

Catalog

Performance Bearings

High-Temperature Superalloy Ball and Roller Bearings



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Quote Request Form F.1

About This Catalog

This catalog contains a selection of complete made-to-order performance bearings offered by Hybrid CNC Parts. All bearings are fabricated using nickel- and cobalt-based superalloys, chosen for their superior heat-, wear-, and corrosion-resistant properties.

Product Specification Tables

Products are sorted by bearing type and part number, with corresponding dimensions, materials, load ratings, operation ratings, and mass.

Customizations

Customizations are available upon request and will incur additional charges. Examples include custom serialization or special surface treatments.

Quote Request

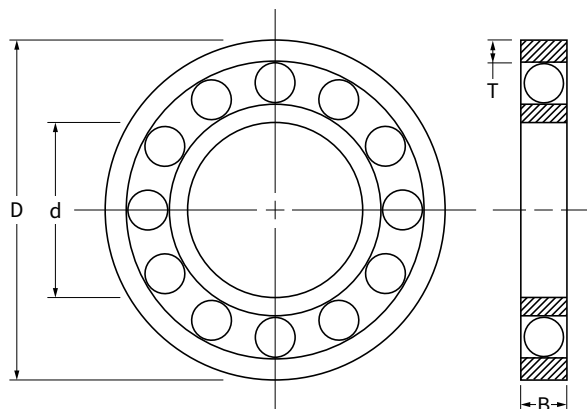
Complete the form found at the end of this catalog and email it to quote@hybridcncparts.com.

Important Information

The latest version of this catalog, additional quote request forms, and alternative bearing product options can be found at hybridcncparts.com/bearings.

For technical information, questions, or inquiries, please contact customer support.

Boundary Dimensions



Outside Diameter (D) Bearing Width (B)
Bore Diameter (d) Wall Thickness (T)

Materials

Alloy	Brand Names	UNS Classification
Nickel 718	Inconel®, Techalloy®	N07718
Cobalt 20	Stellite®	R30020
Cobalt 6	Stellite®, Polystel®	R30006

Customer Support

support@hybridcncparts.com

+1 (508)-461-9412

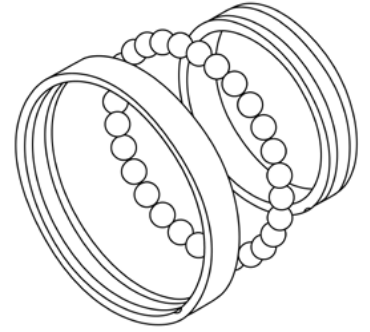
Office hours:

- Monday to Friday
- 8 AM-5 PM (ET)

Single Row Angular Contact Ball Bearings

Parts: 1000-1019

Sizes: 0.5 in-5.25 in



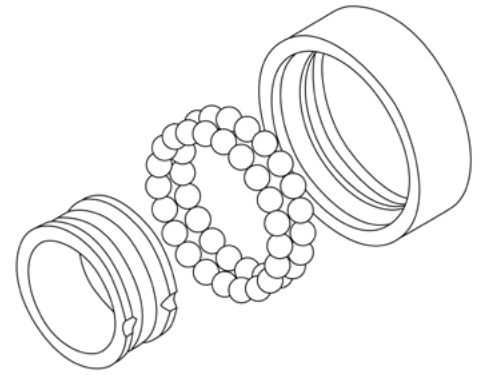
Properties			
Locating Feature	Yes (Outer Ring)	Lubricant	None
Ring Type	1-Piece (Inner and Outer Rings)	Relubrication Feature	Without
Cage	None	Bore Type	Cylindrical
Coating	None	Ring Material	Nickel 718 (E.g. Inconel® 718, Techalloy® 718)
Sealing	Open	Ball Bearings Material	Cobalt 20 (E.g. Stellite® 20)

Part No.	Dimensions			Load Ratings		Operation Ratings		Mass
	Bore Diameter d	Outside Diameter D	Width B	Static	Dynamic	Max. Speed	Temperature	
	in	in	in	lbf	lbf	rpm	°F	lbm
1000	0.5	2	0.25	1,843	5,773	5,354	500	0.59
1001	0.75	2.25	0.375	2,257	6,333	4,462	500	0.88
1002	1	2.5	0.5	2,778	6,981	3,825	500	1.25
1003	1.25	2.75	0.625	3,194	7,322	3,346	500	1.66
1004	1.5	3	0.75	3,604	7,683	2,975	500	2.13
1005	1.75	3.25	0.875	4,002	7,994	1,890	500	2.65
1006	2	3.5	1	4,437	8,223	1,718	500	3.24
1007	2.25	3.75	1.125	4,826	8,662	1,575	500	3.88
1008	2.5	4	0.25	5,125	8,796	2,059	500	1.43
1009	2.75	4.25	0.375	5,602	9,333	1,912	500	1.97
1010	3	4.5	0.5	5,886	9,345	1,785	500	2.56
1011	3.25	4.75	0.625	6,239	9,715	1,673	500	3.20
1012	3.5	5	0.75	6,510	10,078	1,575	500	3.90
1013	3.75	5.25	0.875	6,859	9,924	1,050	500	4.66
1014	4	5.5	1	7,208	10,257	995	500	5.48
1015	4.25	5.75	1.125	7,462	10,585	945	500	6.35
1016	4.5	6	0.25	7,921	11,015	1,275	500	2.29
1017	4.75	6.25	0.375	8,265	10,628	1,217	500	3.05
1018	5	6.5	0.5	8,610	10,921	1,164	500	3.86
1019	5.25	6.75	0.625	8,954	11,210	1,115	500	4.74

Double Row Angular Contact Ball Bearings

Parts: 2000–2014

Sizes: 0.5 in–4 in



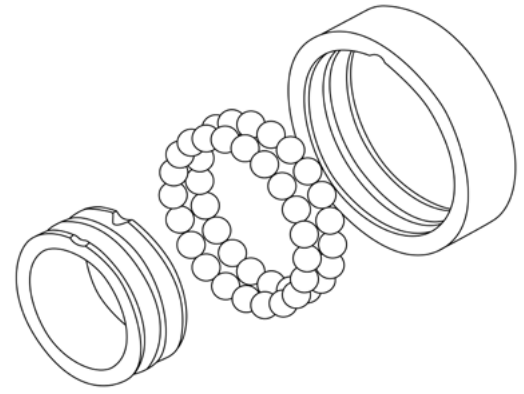
Properties			
Locating Feature	Yes (Outer Ring)	Lubricant	None
Ring Type	1-piece (Inner and Outer Rings)	Relubrication Feature	Without
Cage	None	Bore Type	Cylindrical
Coating	None	Ring Material	Nickel 718 (E.g. Inconel® 718, Techalloy® 718)
Sealing	Open	Ball Bearings Material	Cobalt 20 (E.g. Stellite® 20)

Part No.	Dimensions			Load Ratings		Operation Ratings		Mass
	Bore Diameter d	Outside Diameter D	Width B	Static	Dynamic	Max. Speed	Temperature	
	in	in	in	lbf	lbf	rpm	°F	
2000	0.5	2	0.75	3,685	9,379	5,354	500	1.23
2001	0.75	2.25	0.875	4,514	10,289	3,150	500	1.64
2002	1	2.5	1	5,557	11,341	2,700	500	2.12
2003	1.25	2.75	1.125	6,388	11,894	2,362	500	2.65
2004	1.5	3	1.25	7,208	12,481	2,100	500	3.23
2005	1.75	3.25	1.375	8,005	12,986	1,890	500	3.88
2006	2	3.5	1.5	8,874	13,359	1,718	500	4.58
2007	2.25	3.75	1.625	9,652	14,071	1,575	500	5.34
2008	2.5	4	1.75	10,250	14,290	1,454	500	6.15
2009	2.75	4.25	1.875	11,203	15,162	1,350	500	7.05
2010	3	4.5	2	11,772	15,181	1,260	500	7.98
2011	3.25	4.75	2.125	12,478	15,782	1,181	500	8.97
2012	3.5	5	2.25	13,021	16,371	1,112	500	10.02
2013	3.75	5.25	2.375	13,718	16,122	1,050	500	11.13
2014	4	5.5	2.5	14,416	16,663	995	500	12.30

Double Row Deep Groove Ball Bearings

Parts: 3000–3015

Sizes: 0.5 in–4.25 in



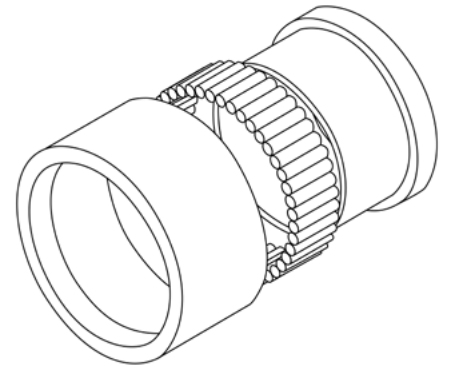
Properties			
Locating Feature	Yes (Outer Ring)	Lubricant	None
Ring Type	1-piece (Inner and Outer Rings)	Relubrication Feature	Without
Cage	None	Bore Type	Cylindrical
Coating	None	Ring Material	Nickel 718 (E.g. Inconel® 718, Techalloy® 718)
Sealing	Open	Ball Bearings Material	Cobalt 20 (E.g. Stellite® 20)

Part No.	Dimensions			Load Ratings		Operation Ratings		Mass
	Bore Diameter d	Outside Diameter D	Width B	Static	Dynamic	Max. Speed	Temperature	
	in	in	in	lbf	lbf	rpm	°F	lbm
3000	0.5	2	0.75	4,255	10,372	5,354	500	1.23
3001	0.75	2.25	0.875	5,213	11,475	3,150	500	1.64
3002	1	2.5	1	6,417	12,780	2,700	500	2.12
3003	1.25	2.75	1.125	7,376	13,526	2,362	500	2.65
3004	1.5	3	1.25	8,323	14,301	2,100	500	3.23
3005	1.75	3.25	1.375	9,243	14,970	1,890	500	3.88
3006	2	3.5	1.5	10,246	15,529	1,718	500	4.58
3007	2.25	3.75	1.625	11,145	16,003	1,575	500	5.34
3008	2.5	4	1.75	11,835	16,329	1,454	500	6.15
3009	2.75	4.25	1.875	12,936	17,326	1,350	500	7.05
3010	3	4.5	2	13,593	17,473	1,260	500	7.98
3011	3.25	4.75	2.125	14,409	18,165	1,181	500	8.97
3012	3.5	5	2.25	15,035	18,106	1,112	500	10.02
3013	3.75	5.25	2.375	15,841	18,746	1,050	500	11.13
3014	4	5.5	2.5	16,646	19,375	995	500	12.30
3015	4.25	5.75	2.625	17,232	19,018	945	500	13.53

Single Row Needle Roller Bearings

Parts: 4000–4019

Sizes: 0.5 in–5.25 in



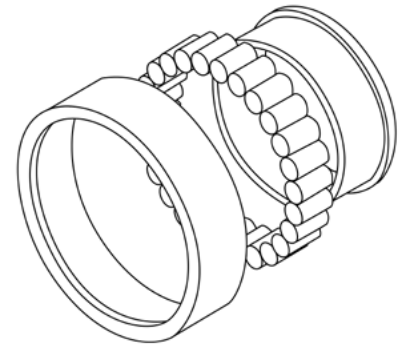
Properties			
Locating Feature	Yes (Outer Ring)	Lubricant	None
Ring Type	1-piece (Inner and Outer Rings)	Relubrication Feature	Without
Cage	None	Bore Type	Cylindrical
Coating	None	Ring Material	Nickel 718 (E.g. Inconel® 718, Techalloy® 718)
Sealing	Open	Rollers Material	Cobalt 6 (E.g. Stellite® 6, Polystel® 6)

Part No.	Dimensions			Load Ratings		Operation Ratings		Mass
	Bore Diameter d	Outside Diameter D	Width B	Static	Dynamic	Max. Speed	Temperature	
	in	in	in	lbf	lbf	rpm	°F	
4000	0.5	2	0.25	5,349	9,491	5,354	500	0.59
4001	0.75	2.25	0.375	9,752	14,605	4,462	500	0.88
4002	1	2.5	0.5	15,921	20,702	3,825	500	1.25
4003	1.25	2.75	0.625	22,754	26,475	3,346	500	1.66
4004	1.5	3	0.75	30,710	32,665	2,975	500	2.13
4005	1.75	3.25	0.875	39,787	39,010	1,890	500	2.65
4006	2	3.5	1	49,982	45,465	1,718	500	3.24
4007	2.25	3.75	1.125	61,296	51,949	1,575	500	3.88
4008	2.5	4	0.25	14,745	16,696	2,059	500	1.43
4009	2.75	4.25	0.375	24,319	24,465	1,912	500	1.97
4010	3	4.5	0.5	34,672	31,263	1,785	500	2.56
4011	3.25	4.75	0.625	46,146	38,850	1,673	500	3.20
4012	3.5	5	0.75	58,739	45,301	1,575	500	3.90
4013	3.75	5.25	0.875	72,451	53,110	1,050	500	4.66
4014	4	5.5	1	87,281	61,156	995	500	5.48
4015	4.25	5.75	1.125	103,228	66,912	945	500	6.35
4016	4.5	6	0.25	24,412	21,722	1,275	500	2.29
4017	4.75	6.25	0.375	38,297	30,742	1,217	500	3.05
4018	5	6.5	0.5	53,301	39,646	1,164	500	3.86
4019	5.25	6.75	0.625	69,422	48,568	1,115	500	4.74

Single Row Cylindrical Roller Bearings

Parts: 5000–5019

Sizes: 0.5 in–5.25 in



Properties			
Locating Feature	Yes (Outer Ring)	Lubricant	None
Ring Type	1-piece (Inner and Outer Rings)	Relubrication Feature	Without
Cage	None	Bore Type	Cylindrical
Coating	None	Ring Material	Nickel 718 (E.g. Inconel® 718, Techalloy® 718)
Sealing	Open	Rollers Material	Cobalt 6 (E.g. Stellite® 6, Polystel® 6)

Part No.	Dimensions			Load Ratings		Operation Ratings		Mass
	Bore Diameter d	Outside Diameter D	Width B	Static	Dynamic	Max. Speed	Temperature	
	in	in	in	lbf	lbf	rpm	°F	lbm
5000	0.5	2	0.25	5,349	9,491	5,354	500	0.59
5001	0.75	2.25	0.375	9,752	14,605	4,462	500	0.88
5002	1	2.5	0.5	15,921	20,702	3,825	500	1.25
5003	1.25	2.75	0.625	22,754	26,475	3,346	500	1.66
5004	1.5	3	0.75	30,710	32,665	2,975	500	2.13
5005	1.75	3.25	0.875	39,787	39,010	1,890	500	2.65
5006	2	3.5	1	49,982	45,465	1,718	500	3.24
5007	2.25	3.75	1.125	61,296	51,949	1,575	500	3.88
5008	2.5	4	0.25	14,745	16,696	2,059	500	1.43
5009	2.75	4.25	0.375	24,319	24,465	1,912	500	1.97
5010	3	4.5	0.5	34,672	31,263	1,785	500	2.56
5011	3.25	4.75	0.625	46,146	38,850	1,673	500	3.20
5012	3.5	5	0.75	58,739	45,301	1,575	500	3.90
5013	3.75	5.25	0.875	72,451	53,110	1,050	500	4.66
5014	4	5.5	1	87,281	61,156	995	500	5.48
5015	4.25	5.75	1.125	103,228	66,912	945	500	6.35
5016	4.5	6	0.25	24,412	21,722	1,275	500	2.29
5017	4.75	6.25	0.375	38,297	30,742	1,217	500	3.05
5018	5	6.5	0.5	53,301	39,646	1,164	500	3.86
5019	5.25	6.75	0.625	69,422	48,568	1,115	500	4.74

Quote Request Form



Performance Bearings

Complete this form and send it to quote@hybridcncparts.com.

For the latest version of this catalog, additional quote request forms, and alternative bearing product options: hybridcncparts.com/bearings

Customer Support

support@hybridcncparts.com

+1 (508)-461-9412

Office hours:

- Monday to Friday
- 8 AM-5 PM (ET)

1. Customer Information

Contact Information

Company Name	
Contact Name	
Phone Number	
Email Address	

Billing Address

Address Line 1			
Address Line 2			
Town/City		State/Province	
Country		ZIP Code	

Shipping Address

Same as Billing Address	☐		
Address Line 1			
Address Line 2			
Town/City		State/Province	
Country		ZIP Code	

Quote Request Form



2. Order Details

Item	Part #	Item Description	Quantity
<i>E.g.</i>	<i>1000</i>	<i>Single Row Angular Contact Ball Bearings; 0.5 in bore diameter.</i>	<i>2,500</i>
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Notes/Special Instructions

E.g. Customization requests, certificates of conformance required, etc.

Quote Request Form



3. Payment and Shipping

Payment Information

Payment Method	Purchase Order ☐	PO#	Wire Transfer ☐
	Other		
Billing Contact	Same as above ☐	Other	
Tax Exempt	Yes ☐		
Send tax exempt certificate with this form.			

Shipping Details

Shipping Priority	Standard ☐	Expedited ☐	Customer-Arranged Pickup ☐
Carrier Preference (optional)			
Shipping Account Number (if applicable)			
Requested Delivery Date			

4. Terms and Conditions

1. Orders are subject to lead times and material availability.
2. Pricing and availability are subject to confirmation.
3. Cancellations or modifications must be approved in writing.
4. Custom or special-order items are non-refundable.
5. Any disputes must be addressed within 7 days of receipt.
6. Full Terms and Conditions available at hybridcncparts.com/terms-and-conditions

5. Authorization

☐	I acknowledge that I have read and agree to the terms and conditions.
☐	I also certify that I am authorized to request a quote on behalf of the company named above.