



## PLUNGER INSTALLATION & REMOVAL GUIDE

This guide is to aid in the installation and removal of plungers in VORTEX fluid ends. VORTEX fluid ends use carbide inserts in critical areas, so plunger installation and removal can cause damage to the carbide if the plunger contacts the carbide.

Step 1: Insert plunger installation tool into the fluid end bore, ensuring that the tool seats properly, as highlighted below.

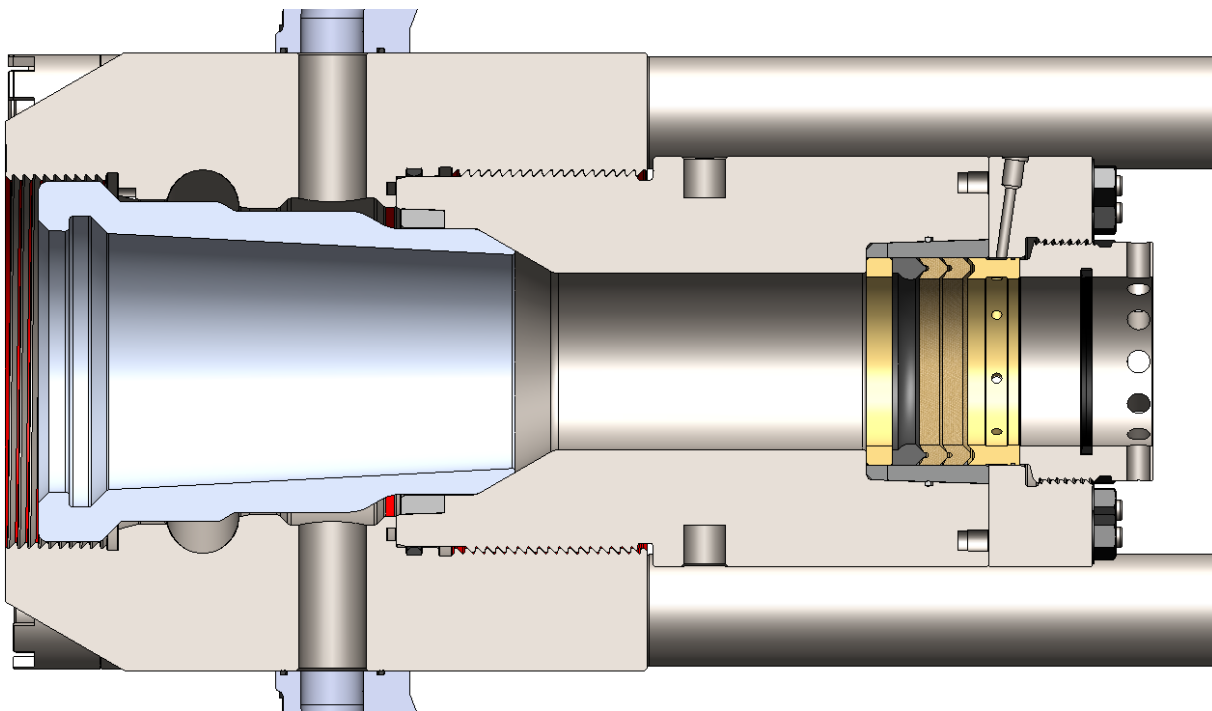
Step2: Carefully insert the plunger into the installation tool and slide the plunger until the barrel sits against the header ring.

Step 3: Thread the plunger pusher tool into the cover cap threads.

Step 4: Use the plunger pusher tool with an impact or ratchet to install the plunger through the packing and into the pony rod.

Step 5: Unthread the plunger pusher tool and remove the plunger installation tool.

### STEP 1

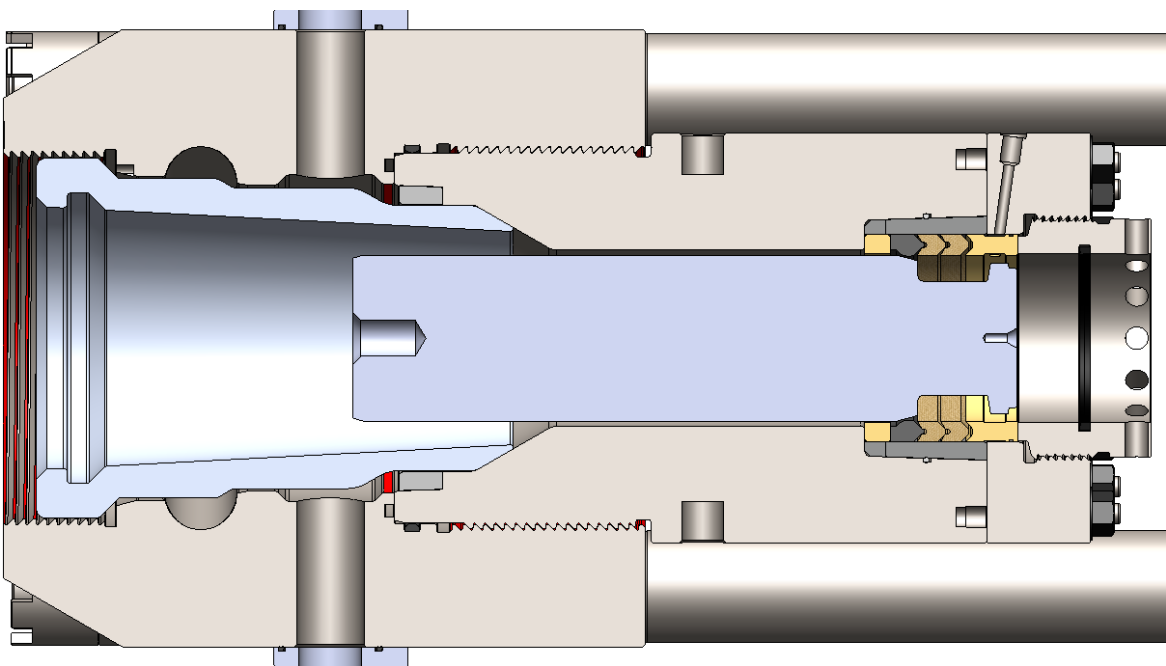
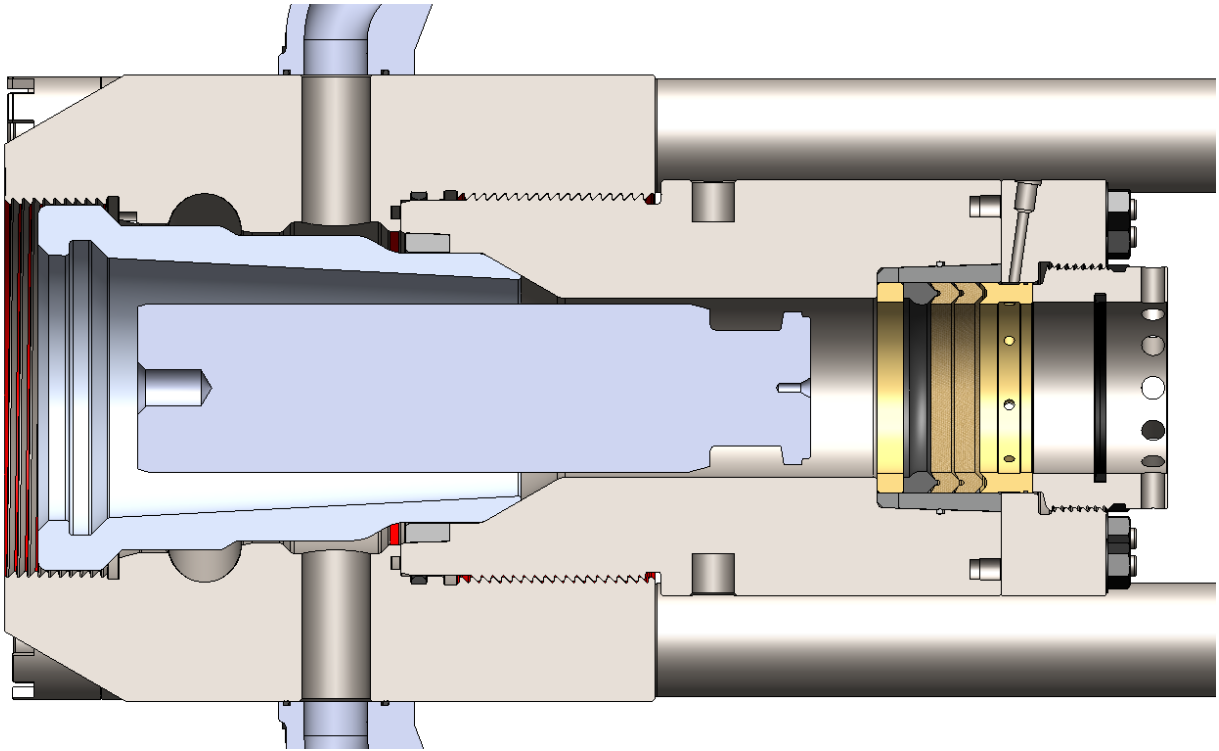




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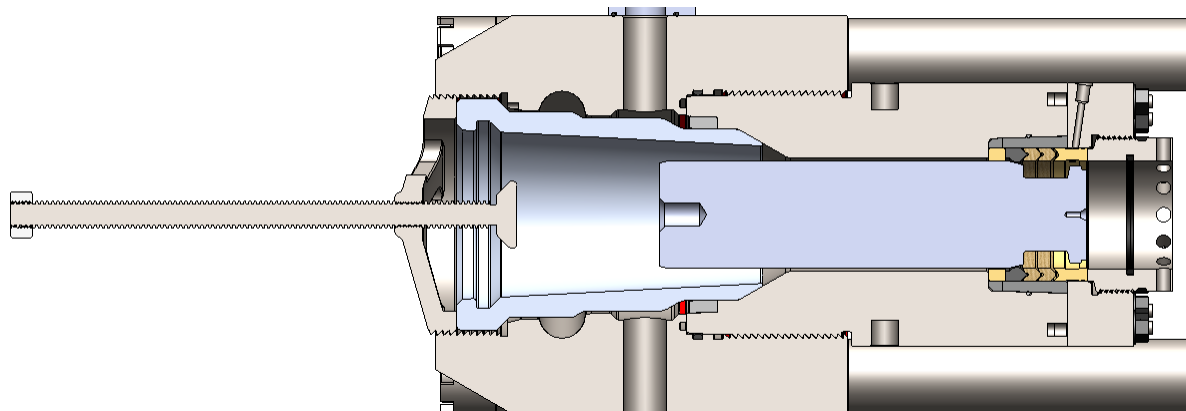
### STEP 2





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### STEP 3



### STEP 4

