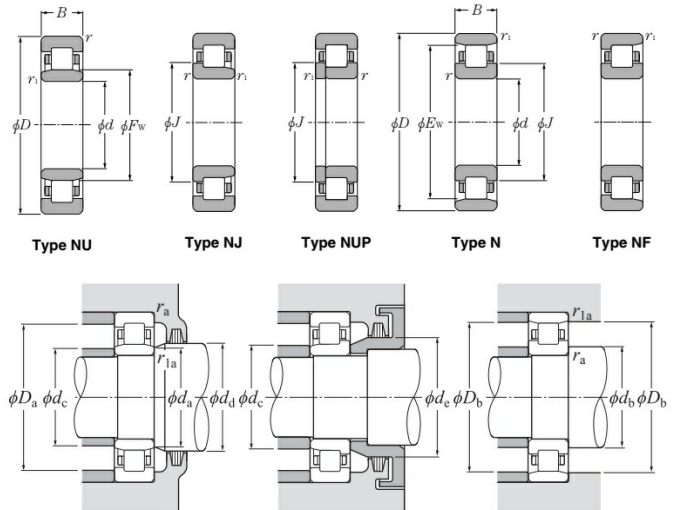


NJ1080

Cylindrical Roller Bearings NJ Design, Single Row



Technical sheet of NJ1080

What are the Benefits of choosing NJ1080 bearings?

- **High radial load capacity:** The rollers and raceways have line contact, resulting in a rated radial load significantly higher than that of ball bearings of the same size.
- **Good high-speed performance:** Generally employs machined or stamped cages, resulting in low friction and suitability for high-speed operation.
- **High rigidity:** Minimal elastic deformation effectively supports the shaft and housing, improving the rigidity of the transmission system.
- **Separable design:** The inner ring (with roller cage) is separable from the outer ring, facilitating installation, disassembly, and maintenance.
- **Axial displacement adaptability:** Types without inner ring flanges (such as NU and N types) allow for free axial expansion and contraction of the shaft relative to the housing, addressing thermal expansion issues.
- **Compact structure:** Small cross-sectional height saves radial space.

Type :	Single row cylindrical roller bearings	
Model :	NJ1080	
Old Code :	42180	
Main demensions :	400 mm × 600 mm × 90 mm	Bore Dia × Outside Dia × Width Dia
M kg:	91	Mass
HS Code :	8482500090	Bearing customs code

d mm:	400	inner ring diameter
D mm:	600	Outer ring diameter
B(T) mm:	90	Overall Width
Cr kN:	1320	Radial dynamic load rating
C_{0r} kN:	2190	Radial static load rating
Grease r/min:	990	Reference speed
Oil r/min:	1200	Limiting speed

Detailed parameters and installation dimensions:

Part Number	NJ1080
Precision	P0 (ISO Class NORMAL / ABEC-1)
Seal	Open
Series	NJ10 series (NJ10..)
Oil Hole	w/o Oil Hole
Load	radial
Dimension Inside - d ϕ	400 mm 15.748 inch
Dimension Outside - D Φ	600 mm 23.622 inch
Dimension Width - B	90 mm 3.543 inch
Inner/Outer Ring Material	Hardened Alloy Steel
Rolling Element Material	Hardened Alloy Steel
Temperature - T(min)	-40 °F
Temperature - T(max)	250 °F
Temperature - T(min)	-40 °C
Temperature - T(max)	120 °C
Interchangeable	NTN NJ1080
Cage	Machined cage
Bore Type	Cylindrical
Radial Dynamic Capacity - C _r	1320000 N 296736 lbf
Radial Static Capacity - C _{0r}	2190000 N 492312 lbf
Fatigue load load - C _u	164000 N 36867 lbf
Speed ratings (grease) - n _B	990 r/min
Speed ratings (oil) - n _G	1200 r/min
Bearing Type	Cylindrical Roller Bearings NJ Design, Single Row
Rows NO.	One
Dimension Chamfer - r _s min.	5 mm
Dimension Chamfer - r _{1s} min.	5 mm 0.197 inch
Raceway inner ring diameter - F _w	450 mm 17.716 inch
Type	NJ
Units	Metric
Radial Internal Clearance	CN
IR flange outer - J	470 mm 18.504 inch

Mounting dimensions shaft - d_a min	420 mm 16.535 inch
Mounting dimensions shaft - d_b min	420 mm 16.535 inch
Mounting dimensions shaft - d_c max	446 mm 17.559 inch
Mounting dimensions shaft - d_e min	473 mm 18.622 inch
Mounting dimensions housing - D_a max	580 mm 22.835 inch
Mounting dimensions housing - D_b max	580 mm 22.835 inch
Mounting dimensions housing - D_b min	554 mm 21.811 inch
Fillet radius - r_{as} max	4 mm 0.157 inch
Fillet radius - r_{1as} max	4 mm 0.157 inch

What are the applications of the NJ1080 bearing?

- **Electric Motors and Generators:** Support high speeds and reduce frictional temperature rise.
- **Gearboxes:** Withstand high radial loads and improve transmission rigidity.
- **Pumps and Compressors:** Ensure stable rotor operation and extend service life.
- **Metallurgical Equipment:** Resistant to heavy loads and impacts, adaptable to high-temperature conditions.
- **Mining Machinery:** Resistant to vibration and dust, maintaining continuous operation.
- **Wind Power Equipment:** Reliably transmits torque and adapts to variable speed and load conditions.
- **Rail Transportation:** Withstands heavy vehicle loads and ensures safe operation.
- **Machine Tools:** Provides high-rigidity support to ensure machining accuracy.
- **Paper Machinery:** Maintains roller stability and improves paper quality.
- **Conveying Equipment:** Bears continuous loads and reduces downtime for maintenance.

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