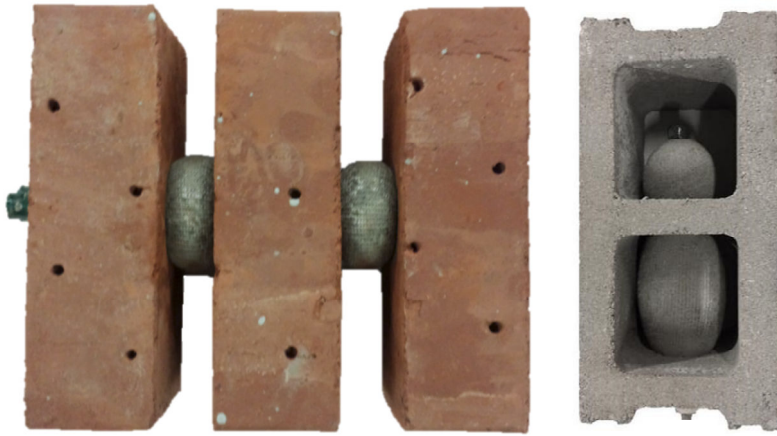


GRUENSTARK Masonry Fabric Anchor System



Product Description

The GRUENSTARK Masonry Fabric Anchor System is the most sophisticated heritage anchoring system on the market today. Incorporating superior craftsmanship, specially designed fabric components, compatible injection materials, and advanced customization options for design professionals, the GRUENSTARK anchorage line provides maximum security for heritage masonry structures. GRUENSTARK's fabric anchors are thoroughly proven in the field, with thousands utilized on critical preservation and enhancement projects around the globe. Installation is straight forward and minimally invasive. Even with its many advantages, this GRUENSTARK anchorage line is often more than competitive when compared to the costs of other systems. For more information on these or any other GRUENSTARK anchoring systems, please contact Masonry Solutions International sales and estimating department at (877) 815-7906.



LEARN ABOUT THE TAPER-LOK™ CONNECTION

From Masonry Solutions International comes the TAPER-LOK™, the most advanced form of anchor connection in the world of masonry anchorage. Utilizing a unique geometric locking feature, the Taper-Lok™ system creates an enhanced connection within masonry, giving design professionals the means to achieve more security with less anchor. Available on the TL line of GRUENSTARK anchorage.

PERFORMANCE CHARACTERISTICS

Advanced design

Utilizing superior attachments and fabric bonding agents for unsurpassed quality

Corrosion resistant

High quality stainless steel provides long term protection from corrosive elements

Premium fabric components

Specially manufactured fabric conforms and bonds to inner wall geometry more securely

Superior craftsmanship

Every GS anchor is built by MSI certified anchor specialists

Custom designs available

Anchor specialists work with you to achieve the exact anchor your project requires

Proven anchoring power

Thousands utilized in major projects across the globe

ADDITIONAL BENEFITS OF THE TAPER-LOK™ CONNECTION

Enhanced Capacity

Up to 50% stronger

Reliability

Not dependent on the quality of bond at the masonry interface

Versatility

Develops anchor capacity in less embedment depth

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MODEL DATA & SPECIFICATIONS

Allowable Tension and Shear Loads for SL Anchorage in Multi-Wythe Brick Walls

Anchor Model	Anchor Diameter	Min. Core Hole Dia.	Embedment Length	Ultimate Tension Load (lbs.)	Allowable Tension Load (lbs.)	Ultimate Shear Load (lbs.)	Allowable Shear Load (lbs.)
SL-10	1/4"	1/2"	6"	1100*	220	665*	135
			10"	1100*	220	665*	135
SL-12	3/8"	1/2"	6"	1400	280	1500*	300
			10"	2300	460	1500*	300
SL-16	1/2"	1"	6"	2675	535	2650*	530
			10"	4400*	885	2650*	530
SL-20	3/4"	2"	6"	2675	535	5010	1000
			10"	4560	910	5010	1000

Allowable Tension and Shear Loads for TL Anchorage with Taper-Lok™ in Multi-Wythe Brick Walls

Anchor Model	Anchor Diameter	Min. Core Hole Dia.	Embedment Length	Ultimate Tension Load (lbs.)	Allowable Tension Load (lbs.)	Ultimate Shear Load (lbs.)	Allowable Shear Load (lbs.)
TL-10	1/4"	1/2"	6"	1100*	220	665*	135
			10"	1100*	220	665*	135
TL-12	3/8"	1/2"	6"	2420	485	1500*	300
			10"	2480*	500	1500*	300
TL-16	1/2"	1-1/4"	6"	3790	760	2650*	530
			10"	4420*	885	2650*	530
TL-20	3/4"	2-1/4"	6"	3790	760	5010	1000
			10"	4840	965	5010	1000

1. Allowable loads are computed using a safety factor of 5.
2. All values based on masonry compressive strength of 660 psi or greater and UNS 304 Stainless Steel. ($F_y = 30$ Ksi)
3. All values are based on anchors injected with MSI 090-508 CIF.
4. Tabulated values are for single anchors installed in the face of the wall and in the center of a brick.
5. Minimum anchor edge distance equal to anchor embedment length.
6. Minimum anchor spacing equal to two times anchor embedment length.
7. *Load capacity governed by steel yielding.

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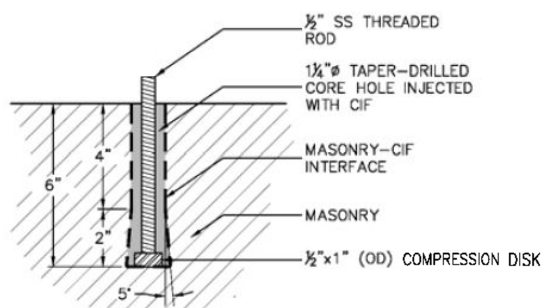
Additional Details:

GRUENSTARK masonry fabric anchorage is stocked in Type 304 stainless steel, with lengths of up to 20 feet. Accessories such as couplers and plates are sold separately. Individual scratch-resistant packaging is available upon request. Compatible injection materials are included with GRUENSTARK fabric anchors unless otherwise specified. For more information on compatible injection materials, please refer to the MSI CIF datasheet. Custom design anchors, accessories, alterations, and injection materials are available through Masonry Solutions International upon request.

Installation:

Installation guide for specific model is included with order delivery. Only certified GRUENSTARK installers are recommended to install GRUENSTARK anchoring products. For more details on how to become a certified installer, please contact Masonry Solutions International.

Typical Installation (TL-16):



Compatible Injected Fill (CIF):

Gruenstark fabric anchors include Compatible Injected Fill, or CIF; a customized, fluid injection material designed to be compatible with the host wall and to meet or exceed project requirements. Stock materials range in compressive strength from 300-7000 psi and are tested rigorously in accordance with a range of standards, including ASTM C1019 Standard Test for the Sampling and Testing of Grout, ASTM C840 Expansion and Bleeding of Freshly Mixed Grouts, ASTM C666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing, and California Shear Test 644 for Shear Strength of Brick Cores.

SAFETY NOTES:

All anchorage and CIF must be kept in a clean, dry condition to guarantee proper bond.

Safety goggles and gloves must be worn at all times handling or installing GRUENSTARK anchors and CIF.

Carefully inspect all anchors before installing to ensure no damage has occurred.

Follow all manuals and instructions while performing installation.

Dispose of any materials in accordance with all state and federal regulations.

A complete set of safety instructions is available through Masonry Solutions International.