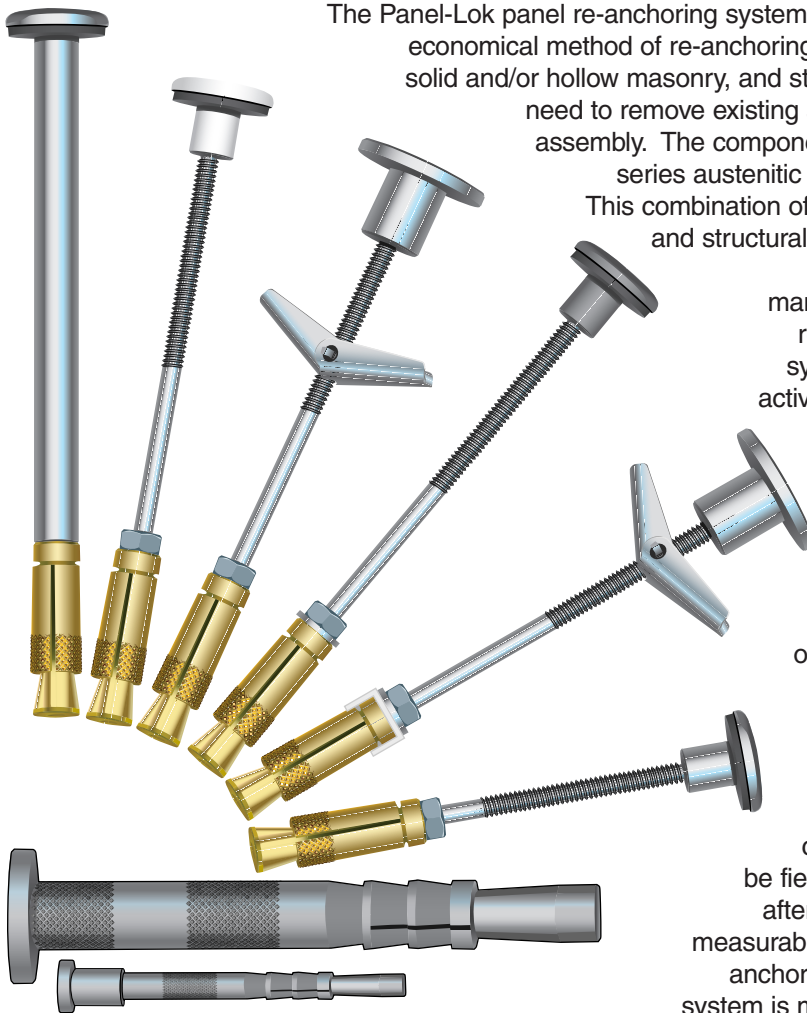


Established in 1961, we are one of North America's leading suppliers of masonry reinforcing and tie systems. Our products have been developed in accordance with accepted building practices and meet or exceed local, regional and national codes and standards. **Blok-Lok** remains committed to setting the standard in the industry. Please call us anytime for technical assistance or recommendations.

Mechanical Restraining Anchors for Re-Anchoring Stone Panel Veneers

PANEL-LOK



The Panel-Lok panel re-anchoring system is an easy to use, mechanically activated, economical method of re-anchoring existing stone panel veneers to concrete, solid and/or hollow masonry, and steel substrates. The process eliminates the need to remove existing stone by providing a corrosion resistant tie assembly. The components are manufactured from AISI Type 300 series austenitic stainless steel and ASTM Type 360 brass. This combination of materials provides for long-term durability and structural stability for the design life of the structure.

The anchor design and material used in manufacturing are quality controlled to assure repeatable performance results. Panel-Lok system components consist of mechanically activated expansion elements that are situated in the backup material. They are either torque activated or hammer set which provides a method of independent inspection for the backup connection.

The back up anchorage system, and the veneer connection method, develop performance characteristics similar to the original stone anchoring requirements. The expanders are integrated with a stainless steel shaft and various hex or screw attached heads for the stone veneer connection. Once installed, the anchors can resist veneer loading in both compression and tension. The anchors can be field tested by either direct tension, or torque after installation. The panel connection is also measurable by torque. Regardless of the size of the anchor system, the relative cost of this anchoring system is much less than removing stone panels and resetting them. The size of the anchor selected will determine ductility features. Support systems need large diameter anchor bodies in order to carry stone weight. Stone panels can be "plugged" with like-stone plugs. They can be cored, cut, and finished, then sealed in place over the stainless steel head of the veneer connection. The Panel-Lok anchors are available in a variety of lengths, and can be manufactured in special materials and lengths upon request.

Basic Applications

Use where there is a need to re-attach existing stone panel veneers less than three inches thick that require additional restraint, or support, to resist live and dead loads. These Blok-Lok Panel-Lok anchors accommodate bilateral live load resistance, uni-directional forces, support loading, and combinations of all types. The back up anchorage system may dictate the style of anchorage required.

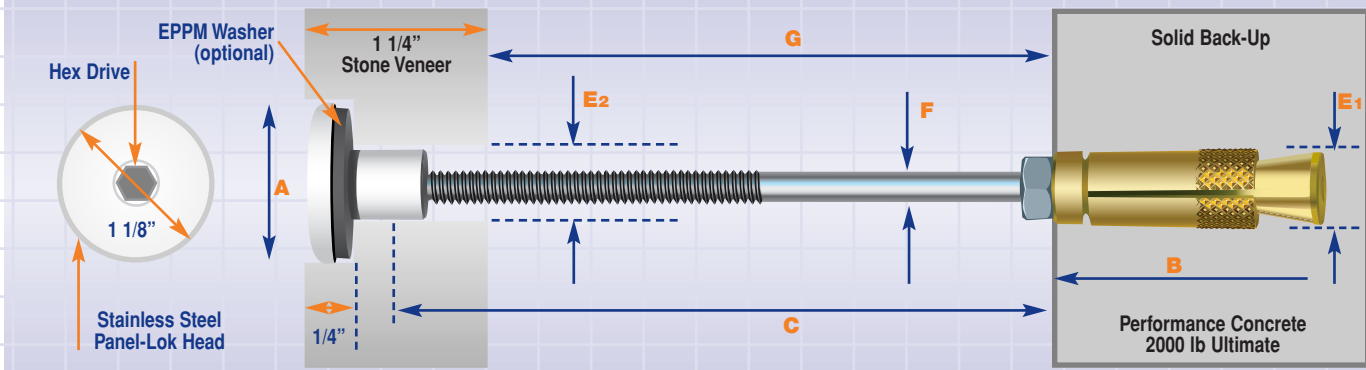
PANEL-LOK

Mechanical Restraining Anchors for Re-Anchoring Stone Panel Veneers



600 SERIES ANCHOR

UNI-DIRECTIONAL LOADING TO RESTRAIN STONE PANEL TO SOLID BACK-UP



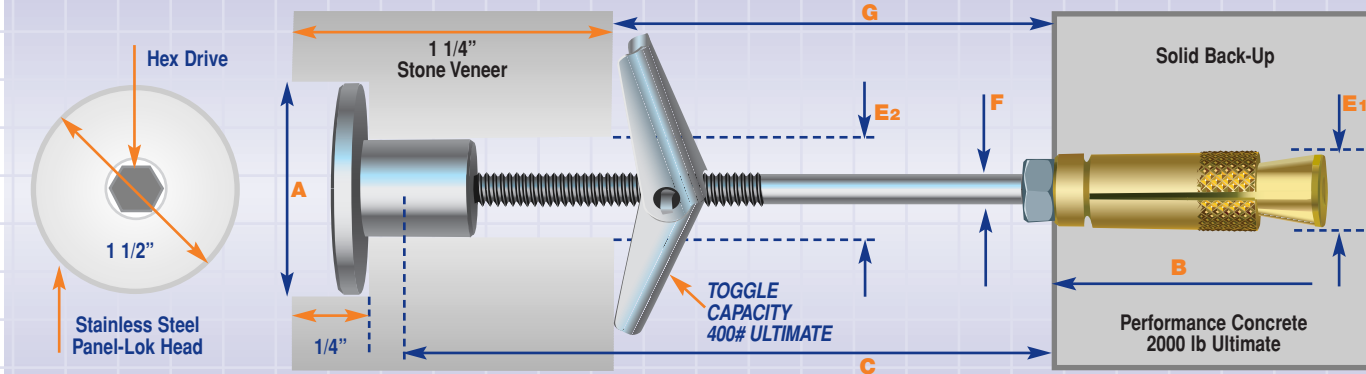
Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Embedment (in.) B		Anchor Length (in.) C	Back-Up Hole Diameter (in.) E₁	Facade Pilot Hole (in.) E₂	Anchor Diameter (in.) F	Air Cavity* (in.) Min-Max G
		Hollow Block	Solid					
506034	1 1/4"	1"	2"	1 7/8"	3/8"	1/2"	1/4"	5/8" – 1 1/8"
506040	1 1/4"	1"	2"	2 7/8"	3/8"	1/2"	1/4"	1 1/8" – 2"
506044	1 1/4"	1"	2"	3 7/8"	3/8"	1/2"	1/4"	1 5/8" – 2 1/2"
506054	1 1/4"	1"	2"	4 7/8"	3/8"	1/2"	1/4"	2 5/8" – 3 1/2"
506064	1 1/4"	1"	2"	5 7/8"	3/8"	1/2"	1/4"	3 5/8" – 4 1/2"

Installation Procedure and Criteria to Restrain Stone Panel to Solid Back-up

The Blok-Lok 600 Series anchors provide an excellent method of restraining (tension loading) a solid facade <3" thick to various solid backups. The anchor is installed by drilling a standard 1/2" masonry hole through the veneer into the back-up followed by a 1 1/4" countersink hole in the veneer. Anchor placement is only restricted by edge and spacing distance. Anchors are installed with a setting tool, via torque 50-100 in-lb in the back-up. Veneer connections are tightened 1/4 -1/2 turn past hand-tight. Custom lengths available upon request.

600-TGL SERIES ANCHOR

BI-LATERAL LOADING TO RESTRAIN STONE PANEL TO SOLID BACK-UP



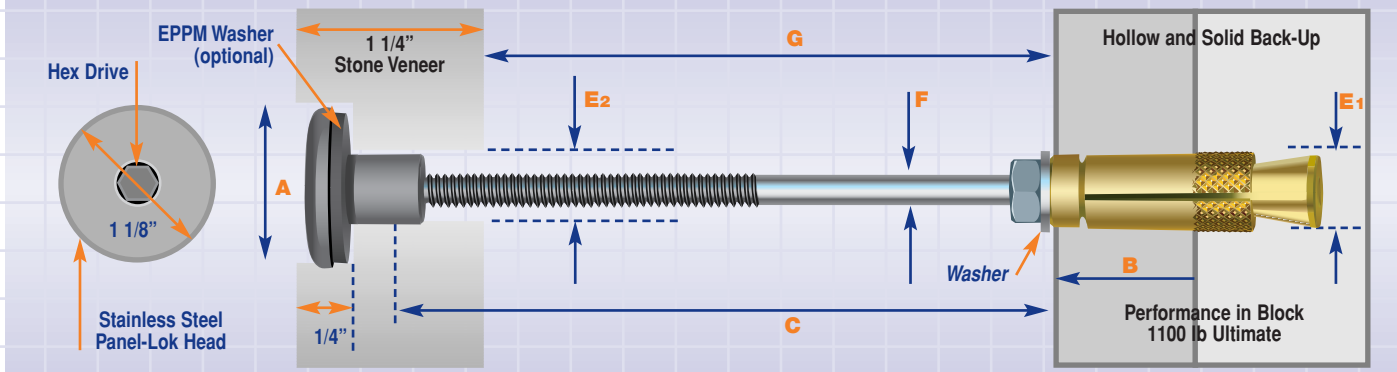
Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Embedment (in.) B		Anchor Length (in.) C	Back-Up Hole Diameter (in.) E₁	Facade Pilot Hole (in.) E₂	Anchor Diameter (in.) F	Air Cavity* (in.) Min-Max G
		Hollow Block	Solid					
506034 TGL	1 5/8"	1"	2"	1 7/8"	1/2"	3/4"	1/4"	5/8" – 1 1/8"
506040 TGL	1 5/8"	1"	2"	2 7/8"	1/2"	3/4"	1/4"	1 1/8" – 2"
506044 TGL	1 5/8"	1"	2"	3 7/8"	1/2"	3/4"	1/4"	1 5/8" – 2 1/2"
506054 TGL	1 5/8"	1"	2"	4 7/8"	1/2"	3/4"	1/4"	2 5/8" – 3 1/2"
506064 TGL	1 5/8"	1"	2"	5 7/8"	1/2"	3/4"	1/4"	3 5/8" – 4 1/2"

Installation Procedure and Criteria to Restrain Stone Panel to Solid Back-up

The Blok-Lok 600-TGL Series anchors provide an excellent method of re-anchoring (tension and compression) a solid facade <3" thick to a solid back-ups. This anchor works especially well when compression loads are a concern. Anchor is installed by drilling a 3/4" hole through veneer, 1/2" in back-up followed by 1 5/8" countersink in the veneer. Anchor placement is only restricted by edge and spacing distance. Anchors are installed with a setting tool, via torque 50-100 in-lb.in the back-up. The veneer torque for the toggle is 25-40 in-lb., and the hex drive head tightened 1/4 -1/2 turn past hand-tight. Custom lengths available upon request

610 SERIES ANCHOR

RESTRAIN STONE PANEL TO HOLLOW AND SOLID BACK-UP



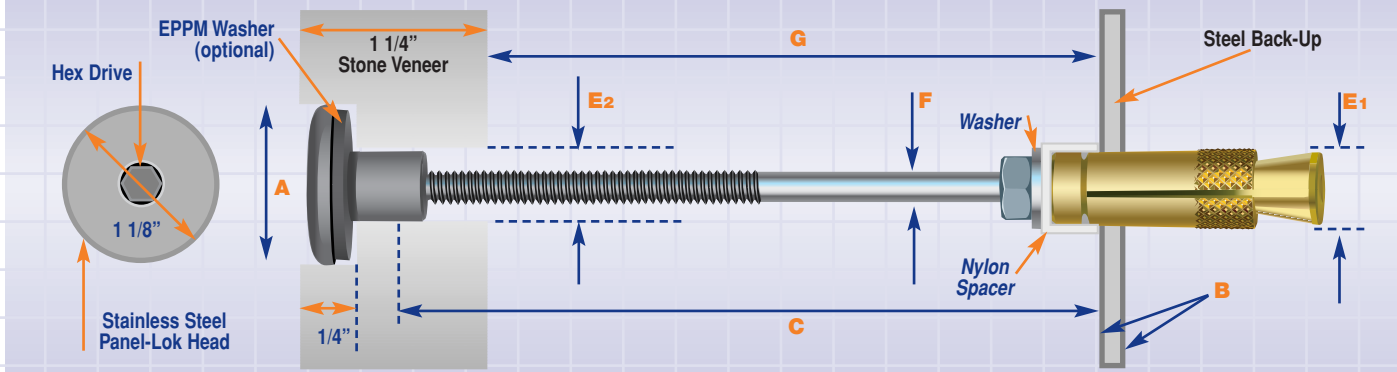
Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Embedment (in.) B		Anchor Length (in.) C	Back-Up Hole Diameter (in.) E₁	Facade Pilot Hole (in.) E₂	Anchor Diameter (in.) F	Air Cavity* (in.) Min-Max G
		Hollow Block	Solid					
5060134	1 1/4"	1"	2"	1 7/8"	3/8"	1/2"	1/4"	5/8" – 1 1/8"
5060140	1 1/4"	1"	2"	2 7/8"	3/8"	1/2"	1/4"	1 1/8" – 2"
5060144	1 1/4"	1"	2"	3 7/8"	3/8"	1/2"	1/4"	1 5/8" – 2 1/2"
5060154	1 1/4"	1"	2"	4 7/8"	3/8"	1/2"	1/4"	2 5/8" – 3 1/2"
5060164	1 1/4"	1"	2"	5 7/8"	3/8"	1/2"	1/4"	3 5/8" – 4 1/2"

Installation Procedure and Criteria to Restrain Stone Panel to Hollow and Solid Back-up

The Blok-Lok 610 Series anchors provide an excellent method of restraining (tension only) a solid facade <3" thick to various solid or hollow back-ups. A 1/2" veneer hole and 3/8" back-up hole can be easily achieved in one step using a dual diameter bit, followed by a 1 1/4" countersink hole in the veneer. Anchor placement is only restricted by edge and spacing distance. Anchors are installed with a setting tool, via torque 50-100 in-lb in the back-up. Veneer connections should be tightened 1/4-1/2 turns past hand-tight. Custom lengths available upon request.

610S SERIES ANCHOR

RESTRAIN STONE PANEL TO STEEL BACK-UP



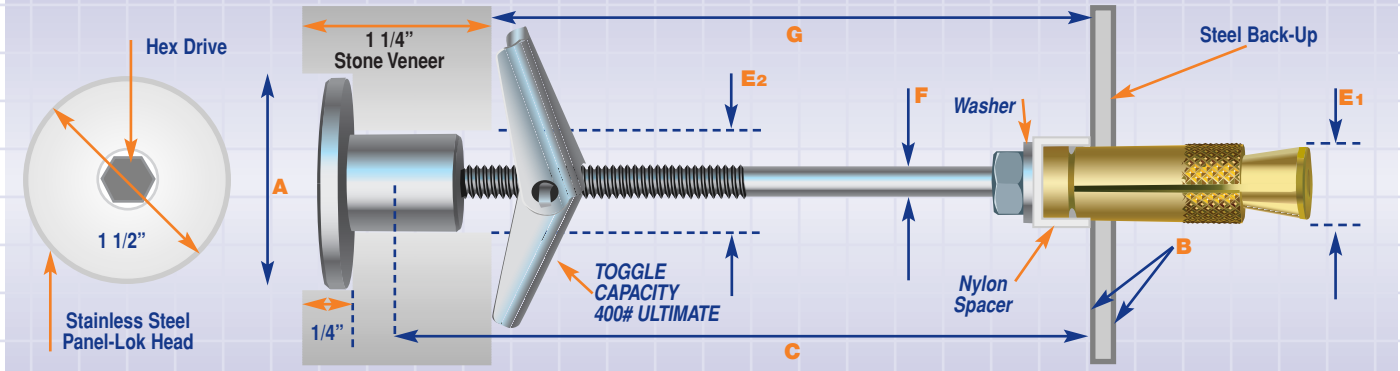
Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Steel Thickness (in.) B	Illustrated Anchor Length (in.) C	Back-Up Hole Diameter (in.) E₁	Facade Pilot Hole (in.) E₂	Anchor Diameter (in.) F	Air Cavity* (in.) Min-Max G
5060140S	1 1/4"	3/16"	2 11/16"	7/16"	3/4"	1/4"	1 9/16" – 2 1/4"
5060144S	1 1/4"	3/16"	3 3/16"	7/16"	3/4"	1/4"	2 1/16" – 2 7/8"
5060154S	1 1/4"	3/16"	4 3/16"	7/16"	3/4"	1/4"	3 1/16" – 3 7/8"
5060164S	1 1/4"	3/16"	5 3/16"	7/16"	3/4"	1/4"	4 1/16" – 4 7/8"

Installation Procedure and Criteria to Restrain Stone Panel to Steel Back-up

The Blok-Lok 610S Series anchors provide an excellent method of restraining (tension only) a solid facade <3" thick to steel back-ups. A 1/2" veneer hole and 7/16" back-up hole can be easily achieved by using quality masonry and steel drill bits, followed by a 1 1/4" countersink hole in the veneer. Anchor placement is only restricted by edge and spacing distance. Anchors are installed with a setting tool, via torque 50-100 in-lb in the back-up. Veneer connections should be tightened 1/4-1/2 turns past hand-tight. Custom lengths available upon request.

610-S-TGL SERIES ANCHOR

BI-LATERAL LOADING TO RESTRAIN SOFT-STONE PANEL TO STEEL BACK-UP



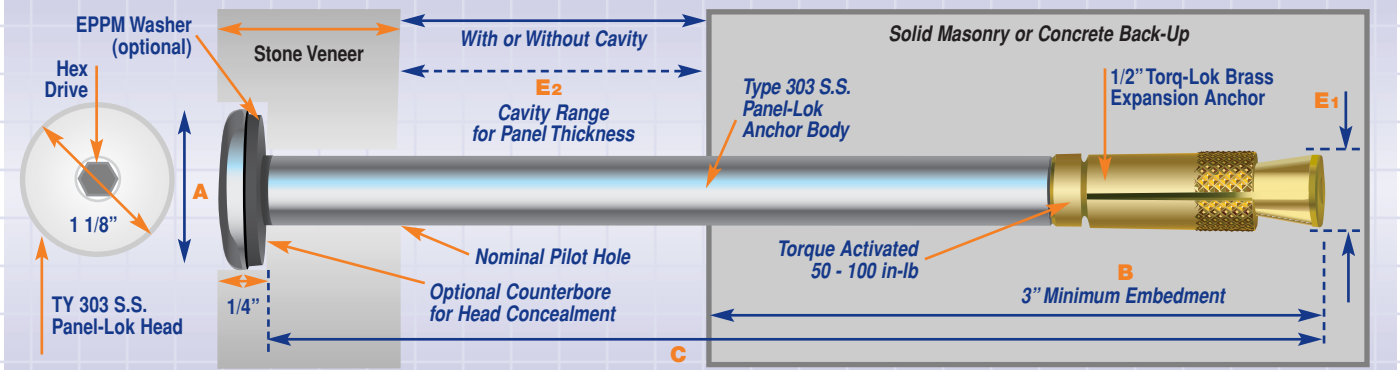
Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Steel Thickness (in.) B	Illustrated Anchor Length (in.) C	Back-Up Hole Diameter (in.) E1	Facade Pilot Hole (in.) E2	Anchor Diameter (in.) F	Air Cavity* (in.) Min-Max G
506134 STGL	1 5/8"	3/16"	2 3/16"	7/16"	3/4"	1/4"	1 1/16" - 1 7/8"
506140 STGL	1 5/8"	3/16"	2 11/16"	7/16"	3/4"	1/4"	1 9/16" - 2 1/4"
506144 STGL	1 5/8"	3/16"	3 3/16"	7/16"	3/4"	1/4"	2 1/16" - 2 7/8"
506154 STGL	1 5/8"	3/16"	4 3/16"	7/16"	3/4"	1/4"	3 1/16" - 3 7/8"
506164 STGL	1 5/8"	3/16"	5 3/16"	7/16"	3/4"	1/4"	4 1/16" - 4 7/8"

Installation Procedure and Criteria to Restrain Stone Panel to Steel Back-up

The Blok-Lok 610S-TGL Series anchors provide an excellent method of re-anchoring (tension and compression) a stone facade <3" thick to steel back-ups. This anchor works especially well when compression loads are a concern. Anchor is installed by drilling a 3/4" hole through veneer, 7/16" in back-up followed by 1 5/8" countersink in the veneer. Anchor placement is only restricted by edge and spacing distance. Anchors are installed with a setting tool, via torque 50-100 in-lb in the back-up. The veneer torque for the toggle is 25-40 in-lb, and the hex drive head tightened 1/4-1/2 turn past hand-tight. Custom lengths available upon request.

T SERIES ANCHOR

TORQUE ACTIVATED, SUPPORT AND RESTRAIN STONE PANEL TO SOLID BACK-UP WITH OR WITHOUT CAVITY



Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Embedment (in.) B	Anchor Length (in.) C	Cavity Range for Panel Thickness: E2			1/2" DIA. Ultimate Bending Load (lb.) per Anchor	C A V I T Y	3/8" DIA. Ultimate Bending Load (lb.) per Anchor	
				3/4"	1 1/4"	2"				
596647	596547	1 1/4"	3"	4 7/8"	0-1 1/2"	0-1"	0-1/4"	680	1"	280
596657	596557	1 1/4"	3"	5 7/8"	0-2 1/2"	0-2"	0-1 1/4"	340	2"	140
596667	596567	1 1/4"	3"	6 7/8"	0-3 1/2"	0-3"	0-2 1/4"	230	3"	100
596677	596577	1 1/4"	3"	7 7/8"	0-4 1/2"	0-4"	0-3 1/4"	170	4"	70
								140	5"	60
Ultimate Tension Capacity (3500 psi concrete)								110	6"	50
3/8" = 1500 lbs ; 1/2" = 2000 lbs								100	7"	40

Installation Procedure and Criteria to Restrain Stone Panel to Solid Back-up

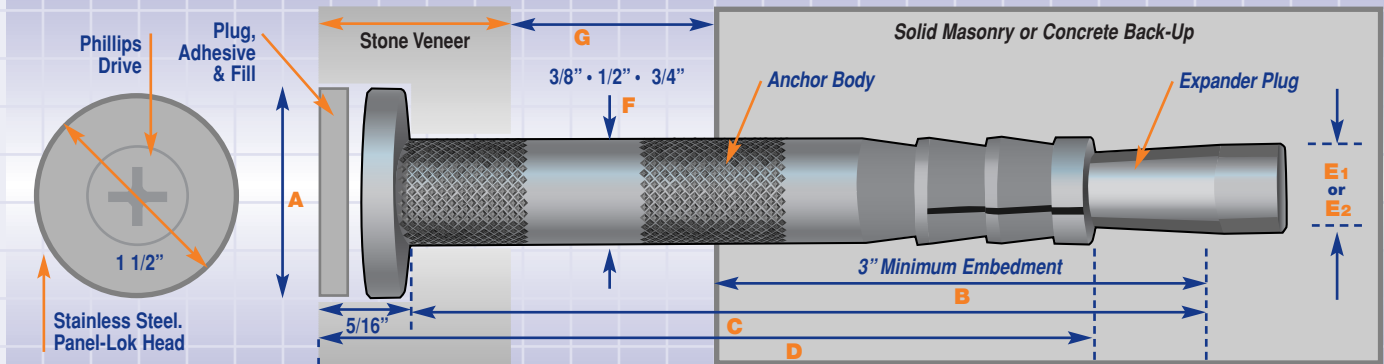
The Blok-Lok T Series anchors provide an excellent method of re-anchoring (tension and bending) a solid facade <3" thick to various solid back-ups. Anchor is installed by drilling an appropriate hole through veneer, and in back-up followed by 1 1/4" countersink in the veneer. Anchor placement is only restricted by edge and spacing distance. Anchors are installed with a setting tool, via torque 50-100 in-lb in the back-up. Veneer connections should be tightened 1/4-1/2 turns past hand-tight. Custom lengths available upon request.

PANEL-LOK

Mechanical Restraining Anchors for Re-Anchoring Stone Panel Veneers



H SERIES ANCHOR (3/8" • 1/2" • 3/4" DIAMETER) STABILIZE STONE PANEL TO CONCRETE BAC-KUP



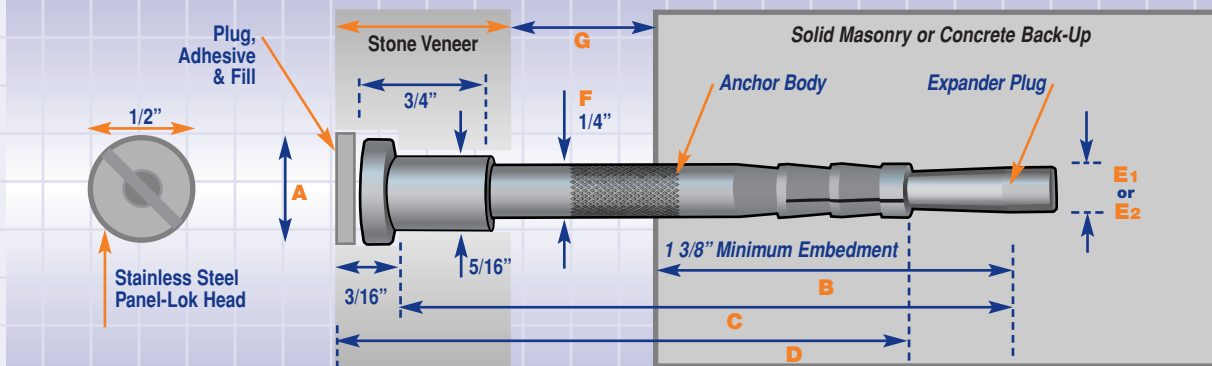
Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Embedment in Concrete (in.) B	Anchor Length (in.) C	Minimum Overall Hole Depth (in.) D	Concrete Hole Diameter w/o Adhesive (in.) E₁	Concrete Hole Diameter with Adhesive (in.) E₂	Anchor Diameter (in.) F	Air Cavity Min-Max (in.) for 1 1/2" Panel G
503801	1 5/8"	3"	5 5/8"	6 3/8"	3/8"	7/16"	3/8"	0 – 1 5/8"
503802	1 5/8"	3"	6 5/8"	7 3/8"	3/8"	7/16"	3/8"	0 – 2 5/8"
501201	1 5/8"	3"	5 5/8"	6 3/8"	1/2"	9/16"	1/2"	0 – 1 1/8"
501202	1 5/8"	3"	6 5/8"	7 3/8"	1/2"	9/16"	1/2"	0 – 2 5/8"
503400	1 5/8"	3"	4 5/8"	5 3/8"	3/4"	11/16"	3/4"	0 – 5/8"
503401	1 5/8"	3"	5 5/8"	6 3/8"	3/4"	13/16"	3/4"	0 – 1 5/8"
503402	1 1/2"	3"	6 5/8"	7 3/8"	3/4"	13/16"	3/4"	0 – 2 5/8"

Note: Minimum panel thickness equals 1 1/8" allowable. Minimum concrete cover at anchor bottom = 3.5 x F. Other anchor lengths are available on request.

Panel-Lok Gravity Anchor (3/8" • 1/2" • 3/4" diameter)

Cavity	Ultimate Capacity per Diameter			Tension @ Min. Embed. & 3500 PSI
	3/8"	1/2"	3/4"	
1"	280	680	2300	3/8" = 3200
2"	140	340	1100	
3"	100	230	760	1/2" = 7100
4"	70	170	600	
5"	60	140	500	3/4" = 7500
6"	50	110	380	
7"	40	100	325	

H SERIES ANCHOR (1/4" DIAMETER) STABILIZE STONE PANEL TO CONCRETE BAC-KUP



Catalog Part Number	Facade Countersink Diameter (in.) A	Minimum Embedment in Concrete (in.) B	Anchor Length (in.) C	Minimum Overall Hole Depth (in.) D	Concrete Hole Diameter w/o Adhesive (in.) E₁	Concrete Hole Diameter with Adhesive (in.) E₂	Anchor Diameter (in.) F	Air Cavity Min-Max (in.) for 1 1/2" Panel G
501401	5/8"	1 3/8"	3 3/8"	3 3/4"	1/4"	5/16"	1/4"	0 – 1"
501402	5/8"	1 3/8"	4 3/8"	4 3/4"	1/4"	5/16"	1/4"	0 – 2"
501403	5/8"	1 3/8"	5 3/8"	5 3/4"	1/4"	5/16"	1/4"	0 – 1"

Note:
Head can be surface mounted or recessed in a 3/16" deep counterbore.
Minimum concrete cover at anchor bottom = 3.5 x F. Other anchor lengths are available on request.

Panel-Lok Gravity Anchor (1/4" diameter)

The Blok-Lok H Series anchors provide an excellent method of restraining (tension only) and supporting a solid facade <3" thick to various solid back-ups. The anchor is installed by drilling appropriate hole size (anchor diameter) through the veneer into the back-up, followed by appropriate countersink hole for panel tie head. Drilled hole must have drill dust blown out prior to anchor insertion. A setting tool is attached to the anchor and then hammered to expand into the back-up. A screw-on panel tie head to ensure positive connection between facade and back-up. Anchor available in custom lengths.


PANEL-LOK

Mechanical Restraining Anchors for Re-Anchoring Stone Panel Veneers



PANEL-LOK SETTING TOOLS


H Series



ANCHOR SIZE

- #50HST14 - 1/4"
- #50HST38 - 3/8"
- #50HST12 - 1/2"
- #50HST34 - 3/4"


#555TGL



Hex Drive

for Toggle Series Anchors


#555001



Hex Drive

for all 600 and 610 Series Anchors

#555



Hex Drive

for all "T" Series Anchors

Warranty

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Approval



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