



# CRL 380 HYDRAULIC PATCH HINGE



# ORDER OF ASSEMBLY AND INSTALLATION

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PATCH HINGE INSTALLATION AND AFTER INSTALLATION TEST, MAINTENANCE.....05-11

The rapidly changing technology within the architectural aluminum products industry demands that C.R. Laurence/U.S. Aluminum reserve the right to revise, discontinue, or change any product line, specification, or electronic media without prior written notice.

**NOTE:** Dimensions in parentheses ( ) are millimeters unless otherwise noted.

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## Tools Required

- |   |  |
|---|--|
| Drill Bits: 5/16"Ø (8mmØ)                 | 3/8" (10mm) Socket with Ratchet Wrench |
| Tape Measure                              | 3/16"Ø (5mmØ) Stainless Steel Dowel    |
| Saw Horses                                | Rubber Mallet                          |
| Cordless Drill                            | 3/4" Masking Tape                      |
| Flat Head Screwdriver                     | Stepladder                             |
| Phillips Head Screwdriver                 | Framing Square/Straight Edge           |
| 1/8" (3mm) and 3/16" (4.8mm) Hex Wrenches |  |
| 3/8" (10mm) Open End Wrench               |  |

**NOTE: Modifications, other than those specified in this document, could result in failure to meet UL safety ratings and void the manufacturer's warranties.**

# INTRODUCTION

## FEATURES

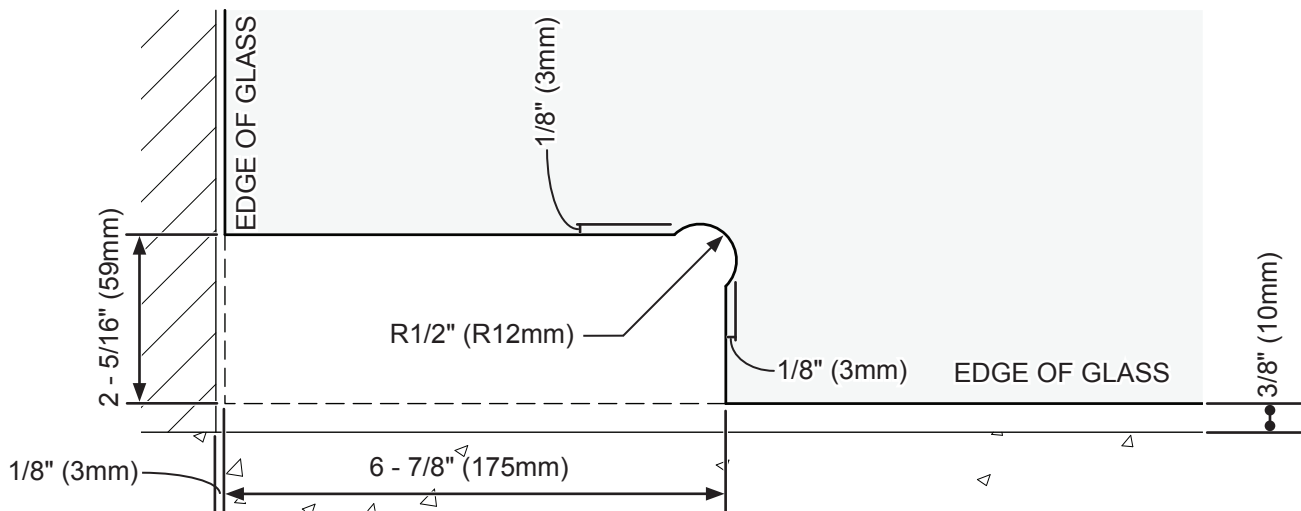
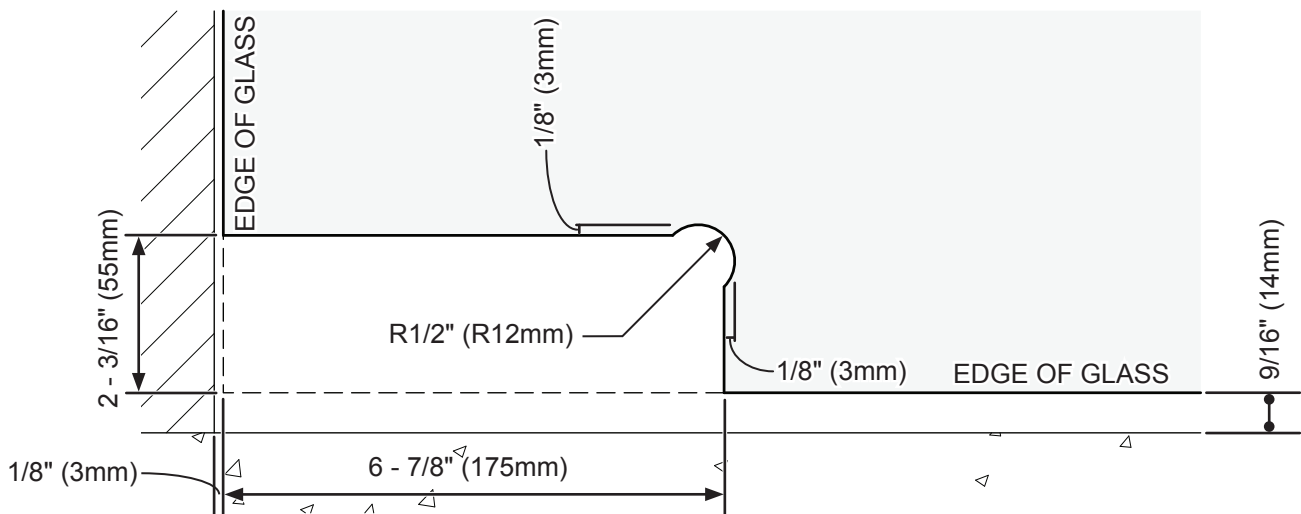
Each CRL 380 Hydraulic Patch Hinge is fitted with a fully functional and adjustable hydraulic unit designed for bottom installation. CRL 380 Hydraulic Patch Hinges are compatible with our standard 2-9/16" set-back European Top Door Patch Fittings and accept 3/8" (10 mm) or 1/2" (12 mm) monolithic tempered glass. **DO NOT USE WITH LAMINATED GLASS.**

## Glass Specifications

Maximum Height: 102" (2591mm)

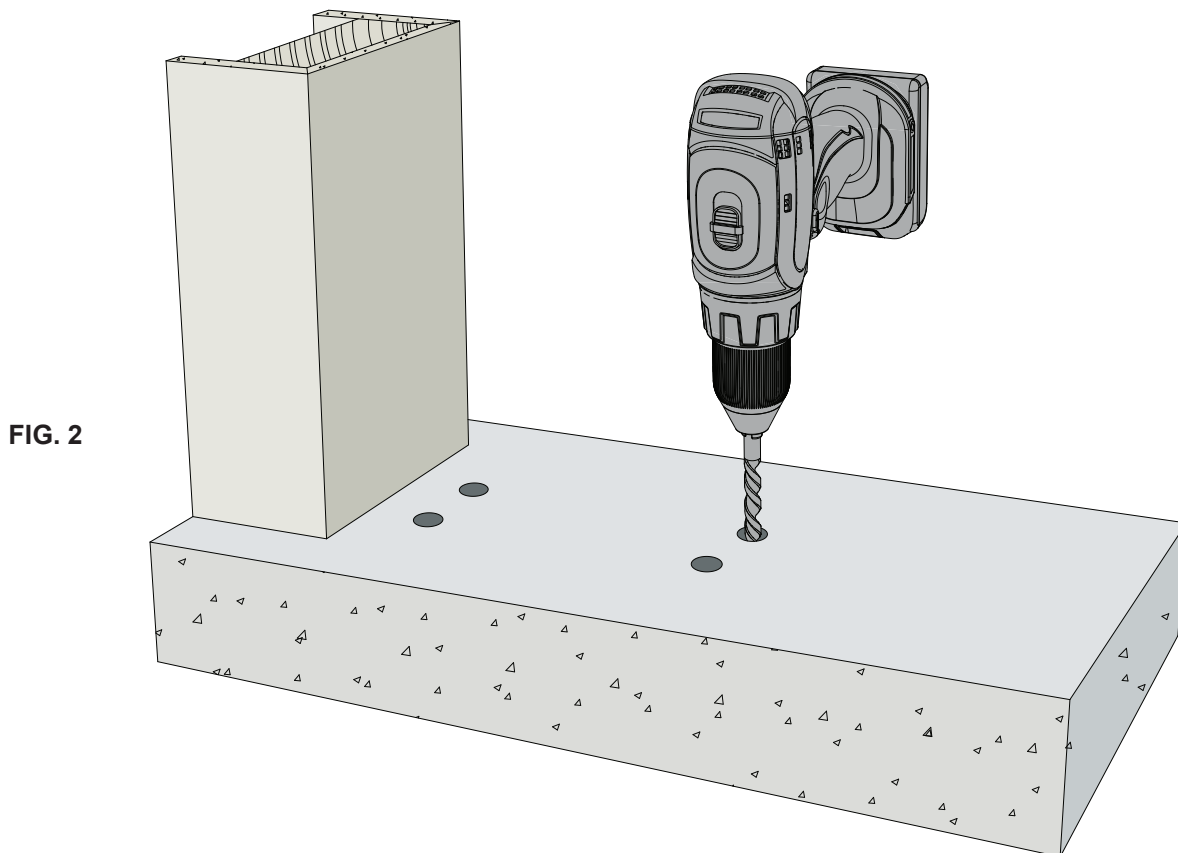
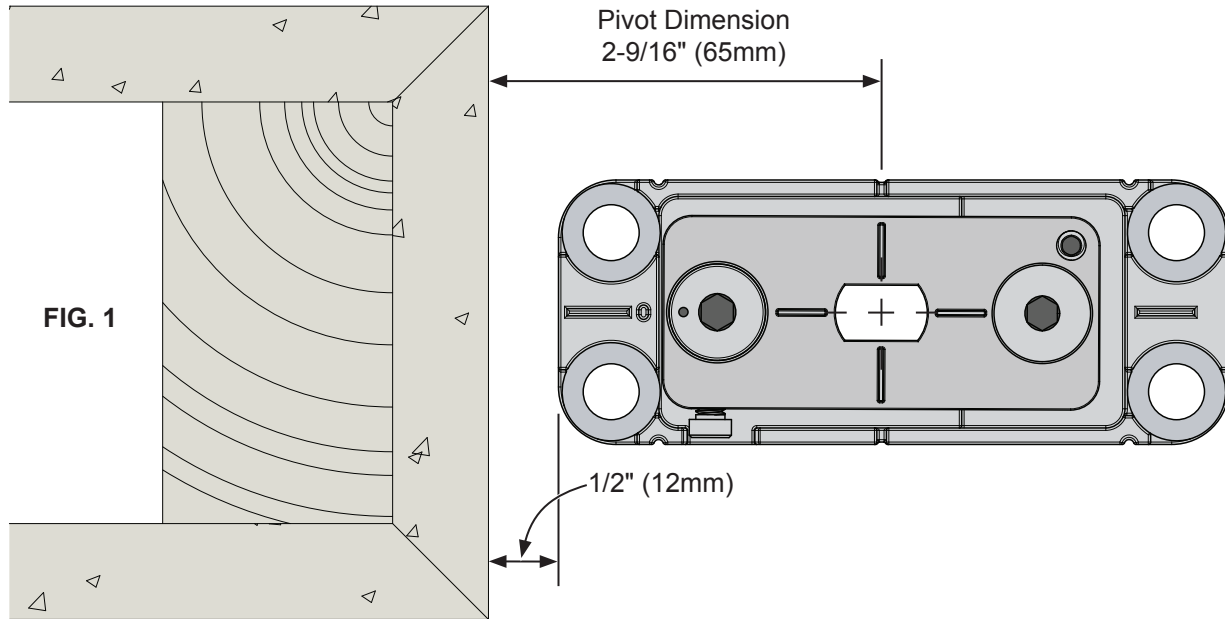
Maximum Width: 39-3/8" (1000mm)

Maximum Weight: 220 lbs (100kg)



## PATCH HINGE LAYOUT

1. Mark the four hole locations using the base plate as a template. **(Fig. 1)**
2. Drill four 5/16"Ø (10mmØ) x 1 3/8" (35mm) deep holes. **(Fig. 2)**



## PATCH HINGE INSTALLATION

1. Insert the four concrete anchors using a 3/16"Ø (5mm) Stainless Steel dowel and a rubber mallet. **(Fig. 3)**
2. Fasten the Base Plate into place with provided screws. **(Fig. 4)**

FIG. 3

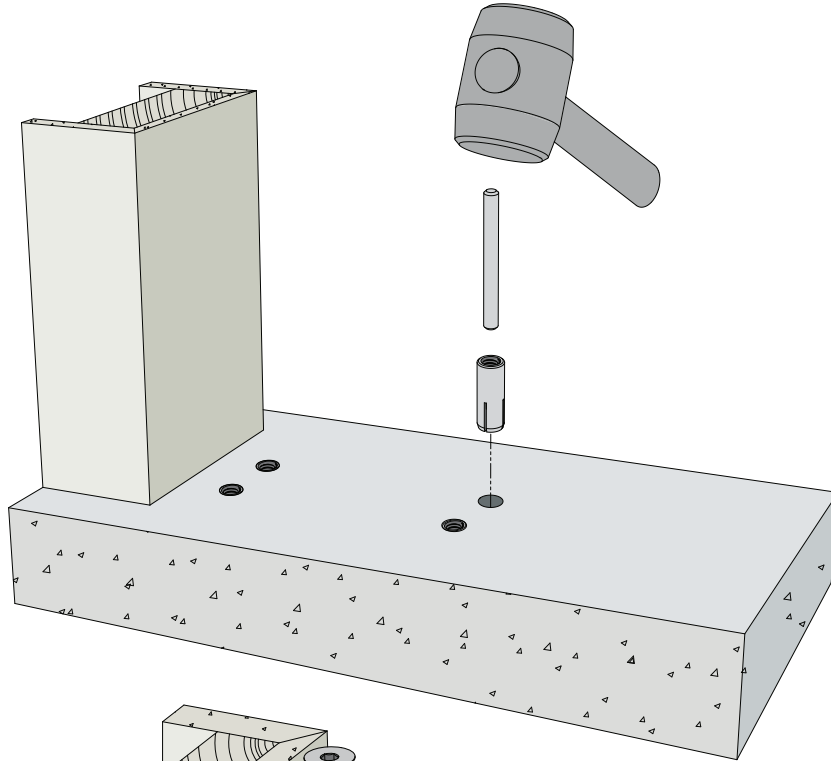
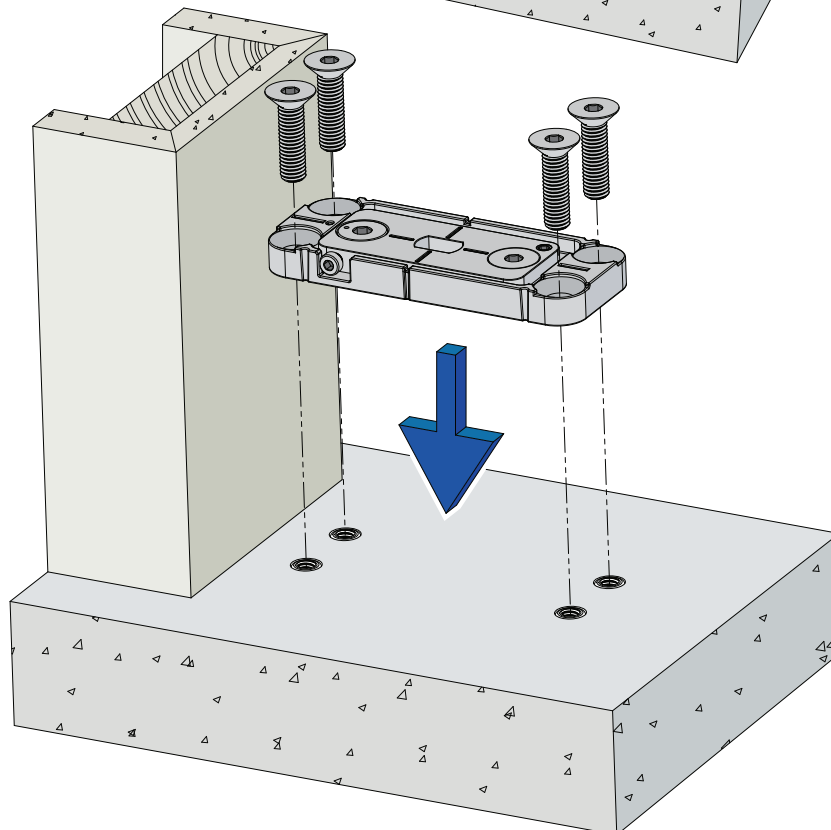


FIG. 4



# PATCH HINGE INSTALLATION (CONTINUED)

## HINGE ADJUSTMENTS

3. Loosen the screws shown, adjust the hinge as needed and re-tighten the Screws. (Fig. 5)

Turn the (0) Position to:  
 A= Center Position +1/16"  
 B= Increases gap of the door and jamb +1/16"  
 C= Center Position +1/16"

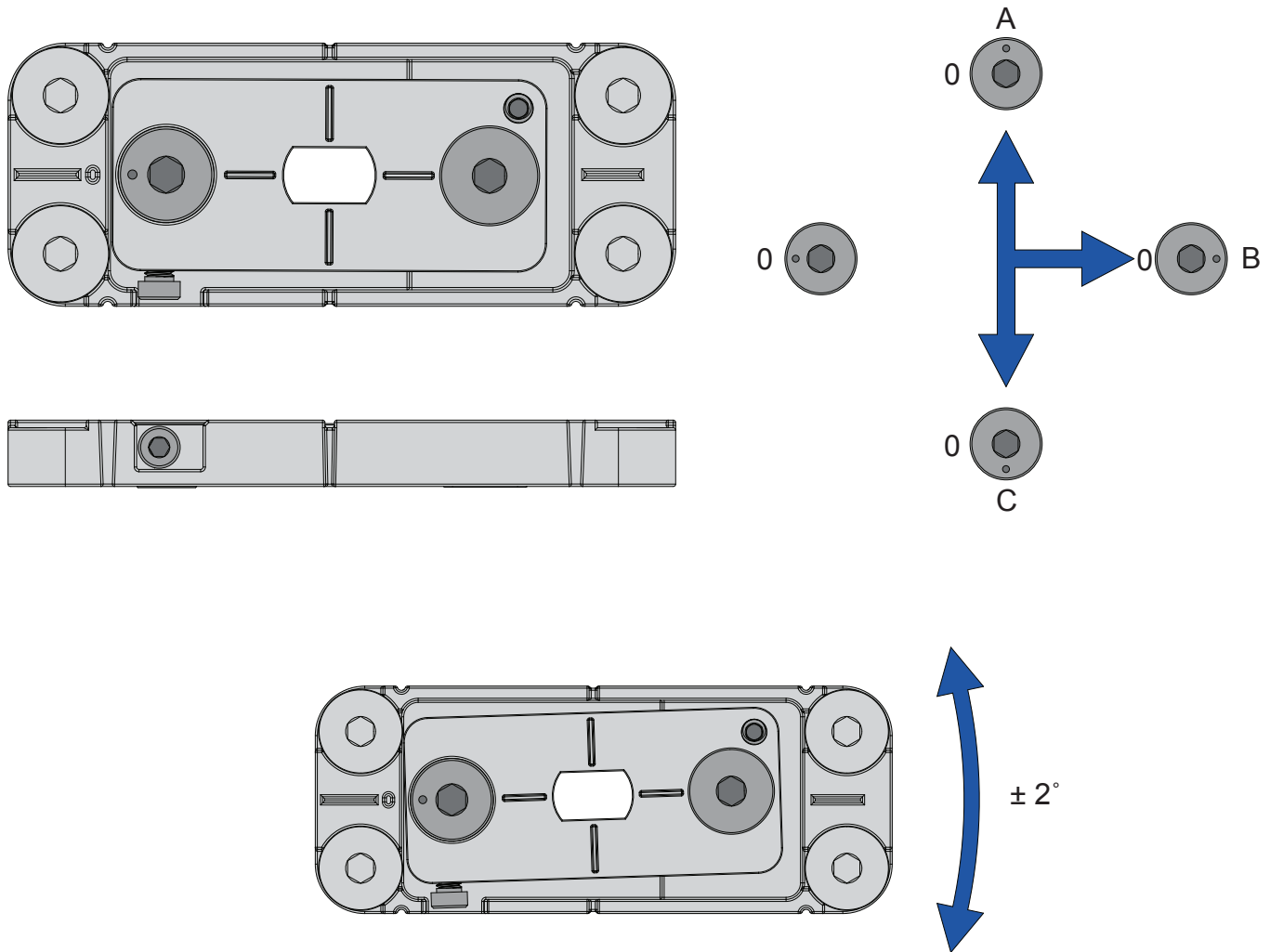


FIG. 5

# PATCH HINGE INSTALLATION (CONTINUED)

## 3/8" (10MM) GLASS

4. Insert the glass gaskets as shown. (Fig. 6)

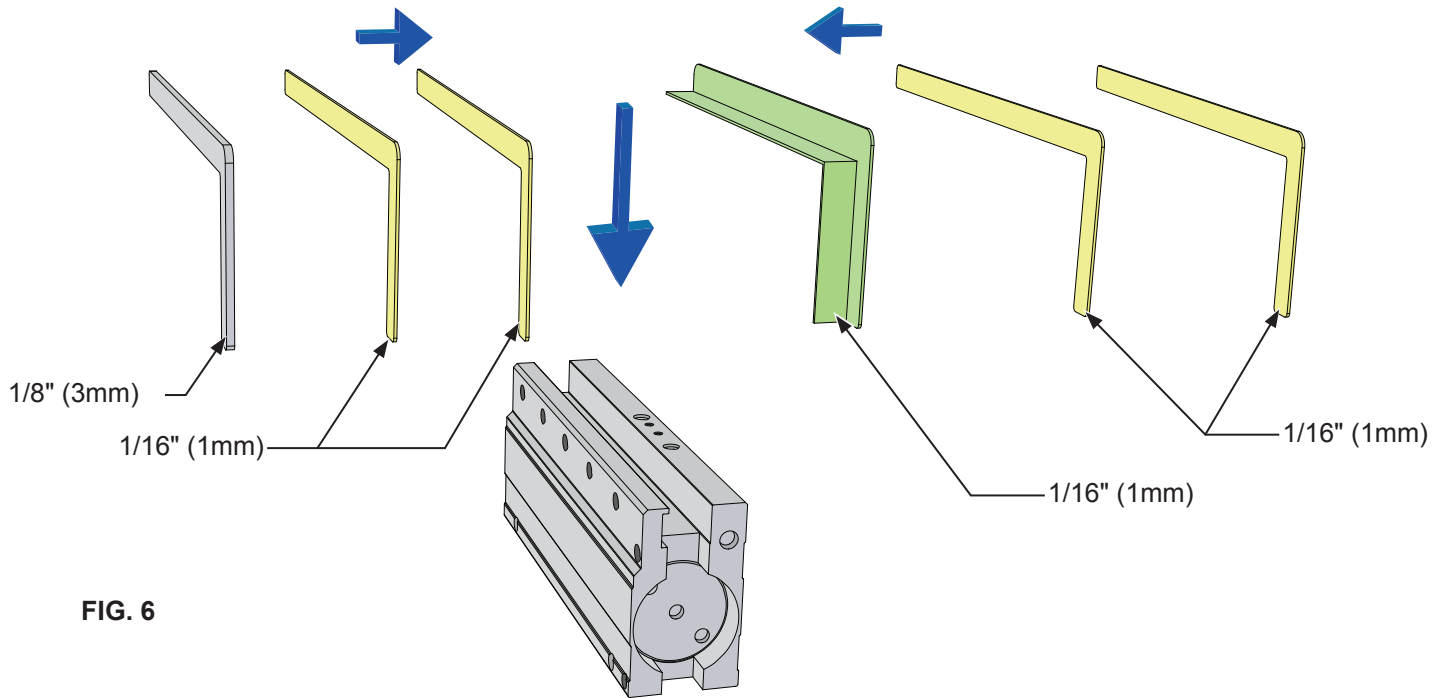


FIG. 6

## 1/2" (12MM) GLASS

5. Insert the glass gaskets as shown. (Fig. 7)

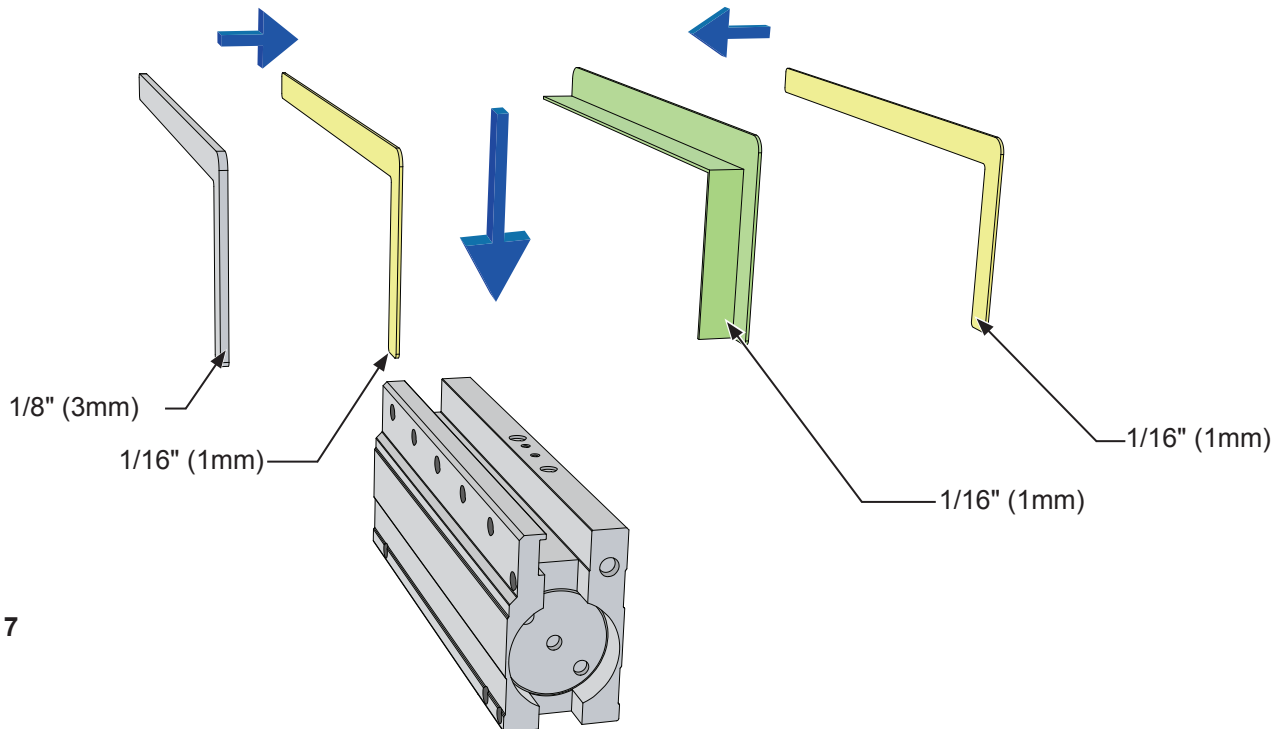
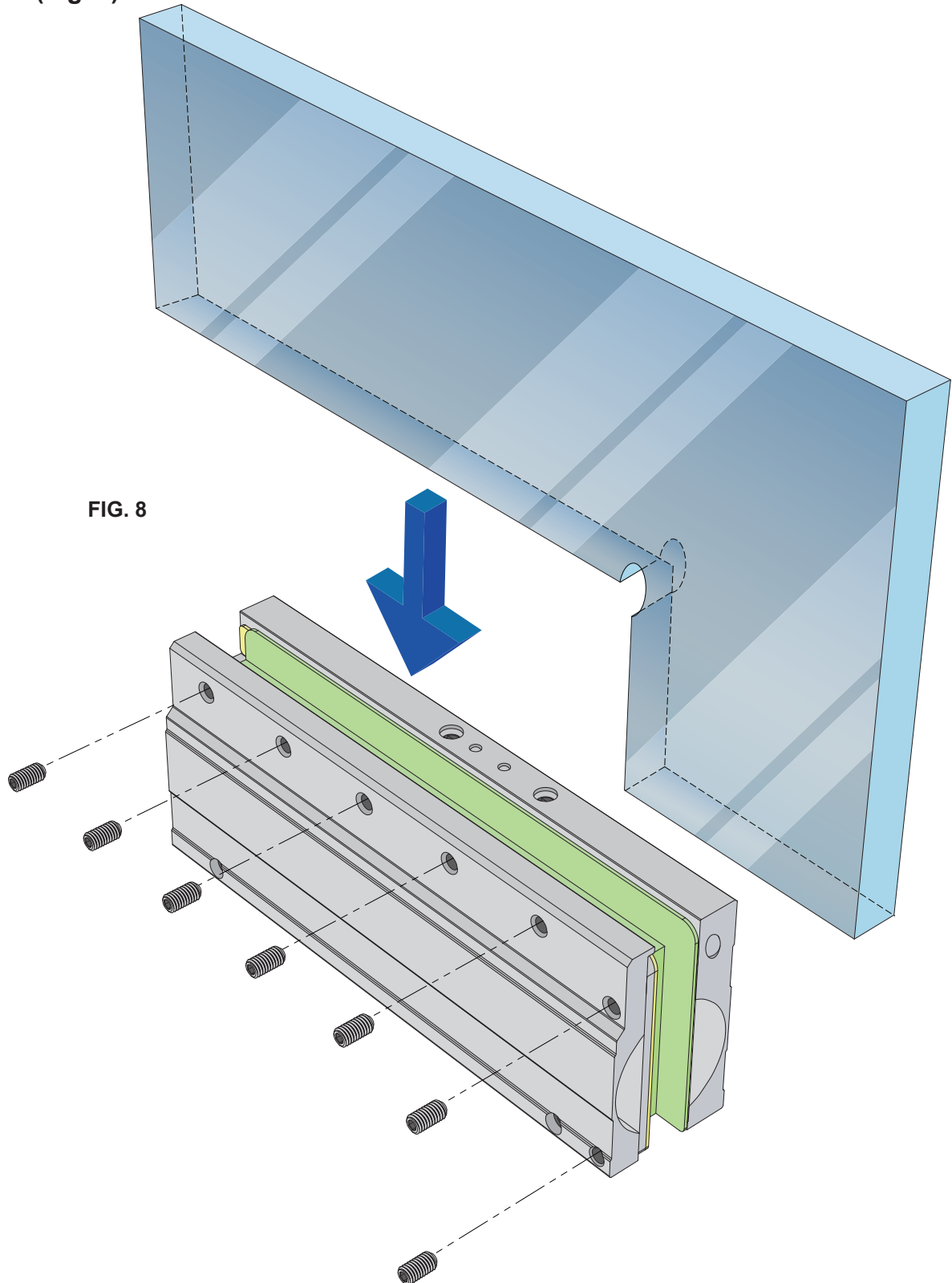


FIG. 7

## PATCH HINGE INSTALLATION (CONTINUED)

6. Insert the Patch Hinge into the glass cut-out and secure it with the seven provided set screws. **(Fig. 8)**





## PATCH HINGE INSTALLATION (CONTINUED)

7. Insert the door into the Hinge Base Plate. (Fig. 9)

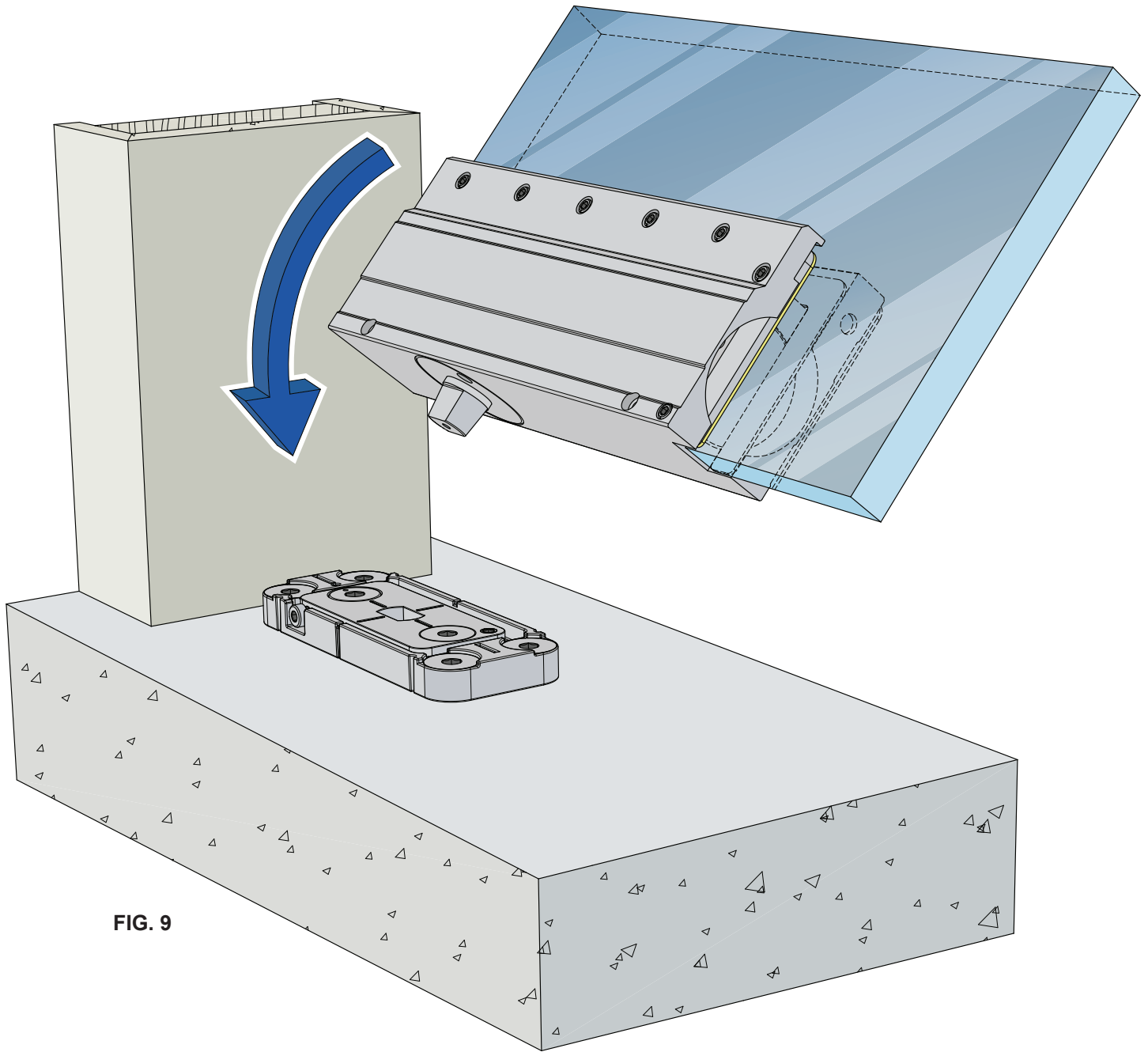


FIG. 9

# PATCH HINGE INSTALLATION (CONTINUED)

## DOOR ADJUSTMENT

8. Adjust the closing speed. (Fig. 10)

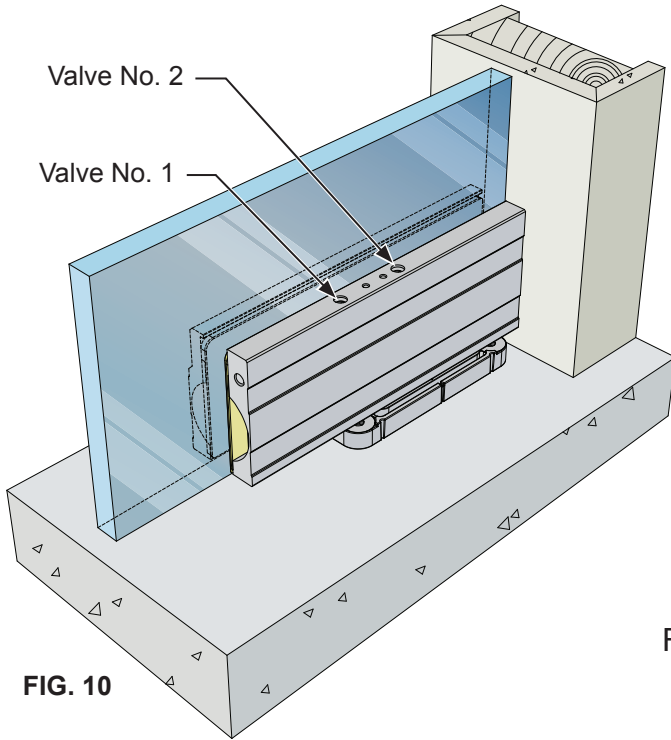


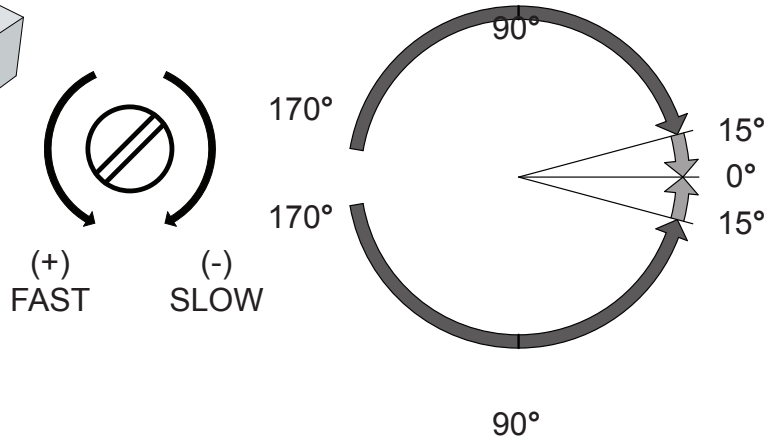


FIG. 10

Adjustment of closing speed:

- Two regulating valves (No. 1) and (No. 2)
-  Decrease closing speed
-  Increase closing speed
- Valve (No. 1): Control closing range 170° to 15°
- Valve (No. 2): Control closing range 15° to 0°



9. Attach the cladding as shown. (Fig. 11)

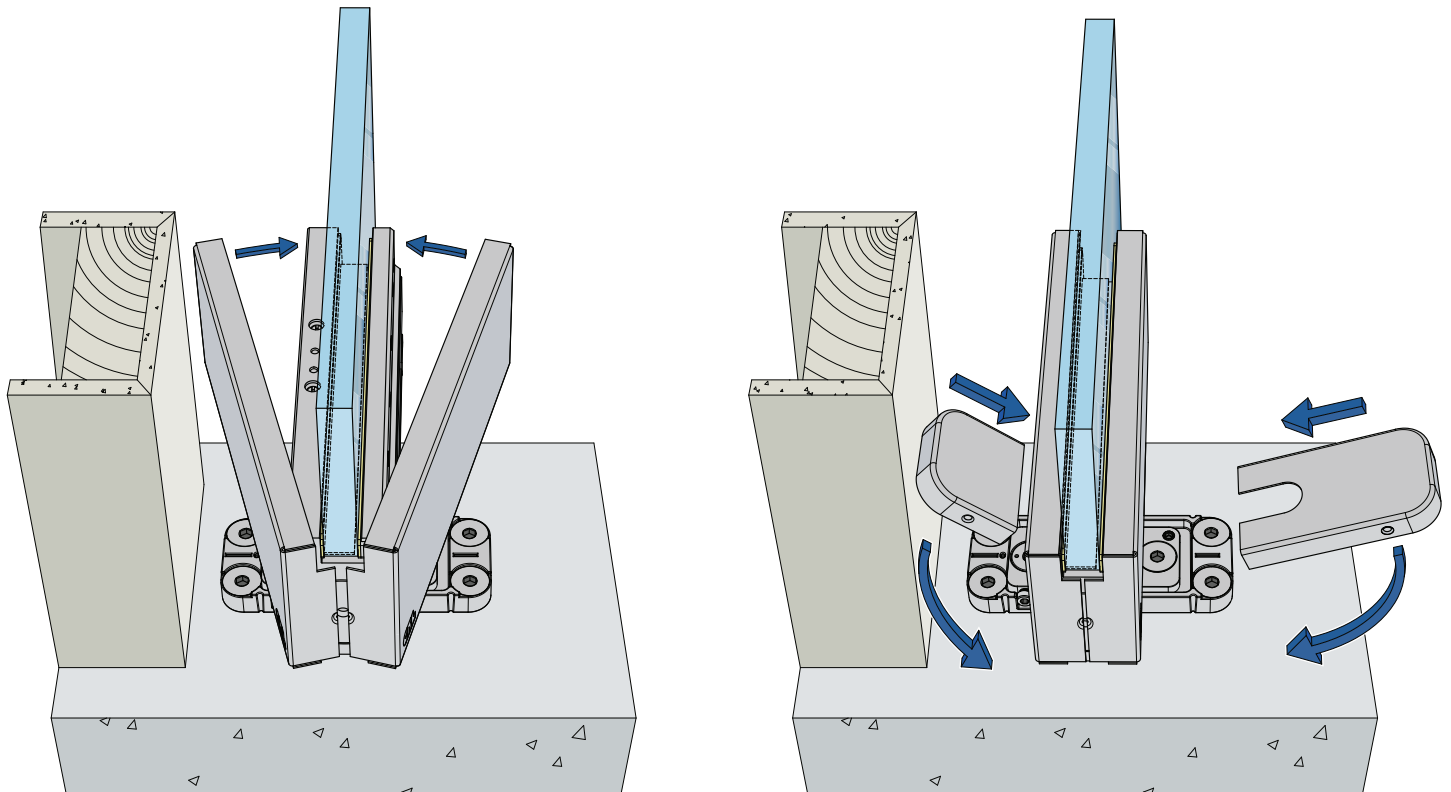


FIG. 11

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## **AFTER INSTALLATION TEST:**

1. Open the door leaf to its maximum opening angle and release, the door should close fully into the door frame and overcome the latch.
2. Open the door leaf and rest the latch bolt on the striker plate then release the door leaf. The closer should have sufficient power to latch the door leaf closed.
3. The Back-check provides a cushioning effect when the door is forcibly thrown open but does not serve as substitute for a door stop.

## **MAINTENANCE:**

1. Check the door closer every three months to ensure all fixings are secure and adjust, if necessary. Adjust the closing and latching speed and mark the door operating both functionally and smoothly, in accordance with the expectations of BS EN 1154: 1997.
2. Apply light oil to arm knuckle joint and door hinges.