

Installation and Pin Adjustment Guide

PRE INSTALLATION

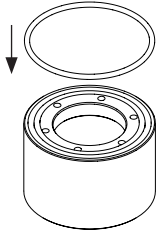
1. Verify the actuator pockets and air circuits are machined in the back plate as shown in fig 5.
2. Ensure there are no sharp edges or burrs in the actuator pockets.
3. Ensure the actuator pocket and air circuits are clean.
4. Cut pins to length and profile end to shut off angle (refer nozzle drawing ex-Mastip)
5. Assemble the fixed half of the mould including hot runner nozzles and manifold excluding backplate.
 - Refer to the technical specifications section

INSTALLATION

ONE

Ensure all components are clean

TWO

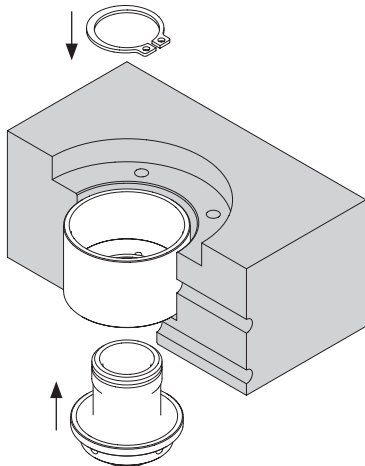


Fit the **Cylinder End Seal 11** to the **Cylinder 10**

Apply grease to **Cylinder End Seal 11**

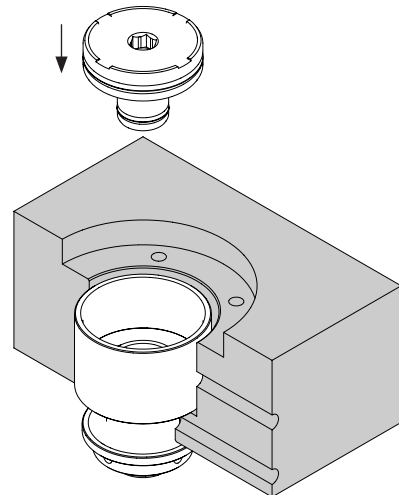
*Mastip recommends using silicon grease

THREE



Fit the **Cylinder 10** and **Location Spacer 12** to the mould backplate and retain using the **Circlip 9**

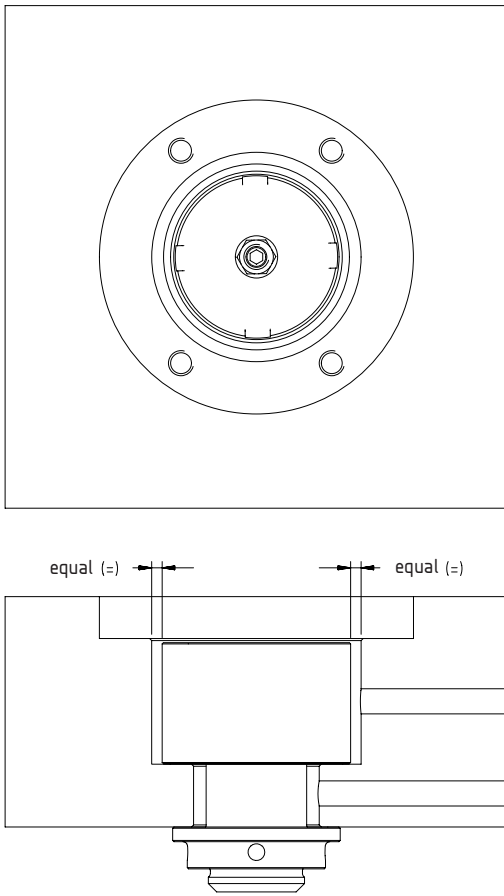
FOUR



Apply grease to the sealing bores of the **Location Spacer 12** and **Cylinder 10** and to the pre fitted **Piston Seals 6 & 8**
Fit **Piston 7** to the **Cylinder 10**

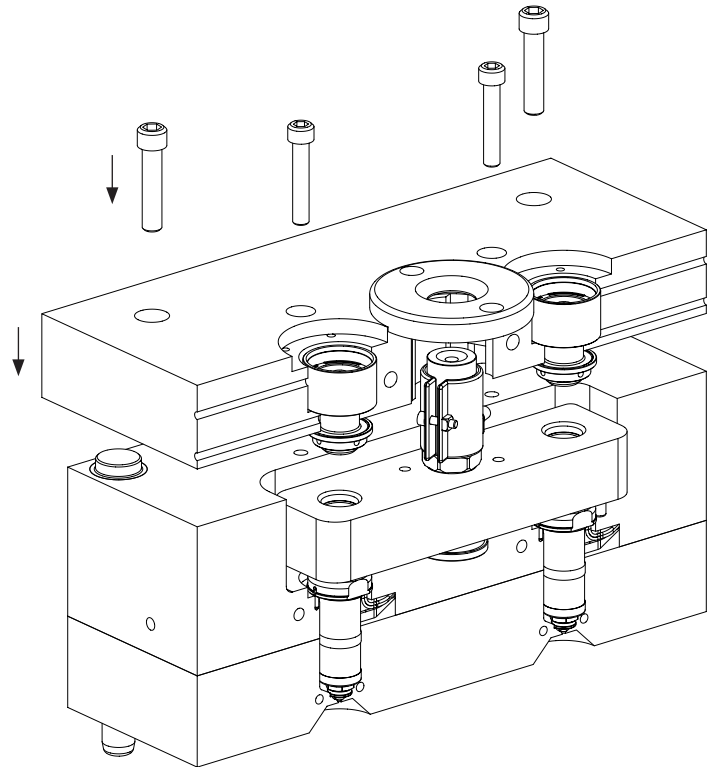
INSTALLATION CONT.....

FIVE



Centralise **Cylinder Assembly** **A**
to the Actuator pocket.

SIX

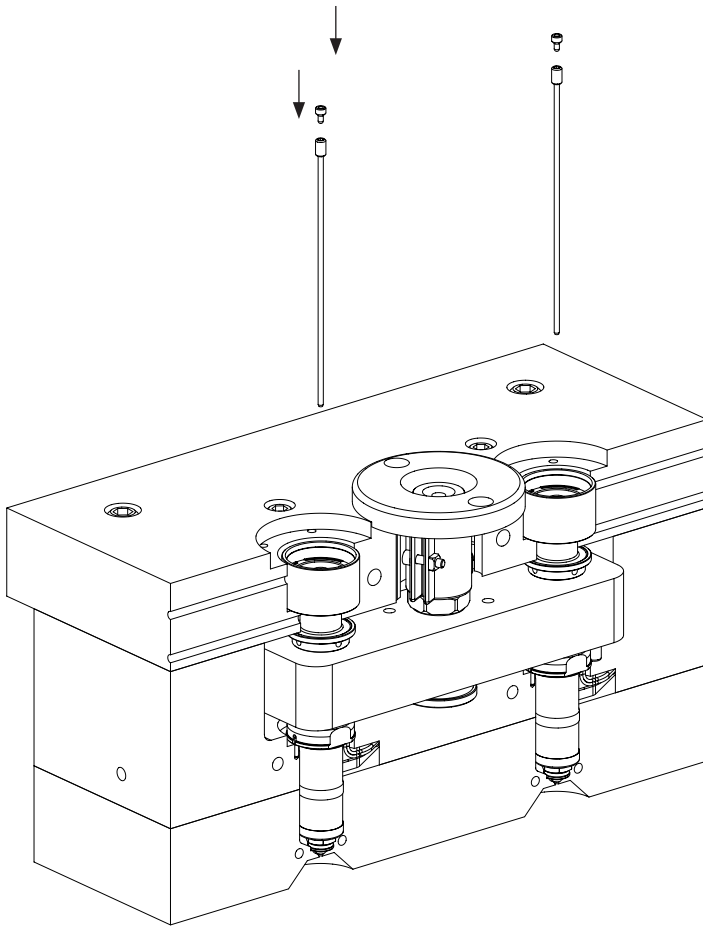


Fit mould backplate to mould and fasten.

Note: If backplate location guides start to locate first, then the cylinder assembly should self locate to the manifold. However in some case's it may be necessary to move the cylinder assemblies in the actuator pocket to locate them with the manifold.

INSTALLATION CONT.....

SEVEN



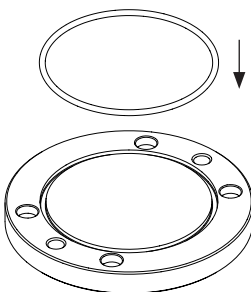
Fit the **Valve Pin** ⑤ to **Piston** ⑦

To adjust the pin length:
→ Go to step FOUR in the
PIN ADJUSTMENT section.

or

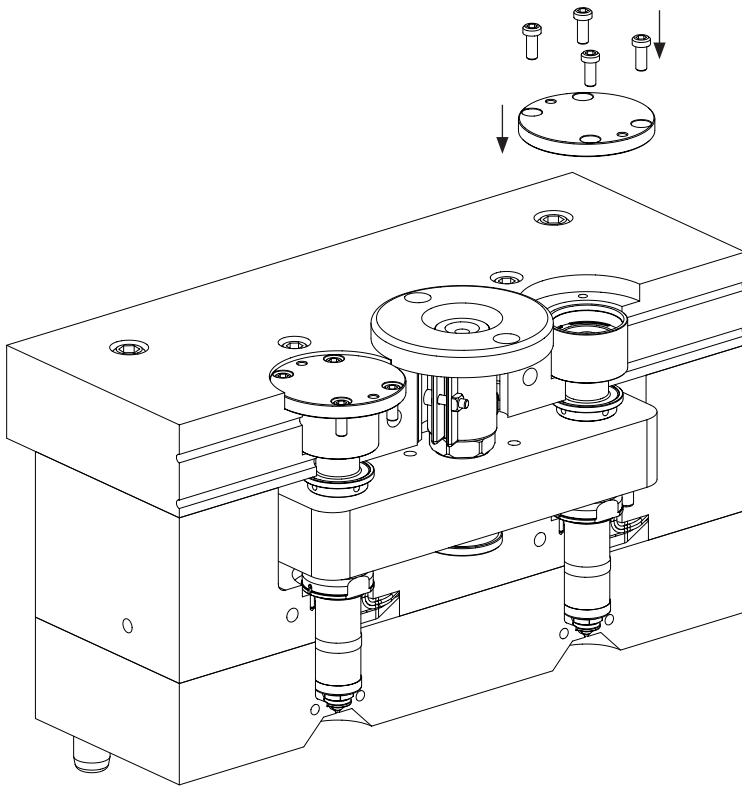
fit the **Locking Screw** ④ and
continue to step EIGHT.

EIGHT



Fit **Blanking Plate Seal** ③ to **Blanking Plate** ②

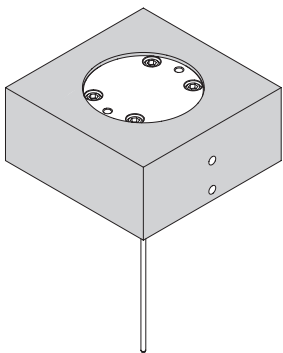
NINE



Fit **Blanking Plate 2** to the mould backplate and fasten using **Blanking Plate Screws 1**

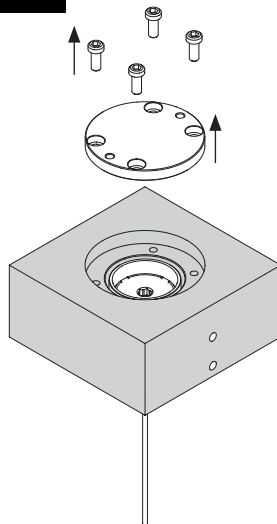
PIN ADJUSTMENT

ONE



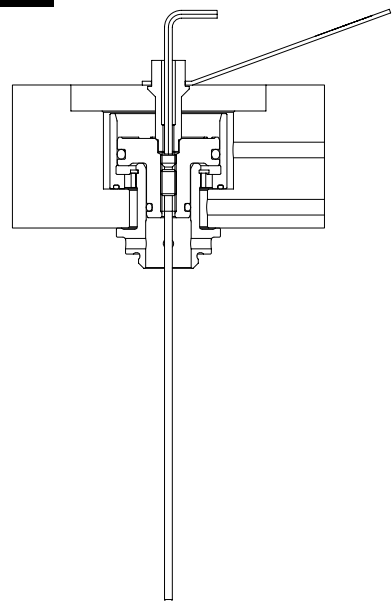
Make sure piston is fully forward and ensure no air is connected to the system

TWO



Remove **Blanking Plate Screws 1** and remove **Blanking Plate 2** from the mould backplate

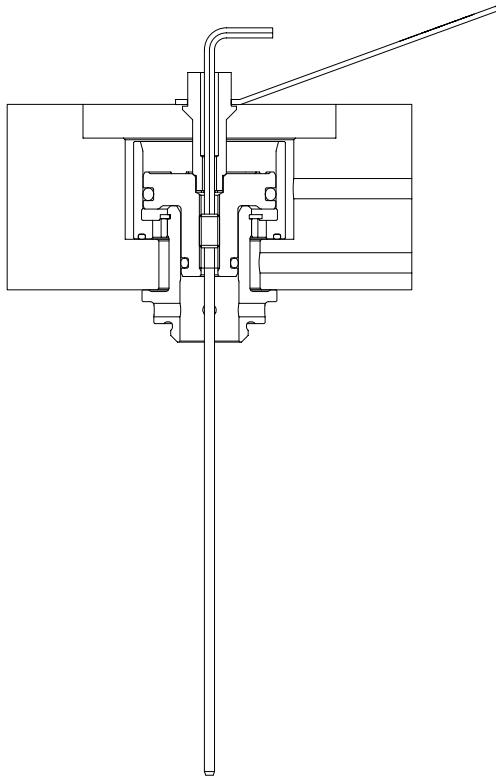
THREE



Insert tube spanner into the piston
Insert a 3.0mm hex key into the **Locking Screw 4** and remove

PIN ADJUSTMENT CONT...

FOUR



Re-insert the hex key to adjust pin to correct position.

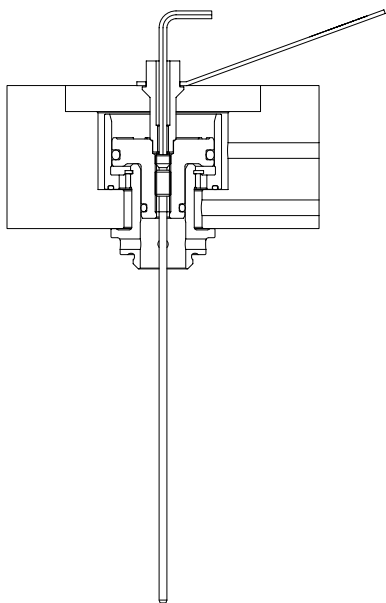
a. For adjusting a new installation:

- i. The pin length can be set cold by measuring from the front with a depth micrometer calculating the allowance for expansion.

b. For adjusting an existing installation:

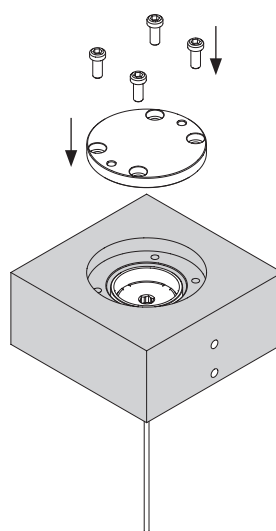
- i. The nozzle to be adjusted will be heated to the minimum melt temperature of the plastic material
- ii. While pushing the piston forward from the rear adjust the valve pin forward until the piston just begins to move and then back off 1/8 of a turn.

FIVE



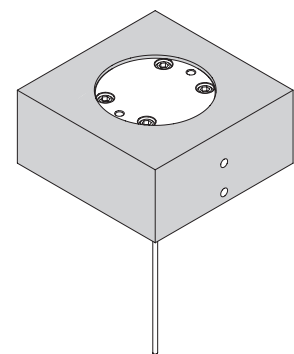
Insert and tighten **Locking Screw** ④

SIX



Fit **Blanking Plate** ②
and fasten with **Blanking
Plate Screws** ①

SEVEN



Pin adjustment is COMPLETE

Pin Details

Caution: The gap between the gate and the pin in cold state is critical. If the gap is too large there will be a poor gate vestige and drooling from the nozzle may occur. If the gap is too small, the pin can strike the gate and may decrease the gate life.

To calculate pin expansion use the following equation:

$$E = (10/2 + X + L4/2 + L) \times 0.0000132 \times (\text{nozzle temp. } ^\circ\text{C} - \text{mould temp. } ^\circ\text{C})$$

To calculate final pin length use the following equation:

$$\text{Pin Length} = 22 + 10 + X + L4 + L$$

