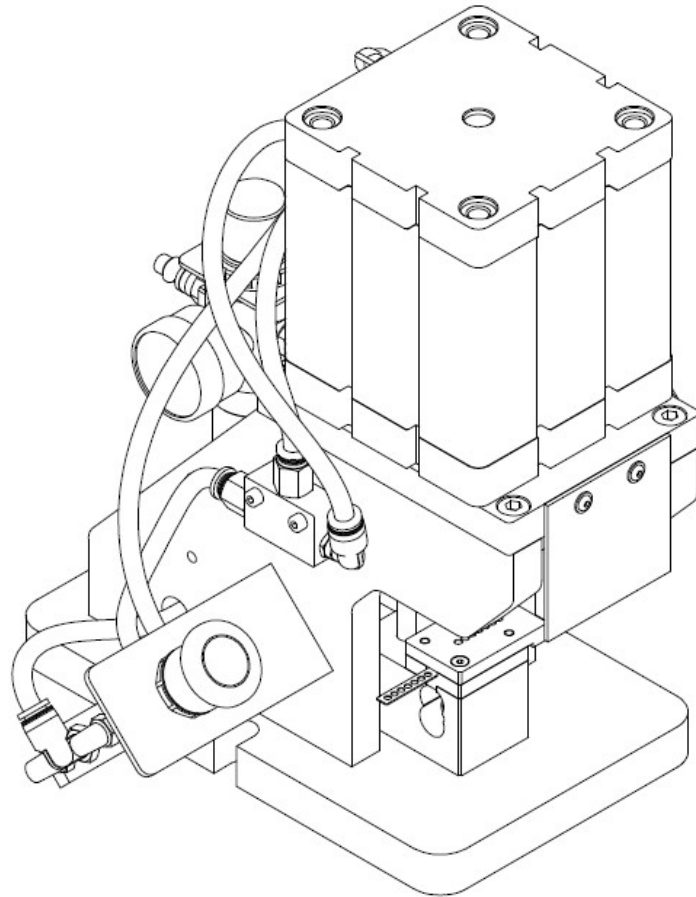


# COREMATIC™



[www.gmslock.com/corematic](http://www.gmslock.com/corematic)

## A. OVERVIEW

GMS Corematic is a pneumatic capping press for Small Format Interchangeable Core (SFIC). Please read and understand this manual before operating the Corematic. Previous experience with SFIC assembly and capping is strongly recommended. To receive warranty coverage, please register your Corematic with GMS at [www.gmslock.com/corematic](http://www.gmslock.com/corematic).

**Warranty:**

GMS Corematic is warranted against manufacturing defects for a period of one year from the date of purchase. This warranty covers repair or replacement of defective parts, ensuring reliable performance under normal use conditions.

## B. Safety Precautions

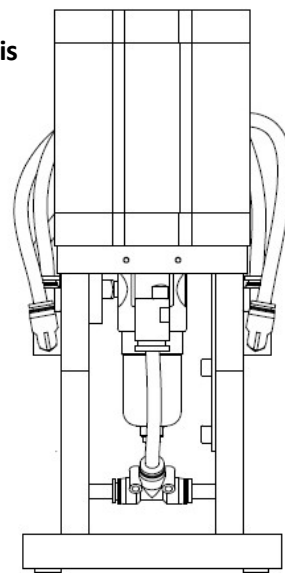
- **Only Use Original Capping Strips:** Corematic is designed to operate exclusively with original GMS capping strips. Using any other capping strips may result in malfunction and void any warranty coverage.
- **1-Person / Dual-Hand Operation:** The machine is designed to be operated by a single operator and requires both hands to push the buttons during operation for safety reasons.
- **Wear Appropriate Personal Protective Equipment:** Safety glasses are recommended when operating Corematic.
- **No Modifications or Bypassing Safety Features:** To avoid injury and ensure the safety of the operator, any modification to the machine is prohibited.

## C. Machine Assembly

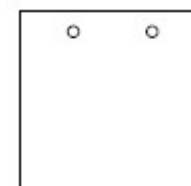
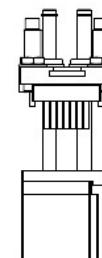
- 1. Assembly required:** Components are Chassis, Push-Buttons (left and right), Capping Assembly, Safety Shield, and I/M Plug.

**Tools needed:** 2.5mm/5mm/6mm hex keys and a crescent wrench

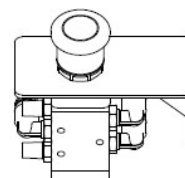
Chassis



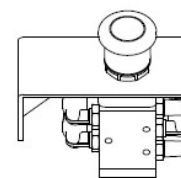
Capping Assembly



Safety Shield



Push-Button  
XYZ (left)

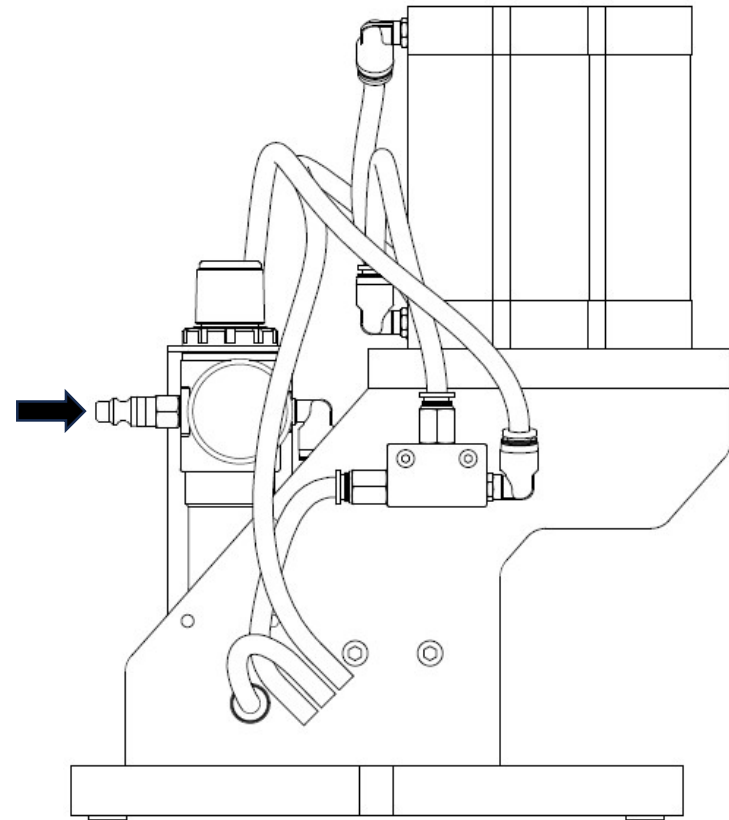


Push-Button  
ABC (right)



I/M Plug

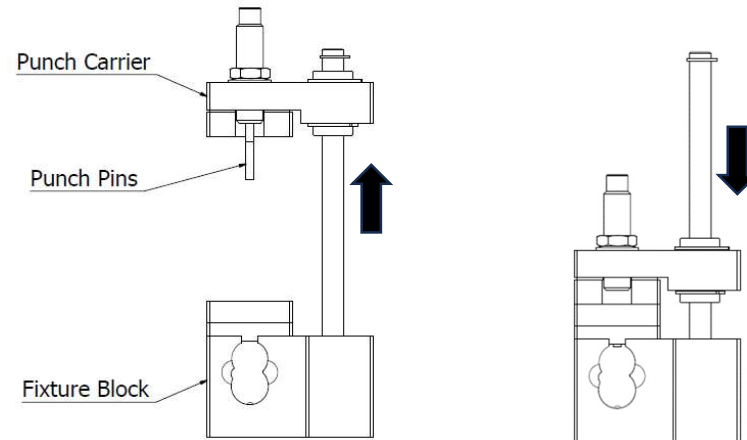
2. **Install I/M plug:** Fasten I/M plug to rear of the Regulator on the Chassis (use a crescent wrench).



- 3. Inspect Capping Assembly:** The Punch Carrier should slide freely along the guiding posts. Ensure that all Punch Pins can be lowered into the Fixture Block without any collisions.

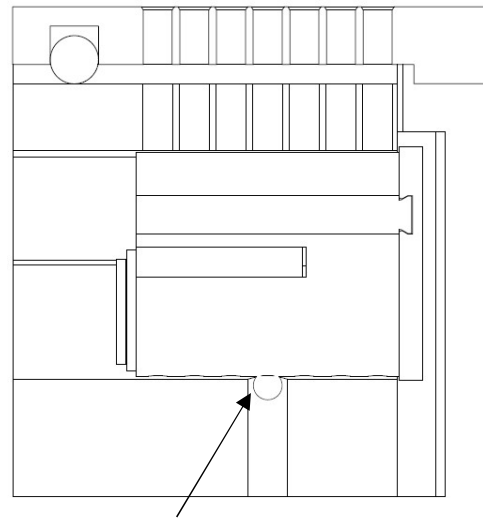


**NEVER** place hands between Punch Pins and Fixture Block during inspection.

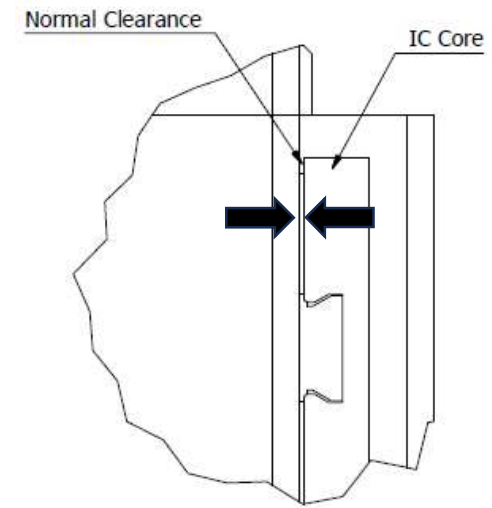
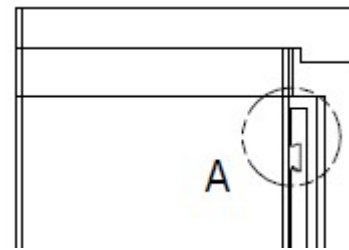


4. **Inspect Core-Locating Ball Bearing:** Insert an uncombined SFIC core of matching spacing fully into the Fixture Block and allow it to be located by the ball bearing.

**Note:** A small gap between the face-cover and the Fixture Block is normal and indicates proper alignment.



Locating Ball Bearing



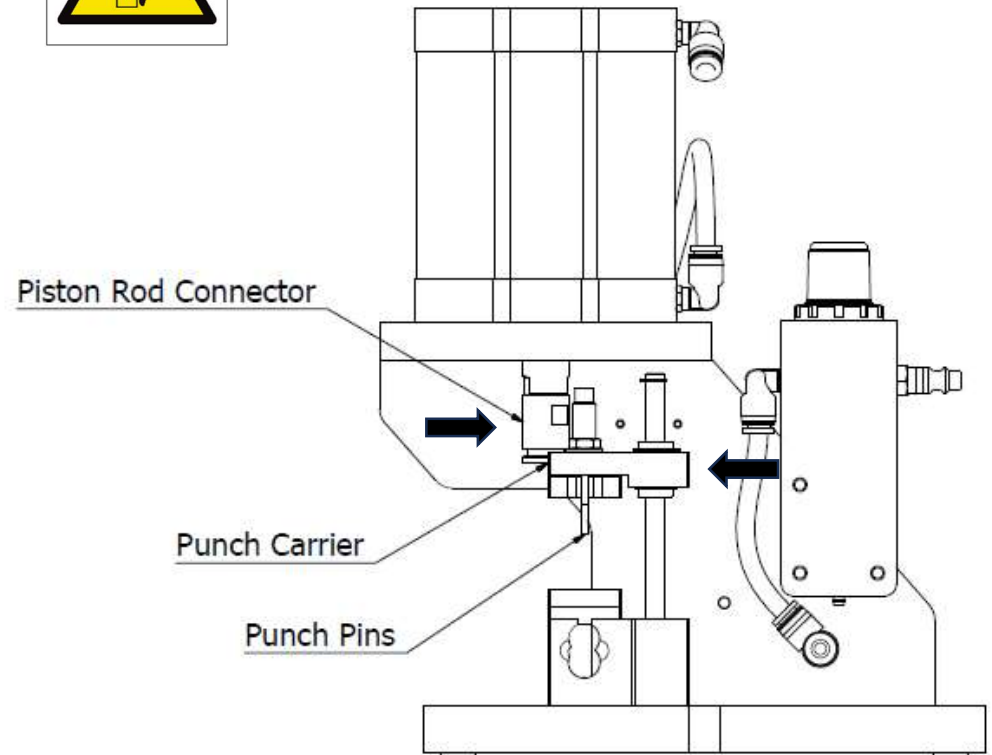
DETAIL A

## 5. Install Capping Assembly:

- 5.1. Tilt and Slide the Capping Assembly so it's behind the Piston Rod Connector. Lift the Punch Carrier to align it with the groove in the Piston Rod Connector. **Do not place hands between the Punch Pins and the Fixture Block.**
- 5.2. Slide the Capping Assembly forward so the Punch Carrier engages with the Piston Rod Connector.

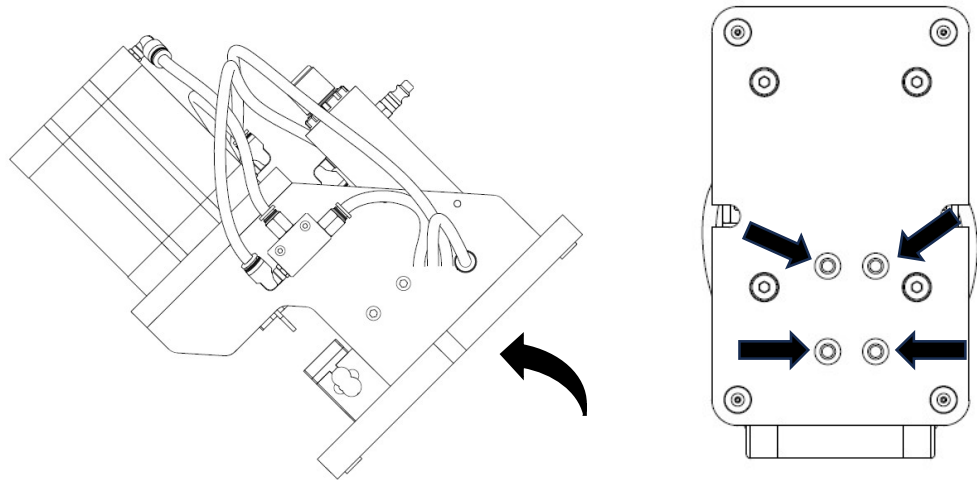


**NEVER** place hands between Punch Pins and Fixture Block during installation.



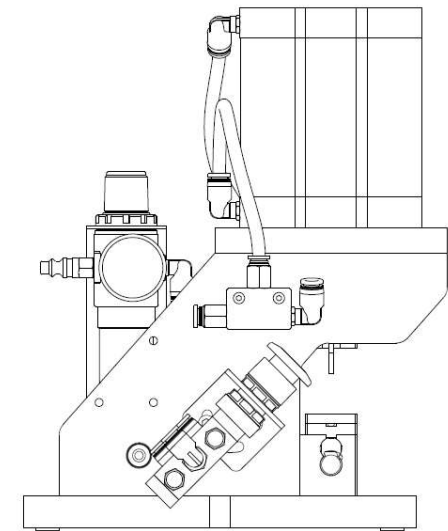
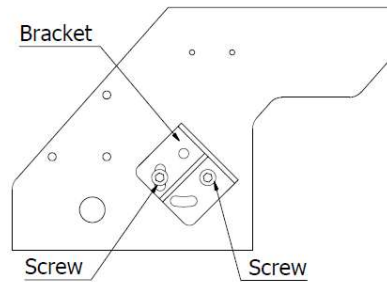
**5.3.** With the Punch Carrier and Piston Rod Connector engaged, tilt the Chassis forward to expose the bottom of the Chassis. Insert and tighten the bolts through the bottom plate of the Chassis (use 6mm hex key).

**NOTE: Step 4 (in reverse and forward) is also the procedure for exchanging Capping Assembly with different spacings (0.140" or 0.150").**

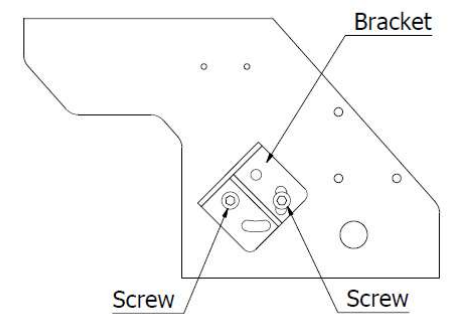
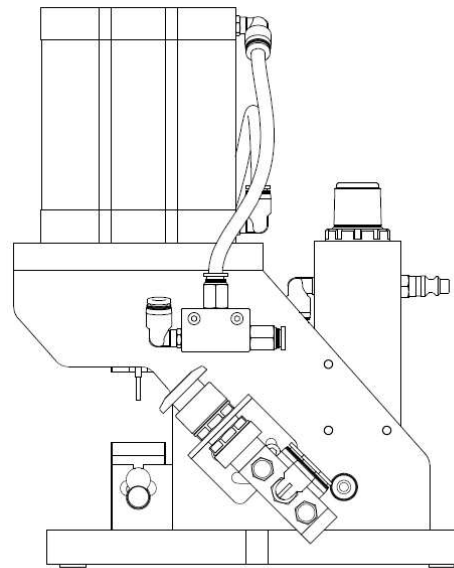


- 6. Install Push-Buttons:** Each Push-Button is fastened by two cap screws (use 5mm hex key). An adjustment of +/- 10 deg can be made to each Push-Button according to the operator's preference.

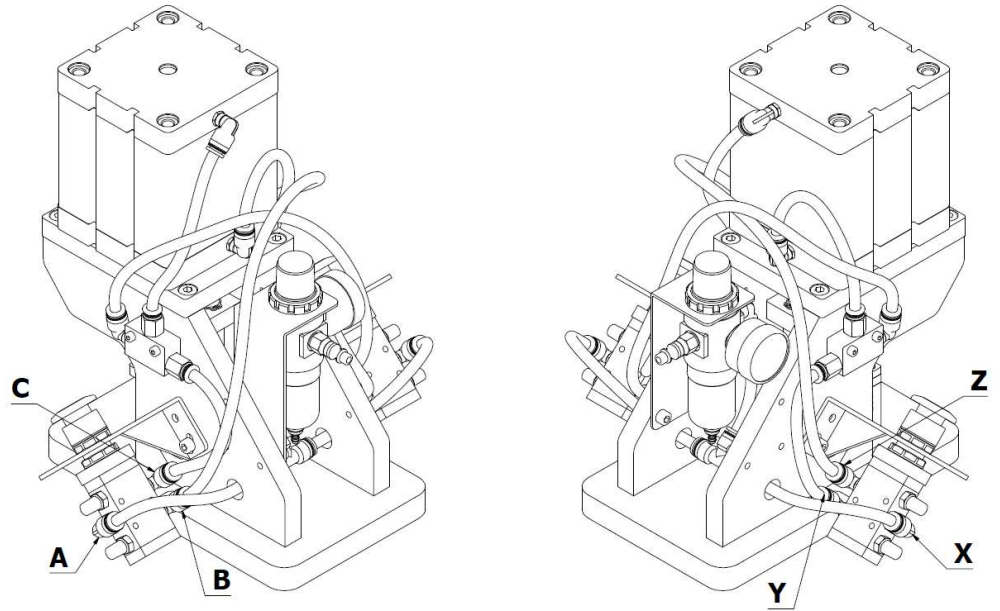
**Push-Button  
XYZ (left)**



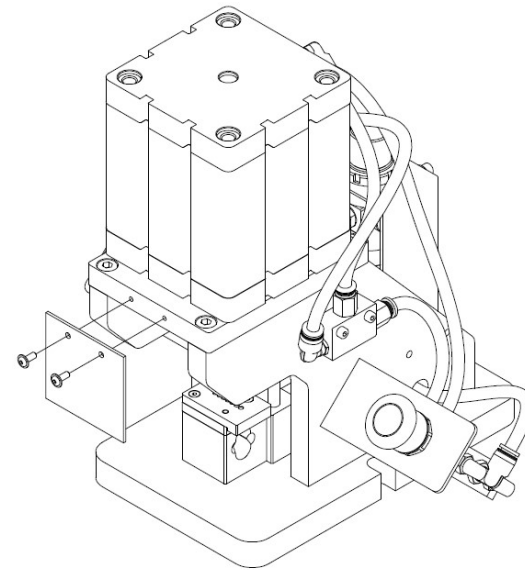
**Push-Button  
ABC (right)**



**7. Install Push-Button Hoses:** Look for labels on the hoses and insert the free ends to quick connectors ABC (right) and XYZ (left) on the Push-Buttons. All other hoses are pre-installed.



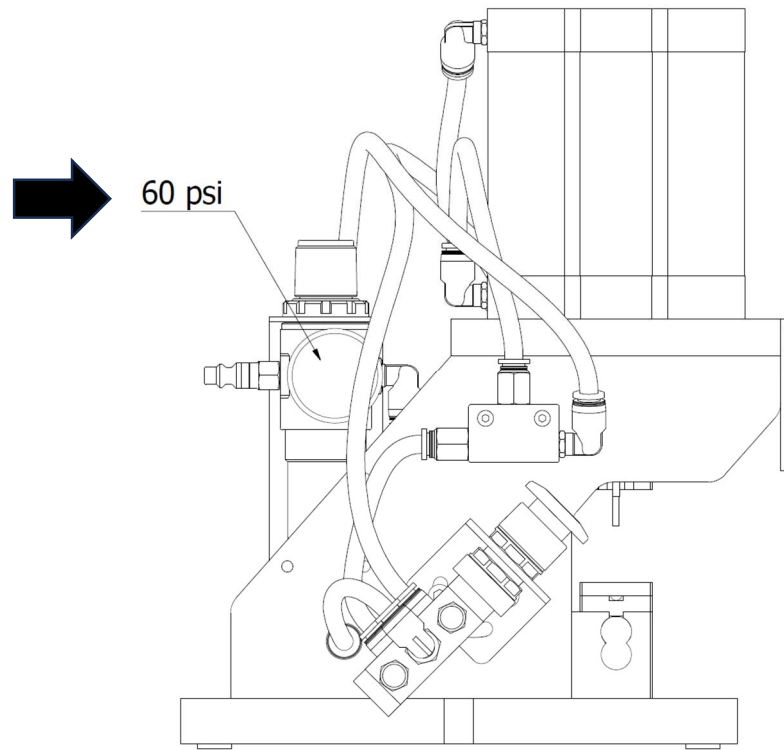
**8. Install Safety Shield:** Gently fasten the supplied screws to avoid cracking the Safety Shield (use 2.5mm hex key).



**9. Connect Compressed Air:** Connect compressed air according to the requirements below. When properly connected, the regulator should indicate 60 psi.

**Pneumatic Requirements:**

- **Pneumatic Connection:** I/M plug/coupler for quick connect.
- **Pneumatic Supply:** 110psi min., 2.0 SFM @90 psi, 2 gal. tank.



# D. Operation

## 0. Prior to Use



Correct spacing **MUST** be used.

0.1. **Correct Capping Assembly:** Capping Assembly spacing is marked on the Fixture Block

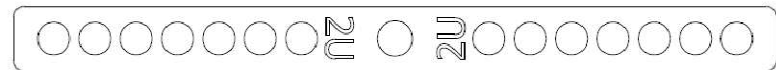
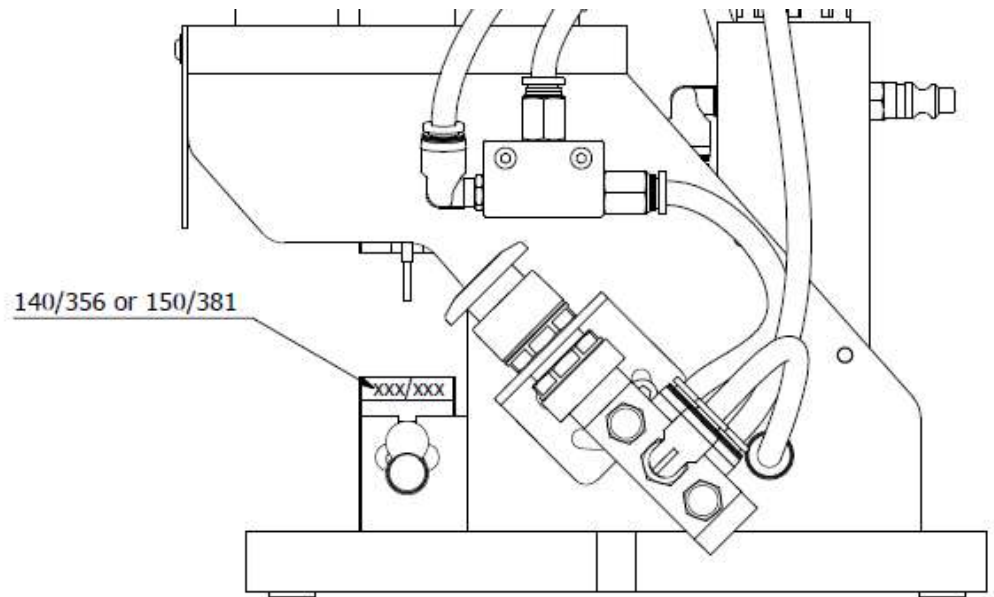


Core Spacing	Capping Assembly
0.140"	140/356
0.150"	150/381

0.2. **Correct Capping Strip:** Capping Strip spacing is marked on the strip. Each strip is designed to cap 2 cores.



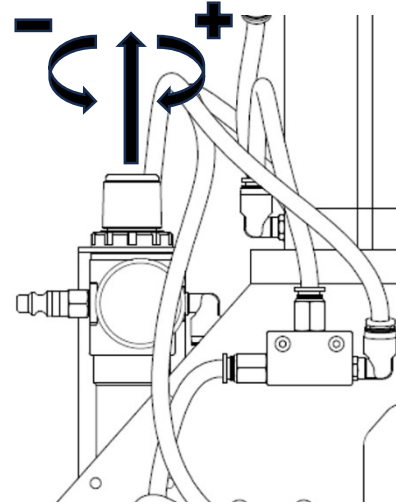
Core Spacing	Capping Strip
0.140"	1U
0.150"	2U



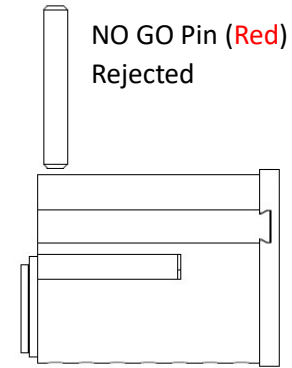
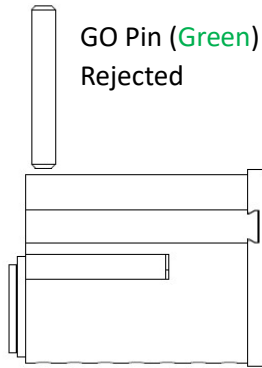
- 0.3. **Correct Pressure:** Ensure the gauge indicates 60psi min. If necessary, pressure can be adjusted by pulling up adjustment knob and turn it clock/anti-clock wise.



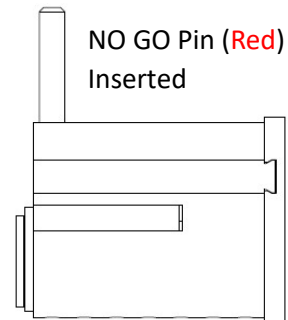
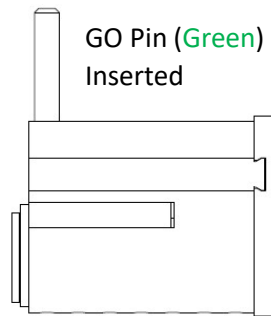
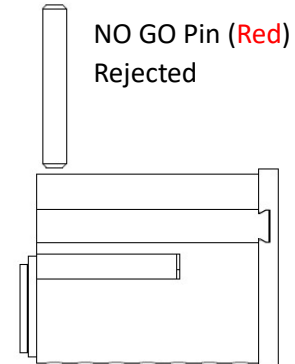
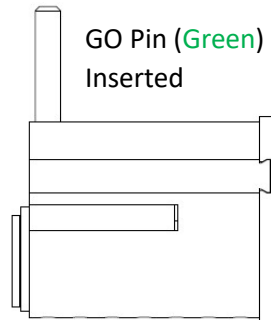
Do not exceed 80psi.



0.4. **Correct Chamber Sizes:** Due to variations from different manufacturers, it is advised to inspect the chamber sizes with the supplied Gauge Pins.



**Chambers too small!**



**Chambers too large!**

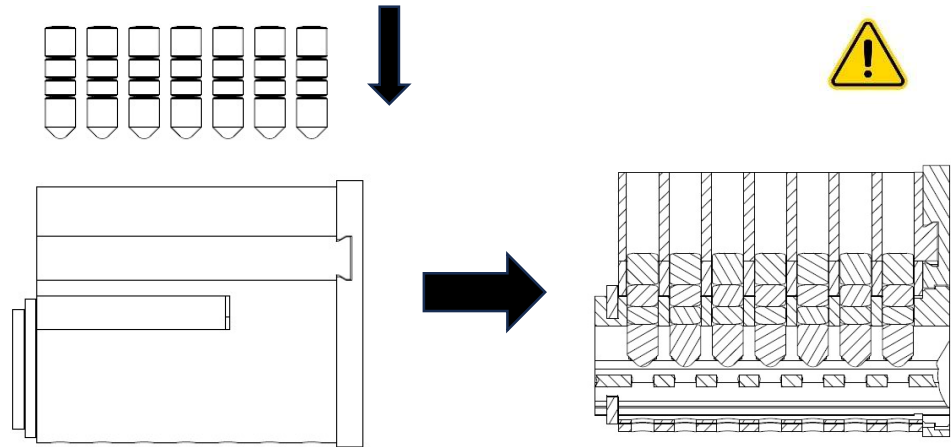


## 1. Ready to Cap

- 1.1. **Prepare Core:** Follow standard practice to load pins in all chambers, but **without** the springs.



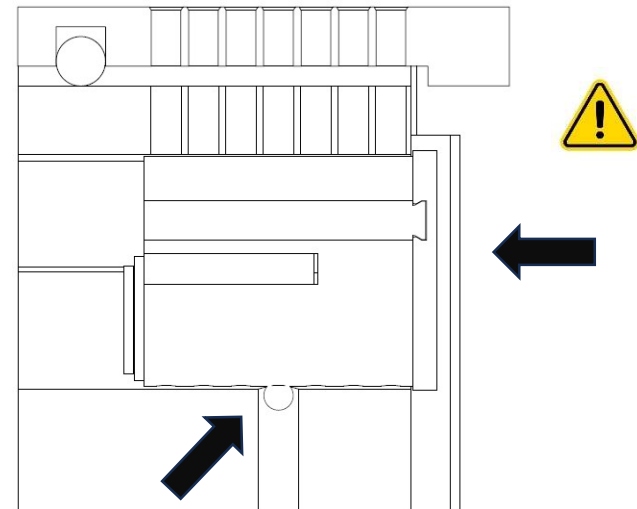
**Must ensure all pins stacks are fully lowered and resting in the plug.**



- 1.2. **Insert Core:** Fully insert the prepared core into the Fixture Block. The core should be located by the ball bearing to ensure proper alignment.



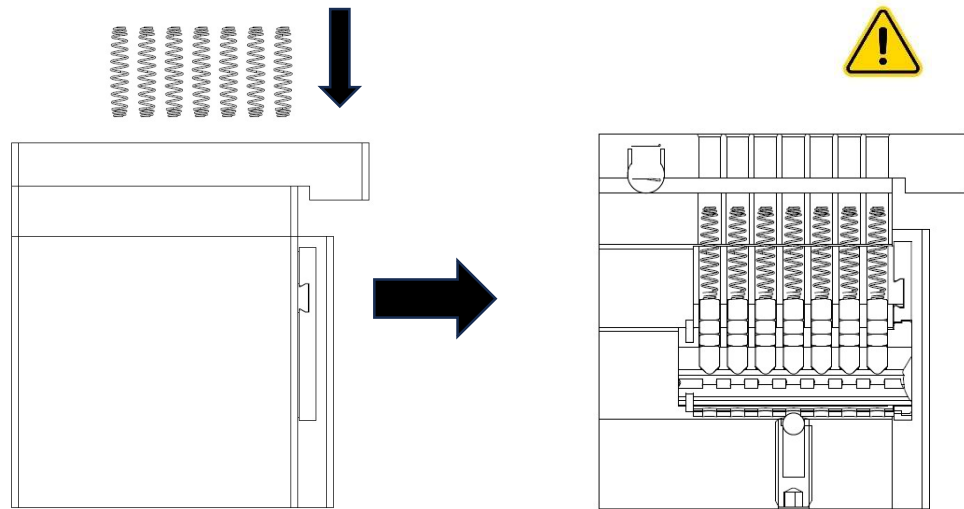
**Core is 'snapped' into place by the locating ball bearing for proper alignment.**



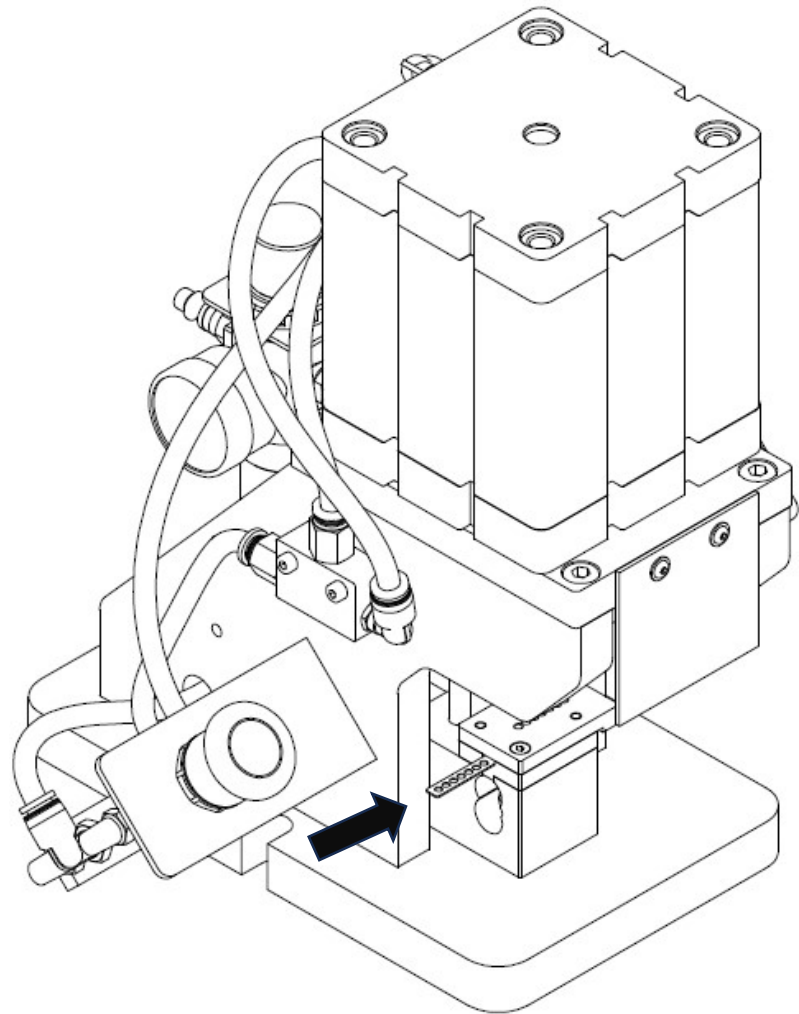
1.3. **Insert Springs:** Place the required springs into each chamber from the top of the Fixture Block.



**Must ensure all springs are properly seated within each chamber of the core.**

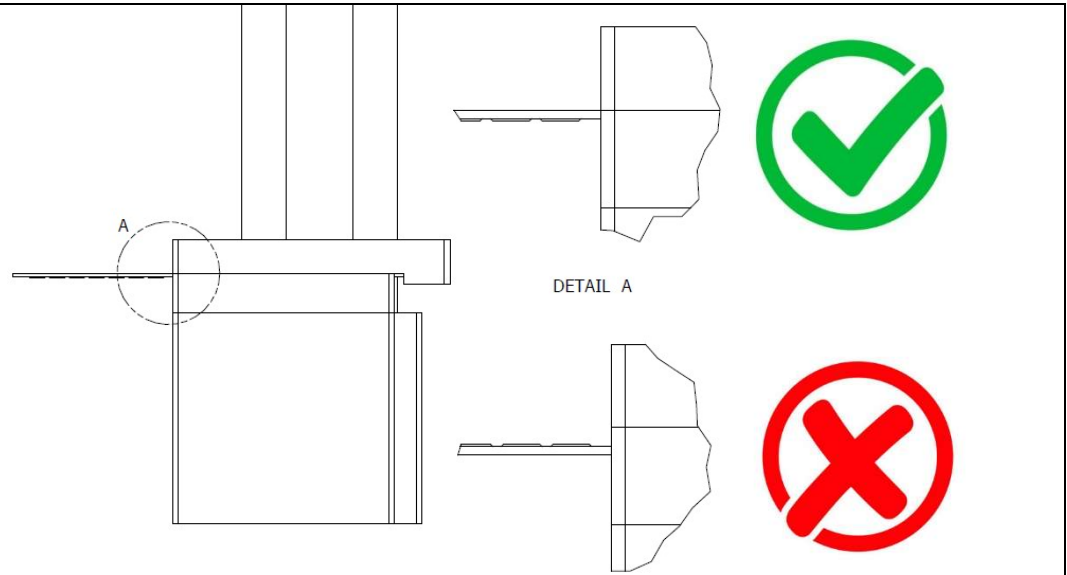


- 1.4. **Insert Capping Strip:** Insert the Capping Strip into the Fixture Block all the way to the stop.

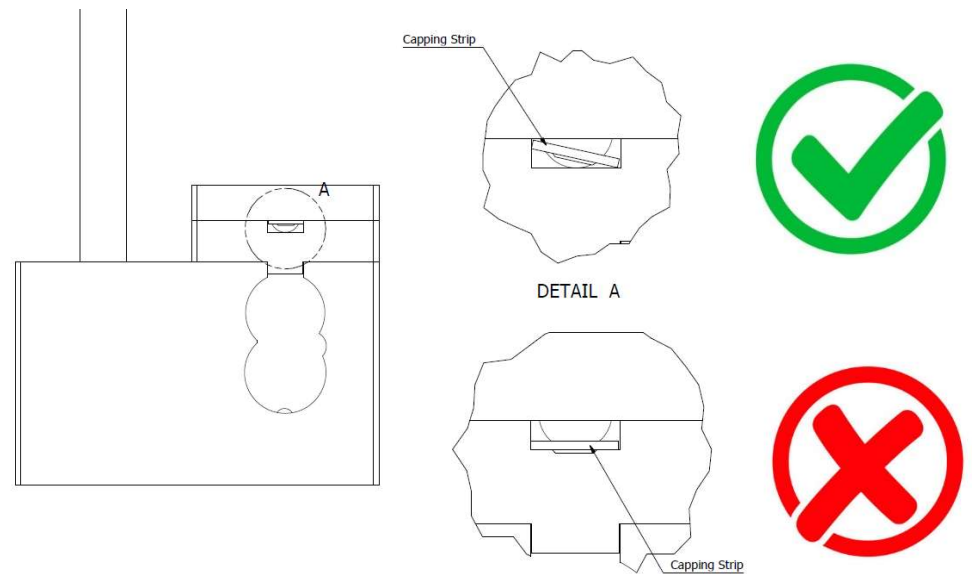




**Make sure the pre-formed caps are face-down.**



**Twist the Capping Strip at an angle while inserting it.**



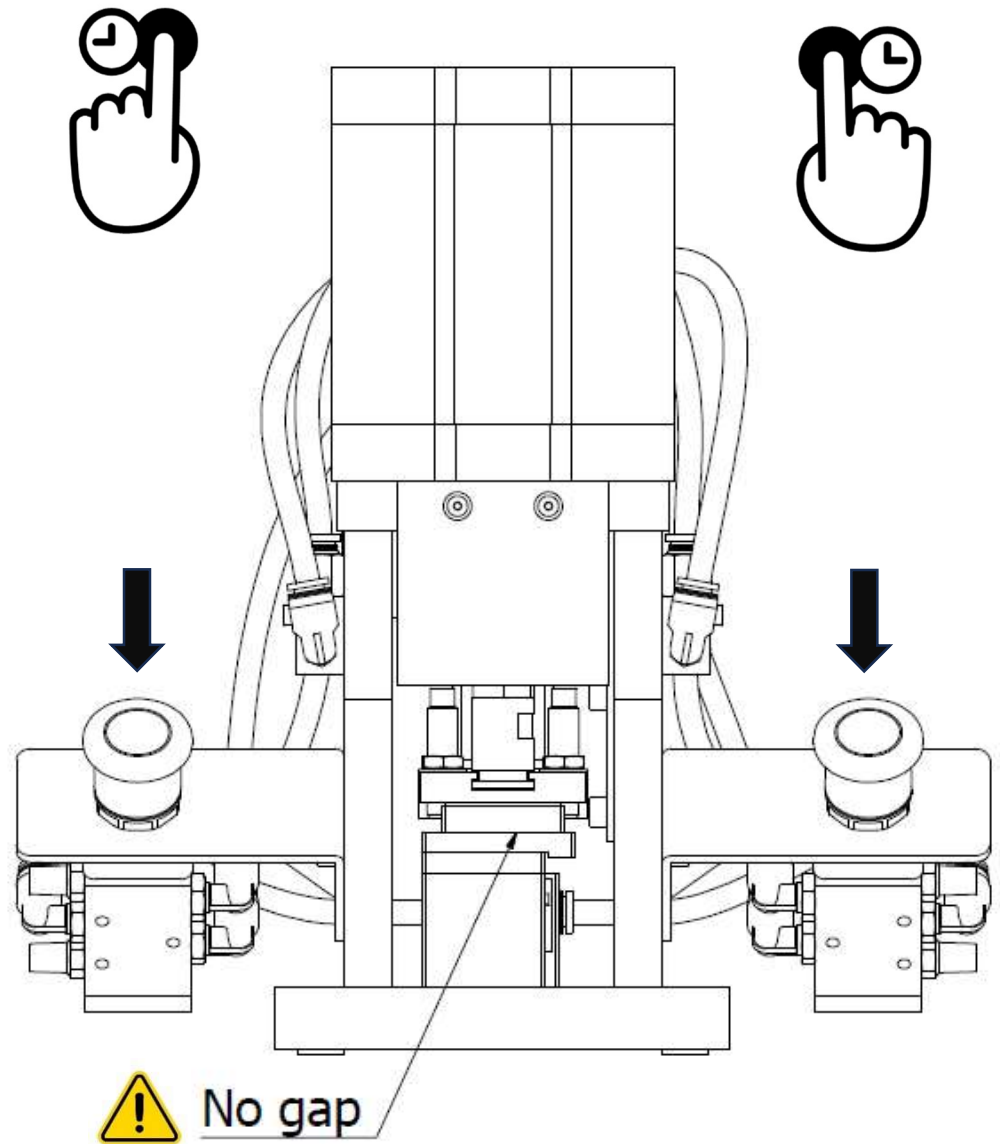
- 1.5. **Cap Core:** Push and hold the buttons on each side with both hands. The Punch Pins will be lowered to punch out the pre-formed caps and then continue to cap the core.



**Continue to hold the buttons and visually inspect to ensure there is no gap between the Fixture Block and the Punch Carrier.**

Release the buttons to allow the Punch Carrier to return to its original position.

Eject the capped core and repeat the outlined process for the next core.

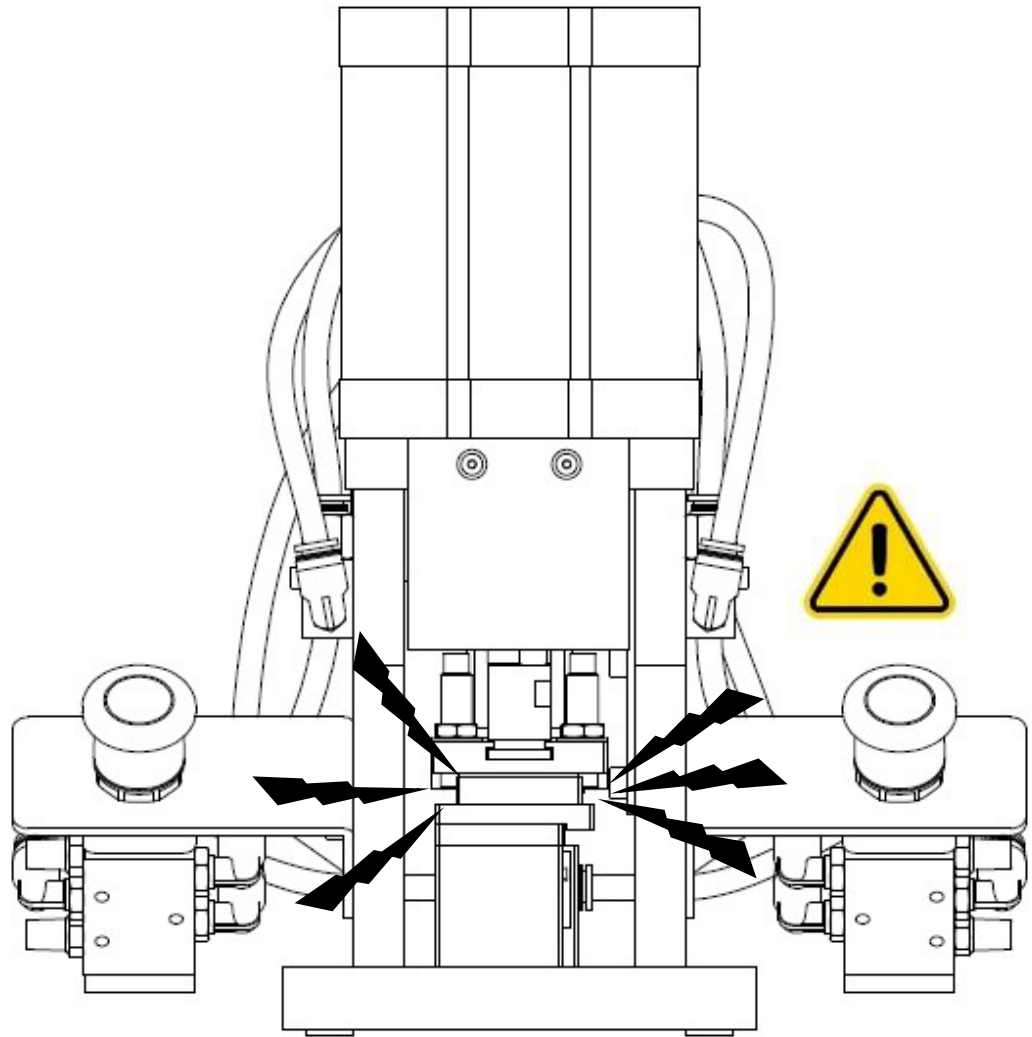


1.6. **In case of exceptionally loud strike sound while capping.**



Dampers on the Capping Assembly may have become loose or been damaged.

If observed, stop operation of machine and call customer service for assistance.



## E. Troubleshoot

Trouble	Possible causes and fixes
<p>When capping, there is a visible gap between the Fixture Block and the Punch Carrier (caps are not seated completely into IC core).</p>	<ul style="list-style-type: none"> <li>• Springs are not seated properly, and they are caught between the caps and the chambers.               <ul style="list-style-type: none"> <li>○ See D.1.3 (page 16) and make sure all springs are seated properly.</li> </ul> </li> <li>• The core may have chamber sizes that are too small.               <ul style="list-style-type: none"> <li>○ See D.0.4 (page 14) and check for correct chamber sizes.</li> </ul> </li> <li>• Pressure may be too low.               <ul style="list-style-type: none"> <li>○ Double check air supply requirement outlined in C.9 (page 11).</li> <li>○ Inspect for air leaks and apply appropriate fixes.</li> </ul> </li> </ul>
<p>Cannot eject the capped core from the Fixture Block by hand.</p>	<ul style="list-style-type: none"> <li>• Caps are not seated completely and it's preventing the core from getting ejected by hand.               <ul style="list-style-type: none"> <li>○ The core may need to be ejected by force. Place a flat end punch on the rear upper portion of the core. Strike the punch to push the core out of the Fixture Block. Only strike with appropriate force to minimize damage to the core.</li> <li>○ When the core is removed, discard damaged caps and springs and troubleshoot for causes before continuing.</li> </ul> </li> </ul>

## F. Maintenance

- Regularly check for the proper alignment between the Punch Pins and the Fixture Block.
- Regularly check for the proper functioning of the Locating Ball Bearing in the Fixture Block
- Regularly check and make sure all components are fastened securely.
- Regularly check and make sure all pneumatic components are free of any air leakage.
- Always keep the working environment clean and free of contaminants.