Belleville spring discs are conically shaped washers, generally found in chassis components. Through their conical shape and impact resistant profile, these provide the tension which keeps the ball joint together.

Typically in service, the spring disc encounters a consistent load and deflection force. Over time or extremes of these may flatten or crush the washer. The loss of its impact resistant profile will manifest as ‘play’, indicating replacement of the component.

Additionally, heavy use conditions may accelerate the development of this play.

First, an innovative recess is incorporated into the sintered metal bearing, as a secure base for the spring disc to be precisely placed.

Second, the shoulder of the recess protects the disc spring from excessive stressing forces and that any loading force remains within tolerances. This keeps the disc impact resistant over part service life.

Patented Stepped Bearing technology is currently available on ALL TTX ball joints, control arms, tie rods and stabilizer links.

Popular part numbers and applications featuring stepped bearings:

**Ball Joints**
- TXMS86568 – Front Upper 2005-2019 Toyota Tacoma

**Control Arms**
- CTXMS25147/8 – Front L/R Upper 2006-2018 RAM 1500
- CTXK80669/70 – Front L/R Upper 2007-2016 Chevrolet Silverado 1500

**Outer Tie Rods**
- TXMS40646 – Front Outer 2011-2019 Ford Explorer
- TXES3614 – Front Outer 2009-2019 Dodge Journey

**Stabilizer Links**
- TXK7258 – Front 1996-2019 Dodge Grand Caravan
- TXMS308139 – Rear 2012-2019 Nissan NV1500/2500/3500