

Cages and Separators

The most common bearing cages are shown below. In some cases, such as high-load applications, a full complement design may be the best choice.

NHBB can also supply specially designed cages to meet your specific requirements. Please contact NHBB for assistance with optimum cage selection.

Cage Types

DESCRIPTION	+	DESIGN	MATERIAL	MAX. SPEED (ref.) dN**	OPERATING TEMP MAX.*	COMMENTS	TYPICAL APPLICATIONS
Ribbon Two-piece stamped, crimped	R		A.I.S.I. 305 steel	150,000	900° F	Superior starting torque Low cost	General purpose
Crown One-piece stamped	H		A.I.S.I. 410 steel	150,000	900° F	Higher speed capability than ribbon retainer Low cost	General purpose
Crown One-piece machined	KB		Phenolic-paper base	1,200,000	250° F	High speed capability Porous material Vacuum impregnated with oil	Medical Machine tools High speed motors
	KC		Phenolic-linen base				
Crown One-piece machined	M5		Polyamide-imide	1,200,000	500° F	High speed capability Requires lubrication Fully autoclavable	Medical/Dental High temperature
Crown One-piece machined Silver coated	SC		Patented composite metal-polymer	1,200,000	500° F	High speed capability Self-lubricating Fully autoclavable	Medical/Dental High temperature
Full type One-piece machined	KN		Phenolic-paper base	2,000,000	250° F	Ultra-high speed capability Angular contact bearing only Porous material Vacuum impregnated with oil	Machine tool spindles High speed motors
	KM		Phenolic-linen base				
Full type One-piece machined	M4		Polyamide-imide	2,000,000	500° F	Ultra-high speed capability Angular contact bearing only Requires lubrication Fully autoclavable	Medical/Dental High temperature
Full type One-piece machined Silver coated	SF		Patented composite metal-polymer	2,200,000	500° F	Ultra-high speed capability Angular contact bearing only Requires lubrication Fully autoclavable	Medical/Dental High temperature
Crown/Full type One-piece machined	T1		Meldin®	Consult Factory	500° F	Porous polyamide-imide material Vacuum impregnated with oil	Low to medium speed
			PGM		500° F 575° F	Self lubricating	Low speed Light load

Additional Ball Separator Designs

DESCRIPTION	+	DESIGN	MATERIAL	MAX. SPEED (ref.) dN**	OPERATING TEMP MAX.*	COMMENTS	TYPICAL APPLICATIONS
Toroid	TT		PTFE	5,000	450° F	Low torque Low speed Angular contact bearing only	Slow rotation Oscillating motion Cryogenic
Slug	SL		PTFE	1,000	450° F	Low torque Low speed	Gimbal assembly Slow rotation Low torque

+ Typical Part Number Designation.

* Rings and balls are heat stabilized to 300° F.

**dN is bore (in millimeters) x rpm.

Additional cage designs and materials available. Please consult with factory.