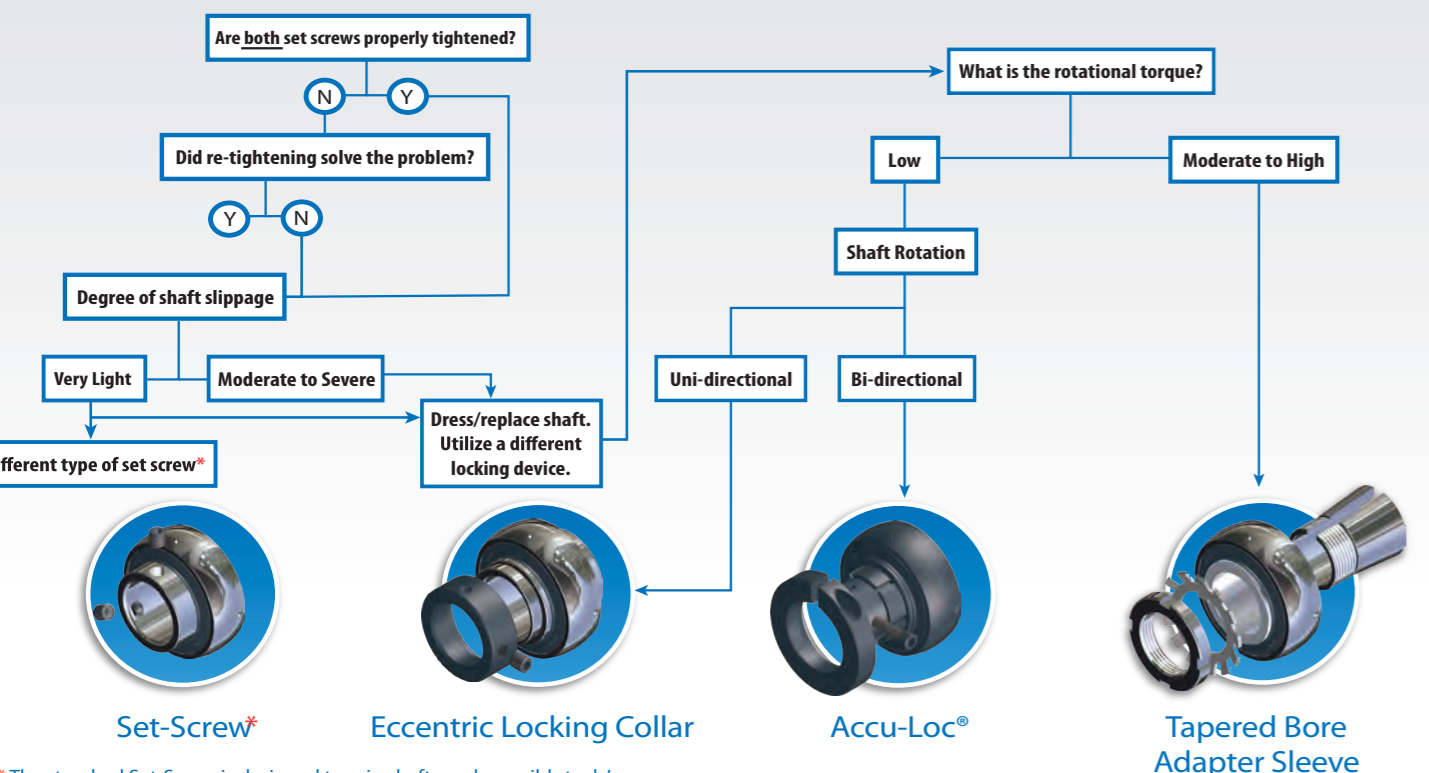


Optimizing your application

In some mounted ball bearing applications there are occasional issues when optimization is required. Even when performance appears acceptable, optimization may provide opportunities to help increase productivity and reduce your maintenance costs. The "Decision Tree" below is a simplified example of how your AMI sales team would optimize a locking device issue.

! IMPORTANT
 In the example below, many factors and conditions were not included that could affect specific device selection. This is why you should always consult your AMI sales team to be certain you get the right locking device for your application.

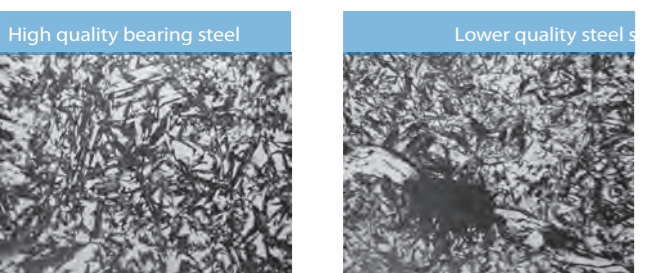
THE SITUATION: SLIPPAGE IN A SET-SCREW LOCKING DEVICE AFTER SHAFT REPLACEMENT



*The standard Set-Screw is designed to grip shafts such as mild steel. In some cases, harder shafts may require harder set-screws with a different point. Your AMI sales team can determine if this is the best solution.

BEARING & LOCKING DEVICE QUALITY

All bearings and locking devices are not created equal. One of the major differences is the quality of the steel. The steel used in AMI bearings is significantly cleaner than commonly used steel that often has inclusions or "flaws." Our bearing quality steel is more uniform, contributing to increased durability and longer service life.



TOTAL LIFECYCLE COSTS

When you look beyond the price of a bearing/locking device you'll find the true cost.

Your AMI sales team can show you—in real numbers—what your current bearing costs are, and how much you could save with higher quality, longer lasting and lower maintenance AMI bearings.

All these are excellent reasons why you should specify replacement bearings and devices such as AMI products that meet or exceed ABMA industry standards.

**No matter your industry.
 No matter your application.**
 Need a mounted ball bearing that meets your exact specifications, and you need it fast?
We do that.



Unlike other companies, we assemble every bearing just the way you want it, to your exact specifications. Right down to the mounting dimensions and precise location of the Zerk fitting. And AMI manufactures bearings and locking devices to the most exacting standards. So they will outperform in even the most critical applications.

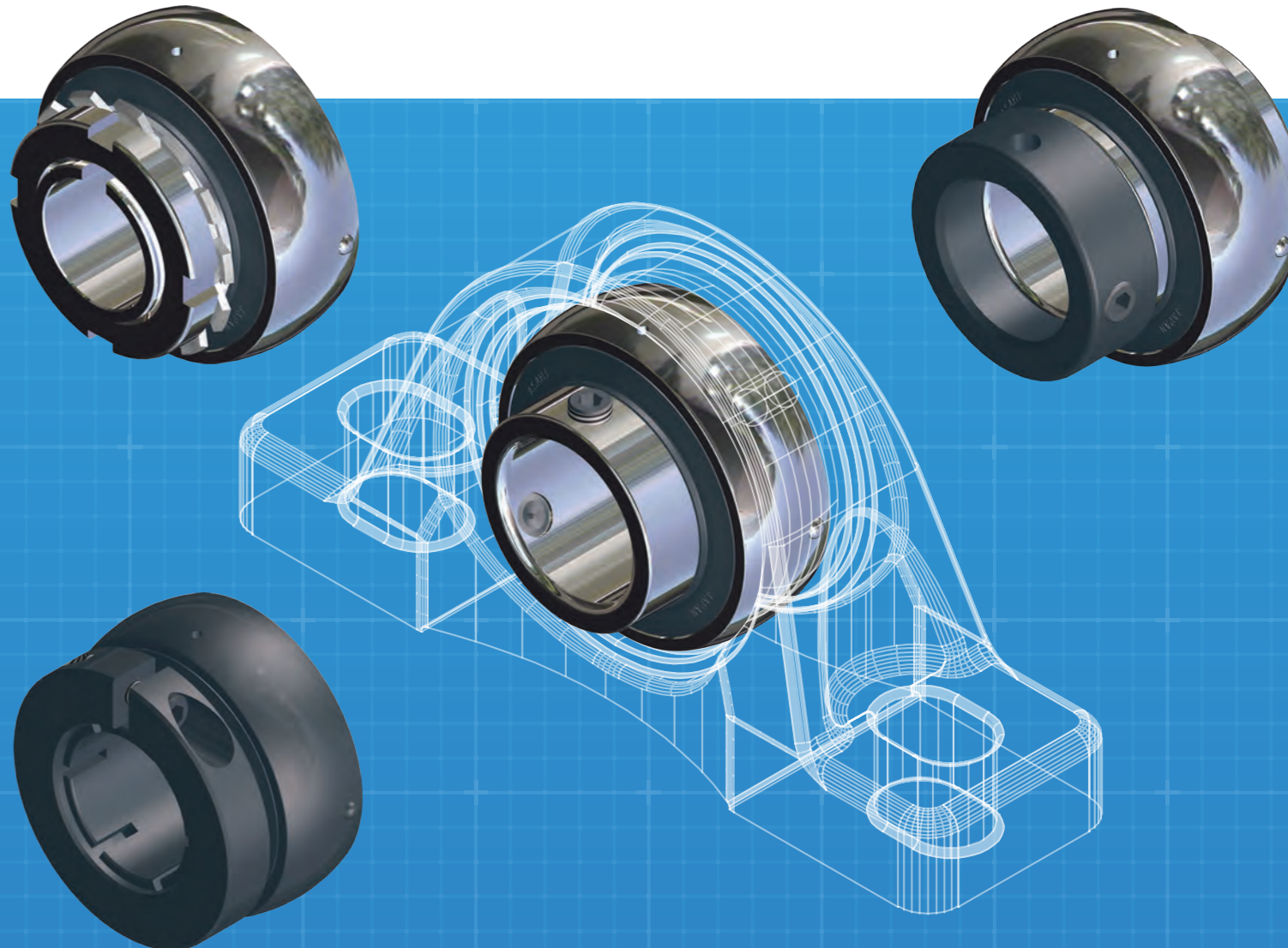
But we don't stop there.

Our nationwide network of experienced bearing distributors can provide a range of services to help you achieve the highest possible productivity. It could be an analysis of your bearing usage and maintenance.

Or troubleshooting a particular bearing problem. Maybe you need a logistics program to ensure orders arrive on a timely basis. Or possibly you need technical assistance with a new application.

Working together with AMI technical services, your distributor is the key to maintaining the efficiency and productivity of your mounted ball bearing applications. When it comes to the bearings themselves, we have over 50,000 possible mounted ball bearing configurations. And in most cases, we ship your order within 24 hours. That's why our standard bearings are usually our competitors' "specials."

The Right Locking Device for Any Mounted Ball Bearing Application



The right locking device is vital to your manufacturing efficiency.

Locking devices keep the bearing from slipping on the shaft, but different applications often require different locking devices. Only AMI offers all four of the standard locking devices for mounted ball bearing applications. Plus we custom design locking devices for applications such as high temperature.

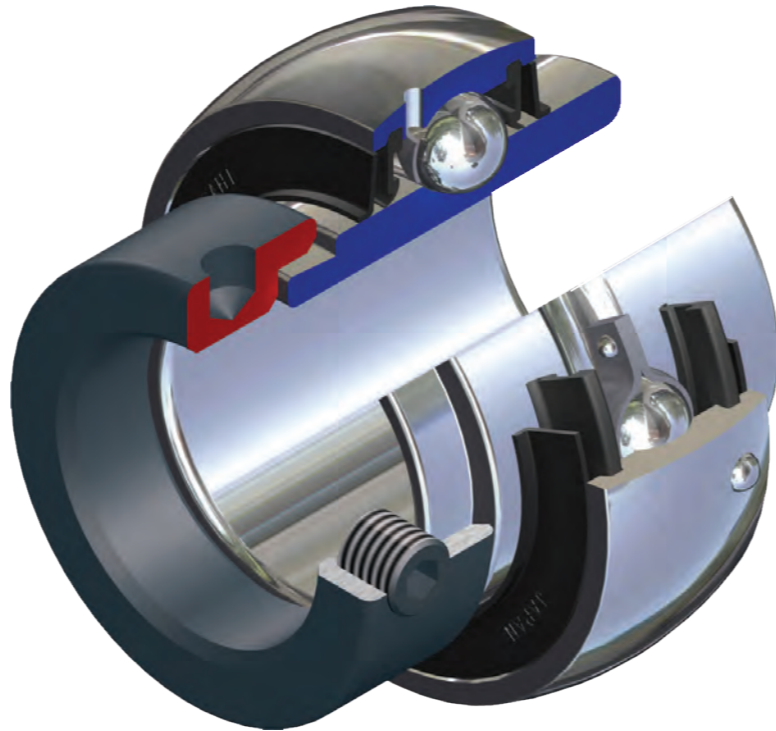
SET SCREW

For most applications the Set Screw type functions well. It's easy to install, does not require a collar, and is good for reversing applications. The set screws in the AMI design are spaced 120 degrees apart. This three-point contact minimizes inner ring distortion, reducing vibration and noise, and improving reliability.



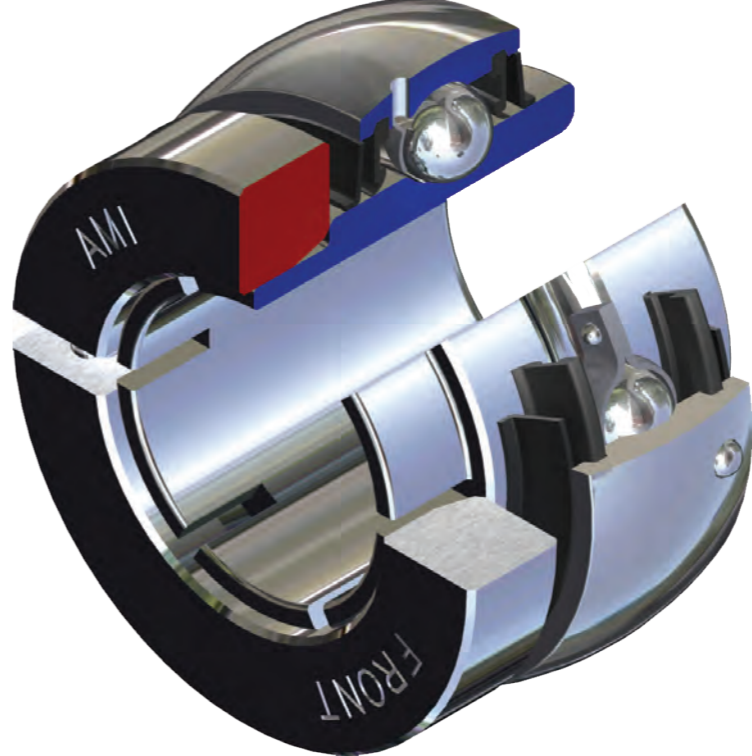
ECCENTRIC LOCKING COLLAR

A popular locking mechanism for applications such as packaging, agriculture and light manufacturing assembly lines where there is uni-directional motion only. While it requires a collar it is easy to install. AMI eccentric locking collars are completely interchangeable with other brands.



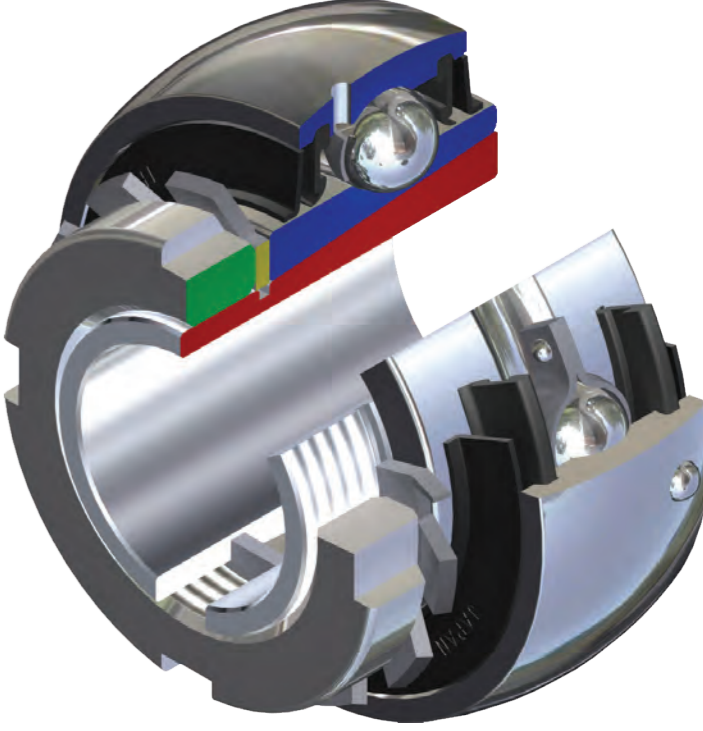
ACCU-LOC®

The Accu-Loc device is designed for high-speed applications. It provides true shaft centering to minimize vibration and noise. The AMI locking collar has a chamfered edge that produces a significant increase in holding power. The collar is easy to install and remove, simplifying maintenance. And it does not damage the shaft.



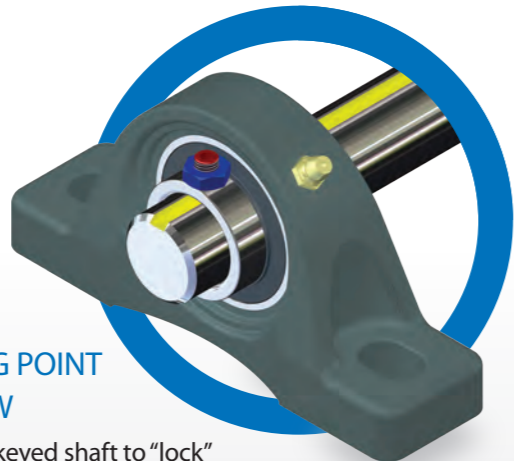
TAPERED BORE ADAPTER SLEEVE

Holds better than any other available locking style. Excellent for higher rotational speeds and heavier torque applications such as industrial bandsaws and heavy impact loading on conveyors. The increased holding power also can suppress fretting corrosion and scarring to shafts saving time and costs. It is more forgiving to undersize shafting than other locking styles and can accommodate commercial grade shafting, lowering costs even further.



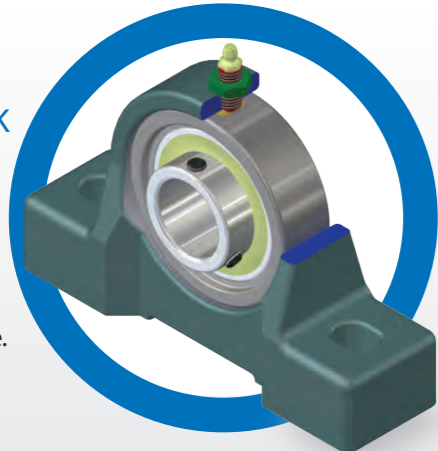
CUSTOM LOCKING DEVICES

For high temperature mounted ball bearing applications, AMI offers two types of custom locking devices. Both are designed to accommodate the shaft expansion caused by high temperatures such as in a heat treating oven. This type of device also works well in applications requiring periodic linear shaft repositioning. It can reduce maintenance costs because there is no need to loosen the locking device.



EXPANSION PILLOW BLOCK

The UCEP type features an expansion cartridge design that does not require modification of the shaft, but does require increased base to center distance.



Used with a keyed shaft to "lock" the shaft to the bearing. The special set screw moves along the shaft to accommodate shaft expansion.

CHARACTERISTICS	SET SCREW	ECCENTRIC LOCKING COLLAR	ACCU-LOC®	TAPERED BORE ADAPTER SLEEVE
Cost	\$	\$ \$	\$ \$ \$	\$ \$ \$ \$
Holding Power	Very Good	Very Good	Good	Excellent
Ease of Installation	Very Easy	Easy	Very Easy	Involved
Concentricity on Shaft	Fair	Good	Very Good	Excellent
High Speed Applications	Fair	Good	Excellent	Excellent
Axial Loading	Good	Good	Not Recommended	Excellent
Reversing Direction Applications	Very Good	Not Recommended	Very Good	Excellent
Required Shaft Precision	High	High	Very High	Low
Damage to Shafting	Some	Minimal	None	None

LOCKING STYLE AVAILABILITY	SET SCREW	ECCENTRIC LOCKING COLLAR	ACCU-LOC®	TAPERED BORE ADAPTER SLEEVE
Light Duty	10 mm ~ 30 mm	10 mm ~ 35 mm		
Normal Duty, Narrow Inner Ring	1/2" ~ 1-1/2" 12 mm ~ 40 mm	1/2" ~ 2-3/16" 12 mm ~ 55 mm		
Normal Duty, Wide Inner Ring	1/2" ~ 3-1/2" 12 mm ~ 90 mm	1/2" ~ 2-7/16" 20 mm ~ 60 mm	3/4" ~ 2-7/16" 20 mm ~ 60 mm	3/4" ~ 3-1/8" 20 mm ~ 80 mm
Medium Duty, Wide Inner Ring	1" ~ 4" 25 mm ~ 100 mm		1" ~ 2-3/16"	3/4" ~ 3-1/2" 20 mm ~ 90 mm
Heavy Duty, Wide Inner Ring	1" ~ 4-7/16" 25 mm ~ 140 mm	1-7/16" ~ 3" 45 mm ~ 90 mm		3/4" ~ 4" 20 mm ~ 125 mm

MATERIAL/CORROSION PROTECTION	BORE SIZE AVAILABILITY
Zinc Protected AISI 52100 Steel	1/2" ~ 2-3/16" 15 mm ~ 50 mm
Kanigen Protected AISI 52100 Steel	1/2" ~ 2"
AISI 440C Stainless Steel	1/2" ~ 2-1/2" 10 mm ~ 65 mm

