

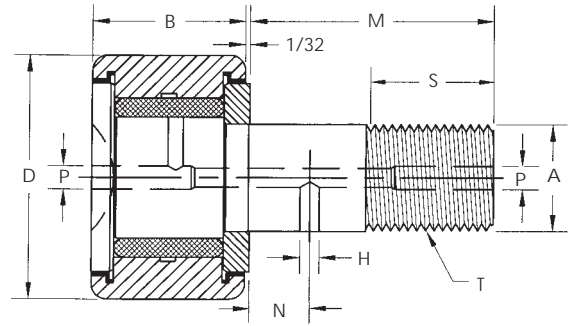
**BCR & BCR-X****Non-Metallic Bushing****Stud Type**

## Screwdriver Slot

Stud Type with  
Non-Metallic Bushing  
Screwdriver Slot  
Sealed or Unsealed  
X = Sealed



**NON-METALLIC  
BUSHING**

**General Information**

The **SMITH BCR** and **BYR** Series replace the standard steel needle rollers with a **non-metallic**, self-lubricating, engineered plastic bushing which eliminates or reduces the need for bearing lubrication. This product is available in **Sealed, Crowned & Eccentric Stud** type. The Load Capacity is based on speed used. Consult our Engineering Department for load calculations. Max allowable temperature 250°F typical. Higher temperature versions available.

## Dimensional Data (inches)

SMITH Bearing® Number		D Roller O.D. +.000 -.001	B Roller Width +.000 -.005	A Stud Dia. +.001 -.000	M Stud Length +.005 -.0005	S Eff. Thread Min.	T Thread U.N.F. Class 2A	N Oil Hole Location	H Oil Hole Dia.	P Lube Fitting Size	Min. Boss Dia.	Recom. Bore +.0005 -.0005
UNSEALED	SEALED											
BCR-1/2	BCR-1/2-X	.500	.375	.190	5/8	1/4	10-32	-	-	1/8	19/64	.190
BCR-5/8	BCR-5/8-X	.625	.4375	.250	3/4	5/16	1/4-28	-	-	1/8	23/64	.250
BCR-3/4	BCR-3/4-X	.750	.500	.375	7/8	3/8	3/8-24	1/4	3/32	3/16	1/2	.375
BCR-7/8	BCR-7/8-X	.875	.500	.375	3/4	3/8	3/8-24	1/4	3/32	3/16	1/2	.375
BCR-1	BCR-1-X	1.000	.625	.4375	1	1/2	7/16-20	1/4	3/32	3/16	5/8	.4375
BCR-1 <sup>1</sup> / <sub>8</sub>	BCR-1 <sup>1</sup> / <sub>8</sub> -X	1.125	.625	.4375	1	1/2	7/16-20	1/4	3/32	3/16	5/8	.4375
BCR-1 <sup>1</sup> / <sub>4</sub>	BCR-1 <sup>1</sup> / <sub>4</sub> -X	1.250	.750	.500	1 <sup>1</sup> / <sub>4</sub>	5/8	1/2-20	5/16	3/32	3/16	3/4	.500
BCR-1 <sup>3</sup> / <sub>8</sub>	BCR-1 <sup>3</sup> / <sub>8</sub> -X	1.375	.750	.500	1 <sup>1</sup> / <sub>4</sub>	5/8	1/2-20	5/16	3/32	3/16	3/4	.500
BCR-1 <sup>1</sup> / <sub>2</sub>	BCR-1 <sup>1</sup> / <sub>2</sub> -X	1.500	.875	.625	1 <sup>1</sup> / <sub>2</sub>	3/4	5/8-18	3/8	3/32	3/16	57/64	.625
BCR-1 <sup>5</sup> / <sub>8</sub>	BCR-1 <sup>5</sup> / <sub>8</sub> -X	1.625	.875	.625	1 <sup>1</sup> / <sub>2</sub>	3/4	5/8-18	3/8	3/32	3/16	57/64	.625
BCR-1 <sup>3</sup> / <sub>4</sub>	BCR-1 <sup>3</sup> / <sub>4</sub> -X	1.750	1.000	.750	1 <sup>3</sup> / <sub>4</sub>	7/8	3/4-16	7/16	3/32	3/16	1 <sup>3</sup> / <sub>64</sub>	.750
BCR-1 <sup>7</sup> / <sub>8</sub>	BCR-1 <sup>7</sup> / <sub>8</sub> -X	1.875	1.000	.750	1 <sup>3</sup> / <sub>4</sub>	7/8	3/4-16	7/16	3/32	3/16	1 <sup>3</sup> / <sub>64</sub>	.750
BCR-2	BCR-2-X	2.000	1.250	.875	2	1	7/8-14	1/2	5/32	3/16	1 <sup>13</sup> / <sub>64</sub>	.875
BCR-2 <sup>1</sup> / <sub>4</sub>	BCR-2 <sup>1</sup> / <sub>4</sub> -X	2.250	1.250	.875	2	1	7/8-14	1/2	5/32	3/16	1 <sup>13</sup> / <sub>64</sub>	.875
BCR-2 <sup>1</sup> / <sub>2</sub>	BCR-2 <sup>1</sup> / <sub>2</sub> -X	2.500	1.500	1.000	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	1-14	9/16	5/32	3/16	1 <sup>5</sup> / <sub>16</sub>	1.000
BCR-2 <sup>3</sup> / <sub>4</sub>	BCR-2 <sup>3</sup> / <sub>4</sub> -X	2.750	1.500	1.000	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1-14	9/16	5/32	3/16	1 <sup>5</sup> / <sub>16</sub>	1.000
BCR-3	BCR-3-X	3.000	1.750	1.250	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub> -12	5/8	1/4	1/4	1 <sup>3</sup> / <sub>4</sub>	1.250

- 1) Add suffix "C" for Crowned. Example for Unsealed and Crowned: **BCR-1/2-C**. Example for Sealed and Crowned: **BCR-1/2-XC**.
- 2) Add suffix "E" for Eccentric. Example for Unsealed and Eccentric: **BCR-1/2-E**. Example for Sealed and Eccentric: **BCR-1/2-XE**.

NOTE: Bushing type bearings are designed for operation without lubrication at service temperature from -40° F to 200° F (250° F for short duration)