







Table of Contents

Material Specifications	3
Finishes	3
Expansion and contraction	3
Material ordering and deliveries	3
Storage and handling	3
Cleaning	3
Warranty	3
Graffiti Removal	4
Components	5
Components (Typical)	5
Tools/Cutting/Fastening	6
Tools	6
Cutting	6
Fastening	7
Fastener types	7
Framing requirements	8
System Install	9
Install details	9
Typical dimensions	9
System layout & Install steps	10
Perimeter and field area limitations	10
Preparation drilling for Install	11
Butt-Joints & Lap Joints	12
Batten orientation	13
Fin orientation	14
End to End orientation	15-16
Large spans with Stiffener	17-19
Link & Lock HD	20
4x4 & 4x6 Link & Lock	21
Link & Lock Brackets	22-26

Appendix	27
Tables - Expansion & contraction	27
Tables – Allowable attachment span	28-31
Handling and care of products	32
Blank Page	33
Contact Info	34

Finishes

- Longboard Products are available in a wide range of powder coated finishes
- Custom solid colors are available upon request

Longboard extruded products are produced 1" (25mm) oversized, as one end is drilled for the coating process and both ends have 1/2" (12mm) of masking tape (woodgrains only) which must be cut off for best results.

Expansion & Contraction

Link & Lock components expand & contract 1/4" (6mm) over 24' (7.3m) along the length, measured over a 30°C (54°F) temperature range. Due to this range of movement, Link & Lock Fins/Louvers/Battens should be installed with staggered butt-joints, leaving a 1/4" (6mm) min. gap, every 24' (7.3m) min. Alternatively, staggered lap-joints are an option for a continuous appearance, however 1/4" (6mm) gaps should be left at each joint to allow for thermal movement. Be sure to lap joints by 2' (610mm) minimum over the back "L". See **Appendix for Tables 1 & 2, expansion/contraction calculations per foot/meter of material.**

Material Ordering & Delivery

٠	Packaging:	Link & Lock is sold by the set (pair) and in widths of 2", 4", 6", 8" End caps are sold by the box: 20 caps/bx End Mounts are sold by the box: 20 mounts/bx Stiffener is sold in 24' lengths (includes Double-sided Tape)
•	Ship/Receiving:	Most Popular Finishes -ready to ship within 1 week Additional Finishes -ready to ship within 14 weeks Delivered on 24' (7.3m) long skids weighing up to 2000 lbs. A mechanical lift with forks is required on site to receive the order.
•	QC:	Always inspect the delivery for damage and contact LB ASAP if there are any issues: <u>info@longboardproducts.com</u> or 1-800-604-0343 and include your PO# and any pictures if possible. Mark the delivery receipt as "damaged" and accept the delivery as-is. Longboard is not responsible for the installation of blemished or damaged material.

Storage & Handling

Be sure to store the material flat, keep it dry, safe & secure and remain in unopened cartons until ready to be installed. See **Appendix for proper handling and care instructions.**

Cleaning Recommendations

- Initial and periodic cleaning for best looking product
- Basic methods use a combination of moderate water pressure, soft sponge/brush and a mild detergent (Safe for your hands, safe for the product)

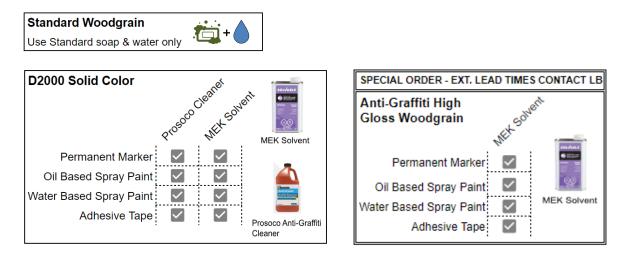
▲ NEVER use aggressive, acid or alkaline cleaners on Longboard finishes. Do not use cleaners containing Trisodium Phosphate, Phosphoric Acid, Hydrochloric Acid, Hydrofluoric Acid, Fluorides, or any other compound that is known to react with metal.

*See Cleaning Guide for full requirements & cleaning schedule: longboardproducts/resources/care-maintenance.com

Warranty

Upon substantial completion of the project, register for warranty online here: <u>longboardproducts.com/warranty</u> A Registration is required for the warranty to be in effect.

Graffiti Removal



Note: Cleaning the surface with a cleanser that is not diluted as per instructions, may result in damage to the coating.



Components (Typical)

The Link & Lock[™] system consists of two (2) matching L-shaped extrusions, snapped together to make a complete set. For all LB components go to <u>longboardproducts.com</u>.

Link & Lock™ Battens

Size	12'	24'	End Caps (20/box)	End Mounts (20/box)
2″	2X2LL.145	2X2LL.289	2LLEC.2	2LLEM.2
4"	2X4LL.145	2X4LL.289	2LLEC.4	2LLEM.4
6″	2X6LL.145	2X6LL.289	2LLEC.6	2LLEM.6
8″	2X8LL.145	2X8LL.289	2LLEC.8	2LLEM.8
Link & Lock™ HD Battens				
4"	2X4LLHD.145	2X4LLHD.289	2LLHDEC.4	2LLHDEM.4
6"	2X6LLHD.145	2X6LLHD.289	2LLHDEC.6	2LLHDEM.6
8"	2X8LLHD.145	2X8LLHD.289	2LLHDEC.8	2LLHDEM.8
Link & Lock™ Box Battens				
4 x 4"	4X4LL.145	4X4LL.289	4LLEC.4	-
4 x 6"	4X6LL.145	4X6LL.289	4LLEC.6	-

Link & Lock™ Batten



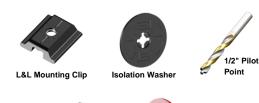


Link & Lock™ HD

Batten

Link & Lock ™ Box Battens

Mounting Accessories	Qty	SKU
Link & Lock Mounting Clip	48, bag	LLMC.N48
Link & Lock™ Isolation Washer	48, bag	FAST.5003.BOX48
Dewalt [®] 1/2" Pilot Point Drill Bit	1	DRILLBT.05
24' Link & Lock Internal Stiffener	1	LLSTIFF.289
3M® Double Sided Adhesive Tape - 108'	1, roll	LLTAPE.1296





Doubled-sided Tape

Single Dual

Link & Lock ™ Mounting Brackets

Link & Lock™ Mounting Brackets Product

Product	Single	Dual
45° LEFT FIXED	LLMBK.45LF	LLMDK.45LF
45° RIGHT FIXED	LLMBK.45RF	LLMDK.45RF
90° CENTER FIXED	LLMBK.90F	LLMDK.90F
45° LEFT SLIDING	LLMBK.45LS	LLMDK.45LS
45° RIGHT SLIDING	LLMBK.45RS	LLMDK.45RS
90° CENTER SLIDING	LLMBK.90S	LLMDK.90S

Tools

Commonly used tools for Link & Lock install.

Table Saw with Carbide Metal Blade Non-ferrous 60- 80T (for cutting aluminum)	Miter Saw with Carbide Metal Blade Non-ferrous 60- 80T (for cutting aluminum)	Cordless Drill with clutch	Jig Saw (for protrusions)
	0		
Rubber Mallet (or Hammer)	Level	Hole Saw (for lighting fixtures)	Quick Grip Bar Clamp

Cutting

Always be sure to wear appropriate PPE: eye & hearing protection.

Cut battens using a Miter Saw and Table Saw always allowing for expansion & contraction. Trim the taped/drilled ends of all stock length material by at least 1/2" (12mm) each end and discard.



▲ DO NOT Install Link & Lock without trimming the ends.

am

Fastening

Longboard Link & Lock[™] consists of two (2) matching L-shaped extrusions, snapped together to make a complete set. The back "L" is mechanically fastened to the substrate, using Longboard **Mounting Clips and Isolation Washers** fastened every **6-8' O.C. up to 12ft when using Stiffeners** with #12 (#14 for L&L HD) sharp-point screws (for wood substrates) or self-drilling (for metal substrates). The Mounting Clips and Isolation Washers are included in the order for 6' spacings.

Fasteners must be corrosion resistant and comply with all local building codes.

All fasteners should be suitable for exterior use and be compatible with the substrate type. Fasteners should be anchored into a solid secure substrate.

Layout and predrill the back "L" at all fastener locations.

Refer to **Preparation drilling for Install** for hole dimensions and further details.

See Appendix for project specific fastener spacing: Allowable Span - Tables 3-15

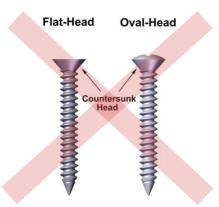
Fastener Types/Sizes for L&L			
L&L	Pan Head	Hex Head	
2"	#12	#12	
4"	#12	#12	
6"	#12	#12	
8"	#12	#12	
4"x4"	#12	#12	
4"x6"	#12	#12	
4" HD	#14	#14	
6" HD	#14	#14	
8" HD	#14	#14	

Fastener types

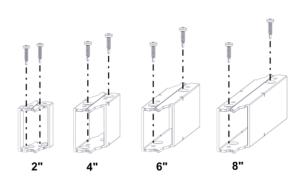
RECOMMENDED



DO NOT USE



Fastener Types/Sizes for End Mounts			
End Mount	Pan Head	Hex Head	
2"	#10		
4"	#12	#12	
6"	#12	#12	
8"	#12	#12	
4" HD	#14	#14	
6" HD	#14	#14	
8" HD	#14	#14	



Framing requirements

Always consult your local building authority and follow local building code requirements. See Typical dimensions for sizes and weights of the L&L system.

Wood Framing

• Size: 2x4 minimum

Metal Framing

• Gauge: 18 ga. minimum

Concrete/CMU

Wood or metal furring is recommended over concrete and CMU.

Wood Furring:

- Size: 2x2 minimum
- Type: Pressure treated lumber

Metal Furring:

- Size: 18 ga. minimum
- Type: Hat channel, Stud, or Z-Girt

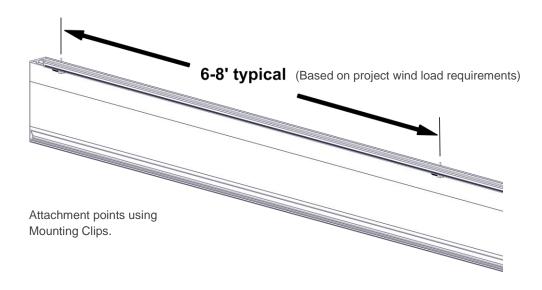
Install details

Typical dimensions

L&L	Width Depth Length		Weight(Ibs/LF) *per set	
2"	2" (50.8mm)	1 5/8" (41.3mm)	12'/24'	0.93
4"	4" (101.6mm)	1 5/8" (41.3mm)	12'24'	1.3
6"	6" (152.4mm)	1 5/8" (41.3mm)	12'/24'	1.6
8"	8" (203mm)	1 5/8" (41.3mm)	12'/24'	1.9
4"x4"	4" (101.6mm)	4" (101.6mm)	12'/24'	1.8
4"x6"	6" (152.4mm)	4" (101.6mm)	12'/24'	2.1
4" HD	4" (101.6mm)	2" (50.8mm)	12'/24'	1.7
6" HD	6" (152.4mm)	2" (50.8mm)	12'/24'	2.4
8" HD	8" (203mm)	2" (50.8mm)	12'/24'	3

• Longboard Link & Lock system typical dimensions:

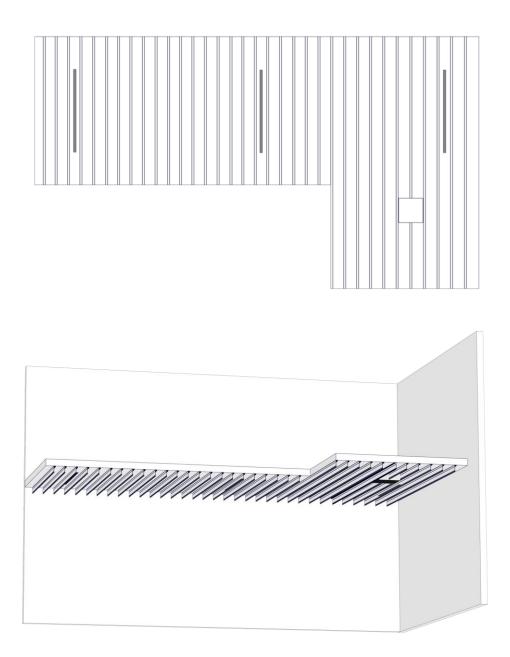
- Longboard Products are not recommended for use on marine applications in direct contact with salt water.
- Link & Lock is an open-joint system which is required to be installed outboard of a weather resistant barrier, including all flashings, following code, and building requirements.
- It is good practice to leave a 1/4" (6mm) gap between every component joint or 24' (7.3m) to allow for expansion & contraction. Consider the joints where components meet each other to dictate which component is installed first (eg: right angle butt joints, mitered joints etc.).
- Mounting Clips and Isolation Washers allow for movement of the battens, to expand & contract during thermal changes.
- Fasten Mounting Clips every 6-8' typical (based on project wind load requirements), alternating from top to bottom for battens using die lines for guides.

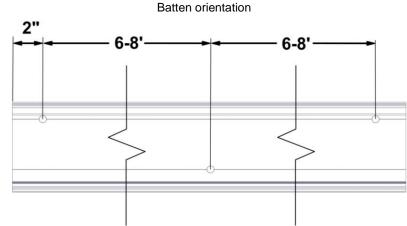


System layout and Install steps

Perimeter and field area limitations

Measure and layout your wall area to consider Link & Lock alignment with fixtures, penetrations, and adjacent walls, for desired appearance. The same methodology applies for vertical installations.





To prepare Link & Lock for install, layout and predrill the back "L" with 1/2" holes every 6-8' O.C. typical, with the first hole 2" in from the end to allow space for the End Cap.

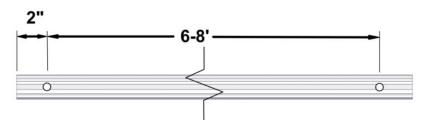
For the Batten orientation, alternate the holes from top to bottom using the Dielines for guides.

For Fin orientation, use Pilot Point Drill Bit (see below) as recommended for ease of drilling.

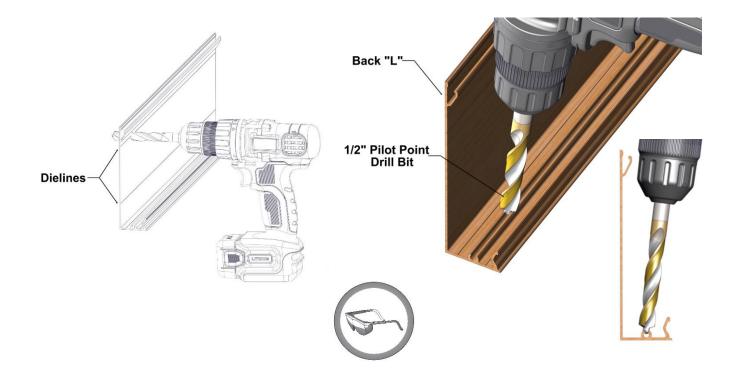
Note: To hard fasten 1 location per length, omit the drilled hole at that location and use for hard fastening.

See Appendix for project specific fastener spacing: Allowable Span - Tables 3-15

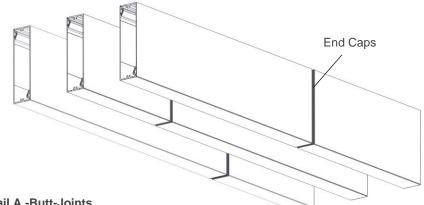
▲ Tip: Add weep holes as good practice to allow any potential moisture to escape.



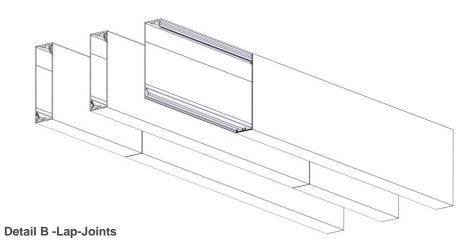
Fin orientation



- BUTT-JOINTS. When installing butt-joints, ensure to leave a 1/4" (6mm) min. gap. every 24' (7.3m) min. • (See Detail A). Fasteners should be anchored into a solid secure framing member, blocking, furring strip, or backer plate, etc.
- ALAP-JOINTS. When installing lap-joints, ensure to leave a 1/4" (6mm) min. gap. every 24' (7.3m) min. ٠ (See Detail B). Fasteners should be anchored into a solid secure framing member, blocking, furring strip, or backer plate, etc.
- Use touch-up paint pens (purchased separately) to finish the ends at the butt-joint or lap-joint. •
- It is good practice to hard-fasten each back "L" at one point per length typically near the center, to keep the • battens from migrating.
- DO NOT hard-fasten more than one (1) location per batten. •









Install back "L" using #12 Fasteners (#14 for L&L HD), Mounting Clips and Isolation Washers every 6-8' O.C. typical. Isolation Washers are installed between the L&L and the substrate.

Note: Be sure to fasten in the center of the 1/2" holes to allow for movement each way. Hard fasten near the center of each length to prevent migration of the material over time.



Cut off Taped/Drilled L&L ends (1/2" each end).

Step 2

Install front "L" and snap it into place, aligning it with ends and joints.

If necessary, use a rubber mallet or hammer and block to protect the finish.

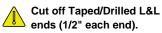
Step 3

Install End Caps, which are friction fit, by pressing them into place using the palm of your hand. If necessary, use a rubber mallet to snap them into place. If required, touch up the cut ends with matching paint pen.



Install back "L" using #12 Fasteners (#14 for L&L HD), Mounting Clips and Isolation Washers every 6-8' O.C. typical. Isolation Washers are installed between the L&L and the substrate.

Note: Be sure to fasten in the center of the 1/2" holes to allow for movement each way. Hard fasten near the center of each length to prevent migration of the material over time.



Step 2 Install front "L" and snap it into place, aligning it with ends and joints.

If necessary, use a rubber mallet or hammer and block to protect the finish.

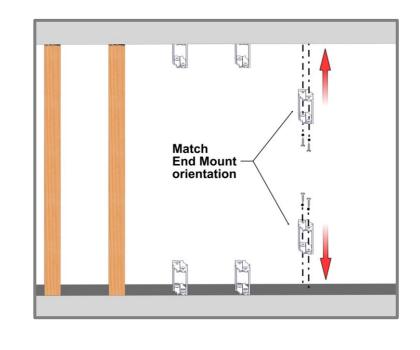
Step 3

Install End Caps, which are friction fit, by pressing them into place using the palm of your hand. If necessary, use a rubber mallet to snap them into place. If required, touch up the cut ends with matching paint pen. Install End to End orientation Note: Use Tables 3-15 in Appendix for Allowable Span for Wind Loading.

Step 1

Place End Mounts into position at the top and bottom of the install. It is good practice to check your installation every 2-3 rows for level/plumb and flat/straight, for best results.

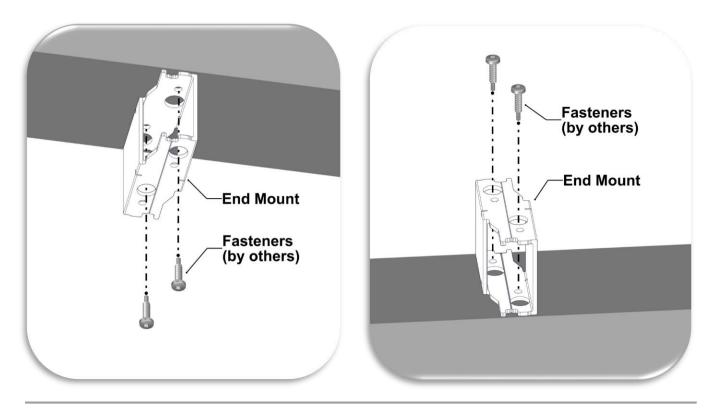
Fastener Types/Sizes for End Mounts			
End Mount	Pan Head	Hex Head	
2"	#10	$\left \right\rangle$	
4"	#12	#12	
6"	#12	#12	
8"	#12	#12	
4" HD	#14	#14	
6" HD	#14	#14	
8" HD	#14	#14	



Step 2

Install the End Mounts using #12 Fasteners (#10 for 2" End Mount). Make sure to match the orientation of the End Mounts so the Link & Lock set matches on the top and the bottom. See above for **Fastener Types for End Mounts**.

▲ TIP: Check the position of the End Mounts once installed to allow a plumb and straight look.



Step 3

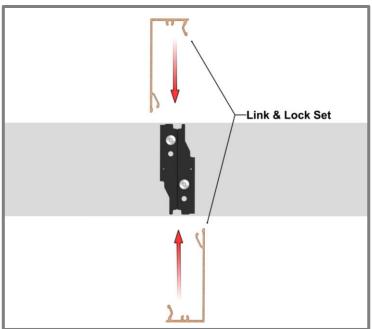
Cut off Taped/Drilled L&L ends (1/2" each end).

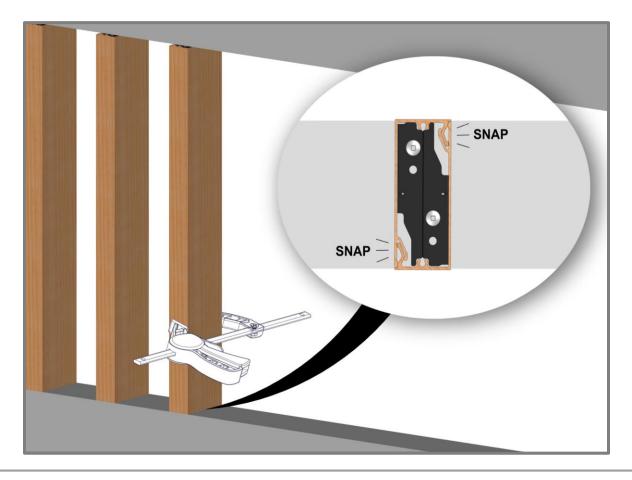
Measure, cut and install Link & Lock Set and snap it into place onto the End Mounts. Use clamps with rubber pads as common practice to securely snap the front "L" onto the back "L".

If necessary, use a rubber mallet or hammer and block to protect the finish.

▲ TIP: When measuring the Link & Lock, make sure to leave a gap (~1/4") for expansion and building movement.



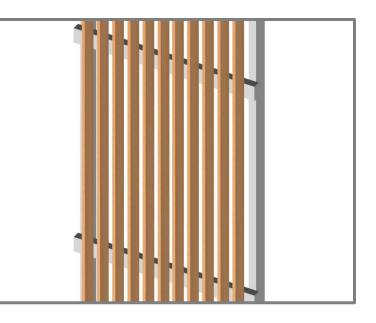




Requirements for large spans:

- Two Mounting Clips with #12 fasteners min, (#14 for L&L HD) are used at both ends with a minimum distance apart of 5" O.C.
- An Internal Stiffener is added to reinforce the Link & Lock set for spans up to 12' max @30psf.
- Stiffener must be one continuous member from attachment to attachment.
- Double-sided Tape is used to place the Stiffener onto the Link & Lock. The tape is placed on the center of the Stiffener and then pressed onto far end of the back "L" as shown on page 18.

See Appendix for allowable spans for project specific load. Allowable Span - Tables 3-15



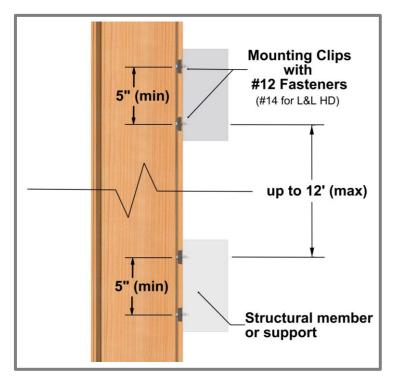
Step 1

Place predrilled Link & Lock back "L" into position (Drilling page 11). It is good practice to check your installation every 2-3 rows for level/plumb and flat/straight, for best results.

Step 2

Install back "L" using #12 Fasteners min, (#14 for L&L HD) and Mounting Clips at end attachment points with a minimum distance apart of 5" O.C.

Note: Be sure to fasten in the center of the 1/2" holes to allow for movement each way. Hard fasten one end of each length to prevent migration of the material over time.



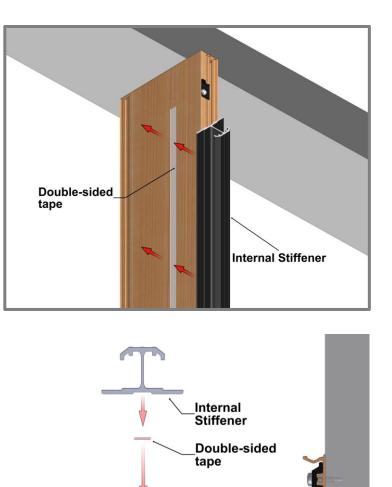
Step 3

Peel and place the Double-sided tape onto the back of the Stiffener O.C. Peel the second side and install the Stiffener as shown in the image pressing down to adhere to the tape.

Note: Install Stiffener 1" (min) from the end of the L&L to allow space for the End Cap as seen below.



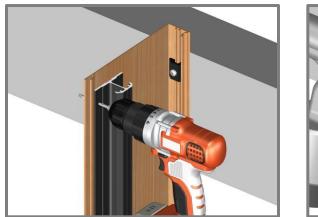
Make sure the Stiffener is located at the end of the back "L" and the tape is in the center of the stiffener.

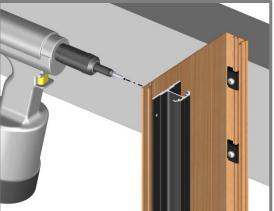


Step 4

-Fastening Stiffener in Fin orientation

Mechanically fasten the Stiffener to the back "L" using 1/8" Dome Head Rivets (Aluminum). Drill the flange of the Stiffener using a 1/8" Drill bit and fasten two Rivets at the top or one end to mitigate movement of the stiffener over time.

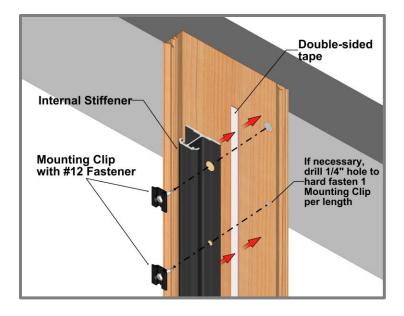




Back "L"

Step 4.1

-Fastening Stiffener Batten orientation Mechanically fasten the Stiffener to the back "L" using the Mounting Clips and #12 Fasteners. Refer to Page 13 for mounting.



Step 5 Refer to Page 13-14 for Front "L" and End Cap install and details.

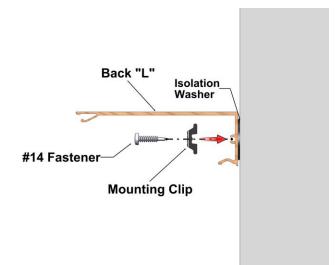


Link & Lock HD

- Used for greater spans compared to standard Link & Lock
- Available sizes: 4", 6" & 8" (2" depth)
- Uses standard Mounting Clip, Isolation Washer and attachment methods
- Use #14 Fasteners

Refer to System Layout and Install steps section for typical install details.

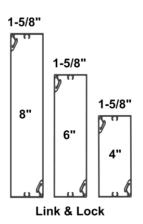
To Compare allowable spans: See Appendix for allowable spans for project specific wind load. Allowable Span – Tables 3-15

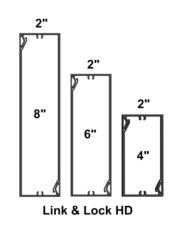




6" L&L 6' span max @30PSF 6" L&L HD 12' span max @30PSF







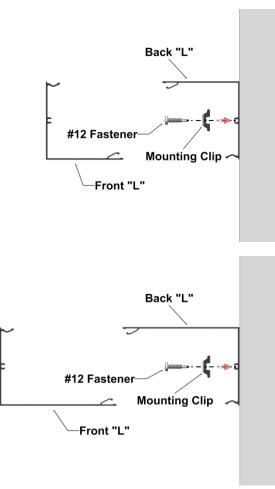
4x4 & 4x6 Link & Lock

- Available sizes: 4"x4" & 4"x6"
- Uses standard Mounting Clip and attachment methods with #12 Fasteners

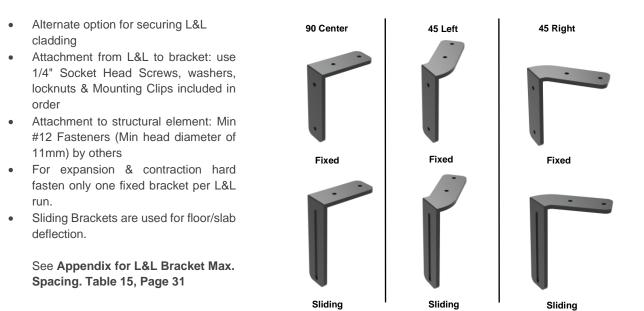
Refer to System Layout and Install steps section for typical install details.

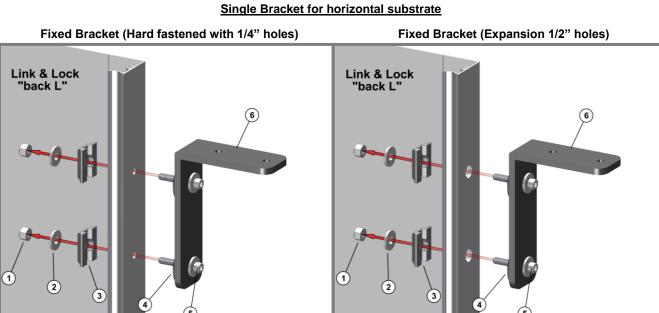
See Appendix for allowable spans for project specific wind load. Allowable Span – Tables 13 & 14, Page 31





Link & Lock Brackets



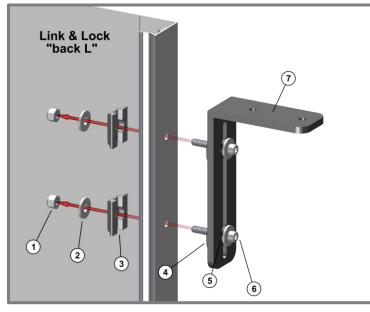


No.	Description	Material	Qty
1	1/4" -20 Locknut	Stainless Steel Nylon-Insert	2
2	Washer, 1/4" screw size, 0.75" OD	Stainless Steel	4
3	Link & Lock Mounting Clip	Nylon w. Stainless Washer	2
4	Self-Retaining Washer for 1/4" size	Nylon, Black	2
5	1/4" -20 Socket Head Screw, 1-1/2" length	Stainless Steel	2
6	Link & Lock Bracket -90 Center Fixed	6005A Aluminum	1

Link & Lock Soffit Installation Guide

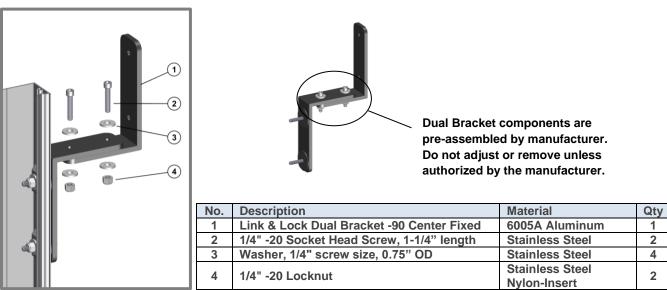
Link & Lock Bracket Options

Sliding Bracket (Use 1/4" holes)



No.	Description	Material	Qty
1	1/4" -20 Locknut	Stainless Steel Nylon-Insert	2
2	Washer, 1/4" screw size, 0.75" OD	Stainless Steel	4
3	Link & Lock Mounting Clip	Nylon w. Stainless Washer	2
4	Self-Retaining Washer for 1/4" screw size	Nylon, Black	2
5	Plastic Washer, 1/4" screw size, 0.734 OD	Nylon, Black	2
6	1/4" -20 Socket Head Screw, 1-1/2" length	Stainless Steel	2
7	Link & Lock Bracket -90 Center Sliding	6005A Aluminum	1

Dual Bracket for vertical substrate



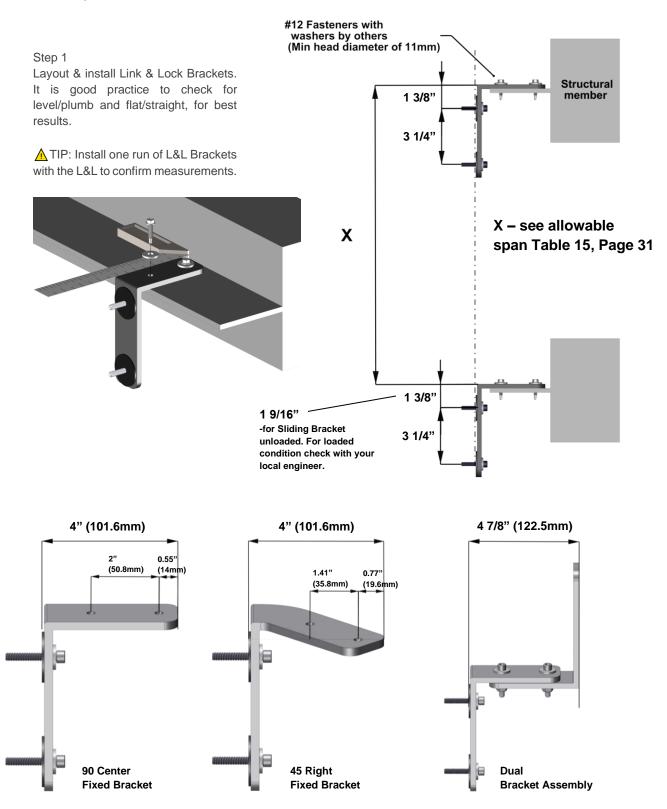
1

2

4

2

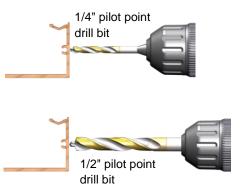
Install steps



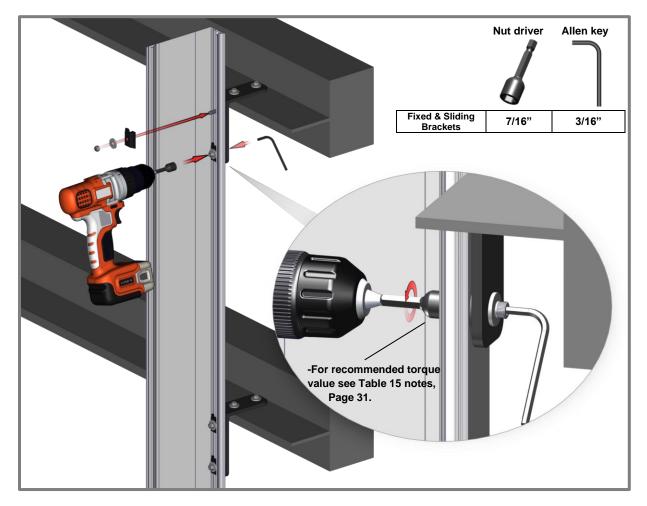
Step 2

Drill out back "L" of the Link & Lock. For dimensions review drawing details provided by Longboard if required.

- **1/4" holes** -for hard fastening one Bracket per run -for Sliding Brackets if used
- **1/2" holes** for expansion & contraction on the rest of the Fixed Brackets

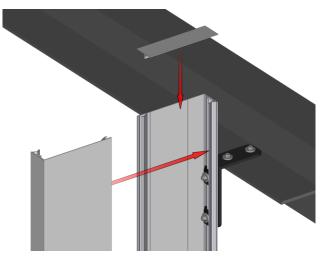


Step 3 Install back "L" onto brackets.





Step 4 Install front "L" onto back "L" and End Caps. For details See Pages 13-14.



Appendix

Expansion and Contraction Tables

ABL	.E 1 - IN	IPERIAL							CUTTING	& INSTALL	ATION		
		°C	-50	-40	-30	-20	-10	0	10	20	30	40	50
		°F	-58	-40	-22	-4	14	32	50	68	86	104	122
	°C	°F	-			EXPAN	ISION OR C	ONTRACT	ION (INCH/	FOOT)			
EMP	-50	-58	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019	-0.022	-0.024	-0.027
FN	-40	-40	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019	-0.022	-0.024
TIO	-30	-22	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019	-0.022
SUC	-20	-4	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019
STI	-10	14	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016
CONSTRUCTION TEMP.	0	32	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014
	10	50	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011
PO	20	68	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008
IAX	30	86	0.022	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005
>	40	104	0.024	0.022	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003
ž	40	104	0.024										
MIN/MAX POST	50	122	0.024	0.024	0.022	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000
		122 IETRIC	0.027	0.024	AVERA		RATURE A	T TIME OF	CUTTING	& INSTALL	ATION		
	50	122 IETRIC	0.027	0.024 -40	AVERA -30	GE TEMPE	RATURE A	T TIME OF	CUTTING	& INSTALL 20	ATION 30	40	50
	50 E 2 - M	122 IETRIC °C °F	0.027	0.024	AVERA		RATURE A	T TIME OF	CUTTING	& INSTALL	ATION		
ABL	50 E 2 - M	122 IETRIC °C °F	0.027	-40 -40	AVERA -30	GE TEMPE -20 -4	RATURE A -10 14	T TIME OF 0 32	CUTTING 10 50 ON (MM/N	& INSTALL 20 68	ATION 30	40	50
ABL	50 E 2 - M ° C -50	122 IETRIC °C °F •F -58	0.027 -50 -58 0.000	-40 -40 -0.230	AVERA -30 -22 -0.460	GE TEMPE -20 -4 EXPAN -0.690	RATURE A -10 14 SION OR C -0.920	T TIME OF 0 32 ONTRACTI -1.150	CUTTING 10 50 ON (MM/N -1.380	& INSTALL 20 68 1ETER) -1.610	ATION 30 86 -1.840	40 104 -2.070	50 122 -2.300
ABL	50 E 2 - M -50 -40	122 IETRIC °C °F -58 -40	0.027 -50 -58 0.000 0.230	0.024 -40 -0.230 0.000	AVERA -30 -22 -0.460 -0.230	GE TEMPE -20 -4 EXPAN -0.690 -0.460	RATURE A -10 14 ISION OR C -0.920 -0.690	T TIME OF 0 32 0NTRACTI -1.150 -0.920	CUTTING 10 50 ON (MM/N -1.380 -1.150	& INSTALL 20 68 IETER) -1.610 -1.380	ATION 30 86 -1.840 -1.610	40 104 -2.070 -1.840	50 122 -2.300 -2.070
ABL	50 E 2 - M -50 -40 -30	122 IETRIC °C °F -58 -40 -22	0.027 -50 -58 0.000 0.230 0.460	0.024 -40 -40 -0.230 0.000 0.230	AVERA -30 -22 -0.460 -0.230 0.000	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230	RATURE A -10 14 ISION OR C -0.920 -0.690 -0.460	T TIME OF 0 32 ONTRACTI -1.150 -0.920 -0.690	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920	& INSTALL 20 68 IETER) -1.610 -1.380 -1.150	ATION 30 86 -1.840 -1.610 -1.380	40 104 -2.070 -1.840 -1.610	50 122 -2.300 -2.070 -1.840
ABL	50 E 2 - M [°] C -50 -40 -30 -20	122 ■ETRIC [°] F [°] F -58 -40 -22 -4	0.027 -50 -58 0.000 0.230 0.460 0.690	-40 -40 -0.230 0.000 0.230 0.460	AVERA -30 -22 -0.460 -0.230 0.000 0.230	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230 0.000	RATURE A -10 14 ISION OR C -0.920 -0.690 -0.460 -0.230	T TIME OF 0 32 0NTRACTI -1.150 -0.920 -0.690 -0.460	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920 -0.690	& INSTALL 20 68 1ETER) -1.610 -1.380 -1.150 -0.920	ATION 30 86 -1.840 -1.610 -1.380 -1.150	40 104 -2.070 -1.840 -1.610 -1.380	50 122 -2.300 -2.070 -1.840 -1.610
ABL	50 E 2 - M -50 -40 -30 -20 -10	122 ETRIC °C °F -58 -40 -22 -4 14	0.027 -50 -58 0.000 0.230 0.460 0.690 0.920	-40 -40 -0.230 0.000 0.230 0.460 0.690	AVERA -30 -22 -0.460 -0.230 0.000 0.230 0.460	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230 0.000 0.230	RATURE A -10 14 SION OR C -0.920 -0.690 -0.460 -0.230 0.000	T TIME OF 0 32 0NTRACTI -1.150 -0.920 -0.690 -0.460 -0.230	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920 -0.690 -0.460	& INSTALL 20 68 (ETER) -1.610 -1.380 -1.150 -0.920 -0.690	ATION 30 86 -1.840 -1.610 -1.380 -1.150 -0.920	40 104 -2.070 -1.840 -1.610 -1.380 -1.150	50 122 -2.300 -2.070 -1.840 -1.610 -1.380
ABL	50 E 2 - M [°] C ^{−50} ^{−40} ^{−30} ^{−20} ^{−10} 0	122 °C °F -58 -40 -22 -4 14 32	0.027 -50 -58 0.000 0.230 0.460 0.690 0.920 1.150	-40 -40 -0.230 0.000 0.230 0.460 0.690 0.920	AVERA -30 -22 -0.460 -0.230 0.000 0.230 0.460 0.690	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230 0.000 0.230 0.460	RATURE A -10 14 SION OR C -0.920 -0.690 -0.460 -0.230 0.000 0.230	T TIME OF 0 32 0NTRACTI -1.150 -0.920 -0.690 -0.460 -0.230 0.000	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920 -0.690 -0.460 -0.230	& INSTALL 20 68 (ETER) -1.610 -1.380 -1.150 -0.920 -0.690 -0.460	ATION 30 86 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690	40 104 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920	50 122 -2.300 -2.070 -1.840 -1.610 -1.380 -1.150
ABL	50 E 2 - M -50 -40 -30 -20 -10 0 10	122 °C °F -58 -40 -22 -4 14 32 50	0.027 -50 -58 0.000 0.230 0.460 0.690 0.920 1.150 1.380	0.024 -40 -0.230 0.000 0.230 0.460 0.690 0.920 1.150	AVERA -30 -22 -0.460 -0.230 0.000 0.230 0.460 0.690 0.920	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230 0.000 0.230 0.460 0.690	RATURE A -10 14 SION OR C -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460	T TIME OF 0 32 0NTRACTI -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000	& INSTALL 20 68 (ETER) -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230	ATION 30 86 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460	40 104 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690	50 122 -2.300 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920
ABL	50 E 2 - M -50 -40 -30 -20 -10 0 10 20	122 °C °F -58 -40 -22 -4 14 32 50 68	0.027 -50 -58 0.000 0.230 0.460 0.690 0.920 1.150 1.380 1.610	-40 -40 -0.230 0.000 0.230 0.460 0.690 0.920 1.150 1.380	AVERA -30 -22 -0.460 -0.230 0.000 0.230 0.460 0.690 0.920 1.150	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230 0.000 0.230 0.460 0.690 0.920	RATURE A -10 14 SION OR C -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460 0.690	T TIME OF 0 32 ONTRACTI -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230	& INSTALL 20 68 (ETER) -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000	ATION 30 86 -1.840 -1.610 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230	40 104 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460	50 122 -2.300 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690
ABL	50 E 2 - M -50 -40 -30 -20 -10 0 10 20 30	122 °C °F -58 -40 -22 -4 14 32 50 68 86	0.027 -50 -58 0.000 0.230 0.460 0.690 0.920 1.150 1.380 1.610 1.840	-40 -40 -0.230 0.000 0.230 0.460 0.690 0.920 1.150 1.380 1.610	AVERA -30 -22 -0.460 -0.230 0.000 0.230 0.460 0.690 0.920 1.150 1.380	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230 0.230 0.460 0.690 0.920 1.150	RATURE A -10 14 SION OR C -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460 0.690 0.920	T TIME OF 0 32 0NTRACTI -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460 0.690	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460	& INSTALL 20 68 IETER) -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230	ATION 30 86 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000	40 104 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230	50 122 -2.300 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460
	50 E 2 - M -50 -40 -30 -20 -10 0 10 20	122 °C °F -58 -40 -22 -4 14 32 50 68	0.027 -50 -58 0.000 0.230 0.460 0.690 0.920 1.150 1.380 1.610	-40 -40 -0.230 0.000 0.230 0.460 0.690 0.920 1.150 1.380	AVERA -30 -22 -0.460 -0.230 0.000 0.230 0.460 0.690 0.920 1.150	GE TEMPE -20 -4 EXPAN -0.690 -0.460 -0.230 0.000 0.230 0.460 0.690 0.920	RATURE A -10 14 SION OR C -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460 0.690	T TIME OF 0 32 ONTRACTI -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230 0.460	CUTTING 10 50 ON (MM/N -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000 0.230	& INSTALL 20 68 (ETER) -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230 0.000	ATION 30 86 -1.840 -1.610 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460 -0.230	40 104 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690 -0.460	50 122 -2.300 -2.070 -1.840 -1.610 -1.380 -1.150 -0.920 -0.690

						PSF (FACTOR	ED/ULTIMATE)				
Z"LI	INK & LOCK	30	40	50	60	70	80	90	100	110	120
Ē	4'										
E SPAN	6'										
ALLOWABLE	8'										
ALLY	10'										

TABLE 4

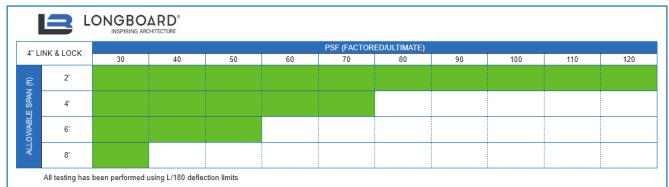
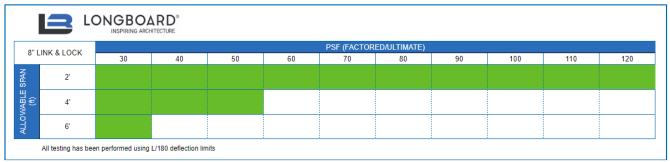


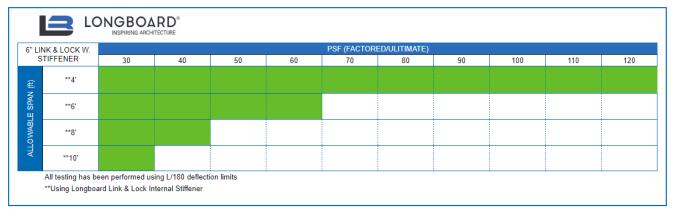
TABLE 5

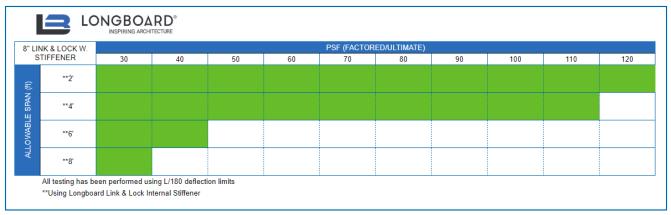
			CHITECTURE								
6" 11	NK & LOCK					PSF (FACTOR	ed/ultimate)				
0 1	INK & LOCK	30	40	50	60	70	80	90	100	110	120
NAIO	2'										
(H)	4'										
	6'										



LIN	K & LOCK W.					PSF (FACTOR	ED/ULTIMATE)				
ST	IFFENER	30	40	50	60	70	80	90	100	110	120
(<u>1</u>)	**4'										
SPAN (†	**6'										
	**8'										
ALLOWABLE	**10'										
	**12'										

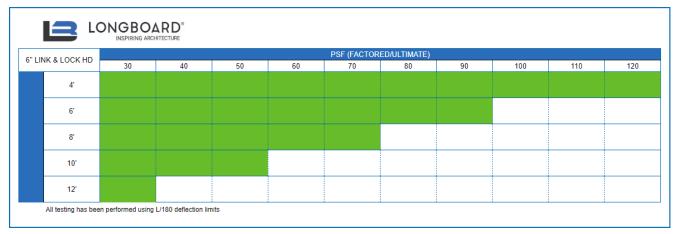
TABLE 8





" LIN	K & LOCK HD	30	40	50	60	70	ED/ULTIMATE) 80	90	100	110	120
(£)	6'										
SPAN	8'										
ALLOWABLE	10'										
ALL	12'										

TABLE 11



_		INSPIRING ARC									
B" LIN	K & LOCK HD	30	40	50	60	PSF (FACTOR 70	ED/ULTIMATE) 80	90	100	110	120
Ê	4'										
E SPAN	6'										
ALLOWABLE	8'										
ALL	10'										

		ONGBO	CHITECTURE								
1211	NK & LOCK					PSF (FACTOR	ED/ULTIMATE)				
474 L	INK & LUCK	30	40	50	60	70	80	90	100	110	120
ic D	8'										
(I I)	10'										
	12'										

TABLE 14

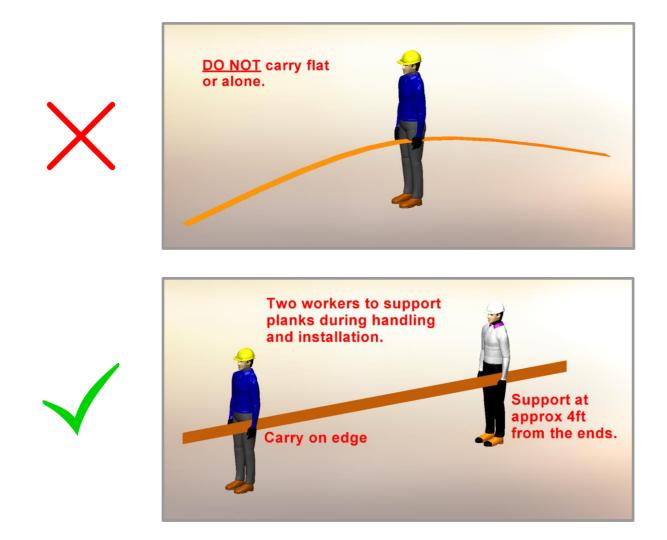
_		ONGBO	CHITECTORE								
YELL	NK & LOCK™					PSF (FACTOR	ED/ULTIMATE)				
NO LI	NK & LOCK	30	40	50	60	70	80	90	100	110	120
ALLOWABLE SPAN (ft)	8'										
	10'										
	12'										

LONGBOARD [®]				LINK & L	OCK™ BRAC	KET MAX. SPA	ACING (FT)			
INSPIRING ARCHITECTURE				WI	ND LOAD PSF (F	ACTORED/ULTIM	ATE)			
LINK & LOCK™ BATTEN	30	40	50	60	70	80	90	100	110	120
1-5/8" x 2"	10'		8'		6'		4'		2'	
1-5/8" x 4"	8'		6'		4'			2'		
1-5/8" x 4" w. Internal Stiffener	12'	10'		8'		6'		4	•	
1-5/8" x 6"	6'			4'			3'		2'	
1-5/8" x 6" w. Internal Stiffener	10'	8'	6'			4'		3	•	2'
1-5/8" x 8"	6'	4'				2	2'			
1-5/8" x 8" w. Internal Stiffener	8'	6'		4'			3'		2'	
2" x 4" HD	1	2'	10'	8'		6'			4'	
2" x 6" HD	10	8'		6'		4'			3'	
2" x 8" HD	8'	6'		4'			3'		2'	
^{ote 1} Factored Wind Load: max. 168 LBS/E ^{ote 2} Factored Dead Load: max. 29 LBS/E /				³ Fixed Bracket	1/4" -20 Socket H		in/lbs + prevailir	hment: ng torque of self-lo ing torque of self-l	-	

Proper Handling of Longboard Products



To help avoid injury and product damage, Longboard products require proper handling to and from storage areas during installation. When carrying or installing any products it is recommended that they be moved or carried by at least two people with each support point approximately 4ft from the ends. Carrying products without proper support can cause excessive bending which may damage the appearance or finish of the product. Any short cut lengths should also be carried on edge while supporting the material. See below for details.



A Delivery, Storage & Handling

- Always inspect the delivery for damage and contact LB ASAP if there are any issues: <u>info@longboardproducts.com</u> or 1-800-604-0343 and include your PO# and any pictures if possible. Longboard is not responsible for the installation of blemished or damaged material.
- Be sure to store the material flat, keep it dry, safe & secure and remain in unopened cartons until ready to be installed.
- Always wear appropriate PPE when handling products.

BLANK PAGE

12

Longboard Architectural Products Inc. © Longboard Architectural Products Inc. All rights reserved.

Longboard® is a registered trademark of Longboard Architectural Products Inc.

Longboard 1777 Clearbrook Road Abbotsford, BC V2T 8X8 Canada longboardproducts.com

Every effort has been made to ensure that the information in these installation guidelines is accurate. Longboard is not responsible for printing or clerical errors.

For more information, contact client care at info@longboardproducts.com or call toll free 1-800-604-0343.