

xiros[®]

Polymer ball bearings



...plastics

xiros® polymer ball bearings | Application examples

Other exciting applications ► www.igus.eu/xiros-applications



Labelling machine

Depending on the size of the system, between 12 and 36 conveyor rollers are used in the Sleeveomatic's film storage. Two xiros® ball bearings are used per conveyor roller.



Pellet ovens

Two lubrication-free polymer ball bearings are used in the mechanical drive unit. These ensure that the pellets are fed into the combustion chamber via the roller.

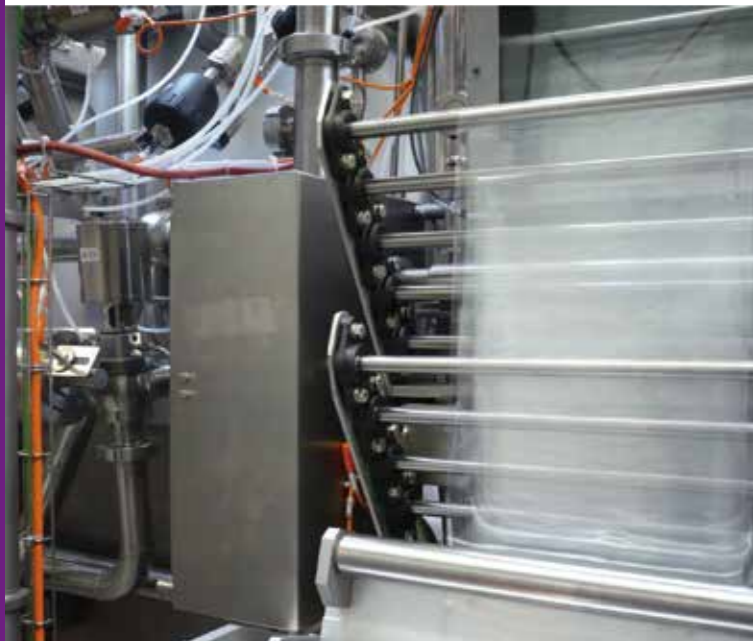
Bike washing system

To mount the washing brushes, the manufacturer of the "cycleWash" has used two xiros® slewing ring ball bearings with stainless steel balls. The bearing rings consist of the wear-resistant ball bearing material xirodur® B180.



Heating cable drum

Bodenbender GmbH was looking for a suitable bearing for the cable of a heating cable drum used to cure hose liners. Key properties were smooth operation, freedom from lubrication and long service life.



Film guide rollers

There is no contamination of the films through lubricants, due to the use of maintenance-free xiros® flange bearings.



Pool cleaner

xiros® B180 polymer ball bearings from igus® allow pool cleaners a lubrication-free underwater operation. Resistant to chemicals, lightweight and maintenance-free.

xiros® radial deep groove ball bearings - standard product range



The classic:
PA cage
▶ Page 1038



FDA

Cost-effective and FDA-compliant:
B180 cage
▶ Page 1038



FDA

FDA-compliant
J3 cage
▶ Page 1038



With shield or labyrinth seal:
LCC with B180 cage
▶ Page 1044



Black (for visible parts):
xirodur® S180,
PA cage
▶ Page 1038



High resistance to chemicals:
xirodur® C160, PP cage
▶ Page 1046



For temperatures up to +120°C:
xirodur® A500, PA cage
▶ Page 1050



FDA

For heat and chemicals:
xirodur® A500,
PEEK cage
▶ Page 1050

xiros® radial deep groove ball bearings - standard product range



Lightweight and non-metallic:
xirodur® A500, PAI balls
▶ Page 1050



Antistatic:
xirodur® F180,
PA cage
▶ Page 1054



FDA

Antistatic and FDA-compliant:
xirodur® F180, PE cage
▶ Page 1054

xiros® radial deep groove ball bearings with flange



Single flange:
xirodur® B180,
PA cage
▶ Page 1056



With double flange:
xirodur® B180,
PA cage
▶ Page 1056

xiros® conveyor rollers and end caps



Guide roller:
aluminium tube with fixed flange bearing
▶ Page 1058



New

Guide roller:
with sandblasted surface
▶ Page 1059



New

Guide roller:
black anodised
▶ Page 1061



New

Guide roller:
non-metallic with PVC tube and glass balls
▶ Page 1062



Guide roller:
plastic approved for food contact
▶ Page 1063



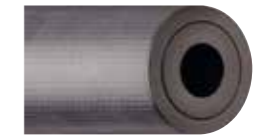
New

Guide roller:
with stainless steel tube for food contact
▶ Page 1064



New

Guide roller:
with stainless steel tube for chemicals and heat
▶ Page 1064



Guide roller:
carbon fibre tube with fixed flange bearing
▶ Page 1065

xiros® conveyor rollers and end caps



Guide roller:
carbon fibre tube with ball bearing
▶ Page 1065



End caps:
xirodur® B180,
PA cage
▶ Page 1067

xiros® - other designs



With profile:
xirodur® B180
▶ Page 1068



Skate wheel with spherical outer diameter:
xirodur® B180
▶ Page 1069



Double row for higher loads:
xirodur® B180
▶ Page 1070



Self-aligning ball bearings:
xirodur® B180,
PA cage
▶ Page 1071

xiros® polymer ball transfer units



Polymer ball transfer units:
xirodur® B180 and F182
▶ Page 1072



Polymer ball transfer units:
with stainless-steel support balls
▶ Page 1073



Polymer ball transfer units:
with stainless steel balls
▶ Page 1074



Polymer ball transfer units:
sliding version
▶ Page 1075



Axial polymer ball transfer units:
with spherical roller
▶ Page 1076

xiros® thrust bearings and slewing ring ball bearings



Single row:
xirodur® B180,
glass/stainless steel balls
▶ Page 1078



Axial thrust washer:
xirodur® B180,
glass/stainless steel balls
▶ Page 1079



Slewing ring ball bearings:
xirodur® B180,
with gear teeth or with cage
▶ Page 1080

xiros® special and fixed flange ball bearings, pillow block ball bearings and spherical insert bearings



Fixed flange ball bearings, FDA-compliant, fixed version:
xirodur® B180
▶ Page 1082



Pillow block ball bearings, FDA-compliant, fixed version:
xirodur® B180
▶ Page 1083



UC pillow block:
with UC housing,
stainless steel balls
▶ Page 1084



Spherical insert bearings:
for UC housing,
stainless steel balls
▶ Page 1085

xiros® combinations with igubal®



Pillow block ball bearings, fixed or pivoting
▶ Page 1086

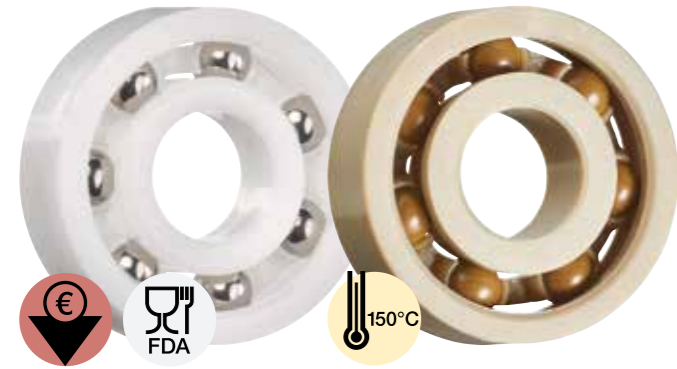


4-hole fixed flange ball bearings, pivoting
▶ Page 1088



2-hole fixed flange ball bearings, pivoting
▶ Page 1089

Lubrication and maintenance-free



Lubrication-free polymer ball bearings

xiros® polymer ball bearings revolutionise the ball bearing market. Thanks to their maintenance-free dry operation and the use of xirodur® high-performance polymers, many applications can be successfully implemented in which conventional metal ball bearings are not suitable.

- Lubrication and maintenance-free
- Corrosion-resistant
- Non-metallic (due to the use of glass and plastic balls), therefore non-magnetic
- For temperatures up to +150°C (depending on material)
- High media resistance, suitable for washdown
- Lightweight
- ESD or antistatic properties
- FDA-compliant (depending on material)
- Predictable service life

Typical application areas

- Packaging
- Textile industry
- Test engineering and quality assurance
- Optical industry
- Model making

Available from stock
Detailed information about delivery time online.

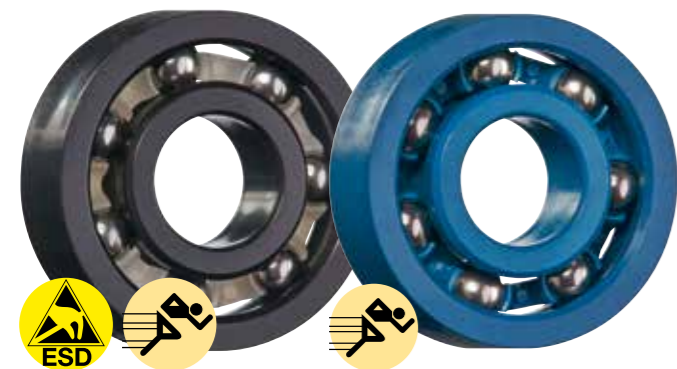
Price breaks online
No minimum order value. No minimum order quantity

max. +150°C
min. -100°C

12 xirodur® materials
Ø 3 - 120mm

Imperial dimensions available
► **Page 1164**

Service life calculation
► **www.igus.eu/xiros-expert**



Overview types



xiros® radial deep groove ball bearings - standard product range for 3 materials:

- xirodur® B180 - cost-effective standard
 - xirodur® C160 - resistant to chemicals
 - xirodur® A500 - for heat and chemicals
- **From page 1038**

xiros® radial deep groove ball bearings with flange and conveyor rollers

- With single or double flange
 - Made from xirodur® B180, S180 or F180
 - xiros® system solution: aluminium, PVC or carbon fibre tube with 2 fixed flange ball bearings
- **From page 1056**



xiros® radial deep groove ball bearings - materials for special applications

- xirodur® S180 - black (for visible parts)
 - xirodur® F180 - antistatic
 - xirodur® F182 - conductive
 - xirodur® D180 - high speeds
 - xirodur® K220 - suitable for applications in vacuum
 - xirodur® MT180 - for medical devices
 - xirodur® F500 - conductive and resistant to chemicals
 - xirodur® ECO B180 - environmentally friendly rotation
- **From page 1060**



xiros® radial deep groove ball bearings - further designs

- Skate wheel with spherical outer diameter
 - Double row for higher loads
 - Self-aligning ball bearings for rotary and linear movements
- **From page 1068**

xiros® thrust bearings

- For absorbing axial loads
 - Various options
- **From page 1078**



xiros® slewing ring ball bearings

- With glass or stainless steel balls
 - Outer toothed profile
 - With cage
- **From page 1080**

xiros® combinations with igubal®

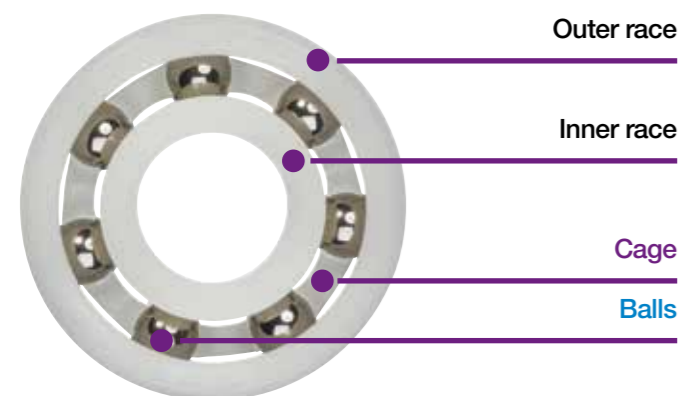
- Fixed or pivoting versions
 - For maintenance-free use in conveyor belts and conveyor rollers
- **From page 1086**

Radial deep groove ball bearings design

The xiros® polymer ball bearings are single-row deep groove ball bearings based on DIN 625. The lubrication and maintenance-free ball bearings consist of four components:

The outer and inner races

The suitability of a xiros® polymer ball bearings is largely determined by the materials of the two races. These are made from igus® tribo-polymers to maximise service life and minimise friction. Choice of 5 materials. They allow different values of application temperature, media resistance and price. The table of materials (► Page 824) provides exact information on this topic.



The cage

The material of the ball bearing cage must fit well to the application. The various material options have quite different chemical and temperature resistance values. The cage materials are compatible with all the different race options within xiros®.

The balls

The ball materials differ most significantly. In addition to steel, glass or plastics are used. This produces a large difference in mass, which in turn affects quiet operation, weight and media resistance. Stainless steel balls (1.4401) are cost-effective, resistant to chemicals and suitable for high temperatures, but are the heaviest in the range. Glass balls (soda-lime glass) are also resistant to chemicals and have a medium weight. Just like polymer balls, they are non-metallic and non-magnetic. In addition to their excellent chemical resistance, the polymer balls (PAI) are even lighter than stainless steel or glass balls.

Other types

xiros® radial deep groove ball bearings

The other designs include:

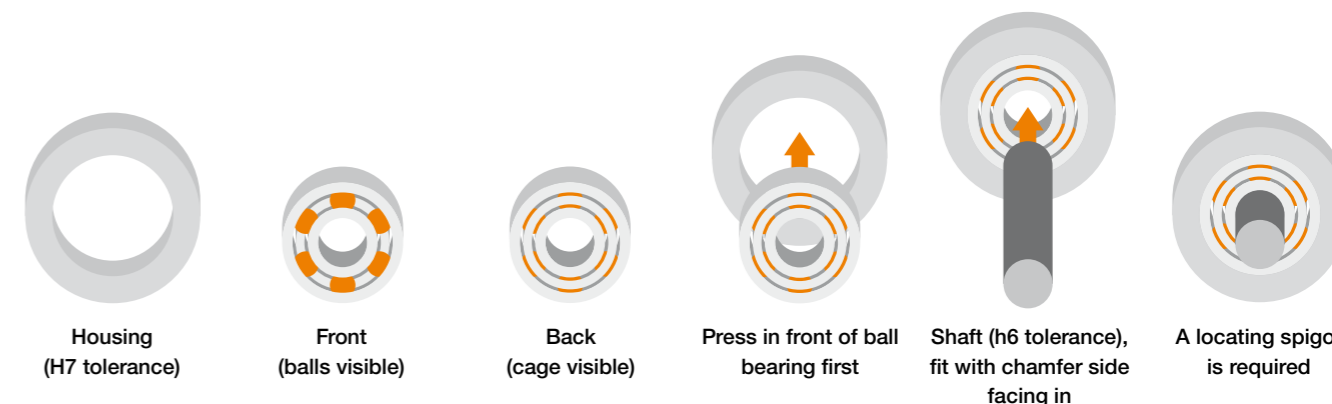
- Convex rollers which can run directly on a profile
- Profiled rollers, e.g. for thread/cable guidance
- Thrust and slewing ring ball bearings for absorbing axial loads
- Self-aligning ball bearings
- Ball bearings designed e.g. for installation in tube ends (also for conveyor rollers)
- Double-row bearings for absorbing higher forces

Pillow block and fixed flange bearings

This range is made up by combining xiros® polymer ball bearings with the igubal® pillow block and fixed flange housings, resulting in a higher flexibility in terms of installation of the bearings. The bearing housings make it easy for the user to install these maintenance-free components. Both fixed flange and pillow block bearings are available as fixed or as pivoting design. The difference between the two options is that the pivoting type can compensate for shaft and/or bearing misalignment. A spherical outer race is pressed into the bearing housing, ensuring self-aligning action. If necessary, the inner bearing can be pivoted in all directions. Possible misalignment of two bearing points lying together can thus be compensated for.

Measurement requirement for injection-moulded xiros® polymer ball bearings

The outer race of our ball bearings has a conical shape. This simplifies the installation in a suitable housing (with the narrow side first). After press-fit into a housing machined to a H7 tolerance, the bearing clearance is reduced. Therefore the bearings must be measured over the entire width of the ball bearing. Starting at an angle of 90° from the injection point.



To press in the xiros® polymer ball bearing over the entire width of the housing, apply pressure on the outer race. xiros® radial deep groove ball bearings are only suitable for limited axial loads.

Development and tests

Through numerous tests the race materials were optimised. The polymers we have developed for use with ball bearings allow higher speeds, greater loads, and longer service life. But the development continues. We believe that polymer ball bearing technology will continue to advance, especially with our experience in the development of tribological polymer materials. Challenge us, talk to us about your applications, tell us what you need from a polymer ball bearing. In the igus® test laboratory the service life and wear of xiros® polymer ball bearings are tested. In addition to the actual material comparison, tests indicate these experiments also answer questions about the impact of external influences such as temperature, humidity or dust.



igus® extends the xiros® test stand in the industry's largest test laboratory for plastics in motion

Predictability

As part of the development of xiros® polymer ball bearing tests are carried out continuously. The high number of test results makes it very difficult to present this information in tabular form. It is for this reason that igus® has developed the online service life calculator, which uses real test results to give an accurate calculation. The predictability of xiros® polymer ball bearings is one of the most important advantages. Based on the results of many wear tests, the user can calculate the service life of xiros® polymer ball bearings reliably and interpret the application.

► www.igus.eu/xiros-expert



Download the online tool app now

Download on the App Store

In this overview you will find some special materials for special application areas. Contact us!



xirodure® K220 - no outgassing in vacuum
 The xirodure® K220 material is especially well-suited to autoclaving and coating applications, and its service life is longer than that of comparable xirodure® materials.

- Maximum water absorption: 0.4% weight
- 60% more cost-effective than comparable materials for applications in vacuum



xirodure® D180 - high speeds

- Soft material
- For quiet operation
- Higher speeds
- Only suitable for small loads



xirodure® MT180 - for medical devices
 The material xirodure® MT180 conforms to DIN EN ISO 10993.

- Individual components with USP class VI/DIN EN ISO 10993
- Customers save costs for assembly certification



xirodure® F500 - conductive and resistant to chemicals
 Due to their high chemical resistance, the conductive ball bearings made of xirodure® F500 are ideal for the semiconductor industry.

- Surface resistance $<10^4 \Omega$
- Temperature-resistant up to $+150^\circ\text{C}$
- Extremely resistant to chemicals (strong acids)



xirodure® ECO B180 - environmentally friendly rotation
 This ECO all-rounder not only stands out visually, but also technically. Extremely resistant to media with low moisture absorption. And that from at least 97% regranulate.

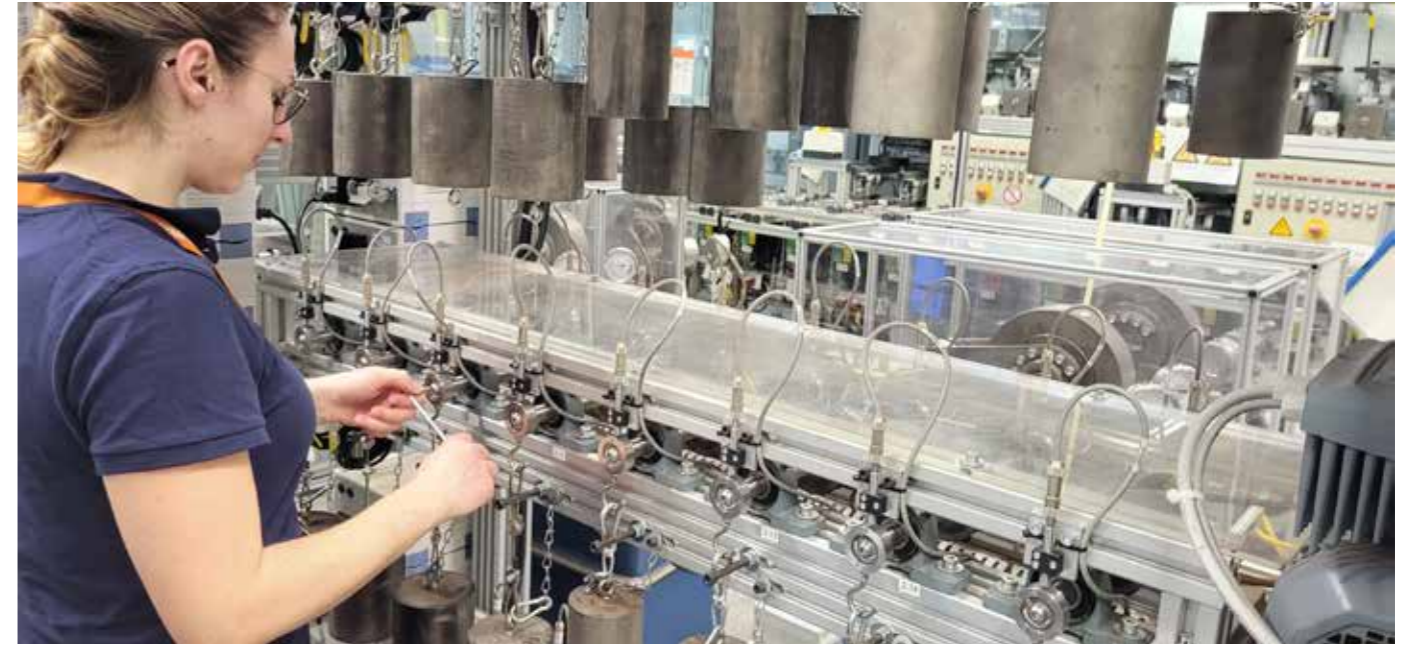
- Low moisture absorption
- High media resistance
- Cost-effective, due to reuse of already processed raw materials



xirodure® S180LF - for automotive interiors

- Low outgassing (low fogging)
- Especially for automotive interiors
- Bespoke designs possible

xiros® test laboratory ... 21x longer service life

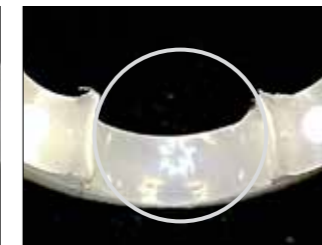


igidur® cage materials contain enhanced additives that improve stability and sliding properties. This results in longer service life and less downtime.

- Longer service life than the current standard range
- Less wear
- Lower maintenance costs thanks to a longer service life
- Less downtime
- Reduce operating costs due to less frequent replacement



Picture on the left: unreinforced material, before the test



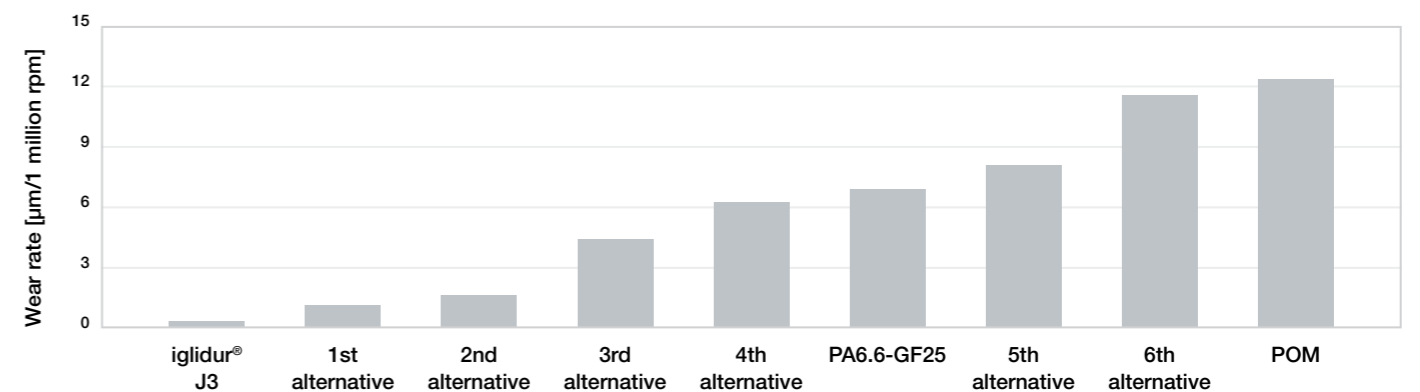
Picture on the right: unreinforced material, after the test



Picture on the left: reinforced iglidur® material, before the test



Picture on the right: reinforced iglidur® material, after the test



Cage made from iglidur® J3 for the best combination with lowest wear

xirodur® polymer ball bearing | Materials



xirodur® B180 - cost-effective all-rounder

- Longest service life
- Extensive product range
- Low wear values
- Good resistance to chemicals and temperature fluctuations/extremes

Temperature [°C]	-40 / +80	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.7	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® A500

- Temperature-resistant
- Excellent chemical resistance
- Special product
- For vacuum and autoclave applications

Temperature [°C]	-100 / +150	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.4	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® F180

- Anti-static dissipative material
- Supports the removal of undesired electrostatic charge

Temperature [°C]	-40 / +80	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	1.3	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® F182

- Electrostatically conductive
- Lower surface resistance (volume resistance <math><10^4\Omega\text{cm}</math>) than xirodur® F180

Temperature [°C]	-40 / +80	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.7	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® C160

- Excellent chemical resistance
- Low-cost material compared to xirodur® A500
- Low absorption of different media

Temperature [°C]	0 / +60	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.2	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® S180

- The all-rounder in black for visible parts

Temperature [°C]	-40 / +80	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.7	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® MT180

- Individual components with USP class VI // DIN EN ISO 10993
- For use in medical technology

Temperature [°C]	-40 / +80	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.7	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® F500

- Ideal for use in the semiconductor industry
- Electrostatically conductive (volume resistance <math><10^4\Omega\text{cm}</math>)
- Extremely resistant to chemicals

Temperature [°C]	-55 / +150	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.5	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+



xirodur® D180

- Soft material
- For quiet operation
- Higher speeds
- Only suitable for small loads

Temperature [°C]	-50 / +80	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	1.4	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+








xirodur® S180LF

- Low outgassing (low fogging)
- Especially for automotive interiors
- Bespoke designs possible

Temperature [°C]	-40 / +80	-	█	█	█	█	█	█	█	+
Chemical resistance		-	█	█	█	█	█	█	█	+
Moisture absorption [% weight]	0.7	-	█	█	█	█	█	█	█	+
Wear resistance		-	█	█	█	█	█	█	█	+
Price index		-	█	█	█	█	█	█	█	+

xiros® polymer ball bearings | Material properties

xirodur®	Unit	B180	S180	C160	A500	F180
General properties						
Density	[g/cm³]	1.41	1.40	1.11	1.30	1.36
Colour						
Max. moisture absorption at +23 °C/50% r.h.	[% weight]	0.2	0.2	0.1	0.1	0.2
Max. moisture absorption	[% weight]	0.7	0.7	0.2	0.4	1.3
Mechanical properties						
Flexural modulus	[MPa]	2,500	2,700	1,900	4,300	1,600
Flexural strength at +20°C	[MPa]	68	65	35	130	70
Shore D hardness		77	78	67	85	79
Physical and thermal properties						
Max. continuous operating temperature	[°C]	+80	+80	+60	+150 (PEEK) +120 (PA)	+80
Min. long-term application temperatures (in combination with cage material)	[°C]	-40	-40	0	-100 (PEEK) -40 (PA)	-40
Electrical properties						
Specific transitional resistance ¹⁾	[Ωcm]	> 10 ¹⁴	> 10 ¹³	> 10 ¹⁴	> 10 ¹⁴	> 10 ^{12 1)}
Surface resistance ¹⁾	[Ω]	> 10 ¹⁴	> 10 ¹³	> 10 ¹⁴	> 10 ¹⁴	> 10 ^{12 1)}
Medium						
Alcohols		+	+	+	+	+
Diluted acid		0 up to –	0 up to –	+	+	0 up to –
Diluted base		+	+	+	+	+
Fuels		+	+	+ up to 0	+	+
Greases, oils without additives		+	+	+	+	+
Hydrocarbons		+	+	+ up to 0	+	+
Strong acids		–	–	+ up to 0	+	–
Strong alkaline		+ up to 0	+ up to 0	+	+	+ up to 0
UV radiation		–	0	0	+	0









¹⁾ Depending on the geometry

Table 01: Material data and chemical resistance of xiros® materials

Recommended tolerances

Fitting	Housing hole	Shaft
Standard:	H7	h6
Press-fit		

For further questions about the dimensioning of the hole and the shaft please contact us.

F182	F500	D180	K220	MT180	ECO B180	S180LF	igumid® G
1.42	1.40	1.22	1.35	1.41	1.41	1.41	1.37
							
0.2	0.3	0.5	0.2	0.2	0.2	0.2	1.4
0.7	0.45	1.4	0.4	0.65	0.7	0.8	5.6
Mechanical properties							
3,000	24,000	135	2,200	2,700	2,500	2,550	7,800
95	380	n.a.	60	n.s.	68	87	240
79	87.5	48	77	n.s.	77	77	79
Physical and thermal properties							
+80	+150	+80	+120	+80	+100	+100	+120
-40	-50	-50	+140	-40	-40	-40	-40
Electrical properties							
> 10 ⁴	> 10 ⁵	> 10 ¹⁴	> 10 ¹²	> 10 ¹⁴	> 10 ¹⁴	> 10 ¹⁴	> 10 ¹¹
> 10 ⁴	> 10 ⁴	> 10 ¹⁴	> 10 ¹⁰	> 10 ¹⁴	> 10 ¹⁴	> 10 ¹⁶	> 10 ¹¹
Medium							
+	+	+ up to 0	+	+	+	+	+
0 up to –	+	+ up to 0	+	+	+	+	+
+	+	+ up to 0	+	+	+	+	0 up to –
+	+	+	+	+	+	+	+
+	+	+	+	+	+	+	+
+	+	+	+	+	+	+	+
–	+	0	+	+	+	+	+ up to 0
+ up to 0	+	+ up to 0	+	+	+	+	–
0	+	–	+	+	+	+	–

+ resistant 0 conditionally resistant – non-resistant

Detailed chemicals resistance table for xiros® products ► From page 1894

Ball materials

Designation	Description
ES: Stainless steel	1,4401
GL : Glass	Soda-lime glass or borosilicate glass
PAI: Plastic	Polyamide-imide
PP: Plastic	Polypropylene

Cage materials

Designation	Description
10:	PA
20:	PP
30:	xirodur® B180
35:	iglidur® J3
50:	PE
70:	PEEK

FDA



xirodur® B180 cage, stainless steel balls



xirodur® B180 cage, glass balls



PA cage, stainless steel balls



PA cage, glass balls

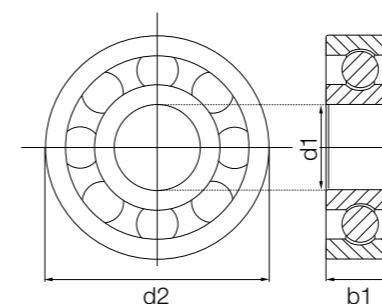
FDA



igidur® J3 cage, stainless steel balls



Also available with S180 races for visible parts (xirodur® S180 and PA cage), upon request



- The largest standard product range of DIN dimensions from stock
- All-rounder with minimal wear
- Suitable for contact with food
- Operating temperature: from -40°C up to +80°C

Order key

Type Material

BB-623-B180-10-ES

Ball bearing	Dimensions according to DIN 625-1	Race material	Cage material	Ball material	Options:
					Cage material
					10 : PA
					30 : xirodur® B180
					35 : iglidur® J3
					Ball material
					ES : Stainless steel
					GL : Glass
					Race material
					xirodur® B180
					xirodur® S180

Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight					
	stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]	PA/ES [g]	PA/GL [g]	J3/ES [g]	J3/GL [g]
623	25	34	4,500	0.37	0.31	0.40	0.32	0.37	0.31
633	33	45	4,000	0.83	0.64	-	-	0.83	0.64
684	10	11	4,600	0.26	0.20	-	-	0.26	0.20
694	12	14	4,000	0.42	0.35	-	-	0.42	0.35
604	30	32	3,600	0.65	0.45	-	-	0.65	0.45
624	33	45	4,000	0.79	0.60	0.85	0.62	0.79	0.60
634	40	40	3,700	1.50	1.00	-	-	1.50	1.00
685	12	14	4,000	0.45	0.37	-	-	0.45	0.37
695	29	30	3,500	0.73	0.53	-	-	0.73	0.53
605	32	33	3,500	0.96	0.77	-	-	0.96	0.77
625	40	40	3,700	1.42	0.96	1.55	1.01	1.42	0.96
635	41	43	3,200	2.59	1.76	-	-	2.59	1.76
686	29	30	3,500	0.76	0.57	-	-	0.76	0.57
696	29	30	3,500	1.05	0.85	-	-	1.05	0.85
606	50	53	3,300	1.89	1.25	-	-	1.89	1.25
626	60	62	3,200	2.06	1.60	2.44	1.69	2.06	1.60
636	80	94	2,200	3.96	2.71	-	-	3.96	2.71
687	32	34	3,200	0.80	0.61	-	-	0.80	0.61
697	39	41	3,000	1.47	1.05	-	-	1.47	1.05
607	41	43	3,200	1.97	1.52	-	-	1.97	1.52
627	80	94	2,400	3.85	2.60	-	-	3.85	2.60
688	39	41	3,000	1.17	0.76	1.19	0.75	1.17	0.76
698	60	62	3,200	2.34	1.52	-	-	2.34	1.52
608	80	94	2,400	3.76	2.51	3.79	2.54	3.76	2.51

Dimensions [mm]

Inner Ø	Outer Ø	Width	Cage/ball material combination						Part No.
			B180/ES	B180/GL	PA/ES	PA/GL	J3/ES	J3/GL	
d1	d2	b1	B180/ES	B180/GL	PA/ES	PA/GL	J3/ES	J3/GL	
3	10	4	●	●	●	●	●	●	BB-623-B180- <input type="text"/> - <input type="text"/>
3	13	5	●	●	-	-	●	●	BB-633-B180-30- <input type="text"/>
4	9	4	●	●	-	-	●	●	BB-684-B180-30- <input type="text"/>
4	11	4	●	●	-	-	●	●	BB-694-B180-30- <input type="text"/>
4	12	4	●	●	-	-	●	●	BB-604-B180-30- <input type="text"/>
4	13	5	●	●	●	●	●	●	BB-624-B180- <input type="text"/> - <input type="text"/>
4	16	5	●	●	-	-	●	●	BB-634-B180-30- <input type="text"/>
5	11	5	●	●	-	-	●	●	BB-685-B180-30- <input type="text"/>
5	13	4	●	●	-	-	●	●	BB-695-B180-30- <input type="text"/>
5	14	5	●	●	-	-	●	●	BB-605-B180-30- <input type="text"/>
5	16	5	●	●	●	●	●	●	BB-625-B180- <input type="text"/> - <input type="text"/>
5	19	6	●	●	-	-	●	●	BB-635-B180-30-i <input type="text"/>
6	13	5	●	●	-	-	●	●	BB-686-B180-30- <input type="text"/>
6	15	5	●	●	-	-	●	●	BB-696-B180-30- <input type="text"/>
6	17	6	●	●	-	-	●	●	BB-606-B180-30- <input type="text"/>
6	19	6	●	●	●	●	●	●	BB-626-B180- <input type="text"/> - <input type="text"/>
6	22	7	●	●	-	-	●	●	BB-636-B180-30- <input type="text"/>
7	14	5	●	●	-	-	●	●	BB-687-B180-30- <input type="text"/>
7	17	5	●	●	-	-	●	●	BB-697-B180-30- <input type="text"/>
7	19	6	●	●	-	-	●	●	BB-607-B180-30- <input type="text"/>
7	22	7	●	●	-	-	●	●	BB-627-B180-30- <input type="text"/>
8	16	5	●	●	●	●	●	●	BB-688-B180- <input type="text"/> - <input type="text"/>
8	19	6	●	●	-	-	●	●	BB-698-B180-30- <input type="text"/>
8	22	7	●	●	●	●	●	●	BB-608-B180- <input type="text"/> - <input type="text"/>

Order example: BB-623-B180-10-ES = Radial deep groove ball bearing with race material xirodur® B180, PA cage and stainless steel balls

Available from stock Upon request

Imperial dimensions available ▶ Page 1164

Races made from xirodur® B180 - cost-effective standard

Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight					
	stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]	PA/ES [g]	PA/GL [g]	J3/ES [g]	J3/GL [g]
628	100	110	2,300	5.57	3.4	-	-	5.57	3.4
638	110	130	2,200	7.82	5.65	-	-	7.82	5.65
689	40	42	2,500	1.30	0.88	-	-	1.30	0.88
699	43	45	2,250	2.08	1.66	-	-	2.08	1.66
609	100	110	2,300	5.12	2.95	-	-	5.12	2.95
629	110	128	2,200	6.20	4.03	6.14	-	6.20	4.03
6800	43	45	2,250	1.56	1.07	-	-	1.56	1.07
6900	60	64	2,000	3.24	2.04	-	-	3.24	2.04
6000	110	130	2,200	5.98	3.83	5.95	3.78	5.98	3.83
6200	130	147	2,000	9.32	6.56	9.26	6.51	9.32	6.56
6300	140	150	1,800	13.83	11.02	13.75	-	13.83	11.02
6701	16	18	2,200	0.68	0.57	-	-	0.68	0.57
6801	60	64	2,000	1.82	1.40	-	-	1.82	1.40
6901	80	83	1,800	3.12	2.10	-	-	3.12	2.10
6001	130	147	2,000	6.36	4.18	6.78	4.34	6.36	4.18
6201	140	150	1,800	10.04	7.25	9.97	7.12	10.04	7.25
6301	160	220	1,600	15.69	12.90	-	-	15.69	12.90
6702	19	21	1,800	0.94	0.81	-	-	0.94	0.81
6802	80	83	1,800	2.46	1.46	-	-	2.46	1.46
6902	90	94	1,700	4.37	3.12	-	-	4.37	3.12
6002	140	150	1,800	8.68	5.92	8.72	6.23	8.68	5.92
6202	160	220	1,600	11.71	8.96	12.26	9.11	11.71	8.96
6302	250	320	1,400	10.56	3.95	10.49	-	10.56	3.95
6703	23	25	1,600	0.66	-	-	-	0.66	-
6803	90	94	1,700	2.83	1.65	-	-	2.83	1.65
6903	90	94	1,700	-	0.79	-	-	-	0.79
6003	160	220	1,600	10.23	7.45	10.72	7.61	10.23	7.45
6203	250	320	1,400	19.36	12.75	17.45	12.68	19.36	12.75
6303	280	360	1,200	21.68	13.60	-	-	21.68	13.60
6704	30	36	1,400	1.39	1.17	-	-	1.39	1.17
6804	100	120	1,500	5.19	3.59	-	-	5.19	3.59
6904	140	144	1,150	9.76	-	-	-	9.76	-
6004	250	320	1,400	20.81	12.93	19.46	12.89	20.81	12.93
6204	280	360	1,200	30.22	22.14	28.87	22.33	30.22	22.14
6304	380	400	1,000	43.85	31.05	-	-	43.85	31.05
6705	32	38	1,200	1.58	1.40	-	-	1.58	1.40
6805	140	144	1,150	6.48	4.16	-	-	6.48	4.16
6905	160	162	900	4.49	4.49	-	-	4.49	4.49
6005	280	360	1,200	24.14	16.07	22.93	15.67	24.14	16.07
6205	310	370	1,000	35.99	27.92	34.82	27.51	35.99	27.92
6305	480	520	850	61.12	45.48	-	-	61.12	45.48



Order example:

BB-628-B180-30-ES = Radial deep groove ball bearing with race material xirodur® B180, xirodur® B180 cage and stainless steel balls

Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination						Part No.
			B180/ES	B180/GL	PA/ES	PA/GL	J3/ES	J3/GL	
8	24	8	●	●	-	●	●	BB-628-B180-30-□	
8	28	9	●	●	-	-	●	BB-638-B180-30-□	
9	17	5	●	●	-	-	●	BB-689-B180-30-□	
9	20	6	●	●	-	-	●	BB-699-B180-30-□	
9	24	7	●	●	-	-	●	BB-609-B180-30-□	
9	26	8	●	●	●	-	●	BB-629-B180-□-□	
10	19	5	●	●	-	-	●	BB-6800-B180-30-□	
10	22	6	●	●	-	-	●	BB-6900-B180-30-□	
10	26	8	●	●	●	●	●	BB-6000-B180-□-□	
10	30	9	●	●	●	●	●	BB-6200-B180-□-□	
10	35	11	●	●	●	-	●	BB-6300-B180-□-□	
12	18	4	●	●	-	-	●	BB-6701-B180-30-□	
12	21	5	●	●	-	-	●	BB-6801-B180-30-□	
12	24	6	●	●	-	-	●	BB-6901-B180-30-□	
12	28	8	●	●	●	●	●	BB-6001-B180-□-□	
12	32	10	●	●	●	●	●	BB-6201-B180-□-□	
12	37	12	●	●	-	-	●	BB-6301-B180-30-□	
15	21	4	●	●	-	-	●	BB-6702-B180-30-□	
15	24	5	●	●	-	-	●	BB-6802-B180-30-□	
15	28	7	●	●	-	-	●	BB-6902-B180-30-□	
15	32	9	●	●	●	●	●	BB-6002-B180-□-□	
15	35	11	●	●	●	●	●	BB-6202-B180-□-□	
15	42	13	●	●	●	-	●	BB-6302-B180-□-□	
17	23	4	●	-	-	-	●	BB-6703-B180-30-ES	
17	26	5	●	●	-	-	●	BB-6803-B180-30-□	
17	30	7	-	●	-	-	●	BB-6903-B180-30-GL	
17	35	10	●	●	●	●	●	BB-6003-B180-□-□	
17	40	12	●	●	●	●	●	BB-6203-B180-□-□	
17	47	14	●	●	-	-	●	BB-6303-B180-30-□	
20	27	4	●	●	-	-	●	BB-6704-B180-30-□	
20	32	7	●	●	-	-	●	BB-6804-B180-30-□	
20	37	9	●	-	-	-	●	BB-6904-B180-30-ES	
20	42	12	●	●	●	●	●	BB-6004-B180-□-□	
20	47	14	●	●	●	●	●	BB-6204-B180-□-□	
20	52	15	●	●	-	-	●	BB-6304-B180-30-□	
25	32	4	●	●	-	-	●	BB-6705-B180-30-□	
25	37	7	●	●	-	-	●	BB-6805-B180-30-□	
25	42	9	●	●	-	-	●	BB-6905-B180-30-□	
25	47	12	●	●	●	●	●	BB-6005-B180-□-□	
25	52	15	●	●	●	●	●	BB-6205-B180-□-□	
25	62	17	●	●	-	-	●	BB-6305-B180-30-□	



Available from stock

Upon request

Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight					
	stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]	PA/ES [g]	PA/GL [g]	J3/ES [g]	J3/GL [g]
6706	34	41	1,000	1.76	1.59	–	–	1.76	1.59
6806	160	162	900	4.49	1.82	–	–	4.49	1.82
6906	190	193	850	13.15	10.13	–	–	13.15	10.13
16006	380	420	900	–	–	28.53	17.33	–	–
6006	380	400	1,000	–	–	34.15	22.70	–	–
6206	480	520	850	55.89	39.73	–	–	55.89	39.73
6306	520	660	750	27.00	8.52	–	–	27.00	8.52
6007	480	520	850	–	–	47.29	30.71	–	–
6008	520	660	750	–	–	54.84	38.73	–	–
6009	660	690	650	–	–	33.52	57.52	–	–
6010	740	780	600	–	–	82.33	54.00	–	–
6011	930	950	550	–	–	119.64	75.80	–	–
6012	990	1,050	500	–	–	126.66	80.54	–	–
6024	2,300	2,350	250	578.8	–	–	–	578.8	–

Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination						Part No.
			B180/ES	B180/GL	PA/ES	PA/GL	J3/ES	J3/GL	
30	37	4	●	●	–	–	●	●	BB-6706-B180-30- <input type="text"/>
30	42	7	●	●	–	–	●	●	BB-6806-B180-30- <input type="text"/>
30	47	9	●	●	–	–	●	●	BB-6906-B180-30- <input type="text"/>
30	55	9	–	–	●	●	●	●	BB-16006-B180-10- <input type="text"/>
30	55	13	–	–	●	●	●	●	BB-6006-B180-10- <input type="text"/>
30	62	16	●	●	–	–	–	–	BB-6206-B180-30- <input type="text"/>
30	72	19	●	●	–	–	–	–	BB-6306-B180-30- <input type="text"/>
35	62	14	–	–	●	●	–	–	BB-6007-B180-10- <input type="text"/>
40	68	15	–	–	●	●	–	–	BB-6008-B180-10- <input type="text"/>
45	75	16	–	–	●	●	–	–	BB-6009-B180-10- <input type="text"/>
50	80	16	–	–	●	●	–	–	BB-6010-B180-10- <input type="text"/>
55	90	18	–	–	●	●	–	–	BB-6011-B180-10- <input type="text"/>
60	95	18	–	–	●	●	–	–	BB-6012-B180-10- <input type="text"/>
120	180	28	●	–	–	–	–	–	BB-6024-B180-30-ES New



Order example:

BB-6706-B180-30-ES = Thin ring bearing with race material xirodur® B180, xirodur® B180 cage and stainless steel balls



Available from stock

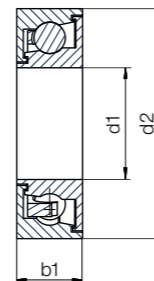
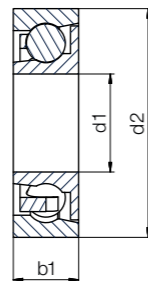
Upon request



PA cage, with shield on one side stainless steel or glass balls



B180 cage, with labyrinth seal, stainless steel balls



- Protects against coarse dirt
- Operating temperature: from -40°C up to +80°C
- Suitable for contact with food

Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [N]	dyn. [N]		ES [g]	GL [g]
623	10	25	4,500	0.41	0.33
626	41	43	3,200	2.56	1.71
608	80	94	2,200	3.93	2.67
6000	110	130	2,200	6.21	4.15
6001	138	147	2,000	7.09	4.61
6202	142	155	1,700	12.73	9.63
6003	160	220	1,600	11.12	8.03
6004	250	320	1,400	20.20	13.60
6005	280	360	1,200	23.89	16.51

With labyrinth seal

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [N]	dyn. [N]		ES [g]	GL [g]
6003	160	220	1,600	11.02	8.27
6004	250	320	1,400	20.81	12.93

Order example:

BB-623-B180-10-ES-C = Radial deep groove ball bearing with race material xirodur® B180, PA cage, stainless steel balls and shield



Order key

Type Material

BB-623-B180-10-ES-C

Ball bearing	Dimensions according to DIN 625-1	Race material	Cage material	Ball material	With shield
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Options:

Cage material

10 : PA

30 : xirodur® B180

Ball material

ES : Stainless steel

GL : Glass

Shield or labyrinth seal

C : One-sided shield

LCC : Labyrinth seal

Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination		Part No.
			PA/ES	PA/GL	
3	10	4	●	●	BB-623-B180-10- <input type="checkbox"/> -C
6	19	6	●	●	BB-626-B180-10- <input type="checkbox"/> -C
8	22	7	●	●	BB-608-B180-10- <input type="checkbox"/> -C
10	26	8	●	●	BB-6000-B180-10- <input type="checkbox"/> -C
12	28	8	●	●	BB-6001-B180-10- <input type="checkbox"/> -C
15	35	11	●	●	BB-6202-B180-10- <input type="checkbox"/> -C
17	35	10	●	●	BB-6003-B180-10- <input type="checkbox"/> -C
20	42	12	●	●	BB-6004-B180-10- <input type="checkbox"/> -C
25	47	12	●	●	BB-6005-B180-10- <input type="checkbox"/> -C

Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination		Part No.
			B180/ES	B180/GL	
17	35	10	●	●	BB-6003-B180-30- <input type="checkbox"/> -LCC
20	24	12	●	●	BB-6004-B180-30- <input type="checkbox"/> -LCC



Available from stock

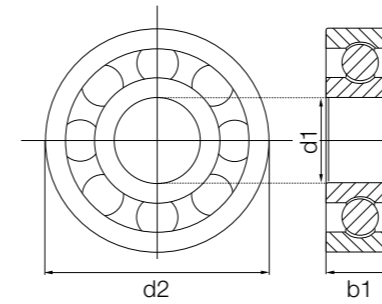


PP cage,
stainless steel
balls



PP cage,
glass balls

- Good chemical resistance
- Cost-effective
- Operating temperature: from 0°C up to +60°C



Type	Material
BB-623-C160-20-ES	
Ball bearing	
Dimensions according to DIN 625-1	
Race material	
Cage material	
Ball material	
	Cage material 20 : PP
	Options: Ball material ES : Stainless steel GL : Glass

Technical data

Installation size	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		PP/ES [g]	PP/GL [g]
623	10	11	4,000	0.35	0.26
624	12	13	3,650	–	–
625	20	22	3,100	–	0.21
635	30	31	2,900	1.76	1.03
626	30	34	2,600	2.15	1.43
636	40	42	2,050	2.06	–
627	40	43	2,000	–	–
688	20	21	2,750	1.06	0.24
608	40	46	2,200	3.37	2.21
628	57	61	1,800	–	–
638	60	62	1,670	6.27	4.10
629	60	63	1,680	–	–
6800	20	24	2,100	–	–
6000	60	65	1,700	5.48	3.33
6200	78	81	1,540	7.50	4.71
6801	30	32	1,920	0.84	0.92
6001	70	74	1,580	6.59	3.80
6201	80	83	1,260	–	–
6802	40	43	1,700	–	0.46
6002	80	85	1,500	5.72	4.86
6202	80	85	1,130	–	–
6803	50	51	1,650	–	–
6003	90	96	1,300	9.10	6.22
6203	140	142	1,010	–	–
6804	50	54	1,480	–	–

Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination		Part No.
			PP/ES	PP/GL	
3	10	4	●	●	BB-623-C160-20- <input type="checkbox"/>
4	13	5	●	●	BB-624-C160-20- <input type="checkbox"/>
5	16	5	●	●	BB-625-C160-20- <input type="checkbox"/>
5	19	6	●	●	BB-635-C160-20- <input type="checkbox"/>
6	19	6	●	●	BB-626-C160-20- <input type="checkbox"/>
6	22	7	●	●	BB-636-C160-20- <input type="checkbox"/>
7	22	7	●	●	BB-627-C160-20- <input type="checkbox"/>
8	16	5	●	●	BB-688-C160-20- <input type="checkbox"/>
8	22	7	●	●	BB-608-C160-20- <input type="checkbox"/>
8	24	8	●	●	BB-628-C160-20- <input type="checkbox"/>
8	28	9	●	●	BB-638-C160-20- <input type="checkbox"/>
9	26	8	●	●	BB-629-C160-20- <input type="checkbox"/>
10	19	5	●	●	BB-6800-C160-20- <input type="checkbox"/>
10	26	8	●	●	BB-6000-C160-20- <input type="checkbox"/>
10	30	9	●	●	BB-6200-C160-20- <input type="checkbox"/>
12	21	5	●	●	BB-6801-C160-20- <input type="checkbox"/>
12	28	8	●	●	BB-6001-C160-20- <input type="checkbox"/>
12	32	10	●	●	BB-6201-C160-20- <input type="checkbox"/>
15	24	5	●	●	BB-6802-C160-20- <input type="checkbox"/>
15	32	9	●	●	BB-6002-C160-20- <input type="checkbox"/>
15	35	11	●	●	BB-6202-C160-20- <input type="checkbox"/>
17	26	5	●	●	BB-6803-C160-20- <input type="checkbox"/>
17	35	10	●	●	BB-6003-C160-20- <input type="checkbox"/>
17	40	12	●	●	BB-6203-C160-20- <input type="checkbox"/>
20	32	7	●	●	BB-6804-C160-20- <input type="checkbox"/>



Order example:

BB-623-C160-20-ES = Radial deep groove ball bearing with race material xirodur® C160, PP cage and stainless steel balls



Available from stock

Upon request

Technical data

Installation size	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		PP/ES [g]	PP/GL [g]
6004	140	142	1,000	17.81	11.20
6204	140	145	950	22.85	4.89
6805	80	82	1,075	–	–
6005	140	151	960	20.63	13.29
6205	170	181	810	26.70	4.89

Dimensions [mm]

Inner Ø d1	OuterØ d2	Width b1	Cage/ball material combination		Part No.
			PP/ES	PP/GL	
20	42	12	●	●	BB-6004-C160-20- <input type="text"/>
20	47	14	●	●	BB-6204-C160-20- <input type="text"/>
25	37	7	●	●	BB-6805-C160-20- <input type="text"/>
25	47	12	●	●	BB-6005-C160-20- <input type="text"/>
25	52	15	●	●	BB-6205-C160-20- <input type="text"/>



Order example:

BB-6004-C160-20-ES = Radial deep groove ball bearing with race material xirodur® C160, PP cage and stainless steel balls



Available from stock

Upon request



PA cage,
stainless steel balls



PEEK cage,
stainless steel balls



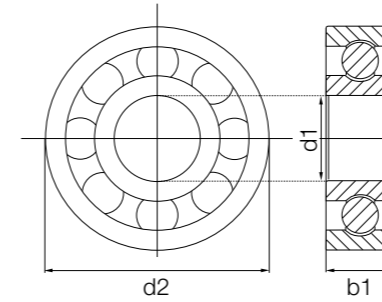
PEEK cage,
glass balls



PEEK cage,
PAI balls



Do you need an electrically conductive material for your application? xirodur® F500 is conductive and resistant to chemicals. Please contact us!



- Temperature and chemicals resistance
- Operation temperature: from -100°C up to +150°C



Order key

Type	Material
BB-623-A500-10-ES	
Ball bearing	Options: Cage material 10 : PA 70 : PEEK Ball material ES : Stainless steel GL : Glass PAI : Polyamide-imide
Dimensions according to DIN 625-1	
Face material	
Cage material	
Ball material	

Technical data

Installation size	Radial load capacity				Limit speed [rpm]	Weight			
	stat.	dyn.	stat.	dyn.		PA/ES	PEEK/ES	PEEK/GL	PEEK/PAI
	[N]	[N]	[N]	[N]		[g]	[g]	[g]	[g]
623	27	30	-	-	5,000	0.4	0.4	0.3	-
624	30	40	-	-	4,500	1.9	1.0	0.9	-
625	36	43	-	-	3,700	-	-	-	-
635	48	52	-	-	3,400	-	-	-	-
626	54	60	15	20	3,400	2.3	2.3	1.6	1.4
636	72	76	-	-	2,450	-	-	-	-
627	72	74	-	-	2,600	-	-	-	-
688	36	38	-	-	3,150	-	-	-	-
608	72	78	18	25	2,700	3.7	3.7	2.4	2.2
628	98	104	-	-	2,500	-	-	-	-
638	102	108	-	-	2,300	-	-	-	-
629	102	112	-	-	2,350	-	-	-	-
6800	42	46	-	-	2,300	-	-	-	-
6000	102	107	25	34	2,100	6.0	6.0	3.8	3.4
6200	126	132	-	-	2,100	-	-	-	-
6801	54	57	-	-	2,150	-	-	-	-
6001	105	124	-	-	2,040	-	-	-	-
6201	132	141	-	-	1,820	-	-	-	-
6802	72	76	-	-	1,920	-	-	-	-
6002	132	145	32	41	1,900	9.1	9.1	5.2	5.6
6202	135	146	-	-	1,600	-	-	-	-
6803	84	84	-	-	1,760	-	-	-	-
6003	138	152	-	-	1,790	-	-	-	-
6203	228	232	-	-	1,450	-	-	-	-

Dimensions [mm]

Inner Ø	Outer Ø	Width	Cage/ball material combination				Part No.
d1	d2	b1	PA/ES	PEEK/ES	PEEK/GL	PEEK/PAI	
3	10	4	●	●	●	-	BB-623-A500- <input type="text"/> - <input type="text"/>
4	13	5	●	●	●	-	BB-624-A500- <input type="text"/> - <input type="text"/>
5	16	5	●	●	●	-	BB-625-A500- <input type="text"/> - <input type="text"/>
5	19	6	●	●	●	-	BB-635-A500- <input type="text"/> - <input type="text"/>
6	19	6	●	●	●	●	BB-626-A500- <input type="text"/> - <input type="text"/>
6	22	7	●	●	●	-	BB-636-A500- <input type="text"/> - <input type="text"/>
7	22	7	●	●	●	-	BB-627-A500- <input type="text"/> - <input type="text"/>
8	16	5	●	●	●	-	BB-688-A500- <input type="text"/> - <input type="text"/>
8	22	7	●	●	●	●	BB-608-A500- <input type="text"/> - <input type="text"/>
8	24	8	●	●	●	-	BB-628-A500- <input type="text"/> - <input type="text"/>
8	28	9	●	●	●	-	BB-638-A500- <input type="text"/> - <input type="text"/>
9	26	8	●	●	●	-	BB-629-A500- <input type="text"/> - <input type="text"/>
10	19	5	●	●	●	-	BB-6800-A500- <input type="text"/> - <input type="text"/>
10	26	8	●	●	●	●	BB-6000-A500- <input type="text"/> - <input type="text"/>
10	30	9	●	●	●	-	BB-6200-A500- <input type="text"/> - <input type="text"/>
12	21	5	●	●	●	-	BB-6801-A500- <input type="text"/> - <input type="text"/>
12	28	8	●	●	●	●	BB-6001-A500- <input type="text"/> - <input type="text"/>
12	32	10	●	●	●	-	BB-6201-A500- <input type="text"/> - <input type="text"/>
15	24	5	●	●	●	-	BB-6802-A500- <input type="text"/> - <input type="text"/>
15	32	9	●	●	●	●	BB-6002-A500- <input type="text"/> - <input type="text"/>
15	35	11	●	●	●	-	BB-6202-A500- <input type="text"/> - <input type="text"/>
17	26	5	●	●	●	-	BB-6803-A500- <input type="text"/> - <input type="text"/>
17	35	10	●	●	●	●	BB-6003-A500- <input type="text"/> - <input type="text"/>
17	40	12	●	●	●	-	BB-6203-A500- <input type="text"/> - <input type="text"/>



Order example:
BB-623-A500-10-ES = Radial deep groove ball bearing with race material xirodur® A500, PA cage and stainless steel balls



Available from stock
Upon request

Technical data

Installation size	Radial load capacity				Limit speed	Weight			
	stat.	dyn.	PEEK/PAI			PA/ES	PEEK/ES	PEEK/GL	PEEK/PAI
			stat.	dyn.					
[N]	[N]	[N]	[N]	[rpm]	[g]	[g]	[g]	[g]	
6804	90	93	–	–	1,560	–	–	–	–
6004	234	250	62	88	1,700	19.7	19.7	13.2	11.7
6204	234	238	–	–	1,270	–	–	–	–
6805	132	135	–	–	980	–	–	–	–
6005	405	420	–	–	1,500	–	–	–	–
6205	422	440	–	–	1,100	–	–	–	–

Dimensions [mm]

Inner Ø	OuterØ	Width	Cage/ball material combination				Part No.
			PA/ES	PEEK/ES	PEEK/GL	PEEK/PAI	
d1	d2	b1	PA/ES	PEEK/ES	PEEK/GL	PEEK/PAI	
20	32	7	●	●	●	–	BB-6804-A500- <input type="text"/> - <input type="text"/>
20	42	12	●	●	●	●	BB-6004-A500- <input type="text"/> - <input type="text"/>
20	47	14	●	●	●	–	BB-6204-A500- <input type="text"/> - <input type="text"/>
25	37	7	●	●	●	–	BB-6805-A500- <input type="text"/> - <input type="text"/>
25	47	12	●	●	●	●	BB-6005-A500- <input type="text"/> - <input type="text"/>
25	52	15	●	●	●	–	BB-6205-A500- <input type="text"/> - <input type="text"/>



Order example:

BB-623-A500-10-ES = Radial deep groove ball bearing with race material xirodur® A500, PA cage and stainless steel balls



Available from stock

Upon request



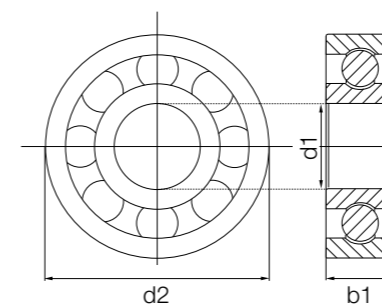
PA cage,
stainless steel balls



PE cage,
stainless steel balls

- Static dissipation
- Suitable for food contact according to the FDA/EU regulations (combined with PE cage)
- Specific volume resistance $<10^{12}\Omega\text{cm}$
- Operating temperature: from -40°C up to $+80^{\circ}\text{C}$

i Do you need an electrically conductive material for your application?
xirodur® F182 is even more conductive (without FDA/food approval).
Please contact us!



Order key

Type Material

BB-623-F180-10-ES



Options:

Cage material

10 : PA

50 : PE

Ball material

ES : Stainless steel

Technical data

Installation size	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		PA/ES [g]	PE/ES [g]
623	10	25	4,500	0.39	0.39
624	20	33	4,000	0.83	0.82
625	40	40	3,700	1.54	1.50
626	41	43	3,200	2.50	2.36
608	80	94	2,200	3.79	3.67
6000	110	130	2,200	5.86	5.76
6001	138	147	2,000	6.72	6.62
6002	140	150	1,800	8.59	8.50
6003	160	220	1,600	10.53	10.39
6004	250	320	1,400	19.24	19.18
6005	280	360	1,200	22.43	22.04

Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination		Part No.
			PA/ES	PE/ES	
3	10	4	●	●	BB-623-F180- <input type="text"/> -ES
4	13	5	●	●	BB-624-F180- <input type="text"/> -ES
5	16	5	●	●	BB-625-F180- <input type="text"/> -ES
6	19	6	●	●	BB-626-F180- <input type="text"/> -ES
8	22	7	●	●	BB-608-F180- <input type="text"/> -ES
10	26	8	●	●	BB-6000-F180- <input type="text"/> -ES
12	28	8	●	●	BB-6001-F180- <input type="text"/> -ES
15	32	9	●	●	BB-6002-F180- <input type="text"/> -ES
17	35	10	●	●	BB-6003-F180- <input type="text"/> -ES
20	42	12	●	●	BB-6004-F180- <input type="text"/> -ES
25	47	12	●	●	BB-6005-F180- <input type="text"/> -ES



Order example:

BB-623-F180-10-ES = Radial deep groove ball bearing with race material xirodur® F180, PA cage and stainless steel balls



Available
from stock

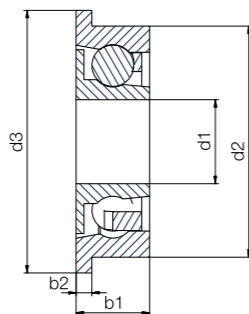
Single flange with shield



xirodur® B180, PA cage, stainless steel balls



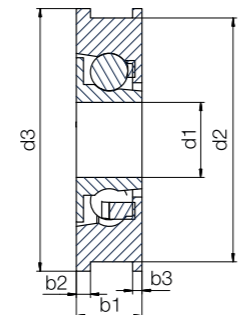
xirodur® S180, PA cage, stainless steel balls



Double flange with shield



xirodur® B180 races PA cage, stainless steel or glass balls



Technical data

Installation size	Double flange	Radial load capacity		Max. speed [rpm]	Weight				
		stat. [N]	dyn. [N]		PA/ES [g]	B180 PA/GL [g]	B180/ES [g]	F180 PA/ES [g]	S180 PA/ES [g]
Radial deep groove ball bearing with single flange with shield for conveyor roller									
606	-	80	94	2,200	2.40	-	-	-	-
688	-	80	94	2,200	1.90	-	-	-	-
608	-	80	94	2,200	5.55	-	-	-	-
6000	-	110	130	1,900	7.55	-	-	-	-
6000	-	110	130	1,900	10.06	-	-	-	-
6001	-	130	147	1,750	7.53	5.09	-	-	-
6001	-	130	147	1,750	12.02	-	-	-	-
6002	-	140	150	1,600	11.44	-	-	-	-
6003	-	160	220	1,550	11.42	-	-	-	-
6004	-	250	320	1,400	-	-	16.36	-	-
6004	-	250	320	1,400	-	-	29.60	-	-
Radial deep groove ball bearing with single or double flange and shields									
608	-	80	94	2,200	5.69	4.47	-	5.49	-
608	●	80	94	2,200	5.82	5.93	-	5.61	-
626	-	60	62	3,200	-	-	-	-	1.32
688	-	39	41	3,000	-	-	-	-	0.66
608	-	80	94	2,400	-	-	-	-	2.00



Order example:

BB-6000F2830-B180-10-ES = Radial deep groove ball bearing with single flange for system solution BBT (conveyor roller), race material xirodur® B180, PA cage and stainless steel balls



Order key with single flange

Type	Material
BB-6000 F 2830-B180-10-ES	
Ball bearing	
Dimensions according to DIN 625-1	
Single flange	
Outer Ø [mm]	
Race material	
Cage material	
Ball material	



Also available as complete system solution
▶ Page 1058



Order key with double flange

Type	Material	Design
BB-608FF-B180-10-ES-CC		
Ball bearing		
Dimensions according to DIN 625-1		
Double flange		
Race material		
Cage material		
Ball material		
Double shield		

Flange
F : Single flange
FF : Double flange
Race material
B180 : xirodur® B180
S180 : xirodur® S180
Cage material
10 : PA
30 : xirodur® B180
Ball material
ES : Stainless steel
GL : Glass
Shield
C : With shield
CC : Double shield

Dimensions [mm]

Inner Ø	Outer Ø		Width		Cage/ball material combination				Part No.
	d1	d2	d3	b1	b2	PA/ES	PA/GL	B180/ES	
6.0	18.0	20.0	6.0	2.0	●	-	-	-	BB-606F1820-B180-30-ES
8.0	18.0	20.0	6.0	2.0	●	-	-	-	BB-688F1820-B180-30-ES
8.0	28.0	30.0	7.0	2.0	●	-	-	-	BB-608F2830-B180-10-ES
10.0	28.0	30.0	9.0	2.0	●	-	-	-	BB-6000F2830-B180-10-ES
10.0	35.0	38.0	9.0	2.0	●	-	-	-	BB-6000F3538-B180-10-ES
12.0	28.0	30.0	9.0	2.0	●	-	-	-	BB-6001F2830-B180-10-ES
12.0	35.0	38.0	9.0	2.0	●	-	-	-	BB-6001F3538-B180-10-ES
15.0	35.0	38.0	9.0	2.0	●	-	-	-	BB-6002F3538-B180-10-ES
17.0	35.0	38.0	10.0	2.0	●	-	-	-	BB-6003F3538-B180-10-ES
20.0	46.0	50.0	12.0	2.0	-	-	●	-	BB-6004F4650G-B180-30-ES
20.0	56.0	60.0	12.0	2.0	-	-	●	-	BB-6004F5660G-B180-30-ES
8.0	26.0	28.0	8.5	1.5	●	●	-	-	BB-608F-B180-10-□-CC
8.0	26.0	28.0	7.0	1.5/1.0 (b3)	●	●	-	-	BB-608FF-B180-10-□-CC
6.0	19.0	22.0	6.0	1.5	-	-	-	●	BB-626F-S180-10-ES-C
8.0	16.0	18.0	5.0	1.0	-	-	-	●	BB-688F-S180-10-ES-C
8.0	22.0	25.0	7.0	1.5	-	-	-	●	BB-608F-S180-10-ES-C



Available from stock

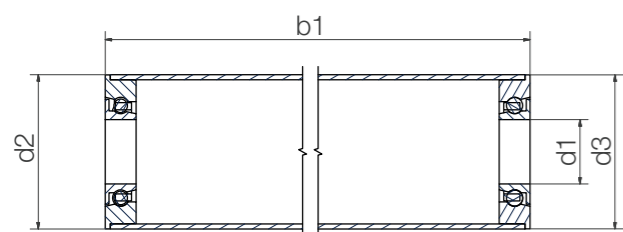


Order key

Type	Material
BBT-AC38-6000-B180-10-ES	
Ball bearing conveyor roller	Aluminium tube
Outer Ø	Dimensions according to DIN 625-1
Race material	Cage material
	Ball material

Cage material
 10 : PA
 30 : xirodur® B180
Ball material
 ES : Stainless steel

i Radial deep groove ball bearings with flange also available as individual parts ▶ Page 1056



Dimensions [mm]

Inner Ø	Outer Ø	Flange Ø	Length	Part No.
d1	d2	d3	b1 Tolerance	
6	20	19.9	50-500 ±0.5	BBT-AC20-606-B180-30-ES
8	20	19.9	50-500 ±0.5	BBT-AC20-688-B180-30-ES
8	30	29.9	50-1,500 ±0.5	BBT-AC30-608-B180-10-ES
10	30	29.9	50-1,500 ±0.5	BBT-AC30-6000-B180-10-ES
12	30	29.9	50-1,500 ±0.5	BBT-AC30-6001-B180-10-ES
10	38	37.9	50-1,500 ±0.5	BBT-AC38-6000-B180-10-ES
12	38	37.9	50-1,500 ±0.5	BBT-AC38-6001-B180-10-ES
15	38	37.9	50-1,500 ±0.5	BBT-AC38-6002-B180-10-ES
17	38	37.9	50-1,500 ±0.5	BBT-AC38-6003-B180-10-ES
20	50	49.9	50-1,500 ±0.5	BBT-AC50-6004-B180-30-ES
20	60	59.9	50-1,500 ±0.5	BBT-AC60-6004-B180-30-ES

Online configurator for xiros® system solutions
 ▶ www.igus.eu/xirosAlu

Order example:
BBT-AC38-6000-B180-10-ES, L = 500mm = Aluminium tube with 2 ball bearings with race material xirodur® B180, PA cage and stainless steel balls, total length 500mm

Available from stock
 Delivery time: approx. 1-2 weeks

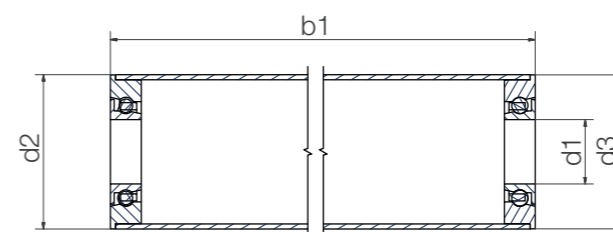


Order key

Type	Material
BBT-S AC30-6000-B180-10-ES	
Ball bearing conveyor roller	Aluminium tube
Outer Ø	Black
Race material	Dimensions according to DIN 625-1
	Cage material
	Ball material

Cage material
 10 : PA
 30 : xirodur® B180
Ball material
 ES : Stainless steel

i Radial deep groove ball bearings with flange also available as individual parts ▶ Page 1056



Dimensions [mm]

Inner Ø	Outer Ø	Flange Ø	Length	Part No.
d1	d2	d3	b1 Tolerance	
6	20	20	100-1,000 ±0.5	BBT-SAC20-606-B180-30-ES New
8	20	20	100-1,000 ±0.5	BBT-SAC20-608-B180-30-ES New
8	30	30	100-1,000 ±0.5	BBT-SAC30-608-B180-10-ES New
10	30	30	100-1,000 ±0.5	BBT-SAC30-6000-B180-10-ES New
12	30	30	100-1,000 ±0.5	BBT-SAC30-6001-B180-10-ES New
10	38	38	100-1,000 ±0.5	BBT-SAC38-6000-B180-10-ES New
12	38	38	100-1,000 ±0.5	BBT-SAC38-6001-B180-10-ES New
15	38	38	100-1,000 ±0.5	BBT-SAC38-6002-B180-10-ES New
17	38	38	100-1,000 ±0.5	BBT-SAC38-6003-B180-10-ES New
20	50	50	100-1,000 ±0.5	BBT-SAC50-6004-B180-30-ES New
20	60	60	100-1,000 ±0.5	BBT-SAC60-6004-B180-30-ES New

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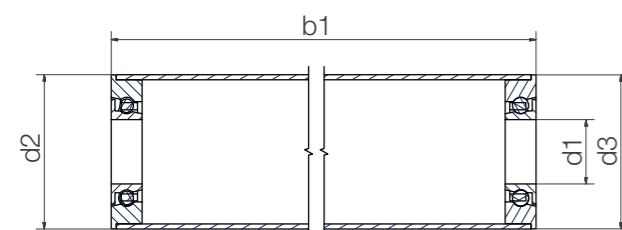
Order example:
BBT-SAC20-606-B180-30-ES, L = 200mm = Aluminium tube, sandblasted, installation size 606 with xirodur® B180 fixed flange ball bearing, xirodur® B180 cage and stainless steel balls, total length 200mm

Available from stock
 Delivery time: approx. 3-4 weeks



Aluminium conveyor roller with non-stick coating

- Up to 70% less sticking of adhesive labels



Order key

Type	Material
BBT-AH30-6000-S180-10-ES	
Ball bearing conveyor roller	Aluminium tube
Outer Ø	Dimensions according to DIN 625-1
Race material	Cage material
	Ball material

Cage material
10 : PA
Ball material
ES : Stainless steel

Dimensions [mm]

Inner Ø	OuterØ	Flange Ø	Length	Part No.	
d1	d2	d3	b1	Tolerance	
8	30	30	100-1,000	±0.5	BBT-AH30-608-S180-10-ES New
10	30	30	100-1,000	±0.5	BBT-AH30-6000-S180-10-ES New
12	30	30	100-1,000	±0.5	BBT-AH30-6000-S180-10-ES New
10	30	30	100-1,000	±0.5	BBT-AH30-6001-S180-10-ES New
10	38	38	100-1,000	±0.5	BBT-AH38-6000-S180-10-ES New
10	38	38	100-1,000	±0.5	BBT-AH38-6000-S180-10-ES New
15	38	38	100-1,000	±0.5	BBT-AH38-6002-S180-10-ES New



Order example:

BBT-AH30-6000-S180-10-ES, L = 100mm, = Aluminium tube with 2 ball bearings with race material xirodur® S180, PA cage and stainless steel balls, total length 100mm



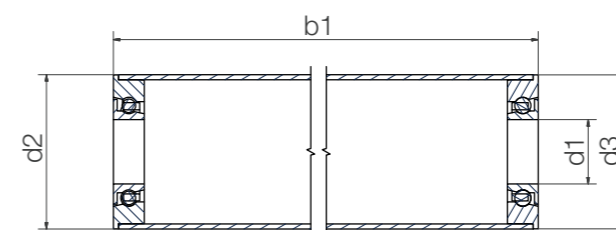
Upon request

Delivery time: 3-4 weeks



Aluminium tube with xirodur® S180 ball bearing

- Black design



Order key

Type	Material
BBT-AC S 30-6000-S180-10-ES	
Ball bearing conveyor roller	Aluminium tube
Black	Outer Ø
Dimensions according to DIN 625-1	Race material
	Cage material
	Ball material

Cage material
10 : PA
Ball material
ES : Stainless steel

Dimensions [mm]

Inner Ø	OuterØ	Flange Ø	Length	Part No.	
d1	d2	d3	b1	Tolerance	
8	30	29.9	50-1,500	±0.5	BBT-ACS30-608-S180-10-ES New
10	30	29.9	50-1,500	±0.5	BBT-ACS30-6000-S180-10-ES New
12	30	29.9	50-1,500	±0.5	BBT-ACS30-6001-S180-10-ES New
10	38	37.9	50-1,500	±0.5	BBT-ACS38-6000-S180-10-ES New



Order example:

BBT-ACS30-6000-S180-10-ES, L = 200mm = Aluminium tube with 2 ball bearings with race material xirodur® S180, PA cage and stainless steel balls, total length 200mm



Upon request

Delivery time: 3-4 weeks

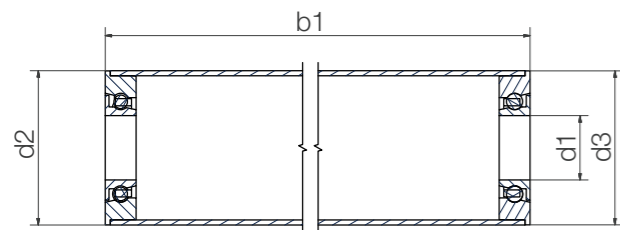
xiros® conveyor rollers | Product range **New**

xiros® system solution - non-metallic with PVC tube and glass balls



PVC tube with xirodur® B180 ball bearing

- 100% non-metallic, non-magnetic
- Application in the chemical, medical and semiconductor industry



Order key

Type	Material
BBT-PVC 30-6000-B180-30-GL	
Ball bearing conveyor roller	PVC tube
Outer Ø	Dimensions according to DIN 625-1
Race material	Cage material
	Ball material

Cage material
30 : xirodur® B180
Ball material
GL : Glass

Dimensions [mm]

Inner Ø	OuterØ	Flange Ø	Length		Part No.
			b1	Tolerance	
8	30	30	100-1,000	±0.5	BBT-PVC30-608-B180-30-GL New
8	30	30	100-1,000	±0.5	BBT-PVC30-6000-B180-30-GL New
10	40	40	100-1,000	±0.5	BBT-PVC40-6000-B180-30-GL New
12	40	40	100-1,000	±0.5	BBT-PVC40-6001-B180-30-GL New
15	40	40	100-1,000	±0.5	BBT-PVC40-6002-B180-30-GL New
17	40	40	100-1,000	±0.5	BBT-PVC40-6003-B180-30-GL New
20	50	50	100-1,000	±0.5	BBT-PVC50-6004-B180-30-GL New
20	63	63	100-1,000	±0.5	BBT-PVC63-6004-B180-30-GL New

Order example:
BBT-PVC30-6000-B180-30-GL, L = 200mm = Aluminium tube with 2 ball bearings with race and cage material xirodur® B180 and glass balls, total length 200mm

Available from stock
 Delivery time: approx. 1-2 weeks

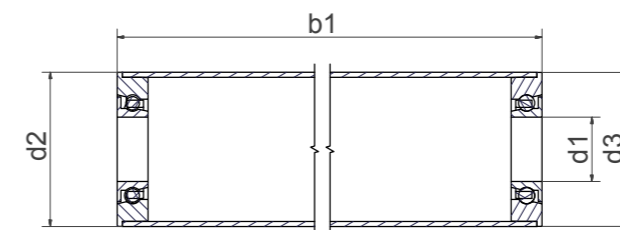
xiros® conveyor rollers | Product range

xiros® system solution - plastic for food contact



PVC tube with xirodur® B180 ball bearing

- Components for use in food in accordance with 10/2011/EU and 1935/2004/EG



Order key

Type	Material
BBT-PVC 50-6004-B180-30-ES	
Ball bearing conveyor roller	PVC tube
Outer Ø	Dimensions according to DIN 625-1
Race material	Cage material
	Ball material

Cage material
30 : xirodur® B180
Ball material
ES : Stainless steel

Dimensions [mm]

Inner Ø	OuterØ	Flange Ø	Length		Part No.
			b1	Tolerance	
8	30	30	50-1,000	±0.5	BBT-PVC30-608-B180-30-ES
10	30	30	50-1,000	±0.5	BBT-PVC30-6000-B180-30-ES
10	40	40	50-1,000	±0.5	BBT-PVC40-6000-B180-30-ES
12	40	40	50-1,000	±0.5	BBT-PVC40-6001-B180-30-ES
15	40	40	50-1,000	±0.5	BBT-PVC40-6002-B180-30-ES
17	40	40	50-1,000	±0.5	BBT-PVC40-6003-B180-30-ES
20	50	50	50-1,000	±0.5	BBT-PVC50-6004-B180-30-ES
20	63	63	50-1,000	±0.5	BBT-PVC63-6004-B180-30-ES

Order example:
BBT-PVC50-6004-B180-30-ES, L = 200mm = PVC tube with 2 ball bearings with race material xirodur® B180, xirodur® B180 cage and stainless steel balls, total length 200mm

Available from stock
 Delivery time: approx. 1-2 weeks



Stainless steel tube with xirodur® B180 ball bearing

- Application in the food and medical sector



Stainless steel conveyor rollers with xirodur® F180 ball bearings

- Prevents static charge



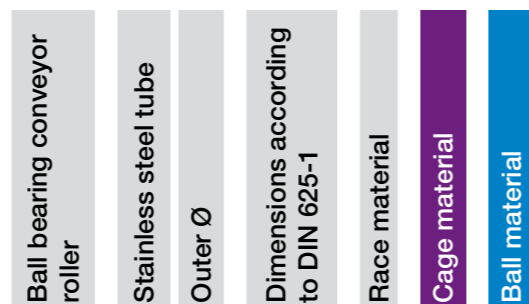
Stainless steel tube with xirodur® A500 ball bearing

- Operating temperature up to +150°C
- With FDA-compliant components
- Resistant to a wide range of chemicals

Order key

Type	Material
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BBT-ES 30-6000-□-□-ES

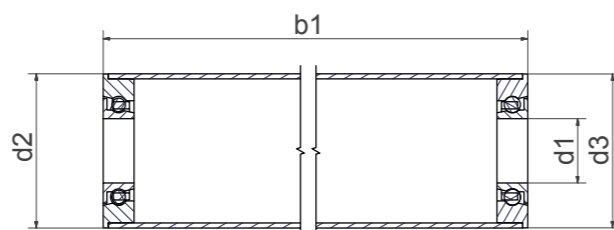


Cage material

- 10 : PA
- 30 : xirodur® B180
- 70 : PEEK

Ball material

- ES : Stainless steel



Dimensions [mm]

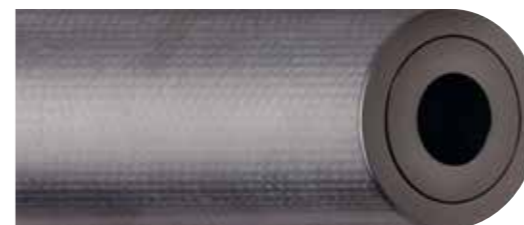
Inner Ø	Outer Ø	Flange Ø	Length	Part No.
d1	d2	d3	b1 Tolerance	
8	30	30	100-1,500 ±0.5	BBT-ES30-608-A500-70-ES New
8	30	30	50-1,500 ±0.5	BBT-ES30-608-B180-30-ES
8	30	30	100-1,500 ±0.5	BBT-ES30-608-F180-10-ES New
10	30	30	100-1,500 ±0.5	BBT-ES30-6000-A500-70-ES New
10	30	30	50-1,500 ±0.5	BBT-ES30-6000-B180-30-ES
10	30	30	100-1,500 ±0.5	BBT-ES30-6000-F180-10-ES New
12	30	30	100-1,500 ±0.5	BBT-ES30-6001-A500-70-ES New
12	30	30	50-1,500 ±0.5	BBT-ES30-6001-B180-30-ES
12	30	30	100-1,500 ±0.5	BBT-ES30-6001-F180-10-ES New

Order example:

BBT-ES30-6000-B180-30-ES, L = 200mm = stainless steel tube with 2 ball bearings with race material xirodur® B180, xirodur® B180 cage and stainless steel balls, total length 200mm

Available from stock - Delivery time approx. 2-3 weeks

With xirodur® F180 as ESD version available upon request



Carbon fibre tube with xirodur® S180 ball bearing, available as ESD version (with xirodur® F180 ball bearing)



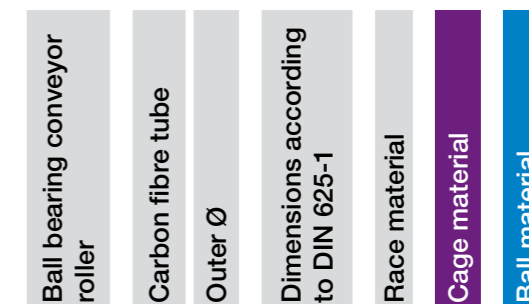
Carbon fibre tube with xirodur® F180 ball bearing

- Low inertia
- Antistatic version

Order key

Type	Material
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BBT-CF 50-6004-□-30-ES

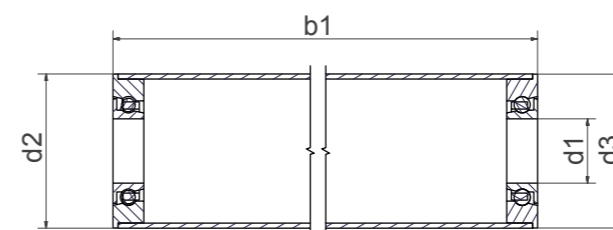


Cage material

- 10 : PA
- 30 : xirodur® B180

Ball material

- ES : Stainless steel



Dimensions [mm]

Inner Ø	Outer Ø	Flange Ø	Length	Part No.
d1	d2	d3	b1 Tolerance	
10	30	30	100-1,000 ±0.5	BBT-CF30-6000-F180-10-ES New
12	30	30	100-1,000 ±0.5	BBT-CF30-6001-F180-10-ES New
20	50	49.9	50-1,000 ±0.5	BBT-CF50-6004-S180-30-ES
20	100	100.0	50-1,000 ±0.5	BBT-CF100-6004-F180-30-ES

Order example:

BBT-CF50-6004-S180-30-ES, L = 370mm = Carbon fibre tube with 2 ball bearings with race material xirodur® S180, xirodur® B180 cage and stainless steel balls, total length 370mm

Delivery time: approx. 3 weeks

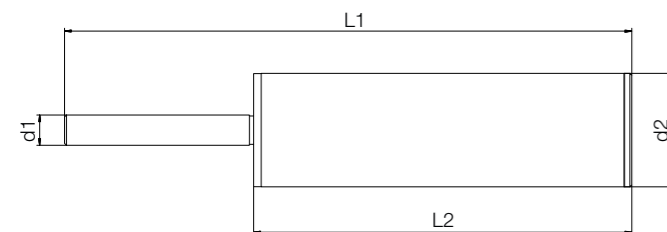
With xirodur® F180 as ESD version available upon request



Closed special solution with aluminium tube and polymer ball bearing for guide rollers and label rollers

- Closed design
- Resistant to dirt
- Simple installation
- Dimensions according to customer request

i Ready-to-install complete systems with shaft to required size upon request



Dimensions [mm]

OuterØ d2	Length L1	Part No.
30	According to customer request	BBTG-AC30-XX-30-ES
38	According to customer request	BBTG-AC38-XX-30-ES
50	According to customer request	BBTG-AC50-XX-30-ES
60	According to customer request	BBTG-AC60-XX-30-ES

🚚 Upon request
For a ready-to-install complete system, please contact us.

🔑 Order key

Type	Material
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BBTG-AC30-□-30-ES

Ball bearing conveyor roller	Aluminium tube	Outer Ø	Length - upon request	Cage material	Ball material
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Cage material

30 : xirodur® B180

Ball material

ES : Stainless steel



PA cage, stainless steel or glass balls

PA cage, stainless steel balls hexagon nut socket

- Suitable for all conveyor roller tubes 50x2.8mm
- Lubrication-free and corrosion-resistant
- Operating temperature: from -40°C up to +80°C

🔑 Order key

Type	Material
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BB-6204EC44.5-B180-10-ES

Ball bearing type	Dimensions according to DIN 625-1	End cap	Outer Ø (d2)	Race material	Cage material	Ball material
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Cage material

10 : PA

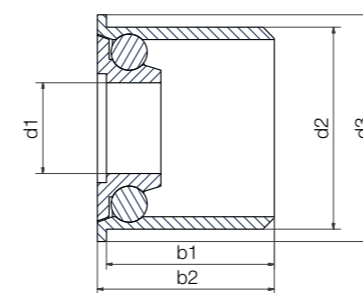
Options:

Ball material

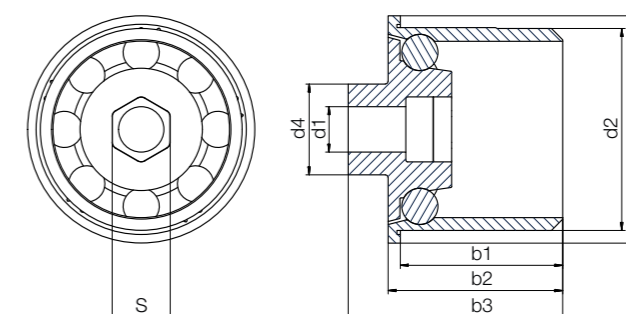
ES : Stainless steel

GL : Glass

Example "6204EC"



Example "6204ECM8"



Technical data

Installation size	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		PA/ES [g]	PA/GL [g]
6204	245	294	1,800	41.66	29.85
6204	245	294	1,800	48.44	-

Dimensions [mm]

Inner Ø d1	Outer Ø		Width	S	Cage/ball material combination	Part No.			
	d2	d3					d4	b1	b2
20	44.5	50	-	35.8	38.5	-	●	●	BB-6204EC44.5-B180-10-□
10	44.5	50	20	35.8	38.5	47.3	M8	●	BB-6204ECM8-B180-10-ES

🛒 Order example:
BB-6204EC44.5-B180-10-ES = End cap with race material xirodur® B180, PA cage and [stainless steel balls](#)

🚚 Available from stock

Races made from xirodur® B180



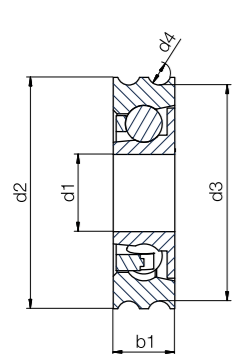
xirodur® B180 cage,
stainless steel balls
Type 6000PP3

- One-piece design
- Replaces several components
- Different profiles and installation sizes
- Suitable for contact with food
- Operating temperature: from -40°C up to +80°C

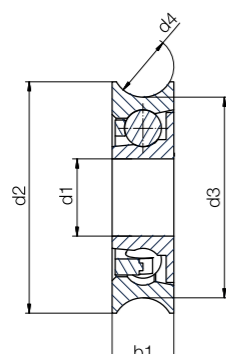


xirodur® B180 cage,
stainless steel balls
Type 608P6

Example "Profile PP3"



Example "Profile P8"



Technical data

Installation size	Radial load capacity		Limit speed	Weight
	stat.	[N]		
608P6	80	2,200	2,200	3.96
608P8	140	1,800	1,800	23.37
6000P8	110	2,200	2,200	7.14
6000PP3	110	2,200	2,200	7.86
6201P9	160	1,600	1,600	27.05

Dimensions [mm]

Inner Ø	OuterØ	Base Ø	Groove Ø	Width	Part No.
d1	d2	d3	d4	b1	
8	24	20.5	6	7	BB-608P6-B180-30-ES-C
8	48	32	8	14	BB-608P8-B180-30-ES
10	30	26	8	8	BB-6000P8-B180-30-ES-C
10	30	28	3	8	BB-6000PP3-B180-30-ES-C
12	60	43.5	9	12	BB-6201P9-B180-30-ES



Order example:

BB-608P6-B180-30-ES = Radial deep groove ball bearing, Profil P8 with race material xirodur® B180, xirodur® B180 cage and stainless steel balls



Available
from stock

Races made from xirodur® B180

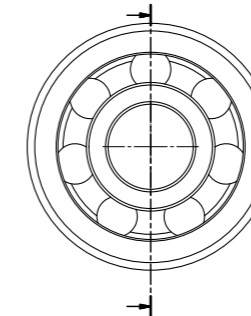
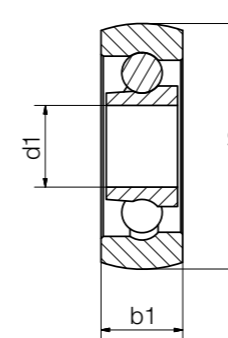


xirodur® B180 races
PA cage,
stainless steel balls

- Replaces several components
- Different profiles and installation sizes
- Operating temperature: from -40°C up to +80°C



xirodur® B180 races
PA cage,
glass balls



Technical data

Installation size	Radial load capacity		Limit speed	Weight	
	stat.	dyn.		PA/ES	PA/GL
	[N]	[N]	[rpm]	[g]	[g]
608	80	94	2,200	4.63	3.34
6000	110	130	1,900	7.86	5.70
6001	138	147	1,750	13.51	11.10

Dimensions [mm]

Inner Ø	OuterØ	Width	Width	Cage/ball material combination		Part No.
d1	d2	b1	b2	PA/ES	PA/GL	
8	24.00	8	7	●	●	BB-608SO-B180-10- <input type="checkbox"/>
10	28.96	10	8	●	●	BB-6000SO-B180-10- <input type="checkbox"/>
12	35.56	12	8	●	●	BB-6001SO-B180-10- <input type="checkbox"/>



Order example:

BB-608SO-B180-10-ES = Ball bearing with spherical outer diameter, race material xirodur® B180, PA cage and stainless steel balls



Available
from stock



Order key

Type	Material	Design
Ball bearing	Dimensions according to DIN 625-1	Profile P6
Race material	Cage material	Ball material
With shield		

BB-608P6-B180-30-ES-C

Cage material

30 : xirodur® B180

Ball material

ES : Stainless steel

Shield

C : One-sided shield



Order key

Type	Material
Ball bearing	Dimensions according to DIN 625-1
Spherical outer Ø	Race material
Cage material	Ball material

BB-608 SO-B180-10-ES

Cage material

10 : PA

Options:

Ball material

ES : Stainless steel

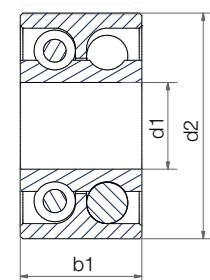
GL : Glass

Races made from xirodur® B180



PA cage,
stainless steel or
glass balls

- Higher loads
- More cost-effective than two comparable bearings



Order key

Type	Material	Design
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BB-6000-B180-10-ES-D

Ball bearing	Dimensions according to DIN 625-1	Race material	Cage material	Ball material	Double row
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Cage material

10 : PA

Options:

Ball material

ES : Stainless steel

GL : Glass

Technical data

Installation size	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		PA/ES [g]	PA/GL [g]
6000	200	240	1,000	11.23	6.90
6004	420	470	650	35.60	22.55

Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Cage/ball material combination		Part No.
			PA/ES	PA/GL	
10	26	14	●	●	BB-6000-B180-10- -D
20	42	20	●	●	BB-6004-B180-10- -D

Order example:

BB-6000-B180-10-ES-D = Double row ball bearing with race material xirodur® B180, PA cage and stainless steel balls

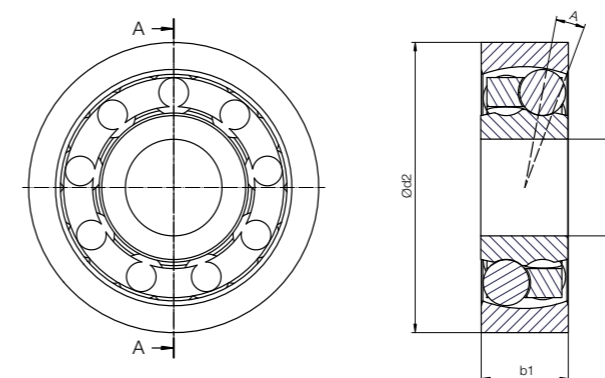
Available from stock

Races made from xirodur® B180



PA cage and stainless
steel balls

- Angular misalignment compensation
- Lubrication-free and corrosion-resistant
- Operating temperature: from -40°C up to +80°C



Order key

Type	Material	Design
------	----------	--------

BB-1200-B180-10-ES-D

Ball bearing	Dimensions according to DIN 625-1	Race material	Cage material	Ball material	Double row
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Cage material

10 : PA

Ball material

ES : Stainless steel

Technical data

Installation size	Max. pivot angle [°]	Permissible radial load [N]	Max. speed [rpm]	Weight [g]
1201	3.92	150	1,800	10.4
1204	3.31	290	1,150	28.8

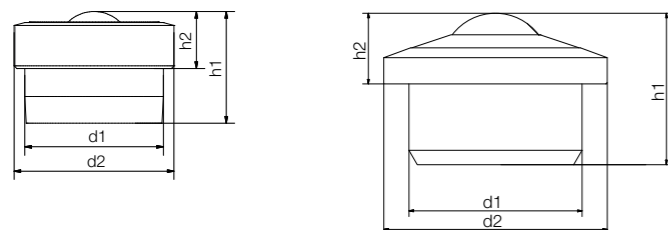
Dimensions [mm]

Inner Ø d1	Outer Ø d2	Width b1	Part No.
12	31	10	BB-1201-B180-10-ES-D New
20	47	14	BB-1204-B180-10-ES-D New

Order example:

BB-1200-B180-10-ES-D = Double row ball bearing with race material xirodur® B180, PA cage and stainless steel balls

 Available from stock
Delivery time: approx. 1-2 weeks



Order key

Type Material

BB-522 B -B180-POM

Ball material
POM : POM (ball)Installation size 505(B) Installation size 508, 505(B),
512, 515(B), 522(B), 530B

- All-rounder for sensitive transportation
- 5XXB series suitable for overhead installation and lateral guidance

Technical data and dimensions [mm]

Installation size	Max. stat. load capacity axial [N]	Inner Ø		Height		Weight [g]	Part No.
		d1	d2	h1	h2		
505	35	10.4	12.0	8.4	4.3	0.88	BB-505-B180-POM
508	40	12.6	17.0	11.2	4.8	1.65	BB-508-B180-POM New
512	60	18.0	23.0	15.4	7.4	4.69	BB-512-B180-POM New
515	80	24.0	31.0	21.0	9.8	10.73	BB-515-B180-POM
522	110	36.0	45.0	30.0	9.8	28.80	BB-522-B180-POM

Technical data and dimensions [mm]

Installation size	Max. stat. load capacity axial [N]	Inner Ø		Height		Weight [g]	Part No.
		d1	d2	h1	h2		
505B	150	10.4	12.0	8.4	4.3	0.92	BB-505B-B180-POM
515B	300	24.0	31.0	21.0	9.8	11.19	BB-515B-B180-POM
522B	500	36.0	45.0	30.0	9.8	29.97	BB-522B-B180-POM
530B	1000	45.0	55.0	37.0	13.8	67.40	BB-530B-B180-POM



Recommended tolerances

We recommend the following hole tolerances for the ball transfer units housings:

Installation size 505 ▶ 10.40H7 515/515B ▶ 24H7 522/522B ▶ 36H7

In general: The height tolerance of all installation sizes is ± 0.2mm

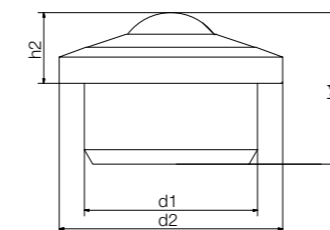


Order example:

BB-505-B180-POM = Polymer ball transfer unit with housing material xirodur® B180 and POM ball



Available from stock



Order key

Type Material

BB-522-B180-POM-ES

Support balls
ES: Stainless steel

- Higher load capacity and smooth operation
- Up to 45% lower rolling friction compared to BB-515B/522B-B180-POM

Technical data and dimensions [mm]

Installation size	Max. static load capacity axial [N]	Inner Ø		Height		Weight [g]	Part No.
		d1	d2	h1	h2		
515	180	24.0	31.0	21.0	9.8	15.59	BB-515-B180-POM-ES New
522	300	36.0	45.0	30.0	9.8	35.56	BB-522-B180-POM-ES New



Recommended tolerances

We recommend the following hole tolerances for the ball transfer units housings:

Installation size

515 ▶ 24H7

522 ▶ 36H7

In general: The height tolerance of all installation sizes is ± 0.2mm



Order example:

BB-515-B180-POM-ES = Polymer ball transfer unit with housing material xirodur® B180 and stainless steel support balls



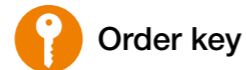
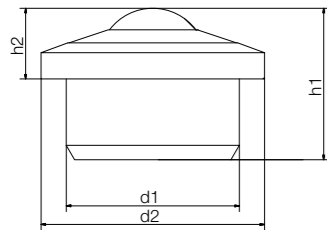
Available from stock



With stainless steel balls



Electrostatically conductive



Order key

Type	Material
BB-522 B - -ES	
Ball bearing	
Type	
New generation	
Housing material	
Ball material	
	Housing material: xirodur® B180 xirodur® F182 (ESD version) Ball material ES: Stainless steel

- For semiconductors and electronic components
- Suitable for overhead installation and lateral guidance

Technical data and dimensions [mm]

Installation size	Max. static axial load capacity [N]	Inner Ø		Height		Weight [g]	Part No.
		d1	d2	h1	h2		
515	300	24.0	31.0	21.0	9.8	22.8	BB-515B-B180-ES
515	300	24.0	31.0	21.0	9.8	22.8	BB-515B-F182-ES
522	500	36.0	45.0	30.0	9.8	66.6	BB-522B-B180-ES

Technical data and dimensions [mm]

Installation size	Max. static axial load capacity [N]	Inner Ø		Height		Weight [g]	Part No.
		d1	d2	h1	h2		
515B	300	24.0	31.0	21.0	9.8	11.19	BB-515B-B180-ES
522B	500	36.0	45.0	30.0	9.8	29.97	BB-522B-B180-ES



Recommended tolerances

We recommend the following hole tolerances for the ball transfer units housings:

Installation size

515B ▶ 24H7

522B ▶ 36H7

In general: The height tolerance of all installation sizes is ± 0.2mm



Order example:

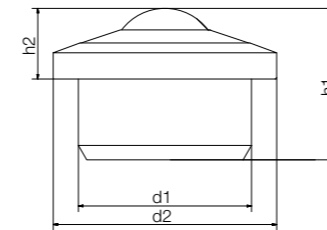
BB-515B-B180-ES = Polymer ball transfer unit with housing material xirodur® B180 and stainless steel balls



Available from stock



- High load carrying capacity with low friction
- For high impact loads



Order key

Type	Material
BB-522 G - J3B -ES	
Ball bearing	
Type	
Sliding version	
Housing material	
Ball material	
	Ball material ES: Stainless steel

Technical data and dimensions [mm]

Installation size	Max. static load capacity axial [N]	Inner Ø		Height		Weight [g]	Part No.
		d1	d2	h1	h2		
515G	700	24.0	31.0	21.0	9.8	23.02	BB-515G-J3B-ES New
522G	1,470	36.0	45.0	30.0	9.8	69.43	BB-522G-J3B-ES New



Recommended tolerances

We recommend the following hole tolerances for the ball transfer units housings:

Installation size

515G ▶ 24H7

522G ▶ 36H7

In general: The height tolerance of all installation sizes is ± 0.2mm



Order example:

BB-515G-J3B-ES = Polymer ball transfer unit with sliding insert, housing material J3B and stainless steel balls



Available from stock
Delivery time: approx. 3-4 weeks



For high loads (HH)



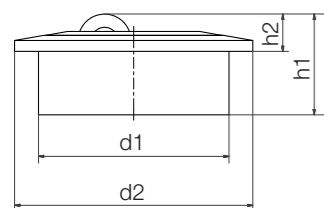
With soft roller made from xirodur® D180 (HS)

Order key

Type	Material
BB-522 A	-B180-HS
Ball bearing	
Type	
Axial ball transfer unit	
Housing material	
Ball material	

Options:
Ball material
HH (Hard roller) : xirodur® B180
HS (Soft roller) : xirodur® D180

- Self-aligning
- Low installation height



BB-515A-B180-HH/-HS
 BB-522A-B180-HH/-HS

Technical data and dimensions [mm]

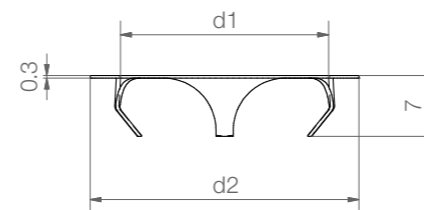
Installation size	Max. stat. load capacity axial [N]	Inner Ø		Height		Weight		Part No.
		d1	d2	h1	h2	HS	HH	
						[g]	[g]	
515A	150	24.0	31.0	14.3	5.3	9.96	9.99	BB-515A-B180-□
522A	300	36.0	45.0	19.2	7.05	24.69	24.71	BB-522A-B180-□

Order example:
 BB-515A-B180-HS = axial polymer ball transfer unit with housing material xirodur® B180 and xirodur® D180 soft roller

Available from stock



xiros® clamping rings made of stainless steel offer the possibility to install xiros® polymer ball transfer units in another orientation than the standard horizontal position. Easy assembly and disassembly.



Dimensions [mm]

For ball transfer unit	d1	d2	Housing hole	Weight [g]	Part No.
BB-515-B180-POM/BB-515A-B180-□	24	31	25H7	0.91	BB-515-CR
BB-522-B180-POM/BB-522A-B180-□	36	41	37H7	1.61	BB-522-CR

Available from stock

Races made from xirodur® B180



Order key

Type	Material
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BB-51104-B180-ES-D

Ball bearing	Dimensions according to DIN 711	Race/cage material	Ball material	Double row
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Options:

Ball material

ES : Stainless steel

GL : Glass

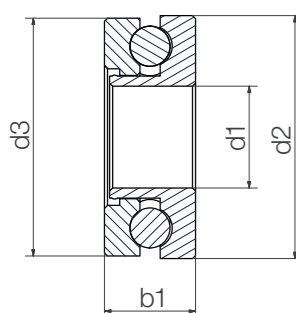
Suffix

Blank : Single row

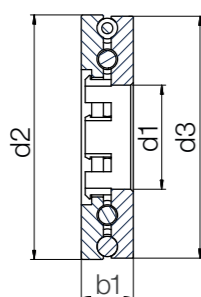
D : Double row

Single or double row, with stainless steel or glass balls

- Higher load capacity
- Good resistance to chemicals and seawater
- Suitable for contact with food
- Operating temperature: from -40°C up to +80°C



Single row bearing



Double row bearing

Technical data

Installation size	Single row	Double row	load capacity		Limit speed [rpm]	Weight	
			stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]
51100	●	-	200	250	600	6.61	4.12
51104	●	-	650	810	460	13.72	8.19
51104	-	●	975	1,215	460	18.96	8.99

Dimensions [mm]

Inner Ø		OuterØ		Width	Cage/ball material combination		Part No.
d1	d2	d3	b1		B180/ES	B180/GL	
10	24	23.5	9		●	●	BB-51100-B180-□
20	35	34.5	10		●	●	BB-51104-B180-□
20	47	46.5	10		●	●	BB-51104-B180-□-D

Order example:

BB-51100-B180-ES = Thrust bearing with race material xirodur® B180, xirodur® B180 cage and stainless steel balls



Available from stock

Races made from xirodur® B180

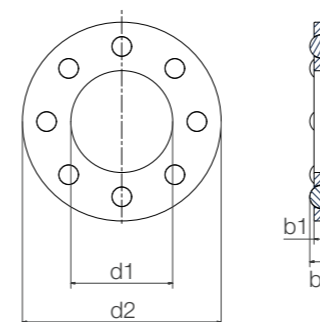


Standard type with stainless steel or glass balls

- Good resistance to chemicals and seawater
- Suitable for contact with food
- Operating temperature: from -40°C up to +80°C



Slim Line design with stainless steel or glass balls



Technical data (related to metallic shafts)

Installation size	Slim Line	Recommended load capacity		Limit speed [rpm]	Weight	
		stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]
626	-	341	425	2,000	1.35	0.81
608	-	482	600	1,700	2.25	1.17
6000	-	610	782	1,500	3.04	1.50
6000	●	405	500	1,500	2.09	1.20
6004	-	975	1,215	700	6.87	4.41
6006	-	925	1,540	600	5.51	3.39
6006	●	520	680	600	4.23	2.98

Dimensions [mm]

Inner Ø	OuterØ	Width		Race/ball material combination		Part No.
		b1	b2	B180/ES	B180/GL	
6.2	18.8	2.0	3.18	●	●	BB-626TW-B180-□
8.2	21.8	2.0	3.97	●	●	BB-608TW-B180-□
10.2	25.8	2.0	4.76	●	●	BB-6000TW-B180-□
10.2	25.8	2.0	3.97	●	●	BB-6000TW-B180-□-SL
21.0	41.0	3.0	4.76	●	●	BB-6004TW-B180-□
29.9	45.5	2.5	4.76	●	●	BB-6006TW-B180-□
29.9	45.5	2.5	3.97	●	●	BB-6006TW-B180-□-SL

Order example:

BB-6000TW-B180-ES-SL = Thrust washer with race material xirodur® B180, stainless steel balls, Slim Line version



Available from stock



Stainless steel balls



Glass balls

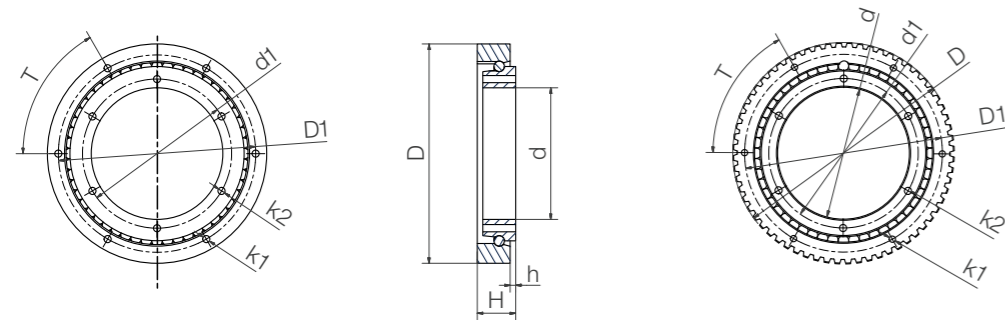


Stainless steel balls, with cage made from xirodur® B180



Stainless steel balls, with outer drive ring (HDT5)

- Good resistance to chemicals and seawater
- Suitable for contact with food
- Operating temperature: from -40°C up to +80°C



Technical data

Type	Load capacity		Max. permissible tilting moment [Nm]	Limit speed [rpm]	Weight	
	axial [N]	radial [N]			ES [g]	GL [g]
Standard with stainless steel or glass balls						
RT-01-60	800	720	40	350	111.68	98.3
RT-01-100	1,600	1,250	60	250	283.85	243.76
Slewing ring ball bearings with xirodur® B180 cage						
RT-01-40-B180-30	500	260	30	900	63.46	-
RT-01-60-B180-30	600	300	30	800	101.22	-
RT-01-100-B180-30	1,020	760	55	650	248.90	-
RT-01-150-B180-30	2,000	1,100	75	600	398.00	-
Slewing ring ball bearings with outer drive ring and cage						
RT-01-60HDT5-B180	800	720	40	320	97.00	-
Slewing ring ball bearings with outer drive ring without cage						
RT-01-60HDT5-B180-30	600	300	30	800	109.00	-

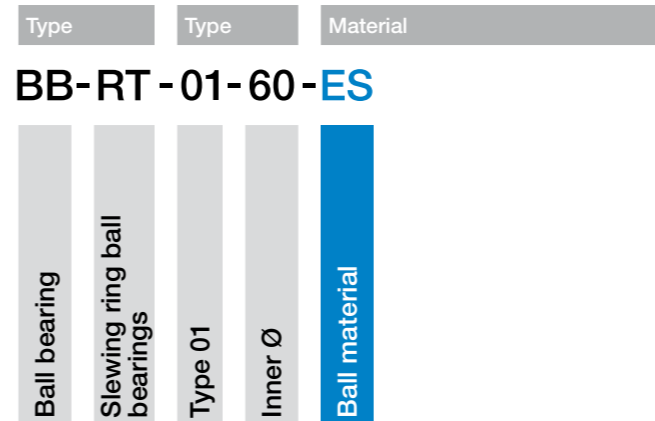


Order example:

- BB-RT-01-60-ES** = Standard-Standard slewing ring ball bearing with race material xirodur® B180 and [stainless steel balls](#)
- BB-RT-01-60-B180-30-ES** = Slewing ring ball bearing with race material xirodur® B180, [xirodur® B180 cage](#) and [stainless steel balls](#)
- BB-RT-01-60-HDT5-B180-ES** = Slewing ring ball bearing with race material xirodur® B180, outer drive ring and [stainless steel balls](#)
- BB-RT-01-60-HDT5-B180-30-ES** = Slewing ring ball bearing with race material xirodur® B180, outer drive ring, [xirodur® B180 cage](#) and [stainless steel balls](#)



Order key



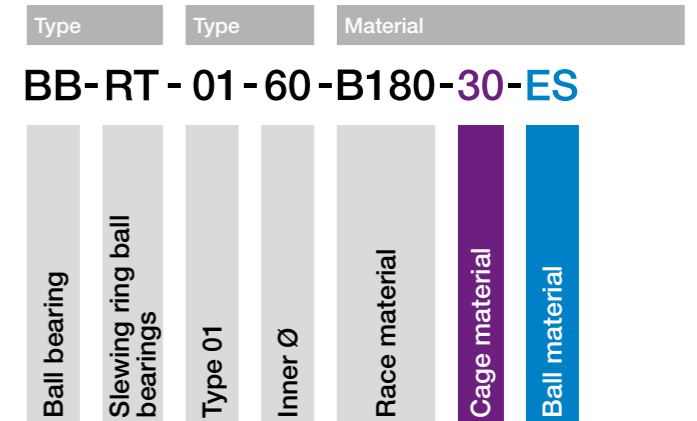
BB-RT-01-60-ES

Options:

- Cage material**
- 30** : xirodur® B180
- Ball material**
- ES** : Stainless steel
- GL** : Glass



Order key with cage



BB-RT-01-60-B180-30-ES

Dimensions [mm]

d	d1	D	D1	h	H	T	k1	k2	Part No.
Standard with stainless steel or glass balls									
60	68	100	90	2.5	17.5	60	3.3	3.3	BB-RT-01-60- <input type="text"/>
100	110	160	150	5.0	20.0	60	5.2	5.2	BB-RT-01-100- <input type="text"/>
Slewing ring ball bearings with xirodur® B180 cage									
40	47	80	72	2.5	15	60	3.3	3.2	BB-RT-01-40-B180-30-ES
60	68	100	90	2.5	17.5	60	3.3	3.3	BB-RT-01-60-B180-30-ES
100	110	160	150	5.0	20	60	5.2	5.2	BB-RT-01-100-B180-30-ES
150	163	210	197	5.0	22.5	60	6.1	6.1	BB-RT-01-150-B180-30-ES
Slewing ring ball bearings with outer drive ring and cage									
60	68	100	90	2.5	17.5	60	M3	3.3	BB-RT-01-60HDT5-B180-30-ES
Slewing ring ball bearings with outer drive ring without cage									
60	68	100	90	2.5	17.5	60	M3	3.3	BB-RT-01-60HDT5-B180-30-ES



Available from stock



Order key

Type	Material
------	----------

BB-FL-608-B180-30-ES

Ball bearing	Fixed flange ball bearings	Dimensions according to DIN 625-1	Housing material	Cage material	Ball material
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Cage material

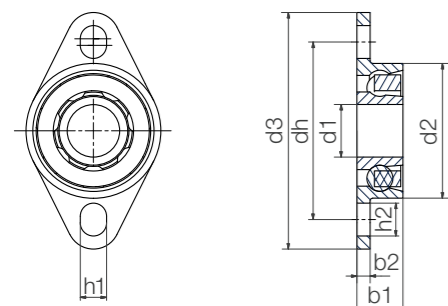
30 : xirodur® B180

Ball material

ES : Stainless steel

xirodur® B180 cage
Stainless steel balls

- For less precise holding fixtures



Technical data

Installation size	Radial load capacity		Limit speed [rpm]	Weight B180/ES [g]
	stat. [N]	dyn. [N]		
626	60	62	3,200	2.89
608	80	92	2,200	3.65
6000	110	130	2,200	6.49
6001	130	147	2,000	7.68
6003	160	220	1,600	11.13
6004	250	320	1,400	25.06

Dimensions [mm]

d1	d2	d3	b1	b2	DH	h1	h2	Part No.
6	19	33.5	6	2	25	3	4.5	BB-FL-626-B180-30-ES
8	20.7	35.8	7	2	26.8	4	5	BB-FL-608-B180-30-ES
10	26	41	8	2	32	4	5	BB-FL-6000-B180-30-ES
12	28	44	8	2	35	4	5	BB-FL-6001-B180-30-ES
17	35	54	10	2.5	44	4	6	BB-FL-6003-B180-30-ES
20	42	84	12	4	63	8	12	BB-FL-6004-B180-30-ES



Order example:

BB-FL-608-B180-30-ES = Fixed flange ball bearing with housing material xirodur® B180, xirodur® B180 cage and stainless steel balls



Available from stock



Order key

Type	Material
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ESTM-BB1-F 25-B180-ES-SL

Pillow block bearing	Ball bearing, single row	Fixed version	Inner Ø	Race/cage material	Ball material	Slim Line
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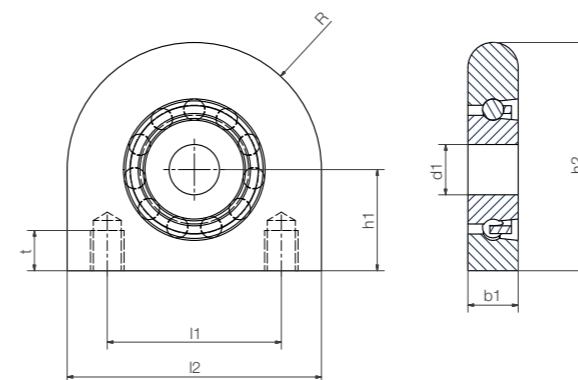
Race/cage material

B180 : xirodur® B180

Ball material

ES : Stainless steel

- Easy to assemble with integrated thread
- Suitable for contact with food
- Operating temperature: from -40°C up to +80°C



Technical data

Type	Load capacity, radial		Limit speed [rpm]	Weight ES [g]
	stat. [N]	dyn. [N]		
ESTM-F15	270	350	1,250	86
ESTM-F17	280	360	1,200	85
ESTM-F20	290	370	1,150	83
ESTM-F25	480	520	850	119
ESTM-F30	500	550	840	163

Dimensions [mm]

d1	b1	h1	h2	l1	l2	R	Thread	t	Part No.
15	15	30.2	68.2	52	76	38	M10	12	ESTM-BB1-F15-B180-ES-SL
17	15	30.2	68.2	52	76	38	M10	12	ESTM-BB1-F17-B180-ES-SL
20	15	30.2	68.2	52	76	38	M10	12	ESTM-BB1-F20-B180-ES-SL
25	17	36.5	78.5	56	84	42	M10	15	ESTM-BB1-F25-B180-ES-SL
30	19	42.9	89.9	66	94	47	M14	18	ESTM-BB1-F30-B180-ES-SL



Order example:

ESTM-BB1-F25-B180-ES-SL = pillow block ball bearing with race material xirodur® B180, xirodur® B180 cage, stainless steel balls, Slim Line version



Available from stock



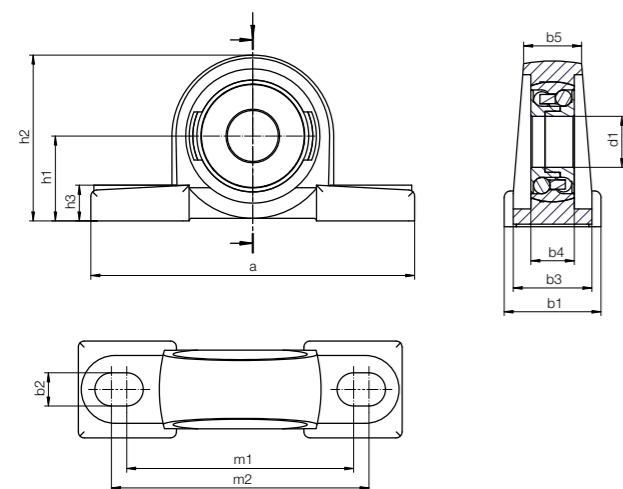
Order key

Type	Material
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P204-BB-6004-B180-ES

Pillow block bearing	Ball bearing	Installation size	Race/cage material	Ball material
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Race/cage material
B180 : xirodur® B180
Ball material
ES : Stainless steel



Technical data

Type	Load capacity [N]	Limit speed [rpm]	Weight ES [g]
P204	310	1,200	524
P205	400	1,000	598
P206	480	850	1,082

Technical data

d1	b1	b2	b3	b4	b5	h1	a	h2	h3	m1	m2	Part No.
20	38	13	30.9	17	22.7	33.3	127	65	14	89	101	P204-BB-6004-B180-ES New
25	38	13	30.9	17	23.3	36.5	140	71	15	99	111	P205-BB-6005-B180-ES New
30	48	17	39.0	19	25.3	42.9	165	83	17	117	125	P206-BB-6006-B180-ES New



Order key

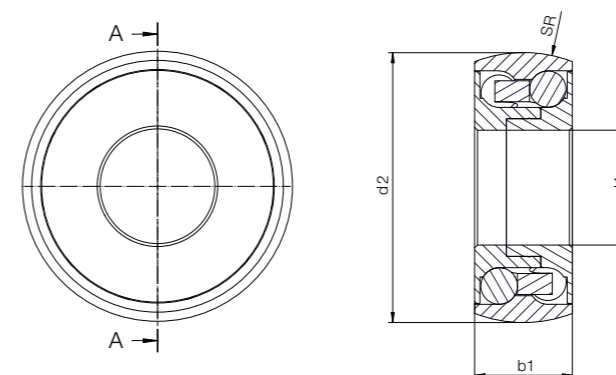
Type	Material
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BB-6004 SO-B180-ES-D

Ball bearing	Installation size	Spherical	Race/cage material	Ball material	Double row
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Race/cage material
B180 : xirodur® B180
Ball material
ES : Stainless steel

- One-to-one replacement of metallic ball bearings in common UC pillow block sizes
- Smooth operation
- Operating temperature: from -40°C up to +80°C



Technical data

d1	d2	b1	Load capacity [N]	Limit speed [rpm]	Weight ES [g]	Part No.
20	65	38	310	1,200	44.9	BB-6004SO-B180-ES-D New
25	71	38	400	1,000	58.4	BB-6005SO-B180-ES-D New
30	83	48	480	850	82.3	BB-6006SO-B180-ES-D New

Fixed version



igumid® G housing, PA cage, stainless steel balls

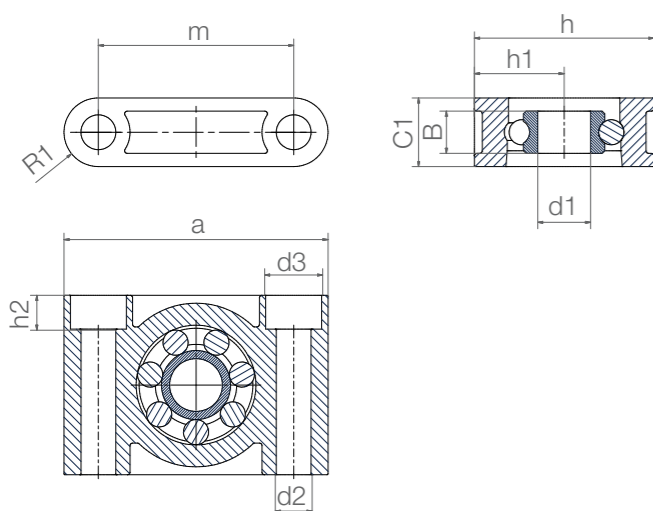
igumid® G housing, PA cage, glass balls

- Good resistance to chemicals and seawater
- Smooth operation
- Operating temperature: from -40°C up to +80°C

Order key

Type	Material
ESTM-BB1- F 06-B180-ES	
Pillow block bearing	
Ball bearing, single row	
Fixed version	
Inner Ø	
Race material	
Ball material	

Race material
B180 : xirodur® B180
Options:
Ball material
ES : Stainless steel
GL : Glass



Technical data

Type	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]
ESTM-F06	41	43	2,600	7.7	6.7
ESTM-F10	110	130	1,900	20.2	18.2
ESTM-F20	250	320	1,150	54.1	47.7

Dimensions [mm]

Inner Ø d1	Hole Ø d2	d3	h	h1	h2	a	m	C1	B	R1	Part No.
6	5.5	-	22	11	-	36	26	10	6	5.0	ESTM-BB1-F06-B180-□
10	6.6	10.6	34	17	6.6	50	37	13	8	6.5	ESTM-BB1-F10-B180-□
20	9.0	14.0	48	24	8.6	72	54	18	12	9.0	ESTM-BB1-F20-B180-□

Order example:
ESTM-BB1-F06-B180-ES = Pillow block bearing, fixed version, made from xirodur® B180 with stainless steel balls

Available from stock

Pivoting version



igumid® G housing, PA cage, stainless steel balls

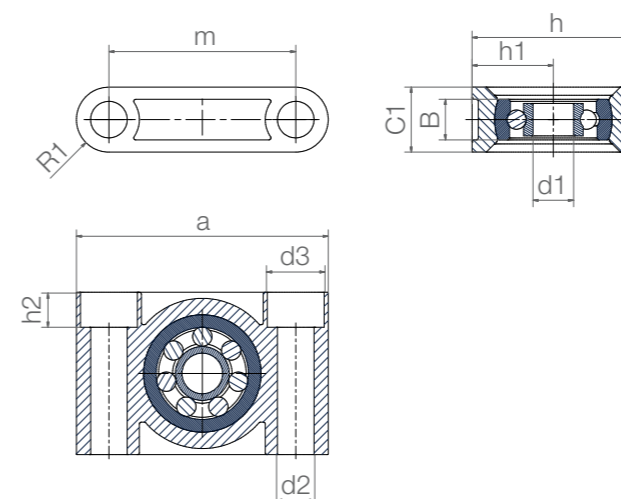
igumid® G housing, PA cage, Glass balls

- Self-aligning
- Good resistance to chemicals and seawater
- Spherical ball bearing
- Operating temperature: from -40°C up to +80°C

Order key

Type	Material
ESTM-BB1- P 08-B180-ES	
Pillow block bearing	
Ball bearing, single row	
Fixed version	
Inner Ø	
Race material	
Ball material	

Race material
B180 : xirodur® B180
Options:
Ball material
ES : Stainless steel
GL : Glass



Technical data

Type	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]
ESTM-P08	80	94	2,200	19.6	18.2
ESTM-P10	110	130	1,900	32.9	30.3
ESTM-P12	130	147	1,750	54.8	52.8

Dimensions [mm]

Inner Ø d1	Hole Ø d2	d3	h	h1	h2	a	m	C1	B	R1	Max. pivot angle	Part No.
8	6.6	10.6	34	17	6.4	50	37	13	8	6.5	±5°	ESTM-BB1-P08-B180-□
10	9.0	14.0	40	20	8.6	62	46	16	10	8	±5°	ESTM-BB1-P10-B180-□
12	9.0	14.0	48	24	8.6	72	54	18	12	9	±5°	ESTM-BB1-P12-B180-□

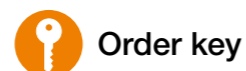
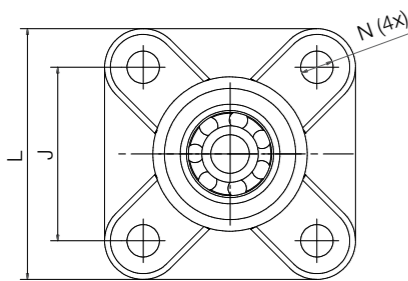
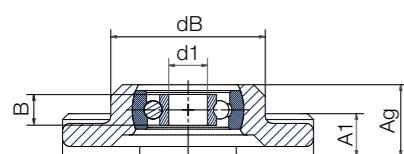
Order example:
ESTM-BB1-P08-B180-ES = Pillow block bearing, pivoting version, made from xirodur® B180 with stainless steel balls

Available from stock



igumid® G housing,
PA cage,
stainless steel balls or
glass balls

- Compensation of misalignment



Order key

Type Material

EFSM-BB1- P 08-B180-ES

Four-hole fixed flange ball bearings	Ball bearing, single row	Pivoting version	Inner Ø	Race material	Ball material
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Race material

B180 : xirodur® B180

Options:

Ball material

ES : Stainless steel

GL : Glass

Technical data

Type	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]
EFSM-P08	80	94	2,200	25.2	24.0
EFSM-P10	110	130	1,900	48.8	46.2
EFSM-P12	130	147	1,750	80.0	77.7

Dimensions [mm]

Inner Ø d1	dB d2	L	J	A1	Ag	B	N	Max. pivot angle	Part No.
8	32.5	52	36	9	15.5	7	6.4	±20°	EFSM-BB1-P08-B180-□
10	40.0	65	45	11	18.5	8	8.4	±20°	EFSM-BB1-P10-B180-□
12	48.5	74	52	14	23.5	8	8.4	±20°	EFSM-BB1-P12-B180-□



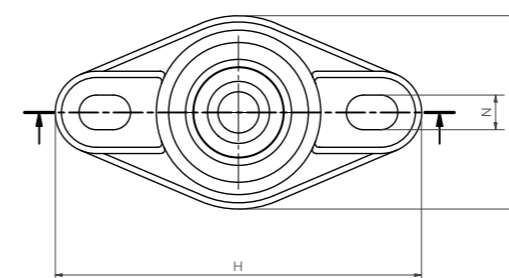
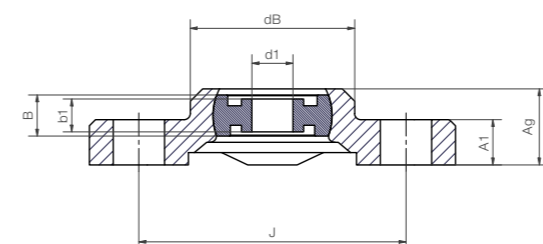
Order example:

EFSM-BB1-P08-B180-ES = 4-hole fixed flange ball bearing with race material xirodur® B180 and stainless steel balls

Available
from stock

igumid® G housing,
PA cage,
stainless steel balls or
glass balls

- Trouble-free readjustment thanks to elongated holes
- Precise alignment of the bearings not necessary



Order key

Type Material

EFOM-BB1- P 08-B180-ES

2-hole fixed flange ball bearings	Ball bearing, single row	Pivoting version	Inner Ø	Race material	Ball material
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Race material

B180 : xirodur® B180

Options:

Ball material

ES : Stainless steel

GL : Glass

Technical data

Type	Radial load capacity		Limit speed [rpm]	Weight	
	stat. [N]	dyn. [N]		B180/ES [g]	B180/GL [g]
EFOM-P08	80	94	2,200	19.5	18.1
EFOM-P10	110	130	1,900	36.3	33.6
EFOM-P12	130	147	1,750	61.7	59.4

Dimensions [mm]

Inner Ø d1	b1	dB d2	H	L	J	A1	Ag	B	N	Max. pivot angle	Part No.
8	7	32.0	72.6	38	53	10	15.25	8.0	6.4x10.1	±20°	EFOM-BB1-P08-B180-□
10	8	40.0	89.1	47	65	11	18.5	9.9	8.4x12.5	±20°	EFOM-BB1-P10-B180-□
12	9	48.5	101.0	58.5	75	14	23.5	12.0	8.4x12.5	±20°	EFOM-BB1-P12-B180-□



Order example:

EFOM-BB1-P08-B180-ES = 2-hole fixed flange ball bearing with race material xirodur® B180 and stainless steel balls

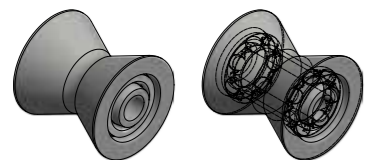
Available
from stock



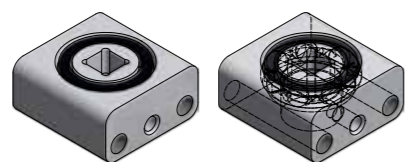
Infinite possibilities

Customised & cost-effective: your polymer ball bearing in the required design, material and quantity.

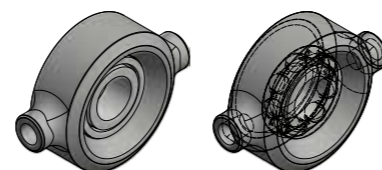
- Machined or injection-moulded
- Square or round
- With flange, outer toothed profile, etc.
- In customised quantity
- Lubrication and maintenance-free
- Cost-effective
- Select from different xirodur® materials



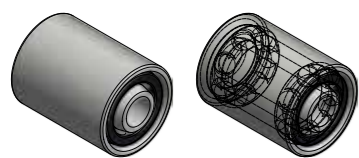
Guide roller for rubber seals in car production: which replaced a special unavailable roller



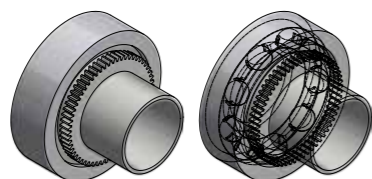
Non-magnetic for drylin® linear guide: design of a ball bearing with square housing, square shaft and glass balls



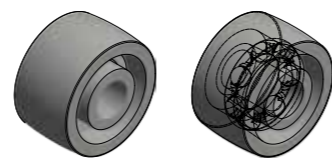
Consumer product camera stabilizer: injection-moulded special parts to improve engineered solution



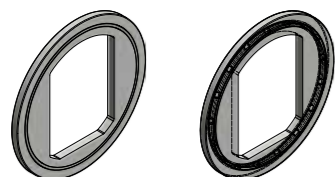
Blood pumps (peristaltic): lubrication-free and longer service life



Gear-driven shaft: one-part solution for full integration



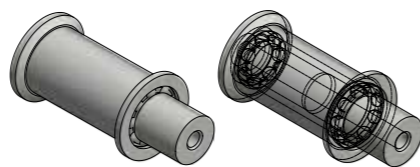
Roller for belt guide in ATM cash machines



Tension rollers in rubber production



Bearings for cash machines: lubrication-free and integration of 2 rubber rings for better paper grip



Tension roller for tape deflection: one-part solution (6 in 1)

In 3 steps to your individual ball bearing

1. Submit an enquiry

Fill in the form with some basic information: quantity and requirement, such as food contact, dirt resistance, etc. and upload the CAD files, for example.

After one of our specialists has contacted you for a consultation, you will receive a quotation.

2. We manufacture your required component

Upon order, igus® starts the production process.

3. You receive your product

Your required component is ready to ship and delivered quickly.

Submit an enquiry:

► www.igus.eu/xiros-specialparts

igus® test laboratory

The material combinations included in xiros® ball bearings are subjected to a large number of load and speed tests in the igus® test laboratory. The test results can be used to determine service life and suitability for both standard and special parts.

