BL-507

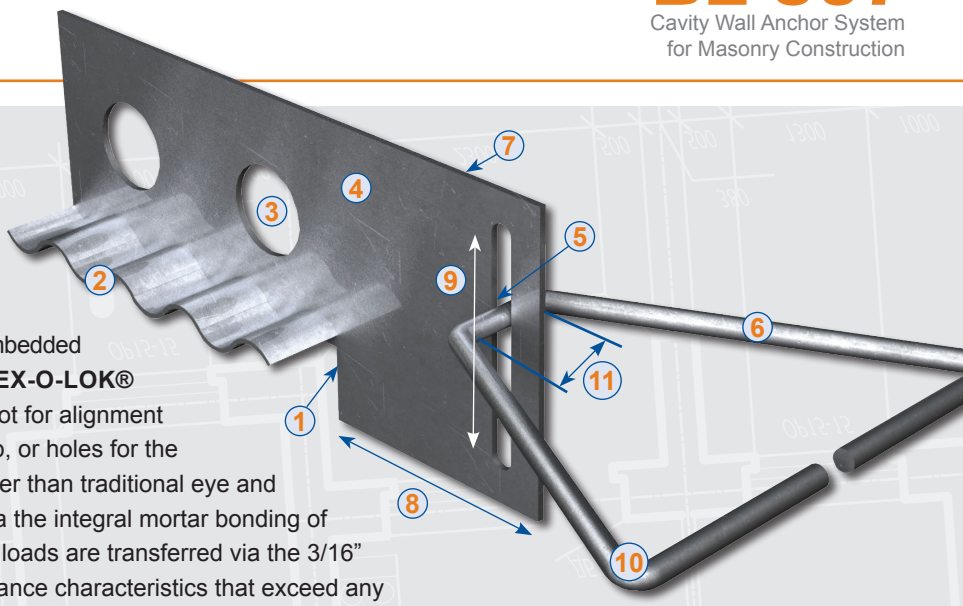
Cavity Wall Anchoring System
for Masonry Construction
from Blok-Lok, Ltd.

A CAVITY WALL ANCHORING SOLUTION TO MAINTAIN AIR BARRIER INTEGRITY

BLOK-LOK
A HOHMANN & BARNARD COMPANY

800-561-3026
www.blok-lok.com

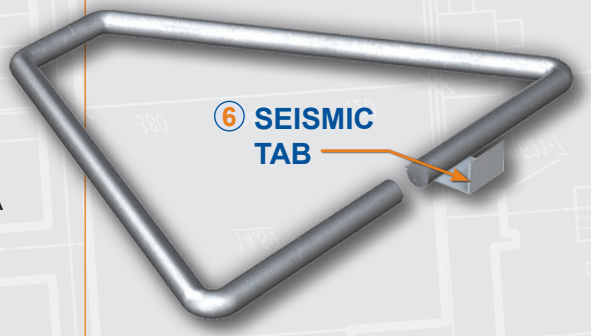
MASONRY CAVITY WALL CONSTRUCTION CAN NOW BE ECONOMICALLY BUILT USING THE **BLOK-LOK BL-507** ADJUSTABLE ANCHOR.



The **BL-507** consists of a one-piece 16 gauge base plate embedded in the masonry back up. It utilizes a 3/16" diameter **FLEX-O-LOK®** tie as a veneer connector. The **BL-507** has a 2" vertical slot for alignment possibilities, which can occur between veneer and backup, or holes for the **BL-507S** shear connector. This system installs much easier than traditional eye and pintle style anchors. The **BL-507** strength is developed via the integral mortar bonding of the plate assembly in the masonry, while the veneer wind loads are transferred via the 3/16" diameter tie. The adjustable system has stiffness performance characteristics that exceed any conventional eye and pintles. As a result, the anchor can be spaced greater than traditional eye and pintle systems. This lessens the risk of moisture infiltration by having less ties that breach the back up and stronger, stiffer ties that minimize veneer deflection. **The use of this tie in reinforced masonry or seismic applications can preclude the use of joint reinforcement in the masonry for shrinkage control by adjusting repair size accordingly.**

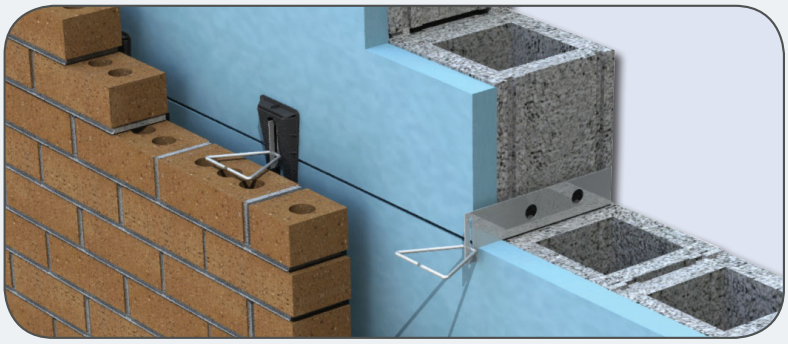
1. **Installation Guide Stop** – Individual anchor placed in mortar is dependable, unlike the cluster of eye and pintle ties that are subject to questionable installation inaccuracies.
2. **Corrugated Mortar Bedding** – Beds effectively in the mortar joint which eliminates pockets of steel build up caused by weld overlaps commonly found with eyes and pintles.
3. **Mortar Keys** – Enhances mortar bonding by providing a key way for mortar engagement.
4. **Plate Square to Back-Up** – Maintains a perpendicular tie arrangement for thorough load transferal.
5. **3.75 mm (0.015 in) Free Play** – Less slop in the wall connection and enhances stiffness.
6. **Flex-O-Lok® Tie** – Standard 4.8 mm (3/16 in) diameter tie provides optimum tension and compression performance by effectively fitting in the mortar joint. **Available with optional seismic tab for adding continuous wire in seismic zones.**
7. **Vertical Edge** – Mortar build up is essentially impossible thereby not creating a moisture bridge between wythes.
8. **Optional Bridge Lengths** – Accommodates various insulation thickness' and wall make ups.
9. **50 mm (2 in) Vertical Adjustability –** Assists the mason to build efficiently without worry of wythe alignment and provides 60% more adjustability than eye and pintle.
10. **Secure Tie Connection** – Will not disengage from back plate, meets ACI and CSA standards requirements.
11. **Differential Movement** – Eliminates in plane wall movement stress build up in the wythes or tie system ±13 mm (1/2") movement.
12. **Wedge-Lok®** – Uses leverage to secure insulation to substrate with no adhesive or screw punctures required, maintaining integrity of the air/vapor barrier and the insulation.

12 WEDGE-LOK®



INSTALLATION OPTIONS

Basic Applicatons



- As a brick veneer anchor to masonry backup.
- As a stone anchor for mortar set stone veneer and masonry backup.
- As an insulated cavity wall brick veneer anchor in lieu of eye and pintles.
- As a composite wall anchor with grouted collar joints in lieu of non-adjustable multiwythe reinforcement.
- As a veneer anchor in lieu of non-adjustable double wythe reinforcement
- As a seismic veneer anchor for any of the above applications.

Wide Cavity Applications

BL-507S Shear Anchor prevents vertical movement of the veneer tie.

- For use with wide cavity or high wind load conditions where shear transfer is an issue.
- Has multiple holes for installing Flex-O-Lok Ties to allow for easy alignment with the veneer wall.
- BL-507S plates have been tested to meet code compliance up to 8 in. long.

Recommended minimum spacing of one tie per 3.5 square feet of wall area, spaced not more than 32” horizontal, and 16” vertical in the U.S.; 800 mm. (32 in.) horizontal x 600 mm. (24 in.) vertical per CSA.

PERFORMANCE CHARACTERISTICS			
Design Parameter	**Hollow 8” Block, Type N Mortar**	**CSA A370-14 Specifications**	**U.S. Standards***
Free play: mm (in)	0.610 mm maximum (0.024 in)	Total Free Play ≤ 1.2 mm (0.048 in)	≤ 1.6 mm (0.063 in)
0.45 KN (101 lb) deflection: mm Free play not included *Free play included	 0.610 mm (0.024 in) 1.080 mm (0.0425 in)	 Sum of displacement Free Play not to exceed 2.0 mm (0.08 in)	 ≤ 1.25 mm (0.05 in) ≤ 0.3 mm (0.118 in)
Recommended design load: KN (lb)	1.00 KN (225 lb)		A) ≤ 25psf (1200Pa)x(spacing area) = 31 kg (68 lb) ***OR*** B) ≤ 2 x 0.35 (spacing area) = 31 kg (189 lb)
Recommended design load - tension Deflection: mm (in) Free play not included	0.700 mm (0.028 in)	 0.84 mm (0.033 in)	A) 0.23 mm (0.009 in) ***OR*** B) 0.61 mm (0.025 in)
Maximum recommended spacing	400 m (16 in) X 800 mm (32 in)	**For non-conventional ties:** 600 mm (24 in) o.c. vertically and 800 mm (32 in) o.c. horizontally except as permitted by CSA standard s304.1	≤ 800 mm (32 in) horizontally ≤ 450 mm (18 in) vertically one tie per 0.25 m^2 (2.7 ft^2)
In-plane differential momentum	± 1/2”		

Notes

1. The tie system recommended design load values were formulated following the procedures of **CSA Standard A370-14 “Connectors for Masonry”.** A safety factor of 2.0 was used to determine the working load as per clause **8.4.3.1.**
2. The above design values are based on test results utilizing a **16 G. T304 ST. Slotted Bracket, and a T304 ST. ST. Flex-O-Lok** tie measuring 4.76 mm (3/16”) in diameter, 80 mm (3 in.) long with 40 mm (1-1/2 in.) long imbedment. A 3” cavity base plate was installed in 8” CMU, Type N Mortar.
3. ***Codes and Standards Compliance:** Meets or exceeds relevant veneered masonry construction sections and recommendations of the following Building Code Requirements and Building Standards:
   - CSA Standard A370-14, Connectors for Masonry
   - ACI 530-11/ASCE 5-11/TMS 402-11 Building Code Requirements for Masonry Structures
   - International Building Code 2012

ORDERING INFORMATION

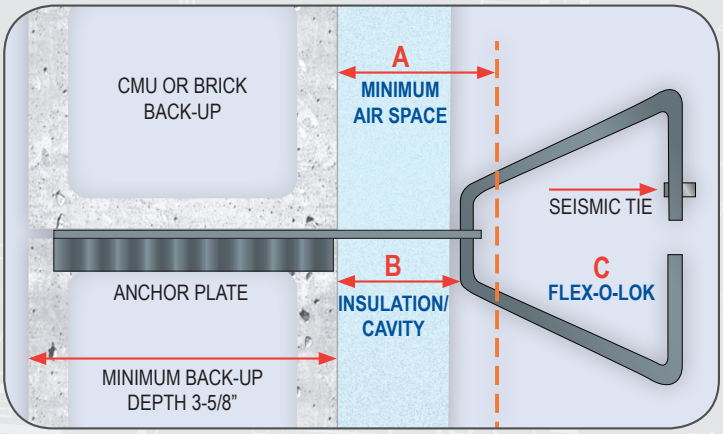
Specifications

BL-507 Base Plate

Carbon Steel - 16 guage (1.46 mm) thick carbon steel per ASTM A 366; **Hot Dip Galvanized** (H.D.G.) per ASTM A153, C1 B2; or Stainless Steel - 16 guage (1.8 mm) thick Type 304 **Stainless Steel** (S.S.) Plate per ASTM 167.

Flex-O-Lok® Tie and Seismic Tie

4.76mm (3/16") Diametr Wire, Carbon Steel per ASTM A 82, **Hot Dipped Galvanized** (H.D.G.) per ASTM A153, C1 B2 or **Stainless Steel** (S.S.) Type 304 per ASTM A580



BASE PLATE ORDERING CHART			
Wall Cavity Conditions		Product Selection	
Minimum Air Space	Insulation	H.D.G. with 4" Block Back-Up	S.S. with 4" Block Back-Up
A	B		
3/4"	0"	5072404	5075404
1-1/2"	≤ 1"	50724114	50754114
2"	≤ 1-1/2"	507241514	507541514
2-1/2"	≤ 2"	50724214	50754214
3"	≤ 2-1/2"	507242514	507542514
3-1/2"	≤ 3"	50724314	50754314
4"	≤ 3-1/2"	507243514	507543514
4-1/2"	≤ 4"	50724414	—

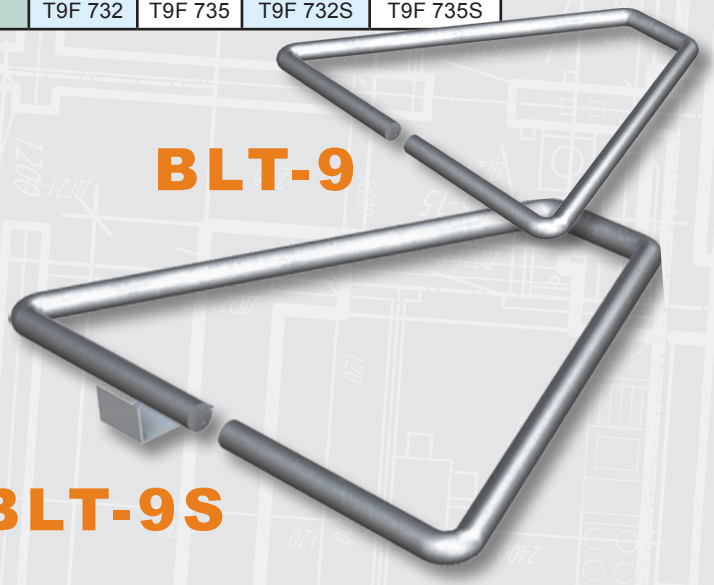
FLEX-O-LOK® ORDERING CHART				
Length C	Standard		Seismic	
	H.D.G.	S.S.	H.D.G.	S.S.
3"	T9F 332	T9F 335	T9F 332S	T9F 335S
4"	T9F 432	T9F 435	T9F 432S	T9F 435S
5"	T9F 532	T9F 535	T9F 532S	T9F 535S
6"	T9F 632	T9F 635	T9F 632S	T9F 635S
7"	T9F 732	T9F 735	T9F 732S	T9F 735S

Warranty

Seller makes no warranty of any kind, expressed or implied, except that the goods sold under this agreement shall be of the standard quality of the seller, and buyer assumes all risk and liability resulting from the use of the goods, whether used singly or in combination with other goods. Seller neither assumes nor authorizes any person to assume for seller any other liability in conjunction with the sale or use of the goods sold, and there is no oral agreement or warranty collateral to or affecting this transaction.

Warning

The information contained in this publication does not constitute any professional opinion or judgement and should not be used as a substitute for competent professional determinations. Each construction project is unique and the appropriate use of this product is the responsibility of the engineers, architects, and other professionals who are familiar with the specific requirements of the project.



BLOK-LOK

A DIVISION OF HB

BLOK-LOK, LTD.
12 Ashbridge Circle | Woodbridge, ON L4L 3R5
PHONE: (905) 266-2277 | **FAX:** (905) 26-2272
EMAIL: sales@blok-lok.com | **www.blok-lok.com**

HOHMANN & BARNARD, INC.
30 Rasons Court | Hauppauge, NY 11788
PHONE: (631) 234-0600 | **FAX:** (631) 234-0683
EMAIL: weanchor@h-b.com | **www.h-b.com**