

## Single-Row Designs

### TS (pressed steel cage)

ID 0.3125 to 34.0000 in. (7.937 to 863.600 mm)  
OD 1.2595 to 41.7323 in. (31.991 to 1060.000 mm)

Design attributes:

- Single cone and cup
- One-piece pressed steel cage retains rollers on the cone and spaces them evenly

Potential applications: vehicle front wheels, differential and pinion configurations; conveyor rolls; machine tool spindles; trailer wheels

### TS (pin-type cage)

ID 6.0000 to 67.0000 in. (152.400 to 1701.800 mm)  
OD 12.1250 to 80.0000 in. (307.975 to 2032.000 mm)

Design attributes:

- Additional rollers accommodate larger loads
- Cage features two rings at each end of the rollers
- Cage pins are threaded in the center of each roller and welded at the ends

Potential applications: larger-load automotive and industrial equipment configurations

### TSF (flanged cup)

ID 0.3125 to 50.0000 in. (7.937 to 1270.000 mm)  
OD 1.2595 to 56.5000 in. (31.991 to 1435.100 mm)

Design attributes: Flange on cup OD front face

- Cup is backed against flange face to allow housing to be through-bored for accurate alignment of housing bores and reduced machining costs

Potential applications: machine tool spindles, gear reduction units, automotive transaxles and transmissions



**TSRB (snap ring cup)**

ID 0.8750 to 4.6250 in. (22.225 to 117.475 mm)  
 OD 2.2500 to 7.1250 in. (57.150 to 180.975 mm)

Design attributes:

- Basic TSF design with groove to accommodate a snap ring instead of flange
- Can be ordered with or without snap ring

Potential applications: machine tool spindles, gear reduction units, automotive transaxles and transmissions



**TSHR (Hydra-Rib™)**

ID 1.9685 to 10.6299 in. (50.000 to 270.000 mm)  
 OD 4.0945 to 14.7638 in. (104.000 to 375.000 mm)

Design attributes:

- Single-row assembly with floating outer race (cup) rib
- Floating rib contacts rollers through hydraulic or pneumatic pressure
- Allows preload settings to be obtained and maintained over a wide range of speeds and loads

Potential applications:



**TSK (keyway cone)**

ID 0.7210 to 19.6250 in. (18.721 to 498.475 mm)  
 OD 1.9380 to 24.9950 in. (49.225 to 634.873 mm)

Design attributes:

- TS bearing design with a cone that features a keyway or keyways
- Keyways prevent the bearing from rotating on the shaft

Potential applications: automotive or industrial rotating shaft applications where it is not practical to use an interference fit



**TSL (with DUO FACE-PLUS™ seals)**

ID 0.7500 to 2.6875 in. (19.050 to 68.262 mm)  
 OD 1.7810 to 4.3307 in. (45.237 to 110 mm)

Design attributes:

- TS design with a seal pressed onto the cone rib OD
- One seal lip operates in the housing bore while the other seals against the cup face

Potential applications: Moderate- to low-speed automotive and industrial applications



---

**TSU (UNIT-BEARING™)**

ID 1.811 to 1.7717 in. (30.000 to 45.000 mm)  
OD 2.2835 to 3.1496 in. (58.000 to 80.000 mm)

Design attributes:

- Self-contained, unitized assembly
- Manages heavy radial loads and thrust loads in either direction

Potential applications: automotive rear wheels, transmissions, gear reduction units, industrial equipment



**TXR (crossed roller bearing)**

ID 8.0000 to 97.0000 in. (203.200 to 2463.800 mm)  
OD 11.0000 to 111.0000 in. (279.400 to 2819.400 mm)

Design attributes:

- Provides benefits of two-row bearings in single-row space
- Withstands high overturning moments
- Combines the compactness of a single-row bearing with the stability of a two-row bearing

Potential applications: vertical boring mills, vertical grinding machines and other machine tools

