



# Barden Thin Section Bearings



For over sixty years, The Barden Corporation has manufactured custom-designed ball bearings for unique and challenging applications.

Our product offering has expanded in recent years to include larger diameter thin section ball bearings. Produced in standard cross sections and configurations, thin section bearings manufactured at Barden can be customized to meet the unique needs of each application.



### **Material options include:**

#### **Rings:**

- 52100
- Cronidur 30
- 440C

#### **Balls:**

- 52100, 440C
- Silicon nitride / ceramic

#### **Separators:**

- Bronze or phenolic cages
- Custom spacers from a variety of materials including Barden SPiN material

Thin section bearings are available in sizes up to 10 inches in diameter, both conrad and angular contact. A list of the more common sizes available from the Danbury, CT production facility is shown in Table 1. Products can be produced in accordance to all ABEC tolerances including ABEC 7T. Parts are manufactured in America and material certifications can often be provided if requested upon order placement. The Barden product engineering team is available to offer assistance with product selection and application engineering.

Barden Bearings can meet many demanding applications, some of which include:

- Robotics
- Aerospace
- Defense
- Satellite equipment
- Packaging equipment
- Semiconductor equipment

# THIN SECTION BEARINGS (INCH)

Bore Diameters: 4.000 in to 8.000 in

XC Z T A(M) 0xx A X-  
(1) (2) (3) (4) (5) (6) (7)

## 1- Material

C - Ceramic balls  
CS - Ceramic balls, stainless steel rings  
XC - Ceramic balls, Cronidur 30 rings

## 2- Z = Barden special

## 3- T = Thin section

## 4- Bearing Type

A - Angular Contact  
X - Four-point contact  
Standard is inch

Metric also available with TAM designation

## 5 - Bearing Sizes

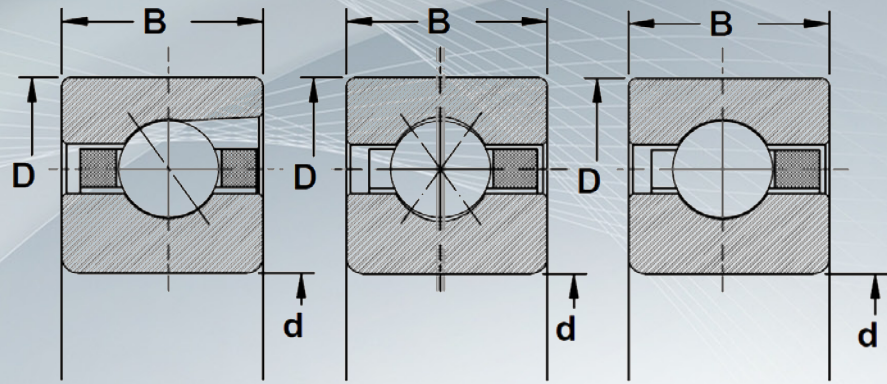
Size designation indicates bore per table  
Consult Barden engineering for metric sizes  
Smaller and larger sizes than those shown also

## 6 - Bearing Cross Section

A - 1/4" square  
B - 5/16" square  
C - 3/8" square  
D - 1/2" square

## 7 - X indicates special configurations and designs

Consult Barden engineering for all unique needs



BASIC BEARING NUMBER (only A cross section listed after first size)	Bearing Type	Bore Diameter d		Outside Diameter D		Width B	
		mm	inch	mm	inch	mm	inch
ZTA040A	A	101.60	4.00	114.30	4.500	6.35	0.250
ZTX040A	X	101.60	4.00	114.30	4.500	6.35	0.250
ZTA040B	A	101.60	4.00	117.48	4.625	7.94	0.313
ZTX040B	X	101.60	4.00	117.48	4.625	7.94	0.313
ZTA040C	A	101.60	4.00	120.65	4.750	9.53	0.375
ZTX040C	X	101.60	4.00	120.65	4.750	9.53	0.375
ZTA040D	A	101.60	4.00	127.00	5.000	12.70	0.500
ZTX040D	X	101.60	4.00	127.00	5.000	12.70	0.500
ZTA045A	A	114.30	4.50	127.00	5.000	6.35	0.250
ZTX045A	X	114.30	4.50	127.00	5.000	6.35	0.250
ZTA047A	A	120.65	4.75	133.35	5.250	6.35	0.250
ZTX047A	X	120.65	4.75	133.35	5.250	6.35	0.250
ZTA050A	A	127.00	5.00	139.70	5.500	6.35	0.250
ZTX050A	X	127.00	5.00	139.70	5.500	6.35	0.250
ZTA055A	A	139.70	5.50	152.40	6.000	6.35	0.250
ZTX055A	X	139.70	5.50	152.40	6.000	6.35	0.250
ZTA060A	A	152.40	6.00	165.10	6.500	6.35	0.250
ZTX060A	X	152.40	6.00	165.10	6.500	6.35	0.250
ZTA065A	A	165.10	6.50	177.80	7.000	6.35	0.250
ZTX065A	X	165.10	6.50	177.80	7.000	6.35	0.250
ZTA070A	A	177.80	7.00	190.50	7.500	6.35	0.250
ZTX070A	X	177.80	7.00	190.50	7.500	6.35	0.250
ZTA075A	A	190.50	7.50	203.20	8.000	6.35	0.250
ZTX075A	X	190.50	7.50	203.20	8.000	6.35	0.250
ZTA080A	A	203.20	8.00	215.90	8.500	6.35	0.250
ZTX080A	X	203.20	8.00	215.90	8.500	6.35	0.250



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