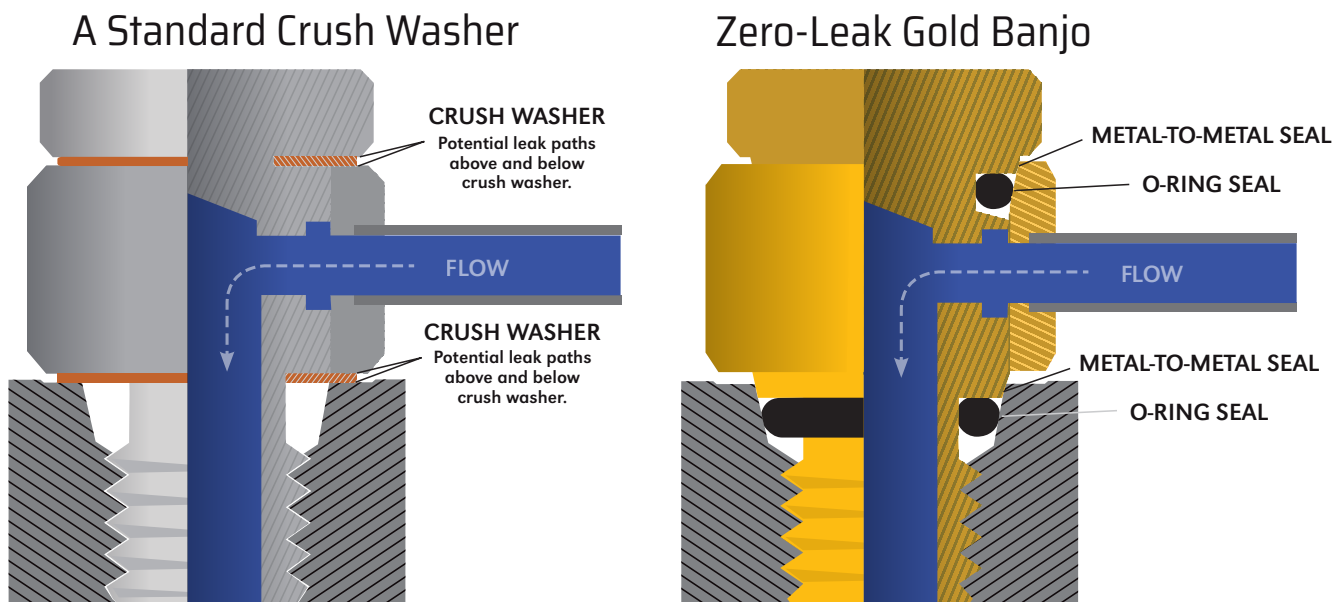


ZERO-LEAK GOLD BANJO FITTING

The Zero-Leak Gold Banjo Fitting is designed using the principles used in the Zero-Leak Gold Plug design. Banjos are designed for use in ports with tapered seats at their outer ends, such as the O-ring boss SAE J-1926 and ISO 6149 ports.

The most significant factor which distinguishes the ZLG Banjo Fitting from traditional banjos is the robust multiple seal arrangement at the component interfaces. A double redundant sealing system is accomplished by creating two entirely separate and independent seals, where a primary metal-to-metal seal works in conjunction with an elastomeric O-ring back-up seal.

Some typical service environments which have been developed for this product are diesel engine, automotive braking, air conditioning, power steering systems, agricultural and construction equipment, robotics, etc.



PROBLEMS WITH STANDARD BANJO FITTINGS:

- Standard banjo designs use crush washers which are difficult to seal and virtually impossible to reseal reliably.
- Poor resistance to vibration.
- High assembly torque required, leading to possibility of damaged threads and possible tensile failures of bolts.
- Components require fine surface finishes on port faces and banjo seats.
- Flow characteristics are obtained by recessing bodies in order to maintain maximum bolt strength, which may be both difficult and expensive.
- Crush washers may fall off and may be difficult to handle during the assembly process.

ZLG BANJO FITTING BENEFITS:

- ZLG multiple seal technology applied to Banjo Fittings provides a no “weep” zero-leak connection for Banjo applications. Both the primary metal-to-metal and secondary back-up seals designed into the ZLG Banjo work independently of the other.
- Separate seals – metal-to-metal and elastomeric O-rings provide protection against “weeps” and leaks.
- Significant cost reductions may be obtained in most applications.
- Makes use of the geometry of the taper and system pressure for exceptional performance in many conditions.
- Invokes elastic memory between mating parts for extended life in vibration environments.
- Allows for a wide range of assembly torque values.
- ZLG Banjo Fittings may be resealed repeatedly without loss of effectiveness.
- Increases choice of component materials since high assembly torque is not a requirement.
- Effective in vibration, temperature variation or pressure spike situations.
- Compactness of design allows for greater flexibility of system design.
- Utilizes standard machining surface finishes and +/- .005" tolerances.
- Integrated body and bolt enhance speed and ease of assembly in production.
- No crush washers required.

ZERO-LEAK
GOLD
PLUGS & FITTINGS

