

Bearing cages

The bearing cage aim at keeping the balls in place on the circumference of the medium diameter, called primitive. According to applications, there are different types of cages.

The ball bearing cage is a discrete yet crucial component to ensure optimal product quality. Depending on factors such as rotation speed, acceleration, friction, and temperature, JESA will recommend a cage tailored to your specific needs. In certain situations, such as high accelerations, a cageless bearing might even be suggested as a solution.

- The cages made of brass (Y) or steel (J), consisting of two parts, are manufactured by stamping and are stapled during assembly.
- Synthetic material cages are produced from reinforced polymers, granting them advantageous properties such as low density, increased resistance to friction, as well as damping capabilities for silent and smooth operation at low torque.
- By using full ball bearings (V), the load capacity can be improved, albeit at the expense of maximum speed. The balls are placed in grooves on the inner and outer rings of the bearing.

CAGES CODES AND TECHNICAL SPECIFICATIONS

Code	Material	Assembly	Features
Y	Brass, two-piece	by tab deformation	
J	Steel, two-piece	by tab deformation	
W	Steel, single-piece	by pressure	
TNH	Thermoplastic polyamide PA 6.6, single-piece	by pressure	Maximum temperature 80°C, low speed
T9H	Glass fiber reinforced thermoplastic polyamide PA 6.6 (25%), single-piece	by pressure	Operating temperature 120°C, high speed
TBH	Glass fiber reinforced phenolic resin, single-piece	by pressure	High operating temperature, 140°C. Very high speeds
PEH	Glass fiber reinforced thermoplastic PEEK (20%), single-piece	by pressure	Very high operating temperature, 250°C
TSH	Glass fiber reinforced thermoplastic polyamide PA 4.6 (15%), single-piece	by pressure	Standard version for self-aligning ball bearings. Operating temperature 120°C
M	Machined brass	by pressure	Used in specific applications
V	Cageless (full ball)		Can withstand high loads, but at a reduced maximum speed



Brass cage (Y)



Steel cage (W)



Polyamide cage (TNH)



Cageless (V)