Drawing: 106080

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For device installation videos, scan code below or go to detex.com
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<tr>
<th>Item</th>
<th>Part No</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>106079</td>
<td>Top fitting, Hurricane Mullion, H90R5</td>
</tr>
<tr>
<td></td>
<td>106092</td>
<td>Top fitting, Hurricane Mullion, H90R</td>
</tr>
<tr>
<td>2</td>
<td>106074</td>
<td>Frame spacer block,</td>
</tr>
<tr>
<td>3</td>
<td>106087</td>
<td>Set screw, 1/4-20 x 5/16, SS</td>
</tr>
<tr>
<td>4</td>
<td>106075-1</td>
<td>Mullion Channel, H90R5 7 foot</td>
</tr>
<tr>
<td></td>
<td>106075-4</td>
<td>Mullion Channel, H90R5 7 foot, 230X prep</td>
</tr>
<tr>
<td></td>
<td>106076-1</td>
<td>Mullion Channel, H90R 7 foot</td>
</tr>
<tr>
<td></td>
<td>106076-2</td>
<td>Mullion Channel, H90R 8 foot</td>
</tr>
<tr>
<td>5</td>
<td>106078</td>
<td>Base fitting, Hurricane Mullion, H90R5</td>
</tr>
<tr>
<td></td>
<td>106091</td>
<td>Base fitting, Hurricane Mullion, H90R</td>
</tr>
<tr>
<td>6</td>
<td>106093</td>
<td>Mullion base affixment plate</td>
</tr>
<tr>
<td>7</td>
<td>106071-2</td>
<td>Concrete floor anchor, 3/8 diameter</td>
</tr>
</tbody>
</table>
# Fastener Table

<table>
<thead>
<tr>
<th>Screw style</th>
<th>Description</th>
<th>Used on</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>5/16-18 X 1&quot; PFHMS P/N 106096</td>
<td>Top fitting</td>
</tr>
<tr>
<td><img src="image2.png" alt="Image" /></td>
<td>5/16-18 X 1-1/2&quot; PFHMS P/N 101147</td>
<td>Top fitting and frame spacer block</td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td>1/4-20 X 1&quot; PPHMS P/N 100980</td>
<td>Frame spacer block</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td>10-24 X 5/8&quot; PFHUMS P/N 100112</td>
<td>Strike hook (If ordered)</td>
</tr>
<tr>
<td><img src="image5.png" alt="Image" /></td>
<td>3/8-16 X 1-1/2&quot; SOCKET CAP HEAD MS P/N 106072-9</td>
<td>Base fitting</td>
</tr>
<tr>
<td><img src="image6.png" alt="Image" /></td>
<td>3/8-16 X 3/4&quot; SOCKET CAP HEAD MS P/N 106072-3</td>
<td>Base fitting</td>
</tr>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td>3/8-16 X 1&quot; SOCKET FLAT HEAD MS P/N 106094-5</td>
<td>Base fitting</td>
</tr>
<tr>
<td><img src="image8.png" alt="Image" /></td>
<td>3/8 FLAT WASHER P/N PP-5063-37, 3/8 LOCK WASHER P/N PP-5067-37</td>
<td>Base fitting</td>
</tr>
<tr>
<td><img src="image9.png" alt="Image" /></td>
<td>3/8 x 1-1/4 ANCHOR Drill Bit Diameter: 1/2 Minimum Hole Depth: 2&quot; P/N 106071-2</td>
<td>Base fitting</td>
</tr>
</tbody>
</table>

## Tools Required:

- **Power Drill**
- **Safety Glasses**
- **Allen Wrenches (1/8", 7/32, 1/4, 5/16)**
- **Level**
- **Pencil**
- **Phillips Screw Drivers (#2 and #3)**
- **Hammer**
- **Combination Square**
- **Tap Wrenches (1/4-20 & 5/16-18)**
- **Tape Measure**
- **Center Punch**
### CHECK BEFORE STARTING!!!

<table>
<thead>
<tr>
<th>Wide Stile (Surface Strike) 99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum door stile 4-1/2&quot; (114 mm)</td>
</tr>
<tr>
<td>Template drawings provide door and frame structural and dimensional specifications for door and frame preparation.</td>
</tr>
<tr>
<td>Narrow Stile 98</td>
</tr>
<tr>
<td>Minimum door stile 2&quot; (51mm)</td>
</tr>
</tbody>
</table>

Doors and frames with walls having a structural thickness (metal skin plus reinforcement, or solid wood) to engage less than (3) full screw threads, are considered un reinforces for hardware.

Unreinforced Doors: Use Sex Nuts and Bolts
Unreinforced Frames: Use Blind Rivet Nuts (see sketch)
Fasteners for unreinforced openings are not supplied by Detex.

[Diagram of reinforced door or frame engaging at least (3) screw threads.]

- **Reinforcement**
- **Door Skin**
- **Blind Rivet Nut**

**Door Must Swing Freely**
**Door Must Not be Warped**
**Door Must Not Bind**
**Door Must Not Sag**

**NOTE:**
750mm MAXIMUM DOOR WIDTH OPENING FOR EUROPE FOR 36" DEVICE
1000mm MAXIMUM DOOR WIDTH OPENING FOR EUROPE FOR 48" DEVICE

The safety features of this product are essential to its compliance with EN 1125. No modification of any kind, other than those described in these instructions are permitted.
**STEP 1: REMOVE FITTINGS - FIND HARDWARE KIT**

**REMOVE** top and base fittings.

Loosen set-screws with 1/8 allen wrench.

**Hardware kit** inside tube
P/Ns:
106085-1 (H90R5 kit)
106085-3 (H90R kit)

**STEP 2: MARK CENTER OF DOOR OPENING**

**MARK** center of the door opening at the soffit and at the floor

- Door
- Soffit
- Floor
STEP 3: TRIAL FIT MULLION & CUT (IF NECESSARY)

If mullion requires cutting, position cut end to the bottom
(Unless mullion is ordered with strike prep, then cut top end).

3a Assemble base fitting to base plate with screw and washers
3b Align fitting with baseplate, then tighten screw snug
5/16 allen wrench

CORRECT

1/8 GAP

CAUTION!
Ensure mullion channel is stable

H (Distance from soffit to floor) - 1-1/8"
= C (Cut length of Mullion)

Base fitting
Base plate

Close doors firmly and trial fit the mullion.
1. Assemble base fitting to base plate with screw and washers.
2. Place the top fitting into mullion channel; place the mullion channel into the base fitting and base plate, then pivot the top upward into place.
3. If mullion channel is too long, measure the distance from the soffit to the floor.
   Subtract 1-1/8" from this measurement. Mark and cut the mullion channel to new length.

NOTE: If there is a threshold, be sure to CUT the threshold so that the base fitting is resting on the secured non-flammable flooring.
**STEP 4: MARK FITTING PERIMETER LOCATIONS**

4a Position mullion firmly against closed door. Align the top fitting with MARK made on soffit. Align base fitting and base plate with MARK made on floor. TRIAL fit mullion to achieve desired mullion location.

4b Tighten set-screws snug.

1/8 alien wrench

4c DRAW a line around perimeter of base plate and top fitting

Align base fitting with base plate before drawing a line around perimeter

4d REMOVE mullion. Set mullion safely down. Be sure to loosen set-screws before removing fittings

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CAUTION! Ensure mullion channel is stable
**STEP 5: INSTALL BASE FITTING and BASE PLATE**

**PREP FLOOR FOR BASE FITTING and BASE PLATE**

5a **POSITION** base plate over drawn perimeter. Align notches on plate with center mark on floor.

5b **MARK and DRILL** floor at two locations

DRILL (2) holes for anchors:
1/2 hole x 2" deep

5c **INSTALL** anchors with 1/4 hex drive tool. Install top of anchors 1/4" below floor surface.

Recommended tool for installing anchors:
Hex Drive Setting Tool
Powers Fasteners
P/N: 6407SD

5d **INSTALL** base fitting and plate with washers & screws provided

TIGHTEN all screws
**STEP 6: INSTALL TOP FITTING**

**PREP FRAME FOR TOP FITTING**

**6a** **POSITION** top fitting over drawn perimeter. Align notches on fitting with center mark on soffit.

**6b** **MARK, DRILL, and TAP** the soffit at six (6) hole locations. Tap holes with 5/16”-18 tap (#F - 0.257 drill).

**INSTALL TOP FITTING**

**6c** Assemble top fitting and mullion channel to soffit with screws provided.

**If top fitting over hangs stop, USE FRAME SPACER BLOCK**

Add a 1/4-20 Tapped hole (#7 - 0.201 drill) for installing frame spacer block.
**STEP 7: SECURE MULLION**

**CAUTION!**
Ensure mullion channel is appropriately secured.

*TIGHTEN* set-screws to eliminate mullion channel rattle or looseness.

**STEP 8: INSTALL STRIKE HOOKS** *(FIRE RATED ONLY)*

**STRIKE HOOK**  
P/N 100091  
*INSTALL* with (2) screws  
10-24 X 5/8"  

DOOR  
EXIT DEVICE STRIKE  
(NOT included with H90R/H90R5 mullions)  
MULLION CHANNEL

Attach the strikes to the side of the mullion according to the template provided with the locking device to be used.

Attach one strike hook per door leaf according to the template provided with the locking device to be used. Ensure that the strike hook engages the strike without interference to the latching mechanism. Open and close the door. The strike hook should not cause friction or bind during the opening and closing cycles of the door.
REMOVING THE MULLION CHANNEL

CAUTION!
Ensure mullion channel is appropriately supported during & after loosening/removing the top fitting screws

The top fitting must be removed before removing mullion channel

TROUBLE SHOOTING

1. If Mullion channel is too long:
   a) See Step 3 for cutting the mullion channel to correct length.
2. Mullion channel rattles after door is closed:
   a) Tighten set-screws in top and base fittings (See Step 7).
   b) Verify base and top fittings are secured. Tighten screws as needed.

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