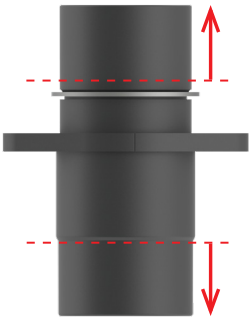
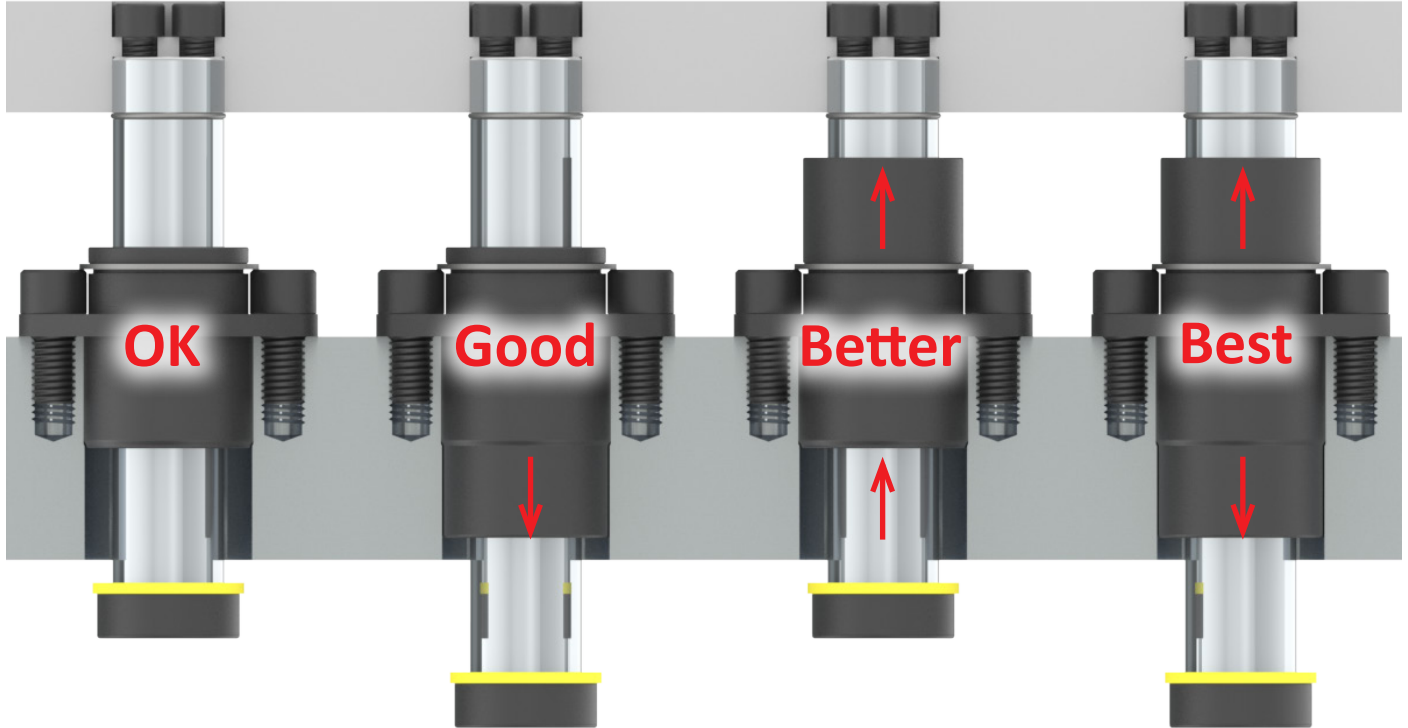


# Bushing Length

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

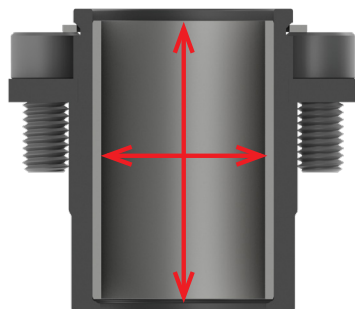


The goal is to apply the longest bushing possible by utilizing the space available in both directions based on die conditions. The "N" style base provides the most configuration options to maximize bushing length. The "tall" option on the "N" base adds 1.00" toward the back of the pad which utilizes 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, pocket the base.

The bushing diameter-to-length ratio is important. If this ratio is too low the amount of movement in the guide pin increases and the life cycle decreases. A minimum ratio of 1.6 is recommended.

Example:  
3" Long Bushing  
1.75" Diameter  
has a ratio of 1.7  
  
(3 / 1.75 = 1.7)



Over the last 10+ years SL has shipped replacements equal to only 3% of units shipped for new tooling. This is already a very low replacement rate for a wearing component, but bases that had a ratio of at least 1.6 reflect 30% less replacements compared to bases with less than 1.6 ratio.

This concept is not theory, it's proven!

