



Z-FORM[®]

ZERO CLEARANCE BOLT AND SLEEVE ASSEMBLY

Typical bolted joints require clearance to accommodate machining tolerances and rely solely on clamp load to prevent joint slip. In joints subjected to high shear loads, traditional bolted joint assemblies may not be capable of keeping the clamped components from moving laterally in relation to each other.

The Z-Form[®] Assembly consists of a shoulder bolt with a pre-assembled deformable sleeve which, when installed completely eliminates clearance between the bolt and the through hole in the clamped component. This increases resistance to slippage, retains clampload and extends gasket/seal life.

In one customer validation test involving a ring gear application, Z-Form[®] Bolt & Sleeve Assembly outperformed the existing fastener by achieving 18X the number of reversing cycles. As a result, fewer or smaller fasteners may be used while still retaining a longer lived and completely serviceable joint.



FEATURES

- ▶ Sleeve expanding shoulder
- ▶ Retained deformable sleeve
- ▶ Zero clearance joint interface

BENEFITS

- ▶ Extremely high level of torque capacity for drive line joints
- ▶ Prevents lateral slippage in joints subjected to high shear loads
- ▶ Allows for the use of fewer or smaller fasteners in many applications

IDEAL APPLICATIONS

- ▶ Drive Trains
- ▶ Brake Systems
- ▶ Flex Plates
- ▶ Flywheels
- ▶ Ring Gears
- ▶ Bearing Caps
- ▶ Floating Axle Hubs
- ▶ Transmission Housings
- ▶ Suspension Components

STANDARD DESIGN GUIDELINES

- ▶ Sizes: Standard from M6 through M12