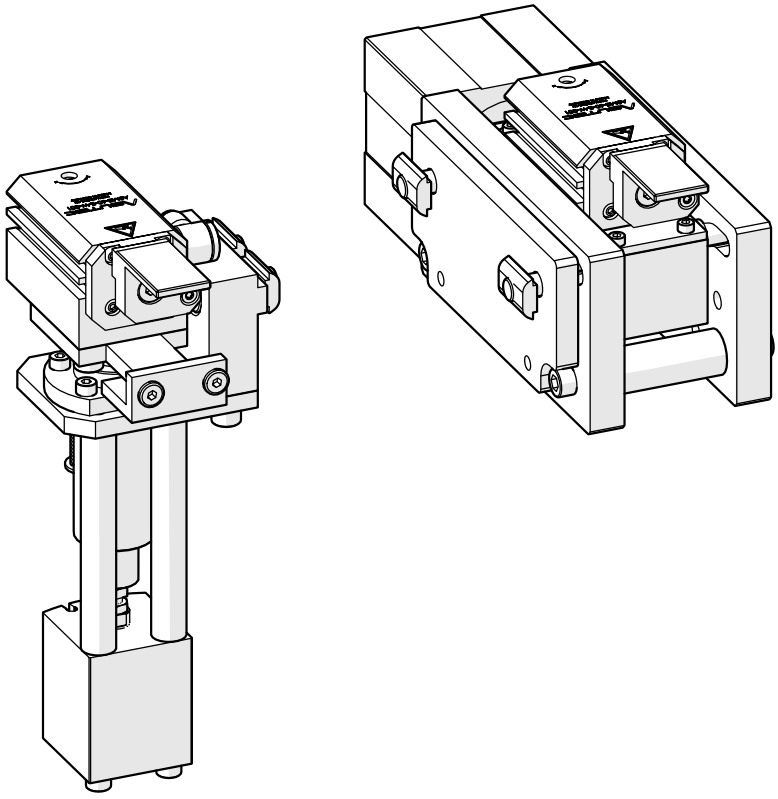
Glide-Line™
255 Schoolhouse Road
Souderton, Pennsylvania 18964

Phone: 215-721-1900
Fax: 215-721-0633
www.glide-line.com

12-4-19

Glide-Line™ Drop-Away Stops

Installation and Maintenance Manual



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Easy. Flexible. Precise. Fast.

Throughout this manual are the following information blocks indicated in the appropriate sections by signal words as specified by ANSI Z535.4 Standard (section 4).

	Warning – This information must be followed to prevent harm to individuals or damage to equipment.
	Automatic Equipment – This equipment may start or stop automatically.
	Electrical Shock – This equipment has connection to an electrical circuit with potentially hazardous energy levels.
	Consult Manual – This manual must be completely reviewed prior to performing any service.
	Lock Out Power – All sources of energy must be controlled before servicing equipment

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Table of Contents

1. Introduction....4
1.1. Description and Technical Specifications....4
1.2. Operating Conditions and Environment....5
1.3. Chemical and Corrosion Resistance....5
1.4. Unpacking....5
1.5. Included Items....5
1.6 Drop-Away Stop Variants....6
2. Installation....7
2.1. Tools Required for Installation....7
2.2. Installing Device....7
3. How to Order Spare Parts....20
3.1 Spare Parts for TKDS....21
4. Maintenance....22
4.1. Tools Required for Maintenance....22
4.2. Replacing Components....23
4.2.1 TKDS....23
4.2.2 Replacing Air Cylinders on the TVDS....26
5. Troubleshooting....32

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1. Introduction

1.1. Description and Technical Specifications

Glide-Line™ Drop-Away Stops are designed to suit multiple conveyance application demands. All Drop-Away Stops are designed to bolt to the side T-Slots of Glide-Line™ Conveyor Beam.

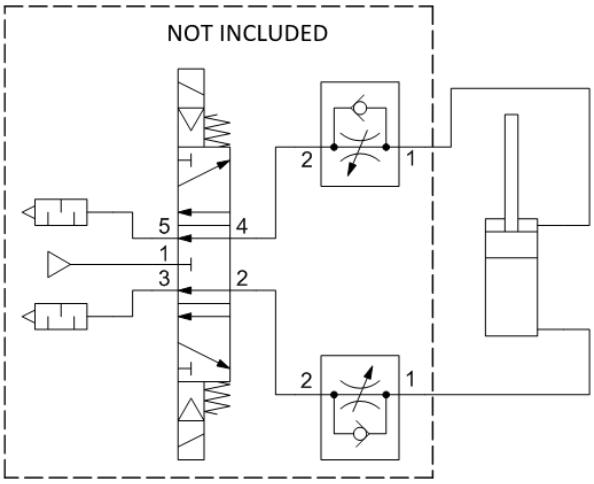
Part Number: TKDS or TVDS

Technical Specifications for Cylinder P-00711 (TVDS)
Lift cylinder bore: 50mm
Pneumatic Ports: G1/8

Technical Specifications for Cylinder P-00266
Pneumatic Ports: G1/8

Technical Specifications for Cylinder P-00704
Pneumatic Ports: M5

Recommended Pneumatic Schematic:
*Fittings and Valves not included



Only trained personnel should perform maintenance procedures. Company approved lock-out/tag-out procedures should be strictly adhered to. Please consult this manual before servicing.

1.2. Operating Conditions and Environment

Equipment should be in an ambient temperature room. Equipment should not be subject to high humidity or wash-down conditions. Clean-up to be done by wipe down / air blow off only.

1.3. Chemical and Corrosion Resistance

It is recommended that customers contact the factory and obtain samples of applicable modules to be exposed to conditions of the proposed application to determine resistance of material and its durability. For further information, please contact Glide-Line™ at 215-721-1900.

1.4. Unpacking

When the unit arrives, care must be taken to unpack the unit. Units will ship packaged in a box on a skid.

It is important to install conveyors and devices level and straight to achieve the listed performance. A non-level installation could induce moment loading to the conveyors and devices, decreasing the expected service life or preventing proper functionality.

1.5. Included Items

List of items that should be included for TVDS or TKDS shown in Figure 1.

- TVDS or TKDS
- Mounting Hardware

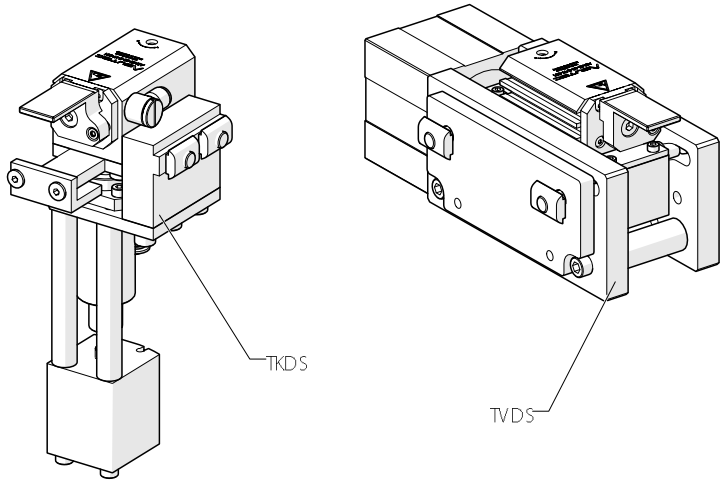


Figure 1: TKDS and TVDS With Mounting Hardware

1.6 Drop-Away Stop Variants

The Drop Away Stop is available in two variants, the TVDS and the TKDS. TVDS is the Transverse Drop-Away Stop and the TKDS is the Trunk-Line Drop-Away Stop.

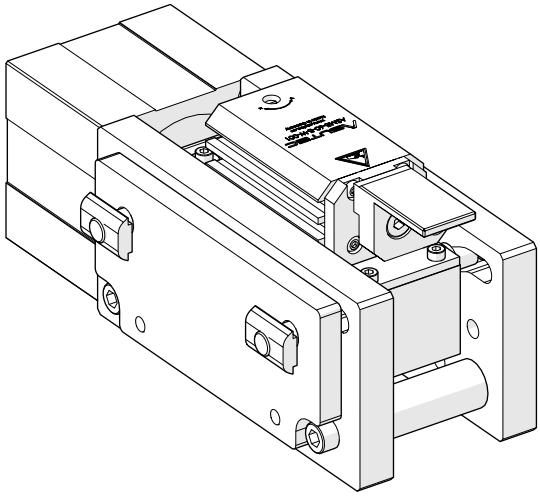


Figure 2: TVDS (Transverse Drop-Away Stop)

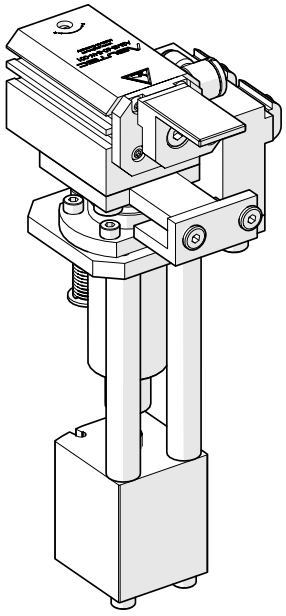


Figure 3: TKDS (Trunk-Line Drop-Away Stop)

2. Installation

2.1. Tools Required for Installation

List of recommended and/or required tools for installation.

- Metric Allen Key Sizes
  - 2.5, 4, 5, 6

2.2. Installing Device

This section will go over how to properly install your TVDS and/or TKDS.

The following installation steps are for the TKDS.

Step 1: Loosen and remove M6 SHCS as shown in Figures 4 and 5.

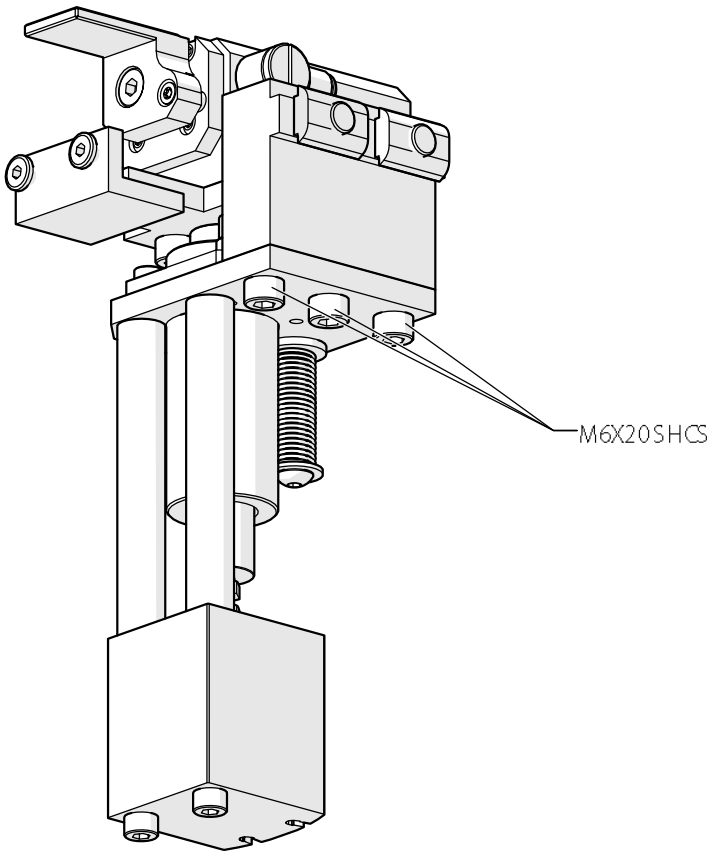


Figure 4: M6 SHCS on TKDS

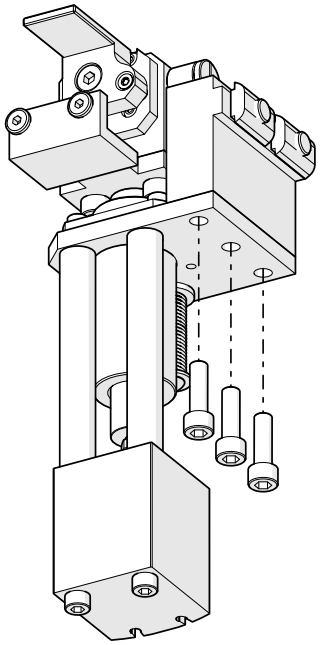


Figure 5: Remove the M6 SHCS

Step 2: Remove P-00733 and Associated Hardware (Figures 6 & 7).

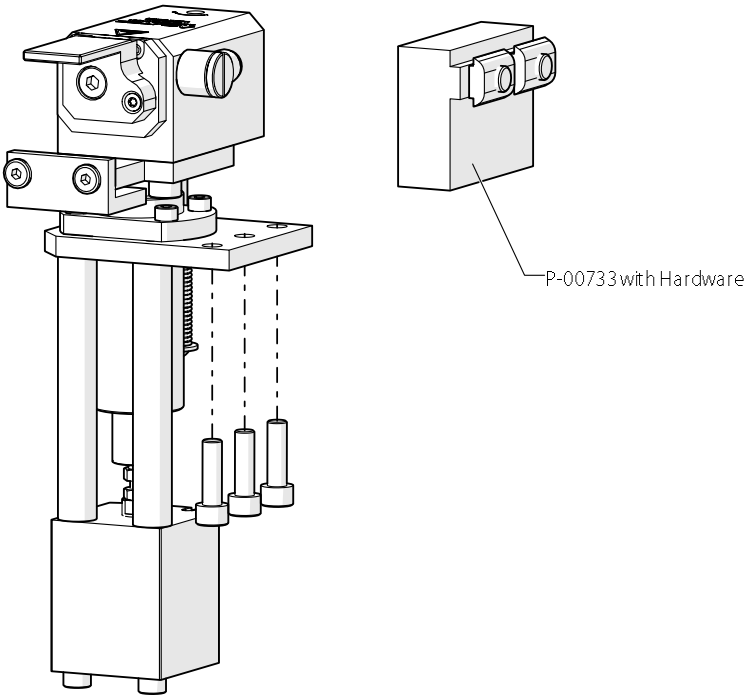


Figure 6: Removing P-00733

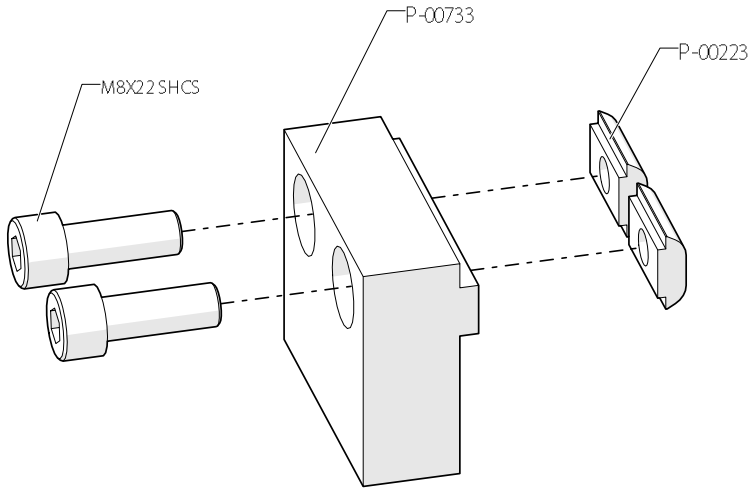


Figure 7: Removing Hardware from P-00733

Step 3: Insert P-00223 into T-Slot in extrusion and start to tighten the SHCS. Do not fully tighten yet (Figure 8).

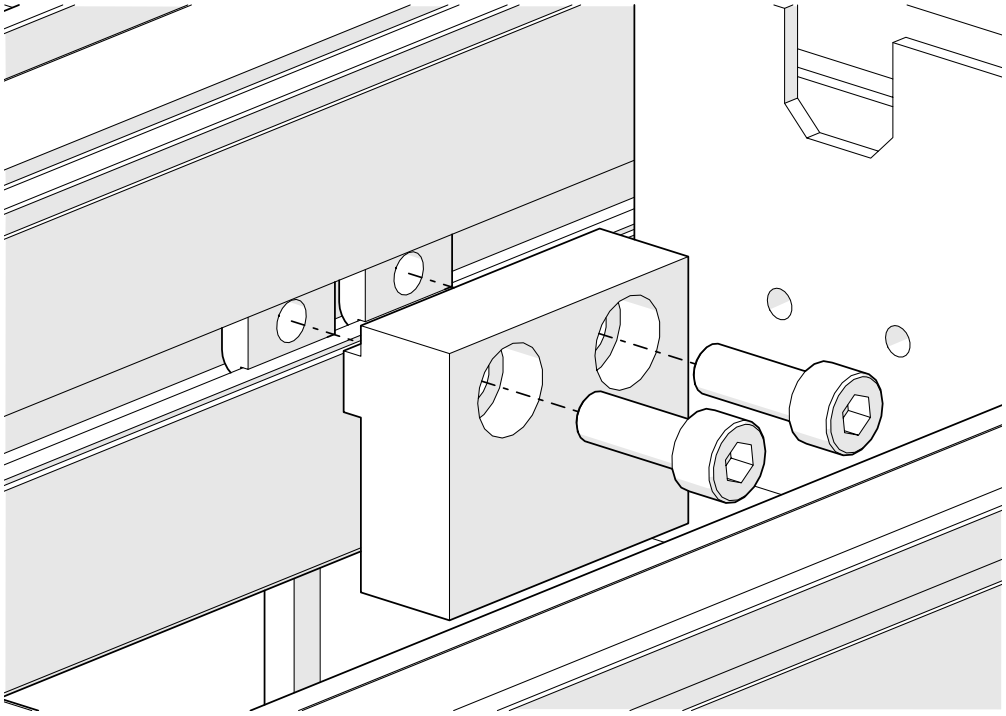


Figure 8: Securing P-00733 to Conveyor

When inserting P-00223 into the T-Slot, angle P-00223 to enable it to fit through the T-Slot opening. Once pushed up into the slot, you may align P-00223 as shown below in Figure 9.

Note: Extrusion shown as a cross-section view for clarity.

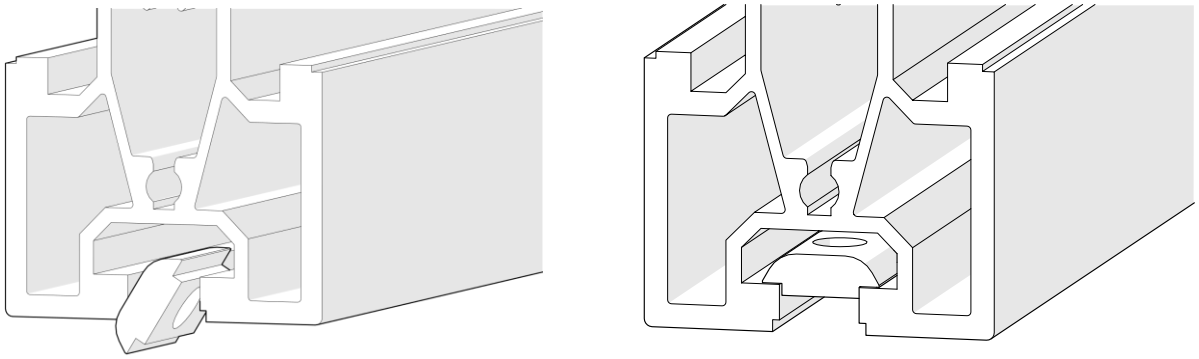


Figure 9: Installing P-00223 Correctly

Before securing P-00733, mockup mounting the TKDS. The end of the stop must be 1mm past the inside face of the LTU side plate as shown in Figures 10 & 11 (edges highlighted in red in Figure 11).

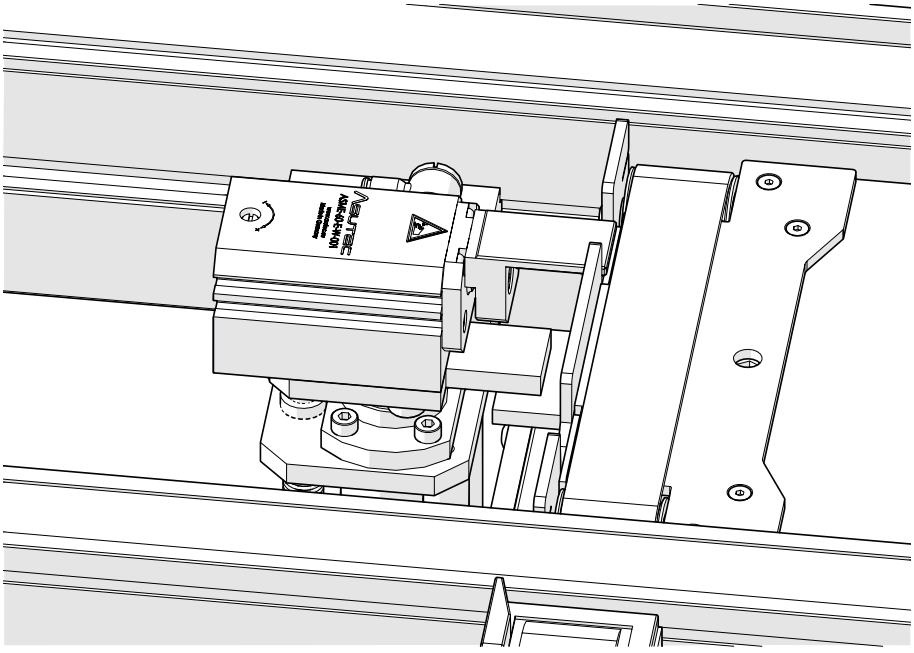


Figure 10: TKDS Mockup

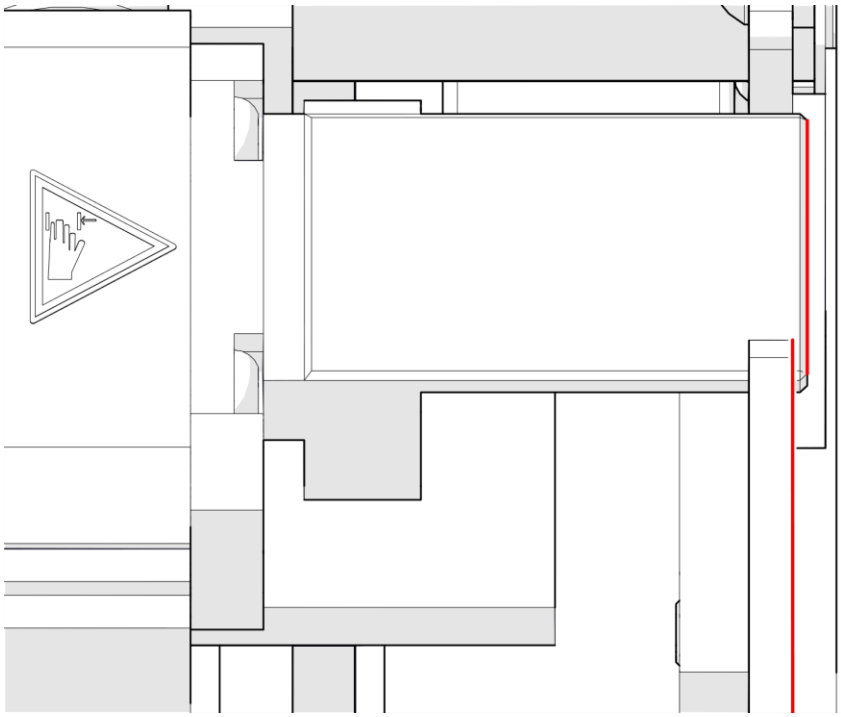


Figure 11: 1mm Measurement

Figure 12 shows P-00733 secured to the extrusion.

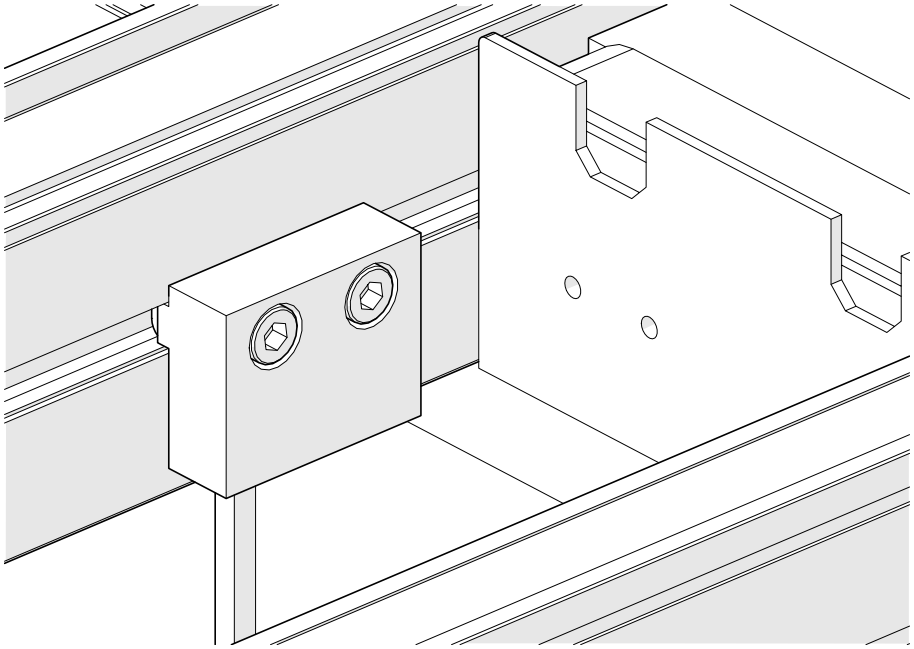


Figure 12: P-00733 Secured to Extrusion

12-4-19

Step 4: Secure the TKDS to P-00733 with the three M8 SHCS as shown in Figure 13.

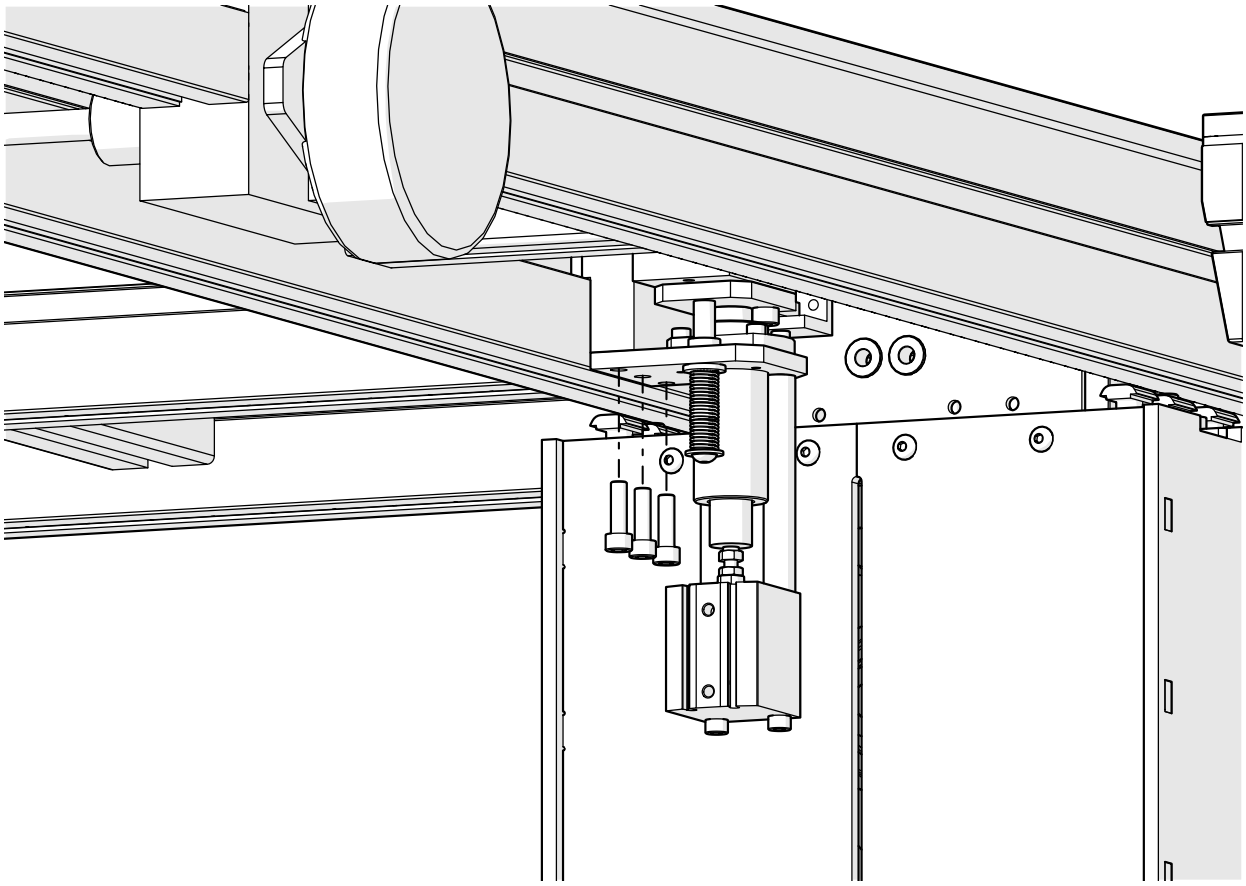


Figure 13: Securing TKDS to P-00733

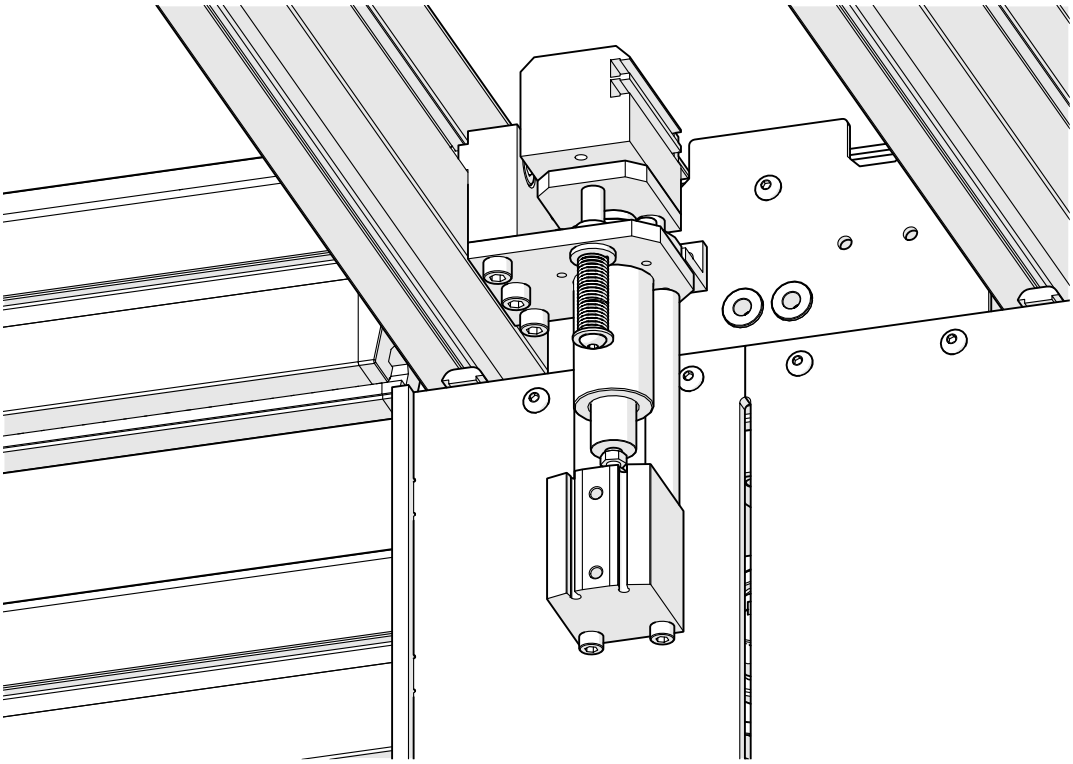


Figure 14: TKDS Installed

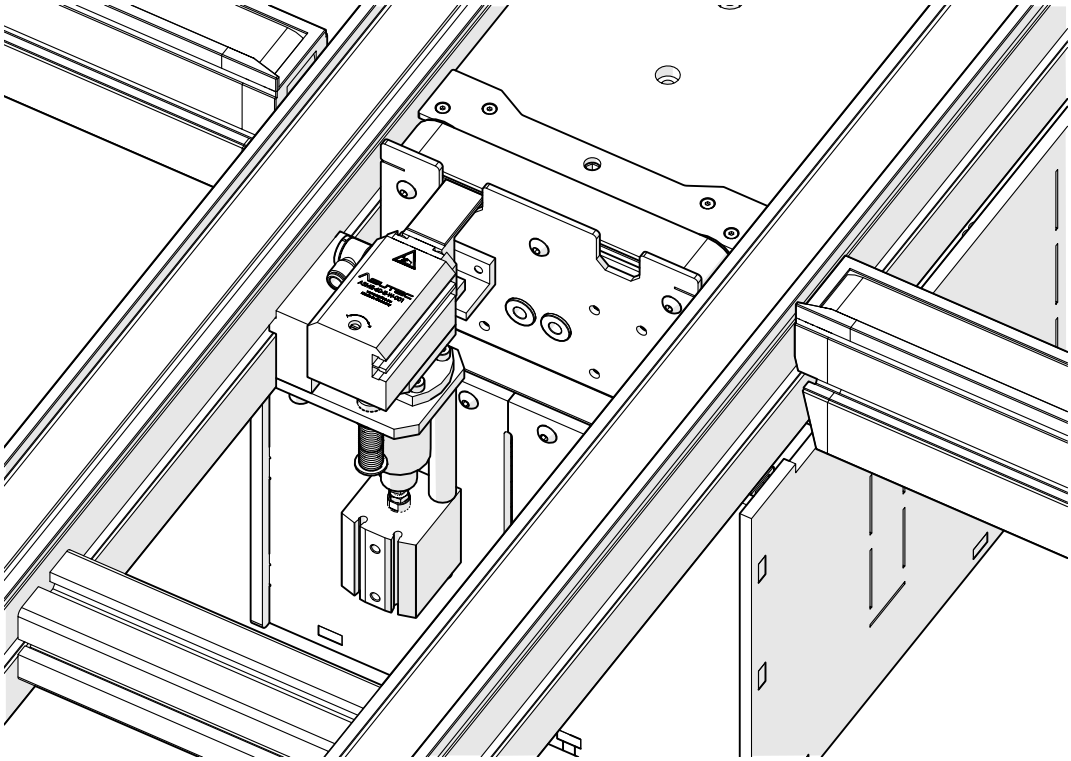


Figure 15: TKDS Installed

Installing TVDS

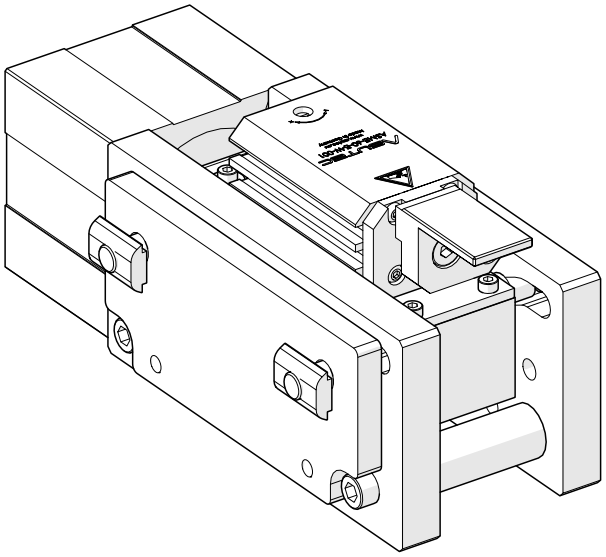


Figure 16: TVDS

Step 1: Loosen the M6X20 SHCS as shown in Figure 17 & 18.

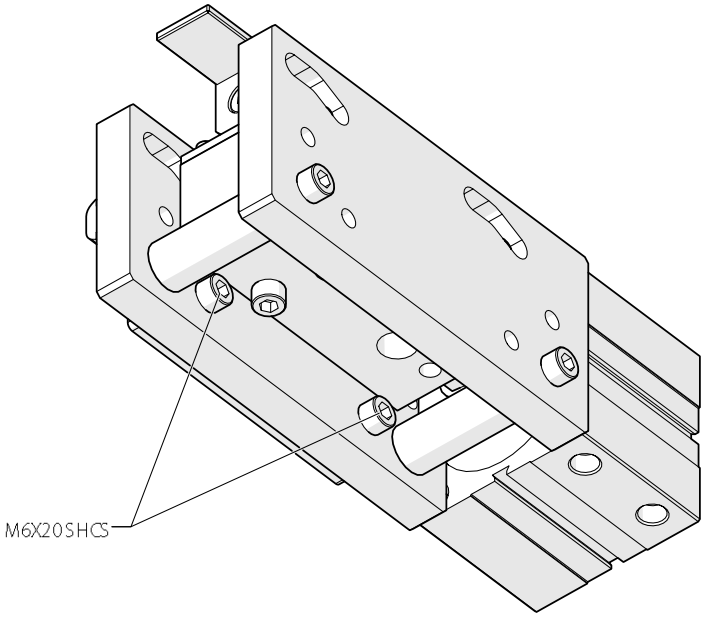


Figure 17: M6X20 SHCS

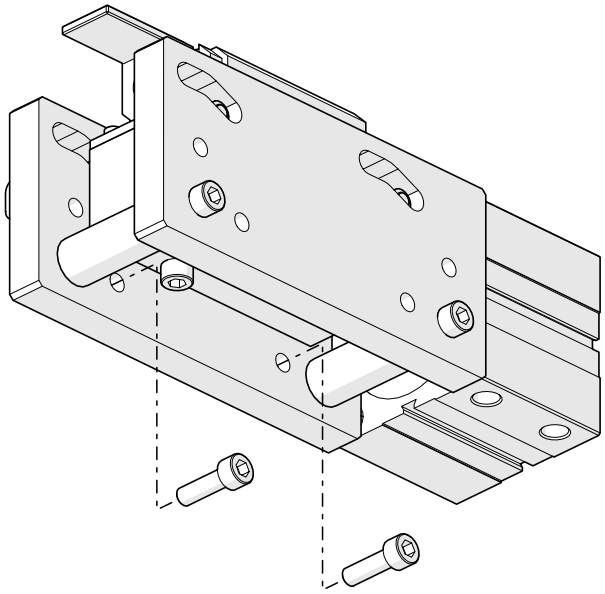


Figure 18: Removing M6X20 SHCS

Step 2: Remove P-00720 from TVDS as shown in Figure 19.

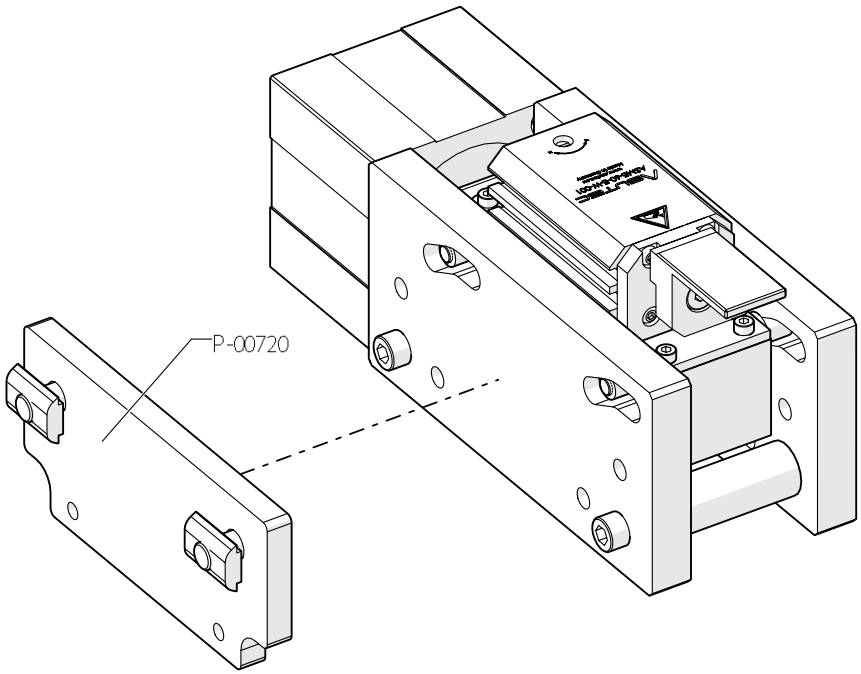


Figure 19: Removing P-00720

Step 3: Remove hardware from P-00720 as shown in Figure 20.

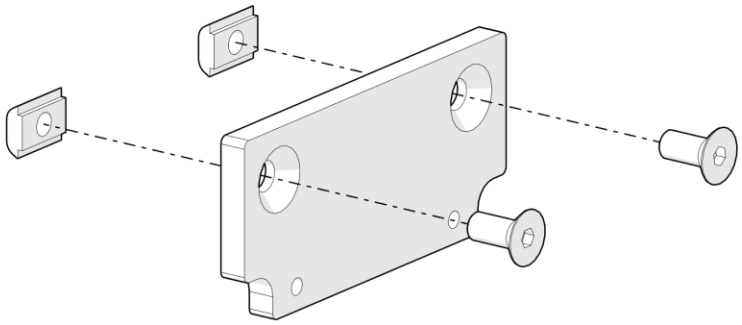


Figure 20: Removing Hardware from P-00720

Step 4: Position P-00720 as shown in Figure 21 and loosely secure with the M8X18 FHCS.

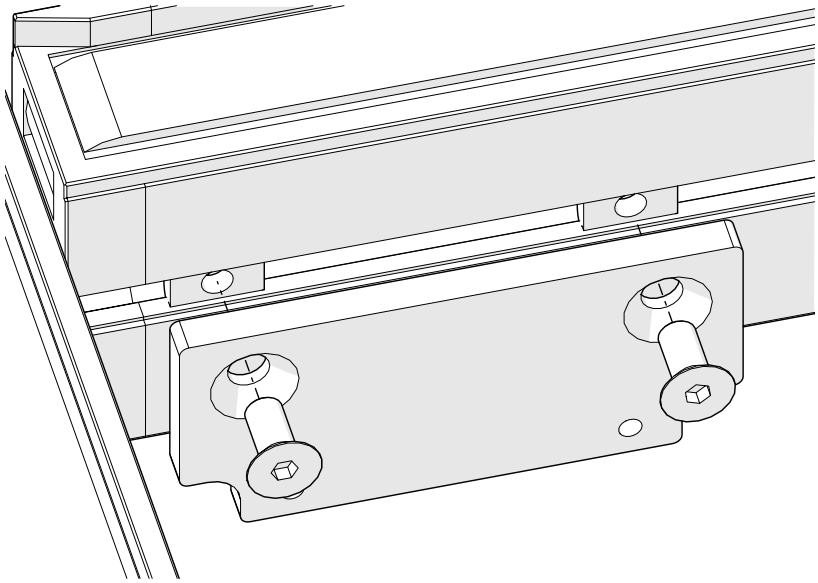


Figure 21: Installing P-00720

Step 5: Make sure that P-00223 are aligned properly in the extrusion as shown in Figure 22.

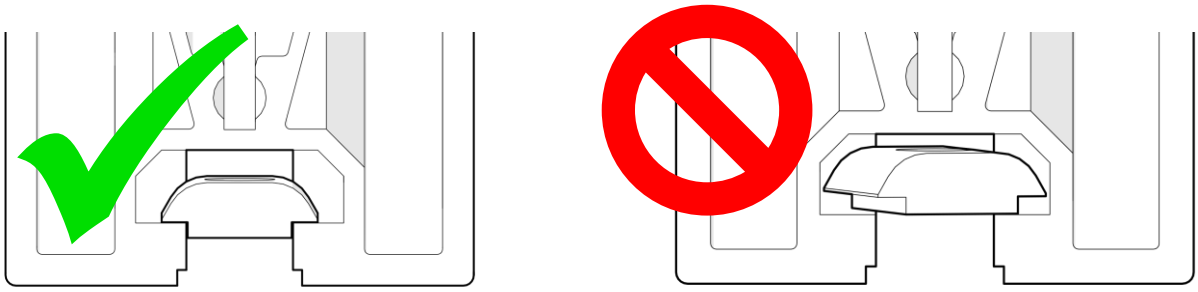


Figure 22: Correct and Incorrect Installation of P-00223

Step 6: Secure P-00720 with the FHCS as shown in Figure 23. Mount the edge of P-00720 to the edge of where the endcap meets the extrusion.

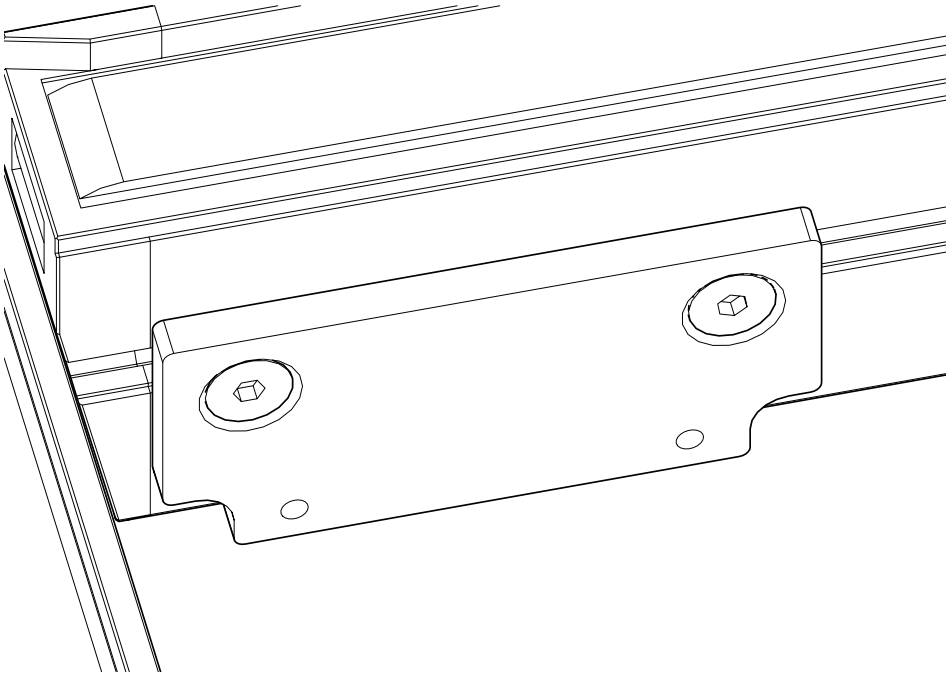


Figure 23: Installed P-00720

Step 7: Line up TVDS mounting holes with the holes on P-00720 and secure with the M6 SHCS shown in Figure 24.

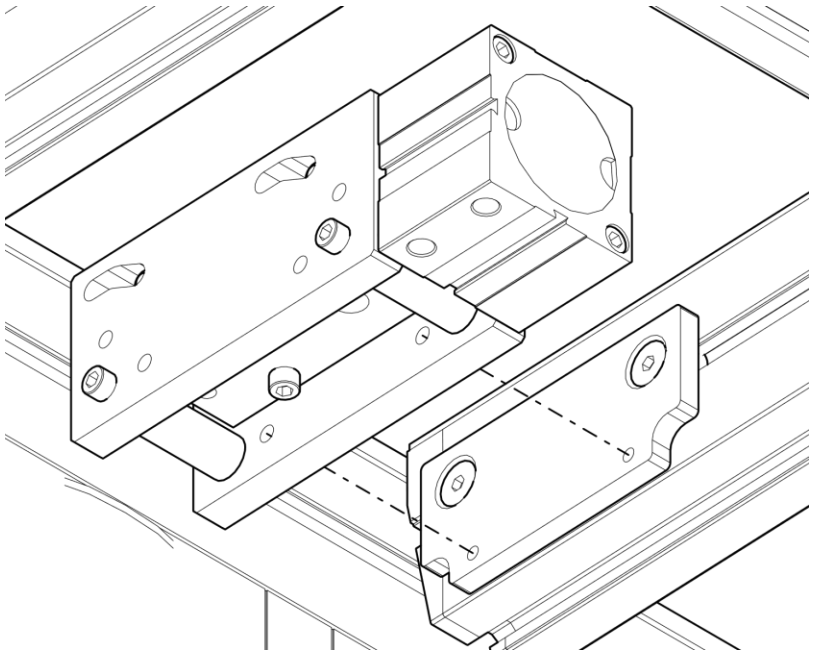


Figure 24: Lining up TVDS

Step 8: Tighten M6 SHCS as shown in Figures 25 & 26.

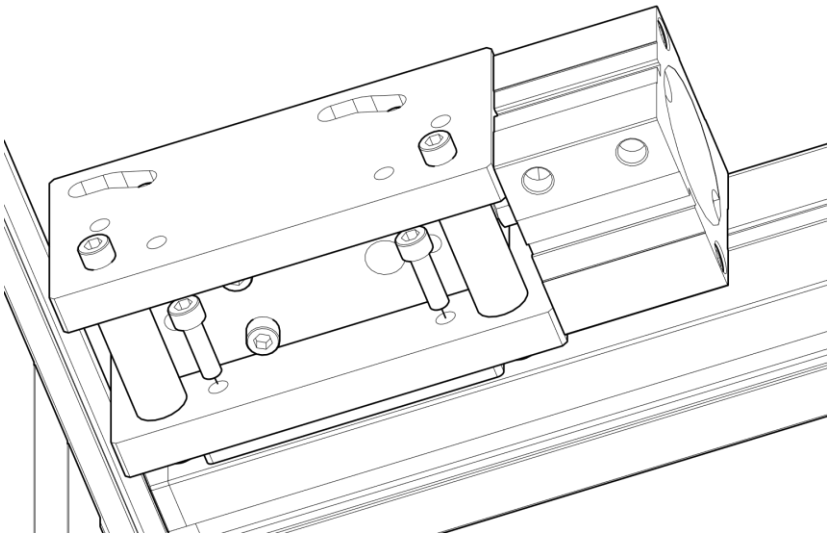


Figure 25: Tighten M6 SHCS

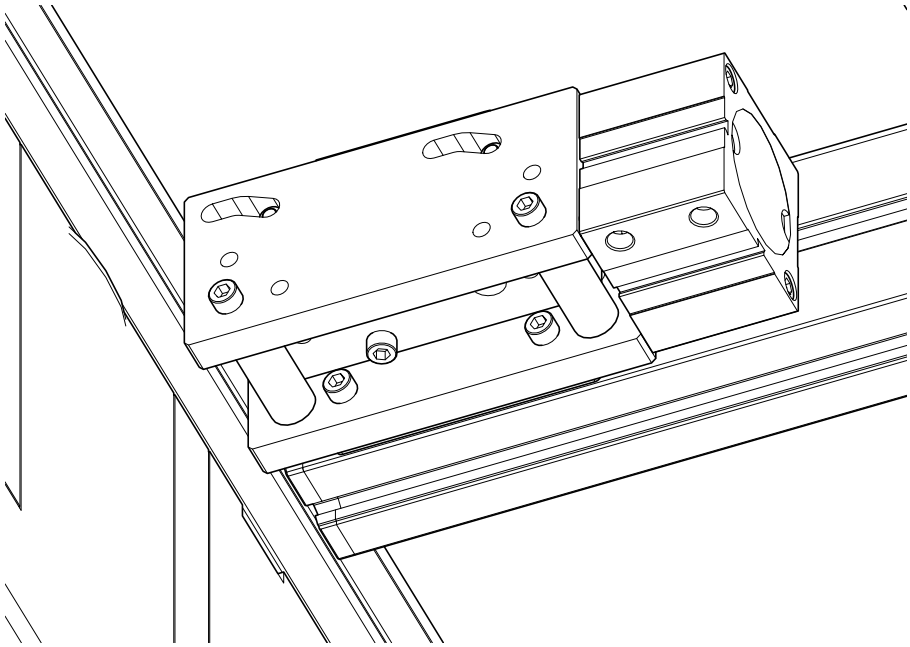


Figure 26: Tightened M6 SHCS

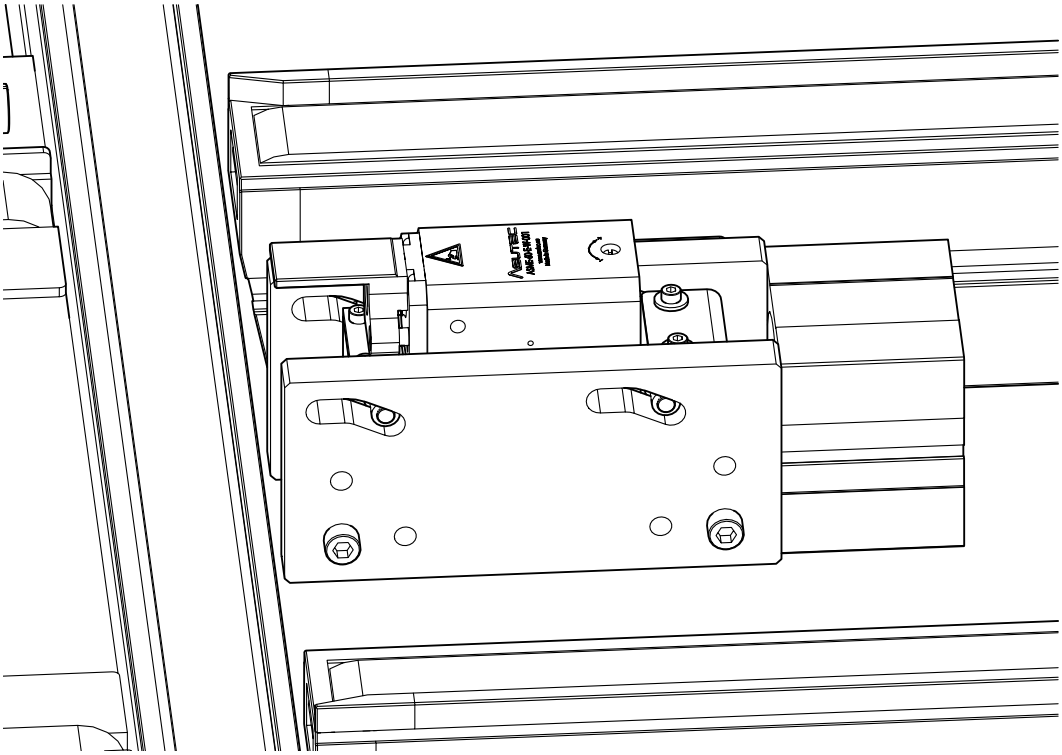


Figure 27: Installed TVDS

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3. How to Order Spare Parts

Spare parts may be purchased directly from Glide-Line™.

For a full list of spares for your specific Drop-Away Stop, please reference the serial number and contact a Glide-Line™ representative at 215-721-1900.

The next section covers spare parts for standard configurations of the TKDS and TVDS, which can be ordered directly from Glide-Line™.

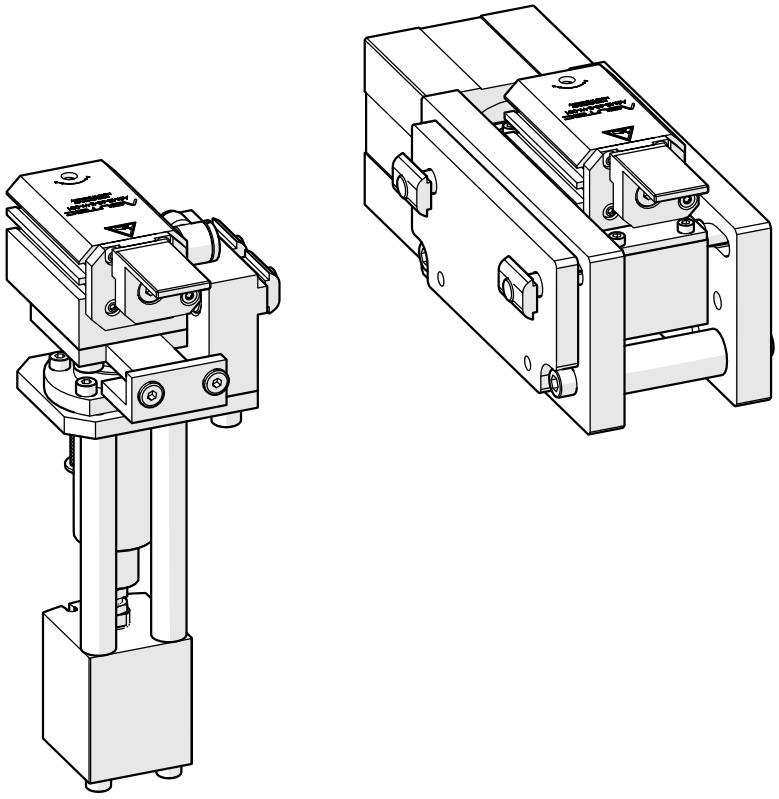

Figure 28: TKDS and TVDS

3.1 Spare Parts for TKDS

TKDS Spare Parts

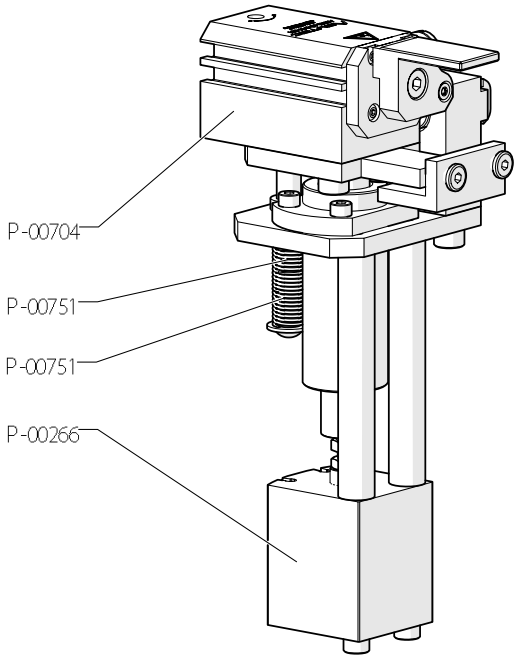

Figure 29: P-00704 and P-00266 Spares for TKDS

TVDS Spare Parts

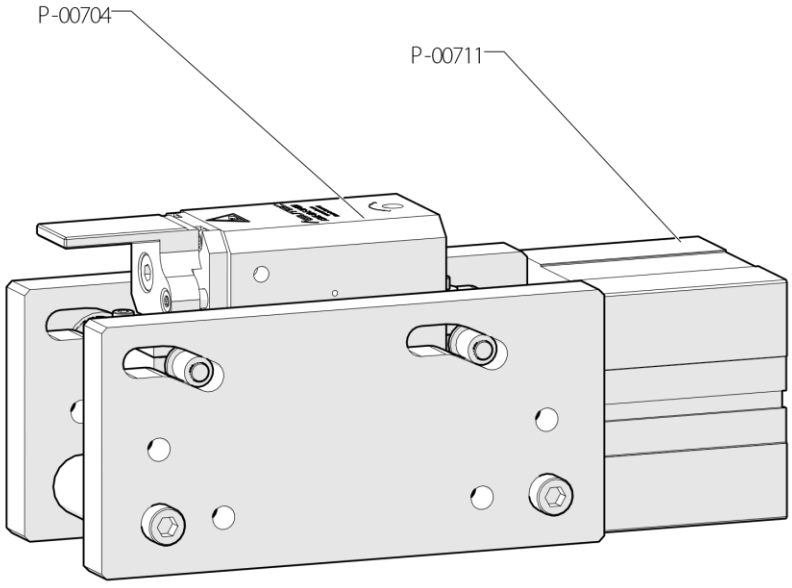

Figure 30: P-00704 and P-00711 Spares for TVDS

4. Maintenance

This section will go over how to maintain the Drop-Away Stops, including disassembly/reassembly for part replacement, and ensuring proper functionality of the devices.

4.1. Tools Required for Maintenance

List of tools needed to replace and maintain wear items.

- Metric Allen Keys
  - 2.5, 4, 5, 6
- Blue Loctite

	Only trained personnel should perform maintenance procedures. Company approved lock-out/tag-out procedures should be strictly adhered to. Please consult this manual before servicing.

4.2. Replacing Components

This section will go over replacing air cylinders and other wear items for both the TKDS and TVDS.

4.2.1 TKDS

Step 1: Remove M5X55 SHCS as shown in Figure 31.

This will allow for the removal of P-00266

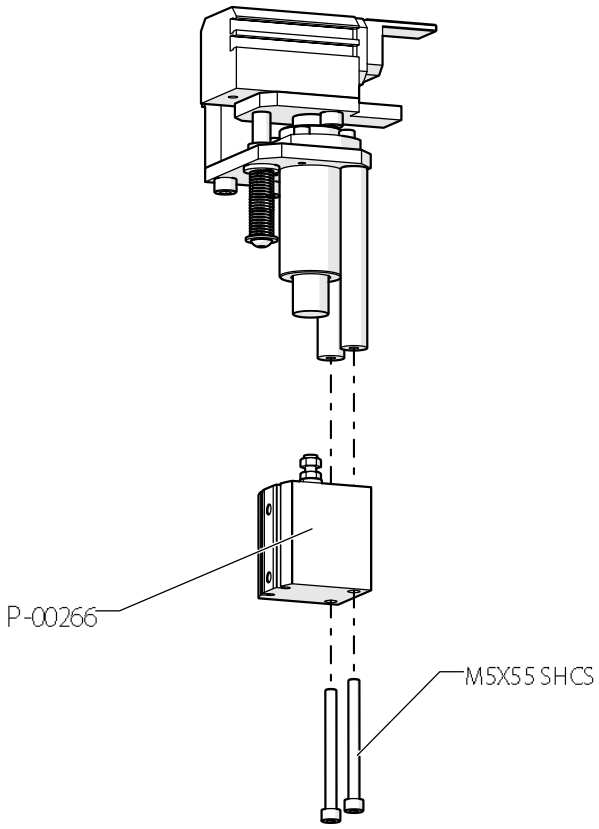

Figure 31: Removing P-00266

Step 2: Remove M5X10 BHCS, P-00344, and P-00751 shown in Figure 32.

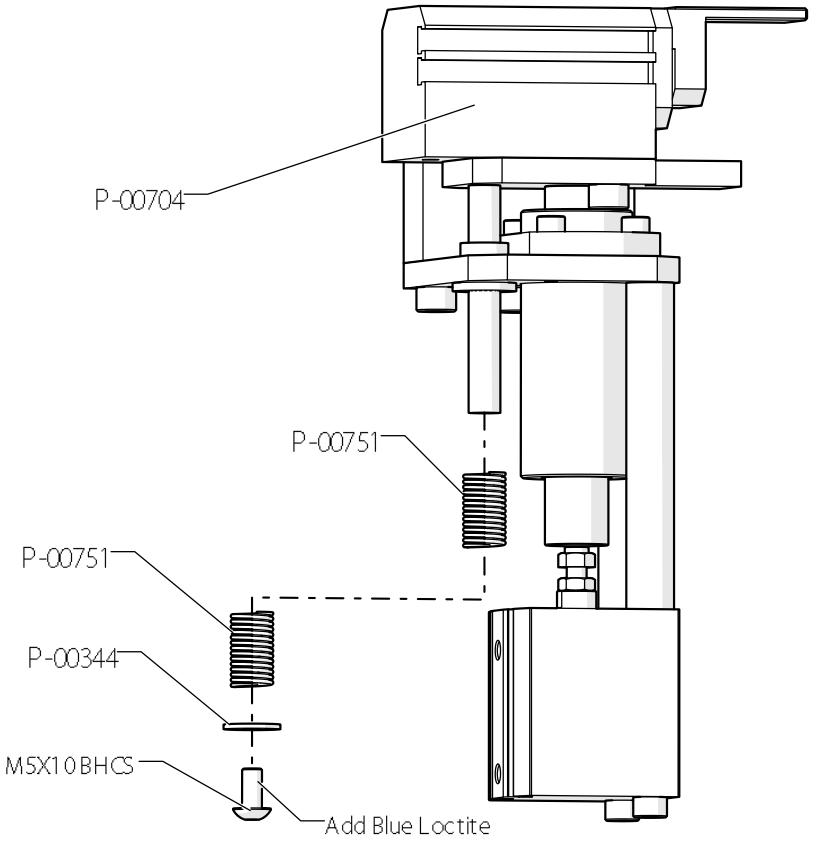

Figure 32: Removing Hardware for P-00704

Step 3: Remove P-00704 as shown in Figure 33 and replace with new cylinder

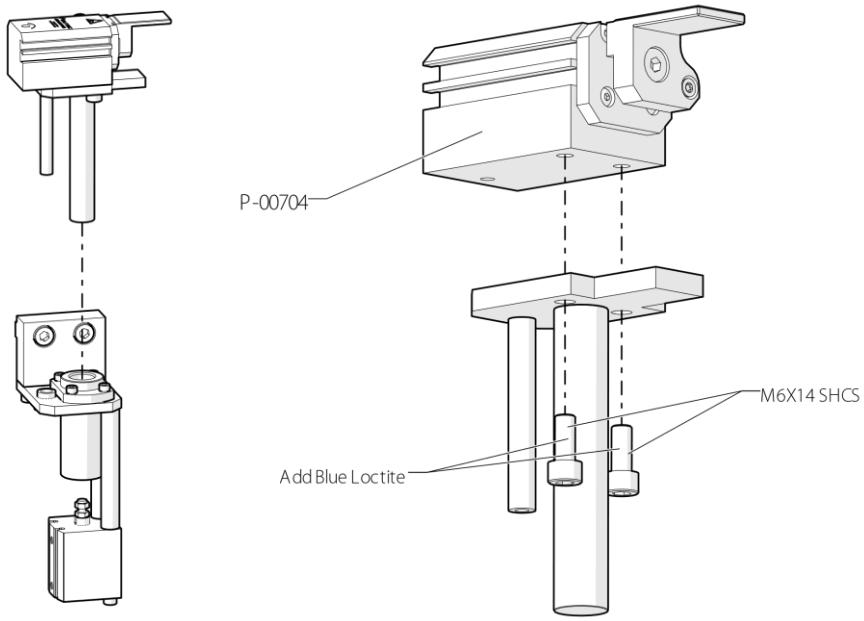

Figure 33: Removing P-00704

To put the TKDS back together, follow the previous steps in reverse order.

4.2.2 Replacing Air Cylinders on the TVDS

Note: This task is made easier by removing the TVDS from the conveyor it is mounted to.

Step 1: Remove M6X30 SHCS as shown in Figure 34.

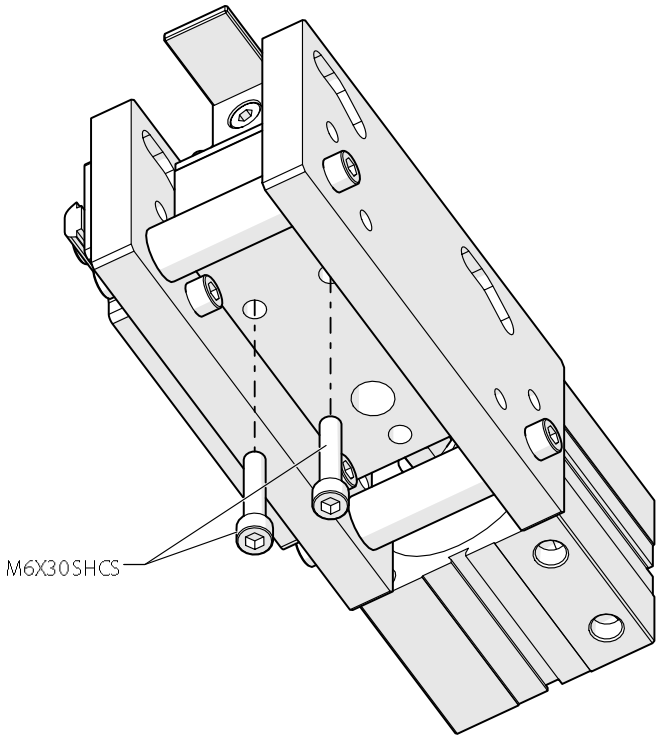

Figure 34: Removing M6X30 SHCS

Step 2: Remove P-00704 as shown in Figure 35.

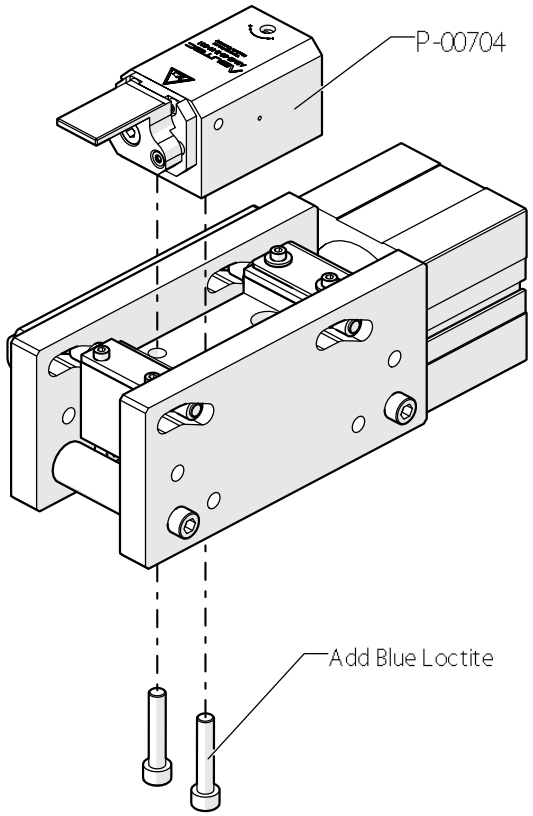

Figure 35: Removing P-00704

Step 3: Remove hardware securing P-00721 as shown in Figures 36 and remove P-00721 shown in Figure 37.

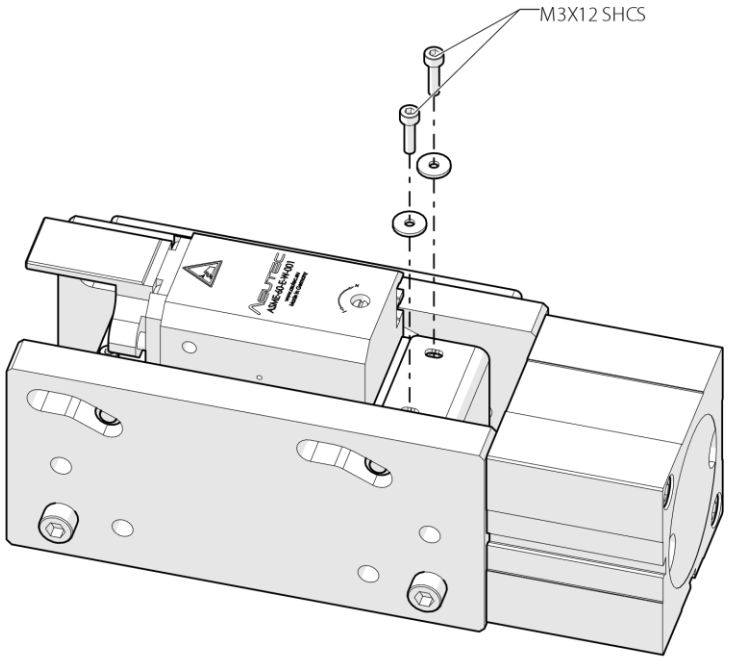

Figure 36: Removing Hardware for P-00721

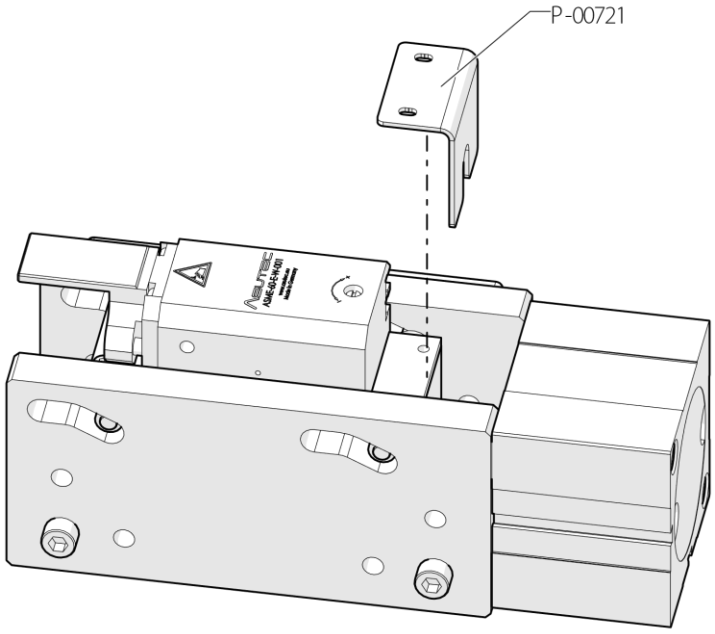

Figure 37: Removing P-00721

Step 4: Remove M6X55 SHCS securing P-00711 shown in Figure 38.

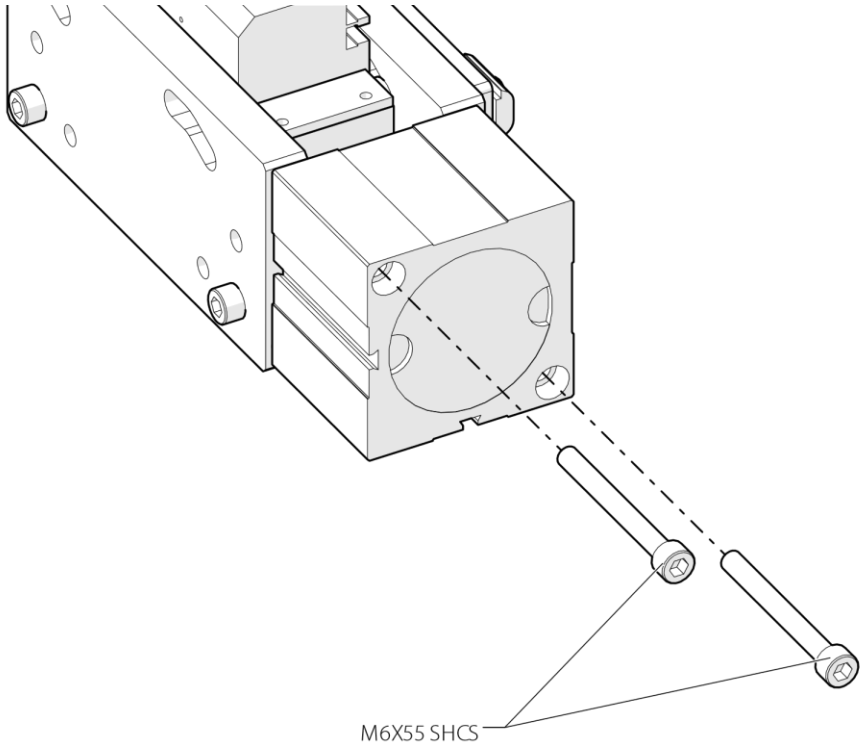

Figure 38: Removing M6X55 SHCS

Step 5: Remove P-00711 as shown in Figure 39.

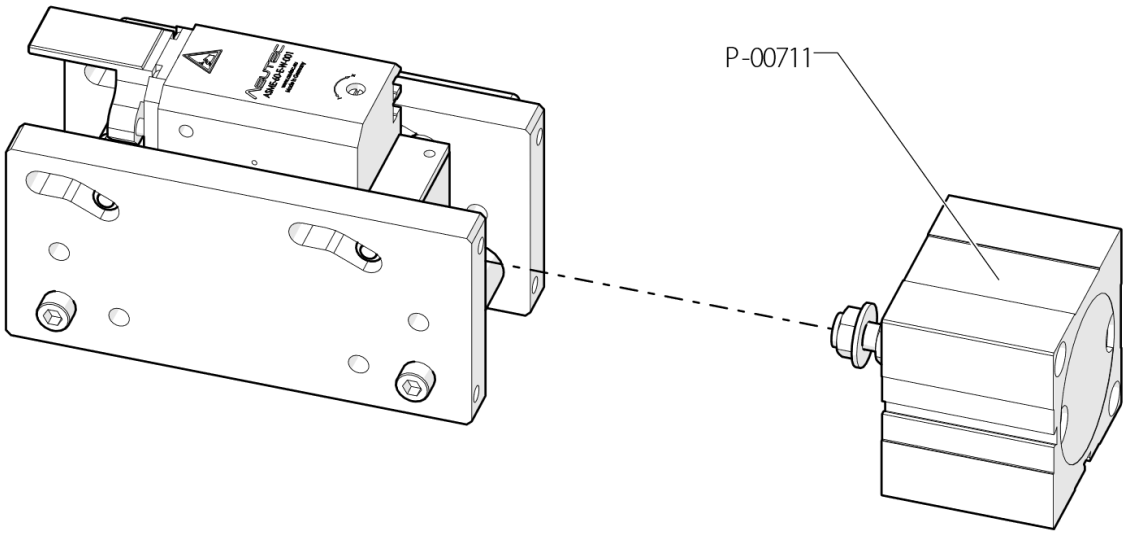

Figure 39: Remove P-00711

Follow the previous steps in reverse order to re-assemble the TVDS.

12-4-19

Replacing P-00710 Slide Bushings

Step 1: Remove M6X20 SHCS as shown in Figure 40.

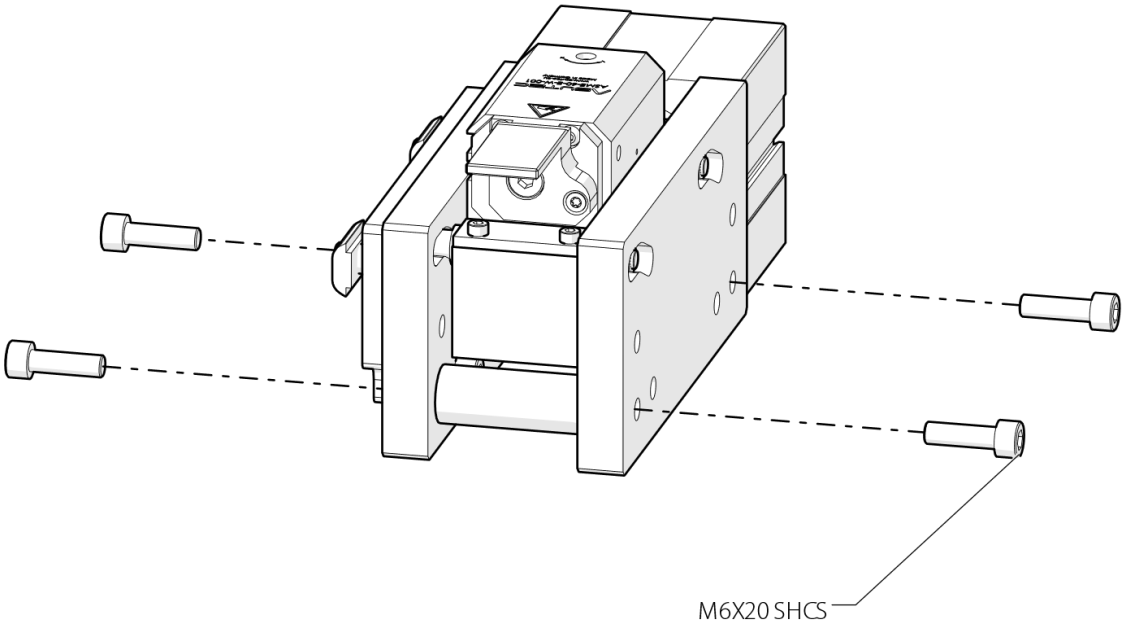

Figure 40: Remove M6X20 SHCS

Step 2: Remove M6X55 SHCS as shown in Figure 41.

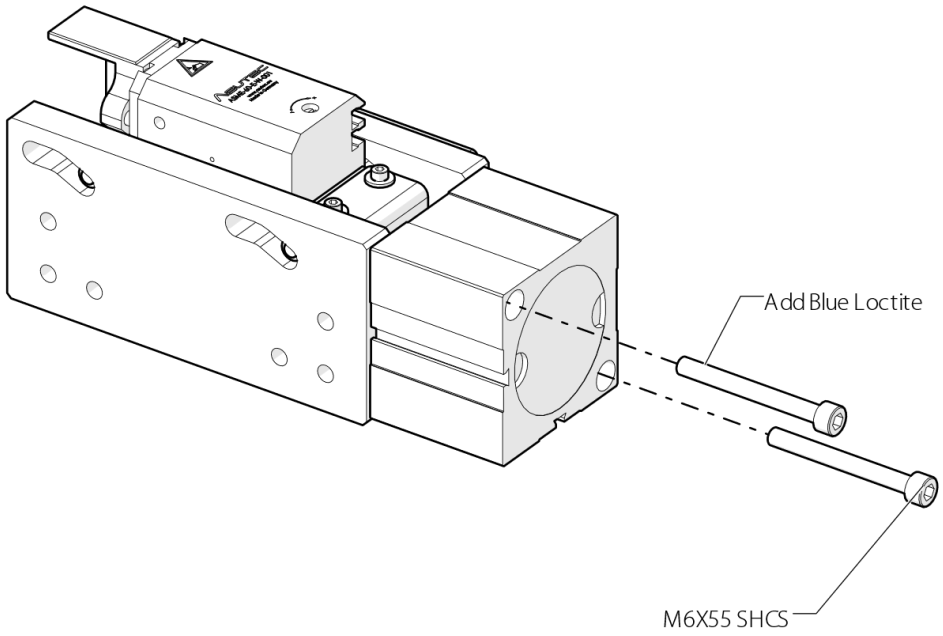

Figure 41: Remove M6X55 SHCS

Step 3: Remove P-00705 from both sides of TVDS as shown in Figure 42.

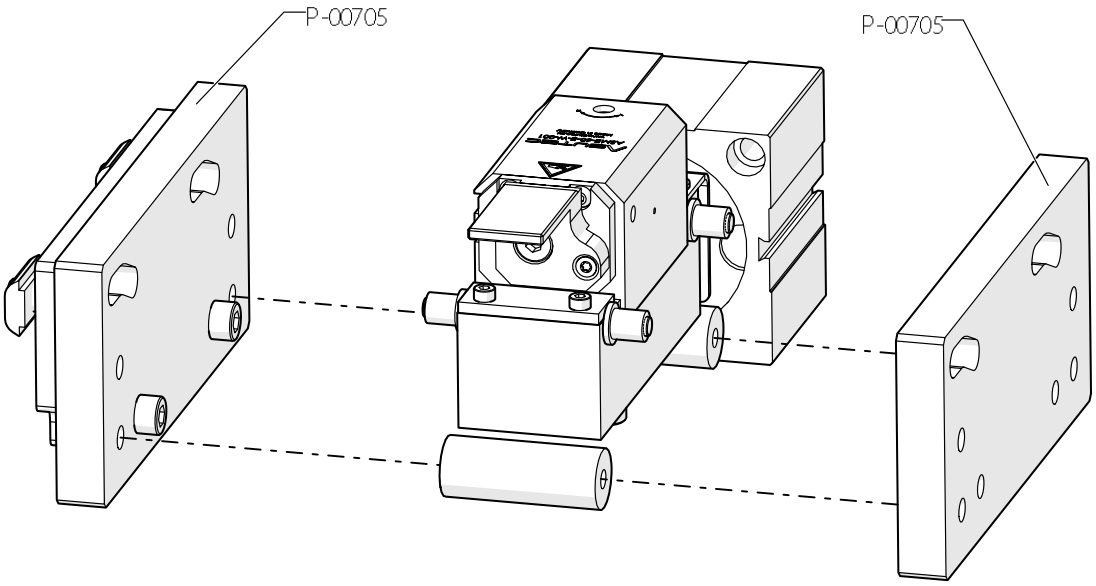

Figure 42: Remove both P-00705

Step 4: Remove P-00710 as shown in Figure 43.

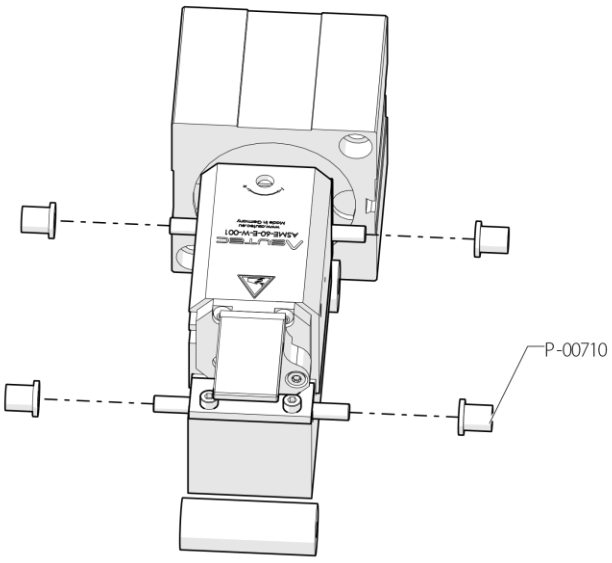

Figure 43: Remove all four P-00710

To re-assemble the TVDS, follow the above steps in reverse order.

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5. Troubleshooting

This section lists some common issues/solutions that you may come across while operating the TVDS and TKDS. For more technical/specific questions, please contact Glide-Line™ at 215-721-1900.

Issue: After mounting the TKDS/TVDS, the device seems to have come loose on the extrusion.
Solution: Check to make sure that the P-00223 were installed properly. If they were skewed during installation, it is possible they were not fully seated in the T-Slot, causing them to come loose.

Issue: TKDS/TVDS does not extend enough to securely stop the pallet.
Solution: Make sure that the TKDS/TVDS is mounted the correct distance away from the LTU. If the Stop is mounted too far away, it will not be able to stop the pallet.