



**MORSE
ARCHITECTURAL**

INSTALLATION INSTRUCTIONS PRECISION LOCK® ADJUSTABLE RAILING

RECOMMENDED TOOLS: Torque Wrench

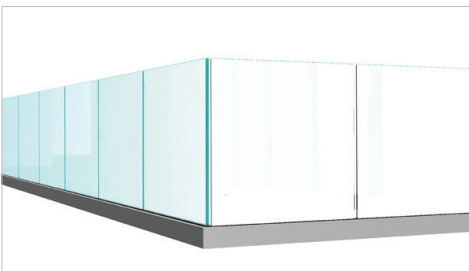
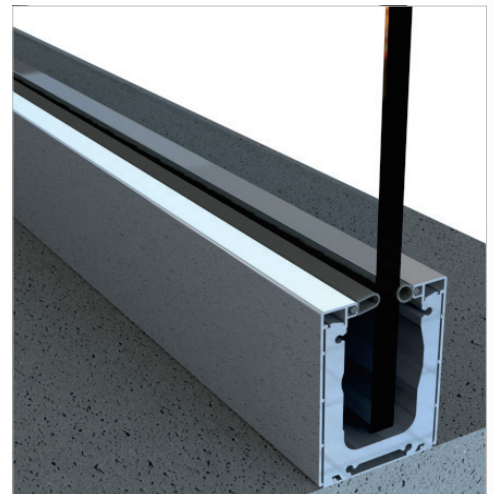
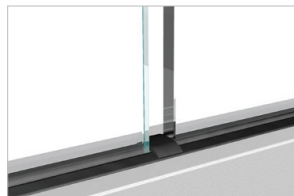
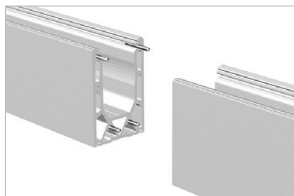
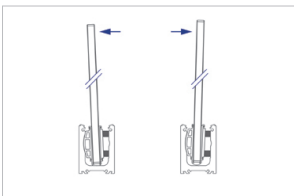
IMPORTANT SAFETY INSTRUCTIONS:

GLASS SAFETY:

- Read the installation instructions in their entirety before installing. It is important to save these instructions.
- All components must be installed in accordance with IBC 2015 to 2018, or per local codes as specified by the "authority having jurisdiction".
- All glass must be tempered monolithic or tempered laminated safety glass.
- Glass selection should be in accordance with:
 - ASTM C1036-16 (Standard Specification for Flat Glass
 - Table 4 - Dimensional Tolerances for Rectangular Shapes of Type 1 – Transparent Flat Glass)
 - ASTM C1172 -14 (Standard Specification for Laminated Architectural Flat Glass)
 - ASTM C1048 (Specification for Heat Strengthened and Fully Tempered Flat Glass)

RAIL SAFETY:

- Check and confirm all local railing code requirements.
- A structural analysis may be required per local codes.
- Structural analysis is the customers' responsibility.
- This product must be installed in a manner consistent with its intended use.





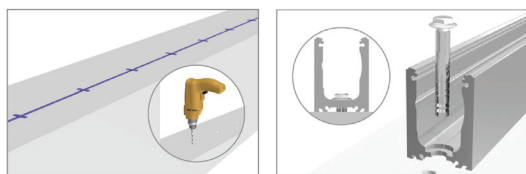
INSTALLATION

The following information will help you streamline set-up and installation.

1

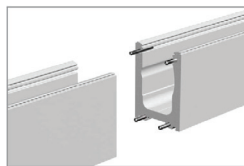
Mount Precision Lock® aluminum extrusion to the intended substrate. Anchor hardware should be located max 12" on center and 6" max from the end of the extrusion.

1. For mounting to concrete: concrete compressive strength must be greater than or equal to 4,000 psi. For mounting concrete anchors, see part matrix
2. For mounting to steel – thickness of support plate must be ½" thick or greater.
3. For glass panels wider than 48" or mounting Precision Lock® into wood and other substrates, it is recommended to consult with a structural engineer to ensure proper anchoring and a safe installation.
4. If drainage is required beneath the base shoe use drain block, see part matrix.
5. If mounting base shoe to a steel supporting plate use weld block, see part matrix.



2

Use the alignment pins to join the base shoes where necessary - (4) pins per base shoe joints

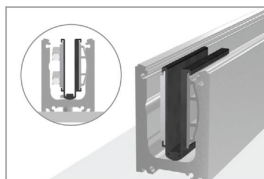


3

Clean debris from the Precision Lock® channel.

4

Position the mechanisms within the Precision Lock® shoe every 16" on center starting 6" in from end of shoe. Use minimum (3) mechanisms per max glass lite width of 48". For applications longer than 48", or mounting Precision Lock® into wood and other substrates, it is recommended to consult with a structural engineer to ensure proper anchoring and a safe installation. Minimum of two mechanisms per glass lite of more narrow widths. Ensure all mechanisms are placed on the same side of the extrusion - do not alternate.



5

When using ½" head height bolts, it is recommended to use a shim (A42-0024-PLS). Cut a 3" segment of shim from stock length 3' piece. Place shim segment between the bottom edge of the glass and inside of each mechanism. This allows the glass sufficient clearance above the bolt head. Place 1/8" thick pre-cut spacer supplied into base. (One spacer is required for each mechanism) Carefully place a lite of glass into the mechanisms within the shoe.

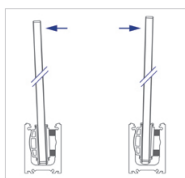


6

Install the glass with a minimum joint gap between the individual lites of $\frac{1}{2}$ " (verify and confirm with project specification). In the case of long runs, consideration should be given to spanning any joints with a glass panel to assist with alignment. Slight variation in glass thickness can result in similar variation in the height of the seated glass, but can easily be accommodated for with light rocking of the taller panel or gentle tapping with a rubber mallet. The glass should never require any aggressive pounding.

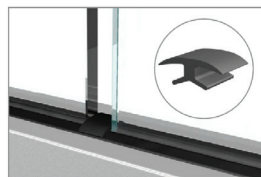
7

Once the glass is plumbed, tighten the mechanism nuts by turning the nut counter clockwise with the wrench. This will create contact with the shoe extrusion and hold the mechanism and glass panel in place. Alternate tightening of the lower and upper nut to fully lock the glass panel into the desired tilt position. For the PL68 it is recommended to tighten the nuts to 25.81 ft-lb. For the PL80 it is recommended to tighten the nuts to 29.5 ft-lb.



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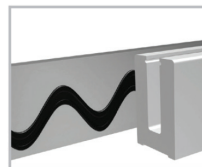
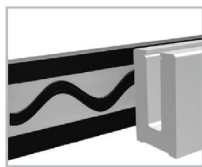
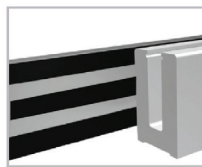
See gasket sizing chart and verify that correct gaskets are being used on each side of the glass panel for the base shoe model and glass thickness. Slide each gasket into the aluminum snap on extrusion A16-PL68SOMF. Snap each extrusion and gasket onto the top of the base shoe. The snap on extrusion will lock into place and gasket should make contact with the glass. Locate gasket as show.



9

Install cladding with one of the following options.

1. Using V50-0012 cladding tape, apply three rows along the full length of cladding.
2. Using V50-0012 cladding tape, apply two rows along the full length of cladding AND Apply G42-5950CLR Tower Tech² using a wave format pattern.
3. Apply G42-5950CLR Tower Tech² using a wave format pattern.

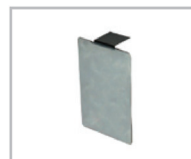


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Install end caps.

Apply G42-5950CLR Tower Tech² or V50-0012 cladding tape to the end cap on the base shoe facing side.

Place end cap against base shoe and retain until sealant has cured.



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Install decorative cap rail.





PART MATRIX

WELD BLOCK			DRAIN BLOCKS	
S42-0023-10		2.5" X 2.75" X .5" STEEL	A42-0023-10	2.5" X 2.75" X .25" ALUMINUM

	GLASS SIZE		ALUMINUM EXTRUDED SHOE	
			PL68	PL80
MECHANISMS	1/2"-17/32" MONOLITHIC		M42-PL68B-4	N/A
	9/16" LAMINATE		M42-PL68D-4	N/A
	5/8" LAMINATE		M42-PL68E-4	N/A
	11/16" LAMINATE		M42-PL68E-4	M42-PL80D-4
	3/4" MONOLITHIC		N/A	M42-PL80E-4
	13/16" LAMINATE		N/A	M42-PL80F-4
	1" MONOLITHIC		N/A	M42-PL80G-4
MOUNTING HARDWARE	CONCRETE	SELF-TAPPING	F92-0073CA 1/2" X 4 1/2"	
		EXPANSION ANCHOR	1/2" X 5 1/8"	
	STEEL (1/2" MIN)	ZINC PLATED STEEL CAP SCREW	F92-0073PLCH 1/2-13 x 1" with washer	
END CAPS	WITH CLADDING	MILL FINISH AL	A17-PL68AEY	A17-PL80AEY
		OIL RUBBED BRONZE AL	A17-PL68BZD	A17-PL80BZD
		MATTE BLACK AL	A17-PL68BMA	A17-PL80BMA
		CLEAR SATIN ANODIZED AL	A17-PL68VEL	A17-PL80VEL
		#4 BRUSHED STAINLESS 304	S17-PL68VEL	S17-PL80VEL
		POLISHED STAINLESS 304	S17-PL68POL	S17-PL80POL
CLADDING	MILL FINISH AL		A16-0073AEY10	
	OIL RUBBED BRONZE AL		A16-0073BZD10	
	MATTE BLACK AL		A16-0073BMA10	
	CLEAR SATIN ANODIZED AL		A16-0073VEL10	
	#4 BRUSHED STAINLESS STEEL 304		S16-0073VEL10	
	POLISHED STAINLESS STEEL 304		S16-0073POL10	
	TAPE, 108 FT		V50-0012	



	GLASS SIZE	BASE SHOE MODEL			
		PL68		PL80	
		Side A Gasket	Side B Gasket	Side A Gasket	Side B Gasket
GASKETS	1/2" MONOLITHIC	V11-PLG1BK20	V11-PLG17BK20	N/A	N/A
	17/32" MONOLITHIC	V11-PLG1BK20	V11-PLG15BK20	N/A	N/A
	9/16" LAMINATE	V11-PLG1BK20	V11-PLG15BK20	N/A	N/A
	5/8" LAMINATE	V11-PLG2BK20	V11-PLG17BK20	N/A	N/A
	11/16" LAMINATE	V11-PLG2BK20	V11-PLG15BK20	V11-PLG17BK20	V11-PLG17BK20
	3/4" MONOLITHIC	N/A	N/A	V11-PLG1BK20	V11-PLG25BK20
	13/16" LAMINATE	N/A	N/A	V11-PLG1BK20	V11-PLG17BK20
	1" MONOLITHIC	N/A	N/A	V11-PLG1BK20	V11-PLG17BK20
Snap On Extrusions	10'	A16-PL68SOMF10			
	20'	A16-PL68SOMF20			
Infill Divider	4" Piece	V50-PL68BK4		V50-PL80BK4	
	8" Piece	V50-PL68BK8		V50-PL80BK8	
Alignment Pins		A42-PLJP-8			
Wrench		T42-PLRW			
Shim 1/8" x 36" Shim (to be used with 1/2" head bolts)		A47-0027-PLS			