

Next Generation Guided Keepers

Our innovation never rests. We're always striving to design and manufacture the most robust and longest-lasting products. Below are the latest enhancements to the GK product line.



New Guide Pin Style

- More robust connection style better protects the fasteners in the event of a miss-hit or die crash.

New "N" Style Base

- Built upon the popular "L" Style Base

New Taller Base Options

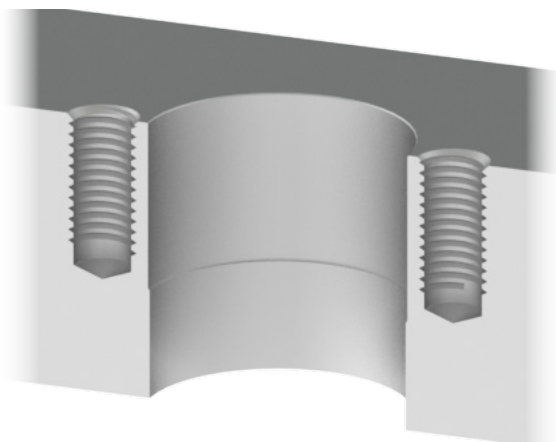
- Utilizes any free space between the Guided Keeper and the back of the pad

New Longer Base Options

- Longer bushings provide more value in production

New Bushing Option

- New Bronze / Graphite Plugged bushing option to support customer requests for specific applications
- Primary applications include:
 1. Rail lifters & narrow pads when the GK's are in-line with each other
 2. Pads where a greater degree of precision is desired/preferred



Easier Base Machining

- Machining of the locating bore accomplished using a short endmill
- Less taps required for some sizes

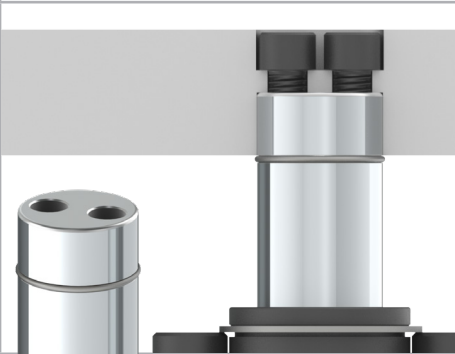
Other Enhancements

- Better surface condition for the Dampener
- Common height/depth dimensions across all diameters



New GK Product Options

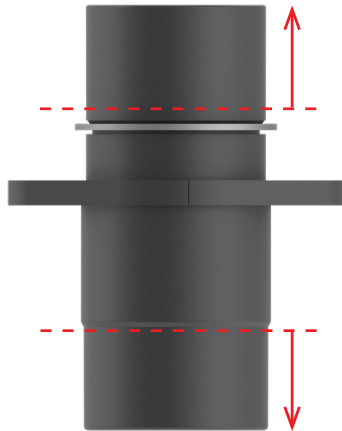
New Guide Pin Style available in 1.25" and 1.50" Diameters



New Guide Pin Style Connection

More robust connection style better protects the fasteners in the event of a miss-hit or die crash. Improving upon the GK120 and GK150 guide pins, the new GK122 and GK152 are pocketed deeper while still utilizing long fasteners.

New "N" Style Base built upon the popular "L" style base platform.



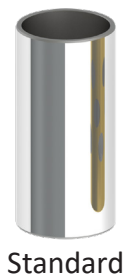
New Taller Base Options

Best practice is to use as long of bushing as possible that will fit in the space available.

New Longer Base Options

The new "N" base includes options that allows for any space available, either above or below the base, to be utilized.

Long bushings and/or bushings that are located close to the pad provide significant value in production. This approach improves the guidance condition in production and it also extends the life of the assembly.



Standard

New Option

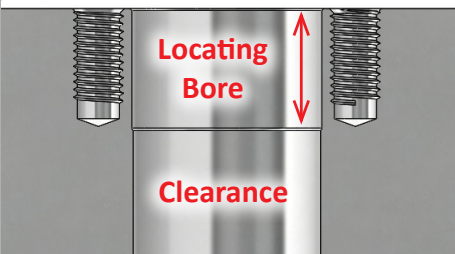


New Optional Bushing Style

New Bronze / Graphite Plugged bushing option to support customer requests for specific applications

Primary applications include:

1. Rail Lifters & Narrow Pads where the GKs are "in-line" with each other
2. Pads where a greater degree of precision is desired



Other Features

- Machining of the locating bore can be easily accomplished using a short (1.25" long) endmill
- Less taps required for some sizes (1.00" and 1.25")
- Thicker cross section for increased robustness
- Better contact surface for the dampening washer
- Common height/depth dimensions across all diameters



New Guide Pin Connection Style



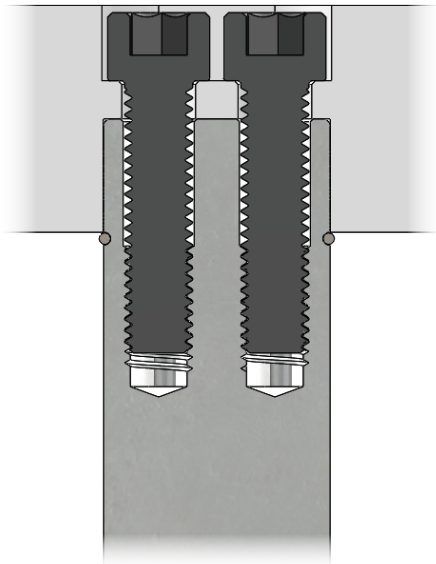
This more robust connection style better protects the fasteners in the event of a miss-hit or die crash.

Improving upon the GK120 and GK150 guide pins, the new GK122 and GK152 can be pocketed deeper to provide support for the Guide Pin.

1. The guide pin is pocketed deeper

This provides more support for the guide pin if the pad or lifter rail tips. When a significant tip condition occurs the screws will start to stretch but the body of the guide pin will make contact with the sides of the pocket and it will limit the amount of stretch/force subjected on the fasteners. During testing, it was identified that the depth of the pocket needs to be equal to at least $1/2$ of the pin diameter for it to provide this type of support.

Note: Designed for a slip fit to allow for easier assembly, and to accommodate slight variation in machining tolerances of the die shoe and pad.



2. Long fasteners

The threaded holes are deeper in the guide pin to still allow for long fasteners which provide more stretch/forgiveness in the event of a miss-hit or die crash.

GK120 (Dowels)

GK120 (Pocket)

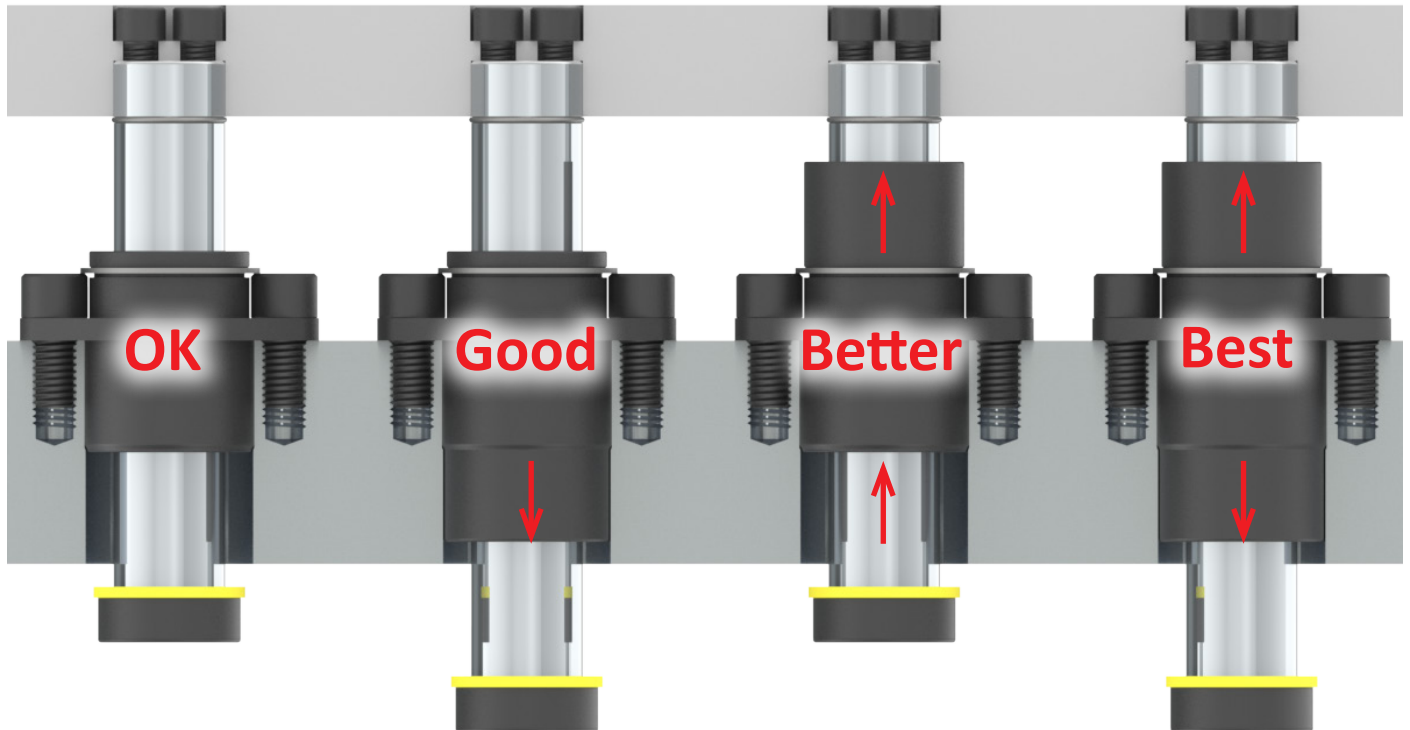
GK122 (Pocket)



New Taller & Longer Base Options

We recommend using the longest bushing possible in your available space. Longer bushings provide significant value in production by improving the guidance condition along with extending the performance life of the assembly.

The new "N" style base provides more configuration options to maximize bushing length both above or below the base.



The goal is to apply the longest bushing possible by utilizing the space available in both directions based on your die conditions.

1. Taller "N" Base Options

This option adds 1.00" toward the back of the pad which utilizes the free space in this area to achieve a better die condition. **Pro Tip:** If the amount of space available is slightly less than what is needed to use the taller option the base may be mounted in a shallow pocket.

2. Longer "N" Base Options

Longer N bases are available in the following sizes:

- 1.25" Diameter - 4" long bushing
- 1.50" Diameter - 4" long bushing
- 1.75" Diameter - 4" and 5" long bushings
- 2.00" Diameter - 5" long bushing



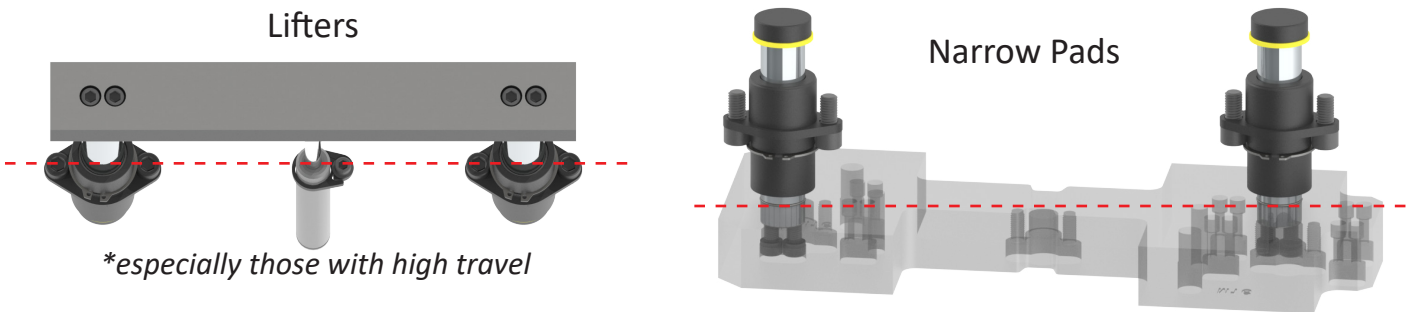
New Bushing Option

A New Bronze / Graphite Plugged Bushing option is now available. This new bushing option has advantages in high demand applications where the amount of movement in the pad or lifter needs to remain tighter longer.

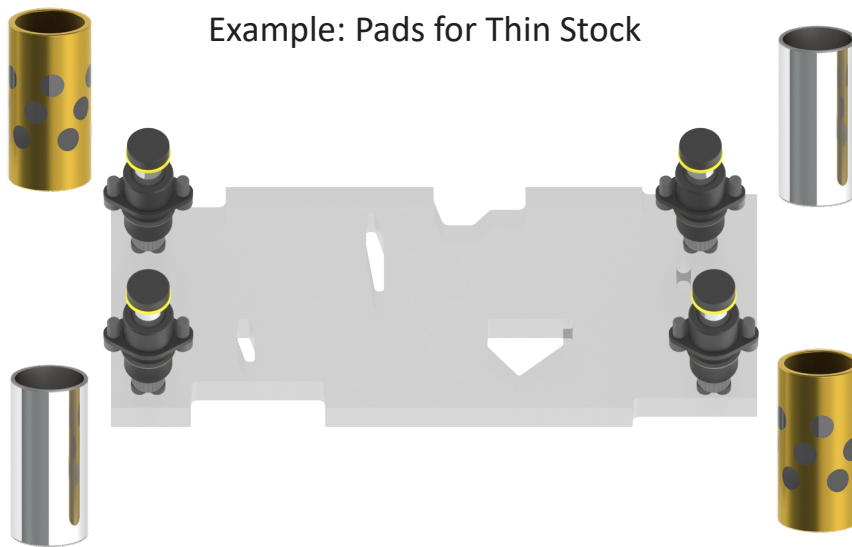


Specific applications where this bushing option may be beneficial:

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



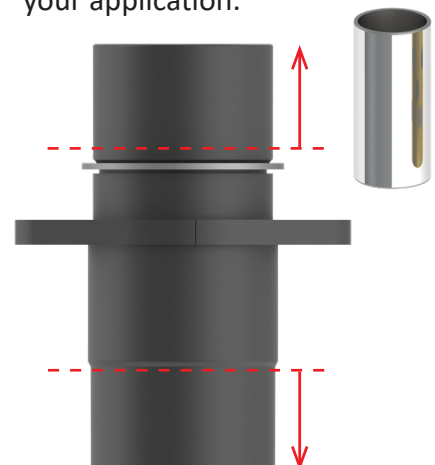
2. Pads where a greater degree of precision is desired/preferred



Example: Pads for Thin Stock

Pro Tip -

Many of these "precision applications" may not need the Bronze / Graphite Plugged style bushing. In our experience, using longer bushing lengths with our **more economical** standard bushing style will achieve the desired precision needed for your application.



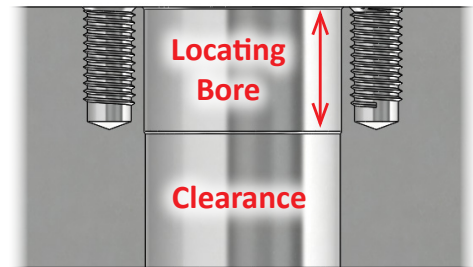
When using more than two Bronze / Graphite Plugged bushings on single application you may experience a more challenging assembly. If more than two are required, we recommend using Bronze / Graphite Plugged bushings in opposite corners and using the standard(PTFE-Bronze) style bushings in all other locations.



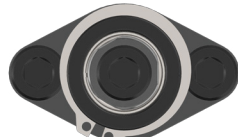
Other Features of the New "N" Base

1. Machining of the locating bore is easily accomplished even on the long bushing bases

The base is designed to make the machining of the mounting bore easier, allowing for a short 1.25" long endmill to be used. This makes it easier to machine to diameter and with a straight wall.



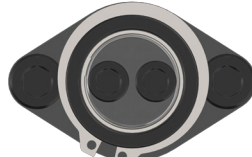
1.00" - L Base



1.00" - N Base



1.25" - L Base



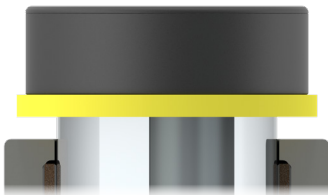
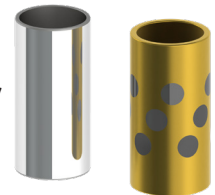
1.25" - N Base

2. Less taps required for some diameters

1.00" and 1.25" diameters are engineered so the connection strength of the base-to-shoe pairs appropriately with the connection strength of the guide pin-to-pad.

3. Interchangeability between two bushing types

The same "N" base housing is used for both bushing types so if desired they may be easily changed in production without any machining required.



4. Better surface condition for the dampener

The dampening washer only contacts the steel base housing(not the bushing). This provides for a robust/flat surface for the Dampener to hit.

5. Common height/depth dimensions across all diameters

The dimensions from the mounting surface to the top/bottom of the bases are the same across all diameters.

