

- **Can the handing be reversed?**

No, the Multi-Point Astragal is not designed to be reversible.

- **Can an inswing be converted to an outswing and vice versa?**

An inswing astragal can be converted to an outswing by cutting a 9/16" notch and adding a finned cap at the bottom of the astragal similar to the Ultimate Astragal. Detailed instructions are available.

- **Can a Multi-Point Astragal be cut down in length? If so how much?**

6/8 and 8/0 astragals may be cut down from their nominal heights by 1-1/8". Astragals can be cut down from the top end only.

A 6/8 (80") astragal may be cut down to a minimum length of 78-7/8". An 8/0 (96") astragal may be cut down to a minimum length of 94-7/8".. Detailed instructions are available.

- **Are special lengths available?**

Yes. Some special sizes are available upon request. Special lengths will incur a punch set up charge based on the order. Sizes outside of the standard ranges must be specified upon placing an order. Lengths of 65" or less cannot be accommodated.

- **Can the astragal be painted?**

Endura's astragals are provided with an exterior grade paint, so repainting is not necessary. However, customers wishing to repaint Endura astragals should consult their paint suppliers regarding proper methods. Wood Veneer wrapped versions require staining or painting before being exposed in the field.

- **Can the strike and deadbolt plates be adjusted horizontally and vertically?**

Strike and deadbolt plates are vertically adjustable. The strike plate is only horizontally adjustable. However, since the deadbolt plate is integral to the underlying actuator it is not horizontally adjustable. The width of the deadbolt receiving hole should be wide enough to accommodate most adjustment needs.

- **Can the astragal accommodate latch and deadbolt plates which come with most lock sets?**

A deadbolt plate is integrated in the astragal design, thus a separate deadbolt plate is not required, nor can a deadbolt plate be attached.

Most lock plates will fit. This will depend on the size and hole spacing of the plates to be used. The design can accommodate hole spacing from 1-5/8" to 2-1/8" with a maximum plate length of 2 3/4".

- **Which lock sets brands will work with the Multi-Point Astragal?**

Latch and deadbolt locks from most major manufacturers will work with the Multipoint Astragal. An important element in determining if the lock set will work with the Multi-Point Astragal is the size and shape of the dead bolt itself. It cannot exceed 3/4" diameter or 5/8" across its flat faces.

- **Can a mortise lock be used with the Multi-Point Astragal?**

Only if the lock bolt meets the size limitations described above and are centered across the thickness of the door panel.

- **What is the maximum margin between the inactive and active doors for the 3 point locks to engage?**

The maximum recommended margin is 1/4".

- **How precise must the routing of the active door keeper pockets be to ensure engagement of the multi-point lock mechanism on the astragal?**

The keepers in the active door are what essentially catches and locks the entire system. The keepers need to be aligned (following the instructions, to catch the lock pawls from the astragal). The keeper height position on the active door must match the lock position on the astragal within +/- 1/8". Keeper routs should be centered on the thickness of the door within 1/32".

- **If my door is warped or deflected, will the multi-points engage?**

The locks will effectively engage the keepers as long as door panel warp or deflection doesn't exceed 3/16" at the lock points.

- **Will the pivot knuckle on the flip lever assembly break or cause damage if impacted by the active door?**

The pivot knuckle protrudes a minor amount when the astragal lever is in the "open" position. Just as with any door unit care is needed to ensure that the flip lever is down in the engaged position and the inactive door secured when attempting to close the active door. This will eliminate any potential obstruction of the active door and will also ensure that the lever stays intact.

- **Can the Multi-Point Astragal be used on a metal edge door?**

No. The Multi-Point astragal was designed specifically for composite, wood, or pvc edged door panels.

- **What door panel latch and deadbolt bore locations can be accommodated?**

The Multi-Point Astragal can accommodate:

Latch bore center line locations

For 6/8 panels is between 33-1/8" and 35-9/16" from the bottom of the door panel.

For 8/0 panels is between 33-1/8" and 39-21/32" from the bottom of the door panel.

The deadbolt bore center line location range is 3-1/2"-6" for 6/8 and 3-1/2"-10-1/2" for 8/0 above the latch bore center line.

Non standard latch and deadbolt centers can be accommodated in special cases upon request.

TESTING RELATED QUESTIONS

Is the performance of the Multi-Point Astragal certified?

- As with any individual component, the astragal itself cannot be certified, it must be integrated with door panels and a framing system; then the entire door system must pass certification testing.
- Endura has conducted Certified 3rd Party testing for Air, Water and Structural performance using industry recognized ASTM standards. These tests have been conducted in combination with various door panels from a number of manufacturers. Results will be made available to customers utilizing the Multipoint Astragal.

What levels of performance does the MultiPoint Astragal meet?

- Certified testing results for Air penetration resistance and Water Infiltration resistance for the Multi-Point Astragal exceed results obtained using a standard Ultimate Astragal. Depending upon door type and height, Water infiltration results meet a range of DP 35-45 for 6/8 panels and DP 30 – 40 for 8/0 doors. Specific results are available.
- Certified Structural testing results for the MPA exceed results for the Ultimate Astragal and meet or exceed results for the Ultimate Hurricane Astragal. Specific results are available.

Does it meet Florida, Dade County, TDI and other Structural Testing requirements?

- For the most part, states have adopted the concept of wind zones which correlate to anticipated wind loads experienced at extreme conditions given the location. As such, structural testing results performed with the Ultimate Multi-Point Astragal indicate that, depending upon door and glass types, meet the requirements of the majority of zones in Florida, Texas and other regions
- To date, certified Structural testing by Endura of “off the shelf” door panels and glass have not met the extreme levels required for Dade County and some portions of the Texas coast for either the MPA or our existing Hurricane Astragal.. Previous certified tests by door

manufacturers using the Hurricane Astragal in combination with strengthened panels, glass, framing and sealants have resulted in test results to meet these levels. We are beginning the process of engaging door manufacturers for similar tests utilizing the MPA.

- **What types of durability testing have been conducted?**

Ultimate Multi-Point Astragal operation and durability tests were successfully evaluated based on industry standards. These include:

Engagement Bolt and Operating Lever Durability – The bolt operation lever, engagement bolts, and associated mechanisms were cycled 300,000 times (exceeds on BHMA A156.5, Grade 1).

Deadbolt Actuator, Multipoint Latch and Keeper Durability – The deadbolt actuator, multipoint latches, multipoint keepers and associated mechanisms were cycled 300,000 times (exceeds BHMA A156.5, Grade 1).

Salt Spray Resistance – All components were exposed to a salt fog under elevated temperatures for 1,000 hours (per ASTM B 117).

- **Is the finish coating of the astragal suitable for coastal application?**

The component materials and finishes have been developed and tested for anticipated service needs in coastal areas. However, local conditions may exceed those simulated in laboratory testing.