

TIMKEN



TIMKEN® MOUNTED POLY-ROUND® PLAIN BEARINGS

Timken® Mounted Poly-Round® Plain Bearings are made of high performance bearing-grade polymer materials, incorporating lubricity into the composition. This allows Poly-Round bearings to operate without the need for grease, eliminating the need for seals or shields. Engineered to excel in the harsh conditions of food and beverage processing – including aggressive washdowns and chemicals, extreme temperature ranges, abrasives, incomplete rotation – they meet stringent food safety requirements.

Corrosion resistant and lubrication free, Timken Mounted Poly-Round Plain Bearings are ideal for applications where sanitation and contamination are critical concerns. You can trust our mounted bearings to:

- **Elevate Food Safety**
- **Improve production uptime**
- **Perform with extended bearing life**

FEATURES AND BENEFITS

IMPROVE FOOD SAFETY AND REDUCE MAINTENANCE

- 100% grease-less; no lubrication needed, maintenance-free operation
- 100% corrosion-proof, unaffected by moisture and process contaminants
- Helps eliminate product contamination concerns with no components that can break or get lost (no balls, seals, shields)
- Optically detectable blue polymer housings and metal detectable bearings (material type ON) are designed to help reduce the chance for food contamination
- KleanCap® screws eliminate deep socket crevice where bacteria can hide
- AISI 316 shaft locking sleeve protects shaft from normal wear and extends bearing life
- Long and predictable operation, with predictable maintenance/replacement schedule
- Rotate insert 180 degrees to extend bearing life
- When Poly-Round is paired with a Timken QuiKlean® housing, sanitation is enhanced by allowing more effective cleaning



DESIGN FLEXIBILITY TO MEET APPLICATION NEEDS

- Housings available in cast stainless steel, white polymer (thermoplastic), hygienic blue polymer (thermoset) and hygienic stainless steel, in all mounting styles
- Designed for operating temperatures up to 260° C (500° F)
- Custom specialty designs available (consult with your Timken sales engineer)
- Dimensionally interchangeable industry-standard mounted bearings from 20 mm to 50 mm (¾ in. to 2 in.) (Larger sizes available; consult with your Timken representative)

CERTIFIED AND PROVEN

- USDA equipment acceptance for hygienic design – Mounted Hygienic Poly-Round Bearings meet NSF/ ANSI/3-A SSI-14159- 1-2014 requirements and comply with the most stringent industry requirements
- FDA compliant for direct or incidental food contact (see Product Specifications below)
- Exceeds IP69K requirements for fluid ingress, and eliminates failure due to fluid ingress and corrosion



PRODUCT SPECIFICATIONS

TIMKEN MOUNTED POLY-ROUND BEARINGS SELECTION CHART

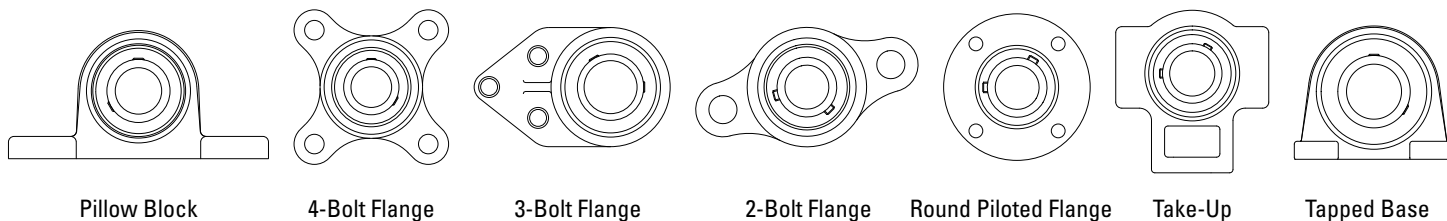
	Color	Temp Range	Chemical	Washdown	Submerged	Abrasion Resistance	Impact Resistance	Direct food contact	Metal Detectable
PA	White	Temp range to 260° C (500° F)	Excellent	Excellent	Excellent	Abrasion applications are very unpredictable. Each application must be tested for abrasion resistance. The best way to extend bearing life is to isolate the bearing.	Excellent	Direct	No
ON	Dark Blue	-40° C - 71° C -40° F - 160° F	Good	Excellent	Good		Excellent	Incidental	Yes
NA	Grey	-40° C - 93° C -40° F - 200° F	Good	Excellent	Good		Excellent	Incidental	No
FA	White	-40° C - 260° C -40° F - 500° F	Excellent	Excellent	Excellent		Excellent	Direct	No
QF	Black	Temp range to 260° C (500° F)	Excellent	Excellent	Excellent		Fair	Incidental	No
FE	Blue	-20° C - 249° C -4° F - 480° F	Excellent	Excellent	Excellent		Excellent	Direct	No









Plain bearings may not be suitable for high-speed and/or high-load tension conditions. Consult your Timken representative for proper applications.

Some Poly-Round inserts are not intended for high temperature applications. Consult your Timken representative for proper bearing selection based on your application.

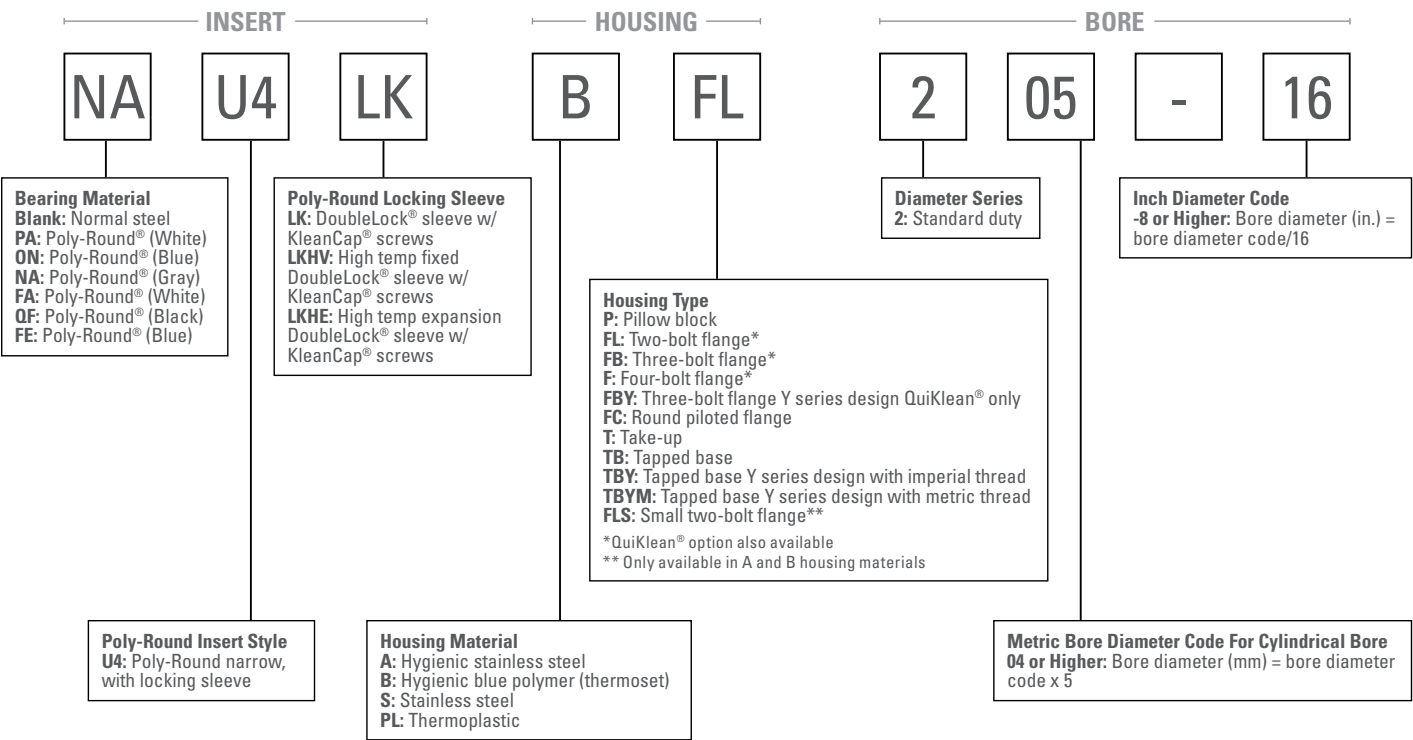
HOUSING MATERIALS AND STYLES

Available in cast stainless steel, white polymer (thermoplastic), hygienic blue polymer (thermoset) and hygienic stainless steel in the following mounting styles:



HOUSING UNIT MODEL LIST									
Model		Insert Material	Locking Style	Housing Material	Model Code Examples	Shaft Diameter			
						Min.	Max.	Min.	Max.
						in.		mm	
	Poly-Round Inserts	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	—	NAU4LK	3/4	2.0	20	50
	Pillow Block Units (P)	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	Stainless Steel (S)	NAU4LKSP	3/4	2.0	20	50
				Hygienic Stainless (A)	NAU4LKAP				
				Blue Polymer (B)	NAU4LKBP				
	Two-Bolt Flange Units (FL)	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	Stainless Steel (S)	NAU4LKSFL	3/4	2.0	20	50
				Hygienic Stainless (A)	NAU4LKAFL				
				Blue Polymer (B)	NAU4LKBFL				
	Three-Bolt Flange Units (FB)	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	Stainless Steel (S)	NAU4LKSFB	3/4	1 7/16	20	35
				Hygienic Stainless (A)	NAU4LKAFB				
				Blue Polymer (B)	NAU4LKBFB				
	Four-Bolt Flange Units (F)	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	Stainless Steel (S)	NAU4LKSF	3/4	2.0	20	50
				Hygienic Stainless (A)	NAU4LKAF				
				Blue Polymer (B)	NAU4LKBF				
	Take-Up Units (T)	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	Stainless Steel (S)	NAU4LKST	3/4	2.0	20	50
				Hygienic Stainless (A)	NAU4LKAT				
				Blue Polymer (B)	NAU4LKBST				
	Tapped Base (TB)	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	Stainless Steel (S)	NAU4LKSTB	3/4	2.0	20	50
				Hygienic Stainless (A)	NAU4LKATB				
				Blue Polymer (B)	NAU4LKBSTB				
	Piloted Flange (FC)	Poly-Round insert with Stainless Steel locking sleeves	DoubleLock® Sleeve with KleanCap® screws (LK)	Stainless Steel (S)	NAU4LKSFC	3/4	2.0	20	50
				Hygienic Stainless (A)	NAU4LKAFC				
				Blue Polymer (B)	NAU4LKBFC				

NOMENCLATURE



For custom options, please contact your Timken Sales Engineer.



TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.

Stronger. By Design.

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