

# SKF stainless steel deep groove ball bearings

Reliable bearing solutions  
for corrosive environments





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# SKF – the knowledge engineering company

From one simple but inspired solution to a misalignment problem in a textile mill in Sweden, and fifteen employees in 1907, SKF has grown to become a global industrial knowledge leader.



Over the years, we have built on our expertise in bearings, extending it to seals, mechatronics, services and lubrication systems. Our knowledge network includes 46 000 employees, 15 000 distributor partners, offices in more than 130 countries, and a growing number of SKF Solution Factory sites around the world.

## Research and development

We have hands-on experience in over forty industries based on our employees' knowledge of real life conditions. In addition, our world-leading experts and university partners pioneer advanced theoretical research and development in areas including tribology, condition monitoring, asset management and bearing life theory. Our ongoing commitment to research and development helps us keep our customers at the forefront of their industries.

## Meeting the toughest challenges

Our network of knowledge and experience, along with our understanding of how our core technologies can be combined, helps us create innovative solutions that meet the toughest of challenges. We work closely with our customers throughout the asset life cycle, helping them to profitably and responsibly grow their businesses.

## Working for a sustainable future

Since 2005, SKF has worked to reduce the negative environmental impact from our operations and those of our suppliers. Our continuing technology development resulted in the introduction of the SKF BeyondZero portfolio of products and services which improve efficiency and reduce energy losses, as well as enable new technologies harnessing wind, solar and ocean power. This combined approach helps reduce the environmental impact both in our operations and our customers' operations.



*SKF Solution Factory makes SKF knowledge and manufacturing expertise available locally to provide unique solutions and services to our customers.*

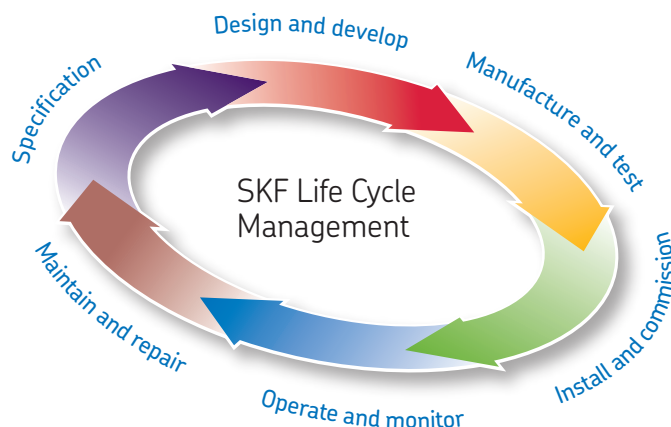


*Working with SKF IT and logistics systems and application experts, SKF Authorized Distributors deliver a valuable mix of product and application knowledge to customers worldwide.*



## Our knowledge – your success

**SKF Life Cycle Management is how we combine our technology platforms and advanced services, and apply them at each stage of the asset life cycle, to help our customers to be more successful, sustainable and profitable.**



### Working closely with you

Our objective is to help our customers improve productivity, minimize maintenance, achieve higher energy and resource efficiency, and optimize designs for long service life and reliability.



### Bearings

SKF is the world leader in the design, development and manufacture of high performance rolling bearings, plain bearings, bearing units and housings.

### Innovative solutions

Whether the application is linear or rotary or a combination, SKF engineers can work with you at each stage of the asset life cycle to improve machine performance by looking at the entire application. This approach doesn't just focus on individual components like bearings or seals. It looks at the whole application to see how each component interacts with each other.



### Machinery maintenance

Condition monitoring technologies and maintenance services from SKF can help minimize unplanned downtime, improve operational efficiency and reduce maintenance costs.

### Design optimization and verification

SKF can work with you to optimize current or new designs with proprietary 3-D modelling software that can also be used as a virtual test rig to confirm the integrity of the design.



### Sealing solutions

SKF offers standard seals and custom engineered sealing solutions to increase uptime, improve machine reliability, reduce friction and power losses, and extend lubricant life.



### Mechatronics

SKF fly-by-wire systems for aircraft and drive-by-wire systems for off-road, agricultural and forklift applications replace heavy, grease or oil consuming mechanical and hydraulic systems.



### Lubrication solutions

From specialized lubricants to state-of-the-art lubrication systems and lubrication management services, lubrication solutions from SKF can help to reduce lubrication related downtime and lubricant consumption.



### Actuation and motion control

With a wide assortment of products – from actuators and ball screws to profile rail guides – SKF can work with you to solve your most pressing linear system challenges.

# Demanding applications and environments require special solutions

Applications in industries like food and beverage, pharmaceutical, chemical and hydrocarbon processing or medical require components that can provide high operational reliability and long service life.

SKF stainless steel deep groove ball bearings are manufactured to both withstand tough application requirements and to be the first choice when moisture, corrosive or abrasive materials are present.

SKF now offers an expanded assortment of stainless steel deep groove ball bearings in both metric and imperial sizes. A wide variety of diameters and types can be supplied through SKF's logistics network. Beside the standard range, SKF also offers two specific product assortments for the food and beverage industry: The existing range of stainless steel deep groove ball bearings with food compatible grease as well as a new product line, SKF Food Line stainless steel deep groove ball bearings with:

- seals made from synthetic rubber, coloured blue for optical detectability should any fragments enter the food stream, and complying with US Food and Drug Administration (FDA) and European Community (EC) recommendations (1).
- high quality grease, suitable for typical food and beverage application conditions registered by NSF as category H1 (2).

*SKF stainless steel deep groove ball bearing*



<sup>1)</sup> FDA (21 CFR section 177.2600 "Rubber articles intended for repeated use" in food manufacture, preparation and transportation including aqueous and fatty foods) and EC (conformity to the overall migration requirements of the German BFR recommendations for food contact materials, recommendation XXI for category 3 materials)

<sup>2)</sup> Lubricant registered by NSF as category H1 (lubricant acceptable with incidental food contact for use in and around food processing areas). The NSF registration confirms it fulfils the requirements listed in the US Food and Drug Administration's guidelines under 21 CFR section 178.35070.

## SKF stainless steel bearings for increased reliability

SKF stainless steel deep groove ball bearings (→ **fig. 1**) are corrosion resistant when exposed to moisture and several other media. They can accommodate radial loads and axial loads acting in both directions. SKF stainless steel deep groove ball bearings have a lower load carrying capacity than same-sized bearings made of high chromium steel.

The bearings are available open or capped (with seals or shields) and with or without a flange. Open bearings that are also available capped may have recesses in both the inner and outer rings or only in the outer ring (→ **fig. 2**).

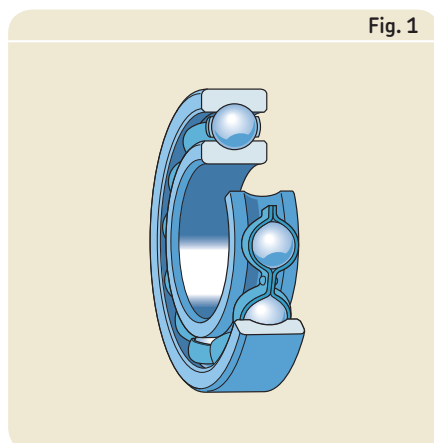


Fig. 1

### Benefits

The main benefit of SKF stainless steel deep groove ball bearings is their resistance to corrosion in moist and other corrosive environments.

They are also very versatile since the sealed versions can be supplied with different greases as well as seals from different materials. This allows the choice of the most suitable grease for each application, for example, the use of food compatible, non-toxic bearing grease for the food industry. SKF stainless steel deep groove ball bearings are dimensionally stable up to at least 120 °C (250 °F).

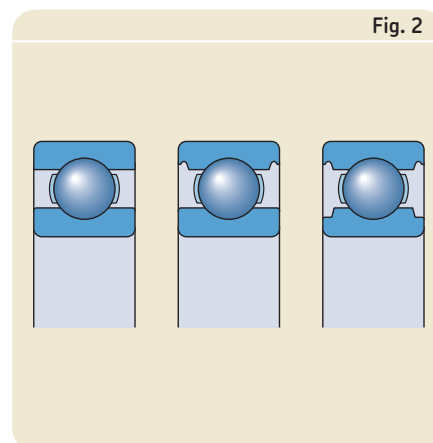


Fig. 2

### Applications

SKF stainless steel deep groove ball bearings are recommended for use wherever resistance to corrosion is desired. Typical industries include:

- Food and beverage
- Pharmaceutical
- Chemical and hydrocarbon processing
- Medical
- Printing
- Engines and pumps
- Paper
- Offshore

# Industry focus: Food and beverage

Food and beverage industry regulation is placing ever greater demands on safe food production. Food grade and optically detectable components are some of the supporting developments being applied to bearings to meet HACCP and other food safety management systems and regulation requirements.

Recalls are often being initiated because of very small parts of metal or plastic in food.

When machine components directly contact foodstuffs, there is a risk that the lubricant will contaminate the product. To avoid this, food safety management systems and regulations<sup>1)</sup> require the use of certified food grade lubricants.

Taking that recommendation one step further, the developing industry trend is to use food grade lubricants plant-wide. This avoids the possibility that a non-food grade lubricant is mistakenly applied to a critical position.

To prevent bacterial growth, machinery is often exposed to frequent washdowns with caustic antibacterial cleansing agents, that can drastically increase the risk of corroding standard bearings, leading to costly unplanned stops.

## New food industry compliant bearings

In order to comply with food safety requirements, the new SKF Food Line stainless steel deep groove ball bearing (suffix VP311) offer is introduced as a reliable solution, that meets the industry needs and requirements:

- High quality grease, suitable for typical food and beverage application conditions registered as NSF H1 (→ **Note 2, page 6**)
- The blue seal material for optical detection in case of failed seal material entering the food stream, is according to FDA and the qualification of EC (→ **Note 1, page 6**)

Manufactured from stainless steel, the SKF deep groove ball bearings offer high corrosion resistance for virtually all food and beverage environments.

Compliance to food safety requirements makes the new SKF Food Line stainless steel deep groove ball bearings an ideal solution for virtually all applications in food and beverage processes.

## Food grade grease filled bearings

In addition to this new offer, SKF can still offer stainless steel deep groove ball bearings with food grade grease registered as NSF H1 (→ **Note 2, page 6**) (identified by the SKF suffix VT378). Bearings with this special grease come with a standard black nitrile seal.

<sup>1)</sup> Food safety management systems and regulations: HACCP, GMPS and ISO22000

*Challenging process environments and hygienic washdowns require corrosion resistant bearing components to keep assets reliable and HACCP compliant.*





| Principal dimensions |    |    | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass   | Designation       |
|----------------------|----|----|--------------------|----------------|--------------------|-----------------|----------------|--------|-------------------|
| d                    | D  | B  | dynamic            | static         |                    | Reference speed | Limiting speed |        |                   |
|                      |    |    | C                  | C <sub>0</sub> | P <sub>u</sub>     |                 |                |        |                   |
| mm                   |    |    | N                  |                | N                  | r/min           |                | kg     | –                 |
| 8                    | 22 | 7  | 1 990              | 780            | 34                 | –               | 22 000         | 0,0117 | W 608-2RS1/VP311  |
| 10                   | 26 | 8  | 3 970              | 1 960          | 83                 | –               | 19 000         | 0,0185 | W 6000-2RS1/VP311 |
|                      | 30 | 9  | 4 360              | 2 320          | 100                | –               | 16 000         | 0,0304 | W 6200-2RS1/VP311 |
| 12                   | 28 | 8  | 4 420              | 2 360          | 102                | –               | 16 000         | 0,0198 | W 6001-2RS1/VP311 |
|                      | 32 | 10 | 5 720              | 3 000          | 127                | –               | 15 000         | 0,0362 | W 6201-2RS1/VP311 |
| 15                   | 32 | 9  | 4 880              | 2 800          | 120                | –               | 14 000         | 0,0288 | W 6002-2RS1/VP311 |
|                      | 35 | 11 | 6 370              | 3 600          | 156                | –               | 13 000         | 0,0442 | W 6202-2RS1/VP311 |
| 17                   | 35 | 10 | 4 940              | 3 150          | 137                | –               | 13 000         | 0,0385 | W 6003-2RS1/VP311 |
|                      | 40 | 12 | 8 060              | 4 750          | 200                | –               | 12 000         | 0,0647 | W 6203-2RS1/VP311 |
| 20                   | 42 | 12 | 8 060              | 5 000          | 212                | –               | 11 000         | 0,0657 | W 6004-2RS1/VP311 |
|                      | 47 | 14 | 10 800             | 6 550          | 280                | –               | 10 000         | 0,1047 | W 6204-2RS1/VP311 |
| 25                   | 47 | 12 | 8 710              | 5 850          | 250                | –               | 9 500          | 0,077  | W 6005-2RS1/VP311 |
|                      | 52 | 15 | 11 700             | 7 650          | 335                | –               | 8 500          | 0,1291 | W 6205-2RS1/VP311 |
| 30                   | 55 | 13 | 11 400             | 8 150          | 355                | –               | 8 000          | 0,113  | W 6006-2RS1/VP311 |
|                      | 62 | 16 | 16 500             | 11 200         | 480                | –               | 7 000          | 0,1958 | W 6206-2RS1/VP311 |
| 35                   | 62 | 14 | 13 800             | 10 200         | 440                | –               | 6 700          | 0,1475 | W 6007-2RS1/VP311 |
|                      | 72 | 17 | 22 100             | 15 300         | 655                | –               | 6 000          | 0,2792 | W 6207-2RS1/VP311 |
| 40                   | 68 | 15 | 14 600             | 11 400         | 490                | –               | 6 300          | 0,1856 | W 6008-2RS1/VP311 |
|                      | 80 | 18 | 25 100             | 17 600         | 750                | –               | 5 600          | 0,3578 | W 6208-2RS1/VP311 |



# Bearing data – designs

SKF stainless steel deep groove ball bearings are available for shaft diameters from 0,6 to 50 mm. Other sizes may also be available, please contact the SKF application engineering service. Also, a range of inch series bearings is available.

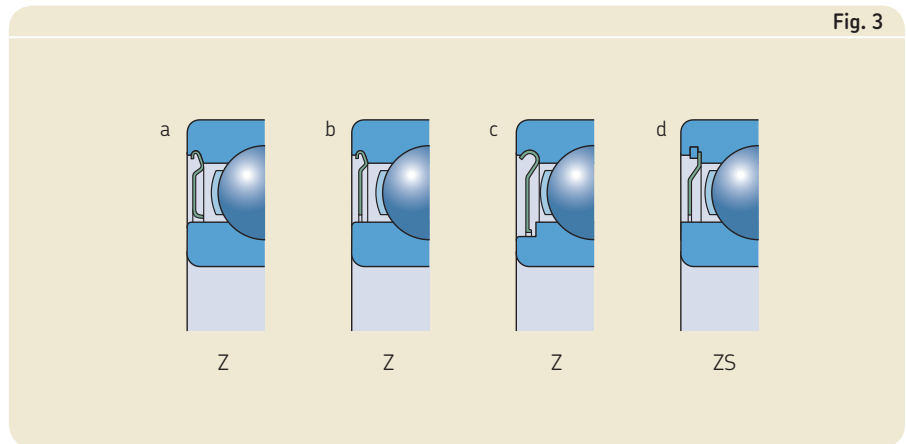
## Sealing solutions

### Shields

Shields identified by the designation suffix Z typically have an extension in the shield bore to form a long, narrow gap with the land of the inner ring shoulder. Bearings fitted with shields are primarily intended for applications where the inner ring rotates and both high temperatures and high speeds apply (→ **fig. 3a**). A grease other than that provided may be needed. Some shields do not have the extension (→ **fig. 3b**). The bore of a Z shield on some stainless steel bearings can extend into a recess on the inner ring (→ **fig. 3c**). Shields identified by the designation suffix ZS are fixed in the outer ring by a retaining ring (→ **fig. 3d**) and may extend into a recess on the inner ring. For stainless steel bearings, shields made of polytetrafluoroethylene (PTFE) may be available. For additional information, contact the SKF application engineering service.

### Contact seals

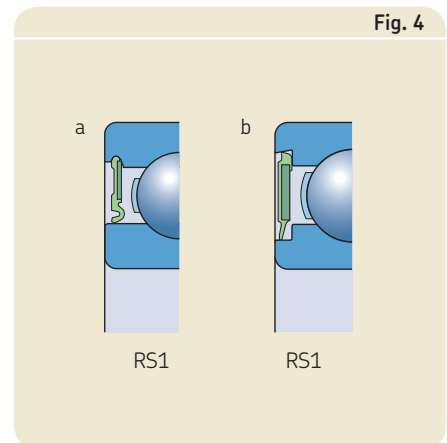
Contact seals, which are fitted in a recess on the outer ring, make good, positive contact with the recess, without deforming the outer ring. These seals are made of an oil and wear resistant acrylonitrile-butadiene rubber (NBR) and are reinforced with a sheet steel insert. SKF stainless steel bearings are equipped with RS1 seals to design (a) or (b) (→ **fig. 4**). The exact seal design may differ from the illustrations.



### Non-contact seals

Some sizes of SKF stainless steel deep groove ball bearings with non-contact seals are available on request. Low-friction seals, made of polytetrafluoroethylene (PTFE), are also available for some sizes.

Other seal types or materials may also be available, please contact the SKF application engineering service.

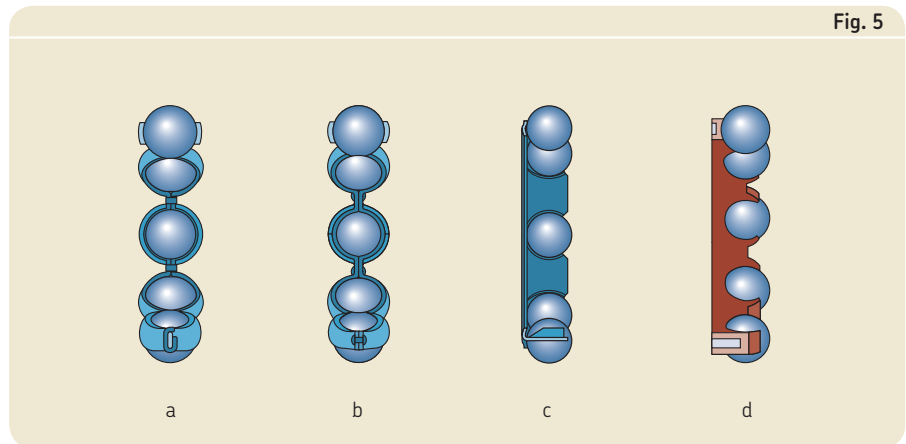


## Cages

The bearings are equipped with a stamped stainless steel cage as standard. The following standard cage types can be supplied:

- Ribbon type, ball centred (→ fig. 5a)
- Riveted, ball centred (→ fig. 5b)
- Snap type, ball centred (→ fig. 5c)

Injection moulded, ball centred (→ fig. 5d) polymer cages made of fibre reinforced polyamide 66 may also be available. For additional information about these cages, contact the SKF engineering service.



## Grease

Standard SKF capped stainless steel deep groove ball bearings are filled with LHT23 under clean conditions. The bearings are considered maintenance-free for the life of the bearing. Details of this grease can be found in **table 1**. Other lubricating greases can be supplied on request.

## Materials

The rings, balls, cages and shields of SKF stainless steel bearings are all made from stainless steel. The bearing rings are produced from X65Cr13 according to ISO 683-17:2000. The balls are made from X105CrMo17 while the shields and cages are made from X5CrNi18-10 in accordance with EN 10088-1:1995.

Table 1

Technical specifications of SKF standard and special grease for capped stainless deep groove ball bearings

| Grease            | Temperature range <sup>1)</sup> |   |    |     |     |     |        | Thickener              | Base oil type         | NLGI consistency class | Base oil viscosity [mm <sup>2</sup> /s] |                    | Grease performance factor (GPF) |
|-------------------|---------------------------------|---|----|-----|-----|-----|--------|------------------------|-----------------------|------------------------|---|--------------------|---------------------------------|
|                   | -50                             | 0 | 50 | 100 | 150 | 200 | 250 °C |                        |                       |                        | at 40 °C (105 °F)                       | at 100 °C (210 °F) |                                 |
| LHT23             |                                 |   |    |     |     |     |        | Lithium soap           | Esther                | 2-3                    | 27                                      | 5,1                | 2 <sup>2)</sup>                 |
| GFJ <sup>4)</sup> |                                 |   |    |     |     |     |        | Aluminium complex soap | Synthetic hybercarbon | 2                      | 100                                     | 14                 | 1 <sup>2)</sup>                 |
| VT378             |                                 |   |    |     |     |     |        | Aluminium complex soap | PAO                   | 2                      | 150                                     | 15,5               | 1 <sup>3)</sup>                 |

<sup>1)</sup> For the SKF traffic light concept, please refer to the *SKF rolling bearings catalogue*

<sup>2)</sup> For calculating the grease life of an SKF standard capped stainless steel deep groove ball bearing, please refer to the *SKF Interactive Engineering Catalogue*

<sup>3)</sup> For calculating the grease life of an SKF standard capped stainless steel deep groove ball bearing, please refer to the *SKF Interactive Engineering Catalogue* (reference grease MT33) and multiply the grease life obtained by 20%.

<sup>4)</sup> GFJ-grease is used in VP311.

# Bearing data – general

## Dimensions

The boundary dimensions of metric stainless steel deep groove ball bearings conform to ISO 15-1998, except for bearings with a WBB1 prefix or an X suffix. Inch series stainless steel deep groove ball bearings conform to ANSI/AFBMA Std. 12.2-1992.

## Tolerances

All stainless steel deep groove ball bearings are manufactured as standard to Normal tolerances corresponding to ISO 492-2002.

## Internal clearance

SKF stainless steel deep groove ball bearings are manufactured as standard with Normal radial internal clearance to ISO 5753-1991, except for bore diameters < 10 mm (→ **table 2**). Other classes are available upon request. The values for radial internal clearance given in **table 2** are valid for un-mounted bearings under zero measuring load.

## Misalignment

SKF stainless steel deep groove ball bearings have only a limited ability to accommodate misalignment. The permissible angular misalignment between inner and outer rings which will not produce inadmissibly high additional stresses in the bearing depends on the radial internal clearance of the bearing in operation, bearing size, the internal design and the forces and moments acting on the bearing. In other words, depending on the various influencing factors, the permissible angular misalignment lies between 2 and 10 minutes of arc. Any misalignment will increase bearing noise and reduce bearing service life. For additional information, contact the SKF application engineering service.

Table 2

| Radial internal clearance |       |                           |     |        |     |     |     |     |     |
|---------------------------|-------|---------------------------|-----|--------|-----|-----|-----|-----|-----|
| Bore diameter             |       | Radial internal clearance |     |        |     |     |     |     |     |
| d                         |       | C2                        |     | Normal |     | C3  |     | C4  |     |
| over                      | incl. | min                       | max | min    | max | min | max | min | max |
| mm                        |       | µm                        |     |        |     |     |     |     |     |
| –                         | 9,525 | 3                         | 8   | 5      | 10  | 8   | 13  | 13  | 20  |
| 10                        | 10    | 0                         | 7   | 2      | 13  | 8   | 23  | 14  | 29  |
| 10                        | 18    | 0                         | 9   | 3      | 18  | 11  | 25  | 18  | 33  |
| 18                        | 24    | 1                         | 10  | 5      | 20  | 13  | 28  | 20  | 36  |
| 24                        | 30    | 1                         | 11  | 5      | 20  | 13  | 28  | 23  | 41  |
| 30                        | 40    | 1                         | 11  | 6      | 20  | 15  | 33  | 28  | 46  |
| 40                        | 50    | 1                         | 11  | 6      | 23  | 18  | 36  | 30  | 51  |
| 50                        | 65    | 1                         | 15  | 8      | 28  | 23  | 43  | 38  | 61  |
| 65                        | 80    | 1                         | 15  | 10     | 30  | 25  | 51  | 46  | 71  |

## Minimum load

For satisfactory operation, SKF stainless steel deep groove ball bearings must always be subjected to a given minimum load.

The requisite minimum radial load to be applied to SKF stainless steel deep groove ball bearings can be estimated using

$$F_{rm} = k_r \left( \frac{v n}{1\,000} \right)^{2/3} \left( \frac{d_m}{100} \right)^2$$

where

$F_{rm}$  = minimum radial load [kN]

$k_r$  = minimum load factor

$v$  = oil viscosity at operating temperature [mm<sup>2</sup>/s]

$n$  = rotational speed [r/min]

$d_m$  = bearing mean diameter  
= 0,5 (d + D) [mm]

When starting up at low temperatures or when the lubricant is highly viscous, even greater minimum loads may be required. The weight of the components supported by the bearing, together with external forces, generally exceeds the requisite minimum load. If this is not the case, the bearing must be subjected to an additional radial load.

For applications where stainless steel deep groove ball bearings are used, an axial pre-load can be applied by adjusting the inner and outer rings against each other or by using springs.

## Axial load carrying capacity

SKF stainless steel deep groove ball bearings have the same axial load carrying capacity as standard SKF deep groove ball bearings. If they are subjected to purely axial loads, this load should generally not exceed the value of 0,25 C<sub>0</sub>. Excessive axial load can lead to a reduction in bearing service life.

## Equivalent bearing loads

Equivalent bearing loads for SKF stainless steel deep groove ball bearings can be calculated the same way as for standard SKF deep groove ball bearings. For additional information, contact the SKF application engineering service.

## Designations

The designations for SKF stainless steel deep groove ball bearings follow the basic SKF designation system except for inch types. However, the prefix “W” has been implemented to indicate that the material is stainless steel.

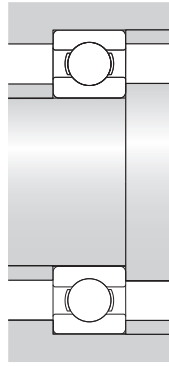
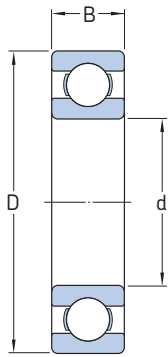
For additional information, refer to the *SKF rolling bearings catalogue* or the *SKF Interactive Engineering Catalogue* available online at [www.skf.com](http://www.skf.com).

## Supplementary designations

In addition to the designation suffixes that are listed in the *SKF rolling bearings catalogue*, the following designation suffixes are relevant for SKF stainless steel deep groove ball bearings:

|              |   |
|--------------|---|
| <b>W</b>     | Stainless steel deep groove ball bearing metric series  |
| <b>D/W</b>   | Stainless steel deep groove ball bearing inch series  |
| <b>X</b>     | One boundary dimension deviates from ISO standard   |
| <b>BB1</b>   | Two or more boundary dimensions deviate from ISO standard   |
| <b>2TS</b>   | PTFE seal for stainless steel deep groove ball bearing  |
| <b>2ZS</b>   | Shield of pressed sheet steel on both sides of the bearing with retaining ring  |
| <b>R</b>     | Flanged outer ring  |
| <b>R-2Z</b>  | Shield of pressed sheet steel on both sides of the bearing and flanged outer ring   |
| <b>VT378</b> | Food grade grease with aluminium thickener of consistency 2 to the NLGI Scale for a temperature range -25 to +120 °C (normal fill grade)  |
| <b>VP311</b> | VP311 Blue colored seal made of FDA and EC approved rubber (NBR) on both sides of the bearing and lubricant registered by NSF as category H1. FDA approval according to CFR 21 section 177.2600 ‘Rubber articles intended for repeated use’ for use in contact with aqueous and fatty foods. EC approval according to the overall migration requirements of the German BfR recommendation XXI for category 3 materials. |

Metric stainless steel deep groove ball bearings  
d 0,6 – 10 mm

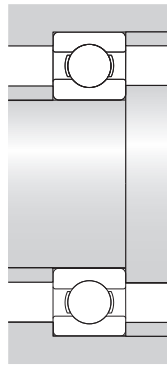
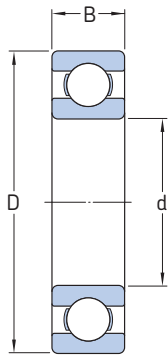


| Principal dimensions |     |     | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass    | Designation |
|----------------------|-----|-----|--------------------|----------------|--------------------|-----------------|----------------|---------|-------------|
| d                    | D   | B   | dynamic            | static         |                    | Reference speed | Limiting speed |         |             |
| mm                   |     |     | C                  | C <sub>0</sub> | P <sub>u</sub>     | r/min           | kg             | –       |             |
| 0,6                  | 2,5 | 1   | 34                 | 7              | –                  | 260 000         | 160 000        | 0,00002 | W 618/0.6   |
| 1                    | 3   | 1   | 52                 | 12             | 1                  | 240 000         | 150 000        | 0,00003 | W 618/1     |
|                      | 3   | 1,5 | 52                 | 12             | 1                  | 240 000         | 150 000        | 0,0001  | W 638/1     |
|                      | 4   | 1,6 | 79                 | 18             | 1                  | 220 000         | 140 000        | 0,0001  | W 619/1     |
| 1,2                  | 4   | 1,8 | 62                 | 16             | 1                  | 220 000         | 140 000        | 0,0001  | WBB1-8700   |
| 1,5                  | 4   | 1,2 | 62                 | 16             | 1                  | 220 000         | 140 000        | 0,0001  | W 618/1.5   |
|                      | 5   | 2   | 135                | 36             | 2                  | 200 000         | 120 000        | 0,0002  | W 619/1.5   |
|                      | 6   | 2,5 | 190                | 51             | 2                  | 180 000         | 110 000        | 0,00038 | W 60/1.5    |
| 2                    | 4   | 1,2 | 68                 | 19             | 1                  | 200 000         | 130 000        | 0,0001  | W 617/2     |
|                      | 5   | 1,5 | 94                 | 25             | 1                  | 200 000         | 120 000        | 0,00015 | W 618/2     |
|                      | 5   | 2   | 94                 | 25             | 1                  | 200 000         | 120 000        | 0,00016 | W 618/2 X   |
|                      | 6   | 2,3 | 190                | 51             | 2                  | 180 000         | 110 000        | 0,00028 | W 619/2     |
|                      | 6   | 2,5 | 190                | 51             | 2                  | 180 000         | 110 000        | 0,0003  | W 619/2 X   |
|                      | 7   | 2,8 | 221                | 67             | 3                  | 160 000         | 100 000        | 0,0005  | W 602       |
|                      | 7   | 2,5 | 221                | 67             | 3                  | 160 000         | 100 000        | 0,00042 | WBB1-8701   |
| 2,5                  | 6   | 1,8 | 117                | 36             | 2                  | 170 000         | 110 000        | 0,0002  | W 618/2.5   |
|                      | 7   | 2,5 | 221                | 67             | 3                  | 160 000         | 100 000        | 0,0004  | W 619/2.5   |
|                      | 8   | 2,8 | 312                | 88             | 4                  | 160 000         | 95 000         | 0,0006  | W 60/2.5    |
|                      | 8   | 2,5 | 319                | 90             | 4                  | 150 000         | 95 000         | 0,0004  | WBB1-8702   |
| 3                    | 6   | 2   | 117                | 36             | 2                  | 170 000         | 110 000        | 0,0002  | W 617/3     |
|                      | 7   | 2   | 178                | 57             | 2                  | 160 000         | 100 000        | 0,00034 | W 618/3     |
|                      | 8   | 3   | 319                | 90             | 4                  | 150 000         | 95 000         | 0,0007  | W 619/3     |
|                      | 8   | 2,5 | 225                | 72             | 3                  | 150 000         | 90 000         | 0,0006  | WBB1-8703   |
|                      | 9   | 3   | 325                | 95             | 4                  | 140 000         | 90 000         | 0,0008  | W 603       |
|                      | 9   | 2,5 | 325                | 95             | 4                  | 140 000         | 90 000         | 0,00075 | WBB1-8704   |
|                      | 10  | 4   | 358                | 110            | 5                  | 140 000         | 90 000         | 0,0016  | W 623       |
|                      | 13  | 5   | 741                | 250            | 11                 | 110 000         | 70 000         | 0,0031  | W 633       |
| 4                    | 7   | 2   | 178                | 57             | 3                  | 150 000         | 95 000         | 0,0002  | W 617/4     |
|                      | 8   | 2   | 225                | 72             | 3                  | 150 000         | 90 000         | 0,0004  | W 617/4 X   |
|                      | 9   | 2,5 | 364                | 114            | 5                  | 140 000         | 85 000         | 0,0006  | W 618/4     |
|                      | 10  | 3   | 553                | 245            | 11                 | 130 000         | 80 000         | 0,001   | W 637/4 X   |
|                      | 11  | 4   | 540                | 176            | 8                  | 130 000         | 80 000         | 0,002   | W 619/4     |
|                      | 12  | 4   | 540                | 176            | 8                  | 130 000         | 80 000         | 0,002   | W 604       |
|                      | 13  | 5   | 741                | 250            | 11                 | 110 000         | 70 000         | 0,0028  | W 624       |
|                      | 16  | 5   | 761                | 265            | 11                 | 100 000         | 63 000         | 0,005   | W 634       |

| Principal dimensions |    |     | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass   | Designation |
|----------------------|----|-----|--------------------|----------------|--------------------|-----------------|----------------|--------|-------------|
| d                    | D  | B   | dynamic            | static         |                    | Reference speed | Limiting speed |        |             |
| mm                   |    |     | C                  | C <sub>0</sub> | P <sub>u</sub>     | r/min           | kg             | –      |             |
| 5                    | 8  | 2   | 174                | 61             | 3                  | 140 000         | 85 000         | 0,0003 | W 617/5     |
|                      | 9  | 2,5 | 247                | 85             | 4                  | 130 000         | 85 000         | 0,0005 | W 627/5 X   |
|                      | 10 | 3   | 247                | 85             | 4                  | 130 000         | 85 000         | 0,001  | WBB1-8705   |
|                      | 11 | 3   | 403                | 143            | 6                  | 120 000         | 75 000         | 0,0012 | W 618/5     |
|                      | 13 | 4   | 761                | 335            | 14                 | 110 000         | 70 000         | 0,0024 | W 619/5     |
|                      | 14 | 5   | 761                | 260            | 11                 | 110 000         | 67 000         | 0,0031 | W 605       |
|                      | 16 | 5   | 1 430              | 630            | 27                 | 100 000         | 63 000         | 0,0046 | W 625       |
|                      | 19 | 6   | 2 030              | 880            | 38                 | 85 000          | 56 000         | 0,0075 | W 635       |
| 6                    | 10 | 2,5 | 286                | 112            | 5                  | 120 000         | 75 000         | 0,0006 | W 617/6     |
|                      | 12 | 3   | 403                | 146            | 6                  | 110 000         | 70 000         | 0,0013 | W 627/6 X   |
|                      | 13 | 3,5 | 618                | 224            | 10                 | 110 000         | 67 000         | 0,0019 | W 618/6     |
|                      | 15 | 5   | 761                | 265            | 11                 | 100 000         | 63 000         | 0,0036 | W 619/6     |
|                      | 17 | 6   | 1 950              | 830            | 36                 | 95 000          | 60 000         | 0,0055 | W 606       |
|                      | 19 | 6   | 1 530              | 585            | 25                 | 85 000          | 56 000         | 0,0072 | W 626       |
|                      | 22 | 7   | 1 990              | 780            | 34                 | 75 000          | 48 000         | 0,0122 | W 636       |
|                      | 7  | 11  | 2,5                | 260            | 104                | 4               | 110 000        | 70 000 | 0,0006      |
| 13                   |    | 3   | 312                | 143            | 6                  | 100 000         | 63 000         | 0,0016 | W 627 X     |
| 14                   |    | 3,5 | 663                | 260            | 11                 | 100 000         | 63 000         | 0,0021 | W 618/7     |
| 17                   |    | 5   | 923                | 365            | 16                 | 90 000          | 56 000         | 0,0049 | W 619/7     |
| 19                   |    | 6   | 1 530              | 585            | 25                 | 85 000          | 56 000         | 0,0068 | W 607       |
| 22                   |    | 7   | 1 990              | 780            | 34                 | 75 000          | 48 000         | 0,0117 | W 627       |
| 26                   |    | 9   | 3 970              | 1 960          | 83                 | 67 000          | 40 000         | 0,0227 | W 637       |
| 8                    |    | 12  | 2,5                | 312            | 140                | 6               | 100 000        | 63 000 | 0,0007      |
|                      | 14 | 3,5 | 462                | 193            | 8                  | 95 000          | 60 000         | 0,0019 | W 637/8 X   |
|                      | 16 | 4   | 715                | 300            | 12                 | 90 000          | 56 000         | 0,0032 | W 618/8     |
|                      | 19 | 6   | 1 250              | 455            | 20                 | 85 000          | 53 000         | 0,0063 | W 619/8     |
|                      | 22 | 7   | 1 990              | 780            | 34                 | 75 000          | 48 000         | 0,0111 | W 608       |
|                      | 24 | 8   | 2 470              | 1 120          | 48                 | 70 000          | 45 000         | 0,0164 | W 628       |
|                      | 28 | 9   | 3 970              | 1 960          | 83                 | 67 000          | 40 000         | 0,0273 | W 638       |
|                      | 9  | 14  | 3                  | 520            | 236                | 10              | 95 000         | 60 000 | 0,0012      |
| 17                   |    | 4   | 761                | 335            | 14                 | 85 000          | 53 000         | 0,0035 | W 618/9     |
| 20                   |    | 6   | 2 120              | 1 060          | 45                 | 80 000          | 50 000         | 0,0072 | W 619/9     |
| 24                   |    | 7   | 2 030              | 815            | 36                 | 70 000          | 43 000         | 0,0134 | W 609       |
| 26                   |    | 8   | 3 970              | 1 960          | 83                 | 67 000          | 40 000         | 0,0182 | W 629       |
| 30                   |    | 10  | 4 360              | 2 320          | 100                | 56 000          | 36 000         | 0,0335 | W 639       |
| 10                   |    | 15  | 3                  | 488            | 220                | 9               | 85 000         | 56 000 | 0,0014      |
|                      | 19 | 5   | 1 480              | 830            | 36                 | 80 000          | 48 000         | 0,0048 | W 61800     |
|                      | 19 | 7   | 1 480              | 830            | 36                 | 80 000          | 48 000         | 0,0068 | W 63800     |
|                      | 22 | 6   | 2 340              | 1 250          | 54                 | 70 000          | 45 000         | 0,0089 | W 61900     |
|                      | 26 | 8   | 3 970              | 1 960          | 83                 | 67 000          | 40 000         | 0,0176 | W 6000      |
|                      | 30 | 9   | 4 360              | 2 320          | 100                | 60 000          | 36 000         | 0,0291 | W 6200      |
|                      | 35 | 11  | 7 020              | 3 400          | 146                | 53 000          | 34 000         | 0,0505 | W 6300      |

Metric stainless steel deep groove ball bearings

d 12 – 50 mm



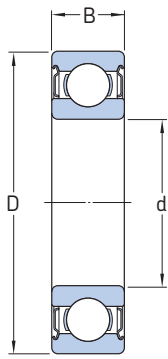
| Principal dimensions |    |     | Basic load ratings |        | Fatigue load limit | Speed ratings   |                | Mass      | Designation      |
|----------------------|----|-----|--------------------|--------|--------------------|-----------------|----------------|-----------|------------------|
| d                    | D  | B   | dynamic            | static |                    | Reference speed | Limiting speed |           |                  |
| mm                   |    |     | N                  |        | N                  | r/min           |                | kg        | –                |
| <b>12</b>            | 18 | 4   | 527                | 265    | 11                 | 75 000          | 48 000         | 0,0027    | <b>W 61701</b>   |
|                      | 21 | 5   | 1 510              | 900    | 39                 | 70 000          | 43 000         | 0,0054    | <b>W 61801</b>   |
|                      | 21 | 7   | 1 510              | 900    | 39                 | 70 000          | 43 000         | 0,0076    | <b>W 63801</b>   |
|                      | 24 | 6   | 2 510              | 1 460  | 62                 | 67 000          | 40 000         | 0,0104    | <b>W 61901</b>   |
|                      | 28 | 8   | 4 420              | 2 360  | 102                | 60 000          | 36 000         | 0,0185    | <b>W 6001</b>    |
|                      | 32 | 10  | 5 720              | 3 000  | 127                | 53 000          | 34 000         | 0,0344    | <b>W 6201</b>    |
|                      | 37 | 12  | 8 320              | 4 150  | 176                | 48 000          | 30 000         | 0,0566    | <b>W 6301</b>    |
| <b>15</b>            | 20 | 3,5 | 527                | 290    | 12                 | 67 000          | 43 000         | 0,0022    | <b>WBB1-8709</b> |
|                      | 21 | 4   | 527                | 290    | 12                 | 67 000          | 40 000         | 0,0033    | <b>W 61702</b>   |
|                      | 21 | 3,5 | 527                | 290    | 12                 | 67 000          | 40 000         | 0,0031    | <b>WBB1-8710</b> |
|                      | 24 | 5   | 1 650              | 1 080  | 48                 | 60 000          | 38 000         | 0,0064    | <b>W 61802</b>   |
|                      | 24 | 7   | 1 650              | 1 080  | 48                 | 60 000          | 38 000         | 0,0091    | <b>W 63802</b>   |
|                      | 28 | 7   | 3 710              | 2 240  | 95                 | 56 000          | 34 000         | 0,015     | <b>W 61902</b>   |
|                      | 32 | 9   | 4 880              | 2 800  | 120                | 50 000          | 32 000         | 0,0273    | <b>W 6002</b>    |
|                      | 35 | 11  | 6 370              | 3 600  | 156                | 48 000          | 30 000         | 0,0422    | <b>W 6202</b>    |
|                      | 42 | 13  | 9 950              | 5 400  | 232                | 40 000          | 26 000         | 0,0786    | <b>W 6302</b>    |
| <b>16</b>            | 22 | 4   | 553                | 320    | 14                 | 63 000          | 40 000         | 0,0038    | <b>WBB1-8711</b> |
|                      | 23 | 4,5 | 832                | 585    | 27                 | 60 000          | 38 000         | 0,0040    | <b>WBB1-8712</b> |
| <b>17</b>            | 23 | 4   | 559                | 340    | 15                 | 60 000          | 38 000         | 0,0036    | <b>W 61703</b>   |
|                      | 26 | 5   | 1 780              | 1 270  | 54                 | 56 000          | 34 000         | 0,0073    | <b>W 61803</b>   |
|                      | 26 | 7   | 1 780              | 1 270  | 54                 | 56 000          | 34 000         | 0,0102    | <b>W 63803</b>   |
|                      | 30 | 7   | 3 970              | 2 550  | 108                | 50 000          | 32 000         | 0,0161    | <b>W 61903</b>   |
|                      | 35 | 10  | 4 940              | 3 150  | 137                | 45 000          | 28 000         | 0,0367    | <b>W 6003</b>    |
|                      | 40 | 12  | 8 060              | 4 750  | 200                | 40 000          | 26 000         | 0,0622    | <b>W 6203</b>    |
|                      | 47 | 14  | 11 700             | 6 550  | 280                | 36 000          | 22 000         | 0,1085    | <b>W 6303</b>    |
| <b>18</b>            | 24 | 4   | 806                | 630    | 29                 | 56 000          | 36 000         | 0,0040    | <b>WBB1-8713</b> |
| <b>20</b>            | 25 | 4   | 572                | 365    | 16                 | 53 000          | 34 000         | 0,0032    | <b>WBB1-8714</b> |
|                      | 27 | 4   | 585                | 390    | 17                 | 50 000          | 32 000         | 0,0000054 | <b>W 61704</b>   |
|                      | 32 | 7   | 3 120              | 2 080  | 90                 | 48 000          | 30 000         | 0,0162    | <b>W 61804</b>   |
|                      | 32 | 10  | 3 120              | 2 080  | 90                 | 48 000          | 30 000         | 0,023     | <b>W 63804</b>   |
|                      | 37 | 9   | 5 530              | 3 650  | 156                | 43 000          | 26 000         | 0,0332    | <b>W 61904</b>   |
|                      | 42 | 12  | 8 060              | 5 000  | 212                | 38 000          | 24 000         | 0,0621    | <b>W 6004</b>    |
|                      | 47 | 14  | 10 800             | 6 550  | 280                | 34 000          | 22 000         | 0,1018    | <b>W 6204</b>    |
|                      | 52 | 15  | 13 800             | 7 800  | 335                | 34 000          | 20 000         | 0,1397    | <b>W 6304</b>    |
| <b>25</b>            | 32 | 4   | 618                | 465    | 20                 | 43 000          | 26 000         | 0,0000065 | <b>W 61705</b>   |
|                      | 37 | 7   | 3 380              | 2 500  | 108                | 38 000          | 24 000         | 0,0199    | <b>W 61805</b>   |
|                      | 37 | 10  | 3 380              | 2 500  | 108                | 38 000          | 24 000         | 0,0283    | <b>W 63805</b>   |
|                      | 42 | 9   | 6 050              | 4 500  | 193                | 34 000          | 22 000         | 0,0395    | <b>W 61905</b>   |
|                      | 47 | 12  | 8 710              | 5 850  | 250                | 32 000          | 20 000         | 0,0731    | <b>W 6005</b>    |
|                      | 52 | 15  | 11 700             | 7 650  | 335                | 30 000          | 19 000         | 0,1241    | <b>W 6205</b>    |
|                      | 62 | 17  | 17 800             | 11 200 | 480                | 26 000          | 17 000         | 0,2277    | <b>W 6305</b>    |



| Principal dimensions |    |    | Basic load ratings |        | Fatigue load limit | Speed ratings   |                | Mass   | Designation    |
|----------------------|----|----|--------------------|--------|--------------------|-----------------|----------------|--------|----------------|
| d                    | D  | B  | dynamic            | static |                    | Reference speed | Limiting speed |        |                |
| mm                   |    |    | N                  |        | N                  | r/min           |                | kg     | –              |
| <b>30</b>            | 37 | 4  | 650                | 530    | 22                 | 36 000          | 22 000         | 0,0076 | <b>W 61706</b> |
|                      | 42 | 7  | 3 580              | 2 900  | 125                | 34 000          | 20 000         | 0,0228 | <b>W 61806</b> |
|                      | 42 | 10 | 3 580              | 2 900  | 125                | 34 000          | 20 000         | 0,035  | <b>W 63806</b> |
|                      | 47 | 9  | 6 240              | 5 000  | 212                | 30 000          | 19 000         | 0,0445 | <b>W 61906</b> |
|                      | 55 | 13 | 11 400             | 8 150  | 355                | 28 000          | 17 000         | 0,108  | <b>W 6006</b>  |
|                      | 62 | 16 | 16 500             | 11 200 | 480                | 26 000          | 16 000         | 0,1872 | <b>W 6206</b>  |
|                      | 72 | 19 | 22 900             | 15 000 | 640                | 22 000          | 14 000         | 0,34   | <b>W 6306</b>  |
| <b>35</b>            | 44 | 5  | 1 060              | 915    | 39                 | 30 000          | 19 000         | 0,014  | <b>W 61707</b> |
|                      | 47 | 7  | 3 710              | 3 350  | 140                | 30 000          | 18 000         | 0,0269 | <b>W 61807</b> |
|                      | 55 | 10 | 9 360              | 7 650  | 325                | 26 000          | 16 000         | 0,0701 | <b>W 61907</b> |
|                      | 62 | 14 | 13 800             | 10 200 | 440                | 24 000          | 15 000         | 0,141  | <b>W 6007</b>  |
|                      | 72 | 17 | 22 100             | 15 300 | 655                | 22 000          | 14 000         | 0,2677 | <b>W 6207</b>  |
|                      | 80 | 21 | 28 600             | 19 000 | 815                | 20 000          | 13 000         | 0,447  | <b>W 6307</b>  |
| <b>40</b>            | 50 | 6  | 1 430              | 1 270  | 54                 | 26 000          | 16 000         | 0,0213 | <b>W 61708</b> |
|                      | 52 | 7  | 3 900              | 3 750  | 160                | 26 000          | 16 000         | 0,0293 | <b>W 61808</b> |
|                      | 62 | 12 | 11 900             | 9 800  | 425                | 24 000          | 14 000         | 0,1048 | <b>W 61908</b> |
|                      | 68 | 15 | 14 600             | 11 400 | 490                | 22 000          | 14 000         | 0,1769 | <b>W 6008</b>  |
|                      | 80 | 18 | 25 100             | 17 600 | 750                | 20 000          | 12 000         | 0,3449 | <b>W 6208</b>  |
| <b>45</b>            | 55 | 6  | 1 460              | 1 370  | 60                 | 24 000          | 15 000         | 0,0236 | <b>W 61709</b> |
|                      | 58 | 7  | 4 940              | 5 000  | 212                | 24 000          | 14 000         | 0,0345 | <b>W 61809</b> |
|                      | 68 | 12 | 12 100             | 10 800 | 465                | 20 000          | 13 000         | 0,1179 | <b>W 61909</b> |
|                      | 75 | 16 | 18 200             | 15 000 | 640                | 20 000          | 12 000         | 0,2281 | <b>W 6009</b>  |
|                      | 85 | 19 | 28 100             | 20 400 | 865                | 18 000          | 11 000         | 0,377  | <b>W 6209</b>  |
| <b>50</b>            | 62 | 6  | 1 530              | 1 530  | 67                 | 22 000          | 13 000         | 0,0348 | <b>W 61710</b> |
|                      | 65 | 7  | 5 070              | 5 500  | 236                | 20 000          | 13 000         | 0,048  | <b>W 61810</b> |
|                      | 72 | 12 | 12 500             | 11 600 | 500                | 19 000          | 12 000         | 0,1316 | <b>W 61910</b> |
|                      | 80 | 16 | 19 000             | 16 600 | 710                | 18 000          | 11 000         | 0,2458 | <b>W 6010</b>  |
|                      | 90 | 20 | 30 200             | 23 200 | 980                | 17 000          | 10 000         | 0,4279 | <b>W 6210</b>  |

Metric capped stainless steel deep groove ball bearings

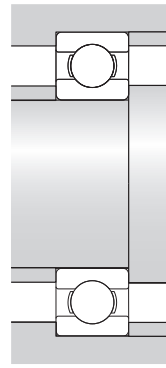
d 1,2 – 7 mm



2Z



2RS1

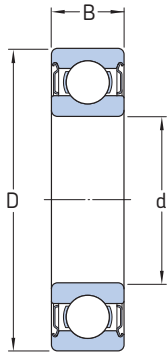


| Principal dimensions |    |     | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass    | Designation    |
|----------------------|----|-----|--------------------|----------------|--------------------|-----------------|----------------|---------|----------------|
| d                    | D  | B   | dynamic            | static         |                    | Reference speed | Limiting speed |         |                |
| mm                   |    |     | C                  | C <sub>0</sub> | P <sub>u</sub>     | r/min           |                | kg      | –              |
| 1,2                  | 4  | 2,5 | 62                 | 16             | 1                  | 220 000         | 110 000        | 0,00012 | WBB1-8700-2Z   |
| 1,5                  | 4  | 2   | 62                 | 16             | 1                  | 220 000         | 110 000        | 0,00014 | W 638/1.5-2Z   |
|                      | 5  | 2,6 | 135                | 36             | 2                  | 200 000         | 100 000        | 0,00025 | W 639/1.5-2Z   |
|                      | 6  | 3   | 190                | 51             | 2                  | 180 000         | 90 000         | 0,00042 | W 630/1.5-2Z   |
| 2                    | 4  | 2   | 68                 | 19             | 1                  | 200 000         | 100 000        | 0,00009 | W 637/2-2Z     |
|                      | 5  | 2,5 | 94                 | 25             | 1                  | 200 000         | 100 000        | 0,0002  | W 638/2 X-2Z   |
|                      | 5  | 2,3 | 94                 | 25             | 1                  | 200 000         | 100 000        | 0,0002  | W 638/2-2Z     |
|                      | 6  | 2,5 | 190                | 51             | 2                  | 180 000         | 90 000         | 0,00031 | W 619/2 X-2Z   |
|                      | 6  | 2,3 | 94                 | 25             | 1                  | 200 000         | 100 000        | 0,00035 | W 619/2-2Z     |
|                      | 6  | 3   | 190                | 51             | 2                  | 180 000         | 90 000         | 0,00035 | W 639/2-2Z     |
|                      | 7  | 3   | 221                | 67             | 3                  | 160 000         | 80 000         | 0,0005  | W 602 X-2ZS    |
|                      | 7  | 3,5 | 221                | 67             | 3                  | 160 000         | 80 000         | 0,0006  | W 630/2-2ZS    |
| 2,5                  | 6  | 2,6 | 117                | 36             | 2                  | 170 000         | 85 000         | 0,00035 | W 638/2.5-2Z   |
|                      | 7  | 3,5 | 221                | 67             | 3                  | 160 000         | 80 000         | 0,00055 | W 639/2.5-2ZS  |
|                      | 8  | 2,8 | 178                | 57             | 2                  | 160 000         | 80 000         | 0,00073 | W 60/2.5-2Z    |
|                      | 8  | 4   | 312                | 88             | 4                  | 160 000         | 80 000         | 0,00085 | W 630/2.5-2Z   |
| 3                    | 6  | 2,5 | 117                | 36             | 2                  | 170 000         | 85 000         | 0,00025 | W 627/3-2Z     |
|                      | 7  | 3   | 178                | 57             | 2                  | –               | 45 000         | 0,0005  | W 638/3-2RS1   |
|                      | 7  | 3   | 178                | 57             | 2                  | 160 000         | 80 000         | 0,0005  | W 638/3-2Z     |
|                      | 8  | 3   | 225                | 72             | 3                  | 150 000         | 75 000         | 0,0006  | W 619/3-2Z     |
|                      | 8  | 4   | 319                | 90             | 4                  | –               | 43 000         | 0,00083 | W 639/3-2RS1   |
|                      | 8  | 4   | 319                | 90             | 4                  | 150 000         | 75 000         | 0,00083 | W 639/3-2Z     |
|                      | 9  | 4   | 325                | 95             | 4                  | 140 000         | 70 000         | 0,001   | W 603 X-2Z     |
|                      | 9  | 5   | 325                | 95             | 4                  | 140 000         | 70 000         | 0,001   | W 630/3-2Z     |
|                      | 10 | 4   | 358                | 110            | 5                  | –               | 40 000         | 0,0017  | W 623-2RS1     |
|                      | 10 | 4   | 358                | 110            | 5                  | 140 000         | 70 000         | 0,0017  | W 623-2Z       |
|                      | 13 | 5   | 741                | 250            | 11                 | –               | 32 000         | 0,0033  | W 633-2RS1     |
|                      | 13 | 5   | 741                | 250            | 11                 | 110 000         | 56 000         | 0,0032  | W 633-2Z       |
|                      | 4  | 7   | 2,5                | 143            | 53                 | 2               | 150 000        | 75 000  | 0,0003         |
| 7                    |    | 2,5 | 143                | 53             | 2                  | 150 000         | 75 000         | 0,0003  | W 627/4-2ZS    |
| 8                    |    | 3   | 225                | 72             | 3                  | 150 000         | 75 000         | 0,0005  | W 637/4 X-2Z   |
| 9                    |    | 4   | 364                | 114            | 5                  | –               | 40 000         | 0,001   | W 638/4-2RS1   |
| 9                    |    | 4   | 364                | 114            | 5                  | 140 000         | 70 000         | 0,0009  | W 638/4-2Z     |
| 10                   |    | 4   | 553                | 245            | 11                 | –               | 36 000         | 0,0014  | W 638/4 X-2RS1 |
| 10                   |    | 4   | 553                | 245            | 11                 | 130 000         | 63 000         | 0,0013  | W 638/4 X-2Z   |
| 11                   |    | 4   | 540                | 176            | 8                  | –               | 36 000         | 0,0022  | W 619/4-2RS1   |
| 11                   |    | 4   | 540                | 176            | 8                  | 130 000         | 63 000         | 0,0022  | W 619/4-2Z     |
| 12                   |    | 4   | 540                | 176            | 8                  | –               | 36 000         | 0,0021  | W 604-2RS1     |
| 12                   |    | 4   | 540                | 176            | 8                  | 130 000         | 63 000         | 0,0022  | W 604-2Z       |
| 13                   |    | 5   | 741                | 250            | 11                 | –               | 32 000         | 0,003   | W 624-2RS1     |
| 13                   |    | 5   | 741                | 250            | 11                 | 110 000         | 56 000         | 0,003   | W 624-2Z       |
| 16                   |    | 5   | 761                | 265            | 11                 | –               | 30 000         | 0,0052  | W 634-2RS1     |
| 16                   |    | 5   | 761                | 265            | 11                 | 100 000         | 50 000         | 0,0053  | W 634-2Z       |

| Principal dimensions |    |     | Basic load ratings |        | Fatigue load limit | Speed ratings   |                | Mass   | Designation    |
|----------------------|----|-----|--------------------|--------|--------------------|-----------------|----------------|--------|----------------|
| d                    | D  | B   | dynamic            | static | $P_u$              | Reference speed | Limiting speed |        |                |
| mm                   |    |     | N                  | $C_0$  | N                  | r/min           |                | kg     | –              |
| 5                    | 8  | 2,5 | 121                | 45     | 2                  | 140 000         | 70 000         | 0,0004 | W 627/5-2Z     |
|                      | 8  | 2,5 | 121                | 45     | 2                  | 140 000         | 70 000         | 0,0004 | W 627/5-2ZS    |
|                      | 9  | 3   | 247                | 85     | 4                  | 130 000         | 67 000         | 0,0005 | W 637/5 X-2Z   |
|                      | 9  | 3   | 247                | 85     | 4                  | 130 000         | 67 000         | 0,0006 | W 637/5 X-2ZS  |
|                      | 10 | 4   | 247                | 85     | 4                  | –               | 38 000         | 0,0012 | WBB1-8705-2RS1 |
|                      | 10 | 4   | 247                | 85     | 4                  | 130 000         | 67 000         | 0,0012 | WBB1-8705-2Z   |
|                      | 11 | 4   | 403                | 143    | 6                  | –               | 34 000         | 0,0018 | W 628/5-2RS1   |
|                      | 11 | 4   | 403                | 143    | 6                  | 120 000         | 60 000         | 0,0015 | W 628/5-2Z     |
|                      | 11 | 5   | 403                | 143    | 6                  | –               | 34 000         | 0,0018 | W 638/5-2RS1   |
|                      | 11 | 5   | 403                | 143    | 6                  | 120 000         | 60 000         | 0,0018 | W 638/5-2Z     |
|                      | 13 | 5   | 761                | 335    | 14                 | 110 000         | 56 000         | 0,0029 | W 619/5 X-2Z   |
|                      | 13 | 4   | 761                | 335    | 14                 | –               | 32 000         | 0,0023 | W 619/5-2RS1   |
|                      | 13 | 4   | 761                | 335    | 14                 | 110 000         | 56 000         | 0,0023 | W 619/5-2Z     |
|                      | 14 | 5   | 761                | 260    | 11                 | –               | 30 000         | 0,0034 | W 605-2RS1     |
|                      | 14 | 5   | 761                | 260    | 11                 | 110 000         | 53 000         | 0,0034 | W 605-2Z       |
|                      | 16 | 5   | 1 430              | 630    | 27                 | –               | 28 000         | 0,0049 | W 625-2RS1     |
|                      | 16 | 5   | 1 430              | 630    | 27                 | 100 000         | 50 000         | 0,0048 | W 625-2Z       |
|                      | 19 | 6   | 2 030              | 880    | 38                 | –               | 24 000         | 0,008  | W 635-2RS1     |
|                      | 19 | 6   | 2 030              | 880    | 38                 | 85 000          | 43 000         | 0,008  | W 635-2Z       |
| 6                    | 10 | 3   | 286                | 112    | 5                  | 120 000         | 60 000         | 0,0007 | W 627/6-2Z     |
|                      | 12 | 4   | 403                | 146    | 6                  | –               | 32 000         | 0,0016 | WBB1-8706-2RS1 |
|                      | 12 | 4   | 403                | 146    | 6                  | 110 000         | 56 000         | 0,0016 | WBB1-8706-2Z   |
|                      | 13 | 5   | 618                | 224    | 10                 | –               | 30 000         | 0,0025 | W 628/6-2RS1   |
|                      | 13 | 5   | 618                | 224    | 10                 | 110 000         | 53 000         | 0,0025 | W 628/6-2Z     |
|                      | 15 | 5   | 761                | 265    | 11                 | –               | 30 000         | 0,0038 | W 619/6-2RS1   |
|                      | 15 | 5   | 761                | 265    | 11                 | 100 000         | 50 000         | 0,0039 | W 619/6-2Z     |
|                      | 16 | 5   | 761                | 265    | 11                 | –               | 30 000         | 0,0047 | W 619/6 X-2RS1 |
|                      | 16 | 5   | 761                | 265    | 11                 | 100 000         | 50 000         | 0,0048 | W 619/6 X-2Z   |
|                      | 17 | 6   | 1 950              | 830    | 36                 | –               | 26 000         | 0,0058 | W 606-2RS1     |
|                      | 17 | 6   | 1 950              | 830    | 36                 | 95 000          | 48 000         | 0,006  | W 606-2Z       |
|                      | 19 | 6   | 1 530              | 585    | 25                 | –               | 24 000         | 0,0077 | W 626-2RS1     |
|                      | 19 | 6   | 1 530              | 585    | 25                 | 85 000          | 43 000         | 0,0078 | W 626-2Z       |
|                      | 22 | 7   | 1 990              | 780    | 34                 | –               | 22 000         | 0,0129 | W 636-2RS1     |
|                      | 22 | 7   | 1 990              | 780    | 34                 | 75 000          | 38 000         | 0,0128 | W 636-2Z       |
|                      | 7  | 11  | 3                  | 260    | 104                | 4               | 110 000        | 56 000 | 0,0008         |
| 13                   |    | 4   | 312                | 143    | 6                  | 100 000         | 50 000         | 0,002  | WBB1-8707-2Z   |
| 14                   |    | 5   | 663                | 260    | 11                 | –               | 28 000         | 0,0028 | W 628/7-2RS1   |
| 14                   |    | 5   | 663                | 260    | 11                 | 100 000         | 50 000         | 0,0028 | W 628/7-2Z     |
| 17                   |    | 5   | 923                | 365    | 16                 | –               | 26 000         | 0,0052 | W 619/7-2RS1   |
| 17                   |    | 5   | 923                | 365    | 16                 | 90 000          | 45 000         | 0,0051 | W 619/7-2Z     |
| 19                   |    | 6   | 1 530              | 585    | 25                 | –               | 24 000         | 0,0073 | W 607-2RS1     |
| 19                   |    | 6   | 1 530              | 585    | 25                 | 85 000          | 43 000         | 0,0074 | W 607-2Z       |
| 22                   |    | 7   | 1 990              | 780    | 34                 | –               | 22 000         | 0,0124 | W 627-2RS1     |
| 22                   |    | 7   | 1 990              | 780    | 34                 | 75 000          | 38 000         | 0,0123 | W 627-2Z       |
| 26                   |    | 9   | 3 970              | 1 960  | 83                 | –               | 19 000         | 0,0236 | W 637-2RS1     |
| 26                   |    | 9   | 3 970              | 1 960  | 83                 | 67 000          | 32 000         | 0,0238 | W 637-2Z       |

Metric capped stainless steel deep groove ball bearings

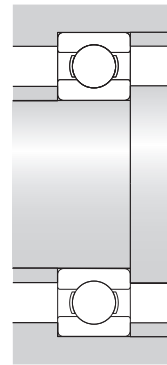
d 8 – 17 mm



2Z



2RS1

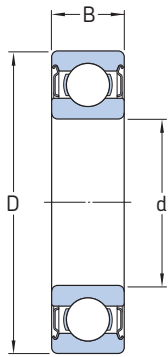


| Principal dimensions |    |       | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass     | Designation       |
|----------------------|----|-------|--------------------|----------------|--------------------|-----------------|----------------|----------|-------------------|
| d                    | D  | B     | dynamic            | static         |                    | Reference speed | Limiting speed |          |                   |
| mm                   |    |       | C                  | C <sub>0</sub> | P <sub>u</sub>     | r/min           | kg             | –        |                   |
| 8                    | 12 | 3,5   | 312                | 140            | 6                  | 100 000         | 53 000         | 0,0011   | W 637/8-2Z        |
|                      | 12 | 3,5   | 312                | 140            | 6                  | 100 000         | 50 000         | 0,001    | W 637/8-2ZS       |
|                      | 14 | 4     | 319                | 53             | 2                  | –               | 28 000         | 0,0021   | WBB1-8708-2RS1    |
|                      | 14 | 4     | 319                | 53             | 2                  | 95 000          | 48 000         | 0,002    | WBB1-8708-2Z      |
|                      | 16 | 4     | 715                | 300            | 12                 | 90 000          | 45 000         | 0,0031   | W 618/8-2Z        |
|                      | 16 | 5     | 715                | 300            | 12                 | –               | 26 000         | 0,0038   | W 628/8-2RS1      |
|                      | 16 | 5     | 715                | 300            | 12                 | 90 000          | 45 000         | 0,0038   | W 628/8-2Z        |
|                      | 16 | 6     | 715                | 300            | 12                 | 90 000          | 45 000         | 0,0041   | W 638/8-2Z        |
|                      | 19 | 6     | 1 250              | 455            | 20                 | –               | 24 000         | 0,0065   | W 619/8-2RS1      |
|                      | 19 | 6     | 1 250              | 455            | 20                 | 85 000          | 43 000         | 0,0068   | W 619/8-2Z        |
|                      | 22 | 7     | 1 990              | 780            | 34                 | –               | 22 000         | 0,0117   | W 608-2RS1        |
|                      | 22 | 7     | 1 990              | 780            | 34                 | –               | 22 000         | 0,0117   | W 608-2RS1/VP311  |
|                      | 22 | 7     | 1 990              | 780            | 34                 | 75 000          | 38 000         | 0,0117   | W 608-2Z          |
|                      | 24 | 8     | 2 470              | 1 120          | 48                 | –               | 20 000         | 0,0171   | W 628-2RS1        |
|                      | 24 | 8     | 2 470              | 1 120          | 48                 | 70 000          | 36 000         | 0,0172   | W 628-2Z          |
|                      | 28 | 9     | 3 970              | 1 960          | 83                 | –               | 19 000         | 0,0282   | W 638-2RS1        |
| 28                   | 9  | 3 970 | 1 960              | 83             | 67 000             | 32 000          | 0,0285         | W 638-2Z |                   |
| 9                    | 14 | 4,5   | 520                | 236            | 10                 | 95 000          | 45 000         | 0,0018   | W 637/9-2Z        |
|                      | 14 | 4,5   | 520                | 236            | 10                 | 95 000          | 45 000         | 0,0018   | W 637/9-2ZS       |
|                      | 17 | 5     | 761                | 335            | 14                 | –               | 24 000         | 0,0042   | W 628/9-2RS1      |
|                      | 17 | 5     | 761                | 335            | 14                 | 85 000          | 43 000         | 0,0041   | W 628/9-2Z        |
|                      | 17 | 6     | 761                | 335            | 14                 | 85 000          | 43 000         | 0,0049   | W 638/9-2Z        |
|                      | 20 | 6     | 2 120              | 1 060          | 45                 | –               | 22 000         | 0,0076   | W 619/9-2RS1      |
|                      | 20 | 6     | 2 120              | 1 060          | 45                 | 80 000          | 40 000         | 0,0077   | W 619/9-2Z        |
|                      | 24 | 7     | 2 030              | 815            | 36                 | –               | 20 000         | 0,0143   | W 609-2RS1        |
|                      | 24 | 7     | 2 030              | 815            | 36                 | 70 000          | 36 000         | 0,0144   | W 609-2Z          |
|                      | 26 | 8     | 3 970              | 1 960          | 83                 | –               | 19 000         | 0,0191   | W 629-2RS1        |
|                      | 26 | 8     | 3 970              | 1 960          | 83                 | 67 000          | 32 000         | 0,0193   | W 629-2Z          |
|                      | 30 | 10    | 4 360              | 2 320          | 100                | –               | 16 000         | 0,0348   | W 639-2RS1        |
|                      | 30 | 10    | 4 360              | 2 320          | 100                | 56 000          | 30 000         | 0,0335   | W 639-2Z          |
|                      | 10 | 15    | 4                  | 488            | 220                | 9               | –              | 24 000   | 0,0018            |
| 15                   |    | 4     | 488                | 220            | 9                  | 85 000          | 43 000         | 0,0018   | W 61700 X-2ZS     |
| 19                   |    | 5     | 1 480              | 830            | 36                 | –               | 22 000         | 0,0052   | W 61800-2RS1      |
| 19                   |    | 5     | 1 480              | 830            | 36                 | 80 000          | 38 000         | 0,0051   | W 61800-2Z        |
| 19                   |    | 7     | 1 480              | 830            | 36                 | –               | 22 000         | 0,0071   | W 63800-2RS1      |
| 19                   |    | 7     | 1 480              | 830            | 36                 | 80 000          | 38 000         | 0,0071   | W 63800-2Z        |
| 22                   |    | 6     | 2 340              | 1 250          | 54                 | –               | 20 000         | 0,0094   | W 61900-2RS1      |
| 22                   |    | 6     | 2 340              | 1 250          | 54                 | 70 000          | 36 000         | 0,0095   | W 61900-2Z        |
| 26                   |    | 8     | 3 970              | 1 960          | 83                 | –               | 19 000         | 0,0185   | W 6000-2RS1       |
| 26                   |    | 8     | 3 970              | 1 960          | 83                 | –               | 19 000         | 0,0185   | W 6000-2RS1/VP311 |
| 26                   |    | 8     | 3 970              | 1 960          | 83                 | 67 000          | 32 000         | 0,0187   | W 6000-2Z         |
| 30                   |    | 9     | 4 360              | 2 320          | 100                | –               | 16 000         | 0,0304   | W 6200-2RS1       |
| 30                   |    | 9     | 4 360              | 2 320          | 100                | –               | 16 000         | 0,0304   | W 6200-2RS1/VP311 |
| 30                   |    | 9     | 4 360              | 2 320          | 100                | 60 000          | 30 000         | 0,0306   | W 6200-2Z         |
| 35                   |    | 11    | 7 020              | 3 400          | 146                | –               | 15 000         | 0,0509   | W 6300-2RS1       |
| 35                   |    | 11    | 7 020              | 3 400          | 146                | 53 000          | 26 000         | 0,0532   | W 6300-2Z         |

| Principal dimensions |    |        | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass        | Designation       |
|----------------------|----|--------|--------------------|----------------|--------------------|-----------------|----------------|-------------|-------------------|
| d                    | D  | B      | dynamic            | static         |                    | Reference speed | Limiting speed |             |                   |
|                      |    |        | C                  | C <sub>0</sub> | P <sub>u</sub>     |                 |                |             |                   |
| mm                   |    |        | N                  |                | N                  | r/min           |                | kg          | –                 |
| 12                   | 18 | 4      | 527                | 265            | 11                 | –               | 22 000         | 0,003       | W 61701-2RS1      |
|                      | 18 | 4      | 527                | 265            | 11                 | 75 000          | 38 000         | 0,0029      | W 61701-2ZS       |
|                      | 21 | 5      | 1 510              | 900            | 39                 | –               | 20 000         | 0,006       | W 61801-2RS1      |
|                      | 21 | 5      | 1 510              | 900            | 39                 | 70 000          | 36 000         | 0,0058      | W 61801-2Z        |
|                      | 21 | 7      | 1 510              | 900            | 39                 | –               | 20 000         | 0,0082      | W 63801-2RS1      |
|                      | 21 | 7      | 1 510              | 900            | 39                 | 70 000          | 36 000         | 0,0078      | W 63801-2Z        |
|                      | 24 | 6      | 2 510              | 1 460          | 62                 | –               | 19 000         | 0,011       | W 61901-2RS1      |
|                      | 24 | 6      | 2 510              | 1 460          | 62                 | 67 000          | 32 000         | 0,0113      | W 61901-2Z        |
|                      | 28 | 8      | 4 420              | 2 360          | 102                | –               | 16 000         | 0,0198      | W 6001-2RS1       |
|                      | 28 | 8      | 4 420              | 2 360          | 102                | –               | 16 000         | 0,0198      | W 6001-2RS1/VP311 |
|                      | 28 | 8      | 4 420              | 2 360          | 102                | 60 000          | 30 000         | 0,0199      | W 6001-2Z         |
|                      | 32 | 10     | 5 720              | 3 000          | 127                | –               | 15 000         | 0,0362      | W 6201-2RS1       |
|                      | 32 | 10     | 5 720              | 3 000          | 127                | –               | 15 000         | 0,0362      | W 6201-2RS1/VP311 |
|                      | 32 | 10     | 5 720              | 3 000          | 127                | 53 000          | 28 000         | 0,0361      | W 6201-2Z         |
|                      | 37 | 12     | 8 320              | 4 150          | 176                | –               | 14 000         | 0,0572      | W 6301-2RS1       |
|                      | 37 | 12     | 8 320              | 4 150          | 176                | 48 000          | 24 000         | 0,06        | W 6301-2Z         |
| 15                   | 21 | 4      | 527                | 290            | 12                 | –               | 19 000         | 0,0036      | W 61702-2RS1      |
|                      | 21 | 4      | 527                | 290            | 12                 | 67 000          | 32 000         | 0,0036      | W 61702-2Z        |
|                      | 24 | 5      | 1 650              | 1 080          | 48                 | –               | 17 000         | 0,0071      | W 61802-2RS1      |
|                      | 24 | 5      | 1 650              | 1 080          | 48                 | 60 000          | 30 000         | 0,0068      | W 61802-2Z        |
|                      | 24 | 7      | 1 650              | 1 080          | 48                 | –               | 17 000         | 0,0099      | W 63802-2RS1      |
|                      | 24 | 7      | 1 650              | 1 080          | 48                 | 60 000          | 30 000         | 0,0096      | W 63802-2Z        |
|                      | 28 | 7      | 3 710              | 2 240          | 95                 | –               | 16 000         | 0,0159      | W 61902-2RS1      |
|                      | 28 | 7      | 3 710              | 2 240          | 95                 | 56 000          | 28 000         | 0,0161      | W 61902-2Z        |
|                      | 32 | 9      | 4 880              | 2 800          | 120                | –               | 14 000         | 0,0288      | W 6002-2RS1       |
|                      | 32 | 9      | 4 880              | 2 800          | 120                | –               | 14 000         | 0,0288      | W 6002-2RS1/VP311 |
|                      | 32 | 9      | 4 880              | 2 800          | 120                | 50 000          | 26 000         | 0,0292      | W 6002-2Z         |
|                      | 35 | 11     | 6 370              | 3 600          | 156                | –               | 13 000         | 0,0442      | W 6202-2RS1       |
|                      | 35 | 11     | 6 370              | 3 600          | 156                | –               | 13 000         | 0,0442      | W 6202-2RS1/VP311 |
|                      | 35 | 11     | 6 370              | 3 600          | 156                | 48 000          | 24 000         | 0,0442      | W 6202-2Z         |
| 42                   | 13 | 9 950  | 5 400              | 232            | –                  | 11 000          | 0,0793         | W 6302-2RS1 |                   |
| 42                   | 13 | 9 950  | 5 400              | 232            | 40 000             | 20 000          | 0,0824         | W 6302-2Z   |                   |
| 16                   | 23 | 4,5    | 832                | 585            | 27                 | 60 000          | 30 000         | 0,0040      | WBB1-8712-2ZS     |
| 17                   | 23 | 4      | 559                | 340            | 15                 | –               | 17 000         | 0,0039      | W 61703-2RS1      |
|                      | 23 | 4      | 559                | 340            | 15                 | 60 000          | 30 000         | 0,0039      | W 61703-2Z        |
|                      | 26 | 5      | 1 780              | 1 270          | 54                 | –               | 16 000         | 0,008       | W 61803-2RS1      |
|                      | 26 | 5      | 1 780              | 1 270          | 54                 | 56 000          | 28 000         | 0,0076      | W 61803-2Z        |
|                      | 26 | 7      | 1 780              | 1 270          | 54                 | –               | 16 000         | 0,011       | W 63803-2RS1      |
|                      | 26 | 7      | 1 780              | 1 270          | 54                 | 56 000          | 28 000         | 0,0105      | W 63803-2Z        |
|                      | 30 | 7      | 3 970              | 2 550          | 108                | –               | 14 000         | 0,0173      | W 61903-2RS1      |
|                      | 30 | 7      | 3 970              | 2 550          | 108                | 50 000          | 24 000         | 0,017       | W 61903-2Z        |
|                      | 35 | 10     | 4 940              | 3 150          | 137                | –               | 13 000         | 0,0385      | W 6003-2RS1       |
|                      | 35 | 10     | 4 940              | 3 150          | 137                | –               | 13 000         | 0,0385      | W 6003-2RS1/VP311 |
|                      | 35 | 10     | 4 940              | 3 150          | 137                | 45 000          | 22 000         | 0,0388      | W 6003-2Z         |
|                      | 40 | 12     | 8 060              | 4 750          | 200                | –               | 12 000         | 0,0647      | W 6203-2RS1       |
|                      | 40 | 12     | 8 060              | 4 750          | 200                | –               | 12 000         | 0,0647      | W 6203-2RS1/VP311 |
|                      | 40 | 12     | 8 060              | 4 750          | 200                | 40 000          | 20 000         | 0,0655      | W 6203-2Z         |
|                      | 47 | 14     | 1 1700             | 6 550          | 280                | –               | 10 000         | 0,1128      | W 6303-2RS1       |
| 47                   | 14 | 1 1700 | 6 550              | 280            | 36 000             | 18 000          | 0,1127         | W 6303-2Z   |                   |

Metric capped stainless steel deep groove ball bearings

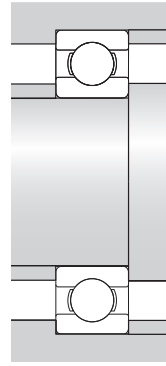
d 20 – 50 mm



2Z



2RS1

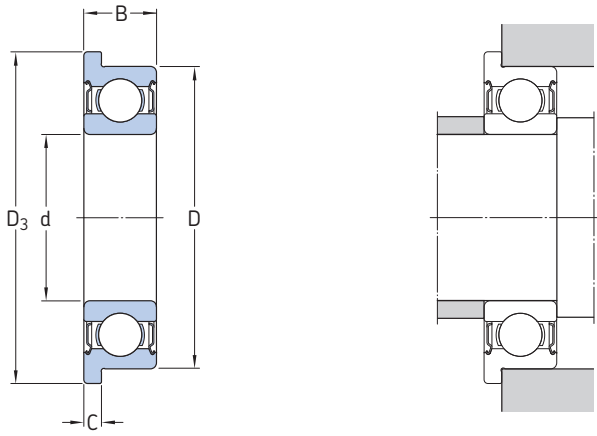


| Principal dimensions |    |        | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass      | Designation       |
|----------------------|----|--------|--------------------|----------------|--------------------|-----------------|----------------|-----------|-------------------|
| d                    | D  | B      | dynamic            | static         |                    | Reference speed | Limiting speed |           |                   |
| mm                   |    |        | C                  | C <sub>0</sub> | P <sub>u</sub>     | r/min           |                | kg        | –                 |
| 20                   | 25 | 4      | 572                | 365            | 16                 | 53 000          | 26 000         | 0,0035    | WBB1-8714-2ZS     |
|                      | 27 | 4      | 585                | 390            | 17                 | –               | 14 000         | 0,0059    | W 61704-2RS1      |
|                      | 27 | 4      | 585                | 390            | 17                 | 50 000          | 26 000         | 0,0057    | W 61704-2ZS       |
|                      | 32 | 7      | 3 120              | 2 080          | 90                 | –               | 13 000         | 0,0178    | W 61804-2RS1      |
|                      | 32 | 7      | 3 120              | 2 080          | 90                 | 48 000          | 24 000         | 0,0173    | W 61804-2Z        |
|                      | 32 | 10     | 3 120              | 2 080          | 90                 | –               | 13 000         | 0,0246    | W 63804-2RS1      |
|                      | 32 | 10     | 3 120              | 2 080          | 90                 | 48 000          | 24 000         | 0,0244    | W 63804-2Z        |
|                      | 37 | 9      | 5 530              | 3 650          | 156                | –               | 12 000         | 0,0354    | W 61904-2RS1      |
|                      | 37 | 9      | 5 530              | 3 650          | 156                | 43 000          | 20 000         | 0,0353    | W 61904-2Z        |
|                      | 42 | 12     | 8 060              | 5 000          | 212                | –               | 11 000         | 0,0657    | W 6004-2RS1       |
|                      | 42 | 12     | 8 060              | 5 000          | 212                | –               | 11 000         | 0,0657    | W 6004-2RS1/VP311 |
|                      | 42 | 12     | 8 060              | 5 000          | 212                | 38 000          | 19 000         | 0,0651    | W 6004-2Z         |
|                      | 47 | 14     | 10 800             | 6 550          | 280                | –               | 10 000         | 0,1047    | W 6204-2RS1       |
|                      | 47 | 14     | 10 800             | 6 550          | 280                | –               | 10 000         | 0,1047    | W 6204-2RS1/VP311 |
|                      | 47 | 14     | 10 800             | 6 550          | 280                | 34 000          | 17 000         | 0,106     | W 6204-2Z         |
|                      | 52 | 15     | 13 800             | 7 800          | 335                | –               | 9 500          | 0,1452    | W 6304-2RS1       |
| 52                   | 15 | 13 800 | 7 800              | 335            | 34 000             | 17 000          | 0,146          | W 6304-2Z |                   |
| 25                   | 32 | 4      | 618                | 465            | 20                 | –               | 12 000         | 0,0073    | W 61705-2RS1      |
|                      | 37 | 7      | 3 380              | 2 500          | 108                | –               | 11 000         | 0,0213    | W 61805-2RS1      |
|                      | 37 | 7      | 3 380              | 2 500          | 108                | 38 000          | 19 000         | 0,021     | W 61805-2Z        |
|                      | 37 | 10     | 3 380              | 2 500          | 108                | –               | 11 000         | 0,0297    | W 63805-2RS1      |
|                      | 37 | 10     | 3 380              | 2 500          | 108                | 38 000          | 19 000         | 0,0294    | W 63805-2Z        |
|                      | 42 | 9      | 6 050              | 4 500          | 193                | –               | 10 000         | 0,0422    | W 61905-2RS1      |
|                      | 42 | 9      | 6 050              | 4 500          | 193                | 34 000          | 17 000         | 0,0423    | W 61905-2Z        |
|                      | 47 | 12     | 8 710              | 5 850          | 250                | –               | 9 500          | 0,077     | W 6005-2RS1       |
|                      | 47 | 12     | 8 710              | 5 850          | 250                | –               | 9 500          | 0,077     | W 6005-2RS1/VP311 |
|                      | 47 | 12     | 8 710              | 5 850          | 250                | 32 000          | 16 000         | 0,0782    | W 6005-2Z         |
|                      | 52 | 15     | 11 700             | 7 650          | 335                | –               | 8 500          | 0,1291    | W 6205-2RS1       |
|                      | 52 | 15     | 11 700             | 7 650          | 335                | –               | 8 500          | 0,1291    | W 6205-2RS1/VP311 |
|                      | 52 | 15     | 11 700             | 7 650          | 335                | 30 000          | 15 000         | 0,1299    | W 6205-2Z         |
|                      | 62 | 17     | 17 800             | 11 200         | 480                | –               | 7 500          | 0,2348    | W 6305-2RS1       |
|                      | 62 | 17     | 17 800             | 11 200         | 480                | 26 000          | 13 000         | 0,2356    | W 6305-2Z         |
|                      | 30 | 42     | 7                  | 3 580          | 2 900              | 125             | –              | 9 500     | 0,0244            |
| 42                   |    | 7      | 3 580              | 2 900          | 125                | 34 000          | 17 000         | 0,0241    | W 61806-2Z        |
| 42                   |    | 10     | 3 580              | 2 900          | 125                | –               | 9 500          | 0,036     | W 63806-2RS1      |
| 42                   |    | 10     | 3 580              | 2 900          | 125                | 34 000          | 17 000         | 0,036     | W 63806-2Z        |
| 47                   |    | 9      | 6 240              | 5 000          | 212                | –               | 8 500          | 0,0477    | W 61906-2RS1      |
| 47                   |    | 9      | 6 240              | 5 000          | 212                | 30 000          | 15 000         | 0,0485    | W 61906-2Z        |
| 55                   |    | 13     | 11 400             | 8 150          | 355                | –               | 8 000          | 0,113     | W 6006-2RS1       |
| 55                   |    | 13     | 11 400             | 8 150          | 355                | –               | 8 000          | 0,113     | W 6006-2RS1/VP311 |
| 55                   |    | 13     | 11 400             | 8 150          | 355                | 28 000          | 14 000         | 0,1141    | W 6006-2Z         |
| 62                   |    | 16     | 16 500             | 11 200         | 480                | –               | 7 000          | 0,1958    | W 6206-2RS1       |
| 62                   |    | 16     | 16 500             | 11 200         | 480                | –               | 7 000          | 0,1958    | W 6206-2RS1/VP311 |
| 62                   |    | 16     | 16 500             | 11 200         | 480                | 26 000          | 13 000         | 0,1951    | W 6206-2Z         |
| 72                   |    | 19     | 22 900             | 15 000         | 640                | –               | 6 300          | 0,3512    | W 6306-2RS1       |
| 72                   |    | 19     | 22 900             | 15 000         | 640                | 22 000          | 11 000         | 0,3496    | W 6306-2Z         |

| Principal dimensions |    |    | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass   | Designation       |
|----------------------|----|----|--------------------|----------------|--------------------|-----------------|----------------|--------|-------------------|
| d                    | D  | B  | dynamic            | static         |                    | Reference speed | Limiting speed |        |                   |
|                      |    |    | C                  | C <sub>0</sub> | P <sub>u</sub>     |                 |                |        |                   |
| mm                   |    |    | N                  |                | N                  | r/min           |                | kg     | –                 |
| 35                   | 44 | 5  | 1 060              | 915            | 39                 | –               | 8 500          | 0,0153 | W 61707-2RS1      |
|                      | 47 | 7  | 3 710              | 3 350          | 140                | –               | 8 500          | 0,0292 | W 61807-2RS1      |
|                      | 47 | 7  | 3 710              | 3 350          | 140                | 30 000          | 15 000         | 0,0282 | W 61807-2Z        |
|                      | 55 | 10 | 9 360              | 7 650          | 325                | –               | 7 500          | 0,0743 | W 61907-2RS1      |
|                      | 55 | 10 | 9 360              | 7 650          | 325                | 26 000          | 13 000         | 0,0742 | W 61907-2Z        |
|                      | 62 | 14 | 13 800             | 10 200         | 440                | –               | 6 700          | 0,1475 | W 6007-2RS1       |
|                      | 62 | 14 | 13 800             | 10 200         | 440                | –               | 6 700          | 0,1475 | W 6007-2RS1/VP311 |
|                      | 62 | 14 | 13 800             | 10 200         | 440                | 24 000          | 12 000         | 0,1489 | W 6007-2Z         |
|                      | 72 | 17 | 22 100             | 15 300         | 655                | –               | 6 000          | 0,2792 | W 6207-2RS1       |
|                      | 72 | 17 | 22 100             | 15 300         | 655                | –               | 6 000          | 0,2792 | W 6207-2RS1/VP311 |
|                      | 72 | 17 | 22 100             | 15 300         | 655                | 22 000          | 11 000         | 0,2788 | W 6207-2Z         |
|                      | 80 | 21 | 28 600             | 19 000         | 815                | –               | 5 600          | 0,459  | W 6307-2RS1       |
|                      | 80 | 21 | 28 600             | 19 000         | 815                | 20 000          | 10 000         | 0,457  | W 6307-2Z         |
|                      | 40 | 50 | 6                  | 1 430          | 1 270              | 54              | –              | 7 500  | 0,0235            |
| 52                   |    | 7  | 3 900              | 3 750          | 160                | –               | 7 500          | 0,0322 | W 61808-2RS1      |
| 52                   |    | 7  | 3 900              | 3 750          | 160                | 26 000          | 13 000         | 0,0308 | W 61808-2Z        |
| 62                   |    | 12 | 11 900             | 9 800          | 425                | –               | 6 700          | 0,1102 | W 61908-2RS1      |
| 62                   |    | 12 | 11 900             | 9 800          | 425                | 24 000          | 12 000         | 0,1113 | W 61908-2Z        |
| 68                   |    | 15 | 14 600             | 11 400         | 490                | –               | 6 300          | 0,1856 | W 6008-2RS1       |
| 68                   |    | 15 | 14 600             | 11 400         | 490                | –               | 6 300          | 0,1856 | W 6008-2RS1/VP311 |
| 68                   |    | 15 | 14 600             | 11 400         | 490                | 22 000          | 11 000         | 0,1859 | W 6008-2Z         |
| 80                   |    | 18 | 25 100             | 17 600         | 750                | –               | 5 600          | 0,3578 | W 6208-2RS1       |
| 80                   |    | 18 | 25 100             | 17 600         | 750                | –               | 5 600          | 0,3578 | W 6208-2RS1/VP311 |
| 80                   |    | 18 | 25 100             | 17 600         | 750                | 20 000          | 10 000         | 0,3568 | W 6208-2Z         |
| 45                   | 55 | 6  | 1 460              | 1 370          | 60                 | –               | 6 700          | 0,0262 | W 61709-2RS1      |
|                      | 58 | 7  | 4 940              | 5 000          | 212                | –               | 6 700          | 0,0373 | W 61809-2RS1      |
|                      | 58 | 7  | 4 940              | 5 000          | 212                | 24 000          | 12 000         | 0,0363 | W 61809-2Z        |
|                      | 68 | 12 | 12 100             | 10 800         | 465                | –               | 6 000          | 0,1245 | W 61909-2RS1      |
|                      | 68 | 12 | 12 100             | 10 800         | 465                | 20 000          | 10 000         | 0,1247 | W 61909-2Z        |
|                      | 75 | 16 | 18 200             | 15 000         | 640                | –               | 5 600          | 0,2388 | W 6009-2RS1       |
|                      | 75 | 16 | 18 200             | 15 000         | 640                | 20 000          | 10 000         | 0,238  | W 6009-2Z         |
|                      | 85 | 19 | 28 100             | 20 400         | 865                | –               | 5 000          | 0,3937 | W 6209-2RS1       |
|                      | 85 | 19 | 28 100             | 20 400         | 865                | 18 000          | 9 000          | 0,3915 | W 6209-2Z         |
| 50                   | 62 | 6  | 1 530              | 1 530          | 67                 | –               | 6 000          | 0,0377 | W 61710-2RS1      |
|                      | 65 | 7  | 5 070              | 5 500          | 236                | –               | 6 000          | 0,0503 | W 61810-2RS1      |
|                      | 65 | 7  | 5 070              | 5 500          | 236                | 20 000          | 10 000         | 0,0501 | W 61810-2Z        |
|                      | 72 | 12 | 12 500             | 11 600         | 500                | –               | 5 600          | 0,1388 | W 61910-2RS1      |
|                      | 72 | 12 | 12 500             | 11 600         | 500                | 19 000          | 9 500          | 0,1393 | W 61910-2Z        |
|                      | 80 | 16 | 19 000             | 16 600         | 710                | –               | 5 000          | 0,2575 | W 6010-2RS1       |
|                      | 80 | 16 | 19 000             | 16 600         | 710                | 18 000          | 9 000          | 0,2572 | W 6010-2Z         |
|                      | 90 | 20 | 30 200             | 23 200         | 980                | –               | 4 800          | 0,4436 | W 6210-2RS1       |
|                      | 90 | 20 | 30 200             | 23 200         | 980                | 17 000          | 8 500          | 0,4476 | W 6210-2Z         |

Metric flanged stainless steel deep groove ball bearings

d 1 – 4 mm



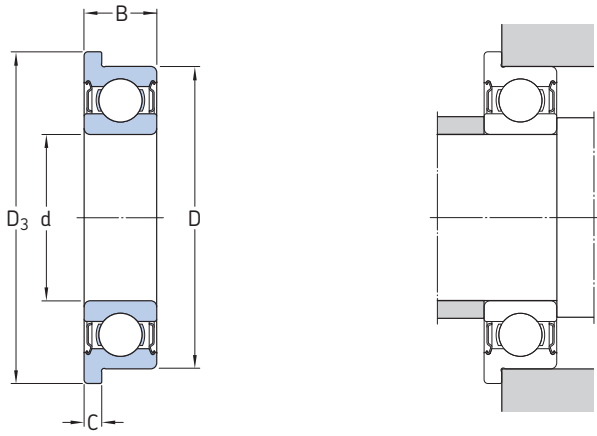
| Principal dimensions |   |                |     |     | Basic load ratings |        | Fatigue load limit | Speed ratings   |                | Mass    | Designation     |
|----------------------|---|----------------|-----|-----|--------------------|--------|--------------------|-----------------|----------------|---------|-----------------|
| d                    | D | D <sub>3</sub> | B   | C   | dynamic            | static |                    | Reference speed | Limiting speed |         |                 |
| mm                   |   |                |     |     | N                  | N      | N                  | r/min           | kg             | –       |                 |
| <b>1</b>             | 3 | 3,8            | 1   | 0,3 | 52                 | 12     | 1                  | 240 000         | 150 000        | 0,00004 | W 618/1 R       |
|                      | 4 | 5              | 1,6 | 0,5 | 79                 | 18     | 1                  | 220 000         | 140 000        | 0,00011 | W 619/1 R       |
| <b>1,2</b>           | 4 | 4,8            | 1,8 | 0,4 | 62                 | 16     | 1                  | 220 000         | 140 000        | 0,0001  | WBB1-8700 R     |
| <b>1,5</b>           | 4 | 5              | 1,2 | 0,4 | 62                 | 16     | 1                  | 220 000         | 140 000        | 0,00012 | W 618/1.5 R     |
|                      | 4 | 5              | 2   | 0,6 | 62                 | 16     | 1                  | 220 000         | 110 000        | 0,00017 | W 638/1.5 R-ZZ  |
|                      | 5 | 6,5            | 2   | 0,6 | 135                | 36     | 2                  | 200 000         | 120 000        | 0,00026 | W 619/1.5 R     |
|                      | 5 | 6,5            | 2,6 | 0,8 | 135                | 36     | 2                  | 200 000         | 100 000        | 0,0003  | W 639/1.5 R-ZZ  |
|                      | 6 | 7,5            | 2,5 | 0,6 | 190                | 51     | 2                  | 180 000         | 110 000        | 0,001   | W 60/1.5 R      |
|                      | 6 | 7,5            | 3   | 0,8 | 190                | 51     | 2                  | 180 000         | 90 000         | 0,0011  | W 630/1.5 R-ZZ  |
| <b>2</b>             | 5 | 6,1            | 1,5 | 0,5 | 94                 | 25     | 1                  | 200 000         | 120 000        | 0,00025 | W 618/2 R       |
|                      | 5 | 6,2            | 2   | 0,6 | 94                 | 25     | 1                  | 200 000         | 120 000        | 0,00023 | W 618/2 XR      |
|                      | 5 | 6,1            | 2,3 | 0,6 | 94                 | 25     | 1                  | 200 000         | 100 000        | 0,00025 | W 638/2 R-ZZ    |
|                      | 5 | 6,2            | 2,5 | 0,6 | 94                 | 25     | 1                  | 200 000         | 100 000        | 0,00025 | W 638/2 XR-ZZ   |
|                      | 6 | 7,5            | 2,3 | 0,6 | 190                | 51     | 2                  | 180 000         | 110 000        | 0,00036 | W 619/2 R       |
|                      | 6 | 7,2            | 2,5 | 0,6 | 190                | 51     | 2                  | 180 000         | 110 000        | 0,00025 | W 619/2 XR      |
|                      | 6 | 7,2            | 2,5 | 0,6 | 190                | 51     | 2                  | 180 000         | 90 000         | 0,00025 | W 619/2 XR-ZZ   |
|                      | 6 | 7,5            | 3   | 0,8 | 190                | 51     | 2                  | 180 000         | 90 000         | 0,00047 | W 639/2 R-ZZ    |
|                      | 7 | 8,5            | 2,8 | 0,7 | 221                | 67     | 3                  | 160 000         | 100 000        | 0,0008  | W 602 R         |
|                      | 7 | 8,2            | 2,5 | 0,6 | 221                | 67     | 3                  | 160 000         | 100 000        | 0,0005  | WBB1-8701 R     |
|                      | 7 | 8,2            | 3   | 0,6 | 221                | 67     | 3                  | 160 000         | 80 000         | 0,0006  | W 602 XR-ZZS    |
|                      | 7 | 8,5            | 3,5 | 0,9 | 221                | 67     | 3                  | 160 000         | 80 000         | 0,0012  | W 630/2 R-ZZS   |
| <b>2,5</b>           | 6 | 7,1            | 1,8 | 0,5 | 117                | 36     | 2                  | 170 000         | 110 000        | 0,00025 | W 618/2.5 R     |
|                      | 6 | 7,1            | 2,6 | 0,8 | 117                | 36     | 2                  | 170 000         | 85 000         | 0,00043 | W 638/2.5 R-ZZ  |
|                      | 7 | 8,5            | 2,5 | 0,7 | 221                | 67     | 3                  | 160 000         | 100 000        | 0,0006  | W 619/2.5 R     |
|                      | 7 | 8,5            | 3,5 | 0,9 | 221                | 67     | 3                  | 160 000         | 80 000         | 0,0006  | W 639/2.5 R-ZZS |
|                      | 8 | 9,5            | 2,8 | 0,7 | 312                | 88     | 4                  | 160 000         | 95 000         | 0,0006  | W 60/2.5 R      |
|                      | 8 | 9,2            | 2,5 | 0,6 | 319                | 90     | 4                  | 150 000         | 95 000         | 0,0005  | WBB1-8702 R     |
|                      | 8 | 9,5            | 4   | 0,9 | 312                | 88     | 4                  | 160 000         | 80 000         | 0,0009  | W 630/2.5 R-ZZ  |



| Principal dimensions |      |                |     |     | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass       | Designation     |
|----------------------|------|----------------|-----|-----|--------------------|----------------|--------------------|-----------------|----------------|------------|-----------------|
| d                    | D    | D <sub>3</sub> | B   | C   | C                  | C <sub>0</sub> | P <sub>u</sub>     | Reference speed | Limiting speed |            |                 |
| mm                   |      |                |     |     | N                  |                | N                  | r/min           |                | kg         | –               |
| 3                    | 6    | 7,2            | 2   | 0,6 | 117                | 36             | 2                  | 170 000         | 110 000        | 0,00025    | W 617/3 R       |
|                      | 6    | 7,2            | 2,5 | 0,6 | 117                | 36             | 2                  | 170 000         | 85 000         | 0,00031    | W 627/3 R-ZZ    |
|                      | 7    | 8,1            | 2   | 0,5 | 178                | 57             | 2                  | 160 000         | 100 000        | 0,00038    | W 618/3 R       |
|                      | 7    | 8,1            | 3   | 0,8 | 178                | 57             | 2                  | –               | 45 000         | 0,00055    | W 638/3 R-2RS1  |
|                      | 7    | 8,1            | 3   | 0,8 | 178                | 57             | 2                  | 160 000         | 80 000         | 0,00055    | W 638/3 R-ZZ    |
|                      | 8    | 9,5            | 3   | 0,7 | 319                | 90             | 4                  | 150 000         | 95 000         | 0,0008     | W 619/3 R       |
|                      | 8    | 9,2            | 2,5 | 0,6 | 225                | 72             | 3                  | 150 000         | 90 000         | 0,0006     | WBB1-8703 R     |
|                      | 8    | 9,2            | 3   | 0,6 | 225                | 72             | 3                  | 150 000         | 75 000         | 0,0007     | W 619/3 R-ZZ    |
|                      | 8    | 9,5            | 4   | 0,9 | 319                | 90             | 4                  | –               | 43 000         | 0,00095    | W 639/3 R-2RS1  |
|                      | 8    | 9,5            | 4   | 0,9 | 319                | 90             | 4                  | 150 000         | 75 000         | 0,00095    | W 639/3 R-ZZ    |
|                      | 9    | 10,5           | 3   | 0,7 | 325                | 95             | 4                  | 140 000         | 90 000         | 0,001      | W 603 R         |
|                      | 9    | 10,2           | 2,5 | 0,6 | 325                | 95             | 4                  | 140 000         | 90 000         | 0,0008     | WBB1-8704 R     |
|                      | 9    | 10,6           | 4   | 0,8 | 325                | 95             | 4                  | 140 000         | 70 000         | 0,0013     | W 603 XR-ZZ     |
|                      | 9    | 10,5           | 5   | 1   | 325                | 95             | 4                  | 140 000         | 70 000         | 0,00105    | W 630/3 R-ZZ    |
|                      | 10   | 11,5           | 4   | 1   | 358                | 110            | 5                  | 140 000         | 90 000         | 0,0018     | W 623 R         |
|                      | 10   | 11,5           | 4   | 1   | 358                | 110            | 5                  | –               | 40 000         | 0,0019     | W 623 R-2RS1    |
| 10                   | 11,5 | 4              | 1   | 358 | 110                | 5              | 140 000            | 70 000          | 0,0019         | W 623 R-ZZ |                 |
| 4                    | 7    | 8,2            | 2   | 0,6 | 178                | 57             | 3                  | 150 000         | 95 000         | 0,0003     | W 617/4 R       |
|                      | 7    | 8,2            | 2,5 | 0,6 | 143                | 53             | 2                  | 150 000         | 75 000         | 0,0004     | W 627/4 R-ZZ    |
|                      | 7    | 8,2            | 2,5 | 0,6 | 143                | 53             | 2                  | 150 000         | 75 000         | 0,0004     | W 627/4 R-2ZS   |
|                      | 8    | 9,2            | 2   | 0,6 | 225                | 72             | 3                  | 150 000         | 90 000         | 0,0004     | W 617/4 XR      |
|                      | 8    | 9,2            | 3   | 0,6 | 225                | 72             | 3                  | 150 000         | 75 000         | 0,0006     | W 637/4 XR-ZZ   |
|                      | 9    | 10,3           | 2,5 | 0,6 | 364                | 114            | 5                  | 140 000         | 85 000         | 0,0007     | W 618/4 R       |
|                      | 9    | 10,3           | 4   | 1   | 364                | 114            | 5                  | –               | 40 000         | 0,0011     | W 638/4 R-2RS1  |
|                      | 9    | 10,3           | 4   | 1   | 364                | 114            | 5                  | 140 000         | 70 000         | 0,0011     | W 638/4 R-ZZ    |
|                      | 10   | 11,2           | 3   | 0,6 | 553                | 245            | 11                 | 130 000         | 80 000         | 0,0011     | W 637/4 XR      |
|                      | 10   | 11,6           | 4   | 0,8 | 553                | 245            | 11                 | –               | 36 000         | 0,0015     | W 638/4 XR-2RS1 |
|                      | 10   | 11,6           | 4   | 0,8 | 553                | 245            | 11                 | 130 000         | 63 000         | 0,0015     | W 638/4 XR-ZZ   |
|                      | 11   | 12,5           | 4   | 1   | 540                | 176            | 8                  | 130 000         | 80 000         | 0,0023     | W 619/4 R       |
|                      | 11   | 12,5           | 4   | 1   | 540                | 176            | 8                  | –               | 36 000         | 0,0024     | W 619/4 R-2RS1  |
|                      | 11   | 12,5           | 4   | 1   | 540                | 176            | 8                  | 130 000         | 63 000         | 0,0024     | W 619/4 R-ZZ    |
|                      | 12   | 13,5           | 4   | 1   | 540                | 176            | 8                  | 130 000         | 80 000         | 0,0023     | W 604 R         |
|                      | 12   | 13,5           | 4   | 1   | 540                | 176            | 8                  | –               | 36 000         | 0,0024     | W 604 R-2RS1    |
|                      | 12   | 13,5           | 4   | 1   | 540                | 176            | 8                  | 130 000         | 63 000         | 0,0024     | W 604 R-ZZ      |
|                      | 13   | 15             | 5   | 1   | 741                | 250            | 11                 | 110 000         | 70 000         | 0,0031     | W 624 R         |
|                      | 13   | 15             | 5   | 1   | 741                | 250            | 11                 | –               | 32 000         | 0,0033     | W 624 R-2RS1    |
|                      | 13   | 15             | 5   | 1   | 741                | 250            | 11                 | 110 000         | 56 000         | 0,0033     | W 624 R-ZZ      |
|                      | 16   | 18             | 5   | 1   | 761                | 265            | 11                 | 100 000         | 63 000         | 0,0054     | W 634 R         |
|                      | 16   | 18             | 5   | 1   | 761                | 265            | 11                 | –               | 30 000         | 0,0057     | W 634 R-2RS1    |
| 16                   | 18   | 5              | 1   | 761 | 265                | 11             | 100 000            | 50 000          | 0,0057         | W 634 R-ZZ |                 |

Metric flanged stainless steel deep groove ball bearings

d 5 – 9 mm

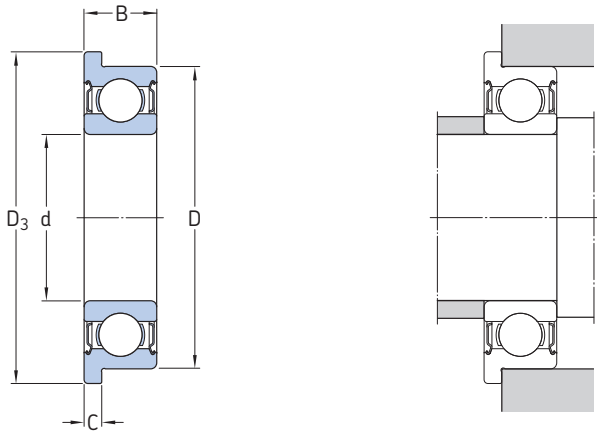


| Principal dimensions |    |                |     |       | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass         | Designation      |
|----------------------|----|----------------|-----|-------|--------------------|----------------|--------------------|-----------------|----------------|--------------|------------------|
| d                    | D  | D <sub>3</sub> | B   | C     | C                  | C <sub>0</sub> | P <sub>u</sub>     | Reference speed | Limiting speed |              |                  |
| mm                   |    |                |     |       | N                  |                | N                  | r/min           |                | kg           | –                |
| 5                    | 8  | 9,2            | 2   | 0,6   | 174                | 61             | 3                  | 140 000         | 85 000         | 0,0003       | W 617/5 R        |
|                      | 8  | 9,2            | 2,5 | 0,6   | 121                | 45             | 2                  | 140 000         | 70 000         | 0,0004       | W 627/5 R-2Z     |
|                      | 8  | 9,2            | 2,5 | 0,6   | 121                | 45             | 2                  | 140 000         | 70 000         | 0,0004       | W 627/5 R-2ZS    |
|                      | 9  | 10,2           | 2,5 | 0,6   | 247                | 85             | 4                  | 130 000         | 85 000         | 0,0006       | W 627/5 XR       |
|                      | 9  | 10,2           | 3   | 0,6   | 247                | 85             | 4                  | 130 000         | 67 000         | 0,0007       | W 637/5 XR-2Z    |
|                      | 9  | 10,2           | 3   | 0,6   | 247                | 85             | 4                  | 130 000         | 67 000         | 0,0007       | W 637/5 XR-2ZS   |
|                      | 10 | 11,2           | 3   | 0,6   | 247                | 85             | 4                  | 130 000         | 85 000         | 0,001        | WBB1-8705 R      |
|                      | 10 | 11,6           | 4   | 0,8   | 247                | 85             | 4                  | –               | 38 000         | 0,0014       | WBB1-8705 R-2RS1 |
|                      | 10 | 11,6           | 4   | 0,8   | 247                | 85             | 4                  | 130 000         | 67 000         | 0,0014       | WBB1-8705 R-2Z   |
|                      | 11 | 12,5           | 3   | 0,8   | 403                | 143            | 6                  | 120 000         | 75 000         | 0,0014       | W 618/5 R        |
|                      | 11 | 12,6           | 4   | 0,8   | 403                | 143            | 6                  | 120 000         | 60 000         | 0,0017       | W 628/5 R-2Z     |
|                      | 11 | 12,5           | 5   | 1     | 403                | 143            | 6                  | –               | 34 000         | 0,002        | W 638/5 R-2RS1   |
|                      | 11 | 12,5           | 5   | 1     | 403                | 143            | 6                  | 120 000         | 60 000         | 0,002        | W 638/5 R-2Z     |
|                      | 13 | 15             | 4   | 1     | 761                | 335            | 14                 | 110 000         | 70 000         | 0,0025       | W 619/5 R        |
|                      | 13 | 15             | 4   | 1     | 761                | 335            | 14                 | –               | 32 000         | 0,0027       | W 619/5 R-2RS1   |
|                      | 13 | 15             | 4   | 1     | 761                | 335            | 14                 | 110 000         | 56 000         | 0,0026       | W 619/5 R-2Z     |
|                      | 14 | 16             | 5   | 1     | 761                | 260            | 11                 | 110 000         | 67 000         | 0,0035       | W 605 R          |
|                      | 14 | 16             | 5   | 1     | 761                | 260            | 11                 | –               | 30 000         | 0,0038       | W 605 R-2RS1     |
|                      | 14 | 16             | 5   | 1     | 761                | 260            | 11                 | 110 000         | 53 000         | 0,0038       | W 605 R-2Z       |
|                      | 16 | 18             | 5   | 1     | 1 430              | 630            | 27                 | 100 000         | 63 000         | 0,0048       | W 625 R          |
| 16                   | 18 | 5              | 1   | 1 430 | 630                | 27             | –                  | 28 000          | 0,005          | W 625 R-2RS1 |                  |
| 16                   | 18 | 5              | 1   | 1 430 | 630                | 27             | 100 000            | 50 000          | 0,005          | W 625 R-2Z   |                  |
| 19                   | 22 | 6              | 1,5 | 2 030 | 880                | 38             | 85 000             | 56 000          | 0,0086         | W 635 R      |                  |
| 19                   | 22 | 6              | 1,5 | 2 030 | 880                | 38             | –                  | 24 000          | 0,0092         | W 635 R-2RS1 |                  |
| 19                   | 22 | 6              | 1,5 | 2 030 | 880                | 38             | 85 000             | 43 000          | 0,0091         | W 635 R-2Z   |                  |
| 6                    | 10 | 11,2           | 2,5 | 0,6   | 286                | 112            | 5                  | 120 000         | 75 000         | 0,0007       | W 617/6 R        |
|                      | 10 | 11,2           | 3   | 0,6   | 286                | 112            | 5                  | 120 000         | 60 000         | 0,0008       | W 627/6 R-2Z     |
|                      | 12 | 13,2           | 3   | 0,6   | 403                | 146            | 6                  | 110 000         | 70 000         | 0,0014       | W 627/6 XR       |
|                      | 12 | 13,6           | 4   | 0,8   | 403                | 146            | 6                  | –               | 32 000         | 0,0018       | WBB1-8706 R-2RS1 |
|                      | 12 | 13,6           | 4   | 0,8   | 403                | 146            | 6                  | 110 000         | 56 000         | 0,0018       | WBB1-8706 R-2Z   |
|                      | 13 | 15             | 3,5 | 1     | 618                | 224            | 10                 | 110 000         | 67 000         | 0,0022       | W 618/6 R        |
|                      | 13 | 15             | 5   | 1,1   | 618                | 224            | 10                 | –               | 30 000         | 0,0029       | W 628/6 R-2RS1   |
|                      | 13 | 15             | 5   | 1,1   | 618                | 224            | 10                 | 110 000         | 53 000         | 0,0029       | W 628/6 R-2Z     |
|                      | 15 | 17             | 5   | 1,2   | 761                | 265            | 11                 | 100 000         | 63 000         | 0,004        | W 619/6 R        |
|                      | 15 | 17             | 5   | 1,2   | 761                | 265            | 11                 | –               | 30 000         | 0,0043       | W 619/6 R-2RS1   |
|                      | 15 | 17             | 5   | 1,2   | 761                | 265            | 11                 | 100 000         | 50 000         | 0,0043       | W 619/6 R-2Z     |
|                      | 17 | 19             | 6   | 1,2   | 1 950              | 830            | 36                 | 95 000          | 60 000         | 0,006        | W 606 R          |
|                      | 17 | 19             | 6   | 1,2   | 1 950              | 830            | 36                 | –               | 26 000         | 0,0063       | W 606 R-2RS1     |
|                      | 17 | 19             | 6   | 1,2   | 1 950              | 830            | 36                 | 95 000          | 48 000         | 0,0065       | W 606 R-2Z       |
|                      | 19 | 22             | 6   | 1,5   | 1 530              | 585            | 25                 | 85 000          | 56 000         | 0,0083       | W 626 R          |
|                      | 19 | 22             | 6   | 1,5   | 1 530              | 585            | 25                 | –               | 24 000         | 0,0088       | W 626 R-2RS1     |
|                      | 19 | 22             | 6   | 1,5   | 1 530              | 585            | 25                 | 85 000          | 43 000         | 0,0088       | W 626 R-2Z       |

| Principal dimensions |    |                |      |     | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass   | Designation      |
|----------------------|----|----------------|------|-----|--------------------|----------------|--------------------|-----------------|----------------|--------|------------------|
| d                    | D  | D <sub>3</sub> | B    | C   | dynamic            | static         |                    | Reference speed | Limiting speed |        |                  |
|                      |    |                |      |     | C                  | C <sub>0</sub> | P <sub>u</sub>     |                 |                |        |                  |
| mm                   |    |                |      |     | N                  |                | N                  | r/min           |                | kg     | –                |
| 7                    | 11 | 12,2           | 2,5  | 0,6 | 260                | 104            | 4                  | 110 000         | 70 000         | 0,0007 | W 617/7 R        |
|                      | 11 | 12,2           | 3    | 0,6 | 260                | 104            | 4                  | 110 000         | 56 000         | 0,0009 | W 627/7 R-2ZS    |
|                      | 13 | 14,2           | 3    | 0,6 | 312                | 143            | 6                  | 100 000         | 63 000         | 0,0024 | W 627 XR         |
|                      | 13 | 14,6           | 4    | 0,8 | 312                | 143            | 6                  | 100 000         | 50 000         | 0,0023 | WBB1-8707 R-2Z   |
|                      | 14 | 16             | 3,5  | 1   | 663                | 260            | 11                 | 100 000         | 63 000         | 0,0024 | W 618/7 R        |
|                      | 14 | 16             | 5    | 1,1 | 663                | 260            | 11                 | –               | 28 000         | 0,0032 | W 628/7 R-2RS1   |
|                      | 14 | 16             | 5    | 1,1 | 663                | 260            | 11                 | 100 000         | 50 000         | 0,0032 | W 628/7 R-2Z     |
|                      | 17 | 19             | 5    | 1,2 | 923                | 365            | 16                 | 90 000          | 56 000         | 0,0054 | W 619/7 R        |
|                      | 17 | 19             | 5    | 1,2 | 923                | 365            | 16                 | –               | 26 000         | 0,0057 | W 619/7 R-2RS1   |
|                      | 17 | 19             | 5    | 1,2 | 923                | 365            | 16                 | 90 000          | 45 000         | 0,0056 | W 619/7 R-2Z     |
|                      | 19 | 22             | 6    | 1,5 | 1 530              | 585            | 25                 | 85 000          | 56 000         | 0,0078 | W 607 R          |
|                      | 19 | 22             | 6    | 1,5 | 1 530              | 585            | 25                 | –               | 24 000         | 0,0083 | W 607 R-2RS1     |
|                      | 19 | 22             | 6    | 1,5 | 1 530              | 585            | 25                 | 85 000          | 43 000         | 0,0083 | W 607 R-2Z       |
|                      | 22 | 25             | 7    | 1,5 | 1 990              | 780            | 34                 | 75 000          | 48 000         | 0,0131 | W 627 R          |
|                      | 22 | 25             | 7    | 1,5 | 1 990              | 780            | 34                 | 75 000          | 38 000         | 0,0137 | W 627 R-2Z       |
|                      | 8  | 12             | 13,2 | 2,5 | 0,6                | 312            | 140                | 6               | 100 000        | 63 000 | 0,0008           |
| 12                   |    | 13,6           | 3,5  | 0,8 | 312                | 140            | 6                  | 100 000         | 53 000         | 0,0012 | W 637/8 R-2Z     |
| 12                   |    | 13,6           | 3,5  | 0,8 | 312                | 140            | 6                  | 100 000         | 50 000         | 0,0012 | W 637/8 R-2ZS    |
| 14                   |    | 15,6           | 3,5  | 0,8 | 462                | 193            | 8                  | 95 000          | 60 000         | 0,0021 | W 637/8 XR       |
| 14                   |    | 15,6           | 4    | 0,8 | 462                | 193            | 8                  | –               | 28 000         | 0,0023 | WBB1-8708 R-2RS1 |
| 14                   |    | 15,6           | 4    | 0,8 | 462                | 193            | 8                  | 95 000          | 48 000         | 0,0023 | WBB1-8708 R-2Z   |
| 16                   |    | 18             | 4    | 1   | 715                | 300            | 12                 | 90 000          | 56 000         | 0,0036 | W 618/8 R        |
| 16                   |    | 18             | 5    | 1,1 | 715                | 300            | 12                 | –               | 26 000         | 0,0043 | W 628/8 R-2RS1   |
| 16                   |    | 18             | 5    | 1,1 | 715                | 300            | 12                 | 90 000          | 45 000         | 0,0043 | W 628/8 R-2Z     |
| 16                   |    | 18             | 6    | 1,3 | 715                | 300            | 12                 | 90 000          | 45 000         | 0,005  | W 638/8 R-2Z     |
| 19                   |    | 22             | 6    | 1,5 | 1 250              | 455            | 20                 | 85 000          | 53 000         | 0,0074 | W 619/8 R        |
| 19                   |    | 22             | 6    | 1,5 | 1 250              | 455            | 20                 | –               | 24 000         | 0,0076 | W 619/8 R-2RS1   |
| 19                   |    | 22             | 6    | 1,5 | 1 250              | 455            | 20                 | 85 000          | 43 000         | 0,0079 | W 619/8 R-2Z     |
| 22                   |    | 25             | 7    | 1,5 | 1 990              | 780            | 34                 | 75 000          | 48 000         | 0,0124 | W 608 R          |
| 22                   |    | 25             | 7    | 1,5 | 1 990              | 780            | 34                 | –               | 22 000         | 0,013  | W 608 R-2RS1     |
| 22                   |    | 25             | 7    | 1,5 | 1 990              | 780            | 34                 | 75 000          | 38 000         | 0,013  | W 608 R-2Z       |
| 9                    | 14 | 15,5           | 3    | 0,8 | 520                | 236            | 10                 | 95 000          | 60 000         | 0,0013 | W 617/9 R        |
|                      | 14 | 15,5           | 4,5  | 0,8 | 520                | 236            | 10                 | 95 000          | 45 000         | 0,0019 | W 637/9 R-2Z     |
|                      | 17 | 19             | 4    | 1   | 761                | 335            | 14                 | 85 000          | 53 000         | 0,0039 | W 618/9 R        |
|                      | 17 | 19             | 5    | 1,1 | 761                | 335            | 14                 | –               | 24 000         | 0,0046 | W 628/9 R-2RS1   |
|                      | 17 | 19             | 5    | 1,1 | 761                | 335            | 14                 | 85 000          | 43 000         | 0,0046 | W 628/9 R-2Z     |
|                      | 20 | 23             | 6    | 1,5 | 2 120              | 1 060          | 45                 | 80 000          | 50 000         | 0,0084 | W 619/9 R        |
|                      | 20 | 23             | 6    | 1,5 | 2 120              | 1 060          | 45                 | –               | 22 000         | 0,0088 | W 619/9 R-2RS1   |
|                      | 20 | 23             | 6    | 1,5 | 2 120              | 1 060          | 45                 | 80 000          | 40 000         | 0,0089 | W 619/9 R-2Z     |
|                      | 24 | 27             | 7    | 1,5 | 2 030              | 815            | 36                 | 70 000          | 43 000         | 0,0151 | W 609 R          |
|                      | 24 | 27             | 7    | 1,5 | 2 030              | 815            | 36                 | 70 000          | 36 000         | 0,0158 | W 609 R-2Z       |

Metric flanged stainless steel deep groove ball bearings

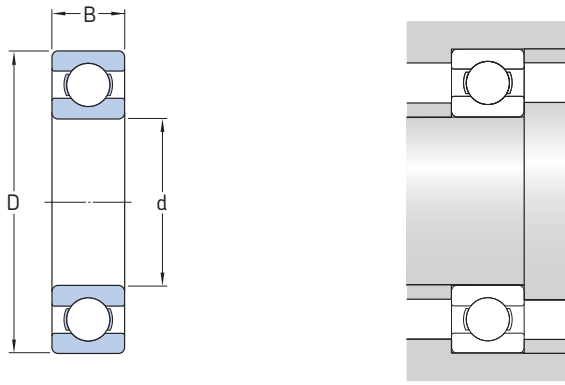
d 10 – 50 mm



| Principal dimensions |    |                |     |       | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass           | Designation     |
|----------------------|----|----------------|-----|-------|--------------------|----------------|--------------------|-----------------|----------------|----------------|-----------------|
| d                    | D  | D <sub>3</sub> | B   | C     | C                  | C <sub>0</sub> | P <sub>u</sub>     | Reference speed | Limiting speed |                |                 |
| mm                   |    |                |     |       | N                  | N              | N                  | r/min           |                | kg             | –               |
| 10                   | 15 | 16,5           | 3   | 0,8   | 488                | 220            | 9                  | 85 000          | 56 000         | 0,0016         | W 61700 R       |
|                      | 15 | 16,5           | 4   | 0,8   | 488                | 220            | 9                  | –               | 24 000         | 0,0021         | W 61700 XR-2RS1 |
|                      | 15 | 16,5           | 4   | 0,8   | 488                | 220            | 9                  | 85 000          | 43 000         | 0,002          | W 61700 XR-2ZS  |
|                      | 19 | 21             | 5   | 1     | 1 480              | 830            | 36                 | 80 000          | 48 000         | 0,0053         | W 61800 R       |
|                      | 19 | 21             | 7   | 1,5   | 1 480              | 830            | 36                 | 80 000          | 48 000         | 0,0075         | W 63800 R       |
|                      | 19 | 21             | 5   | 1     | 1 480              | 830            | 36                 | –               | 22 000         | 0,0057         | W 61800 R-2RS1  |
|                      | 19 | 21             | 5   | 1     | 1 480              | 830            | 36                 | 80 000          | 38 000         | 0,0056         | W 61800 R-2Z    |
|                      | 19 | 21             | 7   | 1,5   | 1 480              | 830            | 36                 | –               | 22 000         | 0,0079         | W 63800 R-2RS1  |
|                      | 19 | 21             | 7   | 1,5   | 1 480              | 830            | 36                 | 80 000          | 38 000         | 0,0078         | W 63800 R-2Z    |
|                      | 22 | 25             | 6   | 1,5   | 2 340              | 1 250          | 54                 | 70 000          | 45 000         | 0,01           | W 61900 R       |
| 22                   | 25 | 6              | 1,5 | 2 340 | 1 250              | 54             | –                  | 20 000          | 0,0105         | W 61900 R-2RS1 |                 |
| 22                   | 25 | 6              | 1,5 | 2 340 | 1 250              | 54             | 70 000             | 36 000          | 0,0106         | W 61900 R-2Z   |                 |
| 12                   | 18 | 19,5           | 4   | 0,8   | 527                | 265            | 11                 | 75 000          | 48 000         | 0,003          | W 61701 R       |
|                      | 18 | 19,5           | 4   | 0,8   | 527                | 265            | 11                 | –               | 22 000         | 0,0033         | W 61701 R-2RS1  |
|                      | 18 | 19,5           | 4   | 0,8   | 527                | 265            | 11                 | 75 000          | 38 000         | 0,0033         | W 61701 R-2ZS   |
|                      | 21 | 23             | 5   | 1,1   | 1 510              | 900            | 39                 | 70 000          | 43 000         | 0,0062         | W 61801 R       |
|                      | 21 | 23             | 7   | 1,5   | 1 510              | 900            | 39                 | 70 000          | 43 000         | 0,0084         | W 63801 R       |
|                      | 21 | 23             | 5   | 1,1   | 1 510              | 900            | 39                 | 70 000          | 36 000         | 0,0068         | W 61801 R-2ZS   |
|                      | 21 | 23             | 7   | 1,5   | 1 510              | 900            | 39                 | 70 000          | 36 000         | 0,0086         | W 63801 R-2Z    |
|                      | 24 | 26,5           | 6   | 1,5   | 2 510              | 1 460          | 62                 | 67 000          | 40 000         | 0,0116         | W 61901 R       |
|                      | 24 | 26,5           | 6   | 1,5   | 2 510              | 1 460          | 62                 | –               | 19 000         | 0,0121         | W 61901 R-2RS1  |
|                      | 24 | 26,5           | 6   | 1,5   | 2 510              | 1 460          | 62                 | 67 000          | 32 000         | 0,0124         | W 61901 R-2Z    |
| 15                   | 21 | 22,5           | 4   | 0,8   | 527                | 290            | 12                 | 67 000          | 40 000         | 0,0036         | W 61702 R       |
|                      | 21 | 22,5           | 4   | 0,8   | 527                | 290            | 12                 | –               | 19 000         | 0,0039         | W 61702 R-2RS1  |
|                      | 21 | 22,5           | 4   | 0,8   | 527                | 290            | 12                 | 67 000          | 32 000         | 0,0039         | W 61702 R-2Z    |
|                      | 24 | 26             | 5   | 1,1   | 1 650              | 1 080          | 48                 | 60 000          | 38 000         | 0,007          | W 61802 R       |
|                      | 24 | 26             | 7   | 1,5   | 1 650              | 1 080          | 48                 | 60 000          | 38 000         | 0,0101         | W 63802 R       |
|                      | 24 | 26             | 5   | 1,1   | 1 650              | 1 080          | 48                 | 60 000          | 30 000         | 0,0074         | W 61802 R-2Z    |
|                      | 24 | 26             | 7   | 1,5   | 1 650              | 1 080          | 48                 | 60 000          | 30 000         | 0,0105         | W 63802 R-2Z    |
|                      | 28 | 30,5           | 7   | 1,5   | 3 710              | 2 240          | 95                 | 56 000          | 34 000         | 0,0164         | W 61902 R       |
|                      | 28 | 30,5           | 7   | 1,5   | 3 710              | 2 240          | 95                 | –               | 16 000         | 0,0173         | W 61902 R-2RS1  |
|                      | 28 | 30,5           | 7   | 1,5   | 3 710              | 2 240          | 95                 | 56 000          | 28 000         | 0,0175         | W 61902 R-2Z    |
| 17                   | 23 | 24,5           | 4   | 0,8   | 559                | 340            | 15                 | 60 000          | 38 000         | 0,0041         | W 61703 R       |
|                      | 23 | 24,5           | 4   | 0,8   | 559                | 340            | 15                 | 60 000          | 30 000         | 0,0044         | W 61703 R-2ZS   |
|                      | 26 | 28             | 5   | 1,1   | 1 780              | 1 270          | 54                 | 56 000          | 34 000         | 0,008          | W 61803 R       |
|                      | 26 | 28             | 7   | 1,5   | 1 780              | 1 270          | 54                 | 56 000          | 34 000         | 0,0112         | W 63803 R       |
|                      | 26 | 28             | 5   | 1,1   | 1 780              | 1 270          | 54                 | 56 000          | 28 000         | 0,0085         | W 61803 R-2Z    |
|                      | 26 | 28             | 7   | 1,5   | 1 780              | 1 270          | 54                 | 56 000          | 28 000         | 0,0117         | W 63803 R-2Z    |
|                      | 30 | 32,5           | 7   | 1,5   | 3 970              | 2 550          | 108                | 50 000          | 32 000         | 0,0175         | W 61903 R       |
|                      | 30 | 32,5           | 7   | 1,5   | 3 970              | 2 550          | 108                | 50 000          | 24 000         | 0,0187         | W 61903 R-2Z    |

| Principal dimensions |    |                |    |     | Basic load ratings |        | Fatigue load limit | Speed ratings   |                | Mass   | Designation   |
|----------------------|----|----------------|----|-----|--------------------|--------|--------------------|-----------------|----------------|--------|---------------|
| d                    | D  | D <sub>3</sub> | B  | C   | dynamic            | static |                    | Reference speed | Limiting speed |        |               |
| mm                   |    |                |    |     | N                  | N      | r/min              | kg              | -              |        |               |
| 20                   | 27 | 28,5           | 4  | 0,8 | 585                | 390    | 17                 | 50 000          | 32 000         | 0,0058 | W 61704 R     |
|                      | 27 | 28,5           | 4  | 0,8 | 585                | 390    | 17                 | 50 000          | 26 000         | 0,0062 | W 61704 R-2ZS |
|                      | 32 | 35             | 7  | 1,5 | 3 970              | 2 600  | 110                | 45 000          | 28 000         | 0,0175 | W 61804 R     |
|                      | 32 | 35             | 10 | 2   | 3 120              | 2 080  | 90                 | 48 000          | 30 000         | 0,0250 | W 63804 R     |
|                      | 32 | 35             | 7  | 1,5 | 3 970              | 2 600  | 110                | 45 000          | 22 000         | 0,0189 | W 61804 R-2Z  |
|                      | 32 | 35             | 10 | 2   | 3 120              | 2 080  | 90                 | 48 000          | 24 000         | 0,0265 | W 63804 R-2Z  |
|                      | 37 | 40             | 9  | 2   | 5 530              | 3 650  | 156                | 43 000          | 26 000         | 0,0366 | W 61904 R     |
|                      | 37 | 40             | 9  | 2   | 5 530              | 3 650  | 156                | 43 000          | 20 000         | 0,0387 | W 61904 R-2Z  |
| 25                   | 32 | 34             | 4  | 1   | 618                | 465    | 20                 | 43 000          | 26 000         | 0,0074 | W 61705 R     |
|                      | 37 | 40             | 7  | 1,5 | 3 380              | 2 500  | 108                | 38 000          | 24 000         | 0,0234 | W 61805 R     |
|                      | 37 | 40             | 10 | 2   | 3 380              | 2 500  | 108                | 38 000          | 24 000         | 0,0330 | W 63805 R     |
|                      | 37 | 40             | 7  | 1,5 | 3 380              | 2 500  | 108                | 38 000          | 19 000         | 0,0245 | W 61805 R-2Z  |
|                      | 37 | 40             | 10 | 2   | 3 380              | 2 500  | 108                | 38 000          | 19 000         | 0,0341 | W 63805 R-2Z  |
|                      | 42 | 45             | 9  | 2   | 6 050              | 4 500  | 193                | 34 000          | 22 000         | 0,0434 | W 61905 R     |
|                      | 42 | 45             | 9  | 2   | 6 050              | 4 500  | 193                | 34 000          | 17 000         | 0,0462 | W 61905 R-2Z  |
| 30                   | 37 | 39             | 4  | 1   | 650                | 530    | 22                 | 36 000          | 22 000         | 0,0085 | W 61706 R     |
|                      | 42 | 45             | 7  | 1,5 | 3 580              | 2 900  | 125                | 34 000          | 20 000         | 0,0257 | W 61806 R     |
|                      | 42 | 45             | 10 | 2   | 3 580              | 2 900  | 125                | 34 000          | 20 000         | 0,0380 | W 63806 R     |
|                      | 42 | 45             | 7  | 1,5 | 3 580              | 2 900  | 125                | 34 000          | 17 000         | 0,0269 | W 61806 R-2Z  |
|                      | 42 | 45             | 10 | 2   | 3 580              | 2 900  | 125                | 34 000          | 17 000         | 0,0392 | W 63806 R-2Z  |
|                      | 47 | 50             | 9  | 2   | 6 240              | 5 000  | 212                | 30 000          | 19 000         | 0,0489 | W 61906 R     |
|                      | 47 | 50             | 9  | 2   | 6 240              | 5 000  | 212                | 30 000          | 15 000         | 0,0529 | W 61906 R-2Z  |
| 35                   | 47 | 50             | 7  | 1,5 | 3 710              | 3 350  | 140                | 30 000          | 18 000         | 0,0334 | W 61807 R     |
|                      | 47 | 50             | 7  | 1,5 | 3 710              | 3 350  | 140                | 30 000          | 15 000         | 0,0347 | W 61807 R-2Z  |
|                      | 55 | 58             | 10 | 2,5 | 9 360              | 7 650  | 325                | 26 000          | 16 000         | 0,0882 | W 61907 R     |
|                      | 55 | 58             | 10 | 2,5 | 9 360              | 7 650  | 325                | 26 000          | 13 000         | 0,0922 | W 61907 R-2Z  |
| 40                   | 52 | 55             | 7  | 1,5 | 3 900              | 3 750  | 160                | 26 000          | 16 000         | 0,0316 | W 61808 R     |
|                      | 52 | 55             | 7  | 1,5 | 3 900              | 3 750  | 160                | 26 000          | 13 000         | 0,0380 | W 61808 R-2Z  |
|                      | 62 | 65             | 12 | 2,5 | 11 900             | 9 800  | 425                | 24 000          | 14 000         | 0,1300 | W 61908 R     |
|                      | 62 | 65             | 12 | 2,5 | 11 900             | 9 800  | 425                | 24 000          | 12 000         | 0,1370 | W 61908 R-2Z  |
| 45                   | 58 | 61             | 7  | 1,5 | 4 940              | 5 000  | 212                | 24 000          | 14 000         | 0,0435 | W 61809 R     |
|                      | 58 | 61             | 7  | 1,5 | 4 940              | 5 000  | 212                | 24 000          | 12 000         | 0,0453 | W 61809 R-2Z  |
|                      | 68 | 71             | 12 | 2,5 | 12 100             | 10 800 | 465                | 20 000          | 13 000         | 0,1460 | W 61909 R     |
|                      | 68 | 71             | 12 | 2,5 | 12 100             | 10 800 | 465                | 20 000          | 10 000         | 0,1530 | W 61909 R-2Z  |
| 50                   | 65 | 68             | 7  | 1,5 | 5 070              | 5 500  | 236                | 20 000          | 13 000         | 0,0524 | W 61810 R     |
|                      | 65 | 68             | 7  | 1,5 | 5 070              | 5 500  | 236                | 20 000          | 10 000         | 0,0545 | W 61810 R-2Z  |
|                      | 72 | 75             | 12 | 2,5 | 12 500             | 11 600 | 500                | 19 000          | 12 000         | 0,1323 | W 61910 R     |
|                      | 72 | 75             | 12 | 2,5 | 12 500             | 11 600 | 500                | 19 000          | 9 500          | 0,1400 | W 61910 R-2Z  |

Inch stainless steel deep groove ball bearings  
d 1,016 – 19,05 mm

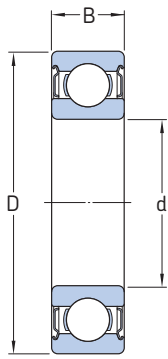


| Principal dimensions |        |       | Width<br>outer<br>ring | Basic load ratings |                 | Fatigue<br>load limit<br>$P_u$ | Speed ratings      |                   | Mass    | Designation         |
|----------------------|--------|-------|------------------------|--------------------|-----------------|--------------------------------|--------------------|-------------------|---------|---------------------|
| d                    | D      | B     |                        | dynamic<br>C       | static<br>$C_0$ |                                | Reference<br>speed | Limiting<br>speed |         |                     |
| mm                   |        |       | mm                     | N                  | N               | r/min                          |                    | kg                | –       |                     |
| <b>1,016</b>         | 3,175  | 1,191 | 1,191                  | 57                 | 14              | 1                              | 240 000            | 150 000           | 0,00005 | <b>D/W R09</b>      |
| <b>1,191</b>         | 3,967  | 1,588 | 1,588                  | 62                 | 16              | 1                              | 220 000            | 140 000           | 0,0001  | <b>D/W R0</b>       |
| <b>1,397</b>         | 4,762  | 1,984 | 1,984                  | 133                | 34              | 1                              | 200 000            | 130 000           | 0,0001  | <b>D/W R1</b>       |
| <b>1,984</b>         | 6,35   | 2,38  | 2,38                   | 163                | 48              | 2                              | 170 000            | 100 000           | 0,0004  | <b>D/W R1-4</b>     |
| <b>2,38</b>          | 4,762  | 1,588 | 1,588                  | 104                | 30              | 1                              | 190 000            | 120 000           | 0,0001  | <b>D/W R133</b>     |
|                      | 7,938  | 2,779 | 2,779                  | 312                | 88              | 4                              | 160 000            | 95 000            | 0,00058 | <b>D/W R1-5</b>     |
| <b>3,175</b>         | 6,35   | 2,38  | 2,38                   | 163                | 48              | 2                              | 170 000            | 100 000           | 0,00027 | <b>D/W R144</b>     |
|                      | 6,35   | 2,38  | 2,38                   | 174                | 55              | 2                              | 170 000            | 100 000           | 0,00027 | <b>D/W R144J</b>    |
|                      | 7,938  | 2,779 | 2,779                  | 319                | 90              | 4                              | 150 000            | 95 000            | 0,0005  | <b>D/W R2-5</b>     |
|                      | 9,525  | 3,967 | 3,967                  | 364                | 114             | 5                              | 130 000            | 80 000            | 0,0013  | <b>D/W R2</b>       |
|                      | 9,525  | 2,779 | 2,779                  | 364                | 114             | 5                              | 130 000            | 80 000            | 0,001   | <b>D/W R2-6</b>     |
| <b>3,967</b>         | 12,7   | 4,366 | 4,366                  | 364                | 114             | 5                              | 130 000            | 80 000            | 0,0031  | <b>D/W R2A</b>      |
|                      | 7,938  | 2,779 | 2,779                  | 203                | 75              | 3                              | 140 000            | 90 000            | 0,0005  | <b>D/W R155</b>     |
| <b>4,762</b>         | 7,938  | 2,779 | 2,779                  | 203                | 75              | 3                              | 140 000            | 90 000            | 0,0004  | <b>D/W R156</b>     |
|                      | 9,525  | 3,175 | 3,175                  | 403                | 137             | 6                              | 130 000            | 80 000            | 0,0006  | <b>D/W R166</b>     |
|                      | 12,7   | 3,967 | 3,967                  | 741                | 250             | 11                             | 110 000            | 70 000            | 0,0022  | <b>D/W R3</b>       |
|                      | 15,875 | 4,978 | 4,978                  | 852                | 315             | 14                             | 85 000             | 56 000            | 0,0045  | <b>D/W R3A</b>      |
| <b>6,35</b>          | 9,525  | 3,175 | 3,175                  | 212                | 88              | 4                              | 120 000            | 75 000            | 0,0005  | <b>D/W R168</b>     |
|                      | 12,7   | 3,175 | 3,175                  | 618                | 224             | 10                             | 110 000            | 67 000            | 0,0015  | <b>D/W R188</b>     |
|                      | 15,875 | 4,978 | 4,978                  | 852                | 315             | 14                             | 95 000             | 60 000            | 0,0039  | <b>D/W R4</b>       |
|                      | 19,05  | 5,558 | 5,558                  | 1 530              | 585             | 25                             | 80 000             | 50 000            | 0,0074  | <b>D/W R4A</b>      |
| <b>7,938</b>         | 12,7   | 3,967 | 3,967                  | 312                | 143             | 6                              | 100 000            | 63 000            | 0,0014  | <b>D/W R1810</b>    |
| <b>9,525</b>         | 15,875 | 3,967 | 3,967                  | 488                | 220             | 9                              | 85 000             | 56 000            | 0,0025  | <b>D/W ER1038</b>   |
|                      | 15,875 | 3,967 | 3,967                  | 488                | 220             | 9                              | 85 000             | 56 000            | 0,0025  | <b>D/W SRI-1038</b> |
|                      | 15,875 | 3,967 | 3,967                  | 488                | 220             | 9                              | 85 000             | 56 000            | 0,0045  | <b>D/W SRI-1634</b> |
|                      | 22,225 | 5,558 | 5,558                  | 2 470              | 1 120           | 48                             | 70 000             | 45 000            | 0,0088  | <b>D/W R6</b>       |
| <b>12,7</b>          | 19,05  | 3,967 | 3,967                  | 520                | 270             | 11                             | 75 000             | 45 000            | 0,0031  | <b>D/W ER1212</b>   |
|                      | 19,05  | 3,967 | 3,967                  | 520                | 270             | 11                             | 75 000             | 45 000            | 0,0031  | <b>D/W SRI-1212</b> |
|                      | 22,225 | 5,558 | 5,558                  | 1 110              | 530             | 22                             | 70 000             | 43 000            | 0,0079  | <b>D/W R6-5</b>     |
|                      | 28,575 | 6,35  | 6,35                   | 4 420              | 2 360           | 102                            | 60 000             | 36 000            | 0,0175  | <b>D/W R8</b>       |

| Principal dimensions |        |       | Width<br>outer<br>ring | Basic load ratings |        | Fatigue<br>load limit<br>$P_u$ | Speed ratings      |                   | Mass   | Designation  |
|----------------------|--------|-------|------------------------|--------------------|--------|--------------------------------|--------------------|-------------------|--------|--------------|
| d                    | D      | B     |                        | dynamic            | static |                                | Reference<br>speed | Limiting<br>speed |        |              |
| mm                   |        |       | mm                     | N                  |        | N                              | r/min              | kg                | –      |              |
| <b>15,875</b>        | 22,225 | 3,967 | 3,967                  | 553                | 320    | 14                             | 63 000             | 40 000            | 0,0037 | D/W ER1458   |
|                      | 22,225 | 3,967 | 3,967                  | 553                | 320    | 14                             | 63 000             | 40 000            | 0,0037 | D/W SRI-1458 |
|                      | 34,925 | 7,142 | 7,142                  | 4 940              | 3 150  | 137                            | 40 000             | 26 000            | 0,0299 | D/W R10      |
| <b>19,05</b>         | 25,4   | 3,967 | 3,967                  | 572                | 365    | 16                             | 53 000             | 34 000            | 0,0045 | D/W ER1634   |
|                      | 41,275 | 7,938 | 7,938                  | 6 630              | 4 400  | 186                            | 38 000             | 24 000            | 0,0466 | D/W R12      |

Inch capped stainless steel deep groove ball bearings

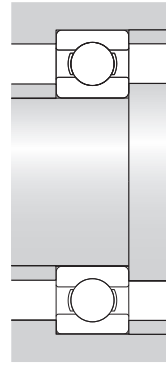
d 1,191 – 19,05 mm



2Z



2RS1



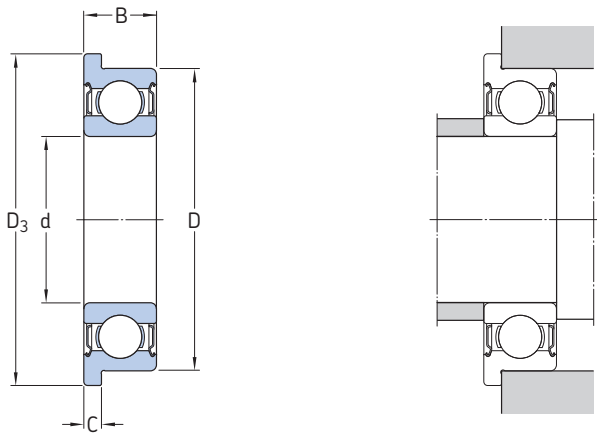
| Principal dimensions |              |       | Width<br>outer<br>ring | Basic load ratings |                 | Fatigue<br>load limit<br>$P_u$ | Speed ratings      |                   | Mass    | Designation       |
|----------------------|--------------|-------|------------------------|--------------------|-----------------|--------------------------------|--------------------|-------------------|---------|-------------------|
| d                    | D            | B     |                        | dynamic<br>C       | static<br>$C_0$ |                                | Reference<br>speed | Limiting<br>speed |         |                   |
| mm                   |              |       | mm                     | N                  | N               | r/min                          |                    | kg                | –       |                   |
| <b>1,191</b>         | 3,967        | 2,38  | 2,38                   | 62                 | 16              | 1                              | 220 000            | 110 000           | 0,00015 | D/W R0-2Z         |
| <b>1,397</b>         | 4,762        | 2,779 | 2,779                  | 133                | 34              | 1                              | 200 000            | 100 000           | 0,0001  | D/W R1-2Z         |
| <b>1,984</b>         | 6,35         | 3,571 | 3,571                  | 163                | 48              | 2                              | 170 000            | 85 000            | 0,0004  | D/W R1-4-2Z       |
|                      | 6,35         | 3,571 | 3,571                  | 163                | 48              | 2                              | 170 000            | 85 000            | 0,0004  | D/W R1-4-2ZS      |
| <b>2,38</b>          | 4,762        | 2,38  | 2,38                   | 78                 | 25              | 1                              | 190 000            | 95 000            | 0,00015 | D/W R133-2ZS      |
|                      | 7,938        | 3,571 | 3,571                  | 312                | 88              | 4                              | 160 000            | 80 000            | 0,00068 | D/W R1-5-2Z       |
| <b>3,175</b>         | 6,35         | 2,779 | 2,779                  | 163                | 48              | 2                              | 170 000            | 85 000            | 0,0003  | D/W R144-2Z       |
|                      | 6,35         | 2,779 | 2,779                  | 174                | 55              | 2                              | 170 000            | 85 000            | 0,0003  | D/W R144J-2Z      |
|                      | 6,35         | 2,38  | 2,38                   | 174                | 55              | 2                              | 170 000            | 85 000            | 0,0003  | D/W R144W.0937-2Z |
|                      | 7,938        | 3,571 | 3,571                  | 319                | 90              | 4                              | 150 000            | 75 000            | 0,0011  | D/W R2-5-2Z       |
|                      | 9,525        | 3,967 | 3,967                  | 364                | 114             | 5                              | –                  | 40 000            | 0,0014  | D/W R2-2RS1       |
|                      | 9,525        | 3,967 | 3,967                  | 358                | 110             | 5                              | 130 000            | 67 000            | 0,0014  | D/W R2-2Z         |
|                      | 9,525        | 3,571 | 3,571                  | 364                | 114             | 5                              | –                  | 40 000            | 0,0013  | D/W R2-6-2RS1     |
|                      | 9,525        | 3,571 | 3,571                  | 364                | 114             | 5                              | 130 000            | 63 000            | 0,0012  | D/W R2-6-2Z       |
|                      | 12,7         | 4,366 | 4,366                  | 364                | 114             | 5                              | 130 000            | 63 000            | 0,0032  | D/W R2A-2Z        |
|                      | <b>3,967</b> | 7,938 | 3,175                  | 3,175              | 203             | 75                             | 3                  | 140 000           | 70 000  | 0,0006            |
| <b>4,762</b>         | 7,938        | 3,175 | 3,175                  | 203                | 75              | 3                              | 140 000            | 70 000            | 0,0005  | D/W R156-2ZS      |
|                      | 9,525        | 3,175 | 3,175                  | 403                | 137             | 6                              | 130 000            | 63 000            | 0,0008  | D/W R166-2Z       |
|                      | 12,7         | 4,978 | 4,978                  | 741                | 250             | 11                             | –                  | 32 000            | 0,0027  | D/W R3-2RS1       |
|                      | 12,7         | 4,978 | 4,978                  | 741                | 250             | 11                             | 110 000            | 56 000            | 0,0026  | D/W R3-2Z         |
|                      | 12,7         | 3,967 | 3,967                  | 605                | 216             | 9                              | 110 000            | 56 000            | 0,0027  | D/W R3W.1562-2Z   |
|                      | 15,875       | 4,978 | 4,978                  | 852                | 315             | 14                             | –                  | 28 000            | 0,0049  | D/W R3A-2RS1      |
|                      | 15,875       | 4,978 | 4,978                  | 852                | 315             | 14                             | 85 000             | 45 000            | 0,0048  | D/W R3A-2Z        |
| <b>6,35</b>          | 9,525        | 3,175 | 3,175                  | 212                | 88              | 4                              | 120 000            | 60 000            | 0,0006  | D/W R168-2Z       |
|                      | 9,525        | 3,175 | 3,175                  | 212                | 88              | 4                              | 120 000            | 60 000            | 0,0006  | D/W R168-2ZS      |
|                      | 12,7         | 4,762 | 4,762                  | 618                | 224             | 10                             | –                  | 30 000            | 0,002   | D/W R188-2RS1     |
|                      | 12,7         | 4,762 | 4,762                  | 618                | 224             | 10                             | 110 000            | 53 000            | 0,002   | D/W R188-2Z       |
|                      | 15,875       | 4,978 | 4,978                  | 852                | 315             | 14                             | –                  | 28 000            | 0,0042  | D/W R4-2RS1       |
|                      | 15,875       | 4,978 | 4,978                  | 852                | 315             | 14                             | 95 000             | 48 000            | 0,0043  | D/W R4-2Z         |
|                      | 19,05        | 7,142 | 7,142                  | 1 530              | 585             | 25                             | –                  | 24 000            | 0,0089  | D/W R4A-2RS1      |
|                      | 19,05        | 7,142 | 7,142                  | 1 530              | 585             | 25                             | 80 000             | 40 000            | 0,009   | D/W R4A-2Z        |
| <b>7,938</b>         | 12,7         | 3,967 | 3,967                  | 312                | 143             | 6                              | 100 000            | 50 000            | 0,0015  | D/W R1810-2ZS     |
| <b>9,525</b>         | 15,875       | 3,967 | 3,967                  | 488                | 220             | 9                              | 85 000             | 43 000            | 0,0027  | D/W ER1038-2ZS    |
|                      | 15,875       | 3,967 | 3,967                  | 488                | 220             | 9                              | 85 000             | 43 000            | 0,0027  | D/W SRI-1038-2ZS  |
|                      | 22,225       | 7,142 | 7,142                  | 2 470              | 1 120           | 48                             | –                  | 20 000            | 0,0107  | D/W R6-2RS1       |
|                      | 22,225       | 7,142 | 7,142                  | 2 470              | 1 120           | 48                             | 70 000             | 36 000            | 0,0107  | D/W R6-2Z         |



| Principal dimensions |        |        | Width<br>outer<br>ring | Basic load ratings |        | Fatigue<br>load limit<br>$P_u$ | Speed ratings      |                   | Mass   | Designation      |
|----------------------|--------|--------|------------------------|--------------------|--------|--------------------------------|--------------------|-------------------|--------|------------------|
| d                    | D      | B      |                        | dynamic            | static |                                | Reference<br>speed | Limiting<br>speed |        |                  |
| mm                   |        |        | mm                     | N                  | N      | r/min                          |                    | kg                | –      |                  |
| <b>12,7</b>          | 19,05  | 3,967  | 3,967                  | 520                | 270    | 11                             | 75 000             | 36 000            | 0,0034 | D/W ER1212-2ZS   |
|                      | 19,05  | 3,967  | 3,967                  | 520                | 270    | 11                             | 75 000             | 36 000            | 0,0034 | D/W SRI-1212-2ZS |
|                      | 22,225 | 7,142  | 7,142                  | 1 110              | 530    | 22                             | 70 000             | 36 000            | 0,0099 | D/W R6-5-2ZS     |
|                      | 28,575 | 7,938  | 7,938                  | 4 420              | 2 360  | 102                            | –                  | 16 000            | 0,0204 | D/W R8-2RS1      |
|                      | 28,575 | 7,938  | 7,938                  | 4 420              | 2 360  | 102                            | 60 000             | 30 000            | 0,0205 | D/W R8-2Z        |
| <b>15,875</b>        | 22,225 | 3,967  | 3,967                  | 553                | 320    | 14                             | 63 000             | 32 000            | 0,005  | D/W ER1458-2ZS   |
|                      | 22,225 | 3,967  | 3,967                  | 553                | 320    | 14                             | 63 000             | 32 000            | 0,005  | D/W SRI-1458-2ZS |
|                      | 34,925 | 8,733  | 8,733                  | 4 940              | 3 150  | 137                            | –                  | 13 000            | 0,036  | D/W R10-2RS1     |
|                      | 34,925 | 8,733  | 8,733                  | 4 940              | 3 150  | 137                            | 40 000             | 20 000            | 0,0362 | D/W R10-2Z       |
| <b>19,05</b>         | 25,4   | 3,967  | 3,967                  | 572                | 365    | 16                             | 53 000             | 26 000            | 0,0048 | D/W ER1634-2ZS   |
|                      | 25,4   | 3,967  | 3,967                  | 572                | 365    | 16                             | 53 000             | 26 000            | 0,0048 | D/W SRI-1634-2ZS |
|                      | 41,275 | 11,113 | 11,113                 | 8 060              | 5 000  | 212                            | –                  | 11 000            | 0,0609 | D/W R12-2RS1     |
|                      | 41,275 | 11,113 | 11,113                 | 8 060              | 5 000  | 212                            | 38 000             | 19 000            | 0,061  | D/W R12-2Z       |

# Inch flanged stainless steel deep groove ball bearings

d 1,016 – 15,875 mm



| Principal dimensions |        |                |       |       | Basic load ratings |                | Fatigue load limit | Speed ratings   |                | Mass                 | Designation           |
|----------------------|--------|----------------|-------|-------|--------------------|----------------|--------------------|-----------------|----------------|----------------------|-----------------------|
| d                    | D      | D <sub>3</sub> | B     | C     | C                  | C <sub>0</sub> | P <sub>u</sub>     | Reference speed | Limiting speed |                      |                       |
| mm                   |        |                |       |       | N                  |                | N                  | r/min           |                | kg                   | –                     |
| <b>1,016</b>         | 3,175  | 4,343          | 1,191 | 0,33  | 57                 | 14             | 1                  | 240 000         | 150 000        | 0,00005              | <b>D/W R09 R</b>      |
| <b>1,191</b>         | 3,967  | 5,156          | 1,588 | 0,33  | 62                 | 16             | 1                  | 220 000         | 140 000        | 0,00013              | <b>D/W R0 R</b>       |
|                      | 3,967  | 5,156          | 2,38  | 0,787 | 62                 | 16             | 1                  | 220 000         | 110 000        | 0,00013              | <b>D/W R0 R-2Z</b>    |
| <b>1,397</b>         | 4,762  | 5,944          | 1,984 | 0,584 | 133                | 34             | 1                  | 200 000         | 130 000        | 0,00033              | <b>D/W R1 R</b>       |
|                      | 4,762  | 5,944          | 2,779 | 0,787 | 133                | 34             | 1                  | 200 000         | 100 000        | 0,00033              | <b>D/W R1 R-2Z</b>    |
| <b>1,984</b>         | 6,35   | 7,518          | 2,38  | 0,584 | 163                | 48             | 2                  | 170 000         | 100 000        | 0,0004               | <b>D/W R1-4 R</b>     |
|                      | 6,35   | 7,518          | 3,571 | 0,787 | 163                | 48             | 2                  | 170 000         | 85 000         | 0,0004               | <b>D/W R1-4 R-2Z</b>  |
|                      | 6,35   | 7,518          | 3,571 | 0,787 | 163                | 48             | 2                  | 170 000         | 85 000         | 0,0004               | <b>D/W R1-4 R-2ZS</b> |
| <b>2,38</b>          | 4,762  | 5,944          | 1,588 | 0,457 | 104                | 30             | 1                  | 190 000         | 120 000        | 0,00015              | <b>D/W R133 R</b>     |
|                      | 4,762  | 5,944          | 2,38  | 0,787 | 78                 | 25             | 1                  | 190 000         | 95 000         | 0,0002               | <b>D/W R133 R-2ZS</b> |
|                      | 7,938  | 9,119          | 2,779 | 0,584 | 312                | 88             | 4                  | 160 000         | 95 000         | 0,00058              | <b>D/W R1-5 R</b>     |
|                      | 7,938  | 9,119          | 3,571 | 0,787 | 312                | 88             | 4                  | 160 000         | 80 000         | 0,00068              | <b>D/W R1-5 R-2Z</b>  |
| <b>3,175</b>         | 6,35   | 7,518          | 2,38  | 0,584 | 163                | 48             | 2                  | 170 000         | 100 000        | 0,00033              | <b>D/W R144 R</b>     |
|                      | 6,35   | 7,518          | 2,38  | 0,584 | 174                | 55             | 2                  | 170 000         | 100 000        | 0,00033              | <b>D/W R144J R</b>    |
|                      | 6,35   | 7,518          | 2,779 | 0,787 | 163                | 48             | 2                  | 170 000         | 85 000         | 0,00044              | <b>D/W R144 R-2Z</b>  |
|                      | 6,35   | 7,518          | 2,779 | 0,787 | 174                | 55             | 2                  | 170 000         | 85 000         | 0,00044              | <b>D/W R144J R-2Z</b> |
|                      | 7,938  | 9,119          | 2,779 | 0,584 | 319                | 90             | 4                  | 150 000         | 95 000         | 0,0006               | <b>D/W R2-5 R</b>     |
|                      | 7,938  | 9,119          | 3,571 | 0,787 | 319                | 90             | 4                  | 150 000         | 75 000         | 0,0012               | <b>D/W R2-5 R-2Z</b>  |
|                      | 9,525  | 11,176         | 3,967 | 0,762 | 358                | 110            | 5                  | 130 000         | 85 000         | 0,0015               | <b>D/W R2 R</b>       |
|                      | 9,525  | 10,719         | 2,779 | 0,584 | 364                | 114            | 5                  | 130 000         | 80 000         | 0,001                | <b>D/W R2-6 R</b>     |
|                      | 9,525  | 11,176         | 3,967 | 0,762 | 358                | 110            | 5                  | –               | 40 000         | 0,0016               | <b>D/W R2 R-2RS1</b>  |
|                      | 9,525  | 11,176         | 3,967 | 0,762 | 358                | 110            | 5                  | 130 000         | 67 000         | 0,0016               | <b>D/W R2 R-2Z</b>    |
| 9,525                | 10,719 | 3,571          | 0,787 | 364   | 114                | 5              | 130 000            | 63 000          | 0,0013         | <b>D/W R2-6 R-2Z</b> |                       |
| <b>3,967</b>         | 7,938  | 9,119          | 2,779 | 0,584 | 203                | 75             | 3                  | 140 000         | 90 000         | 0,0006               | <b>D/W R155 R</b>     |
|                      | 7,938  | 9,119          | 3,175 | 0,914 | 203                | 75             | 3                  | 140 000         | 70 000         | 0,0007               | <b>D/W R155 R-2ZS</b> |
| <b>4,762</b>         | 7,938  | 9,119          | 2,779 | 0,584 | 203                | 75             | 3                  | 140 000         | 90 000         | 0,0005               | <b>D/W R156 R</b>     |
|                      | 7,938  | 9,119          | 3,175 | 0,914 | 203                | 75             | 3                  | 140 000         | 70 000         | 0,0006               | <b>D/W R156 R-2ZS</b> |
|                      | 9,525  | 10,719         | 3,175 | 0,584 | 403                | 137            | 6                  | 130 000         | 80 000         | 0,0008               | <b>D/W R166 R</b>     |
|                      | 9,525  | 10,719         | 3,175 | 0,787 | 403                | 137            | 6                  | 130 000         | 63 000         | 0,0009               | <b>D/W R166 R-2Z</b>  |
|                      | 12,7   | 14,351         | 4,978 | 1,067 | 741                | 250            | 11                 | 110 000         | 70 000         | 0,0029               | <b>D/W R3 R</b>       |
|                      | 12,7   | 14,351         | 3,967 | 1,067 | 741                | 250            | 11                 | 110 000         | 70 000         | 0,0026               | <b>D/W R3W.1562 R</b> |
|                      | 12,7   | 14,351         | 4,978 | 1,067 | 741                | 250            | 11                 | –               | 32 000         | 0,003                | <b>D/W R3 R-2RS1</b>  |
|                      | 12,7   | 14,351         | 4,978 | 1,067 | 741                | 250            | 11                 | 110 000         | 56 000         | 0,0029               | <b>D/W R3 R-2Z</b>    |

| Principal dimensions |        |                |       |       | Basic load ratings |        | Fatigue load limit | Speed ratings   |                | Mass   | Designation     |
|----------------------|--------|----------------|-------|-------|--------------------|--------|--------------------|-----------------|----------------|--------|-----------------|
| d                    | D      | D <sub>3</sub> | B     | C     | dynamic            | static | P <sub>u</sub>     | Reference speed | Limiting speed |        |                 |
| mm                   |        |                |       |       | N                  |        | N                  | r/min           |                | kg     | –               |
| <b>6,35</b>          | 9,525  | 10,719         | 3,175 | 0,584 | 212                | 88     | 4                  | 120 000         | 75 000         | 0,0007 | D/W R168 R      |
|                      | 9,525  | 10,719         | 3,175 | 0,914 | 212                | 88     | 4                  | 120 000         | 60 000         | 0,0007 | D/W R168 R-2ZS  |
|                      | 9,525  | 10,719         | 3,175 | 0,914 | 212                | 88     | 4                  | 120 000         | 60 000         | 0,0007 | D/W R168 R-2Z   |
|                      | 12,7   | 13,894         | 3,175 | 0,584 | 618                | 224    | 10                 | 110 000         | 67 000         | 0,0016 | D/W R188 R      |
|                      | 12,7   | 13,894         | 4,762 | 1,143 | 618                | 224    | 10                 | 110 000         | 53 000         | 0,0023 | D/W R188 R-2Z   |
|                      | 15,875 | 17,526         | 4,978 | 1,067 | 852                | 315    | 14                 | 95 000          | 60 000         | 0,0043 | D/W R4 R        |
|                      | 15,875 | 17,526         | 4,978 | 1,067 | 852                | 315    | 14                 | –               | 28 000         | 0,0045 | D/W R4 R-2RS1   |
|                      | 15,875 | 17,526         | 4,978 | 1,067 | 852                | 315    | 14                 | 95 000          | 48 000         | 0,0046 | D/W R4 R-2Z     |
| <b>7,938</b>         | 12,7   | 13,894         | 3,967 | 0,787 | 312                | 143    | 6                  | 100 000         | 63 000         | 0,0016 | D/W R1810 R     |
|                      | 12,7   | 13,894         | 3,967 | 0,787 | 312                | 143    | 6                  | 100 000         | 50 000         | 0,0017 | D/W R1810 R-2ZS |
| <b>9,525</b>         | 22,225 | 24,613         | 5,558 | 1,575 | 2 470              | 1 120  | 48                 | 70 000          | 45 000         | 0,0098 | D/W R6 R        |
|                      | 22,225 | 24,613         | 7,142 | 1,575 | 2 470              | 1 120  | 48                 | –               | 20 000         | 0,0118 | D/W R6 R-2RS1   |
|                      | 22,225 | 24,613         | 7,142 | 1,575 | 2 470              | 1 120  | 48                 | 70 000          | 36 000         | 0,0118 | D/W R6 R-2Z     |
| <b>12,7</b>          | 28,575 | 31,12          | 6,35  | 1,575 | 4 420              | 2 360  | 102                | 60 000          | 36 000         | 0,0186 | D/W R8 R        |
|                      | 28,575 | 31,12          | 7,938 | 1,575 | 4 420              | 2 360  | 102                | –               | 16 000         | 0,0219 | D/W R8 R-2RS1   |
|                      | 28,575 | 31,12          | 7,938 | 1,575 | 4 420              | 2 360  | 102                | 60 000          | 30 000         | 0,0219 | D/W R8 R-2Z     |
| <b>15,875</b>        | 34,925 | 37,846         | 8,733 | 1,745 | 4 940              | 3 150  | 137                | 40 000          | 20 000         | 0,0393 | D/W R10 R-2Z    |

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