



Designers often select shields, or in heavily contaminated environments, seals to protect a bearings interior surfaces while in operation. However, technicians and assemblers often don't realize that their work practices can result in poor bearing performance. To preserve their geometrical tolerances, ball bearings, particularly the miniature and instrument series, should be treated as the delicate mechanisms that they are. To that end, many bearing failures are the result of improper handling techniques – not defects from the manufacturing process.

When foreign matter contaminates the interior surfaces of a bearing, it ultimately leads to reduced life and impacts the bearings operational characteristics, including:

- Excessive noise
- Undesirable friction
- Ball skidding
- Overheating
- Reduced lubrication life



To observe proper handling techniques, we offer these best practices:

1. Do not handle bearings with bare hands. Use talc-free finger cots or talc-free surgical gloves.
2. Keep work areas clean (eating or smoking should be prohibited).
3. Keep bearings in their original packaging until used.
4. Use clean room wipes or swabs to clean housing and shafts.
5. We recommend using laminar flow work stations.
6. Keep bearing work tools clean and burr-free.
7. Avoid sources of magnetism.
8. Keep bearings in a dry environment.
9. Mount bearings squarely on the shaft and into the housing.
10. Do not subject bearings to shock or impact load.
11. When press fitting a bearing, apply force only to the ring that is being fitted.
12. Wear lint-free cap, shoe covers and smocks when handling miniature bearings.

Bearing users need to be aware of the type of bearing and its desired performance levels and establish a balance between production requirements and the best the recommended practices detailed above.

For more information on the importance of properly handling bearings, read, ["Proper Bearing Handling Can Help Prevent Bearing Failures."](#)

Let our team of experts help with your bearing needs. [Contact them here](#) or learn more about our [custom solutions](#).

#### Additional resources and information

- AST Bearings is proudly presenting our new certificates for both the NJ and CA locations: [AST Bearings' ISO 9001:2015 Certificates](#)

To learn more about ISO 9001 standard and how AST verifies customer satisfaction: [Learn About AST Bearings' certification to ISO 9001:2015](#)

