

# xiros®

Polymer ball bearings



# ...plastics

### Labeling machine

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





**Thermoforming machine**

In this thermoforming machine for coffee-cream portion packs, xiros® A500 plastic ball bearings are used for their high chemical resistance. (frischli Milchwerke GmbH)



**Bike wash 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.



**Wet film thickness gauge**

This precision tester for accurate and rapid measurement of all liquid paint, coatings, oil coatings and adhesives is equipped with a durable and solvent-resistant xiros® B180 polymer ball bearing.



**Film guide rollers**

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



**Pellet ovens**

Two self-lubricating polymer ball bearings are used in the mechanical drive unit. These ensure that the pellets are fed into the combustion chamber via the roller. (Erwin Koppe – Keramische Heizgeräte GmbH)



**Pool cleaner**

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



# xiros® polymer ball bearings | Product overview

## xiros® radial deep groove ball bearings – standard product range



**The classic:**

PA cage  
Inch

► Page 1014



**The classic:**

PA cage  
metric

► Page 1016



FDA

**Cost-effective  
and FDA-compliant:**  
B180 cage

► Page 1016



FDA

**FDA-compliant:**  
PE cage

► Page 1016



**With shield or labyrinth seal:**  
LCC with B180 cage

► Page 1022

## xiros® radial deep groove ball bearings – standard product range



**Lightweight and  
non-metallic:**

xirodur A500, PAI balls

► Page 1034



**Anti-static:**

xirodur F180,  
PA cage

► Page 1038



FDA

**Anti-static and  
FDA-compliant:**

xirodur F180, PE cage

► Page 1038



**Conductive:**

xirodur F182,  
PA cage

► Page 1040

## xiros® radial deep groove ball bearings with flange and guide rollers



**Single flange:**

xirodur B180,  
PA cage

► Page 1046



**With double flange:**

xirodur B180,  
PA cage

► Page 1046



**Antistatic:**

xirodur F180,  
PA cage

► Page 1046



**Guide roller:**

Aluminium tube

► Page 1046

## xiros® – other designs



**With profile:**

xirodur B180

► Page 1054



**Spherical radial deep  
groove ball bearings:**

xirodur B180

► Page 1055



**Double row for  
higher loads:**

xirodur B180

► Page 1056



**Multi-axis bearing:**

xirodur B180,  
PP balls

► Page 1057

## xiros® thrust bearings and slewing ring bearings



**Single row:**

xirodur B180,  
glass or stainless steel balls

► Page 1062



**Double row:**

xirodur B180,  
glass/PAI/stainless steel balls

► Page 1062



**Thrust bearing:**

xirodur B180,  
glass or stainless steel balls

► Page 1063



**Slewing ring bearing:**

xirodur B180,  
with gear teeth or with cage

► Page 1064



**Cost-effective, black:**  
xirodur S180,  
PA cage  
▶ Page 1024



**High resistance to chemicals:**  
xirodur C160, PP cage  
▶ Page 1030



**For high temperatures up to +248°F:**  
xirodur A500, PA cage  
▶ Page 1034



**For heat and chemicals: up to 302°F**  
xirodur A500, PEEK cage  
▶ Page 1034

## xiros® radial deep groove ball bearings – further materials



**High speeds:**  
xirodur D180, PA cage  
▶ Page 1042



**FDA**

**Detectable:**  
xirodur M180  
xirodur M180 cage  
▶ Page 1043



**For the tobacco industry:**  
xirodur T220,  
PP cage  
▶ Page 1044



**For temperatures up to +248°F:**  
xirodur G220, PP cage  
▶ Page 1045



**Guide roller:**  
Plastic approved for food contact  
▶ Page 1049



**Guide roller:**  
Carbon fiber tube with ball bearing  
▶ Page 1050



**End caps:**  
xirodur B180,  
PA cage  
▶ Page 1052



**Skate wheel:**  
xirodur B180,  
PA cage  
▶ Page 1058



**Fixed flange ball bearing, FDA-compliant, fixed version:** xirodur B180  
▶ Page 1059



**Polymer ball transfer units:**  
xirodur B180, POM balls  
▶ Page 1060



**Axial polymer ball transfer units:**  
with spherical roller  
▶ Page 1061

## xiros® combinations with igubal®



**FDA**

**Pillow block ball bearing, FDA-compliant, fixed version:** xirodur B180  
▶ Page 1066



**Pillow block ball bearing, fixed or pivoting**  
▶ Page 1068



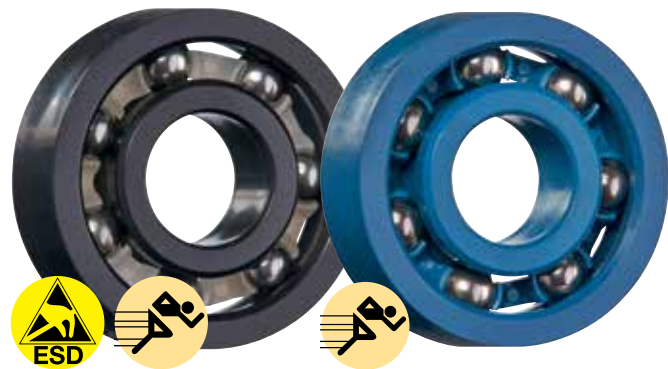
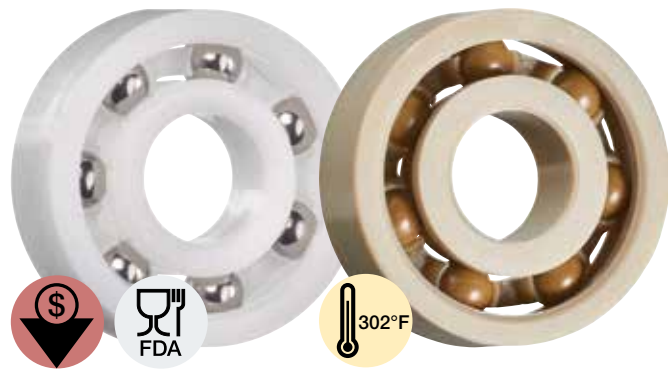
**4-hole fixed flange ball bearing, pivoting**  
▶ Page 1070



**2-hole fixed flange ball bearing, pivoting**  
▶ Page 1071

# xiros® polymer ball bearings | Advantages

Self-lubricating and maintenance-free



## Self-lubricating polymer ball bearings

xiros® polymer ball bearings revolutionize the ball bearing market. Where conventional metallic ball bearings are suitable, many applications can be successfully realized by their maintenance-free dry operation and the use of xirodur high-performance polymers.

- Self-lubricating and maintenance-free
- Corrosion-resistant
- Non-metallic with glass and plastic ball options
- For temperatures up to +302 °F (depending on material)
- High media resistance, suitable for washdown
- Lightweight
- Electrically insulating (or ESD-compliant)
- 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. +302 °F

min. -148 °F



10 xirodur materials

Ø 3-60mm



Service life calculation

► [www.igus.com/xiros-expert](http://www.igus.com/xiros-expert)

# xiros® polymer ball bearings | Product overview

## Overview types



### xiros® radial deep groove ball bearings – standard product range for 6 materials:

- xirodur B180 – cost-effective standard
  - xirodur S180 – cost-effective, black
  - xirodur C160 – resistant to chemicals
  - xirodur A500 – for heat and chemicals
  - xirodur F180 – antistatic
  - xirodur F182 – conductive
  - xirodur D180 – high speeds
- From page 1014



### xiros® radial deep groove ball bearings – materials for special applications

- xirodur M180 – detectable
  - xirodur T220 – for the tobacco industry
  - xirodur G220 – for temperatures up to +248 °F
- From page 1043



### xiros® radial deep groove ball bearings with flange and guide rollers

- With single or double flange
  - Made from xirodur B180 or F180
  - xiros® system solution: Aluminum, PVC or carbon fiber tube with 2 fixed flange ball bearings
- From page 1046



### xiros® radial deep groove ball bearings – further designs

- With spherical outer diameter
  - Double row for higher loads
  - Multi-axis bearing for rotary and linear movements
- From page 1054



### xiros® thrust bearings

- For absorbing axial loads
  - xirodur B180 with glass or stainless steel balls
- From page 1062



### xiros® slewing ring bearing

- With glass or stainless steel balls
  - Outer toothed profile
  - With cage
- From page 1064



### xiros® combinations with igubal®

- Fixed or pivoting versions
  - For maintenance-free use in conveyor belts and cam rollers
- From page 1068

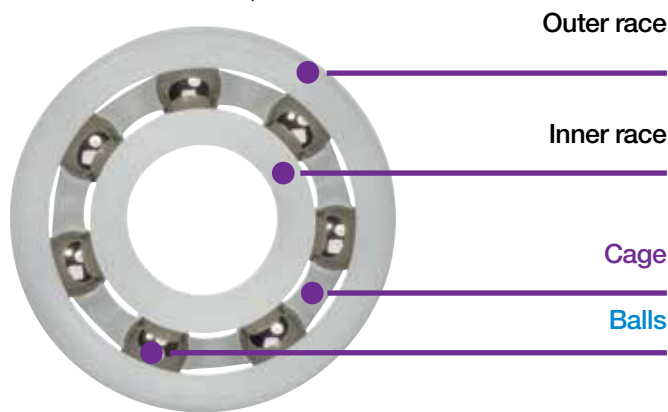


## Radial deep groove ball bearings design

The xiros® polymer ball bearings are single-row deep groove ball bearings based on DIN 625. The self-lubricating 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 maximize service life and minimize friction. Choice of 5 materials. They allow different values of application temperature, media resistance and price. The table of materials ► **Page 1010** 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 inertia, weight and chemical resistance. Stainless steel balls (316 SS) 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 designs

### xiros® radial deep groove ball bearings

The other designs include:

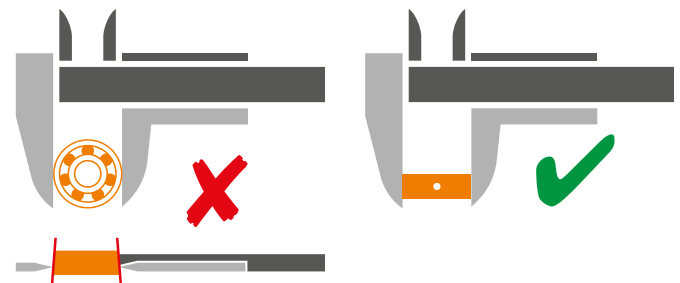
- Convex rollers which can run directly on a profile
- Profiled rollers, e.g. for thread/cable guidance
- Thrust and slewing ring bearings for absorbing axial loads
- Multi-axis bearings for linear and radial movements
- Ball bearings designed e.g. for installation in tube ends (also for guide rollers)
- 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.

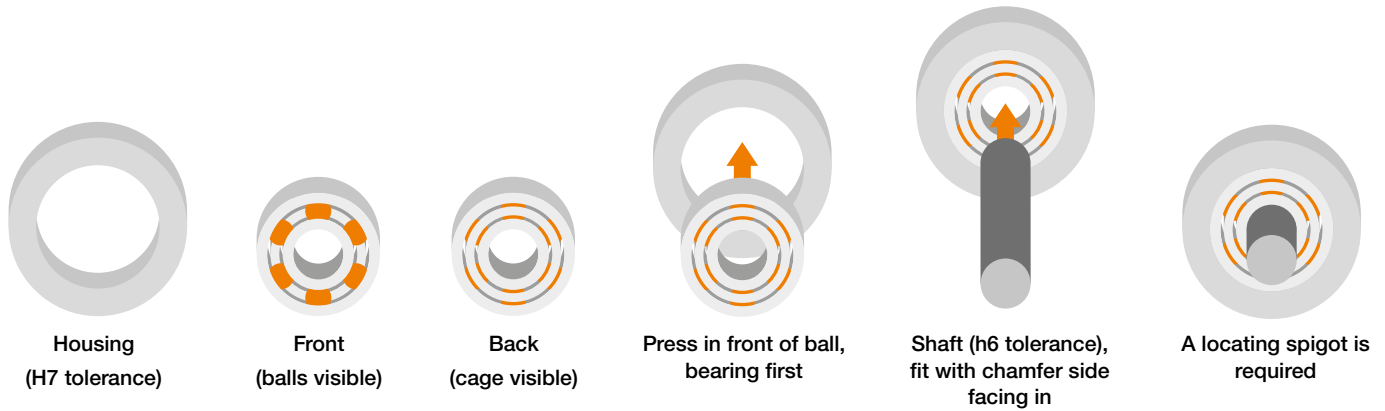
## Measurement requirement for injection-molded xiros® polymer ball bearings

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.





# xiros® polymer ball bearings | Technical data



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 optimized. 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

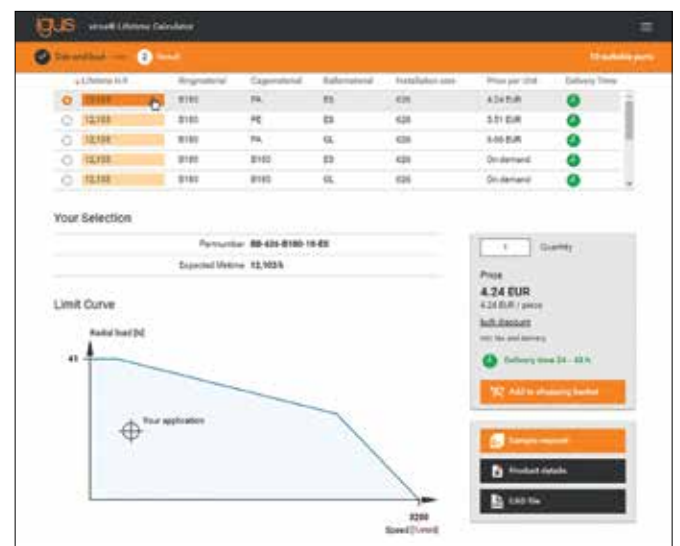
## Predictability

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.com/xiros-expert](http://www.igus.com/xiros-expert)



Download the online tool app now



# xiros® polymer ball bearings | Technical data

## Material properties and chemical resistance

General properties	Unit	xirodur			
		B180	S180	C160	A500
Density	g/cm <sup>3</sup>	1.41	1.40	1.11	1.30
Color		white	black	opaque	brown
Max. moisture absorption at +73 °F/50 % r.h.	% weight	0.2	0.2	0.1	0.1
Max. total moisture absorption	% weight	0.7	0.7	0.2	0.4
Mechanical properties					
Flexural modulus	psi	362,594	391,602	275,572	623,662
Flexural strength at +68 °F	psi	9,863	9,427	5,076	18,855
Shore D hardness		77	78	67	85
Electrical properties					
Specific volume resistance <sup>1)</sup>	Ωcm	> 10 <sup>14</sup>	> 10 <sup>13</sup>	> 10 <sup>14</sup>	> 10 <sup>14</sup>
Surface resistance <sup>1)</sup>	Ω	> 10 <sup>14</sup>	> 10 <sup>13</sup>	> 10 <sup>14</sup>	> 10 <sup>14</sup>
Thermal properties of xiros® polymer ball bearings <sup>1)</sup>					
Max. long-term application temperature	°F	+176	+176	+140	+302 (PEEK) +248 (PA)
Min. long-term application temperatures (in combination with cage material)	°F	-40	-49	0	-148 (PEEK) -40 (PA)

<sup>1)</sup> Depending on the geometry

**Table 01: Material data**

Medium	xirodur			
	B180	S180	C160	A500
Alcohols	+	+	+	+
Greases, oils without additives	+	+	+	+
Hydrocarbons	+	+	+ up to 0	+
Fuels	+	+	+ up to 0	+
Strong alkali	+ up to 0	+ up to 0	+	+
Strong acid	-	-	+ up to 0	+
UV radiation	-	0	0	+
Diluted base	+	+	+	+
Diluted acid	0 to -	0 to -	+	+

+ resistant 0 conditionally resistant - not resistant

**Table 02: Chemical resistance of xiros® materials**

Detailed chemicals resistance table for xiros® products ► From page 1762

## 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.

xirodur							igumid
F180	F182	D180	M180	T220	G220	G	
1.36	1.42	1.22	1.67	1.28	1.14	1.37	
black	black	blue	blue	beige	grey	black	
0.2	0.2	0.5	0.2	0.3	2.1	1.4	
1.3	0.7	1.4	0.6	0.5	8.9	5.6	
232,060	435,113	19,580	362,594	261,068	435,113	1,131,294	
10,153	13,779	n.a.	9,863	9,427	n.a.	34,809	
79	79	48	77	76	n.a.	79	
$< 10^{12}$ <sup>1)</sup>	$< 10^4$	$> 10^{14}$	$> 10^9$	$> 10^{10}$	$> 10^{13}$	$> 10^{11}$	
$< 10^{12}$ <sup>1)</sup>	$< 10^4$	$> 10^{14}$	$> 10^9$	$> 10^{10}$	$> 10^{12}$	$> 10^{11}$	
+176	+176	+176	+176	+212	+212	+248	
-40	-40	-58	-40	-40	-40	-40	

xirodur							igumid
F180	F182	D180	M180	T220	G220	G	
+	+	+ up to 0	+	+	0	+	
+	+	+	+	+	+	+	
+	+	+	+	+	+	+	
+	+	+	+	+	+	+	
+ up to 0	+ up to 0	+ up to 0	+ up to 0	+ up to 0	+ up to 0	-	
-	-	0	-	-	-	+ up to 0	
0	0	-	-	+	-	-	
+	+	+ up to 0	+	+	+	0 to -	
0 to -	0 to -	+ up to 0	0 to -	0 to -	0 to -	+	

## Ball materials

Description	Specification
ES: stainless steel	316 SS
GL: glass	Soda-lime glass or borosilicate glass
PAI: Plastic	Polyamide-imide
PP: Plastic	Polypropylene



# xiros® polymer ball bearings | Selection guide

## According to material properties

xirodur	B180					S180	C160	
Cage material	PA		B180		PE	PA	PP	
Ball material	ES	GL	ES	GL	ES	ES	ES	GL
<b>Descriptive technical specifications</b>								
Smooth running	●	●	●	●	●	●	●	●
Low moisture absorption	●	●	●	●	●	●	●	●
Chemical resistance			●	●	●		●	●
Seawater-resistant			●	●			●	●
Dirt-resistant	●	●	●	●	●	●	●	●
Higher temperatures								
Higher speeds								
Cost-effective			●	●		●		
<b>Approvals and standards</b>								
For contact with food			●		●			
Antistatic								
Conductive								
Non-metallic		●		●				●
Detectable								
<b>Availabilities / variants</b>								
Radial deep groove ball bearings	●	●	●	●	●	●	●	●
Radial deep groove ball bearings with flange	●	●	●	●				
End cap	●	●						
Spherical outer diameter	●	●						
Double row	●	●						
Slewing ring bearing			●					
Thrust bearing			●	●				

A500					F180		F182	D180	M180	T220	G220
PA		PEEK			PA	PE	PA	PA	M180	PP	PA
ES	GL	ES	GL	PAI	ES	ES	ES	ES	ES	ES	ES
●	●	●	●	●	●	●	●		●	●	
●	●	●	●	●	●	●	●		●	●	
		●	●	●							
		●	●								
●	●	●	●	●	●	●	●		●	●	
●	●	●	●	●							●
								●			
		●				●			●		
					●	●					
							●				
	●		●	●							
									●		
●	●	●	●	●	●	●	●	●	●	●	●
					●						
									●		

# xiros® radial deep groove ball bearings | Product range

## xirodur B180 – cost-effective standard, inch



PA cage,  
stainless steel balls



PA cage,  
glass balls

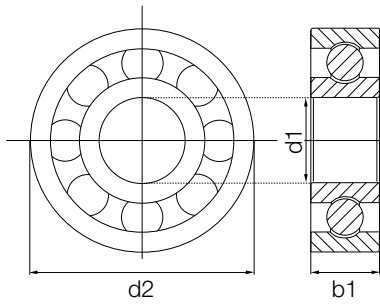


Special designs made from xirodur B180  
► From page 1055

### Dimensions [inch]

Part No.	Race	Cage	Balls		Inner Ø	Outer Ø	Width
			ES	GL			
BB-I-0620-06-B180-10- <input type="checkbox"/>	B180	PA	316 SS	Glass	3/16	5/8	10/51
BB-I-0820-06-B180-10- <input type="checkbox"/>	B180	PA	316 SS	–	1/4	5/8	10/51
BB-I-0824-07-B180-10- <input type="checkbox"/>	B180	PA	316 SS	Glass	1/4	3/4	7/32
BB-I-1228-09-B180-10- <input type="checkbox"/>	B180	PA	316 SS	–	3/8	7/8	5/16
BB-I-1236-12-B180-10- <input type="checkbox"/>	B180	PA	316 SS	Glass	3/8	1 1/8	3/8
BB-I-1636-12-B180-10- <input type="checkbox"/>	B180	PA	316 SS	Glass	1/2	1 1/8	3/8
BB-I-2044-12-B180-10- <input type="checkbox"/>	B180	PA	316 SS	Glass	5/8	1 3/8	3/8
BB-I-2452-16-B180-10- <input type="checkbox"/>	B180	PA	316 SS	Glass	3/4	1 5/8	1/2
BB-I-3264-12-B180-10- <input type="checkbox"/>	B180	PA	316 SS	Glass	1	2	1/2





## Order key

Type		Material	
<b>BB-I-0620-06-B180-ES</b>			
Ball bearings	Inch	Size	Width (based on 1/32")
		Cage material	Ball material

## Options:

Cage material

10 = PA

Ball material

ES = Stainless steel

GL = Glass

## Technical data

Size	Max. stat. axial load capacity [lbs]	Load capacity		Max. speed [rpm]	Weight	
		stat.	dyn.		ES	GL
		[lbs]	[lbs]		[g]	[g]
0620	7.5	10.0	11.0	3,700	1.6	1.0
0820	8.5	10.5	11.0	3,500	1.3	-
0824	11	13.0	16.5	3,200	1.6	1.0
1228	12	15.5	20.0	2,200	3.9	-
1236	16.5	30.0	33.5	1,050	4.9	2.9
1636	16.5	30.0	33.5	2,000	7.6	5.2
2044	17.5	38.0	43.0	1,600	11.0	7.9
2452	18	58.0	65.0	1,400	20.1	13.6
3264	19	61.5	71.5	1,050	27.3	21.3

xirodur B180 cage,  
stainless steel ballsxirodur B180 cage,  
glass ballsPA cage,  
stainless steel ballsPA cage,  
glass ballsPE cage,  
stainless steel balls

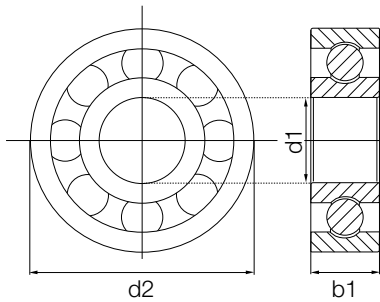
Special designs made from xirodur B180  
► From page 1055

## Dimensions [mm]

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



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



## Order key

Type	Material
<b>BB-623-B180-10-ES</b>	
Ball bearings	
Dimensions according to DIN 625-1	
Face material	
Cage material	
Ball material	

## Options:

## Cage material

10 = PA

30 = xirodur B180

50 = PE

## Ball material

ES = Stainless steel

GL = Glass

## Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight				
	stat. [lbs]	dyn. [lbs]		B180/ES [g]	B180/GL [g]	PA/ES [g]	PA/GL [g]	PE/ES [g]
623	5.5	7.5	4,500	0.37	0.31	0.40	0.32	0.39
633	7.0	10.0	4,000	0.83	0.64	-	-	-
684	2.0	2.0	4,600	0.26	0.20	-	-	-
694	2.5	3.0	4,000	0.42	0.35	-	-	-
604	6.5	7.0	3,600	0.65	0.45	-	-	-
624	7.0	10.0	4,000	0.79	0.60	0.85	0.62	0.83
634	8.5	8.5	3,700	1.50	1.00	-	-	-
685	2.5	3.0	4,000	0.45	0.37	-	-	-
695	6.5	6.5	3,500	0.73	0.53	-	-	-
605	7.0	7.0	3,500	0.96	0.77	-	-	-
625	8.5	8.5	3,700	1.42	0.96	1.55	1.01	1.52
635	9.0	9.5	3,200	2.59	1.76	-	-	-
686	6.5	6.5	3,500	0.76	0.57	-	-	-
696	6.5	6.5	3,500	1.05	0.85	-	-	-
606	11.0	11.5	3,300	1.89	1.25	-	-	-
626	13.0	13.5	3,200	2.06	1.60	2.44	1.69	2.35
636	17.5	21.0	2,200	3.96	2.71	-	-	-
687	7.0	7.5	3,200	0.80	0.61	-	-	-
697	8.5	9.0	3,000	1.47	1.05	-	-	-
607	9.0	9.5	3,200	1.97	1.52	-	-	-
627	17.5	21.0	2,400	3.85	2.60	-	-	-
688	8.5	9.0	3,000	1.17	0.76	1.19	0.75	-



Available from stock



### Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination				
				d1	d2	b1	B180/ES	B180/GL
BB-698-B180-30- <input type="text"/>	8	19	6	●	●	-	-	-
BB-608-B180- <input type="text"/> - <input type="text"/>	8	22	7	●	●	●	●	●
BB-628-B180-30- <input type="text"/>	8	24	8	●	●	-	-	-
BB-638-B180-30- <input type="text"/>	8	28	9	●	●	-	-	-
BB-689-B180-30- <input type="text"/>	9	17	5	●	●	-	-	-
BB-699-B180-30- <input type="text"/>	9	20	6	●	●	-	-	-
BB-609-B180-30- <input type="text"/>	9	24	7	●	●	-	-	-
BB-629-B180- <input type="text"/> - <input type="text"/>	9	26	8	●	●	●	-	-
BB-6800-B180-30- <input type="text"/>	10	19	5	●	●	-	-	-
BB-6900-B180-30- <input type="text"/>	10	22	6	●	●	-	-	-
BB-6000-B180- <input type="text"/> - <input type="text"/>	10	26	8	●	●	●	●	●
BB-6200-B180- <input type="text"/> - <input type="text"/>	10	30	9	●	●	●	●	-
BB-6300-B180- <input type="text"/> - <input type="text"/>	10	35	11	●	●	●	-	-
BB-6701-B180-30- <input type="text"/>	12	18	4	●	●	-	-	-
BB-6801-B180-30- <input type="text"/>	12	21	5	●	●	-	-	-
BB-6901-B180-30- <input type="text"/>	12	24	6	●	●	-	-	-
BB-6001-B180- <input type="text"/> - <input type="text"/>	12	28	8	●	●	●	●	●
BB-6201-B180- <input type="text"/> - <input type="text"/>	12	32	10	●	●	●	●	-
BB-6301-B180-30- <input type="text"/>	12	37	12	●	●	-	-	-
BB-6702-B180-30- <input type="text"/>	15	21	4	●	●	-	-	-
BB-6802-B180-30- <input type="text"/>	15	24	5	●	●	-	-	-
BB-6902-B180-30- <input type="text"/>	15	28	7	●	●	-	-	-
BB-6002-B180- <input type="text"/> - <input type="text"/>	15	32	9	●	●	●	●	●
BB-6202-B180- <input type="text"/> - <input type="text"/>	15	35	11	●	●	●	●	●
BB-6302-B180- <input type="text"/> - <input type="text"/>	15	42	13	●	●	●	-	-
BB-6703-B180-30-ES	17	23	4	●	-	-	-	-
BB-6803-B180-30- <input type="text"/>	17	26	5	●	●	-	-	-
BB-6903-B180-30-GL	17	30	7	-	●	-	-	-
BB-6003-B180- <input type="text"/> - <input type="text"/>	17	35	10	●	●	●	●	●
BB-6203-B180- <input type="text"/> - <input type="text"/>	17	40	12	●	●	●	●	-
BB-6303-B180-30- <input type="text"/>	17	47	14	●	●	-	-	-
BB-6704-B180-30- <input type="text"/>	20	27	4	●	●	-	-	-
BB-6804-B180-30- <input type="text"/>	20	32	7	●	●	-	-	-
BB-6904-B180-30-ES	20	37	9	●	-	-	-	-
BB-6004-B180- <input type="text"/> - <input type="text"/>	20	42	12	●	●	●	●	●
BB-6204-B180- <input type="text"/> - <input type="text"/>	20	47	14	●	●	●	●	-



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

## Technical data

Installation size	Radial load capacity		Max. speed	Weight				
	stat.	dyn.		B180/ES	B180/GL	PA/ES	PA/GL	PE/ES
	[lbs]	[lbs]	[rpm]	[g]	[g]	[g]	[g]	[g]
698	13.0	13.5	3,200	2.34	1.52	–	–	–
608	17.5	21.0	2,400	3.76	2.51	3.79	2.54	3.73
628	22.0	24.5	2,300	5.57	3.4	–	–	–
638	24.5	29.0	2,200	7.82	5.65	–	–	–
689	8.5	9.0	2,500	1.30	0.88	–	–	–
699	9.5	10.0	2,250	2.08	1.66	–	–	–
609	22.0	24.5	2,300	5.12	2.95	–	–	–
629	24.5	28.5	2,200	6.20	4.03	6.14	–	–
6800	9.5	10.0	2,250	1.56	1.07	–	–	–
6900	13.0	14.0	2,000	3.24	2.04	–	–	–
6000	24.5	29.0	2,200	5.98	3.83	5.95	3.78	5.98
6200	29.0	33.0	2,000	9.32	6.56	9.26	6.51	–
6300	31.0	33.5	1,800	13.83	11.02	13.75	–	–
6701	3.5	4.0	2,200	0.68	0.57	–	–	–
6801	13.0	14.0	2,000	1.82	1.40	–	–	–
6901	17.5	18.5	1,800	3.12	2.10	–	–	–
6001	29.0	33.0	2,000	6.36	4.18	6.78	4.34	6.66
6201	31.0	33.5	1,800	10.04	7.25	9.97	7.12	–
6301	35.5	49.0	1,600	15.69	12.90	–	–	–
6702	4.0	4.5	1,800	0.94	0.81	–	–	–
6802	17.5	18.5	1,800	2.46	1.46	–	–	–
6902	20.0	21.0	1,700	4.37	3.12	–	–	–
6002	31.0	33.5	1,800	8.68	5.92	8.72	6.23	8.60
6202	35.5	49.0	1,600	11.71	8.96	12.26	9.11	12.10
6302	56.0	71.5	1,400	10.56	3.95	10.49	–	–
6703	5.0	5.5	1,600	0.66	–	–	–	–
6803	20.0	21.0	1,700	2.83	1.65	–	–	–
6903	20.0	21.0	1,700	–	0.79	–	–	–
6003	35.5	49.0	1,600	10.23	7.45	10.72	7.61	10.55
6203	56.0	71.5	1,400	19.36	12.75	17.45	12.68	–
6303	62.5	80.5	1,200	21.68	13.60	–	–	–
6704	6.5	8.0	1,400	1.39	1.17	–	–	–
6804	22.0	26.5	1,500	5.19	3.59	–	–	–
6904	31.0	32.0	1,150	9.76	–	–	–	–
6004	56.0	71.5	1,400	20.81	12.93	19.46	12.89	19.44
6204	62.5	80.5	1,200	30.22	22.14	28.87	22.33	–



Available from stock

### Dimensions [mm]

Part No.	Inner Ø  d1	Outer Ø  d2	Width  b1	Cage/ball material combination				
				B180/ES	B180/GL	PA/ES	PA/GL	PE/ES
BB-6304-B180-30- <input type="text"/>	20	52	15	●	●	-	-	-
BB-6705-B180-30- <input type="text"/>	25	32	4	●	●	-	-	-
BB-6805-B180-30- <input type="text"/>	25	37	7	●	●	-	-	-
BB-6905-B180-30- <input type="text"/>	25	42	9	●	●	-	-	-
BB-6005-B180- <input type="text"/> - <input type="text"/>	25	47	12	●	●	●	●	●
BB-6205-B180- <input type="text"/> - <input type="text"/>	25	52	15	●	●	●	●	-
BB-6305-B180-30- <input type="text"/>	25	62	17	●	●	-	-	-
BB-6706-B180-30- <input type="text"/>	30	37	4	●	●	-	-	-
BB-6806-B180-30- <input type="text"/>	30	42	7	●	●	-	-	-
BB-6906-B180-30- <input type="text"/>	30	47	9	●	●	-	-	-
BB-16006-B180-10- <input type="text"/>	30	55	9	-	-	●	●	-
BB-6006-B180-10- <input type="text"/>	30	55	13	-	-	●	●	-
BB-6206-B180-30- <input type="text"/>	30	62	16	●	●	-	-	-
BB-6306-B180-30- <input type="text"/>	30	72	19	●	●	-	-	-
BB-6007-B180-10- <input type="text"/>	35	62	14	-	-	●	●	-
BB-6008-B180-10- <input type="text"/>	40	68	15	-	-	●	●	-
BB-6009-B180-10- <input type="text"/>	45	75	16	-	-	●	●	-
BB-6010-B180-10- <input type="text"/>	50	80	16	-	-	●	●	-
BB-6011-B180-10- <input type="text"/>	55	90	18	-	-	●	●	-
BB-6012-B180-10- <input type="text"/>	60	95	18	-	-	●	●	-



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

## Technical data

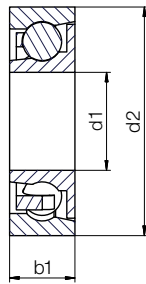
Installation size	Radial load capacity		Max. speed	Weight				
	stat.	dyn.		B180/ES	B180/GL	PA/ES	PA/GL	PE/ES
	[lbs]	[lbs]	[rpm]	[g]	[g]	[g]	[g]	[g]
6304	85.0	89.5	1,000	43.85	31.05	–	–	–
6705	7.0	8.5	1,200	1.58	1.40	–	–	–
6805	31.0	32.0	1,150	6.48	4.16	–	–	–
6905	35.5	36.0	900	4.49	4.49	–	–	–
6005	62.5	80.5	1,200	24.14	16.07	22.93	15.67	22.58
6205	69.5	83.0	1,000	35.99	27.92	34.82	27.51	–
6305	107.5	116.5	850	61.12	45.48	–	–	–
6706	7.5	9.0	1,000	1.76	1.59	–	–	–
6806	35.5	36.0	900	4.49	1.82	–	–	–
6906	42.5	43.0	850	13.15	10.13	–	–	–
16006	85.0	94.0	900	–	–	28.53	17.33	–
6006	85.0	89.5	1,000	–	–	34.15	22.70	–
6206	107.5	116.5	850	55.89	39.73	–	–	–
6306	116.5	148.0	750	27.00	8.52	–	–	–
6007	107.5	116.5	850	–	–	47.29	30.71	–
6008	116.5	148.0	750	–	–	54.84	38.73	–
6009	148.0	155.0	650	–	–	33.52	57.52	–
6010	166.0	175.0	600	–	–	82.33	54.00	–
6011	209.0	213.5	550	–	–	119.64	75.80	–
6012	222.5	236.0	500	–	–	126.66	80.54	–



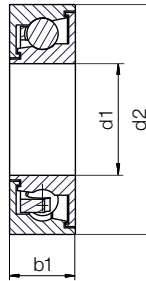
Available from stock



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



B180 cage, with labyrinth seal, stainless steel balls



### Dimensions [mm]

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

### Dimensions [mm]

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



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
<b>BB-623-B180-10-ES-C</b>	
Ball bearings	Dimensions according to DIN 625-1
Face material	Cage material
	Ball material
	With shield

## 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

## Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		stainless steel [g]	glass [g]
623	2.0	5.5	4,500	0.41	0.33
626	9.0	9.5	3,200	2.56	1.71
608	17.5	21.0	2,200	3.93	2.67
6000	24.5	29.0	2,200	6.21	4.15
6001	31.0	33.0	2,000	7.09	4.61
6202	31.5	34.5	1,700	12.73	9.63
6003	35.5	49.0	1,600	11.12	8.03
6004	56.0	71.5	1,400	20.20	13.60
6005	62.5	80.5	1,200	23.89	16.51

## With labyrinth seal

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		stainless steel [g]	glass [g]
6003	35.5	49.0	1,600	11.02	8.27



Available from stock



xirodur S180 – cost-effective, black

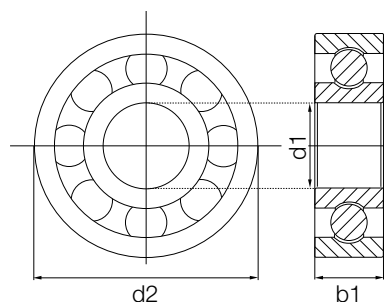
PA cage,  
stainless steel ballsPA cage,  
glass balls

## Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination	
	d1	d2	b1	PA/ES	PA/GL
BB-623-S180-10- <input type="text"/>	3	10	4	●	●
BB-633-S180-10- <input type="text"/>	3	13	5	●	●
BB-684-S180-10- <input type="text"/>	4	9	4	●	●
BB-694-S180-10- <input type="text"/>	4	11	4	●	●
BB-604-S180-10- <input type="text"/>	4	12	4	●	●
BB-624-S180-10- <input type="text"/>	4	13	5	●	●
BB-634-S180-10- <input type="text"/>	4	16	5	●	●
BB-685-S180-10- <input type="text"/>	5	11	5	●	●
BB-695-S180-10- <input type="text"/>	5	13	4	●	●
BB-605-S180-10- <input type="text"/>	5	14	5	●	●
BB-625-S180-10- <input type="text"/>	5	16	5	●	●
BB-635-S180-10- <input type="text"/>	5	19	6	●	●
BB-686-S180-10- <input type="text"/>	6	13	5	●	●
BB-696-S180-10- <input type="text"/>	6	15	5	●	●
BB-606-S180-10- <input type="text"/>	6	17	6	●	●
BB-626-S180-10- <input type="text"/>	6	19	6	●	●
BB-636-S180-10- <input type="text"/>	6	22	7	●	●
BB-687-S180-10- <input type="text"/>	7	14	5	●	●
BB-697-S180-10- <input type="text"/>	7	17	5	●	●
BB-607-S180-10- <input type="text"/>	7	19	6	●	●
BB-627-S180-10- <input type="text"/>	7	22	7	●	●
BB-688-S180-10- <input type="text"/>	8	16	5	●	●
BB-698-S180-10- <input type="text"/>	8	19	6	●	●
BB-608-S180-10- <input type="text"/>	8	22	7	●	●



Order example: **BB-623-S180-10-ES** = Radial deep groove ball bearing with race material xirodur S180, PA cage and stainless steel balls



## Order key

Type	Material
<b>BB-608-S180-10-ES</b>	
Ball bearings	
Dimensions according to DIN 625-1	
Face material	
Cage material	
Ball material	

## Cage material

10 = PA

## Options:

## Ball material

ES = Stainless steel

GL = Glass

## Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		PA/ES [g]	PA/GL [g]
623	5.5	7.5	4,500	0.40	0.31
633	7.0	10	4,000	0.90	0.67
684	2.0	2.0	4,600	0.30	0.22
694	2.5	3.0	4,000	–	–
604	6.5	7.0	3,600	0.63	–
624	7.0	10.0	4,000	0.77	0.58
634	8.5	8.5	3,700	–	–
685	2.5	3.0	4,000	0.44	0.36
695	6.5	6.5	3,500	–	–
605	7.0	7.0	3,500	0.95	–
625	8.5	8.5	3,700	1.56	1.01
635	9.0	9.5	3,200	2.03	–
686	6.5	6.5	3,500	0.76	0.56
696	6.5	6.5	3,500	–	–
606	11.0	11.5	3,300	–	–
626	13.0	13.5	3,200	2.53	1.70
636	17.5	21.0	2,200	3.94	2.70
687	7.0	7.5	3,200	–	–
697	8.5	9.0	3,000	–	–
607	9.0	9.5	3,200	–	–
627	17.5	21.0	2,400	3.83	2.59
688	8.5	9.0	3,000	–	–
698	13.0	13.5	3,200	2.33	–
608	17.5	21.0	2,400	3.74	2.48



Available from stock

Upon request

### Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination	
	d1	d2	b1	PA/ES	PA/GL
BB-628-S180-10- <input type="text"/>	8	24	8	●	●
BB-638-S180-10- <input type="text"/>	8	28	9	●	●
BB-689-S180-10- <input type="text"/>	9	17	5	●	●
BB-699-S180-10- <input type="text"/>	9	20	6	●	●
BB-609-S180-10- <input type="text"/>	9	24	7	●	●
BB-629-S180-10- <input type="text"/>	9	26	8	●	●
BB-6800-S180-10- <input type="text"/>	10	19	5	●	●
BB-6900-S180-10- <input type="text"/>	10	22	6	●	●
BB-6000-S180-10- <input type="text"/>	10	26	8	●	●
BB-6200-S180-10- <input type="text"/>	10	30	9	●	●
BB-6300-S180-10- <input type="text"/>	10	35	11	●	●
BB-6701-S180-10- <input type="text"/>	12	18	4	●	●
BB-6801-S180-10- <input type="text"/>	12	21	5	●	●
BB-6901-S180-10- <input type="text"/>	12	24	6	●	●
BB-6001-S180-10- <input type="text"/>	12	28	8	●	●
BB-6201-S180-10- <input type="text"/>	12	32	10	●	●
BB-6301-S180-10- <input type="text"/>	12	37	12	●	●
BB-6702-S180-10- <input type="text"/>	15	21	4	●	●
BB-6802-S180-10- <input type="text"/>	15	24	5	●	●
BB-6902-S180-10- <input type="text"/>	15	28	7	●	●
BB-6002-S180-10- <input type="text"/>	15	32	9	●	●
BB-6202-S180-10- <input type="text"/>	15	35	11	●	●
BB-6302-S180-10- <input type="text"/>	15	42	13	●	●
BB-6703-S180-10- <input type="text"/>	17	23	4	●	●
BB-6803-S180-10- <input type="text"/>	17	26	5	●	●
BB-6903-S180-10- <input type="text"/>	17	30	7	●	●
BB-6003-S180-10- <input type="text"/>	17	35	10	●	●
BB-6203-S180-10- <input type="text"/>	17	40	12	●	●
BB-6303-S180-10- <input type="text"/>	17	47	14	●	●
BB-6704-S180-10- <input type="text"/>	20	27	4	●	●
BB-6804-S180-10- <input type="text"/>	20	32	7	●	●
BB-6904-S180-10- <input type="text"/>	20	37	9	●	●
BB-6004-S180-10- <input type="text"/>	20	42	12	●	●
BB-6204-S180-10- <input type="text"/>	20	47	14	●	●
BB-6304-S180-10- <input type="text"/>	20	52	15	●	●
BB-6705-S180-10- <input type="text"/>	25	32	4	●	●
BB-6805-S180-10- <input type="text"/>	25	37	7	●	●



Order example: **BB-623-S180-10-ES** = Radial deep groove ball bearing with race material xirodur S180, PA cage and stainless steel balls

## Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		PA/ES [g]	PA/GL [g]
<b>628</b>	22.0	24.5	2,300	5.55	3.38
638	24.5	29.0	2,200	–	–
<b>689</b>	8.5	9.0	2,500	1.29	0.87
699	9.5	10.0	2,250	–	–
609	22.0	24.5	2,300	–	–
629	24.5	28.5	2,200	–	–
6800	9.5	10.0	2,250	–	–
6900	13.0	14.0	2,000	–	–
<b>6000</b>	24.5	29.0	2,200	5.93	3.76
<b>6200</b>	29.0	33.0	2,000	9.30	6.51
6300	31.0	33.5	1,800	–	–
6701	3.5	4.0	2,200	–	–
<b>6801</b>	13.0	14.0	2,000	0.84	–
6901	17.5	18.5	1,800	–	–
<b>6001</b>	29.0	33.0	2,000	7.08	4.34
<b>6201</b>	31.0	33.5	1,800	9.99	7.20
6301	35.5	49.0	1,600	–	–
6702	4.0	4.5	1,800	–	–
6802	17.5	18.5	1,800	–	–
6902	20.0	21.0	1,700	–	–
<b>6002</b>	31.0	33.5	1,800	8.63	6.23
6202	35.5	49.0	1,600	11.6	8.2
6302	56.0	71.5	1,400	–	–
<b>6703</b>	5.0	5.5	1,600	0.22	–
<b>6803</b>	20.0	21.0	1,700	1.74	–
6903	20.0	21.0	1,700	–	–
<b>6003</b>	35.5	49.0	1,600	10.74	7.61
6203	56.0	71.5	1,400	14.4	10.2
6303	62.5	80.5	1,200	–	–
6704	6.5	8.0	1,400	–	–
6804	22.0	26.5	1,500	–	–
<b>6904</b>	31.0	32.0	1,150	5.83	–
<b>6004</b>	56.0	71.5	1,400	19.53	12.92
6204	62.5	80.5	1,200	26.2	17.7
<b>6304</b>	85.0	89.5	1,000	18.69	–
6705	7.0	8.5	1,200	–	–
6805	31.0	32.0	1,150	–	–



Available from stock  
Upon request



3D-CAD files, prices and delivery time ► [www.igus.com/xiros](http://www.igus.com/xiros)

# xiros® radial deep groove ball bearings | Product range

## xirodur S180 – cost-effective, black

### Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination	
	d1	d2	b1	PA/ES	PA/GL
BB-6905-S180-10- <input type="text"/>	25	42	9	●	●
BB-6005-S180-10- <input type="text"/>	25	47	12	●	●
BB-6205-S180-10- <input type="text"/>	25	52	15	●	●
BB-6305-S180-10- <input type="text"/>	25	62	17	●	●
BB-6706-S180-10- <input type="text"/>	30	37	4	●	●
<b>BB-6806-S180-10-<input type="text"/></b>	30	42	7	●	●
<b>BB-6906-S180-10-<input type="text"/></b>	30	47	9	●	●
BB-6006-S180-10- <input type="text"/>	30	55	13	●	●
BB-6206-S180-10- <input type="text"/>	30	62	16	●	●
BB-6306-S180-10- <input type="text"/>	30	72	19	●	●



**Order example: BB-623-S180-10-ES** = Radial deep groove ball bearing with race material xirodur S180, PA cage and stainless steel balls

## Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat.	dyn.		PA/ES	PA/GL
	[lbs]	[lbs]		[g]	[g]
6905	35.5	36.0	900	–	–
6005	62.5	80.5	1,200	23.9	16.7
6205	69.5	83.0	1,000	35.2	24.6
6305	107.5	116.5	850	–	–
6706	7.5	9.0	1,000	–	–
<b>6806</b>	35.5	36.0	900	3.90	–
<b>6906</b>	42.5	43.0	850	13.11	10.09
6006	85.0	89.5	1,000	–	–
6206	107.5	116.5	850	–	–
6306	116.5	148.0	750	–	–



Available from stock  
Upon request



# xiros® radial deep groove ball bearings | Product range

## xirodur C160 – resistant to chemicals



PP cage,  
stainless steel balls



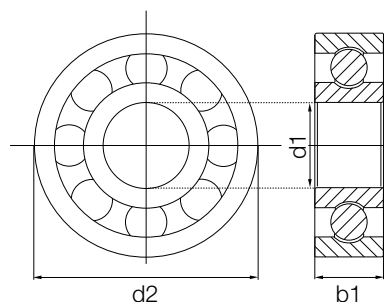
PP cage,  
glass balls

### Dimensions [mm]

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



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



## Order key

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

**BB-623-C160-20-ES**

Ball bearings	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		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		PP/ES [g]	PP/GL [g]
623	2.0	2.0	4,000	0.35	0.26
624	2.5	2.5	3,650	–	–
625	4.5	4.5	3,100	–	0.21
635	6.5	6.5	2,900	1.76	1.03
626	6.5	7.5	2,600	2.15	1.43
636	8.5	9.0	2,050	2.06	–
627	8.5	9.5	2,000	–	–
688	4.5	4.5	2,750	1.06	0.24
608	8.5	10.0	2,200	3.37	2.21
628	12.5	13.5	1,800	–	–
638	13.0	13.5	1,670	6.27	4.10
629	13.0	14.0	1,680	–	–
6800	4.5	5.0	2,100	–	–
6000	13.0	14.5	1,700	5.48	3.33
6200	17.5	18.0	1,540	7.50	4.71
6801	6.5	7.0	1,920	0.84	0.92
6001	15.5	16.5	1,580	6.59	3.80
6201	17.5	18.5	1,260	–	–
6802	8.5	9.5	1,700	–	0.46
6002	17.5	19.0	1,500	5.72	4.86
6202	17.5	19	1,130	–	–
6803	11.0	11.0	1,650	–	–
6003	20.0	21.5	1,300	9.10	6.22
6203	31.0	31.5	1,010	–	–
6804	11.0	12.0	1,480	–	–



Available from stock

Upon request



3D-CAD files, prices and delivery time ► [www.igus.com/xiros](http://www.igus.com/xiros)

# xiros® radial deep groove ball bearings | Product range

## xirodur C160 – resistant to chemicals

### Dimensions [mm]

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



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

## Technical data

Installation size	Radial load capacity		Max. speed	Weight	
	stat.	dyn.		PP/ES	PP/GL
	[lbs]	[lbs]	[rpm]	[g]	[g]
6004	31.0	31.5	1,000	17.81	11.20
6204	31.0	32.5	950	22.85	4.89
6805	17.5	18.0	1,075	–	–
6005	31.0	33.5	960	20.63	13.29
6205	38.0	40.5	810	26.70	4.89



Available from stock  
Upon request

# xiros® radial deep groove ball bearings | Product range

xirodur A500 – for chemicals and heat up to +302 °F



PA cage,  
stainless steel balls



FDA  
PEEK cage,  
stainless steel balls



PEEK cage,  
glass balls



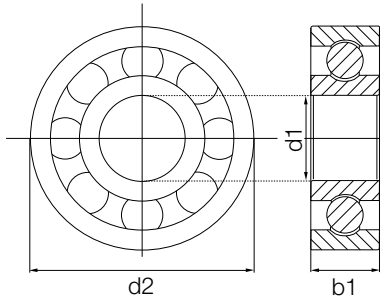
PEEK cage,  
PAI balls

## Technical data

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



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



Order key

Type	Material
<b>BB-623-A500-10-ES</b>	
Ball bearings	
Dimensions according to DIN 625-1	
Race material	
Cage material	
Ball material	

- Options:
- Cage material**
  - 10 = PA
  - 70 = PEEK
  - Ball material**
  - ES = Stainless steel
  - GL = Glass
  - PAI = Polyamide-imide

Dimensions [mm]

Installation size	Radial load capacity				Max. speed	Weight			
	stat.	dyn.	stat.	dyn.		PA/	PEEK/	PEEK/	PEEK/
	[lbs]	[lbs]	[lbs]	[lbs]		stainless steel	stainless steel	glass	PAI
					[g]	[g]	[g]	[g]	
623	6.0	6.5	-	-	5,000	0.4	0.4	0.3	-
624	6.5	8.5	-	-	4,500	1.9	1.0	0.9	-
625	8.0	9.5	-	-	3,700	-	-	-	-
635	10.5	11.5	-	-	3,400	-	-	-	-
626	12.0	13.0	3.37	4.50	3,400	2.3	2.3	1.6	1.4
636	16.0	17.0	-	-	2,450	-	-	-	-
627	16.0	16.5	-	-	2,600	-	-	-	-
688	8.0.0	8.5	-	-	3,150	-	-	-	-
608	16.0	17.5	4.05	5.62	2,700	3.7	3.7	2.4	2.2
628	22.0	23.0	-	-	2,500	-	-	-	-
638	22.5	24.0	-	-	2,300	-	-	-	-
629	22.5	25.0	-	-	2,350	-	-	-	-
6800	9.0	10.0	-	-	2,300	-	-	-	-
6000	22.5	24.0	5.62	7.64	2,100	6.0	6.0	3.8	3.4
6200	28.0	29.5	-	-	2,100	-	-	-	-
6801	12.0	12.5	-	-	2,150	-	-	-	-
6001	23.5	27.5	-	-	2,040	-	-	-	-
6201	29.5	31.5	-	-	1,820	-	-	-	-
6802	16.0	17.0	-	-	1,920	-	-	-	-
6002	29.5	32.5	7.19	9.22	1,900	9.1	9.1	5.2	5.6
6202	30.0	32.5	-	-	1,600	-	-	-	-
6803	18.5	18.5	-	-	1,760	-	-	-	-
6003	31.0	34.0	-	-	1,790	-	-	-	-
6203	51.0	52.0	-	-	1,450	-	-	-	-



Available from stock

Upon request



3D-CAD files, prices and delivery time ► [www.igus.com/xiros](http://www.igus.com/xiros)



# xiros® radial deep groove ball bearings | Product range

xirodur A500 – for chemicals and heat up to +302 °F

## Technical data

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



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

## Dimensions [mm]

Installation size	Radial load capacity				Max. speed	Weight			
	stat.	dyn.	stat.	dyn.		PA/ stainless steel	PEEK/ stainless steel	PEEK/ glass	PEEK/ PAI
			PEEK/PAI						
	[lbs]	[lbs]	[lbs]	[lbs]		[rpm]	[g]	[g]	[g]
6804	20.0	20.5	-	-	1,560	-	-	-	-
6004	52.5	56.0	13.94	19.78	1,700	19.7	19.7	13.2	11.7
6204	52.5	53.5	-	-	1,270	-	-	-	-
6805	29.5	30.0	-	-	980	-	-	-	-
6005	91.0	94.0	-	-	1,500	-	-	-	-
6205	94.5	98.5	-	-	1,100	-	-	-	-



Available from stock

Upon request

3D-CAD files, prices and delivery time ► [www.igus.com/xiros](http://www.igus.com/xiros)

# xiros® radial deep groove ball bearings | Product range

## xirodur F180 – antistatic



PA cage,  
stainless steel balls



PE cage,  
stainless steel balls



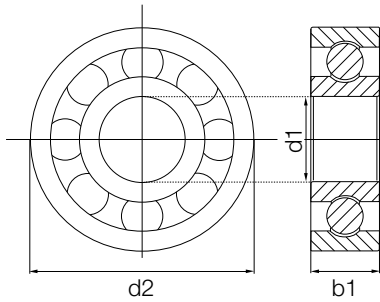
Special designs made from xirodur F180  
▶ Page 1046

### Dimensions [mm]

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



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



## Order key

Type

Material

**BB-623-F180-10-ES**

Ball bearings

Dimensions according  
to DIN 625-1

Race material

Cage material

Ball material

Options:

Cage material

10 = PA

50 = PE

Ball material

ES = Stainless steel

## Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		PA/ES [g]	PE/ES [g]
623	2.0	5.5	4,500	0.39	0.39
624	4.5	7.0	4,000	0.83	0.82
625	8.5	8.5	3,700	1.54	1.50
626	9.0	9.5	3,200	2.50	2.36
608	17.5	21.0	2,200	3.79	3.67
6000	24.5	29.0	2,200	5.86	5.76
6001	31.0	33.0	2,000	6.72	6.62
6002	31.0	33.5	1,800	8.59	8.50
6003	35.5	49.0	1,600	10.53	10.39
6004	56.0	71.5	1,400	19.24	19.18
6005	62.5	80.5	1,200	22.43	22.04



Available from stock



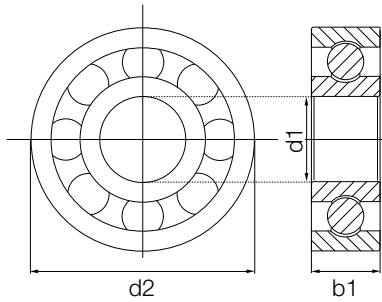
PA cage,  
stainless steel balls

## Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination
	d1	d2	b1	PA/ES
BB-608-F182-10-ES	8	22	7	●
BB-6000-F182-10-ES	10	26	8	●
<b>BB-6001-F182-10-ES</b>	12	28	8	●



**Order example: BB-608-F182-10-ES** = Radial deep groove ball bearing with race material xirodur F182, PA cage and stainless steel balls



## Order key

Type

Material

**BB-608-F182-10-ES**

Ball bearings

Dimensions according to DIN 625-1

Race material

Cage material

Ball material

Cage material

10 = PA

Ball material

ES = Stainless steel

## Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight PA/ES [g]
	stat. [lbs]	dyn. [lbs]		
608	17.5	21.0	2,200	-
6000	24.5	29.0	2,200	-
6001	310.	33.0	2,000	4.31



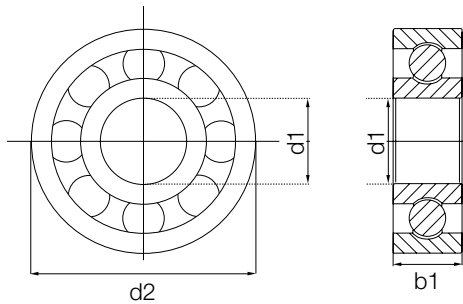
Available from stock

Upon request

3D-CAD files, prices and delivery time ► [www.igus.com/xiros](http://www.igus.com/xiros)



Races made of xirodur D180 – for high speeds

PA cage,  
stainless steel balls

Order key

Type

Material

**BB-623-D180-10-ES**

Ball bearings

Dimensions according  
to DIN 625-1

Race material

Cage material

Ball material

Cage material

10 = PA

Ball material

ES = Stainless steel

## Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width	Cage/ball material combination
	d1	d2	b1	PA/ES
BB-623-D180-10-ES	3	10	4	●
BB-626-D180-10-ES	6	19	6	●
BB-608-D180-10-ES	8	22	7	●
BB-6000-D180-10-ES	10	26	8	●
BB-6001-D180-10-ES	12	28	8	●
BB-6002-D180-10-ES	15	32	9	●

## Technical data

Installation size	Radial load capacity		Max. speed	Weight
	stat. [lbs]	dyn. [lbs]	[rpm]	PA/ES [g]
623	1.5	2.5	5,500	0.40
626	2.5	4.0	4,500	2.00
608	4.5	7.0	4,300	3.70
6000	6.0	8.0	4,200	5.78
6001	7.0	11.0	4,000	6.55
6002	9.5	11.0	3,870	8.26

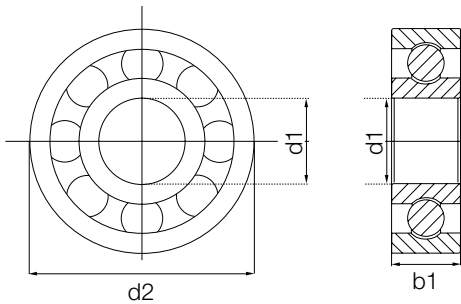
Order example: **BB-623-D180-10-ES** = Radial deep groove ball bearing with race material xirodur D180, PA cage and stainless steel balls

Available from stock

xirodur M180 – detectable



xirodur M180 cage,  
stainless steel balls



## Order key

Type	Material
Ball bearings	BB-6000-M180-40-ES
Dimensions according to DIN 625-1	
Race material	
Cage material	
Ball material	

**Cage material**  
40 = xirodur M180  
**Ball material**  
ES = Stainless steel

## Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width
	d1	d2	b1
BB-6000-M180-40-ES	10	26	8
BB-6003-M180-40-ES	17	35	10

## Technical data

Installation size	Radial load capacity		Max. speed	Weight
	stat.	dyn.		
	[lbs]	[lbs]	[rpm]	M180/ES
				[g]
6000	19.0	26.5	1,900	6.53
6003	40.0	56.0	1,400	11.01



**Order example: BB-6000-M180-40-ES** = Radial deep groove ball bearing with race material xirodur M180, M180 cage and stainless steel balls



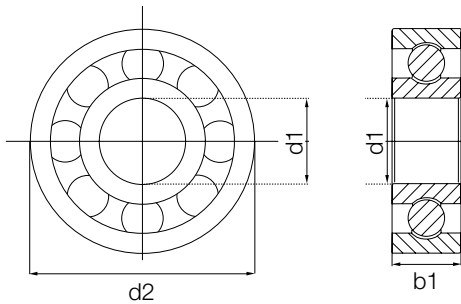
Available from stock

# xiros® radial deep groove ball bearings | Product range

## xirodur T220 – for the tobacco industry



PP cage,  
stainless steel balls



### Order key

Type	Material
<b>BB-6002-T220-20-ES</b>	
Ball bearings	
Dimensions according to DIN 625-1	
Race material	
Cage material	
Ball material	

#### Cage material

20 = PP

#### Ball material

ES = Stainless steel

### Dimensions [mm]

Inner Ø	Outer Ø	Width	Part No.
d1	d2	b1	
15	32	9	BB-6002-T220-20-ES

### Technical data

Installation size	Radial load capacity		Max. speed	Weight
	stat.	dyn.		PP/ES
	[lbs]	[lbs]	[rpm]	[g]
6002	29.0	35.5	1,200	8.36



Order example: **BB-6002-T220-20-ES** = Radial deep groove ball bearing with race material xirodur T220, PP cage and stainless steel balls



Available from stock

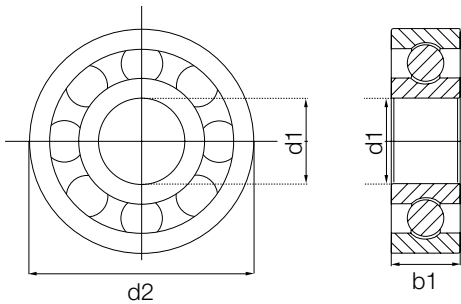
# xiros® radial deep groove ball bearings | Product range

xiros®

xirodur G220 – for temperatures up to +248 °F



PA cage,  
stainless steel balls



## Order key

Type Material

**BB-6000-G220-10-ES**

Ball bearings	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	Outer Ø	Width	Part No.
d1	d2	b1	
10	26	8	BB-6000-G220-10-ES

## Technical data

Installation size	Radial load capacity		Max. speed	Weight
	stat.	dyn.		PA/ES
	[lbs]	[lbs]	[rpm]	[g]
6000	21.0	24.5	2,000	5.49



Order example: **BB-6000-G220-10-ES** = Radial deep groove ball bearing with race material xirodur G220, PA cage and stainless steel balls



Available from stock

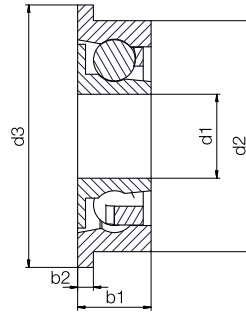
### Single flange with shield



xirodur B180,  
PA cage, stainless  
steel balls



xirodur S180,  
PA cage, stainless  
steel balls



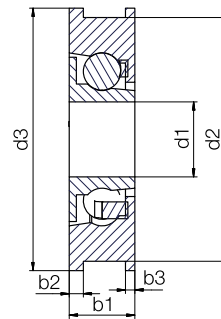
### Double flange with shield



xirodur B180 races  
PA cage, stainless  
steel or glass balls



xirodur F180 races  
PA cage, stainless  
steel balls



### Dimensions [mm]

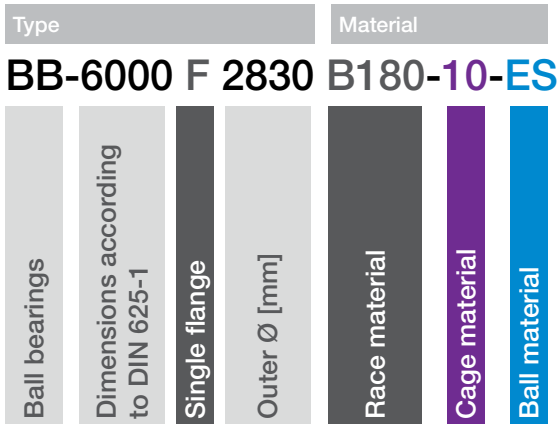
Part No.	Inner Ø		Outer Ø		Width			Cage/ball material combination			
	d1	d2	d3	b1	b2	PA/ES	PA/GL	B180/ES	F180 PA/ES	S180 PA/ES	
<b>Radial deep groove ball bearing with single flange with shield for guide roller</b>											
BB-626F-S180-10-ES-C	6.0	19.0	22.0	6.0	1.5	-	-	-	-	●	
BB-688F-S180-10-ES-C	8.0	16.0	18.0	5.0	1.0	-	-	-	-	●	
BB-608F-S180-10-ES-C	8.0	22.0	25.0	7.0	1.5	-	-	-	-	●	
BB-608F2830-B180-10-ES	8.0	28.0	30.0	7.0	2.0	●	-	-	-	-	
BB-6000F2830-B180-10-ES	10.0	28.0	30.0	9.0	2.0	●	-	-	-	-	
BB-6000F3538-B180-10-ES	10.0	35.0	38.0	9.0	2.0	●	-	-	-	-	
BB-6001F2830-B180-10-ES	12.0	28.0	30.0	9.0	2.0	●	-	-	-	-	
BB-6001F3538-B180-10-ES	12.0	35.0	38.0	9.0	2.0	●	-	-	-	-	
BB-6002F3538-B180-10-ES	15.0	35.0	38.0	9.0	2.0	●	-	-	-	-	
BB-6003F3538-B180-10-ES	17.0	35.0	38.0	10.0	2.0	●	-	-	-	-	
BB-6004F4650G-B180-30-ES	20.0	46.0	50.0	12.0	2.0	-	-	●	-	-	
BB-6004F5660G-B180-30-ES	20.0	56.0	60.0	12.0	2.0	-	-	●	-	-	
<b>Radial deep groove ball bearing with single or double flange and shields</b>											
BB-608F-□-10-□-CC	8.0	26.0	28.0	8.5	1.5	●	●	-	●	-	
BB-608FF-□-10-□-CC	8.0	26.0	28.0	7.0	1.5/1.0 (b3)	●	●	-	●	-	



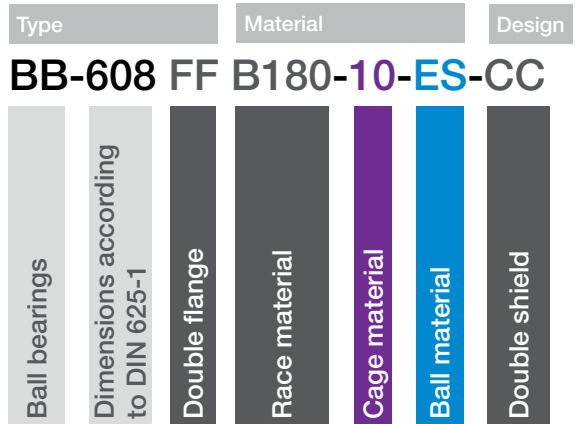
Order example: **BB-6000F2830-B180-10-ES** = Radial deep groove ball bearing with single flange for system solution BBT (guide roller), race material xirodur B180 with PA cage and stainless steel balls



Order key - single flange



Order key - double flange



Also available as complete system solution  
▶ Page 1048

Flange

F = Single flange  
FF = Double flange

Race material

F180 = xirodur F180  
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

Technical data

Installation size	Double flange	Radial load capacity		Max. speed [rpm]	Weight				
		stat. [lbs]	dyn. [lbs]		B180		F180	S180	
					PA/ES [g]	PA/GL [g]	B180/ES [g]	PA/ES [g]	PA/ES [g]
626	-	13.0	13.5	3,200	-	-	-	-	1.32
688	-	8.5	9.0	3,000	-	-	-	-	0.66
608	-	17.5	21.0	2,400	-	-	-	-	2.00
608	-	17.5	21.0	2,200	5.55	-	-	-	-
6000	-	24.5	29.0	1,900	7.55	-	-	-	-
6000	-	24.5	29.0	1,900	10.06	-	-	-	-
6001	-	29.0	33.0	1,750	7.53	5.09	-	-	-
6001	-	29.0	33.0	1,750	12.02	-	-	-	-
6002	-	31.0	33.5	1,600	11.44	-	-	-	-
6003	-	35.5	49.0	1,550	11.42	-	-	-	-
6004	-	56.0	71.5	1,400	-	-	16.36	-	-
6004	-	56.0	71.5	1,400	-	-	29.60	-	-
608	-	17.5	21.0	2,200	5.69	4.47	-	5.49	-
608	●	17.5	21.0	2,200	5.82	5.93	-	5.61	-

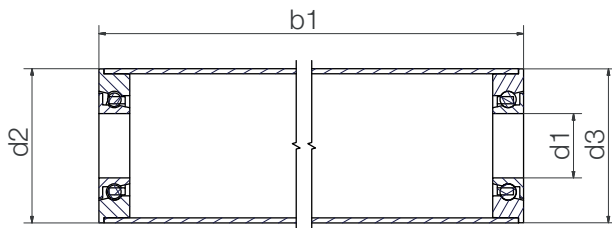


Available from stock





Aluminum tube with xirodur B180 ball bearing



## Order key

Type	Material
<b>BBT-AC 38-6000-B180-10-ES</b>	
Ball bearing guide roller	
Aluminum 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



Radial deep groove ball bearings with flange also available as individual parts

► Page 1046

## Dimensions [mm]

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



Online configurator for xiros® system solutions

► [www.igus.com/guide-roller-expert](http://www.igus.com/guide-roller-expert)Order example: **BBT-AC38-6000-B180-10-ES**, L=500mm = Aluminum tube with 2 ball bearings with race material xirodur B180, PA cage and stainless steel balls, total length 500mm

Available from stock

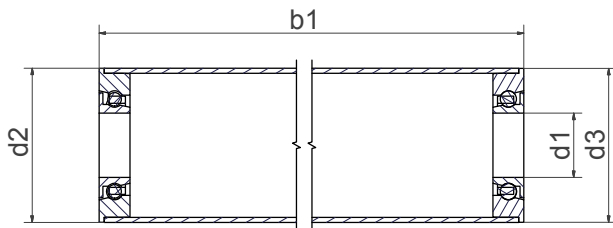
# xiros® guide rollers | Product range

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
<b>BBT-PVC 50-6004-B180-30-ES</b>	
Ball bearing guide 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]

Part No.	Inner Ø	Outer Ø	Flange Ø	Length
	d1	d2	d3	b1
BBT-PVC30-608-B180-30-ES	8	30	30	50 – 1,000
BBT-PVC30-6000-B180-30-ES	10	30	30	50 – 1,000
BBT-PVC40-6000-B180-30-ES	10	40	40	50 – 1,000
BBT-PVC40-6001-B180-30-ES	12	40	40	50 – 1,000
BBT-PVC40-6002-B180-30-ES	15	40	40	50 – 1,000
BBT-PVC40-6003-B180-30-ES	17	40	40	50 – 1,000
BBT-PVC50-6004-B180-30-ES	20	50	50	50 – 1,000
BBT-PVC63-6004-B180-30-ES	20	63	63	50 – 1,000

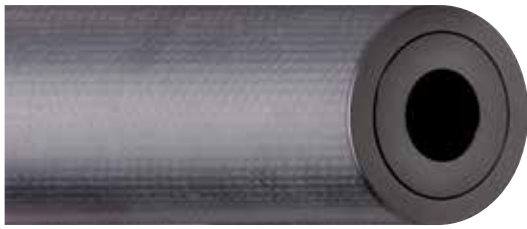


Order example: **BBT-PVC50-6004-B180-30-ES, L=200mm** = PVC tube with 2 ball bearings with race material xirodur B180, xirodur B180 cage and stainless steel balls, total length 200mm



Available from stock

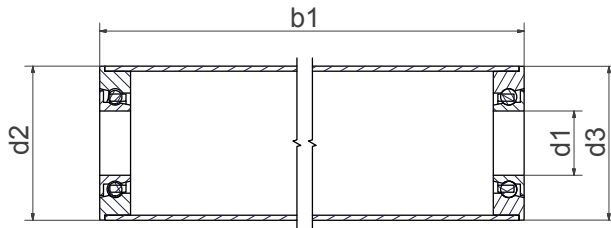




Carbon fiber tube with xirodur S180 ball bearing, available as ESD version (with xirodur F180 ball bearing)



Carbon fiber tube with xirodur F180 ball bearing



### Order key

Type	Material
<b>BBT-CF 50-6004-□-30-ES</b>	
Ball bearing guide roller	
Carbon fiber 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]

Part No.	Inner Ø	Outer Ø	Flange Ø	Length
	d1	d2	d3	b1
BBT-CF50-6004-S180-10-ES	20	50	49.9	50 – 1,000
BBT-CF100-6004-F180-10-ES	20	100	100.0	50 – 1,000



Order example: **BBT-CF50-6004-S180-30-ES, L=200mm** = Carbon fiber tube with 2 ball bearings xirodur S180, xirodur B180 cage and stainless steel balls, total length 200mm



Delivery time: approximately 3 weeks  
With xirodur F180 as ESD version available upon request

# xiros® guide rollers | Product range

xiros® system solution – closed on one end



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



Order key

Type	Material
<b>BBTG-AC 30-XX-30-ES</b>	
Ball bearing guide roller	
Aluminum tube	
Outer Ø	
Length – upon request	
Cage material	
Ball material	



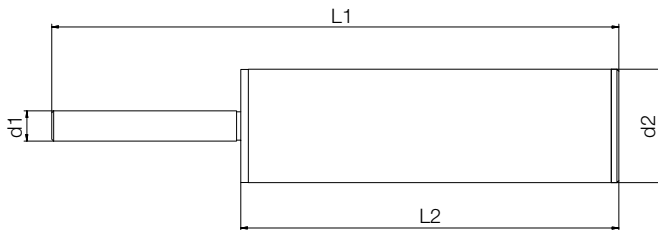
Ready-to-install complete systems with shaft to required size upon request

Cage material

30 = xirodur B180

Ball material

ES = Stainless steel



## Dimensions [mm]

Part No.	Outer Ø	Length
	d2	L1
BBTG-AC30-XX-30-ES	50	According to customer request



Order example: **BBTG-AC30-XX-30-ES**, L=200mm = Aluminum with 2 ball bearings xirodur S180, xirodur B180 cage and stainless steel balls, total length 200mm



Available upon request



PA cage,  
stainless steel or  
glass balls



PA cage,  
stainless steel balls  
hexagon nut socket

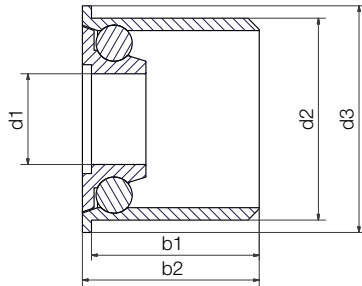
- Fast and easy retrofits in many standard tubes
- Good axial stability



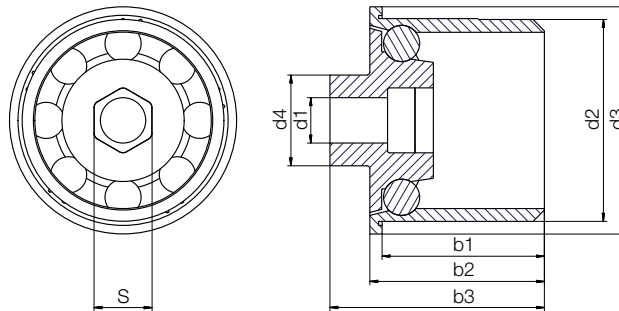
### Order key

Type	Material
<b>BB-6204EC44.5-B180-10-ES</b>	
Ball bearing type	
End cap	
Outer Ø (d2)	
Race material	
Cage material	
Ball material	

Example "6204EC"



Example "6204ECM8"



### Cage material

10 = PA

Options:

Ball material

ES = Stainless steel

GL = Glass

### Dimensions [mm]

Part No.	Inner Ø		Outer Ø		Width			S	Cage/ball material combination	
	d1	d2	d3	d4	b1	b2	b3		PA/ES	PA/GL
BB-6204EC44.5-B180-10-ES	20	44.5	50	-	35.8	38.5	-	-	●	●
BB-6204ECM8-B180-10-ES	10	44.5	50	20	35.8	38.5	47.3	M8	●	

### Technical data

Installation size	Radial load capacity		Max. speed [rpm]	Weight	
	stat.	dyn.		PA/ES	PA/GL
	[lbs]	[lbs]		[g]	[g]
6204	55.0	66.0	1,800	41.66	29.85
6204	55.0	66.0	1,800	48.44	-

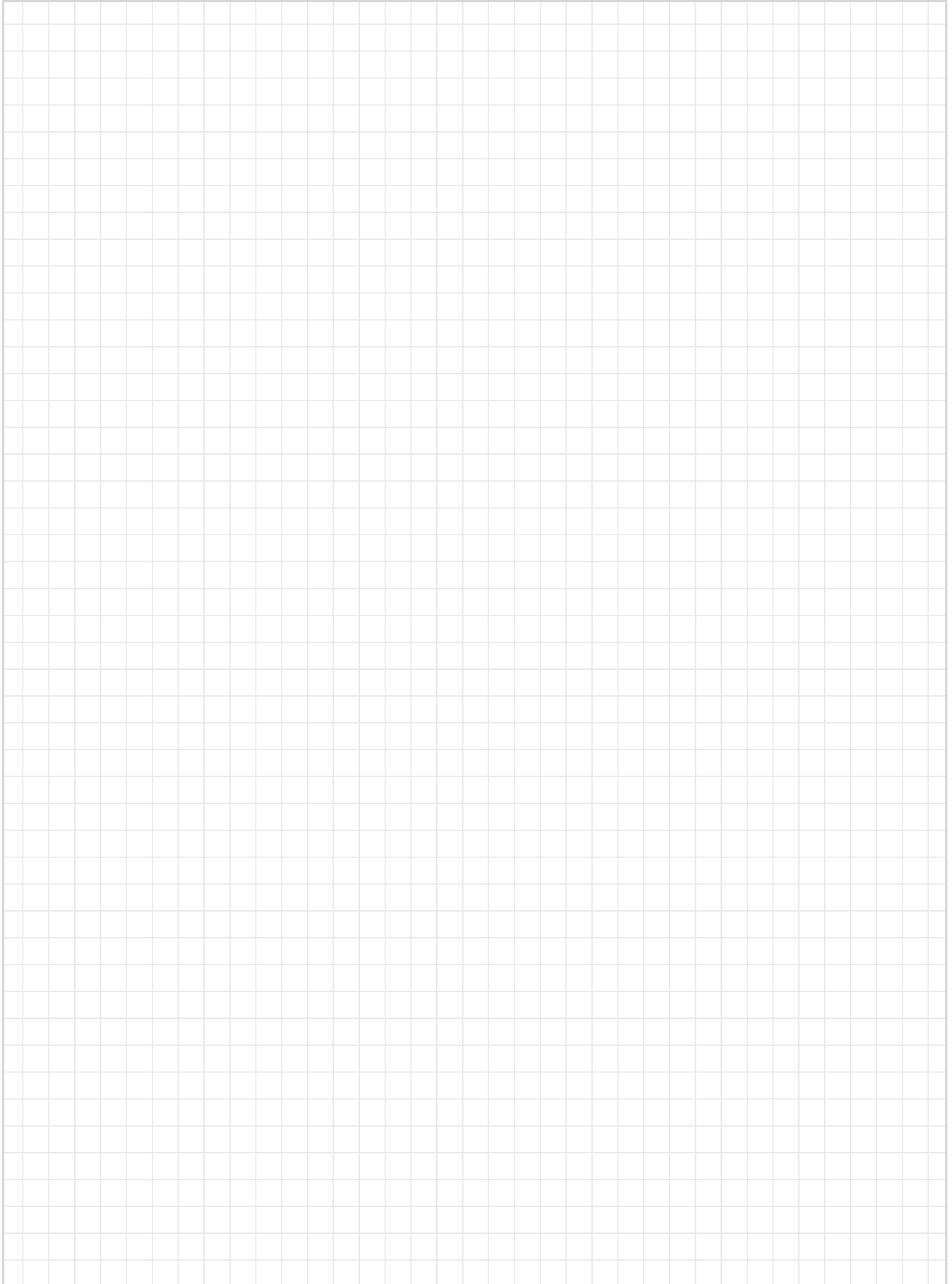


Order example: BB-6204EC44.5-B180-10-ES = End cap with race material xirodur B180, with PA cage and stainless steel balls



Available from stock

# Notes





xirodur B180 cage,  
stainless steel balls  
Type 6000PP3



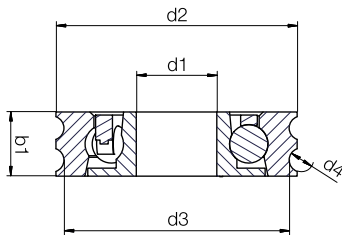
xirodur B180 cage,  
stainless steel balls  
Type 608P6

- One-piece design
- Replaces several components

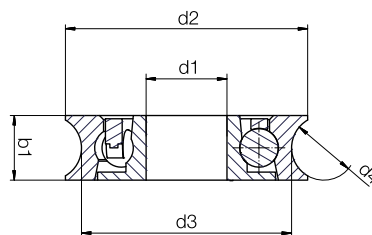


### Order key

Type	Material	Design
<b>BB-608 P6-B180-30-ES-C</b>		
Ball bearings	Dimensions according to DIN 625-1	Profile P6
Race material	Cage material	Ball material
		With shield



Example "Profile PP3"



Example "Profile P8"

### Cage material

**30** = xirodur B180

### Ball material

**ES** = Stainless steel

### Shield

**C** = Shield on one side

### Dimensions [mm]

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

### Technical data

Installation size	Radial load capacity		Max. speed	Weight
	stat.			B180/ES
	[lbs]		[rpm]	[g]
608P6	17.5		2,200	3.96
608P8	31.0		1,800	23.37
6000P8	24.5		2,200	7.14
6000PP3	24.5		2,200	7.86
6201P9	35.5		1,600	27.05



Order example: **BB-608P6-B180-30-ES** = Radial deep groove ball bearing, profile P8 with race material xirodur B180, xirodur B180 cage and stainless steel balls



Available upon request

## xirodur B180



xirodur B180 races  
PA cage,  
stainless steel balls



xirodur B180 races  
PA cage,  
glass balls

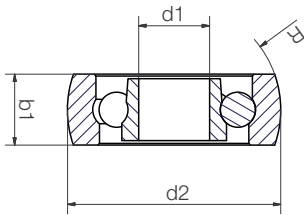
- For use in skewed/curved/twisted profiles
- Prevents edge pressures



### Order key

Type		Material		
<b>BB-608SO-B180-10-ES</b>				
Ball bearings	Dimensions according to DIN 625-1	Spherical outer Ø	Race material	Cage material
				Ball material

Race material  
B180 = xirodur B180  
Cage material  
10 = PA  
Options:  
Ball material  
ES = Stainless steel  
GL = Glass



### Dimensions [mm]

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

### Technical data

Installation size	Radial load capacity		Max. speed	Weight	
	stat.	dyn.		PA/ES	PA/GL
	[lbs]	[lbs]	[rpm]	[g]	[g]
608	17.5	21.0	2,200	4.63	3.34
6000	24.5	29.0	1,900	7.86	5.70
6001	31.0	33.0	1,750	13.51	11.10



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



Available upon request

# xiros® double row ball bearings | Product range

## xirodur B180



PA cage,  
stainless steel or  
glass balls

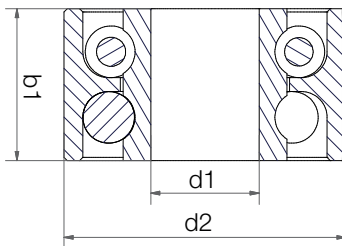
- Higher loads
- More cost-effective than two comparable bearings



### Order key

Type	Material	Design
<b>BB-6000-B180-10-ES-D</b>		
Ball bearings	Dimensions according to DIN 625-1	Race material
		Cage material
		Ball material
		Double row

**Cage material**  
10 = PA  
Options:  
**Ball material**  
ES = Stainless steel  
GL = Glass



### Dimensions [mm]

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

### Technical data

Installation size	Radial load capacity		Max. speed	Weight	
	stat.	dyn.		PA/ES	PA/GL
	[lbs]	[lbs]	[rpm]	[g]	[g]
6000	44.5	53.5	1,000	11.23	6.90
6004	94.0	105.5	650	35.60	22.55



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



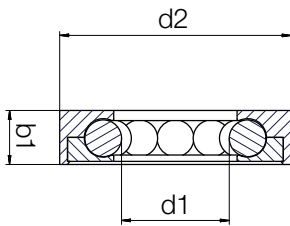
Available upon request

## xirodur B180



PP balls

- For rotary and linear motions



### Order key

Type					Material	
<b>BB-MB-1633-11-B180-PP</b>						
Ball bearings	Multi-axis bearing	Inner Ø (d1)	Outer Ø (d2)	Width (b)	Housing material	Ball material
					Housing material <b>B180</b> = xirodur B180	Ball material <b>PP</b> = Polypropylene

### Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width
	d1	d2	b1
BB-MB-1633-11-B180-PP	16.3	33	11

### Technical data

Type	Radial load capacity		Max. speed [rpm]	Weight B180/PP [g]
	stat. [lbs]	dyn. [lbs]		
	BB-MB	12.0		



Order example: BB-MB-1633-11-B180-PP = Multi-axis bearing with race material xirodur B180, B180 housing and PP balls



Available upon request





PA cage,  
stainless steel  
balls

- Larger outer diameter for smaller shafts
- Also used as roller in profiles



PA cage,  
glass balls



### Order key

Type				Material		
<b>BB-6004SW100-B180-10-ES</b>						
Ball bearings	Dimensions according to DIN 625-1	Skate wheel	Outer Ø	Race material	Cage material	Ball material

#### Cage material

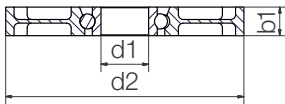
10 = PA

Options:

#### Ball material

ES = Stainless steel

GL = Glass



### Dimensions [mm]

Part No.	Inner Ø	Outer Ø	Width
	d1	d2	b1
BB-6004SW100-B180-10- <input type="text"/>	20	100	12

### Technical data

Installation size	Radial load capacity		Max. speed	Weight	
	stat.	dyn.		PA/ES	PA/GL
	[lbs]	[lbs]	[rpm]	[g]	[g]
6004	55.0	66.0	1,400	58.81	58.81



Order example: **BB-6004SW100-B180-10-ES** = xiros® skate wheel with race material xirodur B180. 100mm outer diameter, PA cage and stainless steel balls



Available upon request

# xiros® fixed flange ball bearings | Product range

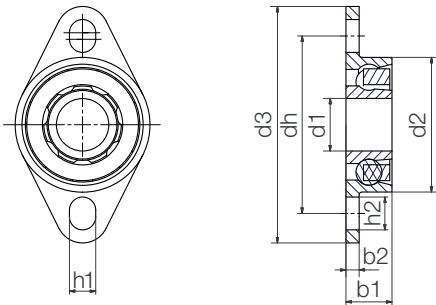
FDA-compliant, fixed version

FDA



xirodur B180 cage  
Stainless steel balls

● For less precise holding fixtures



Order key

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

**BB-FL-608-B180-30-ES**

Cage material  
30 = xirodur B180  
Ball material  
ES = Stainless steel

## Dimensions [mm]

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

## Technical data

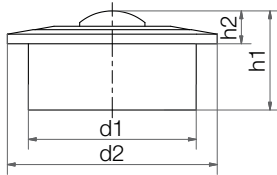
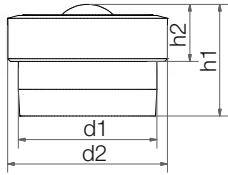
Installation size	Radial load capacity		Max. speed [rpm]	Weight B180/ES [g]
	stat. [lbs]	dyn. [lbs]		
626	13	13.5	3,200	2.89
608	17.5	20.5	2,200	3.65
6000	24.5	29.0	2,200	6.49
6001	29.0	33.0	2,000	7.68
6003	35.5	49.0	1,600	11.13
6004	56.0	71.5	1,400	25.06



Order example: **BB-FL-608-B180-30-ES** = Fixed flange ball bearing with xirodur B180 housing, xirodur B180 cage and stainless steel balls



Available upon request



BB-505(B)-B180-POM

BB-515(B)-B180-POM  
BB-522(B)-B180-POM

## Order key

Type	Material
<b>BB-522B-B180-POM</b>	
Ball bearings	
Type	
New generation	
Housing material	
Ball transfer unit	

Polymer ball transfer unit

POM = POM (ball transfer unit)

Option

B = New generation

## Technical data and dimensions [mm]

Part No.	Installation size	Max. stat. load capacity axial [lbs]	Inner Ø		Height		Weight [g]
			d1	d2	h1	h2	
BB-505-B180-POM	505	7.5	10.4	12.0	8.4	4.3	0.88
BB-515-B180-POM	515	17.5	24.0	31.0	21.0	9.8	10.73
BB-522-B180-POM	522	24.5	36.0	45.0	30.0	9.8	28.80

## Technical data and dimensions [mm]

Part No.	Installation size	Max. stat. load capacity axial [lbs]	Inner Ø		Height		Weight [g]
			d1	d2	h1	h2	
BB-505B-B180-POM	505B	33.5	10.4	12.0	8.4	4.3	0.92
BB-515B-B180-POM	515B	67.0	24.0	31.0	21.0	9.8	11.19
BB-522B-B180-POM	522B	112.0	36.0	45.0	30.0	9.8	29.97



## Recommended tolerances

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

## Installation size

505 ▶ 10.40mm H7

515/515A ▶ 23.95mm H7

522/522A ▶ 35.95mm H7

In general: The height tolerance of all installation sizes is  $\pm 0.2$ mm

Order example: BB-505-B180-POM = Polymer ball transfer unit with housing material xirodur B180 and POM ball transfer unit



Available upon request

# xiros® polymer ball transfer units | Product range

xiros®

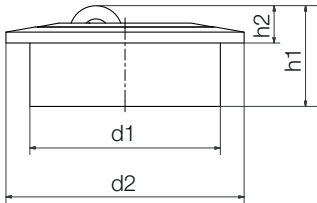
Axial polymer ball transfer unit made from xirodur B180



For high loads (HH)



With soft roller made from xirodur D180 (HS)



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



Order key

Type	Material
<b>BB-522A-B180-HS</b>	
Ball bearings	
Type	
Axial ball transfer unit	
Housing material	
Ball transfer unit	

Options

Ball transfer unit  
**HH (Hard roller)** = xirodur B180  
**HS (Soft roller)** = xirodur D180

## Technical data and dimensions [mm]

Part No.	Installation size	Max. stat. load capacity axial [lbs]	Inner Ø		Height		Weight	
			d1	d2	h1	h2	HS [g]	HH [g]
BB-515A-B180- <input type="checkbox"/>	515A	33.5	24.0	31.0	14.3	5.3	9.96	9.99
BB-522A-B180- <input type="checkbox"/>	522A	67.0	36.0	45.0	21.25	7.05	24.69	24.71

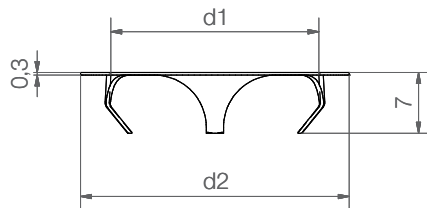


Order example: **BB-515A-B180-HS** = Axial polymer ball transfer unit with housing material xirodur **B180** and **soft roller made from xirodur D180**



Available from stock

## Accessories: Clamping rings for xiros® polymer ball transfer units



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]

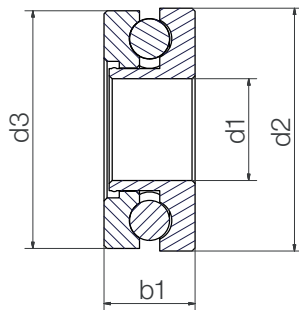
Part No.	For ball transfer unit	d1	d2	Housing hole	Weight [g]
BB-515-CR	BB-515-B180-POM/BB-515A-B180- <input type="checkbox"/>	24	31	25H7	0.91
BB-522-CR	BB-522-B180-POM/BB-522A-B180- <input type="checkbox"/>	36	41	37H7	1.61



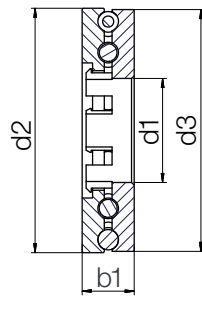
Available upon request



Single or double row,  
with stainless steel or glass balls



Single row bearing



Double row bearing



### Order key

Type	Material / Options
<b>BB-51104-B180-ES-D</b>	
Ball bearings	Options
Dimensions according to DIN 711	<b>Ball material</b>
Race/cage material	ES = Stainless steel
Ball material	GL = Glass
Double row	Suffix
	Blank = Single row
	D = Double row

### Dimensions [mm]

Part No.	Inner Ø		Outer Ø		Width	Cage/ball material combination	
	d1	d2	d3	b1		B180/ES	B180/GL
BB-51100-B180- <input type="checkbox"/>	10	24	23.5	9	●	●	
BB-51104-B180- <input type="checkbox"/>	20	35	34.5	10	●	●	
BB-51104-B180- <input type="checkbox"/> -D	20	47	46.5	10	●	●	

### Technical data

Installation size	Single row	Double row	Load capacity		Max. speed	Weight	
			stat.	dyn.		B180/ES	B180/GL
			[lbs]	[lbs]	[rpm]	[g]	[g]
51100	●	–	44.5	56.0	600	6.61	4.12
51104	●	–	146.0	182.0	460	13.72	8.19
51104	–	●	219.0	273.0	460	18.96	8.99



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



Available upon request

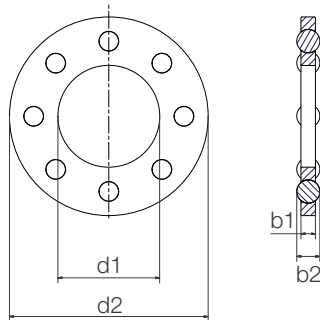
## xirodur B180



Standard type with stainless steel or glass balls



Slim Line design with stainless steel or glass balls



### Order key

Type	Material / options				
<b>BB-6004TW-B180-ES-SL</b>					
Ball bearings	Dimensions according to DIN 625-1	Thrust washer	Race material	Ball material	Slim Line
Options					
Ball material					
ES = Stainless steel					
GL = Glass					
Suffix					
Blank = Standard					
SL = Slim Line					

### Dimensions [mm]

Part No.	Inner Ø		Outer Ø		Width		Race/ball material combination	
	d1	d2	b1	b2	B180/ES	B180/GL		
BB-626TW-B180- <input type="checkbox"/>	6.2	18.8	2.0	3.18	●	●		
BB-608TW-B180- <input type="checkbox"/>	8.2	21.8	2.0	3.97	●	●		
BB-6000TW-B180- <input type="checkbox"/>	10.2	25.8	2.0	4.76	●	●		
BB-6000TW-B180- <input type="checkbox"/> -SL	10.2	25.8	2.0	3.97	●	●		
BB-6004TW-B180- <input type="checkbox"/>	21.0	41.0	3.0	4.76	●	●		
BB-6006TW-B180- <input type="checkbox"/>	29.9	45.5	2.5	4.76	●	●		
BB-6006TW-B180- <input type="checkbox"/> -SL	29.9	45.5	2.5	3.97	●	●		

### Technical data (related to metallic shafts)

Installation size	Slim Line	Recommended load capacity		Max. speed [rpm]	Weight	
		stat.	dyn.		B180/ES	B180/GL
		[lbs]	[lbs]		[g]	[g]
626	-	76.5	95.5	2,000	1.35	0.81
608	-	108.0	134.5	1,700	2.25	1.17
6000	-	137.0	175.5	1,500	3.04	1.50
6000	●	91.0	112.0	1,500	2.09	1.20
6004	-	219.0	273.0	700	6.87	4.41
6006	-	207.5	346.0	600	5.51	3.39
6006	●	116.5	152.5	600	4.23	2.98



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



Available upon request



3D-CAD files, prices and delivery time ► [www.igus.com/xiros](http://www.igus.com/xiros)

# xiros® slewing ring ball bearings | Product range

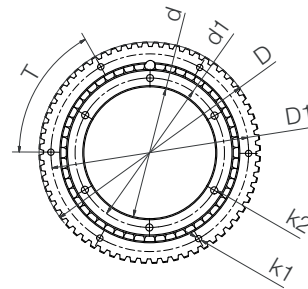
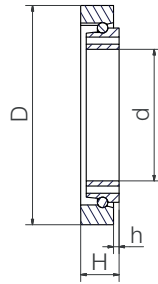
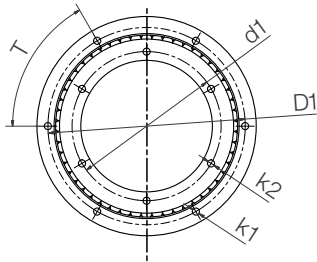
## xirodur B180 – for absorbing higher axial loads



Stainless steel balls



Glass balls

Stainless steel balls,  
with cage made from  
xirodur B180Stainless steel balls,  
with outer drive ring (HDT5)

### Dimensions [mm]

Part No.	d	d1	D	D1	h	H	T	k1	k2
<b>Standard with stainless steel or glass balls</b>									
BB-RT-01-60- <input type="text"/>	60	68	100	90	2.5	17.5	60	3.3	3.3
BB-RT-01-100- <input type="text"/>	100	110	160	150	5.0	20.0	60	5.2	5.2
<b>Slewing ring bearing with xirodur B180 cage</b>									
BB-RT-01-40-B180-30-ES	40	80	47	72	2.5	15	60	3.3	3.3
BB-RT-01-60-B180-30-ES	60	68	100	90	2.5	17.5	60	3.3	3.3
BB-RT-01-100-B180-30-ES	100	160	110	150	5.0	20	60	5.2	5.2
BB-RT-01-150-B180-30-ES	150	210	163	197	5.0	20	60	6.1	6.1
BB-RT-01-400-B180-30-GL	400	450	600	550	10.0	40	51.43	8.0	8.0
<b>Slewing ring bearing with outer drive ring</b>									
BB-RT-01-60HDT5-B180-30-ES	60	68	100	90	2.5	17.5	60	3.3	3.3



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



Available upon request

## Subheading



### Order key

Type / Dimension	Material
------------------	----------

## BB-RT-01-60-ES

Ball bearings	Slewing ring bearing	Type 01	Inner Ø	Ball material
---------------	----------------------	---------	---------	---------------

#### Options

#### Ball material

ES = Stainless steel

GL = Glass



### Order key with cage

Type / Dimension	Material
------------------	----------

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

Ball bearings	Slewing ring bearing	Type 01	Inner Ø	Race material	Cage material	Ball material
---------------	----------------------	---------	---------	---------------	---------------	---------------

#### Options

#### Ball material

ES = Stainless steel

GL = Glass

### Technical data

Type	Load capacity		Max. permissible moment [Nm]	Max. speed [rpm]	Weight	
	Axial [lbs]	Radial [lbs]			stainless steel [g]	glass [g]
Standard with stainless steel or glass balls						
BB-RT-01-60	179.5	161.5	40	350	111.68	7.33
BB-RT-01-100	359.5	281.0	60	250	283.85	243.76
Slewing ring bearing with xirodur B180 cage						
BB-RT-01-40-B180-30	112.0	58.0	30	900	63.46	–
BB-RT-01-60-B180-30	134.5	67.0	30	800	101.22	–
BB-RT-01-100-B180-30	229.0	170.5	55	650	248.90	–
BB-RT-01-150-B180-30	449.5	247.0	75	600	398.00	–
BB-RT-01-400-B180-30	1303.5	651.5	170	500	–	6338
Slewing ring bearing with outer drive ring						
BB-RT-01-60HDT5-B180-30	179.5	161.5	40	320	97.00	–



Order example: BB-MB-1633-11-B180-PP = Multi-axis bearing with race material xirodur B180, B180 housing and PP balls



Available upon request





- FDA-compliant components
- Can withstand loads of up to approximately 50kg (depending on installation size)



Order key

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

ESTM-BB1-F25-B180-ES-SL

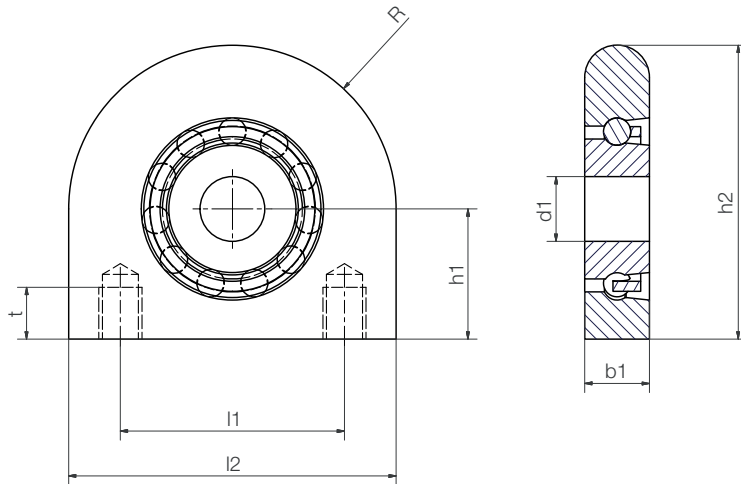
Pillow block bearing	Ball bearing, single row	Fixed version	Inner Ø	Race/cage material	Ball material	Slim Line
----------------------	--------------------------	---------------	---------	--------------------	---------------	-----------

Race/cage material

B180 = xirodur B180

Ball material

ES = Stainless steel



## Dimensions [mm]

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

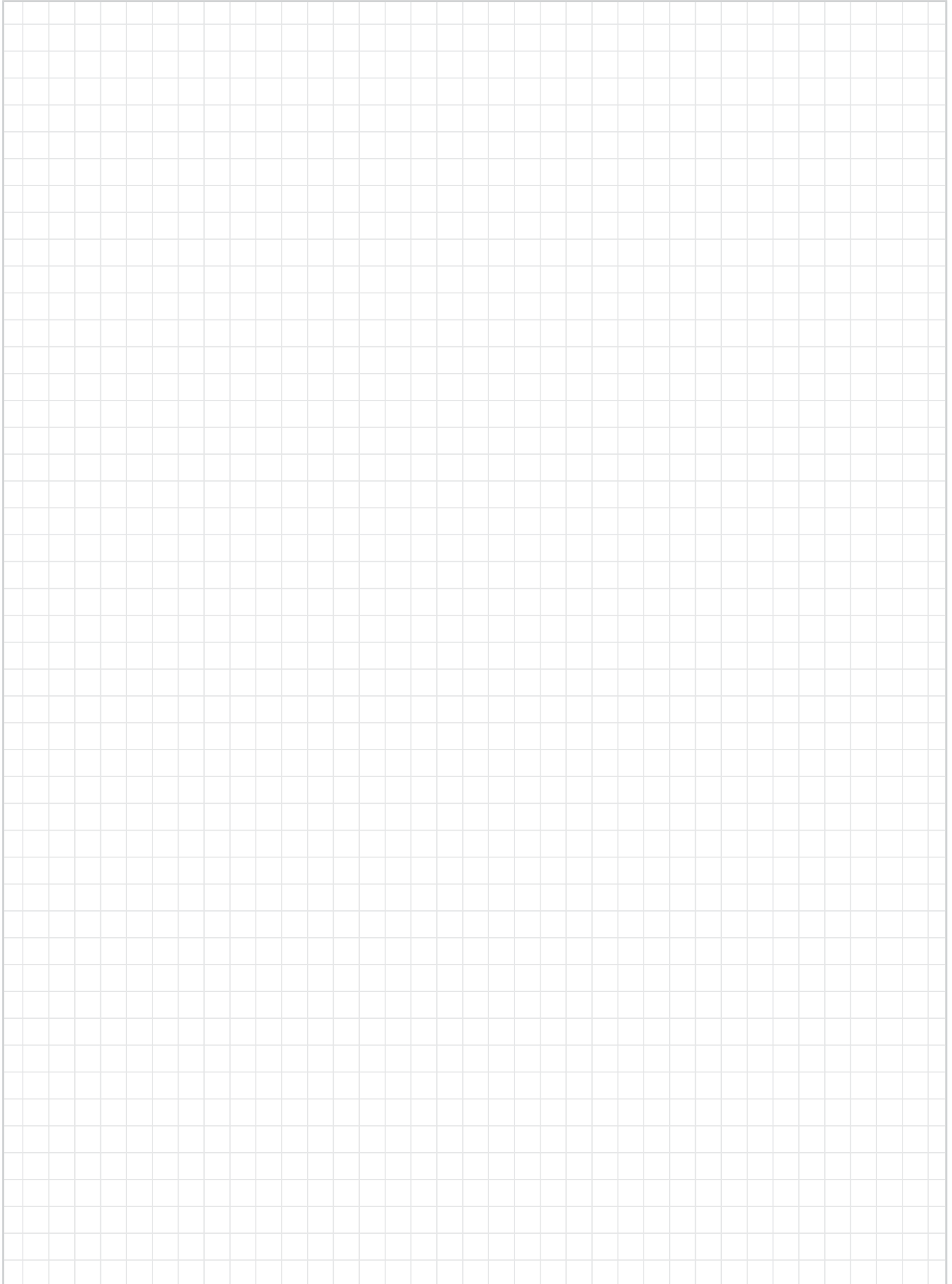
## Technical data

Type	Load capacity, radial		Max. speed	Weight stainless steel
	stat. [lbs]	dyn. [lbs]		
ESTM-F15	60.5	78.5	1,250	86
ESTM-F17	62.5	80.5	1,200	85
ESTM-F20	65.0	83.0	1,150	83
ESTM-F25	107.5	116.5	850	119
ESTM-F30	112.0	123.5	840	163



Available upon request

# Notes



## Fixed version

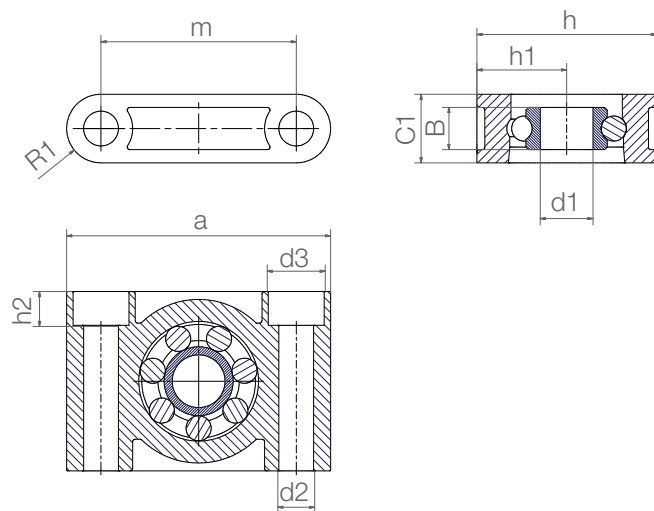


igumid G housing,  
PA cage, stainless  
steel balls



igumid G housing,  
PA cage,  
glass balls

- Easy to assemble



## Order key

Type	Material
<b>ESTM-BB1-F06-B180-ES</b>	
Pillow block bearing	Race material
Ball bearing, single row	Ball material
Fixed version	
Inner Ø	

## Race material

**B180** = xirodur B180

## Options:

**Ball material**

**ES** = Stainless steel

**GL** = Glass

## Dimensions [mm]

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

## Technical data

Type	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		B180/ES [g]	B180/GL [g]
ESTM-F06	9.0	9.5	2,600	7.7	6.7
ESTM-F10	24.5	29.0	1,900	20.2	18.2
ESTM-F20	56.0	71.5	1,150	54.1	47.7



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



Available upon request

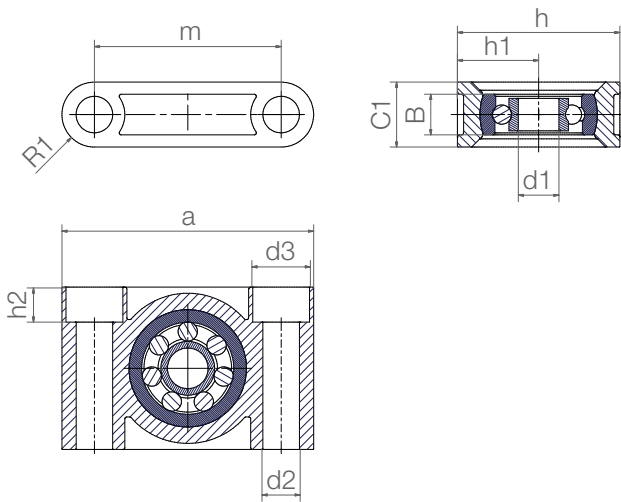
## Pivoting version



igumid G housing,  
PA cage, stainless  
steel balls

igumid G housing,  
PA cage,  
Glass balls

- Compensation of misalignment errors



### Order key

Type	Material
<b>ESTM-BB1-P 08-B180-ES</b>	
Pillow block bearing	Face material
Ball bearing, single row	Ball material
Pivoting version	
Inner Ø	

#### Race material

**B180** = xirodur B180

#### Options:

#### Ball material

**ES** = Stainless steel

**GL** = Glass

### Dimensions [mm]

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

### Technical data

Type	Radial load capacity		Max. speed [rpm]	Weight	
	stat. [lbs]	dyn. [lbs]		B180/ES [g]	B180/GL [g]
ESTM-P08	17.5	21.0	2,200	19.6	18.2
ESTM-P10	24.5	29.0	1,900	32.9	30.3
ESTM-P12	29.0	33.0	1,750	54.8	52.8



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



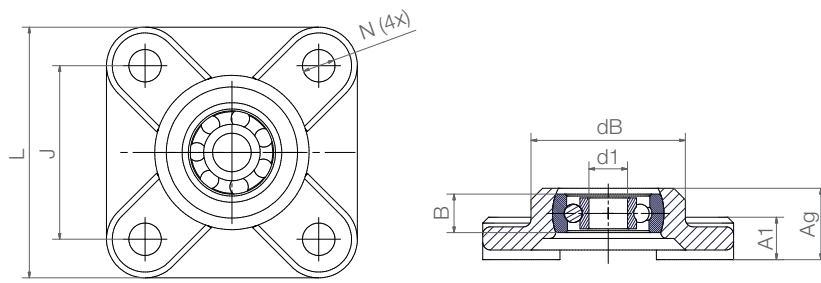
Available upon request

## Pivoting version



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

- Compensation of misalignment errors



## Order key

Type Material

**EFSM-BB1-P 08-B180-ES**

4-hole fixed flange ball bearings

Ball bearing, single row

Pivoting version

Inner Ø

Race material

Ball material

## Race material

**B180** = xirodur B180

Options:

## Ball material

**ES** = Stainless steel

**GL** = Glass

## Dimensions [mm]

Part No.	Inner Ø	dB	L	J	A1	Ag	B	N	Max. pivot angle
	d1								
EFSM-BB1-P08-B180- <input type="checkbox"/>	8	32.5	52	36	9	15.5	8	6.4	±20°
EFSM-BB1-P10-B180- <input type="checkbox"/>	10	40.0	65	45	11	18.8	10	8.4	±20°
EFSM-BB1-P12-B180- <input type="checkbox"/>	12	48.0	74	52	14	23.5	12	8.4	±20°

## Technical data

Type	Radial load capacity		Max. speed [rpm]	Weight	
	stat.	dyn.		B180/ES	B180/GL
	[lbs]	[lbs]		[g]	[g]
EFSM-P08	17.5	21.0	2,200	25.2	24.0
EFSM-P10	24.5	29.0	1,900	48.8	46.2
EFSM-P12	29.0	33.0	1,750	80.0	77.7



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



Available upon request

## Pivoting version



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

#### Race material

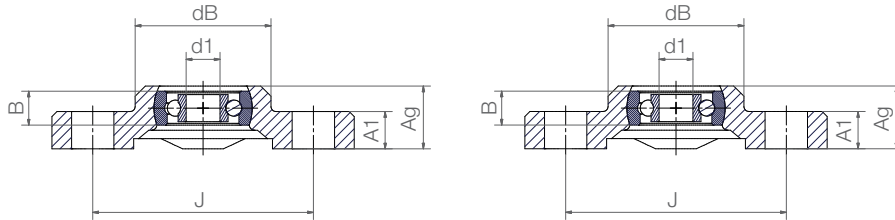
**B180** = xirodur B180

Options:

**Ball material**

**ES** = Stainless steel

**GL** = Glass



### Dimensions [mm]

Part No.	Inner Ø d1	dB d2	H	L	J	A1	Ag	B	N	Max. pivot angle
EFOM-BB1-P08-B180- <input type="checkbox"/>	8	32.5	72.6	38	53	10	15.5	8	6.4x10.1	±20°
EFOM-BB1-P10-B180- <input type="checkbox"/>	10	40.0	89.0	47	65	11	18.8	10	8.4x12.5	±20°
EFOM-BB1-P12-B180- <input type="checkbox"/>	12	48.5	101.0	58.5	75	14	23.5	12	8.4x12.5	±20°

### Technical data

Type	Radial load capacity		Max. speed [rpm]	Weight	
	stat.	dyn.		B180/ES	B180/GL
	[lbs]	[lbs]		[g]	[g]
EFOM-P08	17.5	21.0	2,200	19.5	18.1
EFOM-P10	24.5	29.0	1,900	36.3	33.6
EFOM-P12	29.0	33.0	1,750	61.7	59.4



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



Available upon request

