





Bushing Type

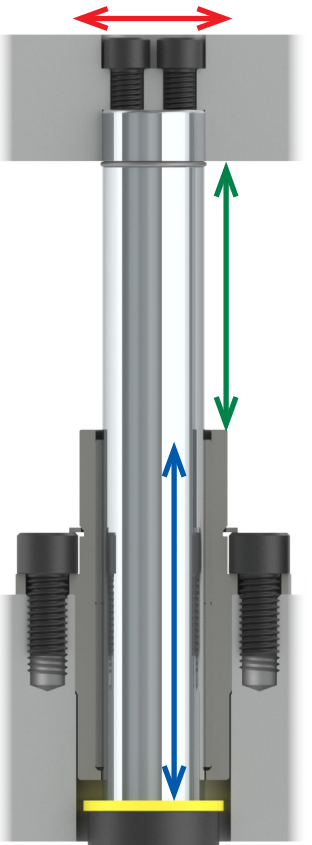
There are 2 bushing types available, PTFE / Bronze(TB) and Bronze / Graphite Plugged(BP)
 The PTFE / Bronze Bushing(TB) is the recommended type for most applications.

The bushing type plays a role in three main aspects of the Guided Keeper.

1. How much movement is allowed in the pad/lifter bar assembly
2. How long the bushing will last
3. Cost of assembly

How much movement is allowed in the pad/lifter bar assembly		How long will the bushing last	
			
<p>New When used with a healthy bushing length you will have very little, if any, movement in the Pad. Especially if you have 4-6 of them tied together on a Pad.</p> <p>During Production It will depend on how much of the PTFE layer has worn. The shorter the bushing, and the greater the side/tip forces subjected on the bushing, the faster it will wear.</p>	<p>New When used with a healthy bushing length you will feel very little movement at the end of the Guide Pin. Especially once you tie 2 of them together on a Pad or Lifter Rail.</p> <p>During Production The greater the side/tip forces subjected on the bushing, the faster it will wear. If applied well the bushing should maintain close to its starting fit for a healthy amount of use.</p>	<p>History has shown this bushing does extremely well in production.</p> <p>Over the last 10+ years SL has shipped replacements equal to only 3% of units shipped for new tooling.</p> <p>This bushing style has an incredibly low replacement rate for a wearing item.</p>	<p>This type of bushing has been in the industry for years.</p> <p>SL performed tests that exceeded 12 million linear inches run through the bushing successfully.</p> <p>Life expectancy is based on how "loose" the bushing is allowed to get in the application, but should be similar to other products when applied correctly.</p>
End of Life Cycle			
Application will determine how much movement is acceptable to continue making good parts.			
Cost Difference			
The TB style bushing is more economical. For example, a 1.25 diameter x 3" long base is \$21 less. A 1.75 diameter x 3" long base is \$25 less.			

Pro Tip:
 Typically the length of bushing and the distance from the Pad/Lifter Rail has a greater affect than the bushing type on the amount of movement in the assembly

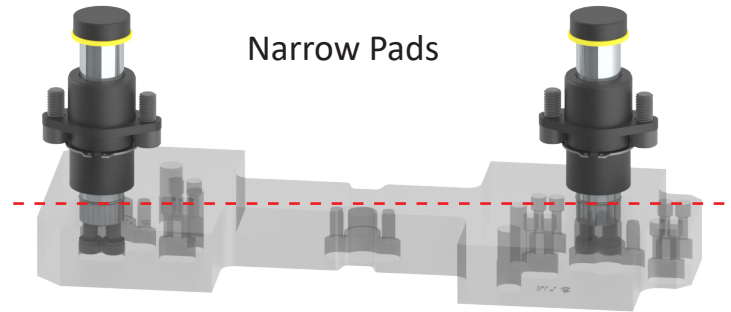
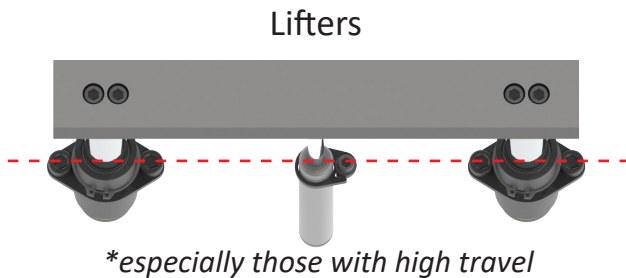


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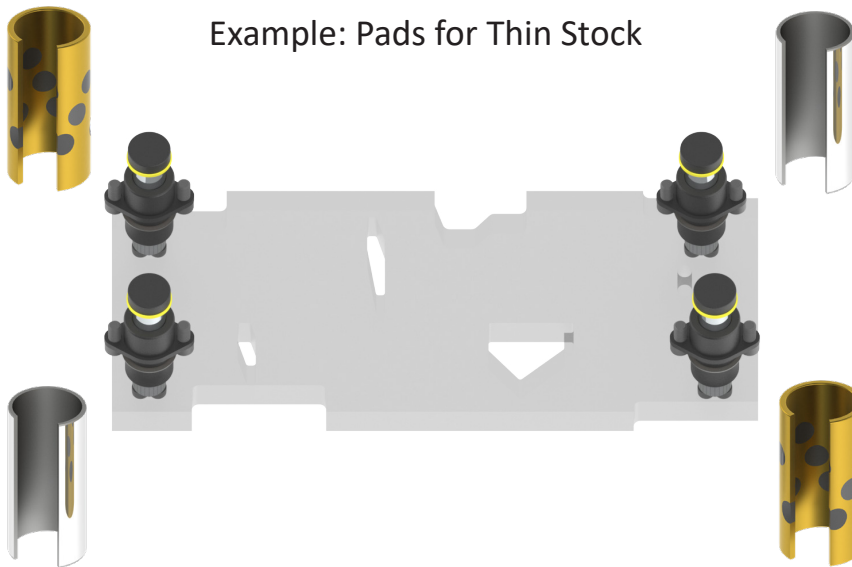
The Bronze / Graphite Plugged bushing option has advantages in high demand applications where the amount of movement in the pad or lifter rail needs to remain tighter longer. Specific applications where this bushing option may be beneficial:



1. When GK's are in-line with each other



2. Pads where a greater degree of precision is desired/preferred



Consider that when using more than two Bronze / Graphite Plugged bushings on a single application you may experience a more challenging assembly. This is due to variations in machining tolerances between the shoe/pad.

When more than two units are required, we recommend using Bronze / Graphite Plugged bushings in opposite corners and using PTFE / Bronze style bushings in all other locations.



Both bushing styles use the same "N" base housing/footprint. This allows seamless interchanging of either bushing style in production if it would help address die conditions that were unforeseen in the design stage.

Bronze / Graphite Plugged Bushings do not have a "wring" fit between the Bushing and Pin as they are designed to be a running slip fit when attaching multiple units to a Pad/Lifter Rail. If you have a specialty application that requires a near 1-to-1 fit then a traditional Pin and Bushing set is likely a better fit.

