15,918	15,977	12,24	56,37	WK6564-6B
<b>WB27167</b> <sup>6)</sup>	<b>38,1</b>	143,48	30,83	58,67	53,98	18,961	15,918	15,918	12,24	56,37	WK2564-6/WK2564-10
<b>WB17168</b> <sup>6)</sup>	<b>38,1</b>	144,15	32,47	57,7	53,98	18,961	–	12,038	–	55,4	WK2567D.M3564
<b>WB27263</b> <sup>6)</sup>	<b>38,1</b>	146,05	36,32	55,75	53,98	18,961	15,918	15,918	33	53,45	WK2575-4
<b>WB27466</b> <sup>6)</sup>	<b>38,1</b>	148,84	41,04	53,82	53,98	18,961	15,918	15,918	35,2	51,52	WK2586
<b>WB15102</b>	<b>38,1</b>	150,5	34,92	61,6	53,98	18,961	–	15,918	–	57,3	F-112038
<b>WB07099</b> <sup>1)6)</sup>	<b>38,1</b>	152,4	34,93	63,49	53,98	19,037	–	–	–	–	WK8600.T1617
<b>WB27084</b> <sup>6)</sup>	<b>38,1</b>	152,4	35,56	62,86	53,98	18,961	15,918	15,918	15,26	60,56	WK2600
<b>WB17085</b> <sup>6)</sup>	<b>38,1</b>	153,42	45,72	53,72	53,98	18,961	–	15,918	–	51,42	WK2604
<b>WB27086</b> <sup>6)</sup>	<b>38,1</b>	154,23	29,75	70,5	53,98	18,961	15,939	15,939	8,9	68,2	WK2607A
<b>WB17096</b> <sup>6)</sup>	<b>38,1</b>	156,59	39,64	62,97	53,98	19,012	–	15,977	–	60,67	WK6616-2
<b>WB17392</b> <sup>6)</sup>	<b>38,1</b>	156,6	39,62	63	53,98	18,961	–	15,918	–	60,7	WK2616-2
<b>WB27097</b> <sup>1)6)</sup>	<b>38,1</b>	157,99	46,74	57,27	53,98	19,012	15,918	15,977	14,8	54,97	WK6622B
<b>WB27087</b> <sup>6)</sup>	<b>38,1</b>	161,93	35,56	72,39	53,98	18,961	15,918	15,918	15,14	70,09	WK2637
<b>WB27098</b> <sup>1)6)</sup>	<b>38,1</b>	161,93	35,56	72,39	53,98	19,012	15,918	15,977	15,14	70,09	WK6637B

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

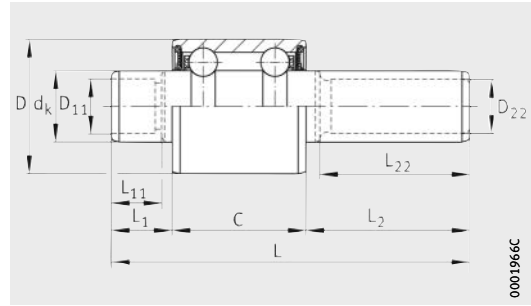
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Ball/ball



WA, WB

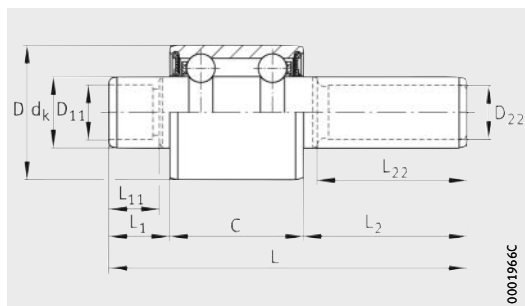
**Dimension table** (continued) · Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WB11269.02</b> <sup>1)</sup>	40	53,7	10,2	1,6	41,9	24,5	18	–	7,2	–	–
<b>WB11213.01</b>	40	79,7	10	47,7	22	24,502	–	12,038	–	45,7	–
<b>WB01634.01</b> <sup>1)</sup>	40	81,5	20,3	1,3	59,9	24,5	–	–	–	–	–
<b>WB11283.01</b>	40	84	18	44	22	24,502	–	12,038	–	43	–
<b>WB11148.03</b>	40	84,5	9,5	35,1	39,9	24,502	–	12,038	–	34	–
<b>WB01077</b> <sup>2)</sup>	40	91	6,1	35	49,9	20,004	–	–	–	–	–
<b>WB11130.01</b> <sup>1)</sup>	40	96,5	22	49,5	25	24,5	–	15,002	–	47,5	–
<b>WB01181</b> <sup>1)</sup>	40	101	22	17,1	61,9	20,004	–	–	–	–	–
<b>WB11264</b>	40	110	24	44	42	20,002	–	12,038	–	40,3	–
<b>WB11806.04</b> <sup>1)</sup>	40	112	36,1	36	39,9	24,5	–	12,038	–	34	–
<b>WB11148.02</b> <sup>1)</sup>	40	114	19,1	55	39,9	24,502	–	12,038	–	53	–
<b>WB21116.04</b>	40	117,5	24	51,5	42	24,5	20,002	15,002	23	47,8	–
<b>WB21289.01</b>	40	117,5	23,5	51	43	24,5	20,002	15,002	23	47,8	–
<b>WB21219.01</b> <sup>1)</sup>	40	129,7	33	62,8	33,9	24,5	–	12,038	23,2	60	–
<b>WB21053</b>	40	135,2	25	48,3	61,9	20,004	15,944	15,002	8	41	–
<b>WB11091.05</b> <sup>1)</sup>	40	135,7	18,8	56,9	60	24,5	–	15,002	–	53,2	–
<b>WB21110.01</b>	40	140,9	24	56,9	60	24,5	20,002	15,002	23	53,2	–
<b>WB11000</b>	40	147	35,5	51,5	60	20,002	–	15,002	–	47,8	–
<b>WB21114</b> <sup>1)</sup>	40	177,6	23,5	92,2	61,9	20,004	15,944	15,002	6	80,7	–
<b>WB21129</b>	40	177,6	23,5	92,2	61,9	20,004	15,944	15,002	6	80,7	–

- 1) Special shaft.
- 2) Flinger sleeve.
- 3) R-SAFE seal.
- 4) Rotary shaft seal.
- 5) No seal.
- 6) Special outer ring.
- 7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Ball/ball



WA, WB

0001966C

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WB11810</b> <sup>1)</sup>	47	40,3	2,7	–	37,6	28,4	24,4	–	2,7	–	
<b>WB11601</b> <sup>1)</sup>	47	43,6	23	–	20,6	28,4	24,5	–	–	–	
<b>WB11602</b> <sup>1)</sup>	47	60,6	23	–	37,6	28,4	24,5	–	–	–	
<b>WB05115</b> <sup>1)5)6)</sup>	47	76	20	8	48	26	–	–	–	F-226707.3	
<b>WB21320</b>	47	93	16	42,1	34,9	24	15,918	12,038	15	40	
<b>WB11128</b> <sup>1)</sup>	47	111,2	1	62,2	48	26	–	15	–	41	
<b>WB21127</b>	47	135,2	25	48,3	61,9	26,004	15,944	15,002	8	41	
<b>WB11113</b> <sup>1)</sup>	47	137,5	1	61,6	74,9	26	–	15,002	–	44	
<b>WB11146</b> <sup>1)</sup>	47	139,2	3,8	64,9	70,5	26	–	15,002	–	43,7	
<b>WB21115</b> <sup>1)</sup>	47	154,2	18,8	64,9	70,5	26	24,5	15,002	18,8	43,7	
<b>WB21052.01</b> <sup>1)</sup>	47	156,7	26	62,8	67,9	20,004	15,944	15,002	6,5	20	
<b>WB11879</b>	<b>47,625</b>	161,28	46,45	45	69,85	25,4	–	12,038	–	43,9	
<b>WB11881</b> <sup>1)</sup>	<b>47,625</b>	170	46,45	53,7	69,85	25,4	–	12,038	–	52,6	
<b>WB21388.08</b> <sup>1)4)</sup>	<b>52</b>	113,25	22,25	44,1	46,9	25	–	12,038	10	42	
<b>WB11730</b>	<b>52</b>	156	36,27	51	68,73	25,017	–	15,918	–	48,5	
<b>WA11665.01</b> <sup>4)</sup>	<b>55</b>	130	32	50,65	47,35	30	–	15,01	–	47,8	
<b>WA21782</b> <sup>4)</sup>	<b>55</b>	144	20	56	68	30	25	19	19	53,7	

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

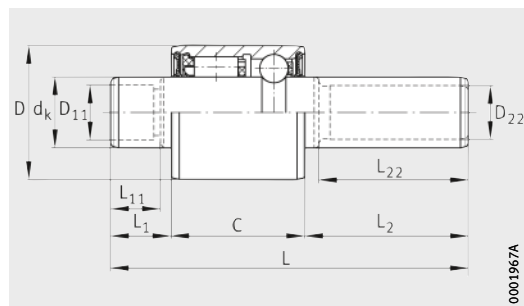
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

**Dimension table** - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WT01779</b>	24	70,9	16	23	31,9	12,038	-	-	-	-	-
<b>WT01504<sup>1)</sup></b>	24	80	16,6	36,5	26,9	12,008	-	-	-	-	-
<b>WT01579</b>	24	86	16	38,1	31,9	12,038	-	-	-	-	-
<b>WR07671<sup>4)</sup></b>	30	51	17	4	30	15,918	-	-	-	-	-
<b>WF02065</b>	30	53,3	13,5	1	38,8	15,918	-	-	-	-	-
<b>WR11837<sup>3)</sup></b>	30	67,3	13,5	30,9	22,9	15,918	-	12	-	28,6	-
<b>WR04037</b>	30	68,39	25	4,59	38,8	15,918	-	-	-	-	RW306206-LB6G43
<b>WR01022.01<sup>2) 7)</sup></b>	30	69,3	26	4,5	38,8	15,918	-	-	-	-	-
<b>WT11867<sup>3)</sup></b>	30	72,4	11,5	31	29,9	15,918	-	12,055	-	28,7	-
<b>WR17628<sup>6)</sup></b>	30	73	14	32	27	15,918	-	12,038	-	29,7	-
<b>WR01614.01<sup>6)</sup></b>	30	76	29,9	2,2	43,9	15,918	-	-	-	-	-
<b>WR17058<sup>6) 7)</sup></b>	30	76	16,3	32,7	27	15,918	-	12,038	-	30,7	WNS2299-2
<b>WR17059<sup>6)</sup></b>	30	76	13,96	35,04	27	15,918	-	12,038	-	32,74	WNS2299-3
<b>WT11546.03<sup>3)</sup></b>	30	77,95	15	33,05	29,9	15,918	-	12	-	30,45	-
<b>WT11674.08</b>	30	78	15,1	33	29,9	15,918	-	12,038	-	32	-
<b>WR14008</b>	30	78,9	15,2	33,8	29,9	15,918	-	12	-	31,5	-
<b>WR14008.01<sup>1)</sup></b>	30	78,9	15,2	33,8	29,9	15,918	-	12	-	31,5	-
<b>WT11640</b>	30	78,9	15,2	33,8	29,9	15,918	-	12,038	-	31,5	-
<b>WR11702<sup>3) 7)</sup></b>	30	79,12	14,1	35,12	29,9	15,918	-	12	-	32,82	-
<b>WR17014<sup>6)</sup></b>	30	79,26	13,6	35,76	29,9	15,918	-	12,038	-	33,46	WNS2312.J3413
<b>WR11369.02<sup>3)</sup></b>	30	79,3	12,1	37,3	29,9	15,918	-	12	-	33,2	-
<b>WT11816.01<sup>3) 7)</sup></b>	30	79,5	16,1	33,5	29,9	15,918	-	12,038	-	31,2	-
<b>WR14033.01</b>	30	79,8	15,5	41,4	22,9	15,918	-	12	-	39,1	RW306212-LB6G43
<b>WF01138.02</b>	30	80	14,1	38	27,9	15,918	-	-	-	-	-
<b>WF11567.01<sup>3) 7)</sup></b>	30	80	17	31,1	31,9	15,918	-	12,038	-	28,8	-
<b>WR17258<sup>6) 7)</sup></b>	30	80,5	19,24	34,26	27	15,918	-	12,038	-	31,96	WNS2316
<b>WR17060<sup>6)</sup></b>	30	81,51	16,18	38,33	27	15,918	-	12,038	-	36,03	WNS2320
<b>WR11072.01</b>	30	81,7	13,7	34,1	33,9	15,918	-	12,038	-	33,4	-

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

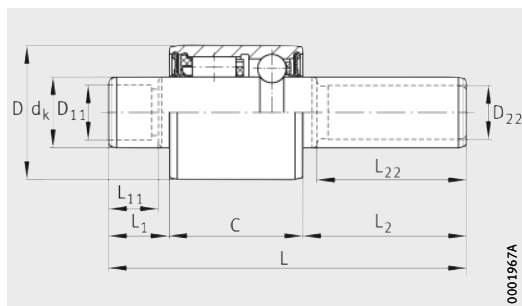
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

0001967A

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
WT11422 <sup>3)</sup>	30	82	14	34,1	33,9	15,918	–	12,038	–	32,1	–
WT11422.02	30	82	14	34,1	33,9	15,918	–	12,038	–	32,1	–
WT11751 <sup>7)</sup>	30	82,15	15	37,25	29,9	15,918	–	12,038	–	34,95	–
WR07302 <sup>6)</sup>	30	82,55	18,26	37,29	27	15,918	–	–	–	–	WNS2325-1.J3770
WR17651	30	82,75	15,5	37,25	30	15,918	–	12,038	–	34,95	–
WR17315.01 <sup>6)</sup>	30	84,26	15	42,26	27	15,918	–	12,038	–	39,96	–
WT11649 <sup>3)</sup>	30	84,3	20,8	33,6	29,9	15,918	–	12,008	–	31,5	–
WR17011 <sup>6)</sup>	30	84,63	17,27	40,36	27	15,918	–	12,038	–	38,06	WNS2333
WR11515.03 <sup>6)</sup>	30	85	17	34,2	33,8	15,918	–	12,038	–	33	–
WT11862 <sup>3)</sup>	30	85	17	38,1	29,9	15,918	–	12	–	35,8	–
WR17061 <sup>6)</sup>	30	85,1	14,16	43,94	27	15,918	–	12,038	–	41,64	WNS2335
WR17056 <sup>6)</sup>	30	85,82	14,5	41,32	30	15,918	–	12,038	–	39,02	WNS2337-1
WR01345.02 <sup>6)</sup>	30	86	21,1	5	59,9	15,918	–	–	–	–	–
WT11974 <sup>3)</sup>	30	86	17	39,1	29,9	15,918	–	12,008	–	36,9	–
WT11786 <sup>3)</sup>	30	86,05	14,5	41,65	29,9	15,918	–	12,038	–	39,35	–
WF11137.04	30	86,5	13,5	34,2	38,8	15,918	–	12,038	–	32,45	F-228188
WF11137.06 <sup>3)</sup>	30	86,5	13,5	34,2	38,8	15,918	–	12,038	–	32,2	–
WR17564 <sup>6)</sup>	30	86,7	19,31	40,39	27	15,918	–	12,038	–	38,09	–
WF11151	30	86,8	13,4	41,5	31,9	15,918	–	12,055	–	40,3	–
WF11293	30	86,8	13,3	41,6	31,9	15,918	–	12,038	–	39,9	–
WR17008 <sup>6)</sup>	30	87	17,27	42,73	27	15,918	–	12,038	–	40,43	WNS2342-3
WR11829 <sup>3)</sup>	30	87,15	18,3	38,95	29,9	15,918	–	12	–	36,65	–
WT11621 <sup>3)</sup>	30	87,3	20,8	36,6	29,9	15,918	–	12,008	–	34,3	–
WR14012	30	87,5	13,5	38	36	15,918	–	12	–	35,7	RW306211-LBF6G43
WR14012.01 <sup>3)</sup>	30	87,5	13,5	38	36	15,918	–	12	–	35,7	–
WR17324 <sup>6)7)</sup>	30	88,43	16,3	45,13	27	15,918	–	12,038	–	42,83	WNS2348-6
WR17062 <sup>1)6)7)</sup>	30	88,5	19,24	42,26	27	15,918	–	12,038	–	39,96	WNS2348-5
WF05112.02 <sup>1)</sup>	30	88,75	19,35	33	36,4	16	–	–	–	–	F-93024

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

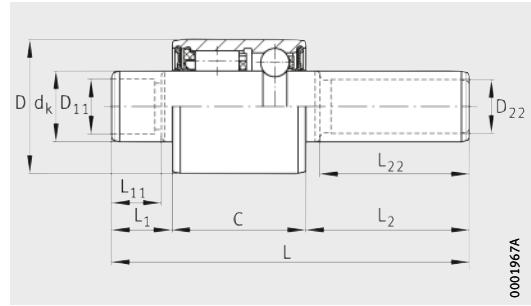
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

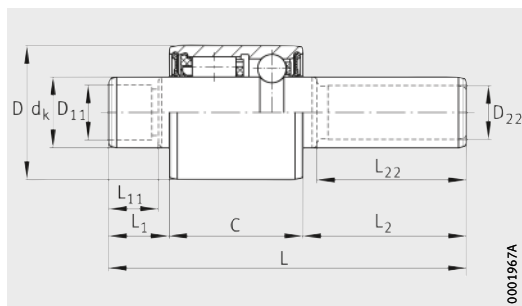
Dimension table (continued) · Dimensions in mm

Designation	Dimensions											Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>		
WR17344	30	89,66	16,45	41,73	31,48	15,918	-	12,038	-	39,43	WNS2353	
WR17002 <sup>3)4)</sup>	30	89,75	17,34	38,41	34	15,918	-	12,038	-	36,11	-	
WR11036.02	30	90	18,1	33,1	38,8	15,007	-	12,038	-	32	-	
WR17015 <sup>6)</sup>	30	90,83	21,64	42,19	27	15,918	-	12,038	-	40,19	-	
WR11450.04 <sup>3)4)</sup>	30	91	13,85	43,15	34	15,918	-	12	-	40,85	-	
WR11450.06 <sup>3)</sup>	30	91	13,85	43,15	34	15,918	-	12	-	40,85	-	
WF11284.03 <sup>3)</sup>	30	91,5	13,3	34,3	43,9	15,918	-	12,038	-	32,2	-	
WF11586 <sup>3)6)</sup>	30	91,5	11,6	34,2	45,7	15,918	-	12,038	-	32,2	-	
WR11569.02	30	92,1	17,69	35,61	38,8	15,918	-	12	-	33,31	-	
WR17004 <sup>6)</sup>	30	92,5	15	38,7	38,8	15,918	-	12	-	36,4	WN2364-7S.H94	
WR24032	30	92,5	16,5	37,2	38,8	15,918	12	12	14	34,9	RCHL-RW306201-LB6G43	
WR07268 <sup>6)</sup>	30	93,47	18,26	48,21	27	15,918	-	-	-	-	WNS2367.J3795	
WR11368.02 <sup>3)</sup>	30	93,9	17,4	37,7	38,8	15,918	-	12	-	35	-	
WR17119 <sup>6)</sup>	30	93,95	14,99	40,16	38,8	15,918	-	12,038	-	37,86	WN2369	
WF11551 <sup>3)</sup>	30	94	17,1	38,1	38,8	15,918	-	12,008	-	35,9	-	
WR15129	30	94,35	17,5	38,1	38,8	15,918	-	12,008	-	34,95	-	
WF01011.02	30	94,5	15,8	39,9	38,8	15,008	-	-	-	-	-	
WT11075.09	30	94,5	14,6	41,1	38,8	15,008	-	12	-	40	-	
WR11599.01 <sup>1)3)</sup>	30	94,9	18,3	46,7	29,9	15,918	-	12	-	33,5	-	
WR07293 <sup>1)6)</sup>	30	95,45	14,33	42,32	38,8	15,918	-	-	-	-	WN2375-3	
WR17040 <sup>6)</sup>	30	95,45	14,33	42,32	38,8	15,918	-	12,038	-	40,02	WN2375-4S	
WF11131.02	30	96,3	14,6	47,9	33,8	15,918	-	12,038	-	46,4	-	
WR11037.02	30	96,4	18,1	39,5	38,8	15,008	-	12,067	-	36,6	-	
WF01386.01	30	98	17,1	42,1	38,8	15,918	-	-	-	-	-	
WF11017.05 <sup>3)</sup>	30	98	17,1	42,1	38,8	15,918	-	12,038	-	40,1	-	
WF11017.06	30	98	17,1	42,1	38,8	15,918	-	12,038	-	40,1	-	
WF11818 <sup>3)</sup>	30	98	17,1	42,1	38,8	15,918	-	12,055	-	39,8	-	
WR05058.01	30	98	17,1	42,1	38,8	15,918	-	-	-	-	F-110557.03	

- 1) Special shaft.
- 2) Flinger sleeve.
- 3) R-SAFE seal.
- 4) Rotary shaft seal.
- 5) No seal.
- 6) Special outer ring.
- 7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

0001967A

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WR11930</b>	30	98	16,5	51,6	29,9	15,918	-	12	-	49,3	-
<b>WF11728</b>	30	98,21	13,5	45,91	38,8	15,918	-	12,038	-	43,61	-
<b>WT11934.01</b>	30	98,21	13,5	45,91	38,8	15,918	-	12,038	-	43,61	-
<b>WR24015</b>	30	98,5	17,1	51,5	29,9	15,918	12	12	15	49,2	RCHL-RW306221-LCF5G75
<b>WR17041<sup>6)</sup></b>	30	98,79	18,53	41,46	38,8	15,918	-	12,038	-	39,16	WN2388-2S
<b>WT01300.01<sup>1)</sup></b>	30	99,5	15,7	39,9	43,9	15,008	-	-	-	-	-
<b>WR17043</b>	30	99,85	10,94	50,11	38,8	15,918	-	12,038	-	47,81	WN2393S
<b>WR11692<sup>7)</sup></b>	30	100	19,4	41,8	38,8	15,918	-	12	-	39,5	-
<b>WR11304.01<sup>3)</sup></b>	30	100,75	15,5	46,45	38,8	15,918	-	12	-	44,1	-
<b>WR11304.03</b>	30	100,75	15,5	46,45	38,8	15,918	-	12	-	44,1	-
<b>WR07042.01<sup>1)</sup></b>	30	102	17	46,2	38,8	15,918	-	-	-	-	WN2401-5
<b>WR17257</b>	30	102,21	23,55	39,86	38,8	15,918	-	12,038	-	37,56	-
<b>WR14000</b>	30	103	16,5	47,7	38,8	15,918	-	12	-	45,4	RCHL-RW306203-LB6G43
<b>WR14000.01<sup>3)</sup></b>	30	103	16,5	47,7	38,8	15,918	-	12	-	45,4	RCHL-RW306203-LC5F4L5G68
<b>WR17121.01<sup>6)</sup></b>	30	103	16,5	47,7	38,8	15,918	-	12	-	45,4	-
<b>WR07044<sup>1)6)</sup></b>	30	103,12	27,98	36,34	38,8	15,918	-	-	-	-	WN2406-9
<b>WR17045<sup>1)</sup></b>	30	103,5	19,54	45,16	38,8	15,918	-	12,038	-	42,86	WN2407-5S.T3377
<b>WT11560<sup>1)</sup></b>	30	103,5	19,6	45,1	38,8	15,918	-	12,038	-	43,1	-
<b>WR05132</b>	30	104,1	19,1	50,6	34,4	15,918	-	-	-	-	-
<b>WR07294<sup>1)6)</sup></b>	30	105,4	20,3	46,3	38,8	15,918	-	-	-	-	WN2415
<b>WF01013.02<sup>1)</sup></b>	30	105,75	14,35	39,5	51,9	15,008	-	-	-	-	-
<b>WR05110<sup>2)</sup></b>	30	105,9	21,4	45,7	38,8	15,918	-	-	-	-	F-45943
<b>WF01016.07</b>	30	105,95	19,65	47,5	38,8	16	-	-	-	-	-
<b>WR11034.03</b>	30	106	27,7	39,5	38,8	15,008	-	12,067	-	36,6	-
<b>WR11040.01<sup>2)</sup></b>	30	106	23,1	44,1	38,8	15,918	-	12,038	-	39,6	-
<b>WR17047<sup>6)</sup></b>	30	106,5	22,06	45,64	38,8	15,918	-	12,038	-	43,34	WN2419S

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

5) No seal.

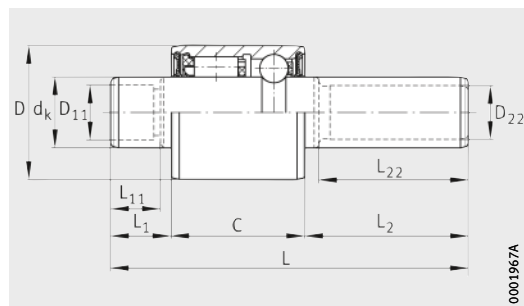
6) Special outer ring.

7) Rolling element sets laterally transposed.



# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

**Dimension table** (continued) · Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WR17585.01</b> <sup>6)</sup>	30	106,75	31,9	47,85	27	15,918	–	12,038	–	45,55	–
<b>WF15047</b> <sup>6)</sup>	30	108,3	18,5	51	38,8	15,918	–	12,038	–	48	F-110734
<b>WF15047.07</b> <sup>6)</sup>	30	108,3	18,5	51	38,8	15,918	–	12,038	–	48	–
<b>WT21639.02</b>	30	108,5	22,1	47,6	38,8	15,918	12,038	12,038	21	45,3	–
<b>WR14018</b>	30	108,8	20,5	49,5	38,8	15,918	–	12	–	47,2	RCHL-RW306215FS21-LCF5G75
<b>WR15093</b> <sup>1)</sup>	30	109,05	33,05	41,5	34,5	15,918	14,987	–	30,85	–	F-112013
<b>WF01009.04</b>	30	109,25	17,85	39,5	51,9	15,008	–	–	–	–	–
<b>WF05136.03</b> <sup>1)</sup>	30	109,25	17,85	39,5	51,9	15,008	–	–	–	–	–
<b>WF11337.01</b>	30	109,25	17,85	39,5	51,9	15,008	–	12,038	–	38	–
<b>WR14019</b> <sup>7)</sup>	30	109,9	29,3	41,8	38,8	15,918	–	12	–	39,5	RCHL-RW306216-LCF5G75
<b>WF11107.02</b>	30	110	21,7	44,4	43,9	15,918	–	12,038	–	42,8	–
<b>WT11694</b>	30	110	21,7	49,5	38,8	15,918	–	12,038	–	47,2	–
<b>WR11159.02</b>	30	110,3	18,9	39,5	51,9	15,008	–	12,067	–	37,5	–
<b>WR07009</b> <sup>1) 6)</sup>	30	110,39	21,45	50,14	38,8	15,918	–	–	–	–	WN2434
<b>WR17049</b> <sup>6)</sup>	30	110,39	21,45	50,14	38,8	15,918	–	12,038	–	47,84	WN2434-4S
<b>WT11609</b>	30	113,9	22,5	52,6	38,8	15,918	–	12,038	–	50,1	–
<b>WR07352</b> <sup>6)</sup>	30	114	19,1	56,1	38,8	15,918	–	–	–	–	WN2448-1.H104
<b>WT11588.03</b>	30	114,4	20,4	55,2	38,8	15,008	–	13,038	–	10	–
<b>WR11856</b> <sup>3)</sup>	30	115	20,7	55,5	38,8	15,918	–	12	–	53,2	–
<b>WF05106.01</b> <sup>1)</sup>	30	115,5	36,8	39,9	38,8	15,008	–	–	–	–	F-113080
<b>WF01014.02</b> <sup>2)</sup>	30	115,75	17,85	46	51,9	16	–	–	–	–	–
<b>WR14009</b>	30	116,95	17	61,15	38,8	15,918	–	12,038	–	58,85	RCHL-RW306223-LC5G68
<b>WR17454</b> <sup>6)</sup>	30	117,98	24,58	54,6	38,8	15,918	–	12,038	–	52,3	–
<b>WF11763.01</b>	30	118,5	27,1	39,5	51,9	15,008	–	12,067	–	36,6	–
<b>WF11039.02</b>	30	118,9	23,5	39,5	55,9	15,008	–	12,067	–	36,6	–
<b>WR17295</b> <sup>6)</sup>	30	120	20,7	60,5	38,8	15,918	–	12,038	–	58,2	WN2472S
<b>WR17050</b> <sup>6)</sup>	30	121,8	31,51	51,49	38,8	15,918	–	12,038	–	49,19	WN2479S.RIT
<b>WT01866</b>	30	121,8	27	56	38,8	16	–	–	–	–	–

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

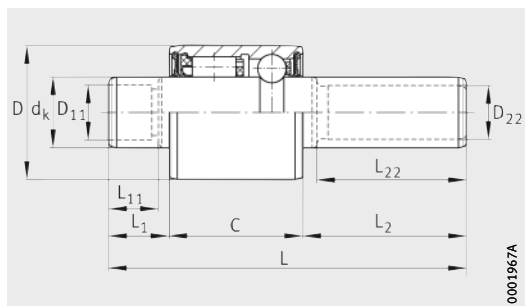
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



0001967A

WF, WR, WT

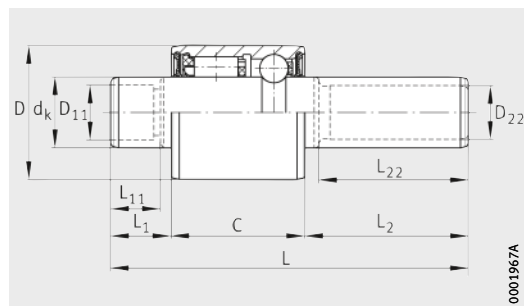
**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WR05091</b> <sup>2)</sup>	30	121,9	37,4	45,7	38,8	15,912	-	-	-	-	-
<b>WR05108</b> <sup>1)2)</sup>	30	121,9	37,4	45,7	38,8	15,918	-	-	-	-	-
<b>WR11796</b>	30	121,9	17,5	65,6	38,8	15,918	-	12,04	-	48,6	-
<b>WR11845</b>	30	124,66	22,06	72,6	30	15,918	-	12,038	-	49,05	-
<b>WR17557</b> <sup>6)</sup>	30	125	20,5	65,7	38,8	15,918	-	12,038	-	39,11	-
<b>WR01008.02</b> <sup>1)</sup>	30	125,25	17,75	55,5	51,9	15,008	-	-	-	-	-
<b>WR05105</b>	30	127,43	22	66,63	38,8	15,918	-	-	-	-	F-110023C
<b>WR15157</b>	30	127,5	22,1	66,6	38,8	15,918	-	12,038	-	51,43	-
<b>WR11360.01</b>	30	127,8	23,4	65,6	38,8	15,918	-	12,04	-	48,6	-
<b>WR17286</b> <sup>1)6)</sup>	30	136,39	20,54	77,05	38,8	15,918	-	12,038	-	50,5	WN2536S
<b>WR07051</b> <sup>1)6)</sup>	30	139	23,11	77,09	38,8	15,918	-	-	-	-	WN2547
<b>WR17667</b> <sup>6)</sup>	30	142	24,25	78,95	38,8	15,918	-	12,038	-	47,9	-
<b>WF11032.03</b> <sup>1)2)</sup>	30	142,65	56,25	47,6	38,8	16	15,008	-	52,15	-	-
<b>WR01019.01</b> <sup>6)</sup>	30	144	46,1	38	59,9	15,918	-	-	-	-	-
<b>WR07052</b> <sup>1)6)</sup>	30	147,11	26	82,31	38,8	15,918	-	-	-	-	WN2579
<b>WR11871</b> <sup>6)</sup>	30	166,03	23,15	115,88	27	15,918	-	12,038	-	88	-
<b>WT22096.03</b>	34	90,8	22	34,9	33,9	17,008	15,918	12,055	20,5	32,6	-
<b>WT12068</b>	34	96,4	19,5	41	35,9	17,008	-	12,038	-	38,7	-
<b>WF21222.03</b>	34	98	17,1	42,1	38,8	17,008	15,918	12,038	16	40,6	-
<b>WT11593</b>	34	104,08	19	46,28	38,8	17,008	-	15,918	-	43,8	-
<b>WT11628</b>	34	104,9	17,5	48,6	38,8	17,008	-	12,038	-	46	-
<b>WT11685.01</b> <sup>3)</sup>	34	105,5	21,1	48,5	35,9	17,008	-	12,038	-	46,2	-
<b>WF21211.02</b>	34	111	24,1	40	46,9	17,008	15,008	12,055	23	39	-
<b>WT11590.01</b> <sup>3)</sup>	34	111	21	38,1	51,9	17,008	-	12	-	35,5	-
<b>WT11726</b>	34	114,58	19	56,78	38,8	17,008	-	15,918	-	54,48	-
<b>WT11079.02</b>	34	120,5	28,8	44,8	46,9	17,008	-	12,038	-	39	-

- 1) Special shaft.
- 2) Flinger sleeve.
- 3) R-SAFE seal.
- 4) Rotary shaft seal.
- 5) No seal.
- 6) Special outer ring.
- 7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

**Dimension table** (continued) · Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WR24086.01</b> <sup>3)7)</sup>	<b>35</b>	84,7	15,2	37,5	32	18	17,5	12	14,5	34,8	–
<b>WR14007</b>	<b>35</b>	85,5	15,5	40,1	29,9	18	–	12	–	37,8	RCHL-RW357013-LC5G68
<b>WR14007.01</b> <sup>3)</sup>	<b>35</b>	85,5	15,5	40,1	29,9	18	–	12	–	37,8	RCHL-RW357013-LC5F4L5GG8
<b>WR11773</b>	<b>35</b>	91	16,4	35,8	38,8	18	–	12,038	–	33,5	–
<b>WR24035</b>	<b>35</b>	92,5	16,5	37,2	38,8	18	15,918	12	15	34,9	RW357002-LB6G43
<b>WR24034</b>	<b>35</b>	95	17,5	38,7	38,8	18	12	12	15	36,4	RCHL-RW357004-LB6G43
<b>WR24006</b>	<b>35</b>	96	26	40,1	29,9	18	15,918	12	7	37,8	RCHL-RW357006-LC5G75
<b>WR24025</b>	<b>35</b>	100,4	16,5	45,1	38,8	18	15,918	12	14,5	42,8	RCHL-RW357001-LD5LC5G75
<b>WR24038</b>	<b>35</b>	103,2	26,4	38	38,8	18	15,918	12	24,5	35,7	RCHL-RW357003-LC5G75
<b>WR14026.01</b> <sup>3)</sup>	<b>35</b>	135,7	18,8	60,9	56	18	–	12,038	–	58,6	–
<b>WF11067</b>	<b>36</b>	101,5	17,1	40,5	43,9	16,95	–	12,038	–	38,5	–
<b>WF21141.01</b> <sup>2)</sup>	<b>36</b>	116,45	19,7	57,75	39	20	16	16	18,75	54	–
<b>WF21900</b> <sup>3)</sup>	<b>36</b>	119,1	21,5	45,7	51,9	17,008	15,008	12,055	20,5	43,4	–
<b>WF21088.01</b>	<b>36</b>	122,5	29	41,6	51,9	17,008	15,008	12,055	28	40,85	–
<b>WF21722</b>	<b>36</b>	123,7	26	45,8	51,9	17,008	15,008	12,055	25	43,8	–
<b>WR21112.02</b> <sup>1)</sup>	<b>36</b>	125,5	25,35	48,25	51,9	20	15,002	15,002	22,5	44,5	–
<b>WF17053.01</b>	<b>36</b>	126	21	53,1	51,9	20,008	–	15,01	–	51,2	–
<b>WF21089</b>	<b>36</b>	130,7	33	45,8	51,9	17,008	15,008	12,055	32	43,8	–
<b>WF21544</b>	<b>36</b>	148	23	73,1	51,9	17,008	15,008	12,038	22	71	–
<b>WR01785.01</b> <sup>1)6)</sup>	<b>38,1</b>	25	–	–	25	18,961	–	–	–	–	–
<b>WR11078.02</b>	<b>38,1</b>	73,1	26,1	–	46,9	18,961	15,918	–	25	–	–
<b>WR15088.01</b>	<b>38,1</b>	74,5	25,7	1,9	46,9	18,961	15,918	–	24	–	F-110607-20
<b>WR01812</b> <sup>6)</sup>	<b>38,1</b>	79,1	30	1,1	48	18,961	–	–	–	–	–
<b>WR05103</b>	<b>38,1</b>	79,9	24	1,92	53,98	18,961	–	–	–	–	–
<b>WR15114</b>	<b>38,1</b>	79,9	24	1,92	53,98	18,961	15,918	–	20,3	–	F-110483
<b>WR15114.02</b> <sup>1)</sup>	<b>38,1</b>	79,9	24	1,8	54,1	18,961	15,918	–	20,3	–	F-110483.3

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

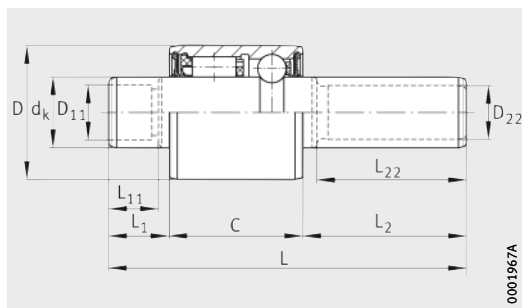
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

0001967A

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
WR17670 <sup>7)</sup>	38,1	88,96	23,1	34,96	30,9	18,961	-	12,038	-	32,66	-
WR07017 <sup>6)</sup>	38,1	90,88	33,32	3,58	53,98	18,961	-	-	-	-	WKN2357.L198
WR17399 <sup>6)</sup>	38,1	114,93	21,99	38,96	53,98	18,961	-	15,918	-	36,66	WKN2452-2
WR17018 <sup>6)</sup>	38,1	115,33	23,47	37,88	53,98	18,961	-	12,038	-	35,58	WKN2454D
WR17669 <sup>6)</sup>	38,1	117,98	20	44	53,98	18,961	-	15,918	-	41,7	-
WR27010 <sup>6)</sup>	38,1	118,15	19	51,15	48	18,961	15,918	12,038	17,54	48,85	WNS2465-1
WR07100 <sup>6)</sup>	38,1	119,36	61,8	3,58	53,98	18,961	-	-	-	-	WKN2469
WR17019 <sup>6)</sup>	38,1	120,5	25,8	40,72	53,98	18,961	-	15,918	-	38,42	WKN2474-2
WR17641	38,1	122,69	37,85	45,94	38,9	18,961	-	12,038	-	43,64	-
WR27384 <sup>6)</sup>	38,1	123,1	31,02	38,1	53,98	18,961	15,918	15,918	13,97	35,8	WKN2484-1
WR15121	38,1	123,5	23,37	47,15	53,98	18,961	-	15,906	-	41,2	F-45981
WR15139 <sup>1)</sup>	38,1	124,9	22	48,92	53,98	18,961	-	15,918	-	45,3	-
WR17267 <sup>6)</sup>	38,1	125,4	28,95	42,47	53,98	18,961	-	15,918	-	40,17	WKN2493
WR17020.01	38,1	125,98	28	44	53,98	18,961	-	12,038	-	41,7	WKN2495D
WR17285 <sup>6)</sup>	38,1	126	30,52	41,5	53,98	18,961	-	12,038	-	39,2	-
WR24023	38,1	127,36	18	68,26	41,1	18,961	15,918	12,038	15,5	65,96	RCHL-RW387404A-LC5G68
WR17021.01 <sup>6)</sup>	38,1	128	18	56,02	53,98	18,961	-	15,918	-	53,72	WKN2503
WR17022 <sup>6)</sup>	38,1	128,88	24,1	50,8	53,98	18,961	-	12,038	-	48,5	WKN2507-2D.TJ3311
WR27567 <sup>6)</sup>	38,1	129,93	33	42,95	53,98	18,961	15,009	12,038	31,09	40,65	-
WR24023	38,1	127,36	18	68,26	41,1	18,961	15,918	12,038	15,5	65,96	RCHL-RW387404A-LC5G68
WR17652 <sup>6)</sup>	38,1	130	25,92	50,1	53,98	18,961	-	12,038	-	47,8	-
WR15120	38,1	131,6	23,87	53,75	53,98	18,961	-	15,906	-	49,3	F-45646
WR17298 <sup>6)</sup>	38,1	133,31	32,54	46,79	53,98	18,961	-	12,038	-	44,49	WKN2524D
WR27023 <sup>6)</sup>	38,1	134,62	31,74	48,9	53,98	18,961	15,918	15,918	7,1	46,6	WKN2530
WR17013.01 <sup>6)</sup>	38,1	134,87	37,34	43,55	53,98	18,961	-	12,038	-	41,25	WKN2531-9D
WR17024 <sup>6)</sup>	38,1	134,87	37,34	43,55	53,98	18,961	-	15,918	-	41,25	WKN2531
WR17025 <sup>6)</sup>	38,1	134,87	30,09	50,8	53,98	18,961	-	15,918	-	48,5	WKN2531-3
WR17227 <sup>6)</sup>	38,1	134,88	30,1	50,8	53,98	18,961	-	12,038	-	48,5	WKN2531-8D

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

5) No seal.

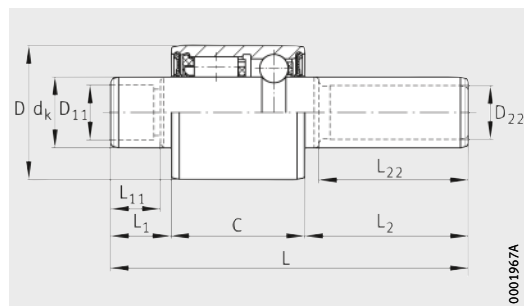
6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row

Roller/ball



WF, WR, WT

Dimension table (continued) · Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
WR17027 <sup>6)</sup>	38,1	135,64	31,88	49,78	53,98	18,961	–	15,918	–	47,48	WKN2534
WR17037 <sup>1) 6)</sup>	38,1	135,64	31,88	49,78	53,98	19,012	–	15,977	–	47,48	WKN6534
WR17297 <sup>6)</sup>	38,1	138,3	35,84	48,48	53,98	18,961	–	15,918	–	46,18	WKN2544-2
WR17028 <sup>6)</sup>	38,1	137,92	33,14	50,8	53,98	18,961	–	12,038	–	48,5	WKN2543-3D.TJ3315
WR17029 <sup>6)</sup>	38,1	138,27	24,11	60,18	53,98	18,961	–	12,038	–	57,88	WKN2544D
WR27347 <sup>6)</sup>	38,1	136,4	36,22	46,2	53,98	18,961	15,918	15,918	12,32	43,9	WKN2537.F1055
WR25109	38,1	142,3	39,4	48,92	53,98	18,961	15,918	15,918	35,8	45,3	F-45648
WR27030 <sup>6)</sup>	38,1	143,48	30,83	58,67	53,98	18,961	15,918	15,918	12,24	56,37	WKN2564-6/WKN 2564-5
WR17117 <sup>6)</sup>	38,1	144,15	32,47	57,7	53,98	18,961	–	12,038	–	55,4	WKN2567D
WR17031 <sup>6)</sup>	38,1	144,7	32,05	58,67	53,98	18,961	–	15,918	–	56,37	WKN2569
WR17394 <sup>1) 6)</sup>	38,1	144,7	32,05	58,67	53,98	19,012	–	15,977	–	56,37	–
WR14024	38,1	148,85	28,24	66,63	53,98	18,961	–	12,038	–	64,33	IHA-RW387405AFS2-LC5G75
WR27348 <sup>6)</sup>	38,1	150,5	35,05	61,47	53,98	18,961	15,918	15,918	12,88	59,17	WKN2592-2
WR27101 <sup>1) 6)</sup>	38,1	151,87	22,5	75,39	53,98	18,961	18,009	8,395	19,5	36,91	WKN2597.T3637
WR17118 <sup>6)</sup>	38,1	152,15	40,47	57,7	53,98	18,961	–	12,038	–	55,4	WKN2599D
WR17032 <sup>6)</sup>	38,1	153,42	45,75	53,69	53,98	18,961	–	15,918	–	51,39	WKN2604
WR17033 <sup>6)</sup>	38,1	156,59	39,62	62,99	53,98	18,961	–	15,918	–	60,69	WKN2616
WR27034 <sup>6)</sup>	38,1	157,99	46,74	57,27	53,98	18,961	15,918	15,918	14,78	54,97	WKN2622
WR27301 <sup>6)</sup>	38,1	157,99	46,74	57,27	53,98	18,961	15,918	12,038	14,78	54,97	WKN2622-1D
WR27467 <sup>6)</sup>	38,1	158,68	35,05	69,65	53,98	18,961	15,918	15,918	12,88	67,35	WKN2627-1/WKN2627
WR17574 <sup>6)</sup>	38,1	160,5	44,42	62,1	53,98	18,961	–	15,918	–	59,8	WKN2631
WR27341 <sup>6)</sup>	38,1	161,04	46,74	60,32	53,98	18,961	15,918	15,918	33,3	58,02	WKN2634-1
WR11843	38,1	169,84	23,15	92,71	53,98	18,961	–	12,038	–	90,41	–
WR17326 <sup>6)</sup>	38,1	169,84	23,15	92,71	53,98	18,961	–	15,918	–	90,41	–
WR17036 <sup>6)</sup>	38,1	174,75	52,53	68,24	53,98	18,961	–	12,038	–	65,94	WKN2688-7D
WR27035 <sup>6)</sup>	38,1	174,75	52,53	68,24	53,98	18,961	15,918	15,918	14,1	65,94	WKN2688
WR27343 <sup>6)</sup>	38,1	174,75	35	85,77	53,98	18,961	15,918	12,038	14,1	83,47	WKN2688-3D

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

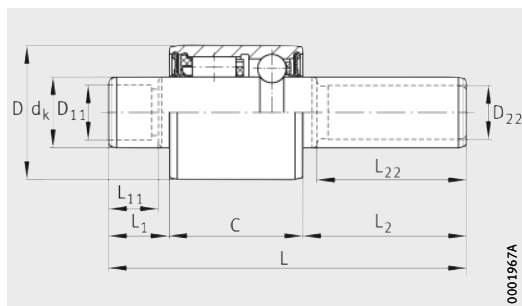
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



0001967A

WF, WR, WT

**Dimension table** (continued) - Dimensions in mm

Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WR01565.03</b> <sup>7)</sup>	40	62,65	1,85	22	38,8	20,004	-	-	-	-	-
<b>WT01715.02</b> <sup>7)</sup>	40	67,65	27	1,85	38,8	20,004	-	-	-	-	-
<b>WF01555.01</b>	40	85,25	1,85	33,5	49,9	20,004	-	-	-	-	-
<b>WR01418.01</b>	40	85,25	1,85	33,5	49,9	20,004	-	-	-	-	-
<b>WT11353</b> <sup>2)</sup>	40	103,3	20,6	43,9	38,8	20,004	-	12,038	-	38,9	-
<b>WF11549.03</b> <sup>2)</sup>	40	129,8	27,1	52,8	49,9	20,004	-	12,038	-	47,4	-
<b>WF11672.01</b> <sup>4)</sup>	40	132	17,1	61,5	53,4	20,004	-	16	-	56,5	-
<b>WF11058.02</b> <sup>2)4)</sup>	40	132	18,1	61,5	52,4	20,004	-	16	-	56,5	-
<b>WF11061.02</b> <sup>2)</sup>	40	143	31,5	61,5	50	20,004	-	16	-	55	-
<b>WF21171.03</b> <sup>1)2)</sup>	40	151	51,6	49,5	49,9	20	14,5	16	49	44	-
<b>WF11192.01</b> <sup>2)</sup>	40	168	45,1	73	49,9	20,004	-	12,038	-	64	-
<b>WR04031</b> <sup>1)</sup>	42	80	32	2,1	45,9	22	-	-	-	-	IH-RW428620-LD5G75
<b>WR24002</b>	42	110,5	23,6	41	45,9	22	19	12	22,6	38,7	RW4286-01-LC43
<b>WR24020</b>	42	115,5	26,5	43,1	45,9	22	18	13	24	40,8	RCHL-RW428604-LCF5G75
<b>WR24021</b>	42	127,5	26,6	55	45,9	22	18	12	24,15	52,7	RCHL-RW428621A-LCF5G75
<b>WR14043</b>	42	130,4	29,4	55,1	45,9	22	-	16	-	52,8	-
<b>WR14003.01</b> <sup>1)3)</sup>	42	135,7	18,8	61	55,9	22	-	12,038	-	58,7	RCHL-RW428617-LD5F4L5G68
<b>WR14016</b>	42	142	41	55,1	45,9	22	-	16	-	52,8	RCHL-RW428602-LC5G68
<b>WR14069</b>	42	142,75	28,95	67,9	45,9	22	-	12	-	65,8	-
<b>WT11527</b>	47	124	27,1	47	49,9	24	-	16	-	40	-
<b>WT21156.01</b>	47	124	27,1	47	49,9	24	20	12,038	25,5	46	-
<b>WT11352.04</b> <sup>2)</sup>	47	134	27,1	57	49,9	24	-	16	-	50	-
<b>WR27256</b> <sup>6)</sup>	47,625	176,1	20	102,12	53,98	25,4	18,961	15,918	16,5	63,5	WNS2693-1
<b>WR11858</b>	47,625	179,71	33,14	92,59	53,98	25,4	-	12,038	-	48,45	-

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

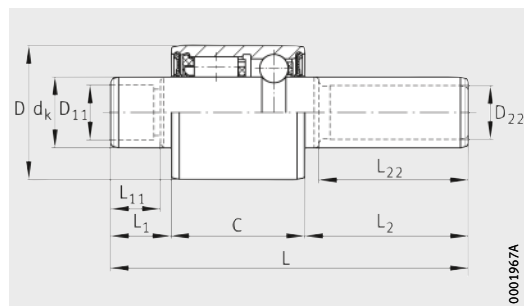
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Double row  
Roller/ball



WF, WR, WT

**Dimension table** (continued) · Dimensions in mm

Designation	Dimensions										Previous designation	
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>		
<b>WR01123.01</b> <sup>1)</sup>	55	72	10	2	60	25,021	–	–	–	–	–	–
<b>WR01125.02</b>	55	86	25	1	60	25,061	–	–	–	–	–	–
<b>WR07658</b> <sup>1)6)</sup>	55	95,6	3,7	31,9	60	25,061	–	–	–	–	–	–
<b>WR11122.01</b>	55	110	25	25	60	25,061	–	16,056	–	24	–	–
<b>WR17103</b> <sup>2)6)</sup>	55	127	25	42	60	25,061	–	16,056	–	38,75	–	WNS2500
<b>WR17104</b> <sup>2)6)</sup>	55	127	25	42	60	25,061	–	15,056	–	37,5	–	WNS2500-1.F2773
<b>WR17104.01</b> <sup>1)</sup>	55	127	25	42	60	25,061	–	15,056	–	37,5	–	–
<b>WR27105</b> <sup>6)</sup>	55	145,54	31,88	53,66	60	25,061	18,961	15,918	28,7	51,36	–	WNS2572.T3264
<b>WF11228</b>	55	150	30	63,6	56,4	25,061	–	16	–	61,5	–	WNS2590
<b>WT11687</b>	55	150	30	63,6	56,4	25,061	–	16	–	61,5	–	–
<b>WR27106</b> <sup>6)</sup>	55	153,29	32	61,29	60	25,061	18,961	15,918	13,59	58,99	–	WNS2603
<b>WR27107</b> <sup>6)</sup>	55	156,6	35,43	61,17	60	25,061	18,961	15,918	13,59	58,87	–	WNS2616-6
<b>WR27256</b> <sup>6)</sup>	55	176,1	20	102,12	53,98	25,4	18,961	15,918	16,5	63,5	–	WNS2693-1
<b>WR11103.04</b>	55	187	25	62	100	25,061	–	15,056	–	42	–	–

1) Special shaft.

2) Flinger sleeve.

3) R-SAFE seal.

4) Rotary shaft seal.

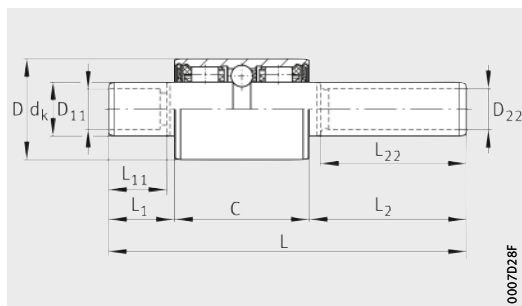
5) No seal.

6) Special outer ring.

7) Rolling element sets laterally transposed.

# Water pump bearings

Triple row  
Roller/ball/roller



WM

**Dimension table** · Dimensions in mm

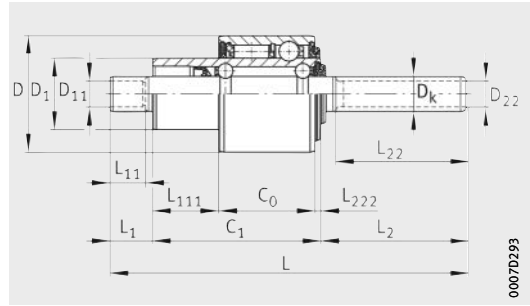
Designation	Dimensions										Previous designation
	D	L	L <sub>1</sub>	L <sub>2</sub>	C	dk	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	
<b>WM01798.01</b>	<b>30</b>	105,95	19,55	46,5	39,9	16	–	–	–	–	–
<b>WM01901.01</b>	<b>38,1</b>	82,78	26,5	2,3	53,98	18,961	–	–	–	–	–
<b>WM01878.01</b>	<b>38,1</b>	86,8	30,52	2,3	53,98	18,961	–	–	–	–	–
<b>WM12348<sup>1)</sup></b>	<b>38,1</b>	90,68	34,4	2,3	53,98	18,961	15,918	–	26,4	–	–

<sup>1)</sup> Special shaft.



# Water pump bearings

Double decker  
Ball/ball and roller/ball



WD

**Dimension table** - Dimensions in mm

Designation	Dimensions														Previous designation
	D	D <sub>i</sub>	L	L <sub>1</sub>	L <sub>2</sub>	C <sub>i</sub>	d <sub>k</sub>	D <sub>11</sub>	D <sub>22</sub>	L <sub>11</sub>	L <sub>22</sub>	C <sub>0</sub>	L <sub>111</sub>	L <sub>222</sub>	
<b>WD01980.07</b> <sup>3)4)7)</sup>	40	24,5	121,5	14,5	49,5	57,5	12,038	-	-	-	-	32,9	22,6	2	-

- 1) Special shaft.
- 2) Flinger sleeve.
- 3) R-SAFE seal.
- 4) Rotary shaft seal.
- 5) No seal.
- 6) Special outer ring.
- 7) Rolling element sets laterally transposed.

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