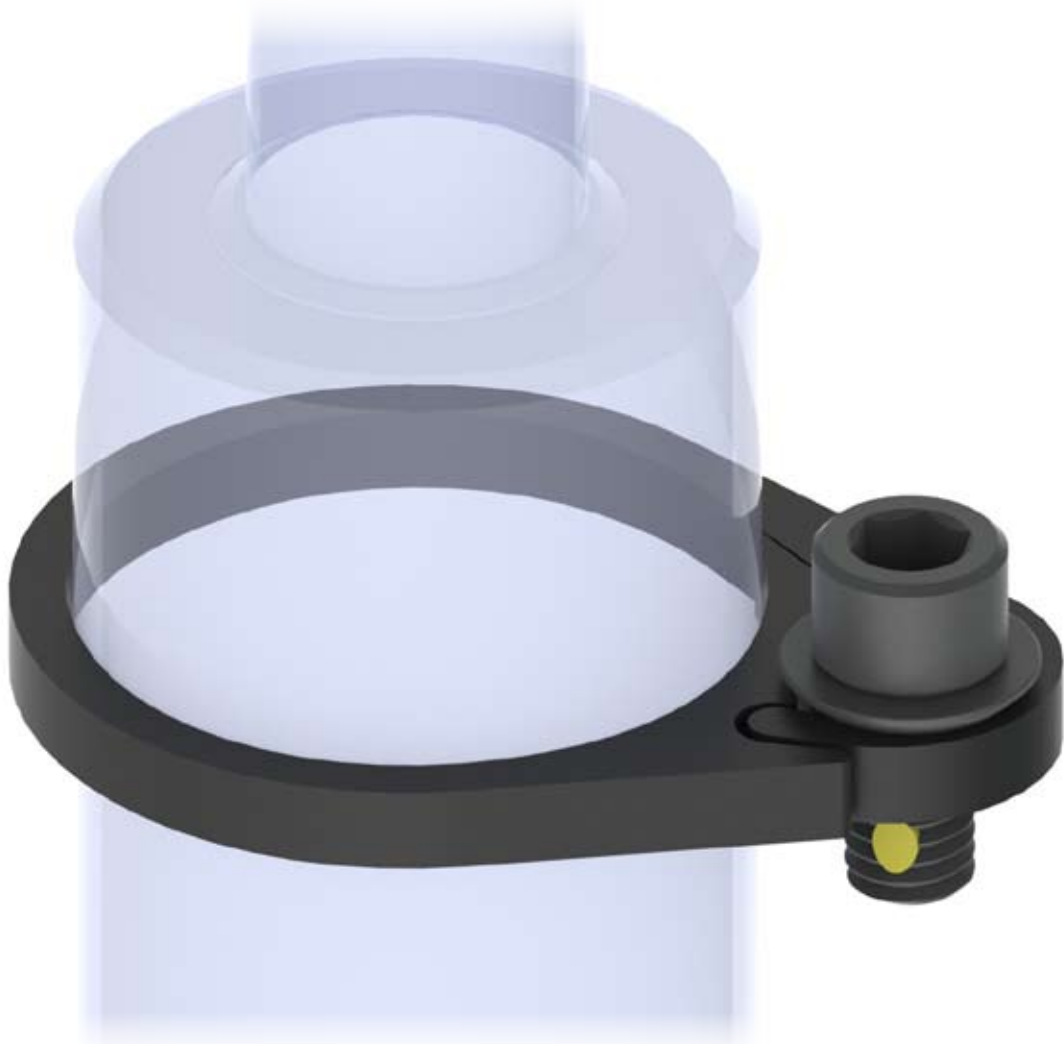


STANDARD LIFTERS

MAKING INNOVATION THE STANDARD®



Why Use Gas Spring Clamps



The New Industry Standard

May be covered by one or more of the following patents:

6,848,290 - 7,024,910 - 7,730,757 - 7,950,262 - and other Patents Pending

Application - Retain Gas Springs

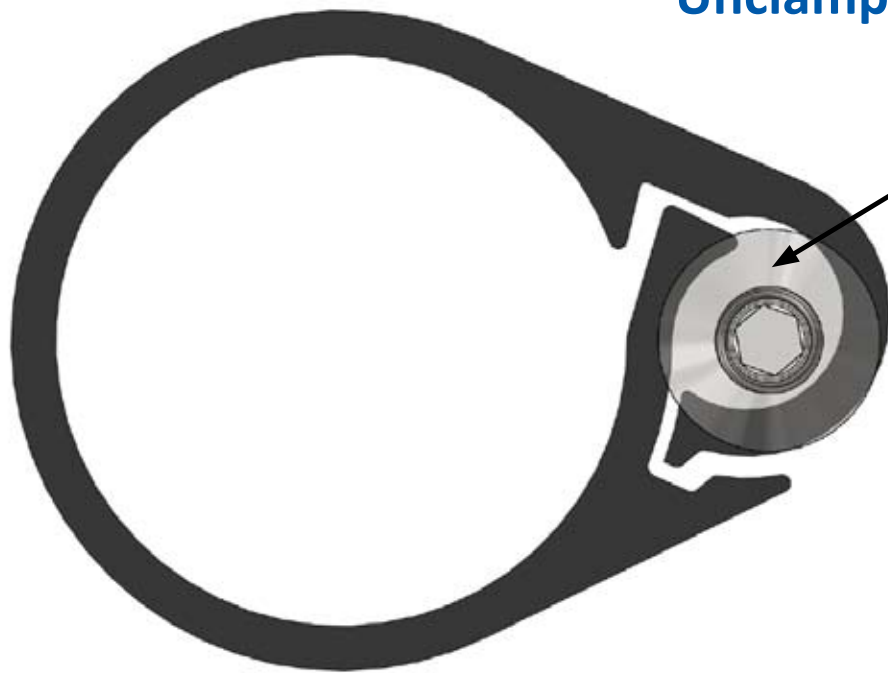


Two Main Functions:

1. Retains the Gas Spring during assembly and during maintenance of the tool during production
2. Prevents the Gas Spring from falling into the die during production (in the event that the gas spring loses pressure)

How It Works

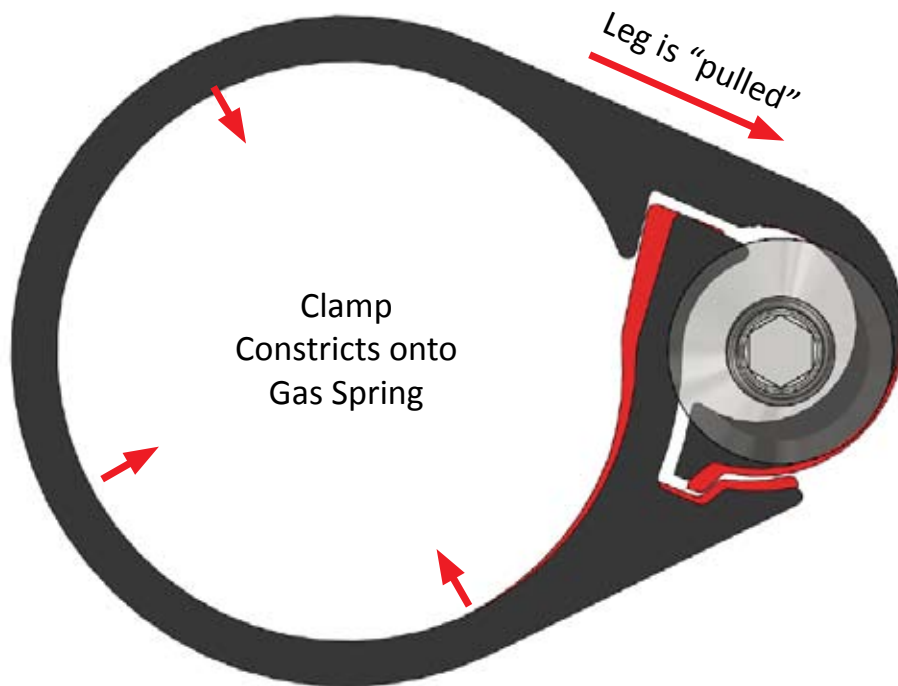
Unclamped



Screw is loose

Clamp is relaxed

Clamped



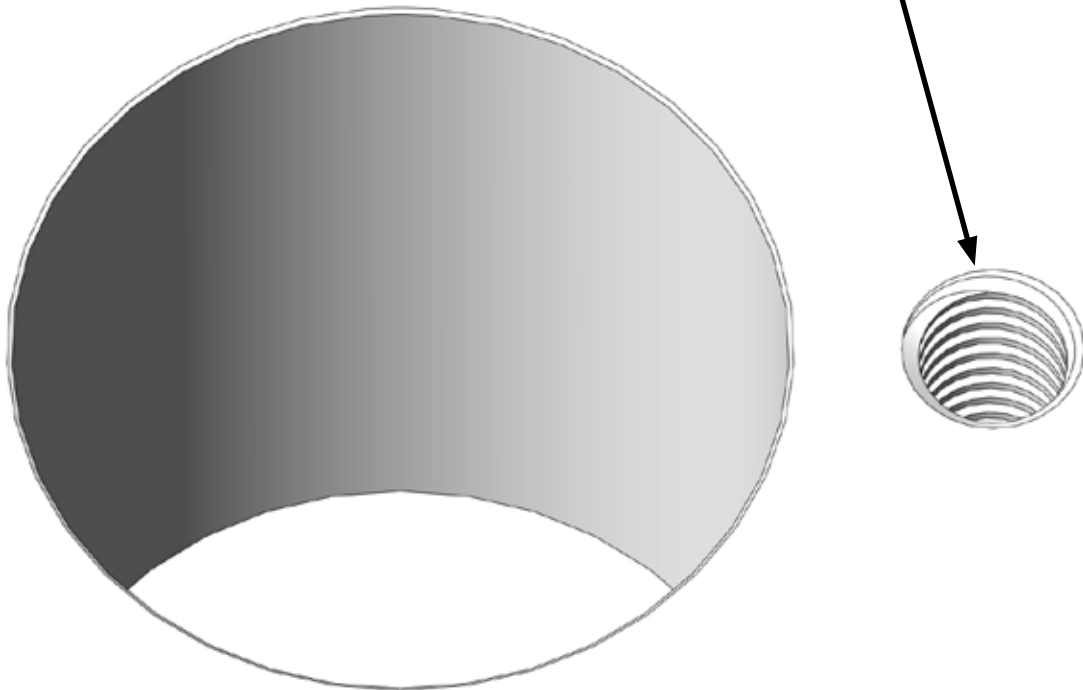
Leg is "pulled"

Clamp
Constricts onto
Gas Spring

As the screw is tightened, the angle under the screw head "actuates" the clamp causing it to tighten around the Gas Spring

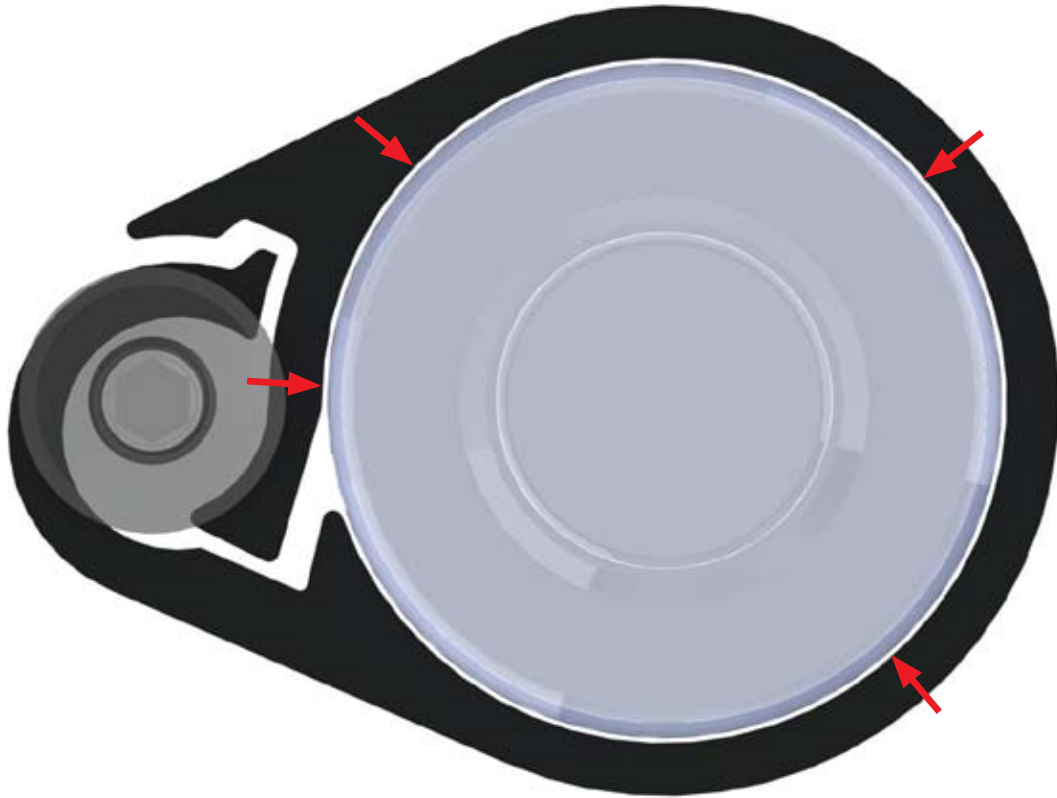
Simple Machining

Single Tapped Hole

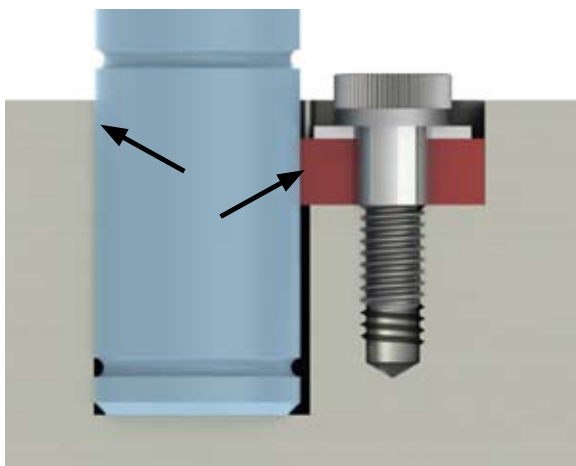


Note: Backup is required to support the full load of the Gas Spring

Circumferential Clamping



The clamp makes contact in multiple locations around the OD of the Spring providing great holding strength, while keeping the Gas Spring in the center of the hole.



Other clamps have only two points of contact. This design also pushes the Gas Spring against the side wall which may not be square.

Compatible with all Gas Springs

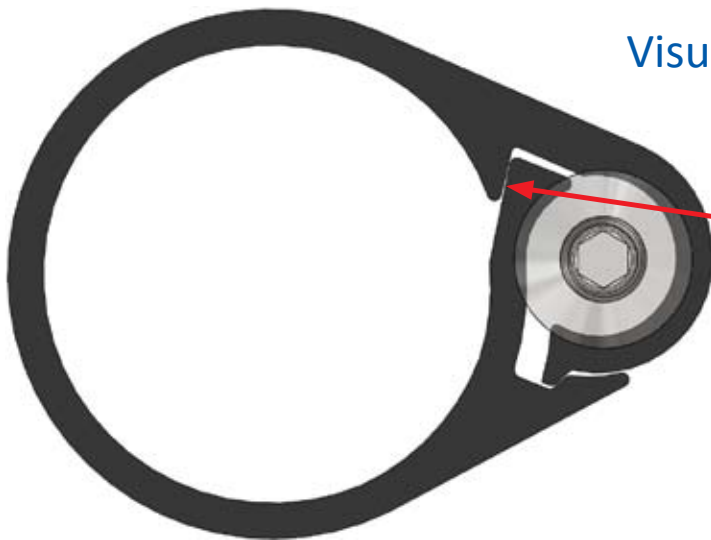
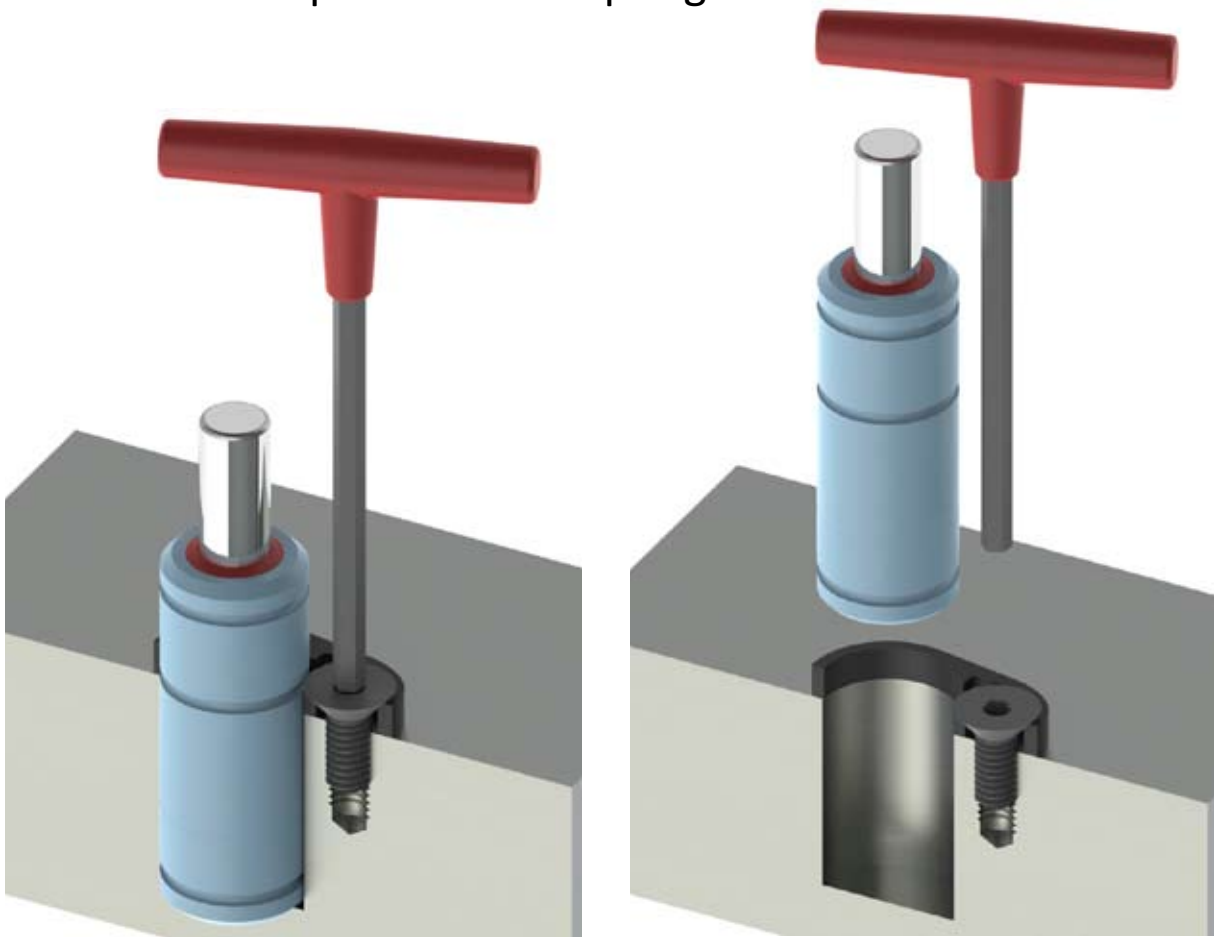


The diameter of the Gas Spring is the only detail that needs to be considered. The clamp can be installed anywhere on the body of the Gas Spring. It does not rely on any grooves or features in the Gas Spring body to be present.

Easy Removal of Gas Spring

Step 1 - Loosen Screw

Step 2 - Remove Spring

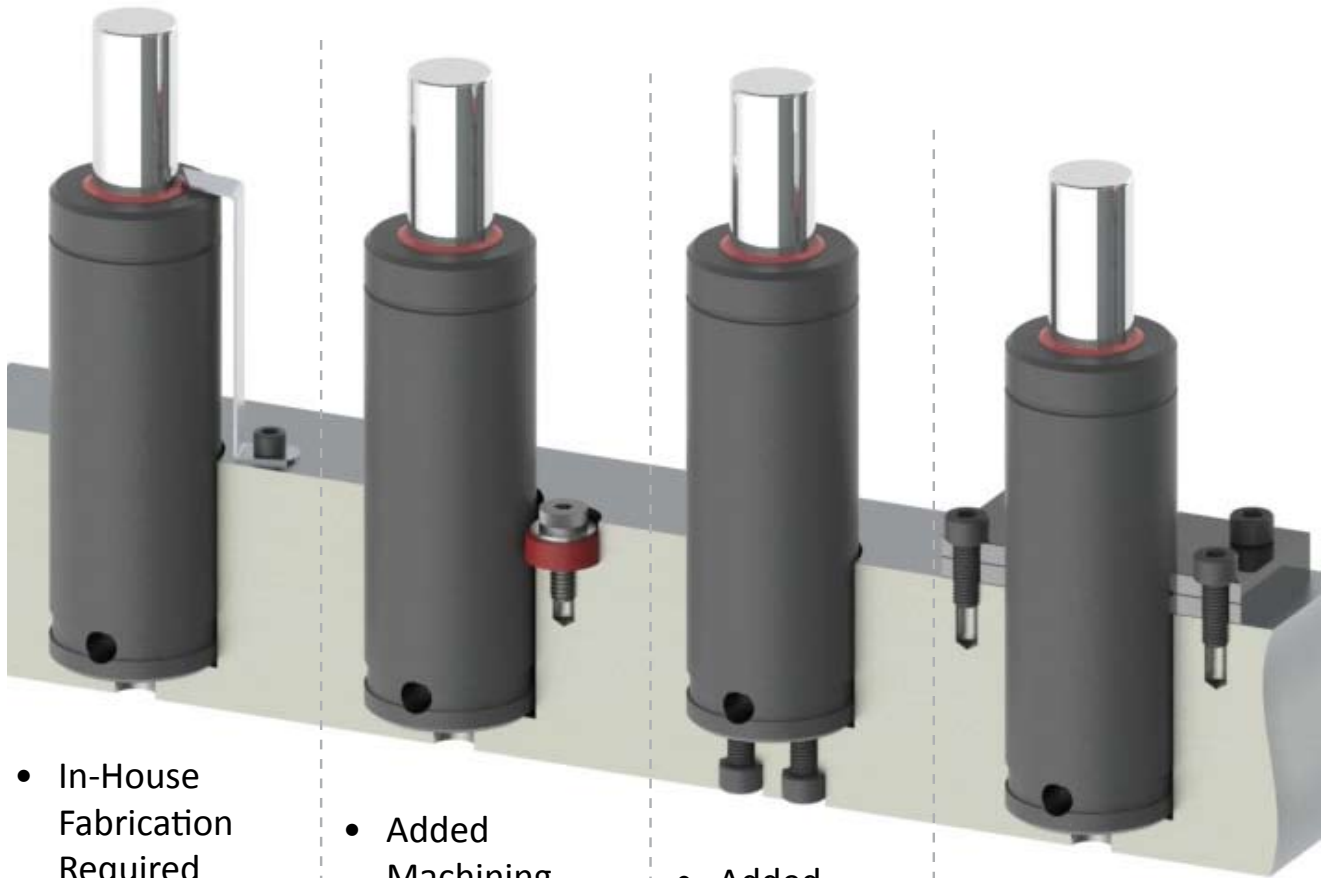


Visual Indicator of Clamp Status

(Feature only on clamp Style A)

The clamp is tight when these two surfaces are touching.

Retention Method Comparison



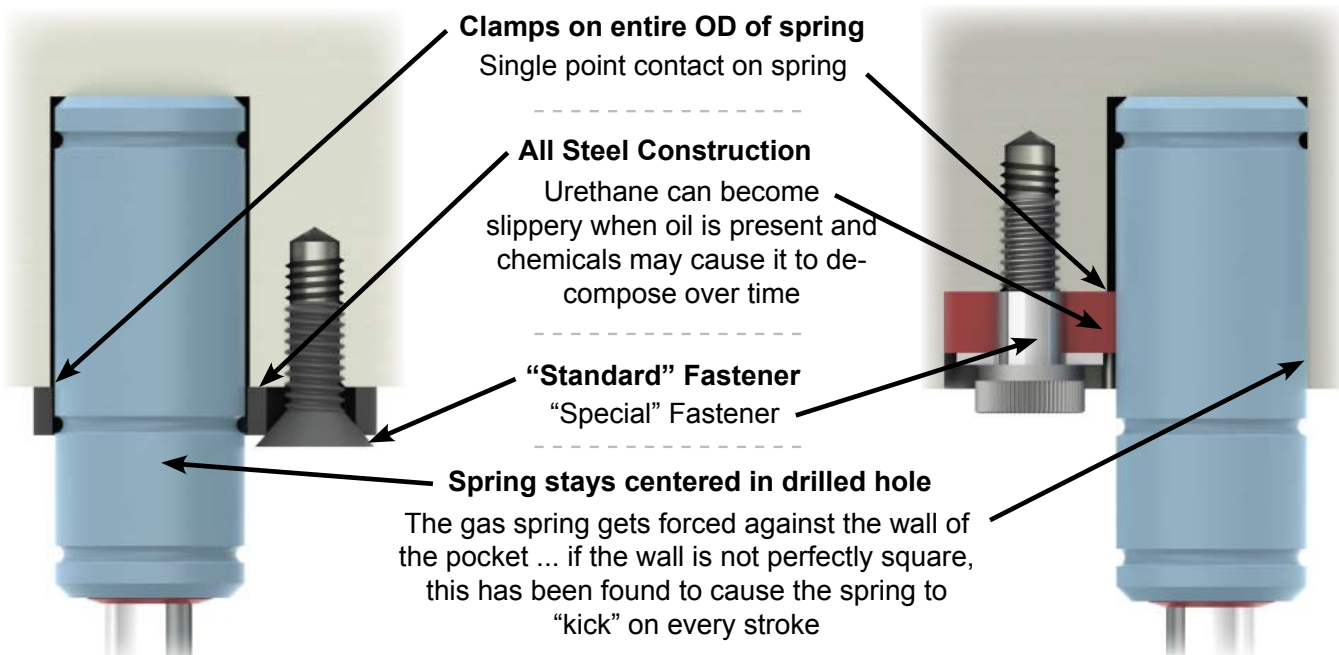
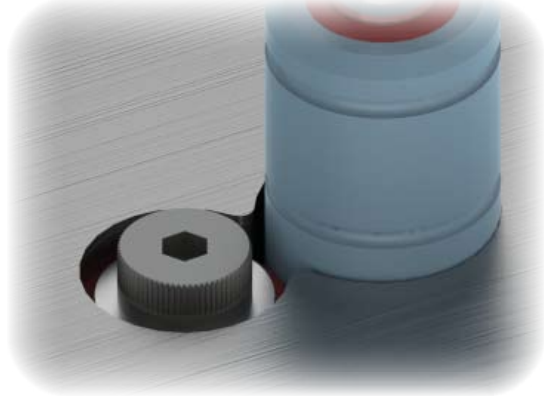
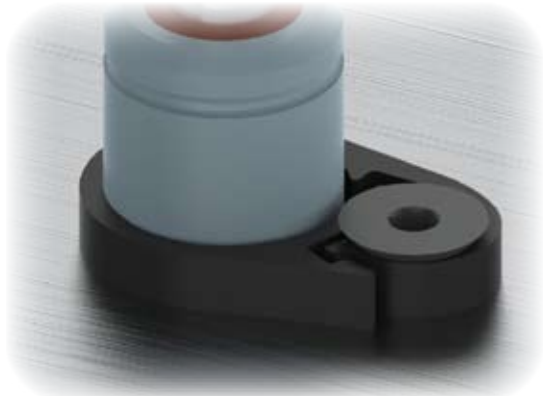
- In-House Fabrication Required
- If tab gets bent the gas spring could fall out
- Could void warranty due to part being close to the rod
- Part could damage the rod if it makes contact with it

- Added Machining Cost
- Difficult to machine interrupted pocket
- Only single point contact
- Gas Spring is forced against the side wall of the hole
- Single Point Rubber contact could become slippery when oil is present

- Added Machining Cost
- Difficult to Assemble (orientation)
- Can't remove the Spring in the press

- Costly Gas Spring
- May require machined pocket or shim
- Multiple Taps needed for mounting
- Requires Large Footprint

GSC vs. Urethane Ring Type

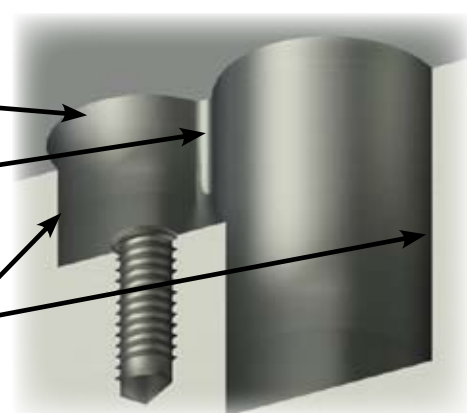


Single tapped hole

Pocket adds machining cost and difficulty

Interrupted holes can be difficult to machine and require a radius to debur the transition between the holes

Both pockets need to be milled to relatively close tolerances



\$5 - \$10
Unit Price




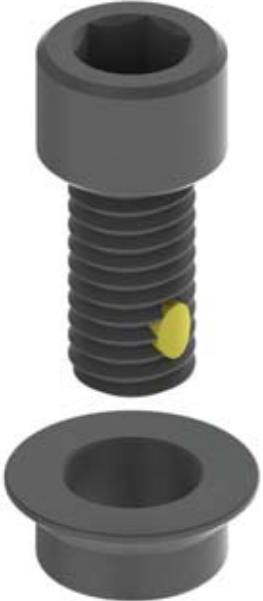
Total Cost

\$11.95
\$4.95 Unit Price + \$7 of additional machining

Standard Lifters GSC offers many more design advantages
... it does not even compare



Product Scope and Options

Part #	Clamp Style	Fastener Style
A-F	<p>Clamp Style <u>A</u></p> 	<p>Fastener Style <u>E</u> Flat Head</p> 
B-S	<p>Clamp Style <u>B</u></p> 	<p>Fastener Style <u>S</u> Standard</p> 



Pricing

Gas Spring Body Diameter	 A-F	 B-S
19mm	\$5.00	\$6.00
25mm	\$5.50	\$6.50
32mm	\$6.50	\$7.50
38mm	\$7.00	\$8.00
44.5mm	\$7.50	\$8.50
50mm	\$8.00	\$9.00
63mm	\$9.00	\$10.00
75mm	\$10.00	\$11.00

For New and Updated Information
www.standardlifters.com

