ZVL-ZKL single row cylindrical roller bearings are manufactured in several basic separable designs, with different guide flange locations to achieve varying capabilities.

—The NU design features two guide flanges on the outer ring, and the N design features two guide flanges on the inner ring. Both allow mutual displacement of the inner and outer rings in either direction.

—The NJ design has two guide flanges on the outer ring and one on the inner, to handle axial loads in one direction

—The NUP design has all of the same features as the NJ design, in addition to a loose guide flange for the inner ring, to carry axial loads in both directions.

Axial guiding can also be achieved through the use of an HJ series angle ring, in both directions with an NJ series bearing and in one direction with an NU series bearing.

An innovative change in the internal design of cylindrical roller bearings resulted in the E design bearing, which stands for ‘‘extra capacity’’ and has a 30% average increase in the bearings load carrying capacity over bearings of the standard design.

With higher basic load ratings in comparison to single row ball bearings of the same size, single row cylindrical roller bearings are especially suitable for use in applications with heavy radial loads, high speeds, and where interference fits are required on both bearing rings.

Single Row Cylindrical Roller Bearings

Prefix	**Description**	**Example of Designation**
R	Separable bearing without the removable bearing ring	RNU219
Suffix	**Description**	**Example of Designation**
E	Internal design change for enhanced load carrying capacity	NU2215E
N	Snap ring groove on the outer ring	NU314N
M	Machined bronze cage guided on the rolling elements	NJ312M
MA	Machined bronze cage guided on the outer ring	NU226MA
MAS	Machined bronze cage guided on the outer ring with lubrication holes	NJ2308EMAS
MB	Machined bronze cage guided on the inner ring	N313MB
TNG	Polyamide cage reinforced with glass fiber, guided on the rolling elements	NUP310ETNG
P6	Higher tolerance class than standard	N212 P6
P5	Higher tolerance class than P6	N320 P5
P4	Higher tolerance class than P5	NUP2324 P4
C1	Radial clearance less than C2	NJ204 C1
C2	Radial clearance less than normal	NU211 C2
C3	Radial clearance greater than normal	NJ313 C3
C4	Radial clearance greater than C3	NU220 C4
C5	Radial clearance greater than C4	NU234E C5
NA	Radial clearance for bearings with non-interchangeable rings	NU224 NA
S0	Heat stabilized for an operating temperature up to 302°F (150°C)	NU220 SO
S1	Heat stabilized for an operating temperature up to 392°F (200°C)	NJ318 S1
S2	Heat stabilized for an operating temperature up to 482°F (250°C)	N412 S2
S3	Heat stabilized for an operating temperature up to 572°F (300°C)	NJ2215E S3
S4	Heat stabilized for an operating temperature up to 662°F (350°C)	NUP228 S4
S5	Heat stabilized for an operating temperature up to 752°F (400°C)	NU5234M C3S5