



PROSOCO

STONE GRIP-TIE

Reanchor stone/precast panels and thin masonry veneers

Use where there is a need to reattach existing stone and precast veneers that require additional restraint, or support, to resist live and dead loads. Stone Grip-Ties can accommodate bilateral live-load resistance, uni-directional forces, support loading, and combinations of all types. The backup material will determine the style of anchorage required.



**STRONG CONNECTION
BETWEEN FACADE AND
BACKUP**



**EASY & FAST
INSTALLATION**



**REPAIRS ARE
ALMOST INVISIBLE**



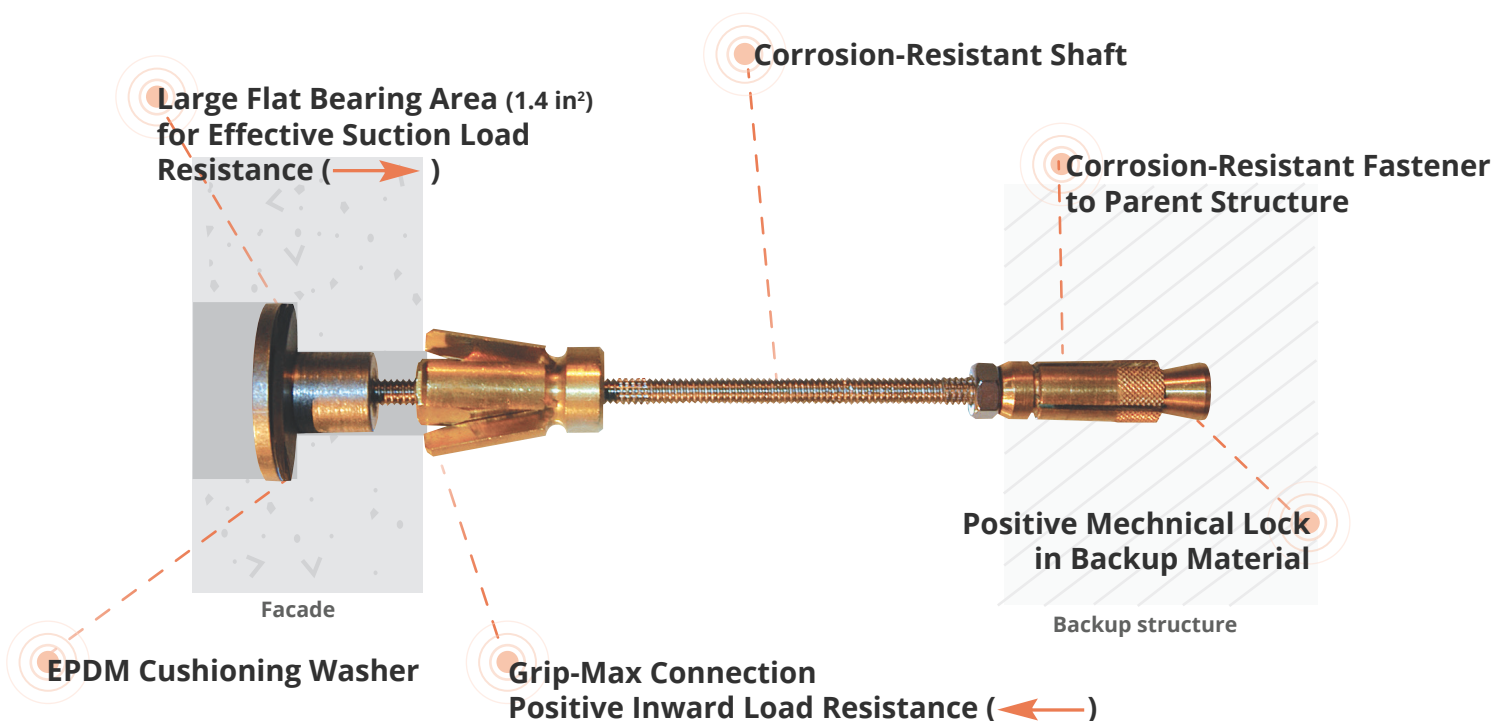
**NO GROUT/EPOXY RESINS
ARE REQUIRED**



**FORCEFULLY GRIPS
THE MASONRY**



**ADAPTABLE TO VARIOUS
SITE CONDITIONS**





STONE GRIP-TIE

Reattaches Existing Stone and Precast Panel Veneers Without Removal or Resetting

Overview

Stone and precast panel veneers may become unstable and possibly life-threatening in the event of a connection failure. This failure can be the result of inadequate ties when built; existing material or anchor quality issues; the rusting or oxidation of existing anchors; or the delaminating of composite panels. A reanchoring solution is possible using retrofit anchors that would preclude the removal and resetting of the panel. The functional and performance characteristics of various retrofit anchors must be capable of fulfilling typical anchorage expectations. The Stone Grip-Tie product line offers those solutions.

Regardless of the panel type on the building envelope, it is subjected to two types of forces: Dead Loads – induced by gravity, and Live Loads – resulting commonly from wind and other external forces. Retrofit anchors may be required to “support” dead loads and/or “resist” live loads. Their selection depends on assessing the qualitative and quantitative characteristics they provide.

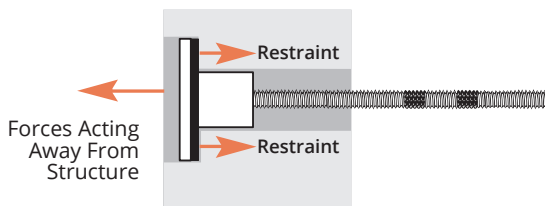
Stone Grip-Ties are the solution for reanchoring unstable dimensional stone and precast panel facades. The anchors provide a positive means to reanchor to the parent structure. The anchors are manufactured of corrosion-resistant materials for ultimate long-term performance and dependability. The functional and performance characteristics of the various ties are capable of fulfilling typical panel anchoring expectations for “live” or “dead” loads. The anchors have been engineered to reattach the veneer panel to backup structures constructed of either concrete, brick, masonry, structural steel, and wood/steel stud materials without the costly removal and resetting of the panels. The retrofit connections can be concealed with like-material Dutchmen or plugs, or it can be aesthetically exposed to create a new look for the building. The Stone Grip-Tie product line provides cost-effective solutions to removing and replacing existing stone and precast panel veneers.

Performance

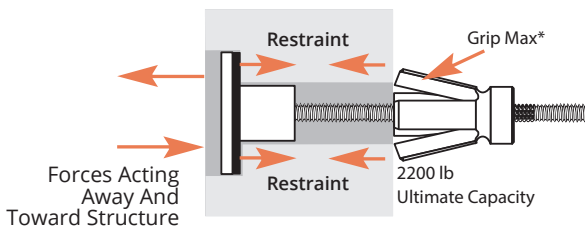
Each construction site is unique and the appropriate use of this product is the responsibility of the engineers, architects, and other professionals who are familiar with the specific requirements of the project. The data reflects results of lab, field and in-house tests and are provided as a guideline for the designer. Site testing is encouraged for verification of load capacity.

DIFFERENT TYPES OF STONE GRIP APPLICATIONS

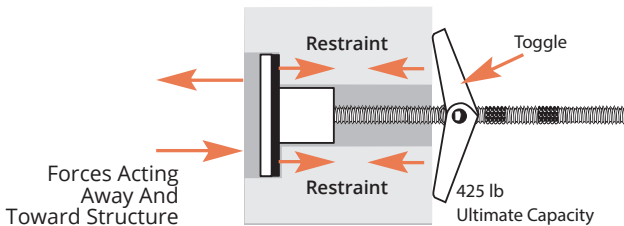
Anchor components are manufactured of austenitic stainless steel and corrosion-resistant brass materials. The anchors are capable of reattaching stone panels for the following typical applications:



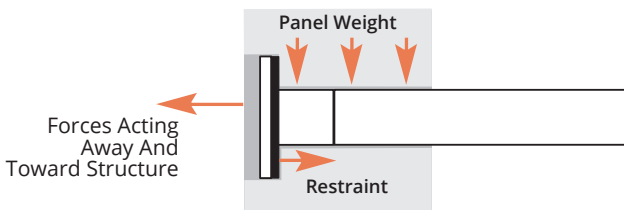
Type 1 Wind load restraint for one direction (i.e. suction or movement away from the structure) loading.



Type 2 Wind load restraint for dual direction (i.e. suction and compression wind effects) loading. 2200 lb Ultimate Capacity



Type 2LD Light-duty wind load restraint for dual direction (i.e. suction and compression wind effects) loading. 425 lb Ultimate Capacity



Type 3 Wind load restraint for one direction (i.e. suction or movement away from the structure) loading and panel support to solid backup.

PRODUCT SERIES OVERVIEW OF STONE GRIP-TIES

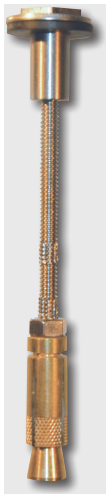
The Stone Grip-Tie anchoring system by PROSOCO is a mechanical anchoring method to reattach existing stone and precast cladding veneers to various backup materials. Cladding materials can be as thin as 20mm and be manufactured from:

Granite • Marble • Travertine • Limestone • Sandstone • Precast Concrete • Terra Cotta • Stucco

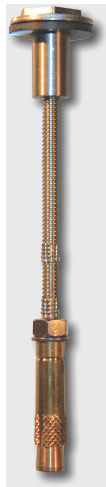
Type 1 Anchors

Wind Restraint
One Direction Stone Wind Load

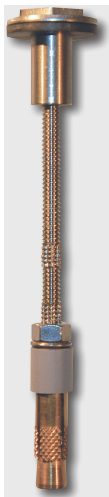
**6000
1 SERIES**
Solid Backup



**6100
1 SERIES**
Hollow Backup



**6200
1 SERIES**
Structural Steel
Backup



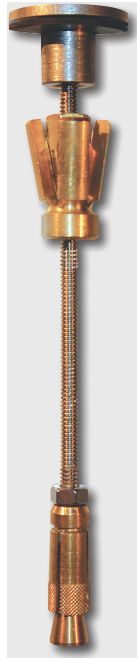
**6300
1 SERIES**
Metal/Wood Stud
Backup



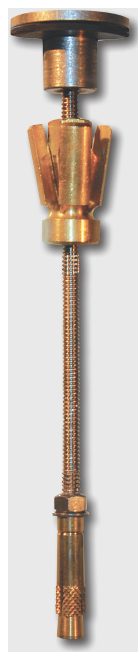
Type 2 Anchors

Wind Restraint
Two Direction Stone Wind Load

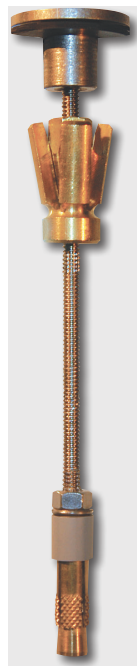
**6000
2 SERIES**
Solid Backup



**6100
2 SERIES**
Hollow Backup



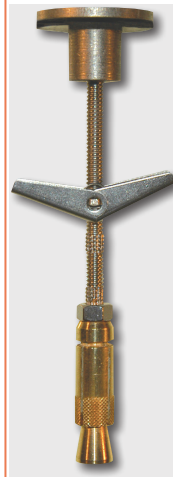
**6200
2 SERIES**
Structural Steel
Backup



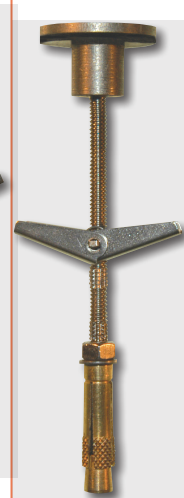
Type 2 Light-Duty Anchors

Wind Restraint
Two Direction Stone Wind Load

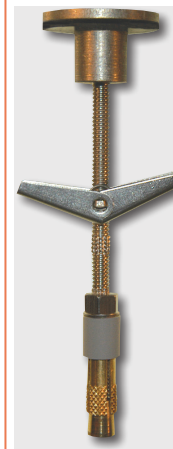
**6000
2LD SERIES**
Solid Backup



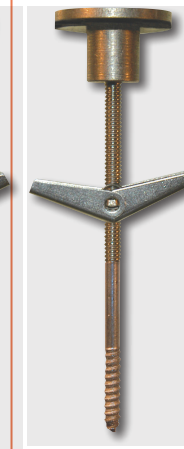
**6100
2LD SERIES**
Hollow Backup



**6200
2LD SERIES**
Structural Steel
Backup



**6300
2LD SERIES**
Metal/Wood Stud
Backup



Type 3 Anchors

Wind Restraint
One Direction Stone Wind Load
and Gravity Support

**6500-3 Series (1/2")
6600-3 Series (3/8")**
Torque Activated
Solid and Hollow Backup*



**6800-3 Series (3/4")
Hammer Set**
Solid Backup



*For hollow backup, please contact customer care or your local PROSOCO representative for additional engineering support

Ultimate Tension (outward) Load Capacity (lb/anchor)							
Anchor Series							
Backup Material	Restrain Stone Panel to Solid Backup	Restrain Stone Panel to Solid and Hollow	Restrain Stone Panel to Steel Backup	Restrain Stone Panel to Stud Backup	Torque activated for Stone panel support and Wind Load Restraint		Hammer Set to Stabilize Stone Panel Wind Restraint (one-direction and Gravity Support)
	6000 Type 1,2, & 2LD	6100 Type 1,2, & 2LD	6200 Type 1,2, & 2LD	6300 Type 1,2, & 2LD	Anchor Shaft Diameter		Anchor Shaft Diameter
					6500 Series (1/2")	6600 series (3/8")	6800 series (3/4")
4" Hollow CMU		920					
8" Hollow CMU		1558					
8" Grouted CMU	3733	2538			3733	2538	4000
Concrete (3500psi)	2864	2013			2864	2013	7500
Concrete (7500psi)	3882	3377			3882	3377	
Solid Brick	1500	1200			1500	1200	
Clay Tile		700	700				
Wood Kiln Dried 2x4 Stud				840			
16-Gauge Metal Stud				835			
Steel		2000	2000			2000	

TYPE 2 & 2LD SERIES SHAFT BUCKLING STRENGTH*

Unsupported Distance**							
Shaft Diameter	1"	2"	3"	4"	5"	6"	10"
1/4"	1649 lbs	1575 lbs	1459 lbs	1311 lbs	1143 lbs	966 lbs	363 lbs

*Note: Values calculated analytically with PROSOCO's minimum required $F_y = 60$ ksi, an assumed values of $E = 27600$ ksi for Type 304 SS, $K=0.7$ for the column buckling behavior, and an applied factor of $\phi_c = 0.9$.

**Note: Unsupported distance of the anchors varies depending on the wall composition and location of the toggle or Grip-Max. Please contact customer care or your local PROSOCO representative for additional engineering support.

GRAVITY LOADING STRENGTH PROPERTIES

Shaft Diameter	Shear Strength*	Bending Capacity*	Material Type**
1/4"	1200 lbs	87 in-lbs (7 ft-lb)	AISI Type 304 SS
3/8"	3580 lbs	447 in-lbs (37 ft-lb)	AISI Type 303 SS
1/2"	6360 lbs	1060 in-lbs (88 ft-lb)	AISI Type 303 SS
3/4"	7160 lbs	1789 in-lbs (149 ft-lb)	AISI Type 303 SS

*Note: Values calculated analytically with PROSOCO's minimum required $F_y = 60$ ksi (for 1/4", 3/8", and 1/2" shafts), $F_y = 30$ ksi for 3/4" shafts, an assumed $E = 27600$ ksi, an applied factor of $\phi_b = 0.9$, and an applied factor of $\phi_v = 0.9$. Additionally, in some gravity loading scenarios, deflection criteria can govern, please contact customer care or your local PROSOCO representative for additional engineering support.

**Note: Alternate materials, such as AISI Type 316 SS available upon request.



JOHN

Field Support

Our on-site service includes troubleshooting, training and installation support.



JEFF

Engineering Support

Engineering details and personalized solutions for your specific needs.



You. Us. The project.

We strive to provide the best construction products on the market, but we also know this business is about people. That's why we dedicate our human resources and services to make your job easier. Our nationwide network of sales representatives is here to do whatever we can to help solve your job-site problems.

COLLEEN

Customer Care

We're real live people who answer the phones!
Really. We're here M-F, 8a-5p, CST.



BRIAN

Field Support

We come to you to support your projects
when and where you need us.



New life for your masonry

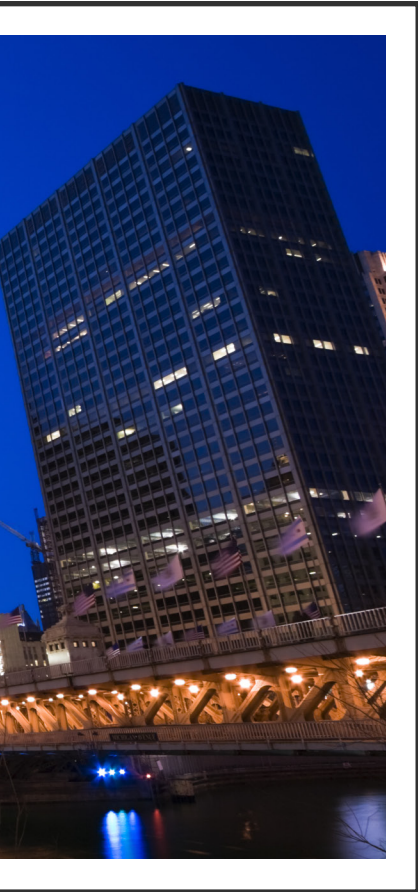
We help architects, engineers, contractors & owners return existing buildings to serviceability and ensure the stability of new buildings. Let us help save the wall of your next new construction or retrofit project.

Reanchoring to metal stud





Historic limestone repair



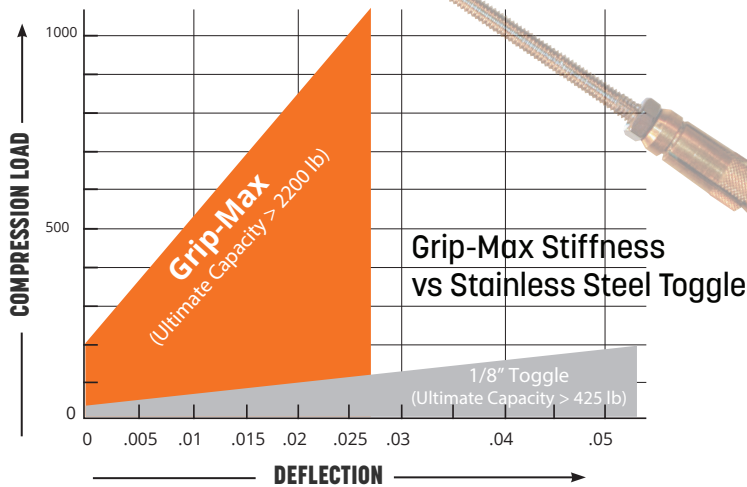
Reanchoring terra cotta

WHAT MAKES THE STONE GRIP DIFFERENT?

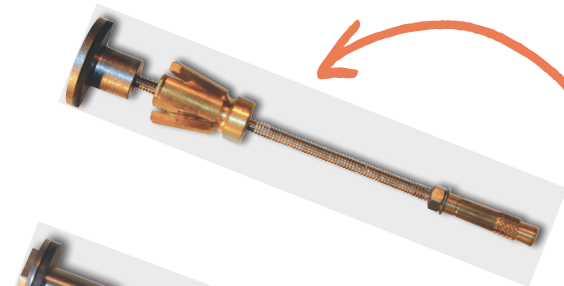
Grip-Max

Recaptures Stone to Structure

- Adaptable to Variable Site Conditions
- Inspection Quality Control
- Monitor Anchorage Performance Over Time

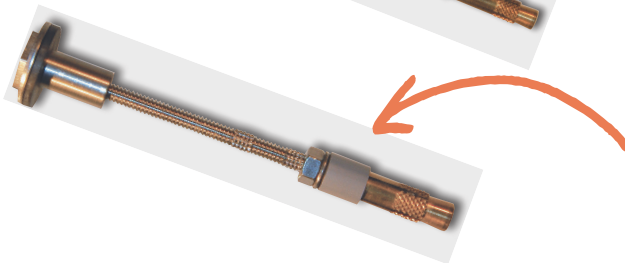


ULTIMATE COMPRESSION (INWARD) LOAD CAPACITY



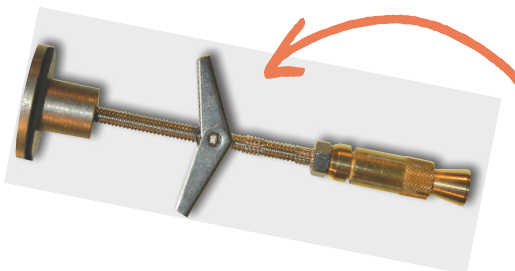
Grip-Max = 2200lbs

Use with 6000-2, 6100-2, 6200-2



Steel Connection = 730lbs

Use with 6200-2, 6200-2LD



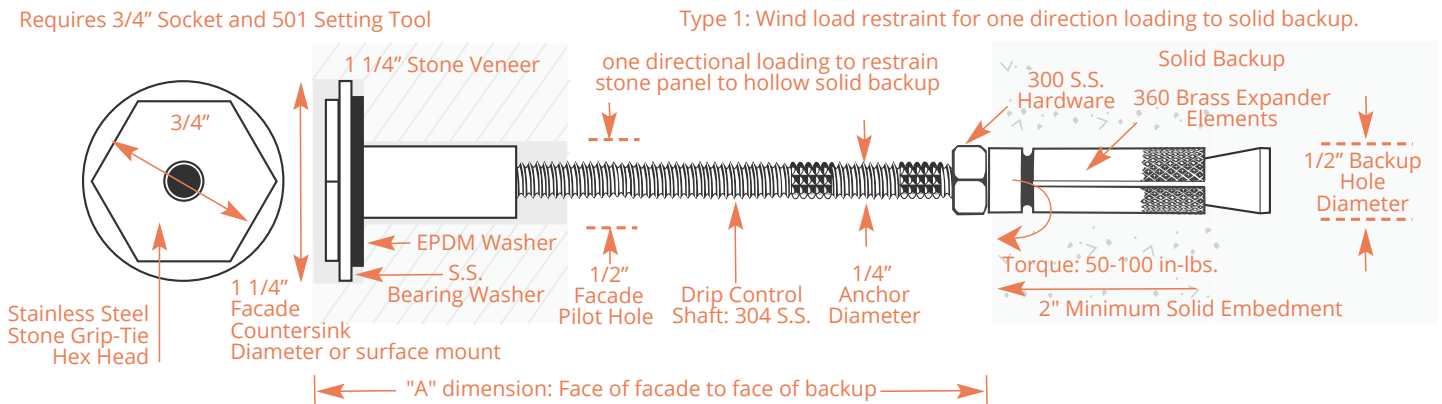
SS Toggle = 425lbs

Use with 6000-2LD, 6100-2LD, 6200-2LD, 6300-2LD

TYPE 1 ANCHORS

WIND RESTRAINT; ONE DIRECTION STONE WIND LOAD

6000-1 Series Anchor



1. Locate anchor placement per specified location.
2. Drill 1/2" diameter hole through the stone with a suitable "stone-drilling" drill bit, without percussion.
3. Using a suitable 1/2" diameter quality carbide, drill a 1/2" hole into the solid backup, on center with the 1/2" facade hole, 2" deeper than the "A" dimension as measured from the face of the stone. Blow out drill fines.
4. For a counter sink finish, on center with the 1/2" drilled hole, drill a counter-bore 1-1/8" minimum diameter hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft without head to the Grip-Tie 501 Setting Tool; slide assembly through the drilled holes until the expansion anchor bottoms in the concrete drilled hole; tighten by turning clockwise until 50-100 in-lbs of torque is reached; remove setting tool.
6. Attach Stone Grip Hex-Tie Head and washer with EPDM washer to the anchor shaft using an appropriate hex socket, hand-tighten clockwise until the washer and head bottom out into the counter-bore, tighten 20 - 25 in-lbs; remove tool.
7. Installation complete, patch or conceal anchorage per specification requirements.

CATALOG #	ANCHOR SHAFT LENGTH	A
62300-112N350	3.5"	1-5/8" - 2-7/8"
62300-112N400	4"	2-1/8" - 3-3/8"
62300-112N450	4.5"	2-5/8" - 3-7/8"
62300-112N550	5.5"	3-5/8" - 4-7/8"
62300-112N650	6.5"	4-5/8" - 5-7/8"

other lengths available upon request

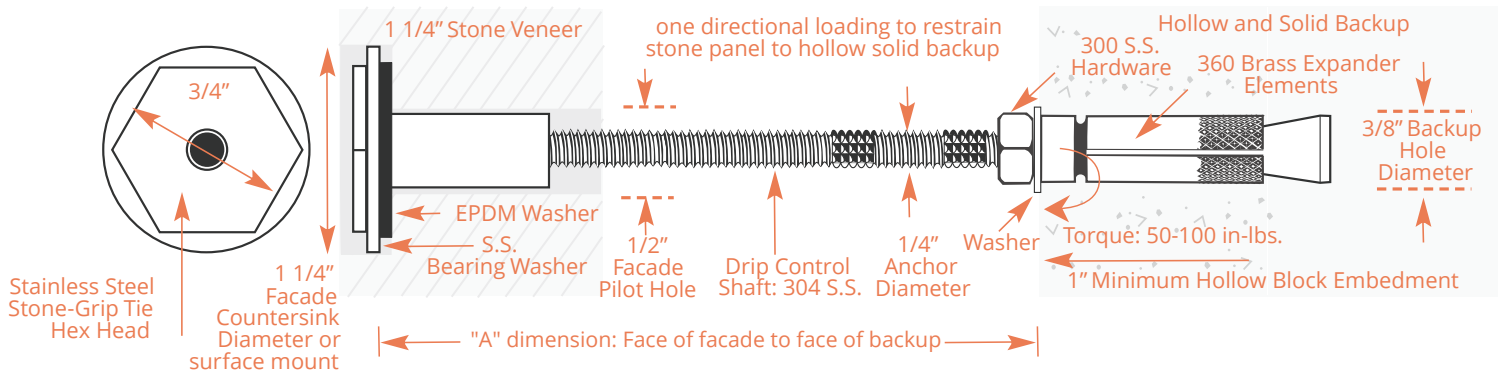
TYPE 1 ANCHORS

WIND RESTRAINT; ONE DIRECTION STONE WIND LOAD

6100-1 Series Anchor

Type 1: Wind load restraint for one direction loading to hollow and solid back-up.

Requires 3/4" Socket and Grip-Tie 501 Setting Tool



1. Locate anchor placement per specified location.
2. Drill 1/2" diameter hole thru the stone with a suitable "stone drilling" drill bit, without percussion.
3. Using a suitable 3/8" diameter quality drill bit, drill a 3/8" hole into the hollow backup, on center with the 1/2" facade hole.
4. For a counter sink finish, on center with the 1/2" drilled hole, drill a counter-bore 1-1/8" minimum diameter hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft without head to the Grip-Tie 501 Setting Tool; slide assembly through the drilled holes until the expansion anchor bottoms to the face of hollow backup; tighten by turning clockwise until 50-100 in-lbs of torque is reached; remove setting tool.
6. Attach Stone Grip-Tie Hex Head and washer with EPDM washer to the anchor shaft using an appropriate hex socket, hand-tighten clockwise until the washer and head bottom out into the counter-bore, tighten 20 - 25 in-lbs; remove tool.
7. Installation complete, patch or conceal anchorage per specification requirements.

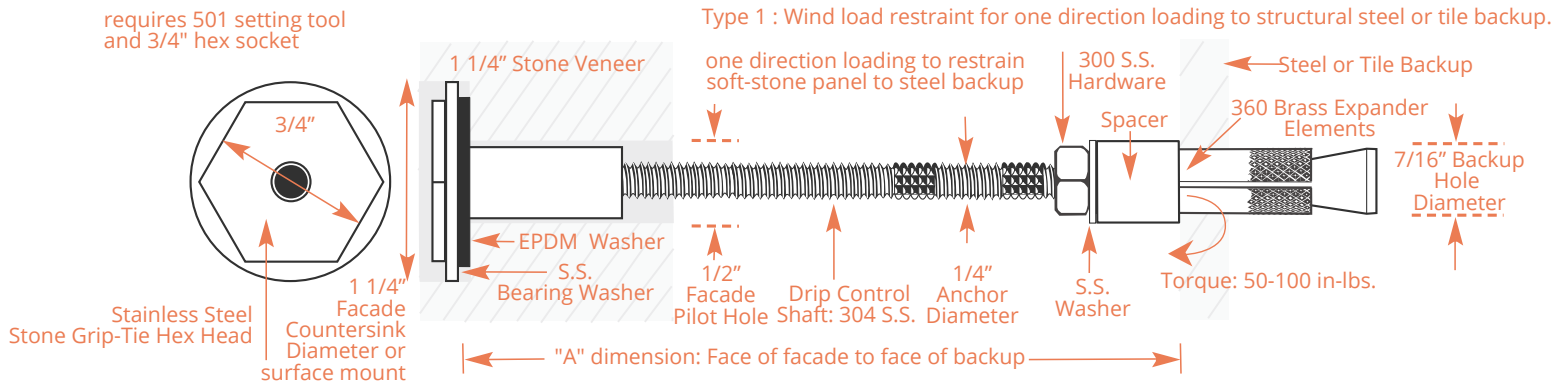
CATALOG #	ANCHOR SHAFT LENGTH	A
62315-150N350	3.5"	1-7/8" - 3"
62315-150N400	4"	2-3/8" - 3-1/2"
62315-150N450	4.5"	2-7/8" - 4"
62315-150N550	5.5"	3-7/8" - 5"
62315-150N650	6.5"	4-7/8" - 6"

other lengths available upon request

TYPE 1 ANCHORS

WIND RESTRAINT; ONE DIRECTION STONE WIND LOAD

6200-1 Series Anchor



1. Locate anchor placement per specified location.
2. Drill 1/2" diameter hole through the stone with a suitable "stone drilling" drill bit, without percussion.
3. Using a suitable 7/16" diameter quality drill bit, drill a 7/16" hole into the steel backup, on center with the 1/2" facade hole.
4. For a counter sink finish, on center with the 1/2" drilled hole, drill a counter-bore 1-1/8" minimum diameter hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft without head to the Grip-Tie 501 Setting Tool; slide assembly with the nylon spacer through the drilled holes until the expansion anchor bottoms to the backup; tighten by turning clockwise until 50-100 in-lbs of torque is reached; remove setting tool.
6. Attach Stone-Grip Hex Tie Head and washer with EPDM washer to the anchor shaft using an appropriate hex socket, hand-tighten clockwise until the washer and head bottom out into the counter-bore, tighten 20 - 25 in-lbs; remove tool.
7. Installation complete, patch or conceal anchorage per specification requirements.

CATALOG #	ANCHOR SHAFT LENGTH	A
62330-112N350	3.5"	2-1/4" - 3-3/8"
62330-112N400	4"	2-3/4" - 3-7/8"
62330-112N450	4.5"	3-1/4" - 4-3/8"
62330-112N550	5.5"	4-1/4" - 5-3/8"
62330-112N650	6.5"	5-1/4" - 6-3/8"

other lengths available upon request

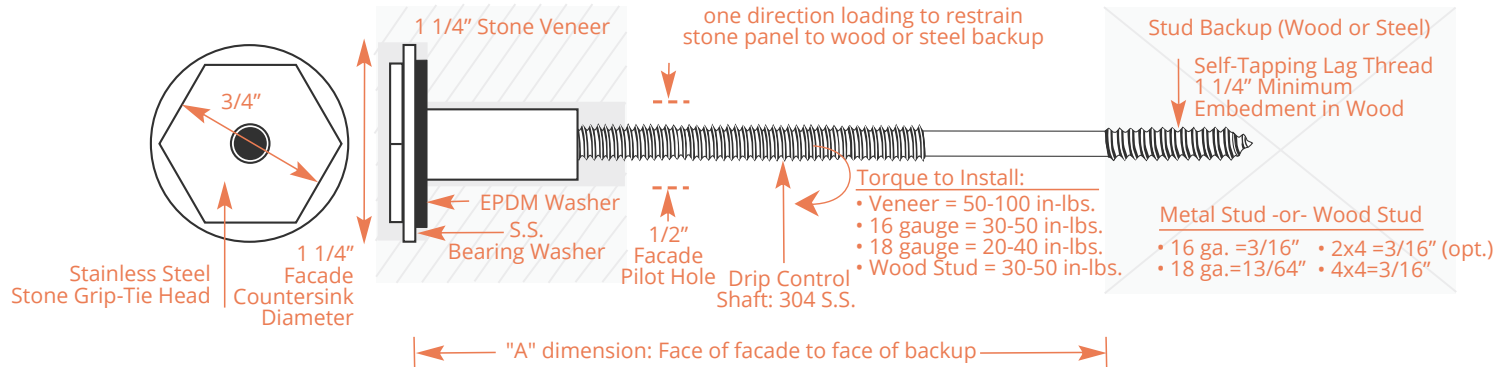
TYPE 1 ANCHORS

WIND RESTRAINT; ONE DIRECTION STONE WIND LOAD

6300-1 Series Anchor

Requires 3/4" Socket and Grip-Tie 501 Setting Tool

Type 1 : Wind load restraint for uni-directional loading to wood or steel stud backup.



1. Locate anchor placement per specified location.
2. Drill 1/2" diameter hole through the stone with a suitable "stone drilling" drill bit, without percussion.
3. Using a suitable twist drill per the diameter illustrated drill a pilot hole into the backup, on center with the 1/2" facade hole.
4. For a counter sink finish, on center with the 1/2" drilled hole, drill a counter-bore 1-1/8" minimum diameter hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft without head to the Grip-Tie 501 Setting Tool; slide assembly through the drilled holes until the shaft bottoms in the backup stud or reaches the minimum embedment in wood.; tighten to desired torque; remove setting tool.
6. Attach Stone Grip-Tie Hex Head and washer with EPDM washer to the anchor shaft using an appropriate hex socket, hand-tighten clockwise until the washer and head bottom out into the counter-bore, tighten 20 - 25 in-lbs; remove tool.
7. Installation complete, patch or conceal anchorage per specification requirements.

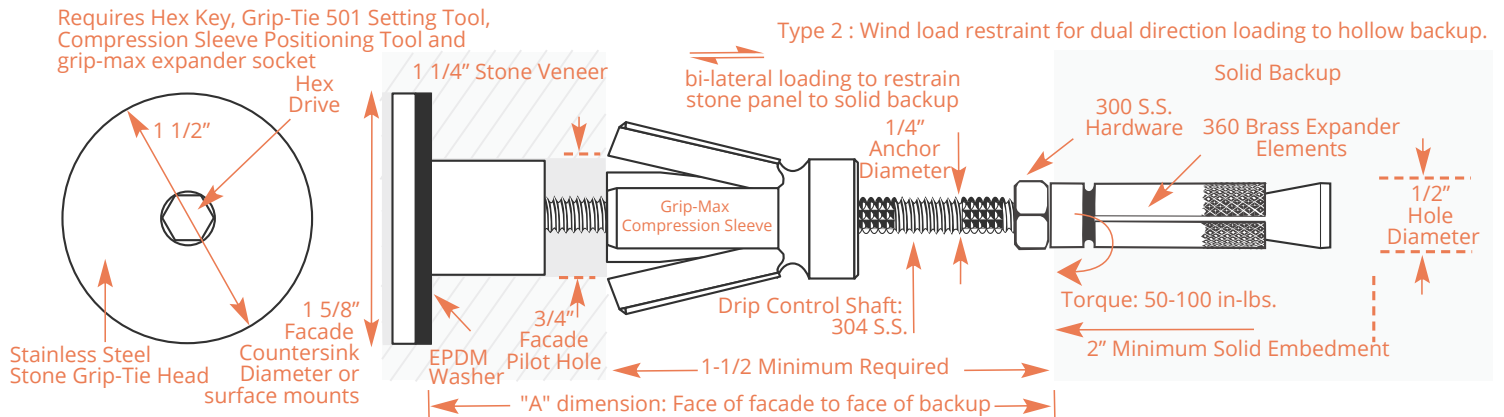
CATALOG #	ANCHOR SHAFT LENGTH	A
62330-112N350	3.5"	2-1/4" - 3-1/2"
62330-112N400	4"	2-3/4" - 4"
62330-112N450	4.5"	3-1/4" - 4-1/2"

other lengths available upon request

TYPE 2 ANCHORS

WIND RESTRAINT; DUAL DIRECTION STONE WIND LOAD

6000-2 [w/ Grip-Max] & 2LD [w/ SS Toggle] Series Anchor



1. Locate anchor placement per specified location.
2. Drill 3/4" diameter hole through the stone with a suitable "stone drilling" drill bit, without percussion.
3. Using a suitable 1/2" diameter quality carbide, drill a 1/2" hole into the solid backup, on center with the 3/4" facade hole, 2" deeper than the max "A" dimension as measured from the face of the stone. Blow out drill fines.
4. For a counter sink finish, counter-bore a 1-1/2" – 1-5/8" hole into the stone facade 3/8" – 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft with the Grip-Max compression sleeve or SS Toggle (located approximately 1" – 2" from the anchor shaft end) to the Grip-Tie 501 Setting Tool; slide assembly through the drilled holes until the expansion anchor bottoms in the concrete drilled hole; tighten by turning clockwise until 50 – 100 in-lbs of torque is reached; remove setting tool.
6. When using the Grip-Max Compression Sleeve: Activate the Grip-Max using the Grip-Max Expansion Socket, expand the compression sleeve by engaging the Grip-Max Socket to the brass hex expander cone and expand the sleeve by turning the cone 6-10 turns. Remove socket
- 6a. For the Grip-Max: Using the twin tang "Compression Sleeve" positioning tool, slide prong of tool into the slot of the expanded sleeve until contact is made. Rotate counter-clockwise the assembly until contact is made to the back of the stone veneer plus 1/4 turn; remove the positioning tool.
7. For the toggle: Using the toggle positioning tool, slide tool into the channel section of sprung-open toggle until contact is made. Rotate toggle counter-clockwise until contact is made to the back of the stone veneer plus 1/4 turn; remove the positioning tool.
8. Attach Stone-Grip head with EPDM washer to the anchor shaft using the 'T' handle hex wrench, rotate clockwise until the washer and head bottom out into the counter-bore, tighten 20 – 25 in-lbs; remove tool.
9. Installation complete, patch or conceal anchorage per specification requirements.

CATALOG #		ANCHOR SHAFT LENGTH	A
Grip-Max	Toggle		
62305-112N450	62310-150N450	4.5"	3" – 4"
62305-112N550	62310-150N550	5.5"	4" – 5"
62305-112N650	62310-150N650	6.5"	5" – 6"
62305-112N750	62310-150N750	7.5"	6" – 7"

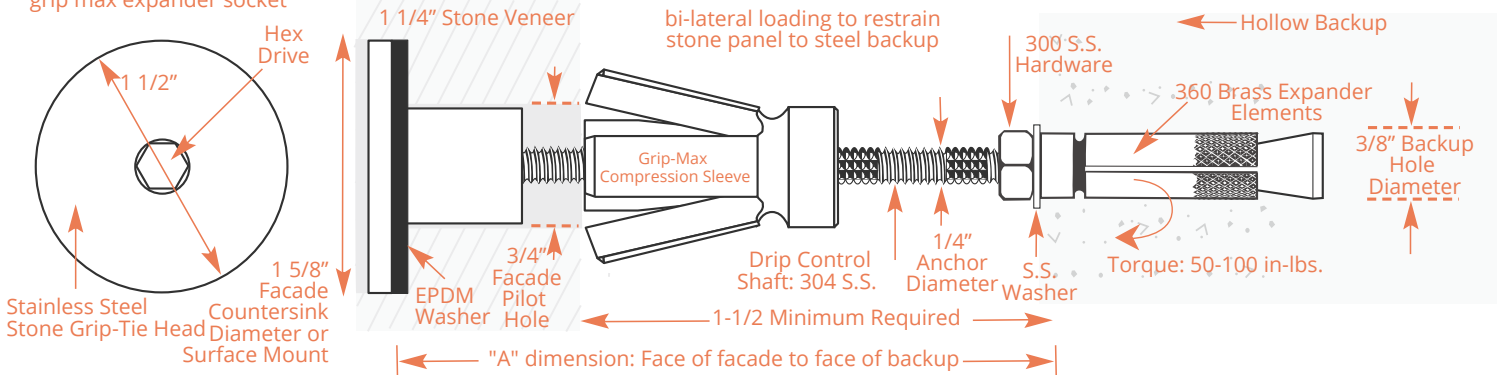
other lengths available upon request

TYPE 2 ANCHORS

WIND RESTRAINT; DUAL DIRECTION STONE WIND LOAD

6100-2 (w/ Grip-Max) & 2LD (w/ SS Toggle) Series Anchor

Requires Hex Key, Grip-Tie 501 Setting Tool, Compression Sleeve Positioning Tool and grip max expander socket



1. Locate anchor placement per specified location.
2. Drill 3/4" diameter hole through the stone with a suitable "stone drilling" drill bit, without percussion.
3. Using a suitable 3/8" diameter quality carbide, drill a 3/8" hole into the hollow backup, on center with the 3/4" facade hole.
4. On center with the 3/4" nominal hole through the stone facade. Counter-bore a 1-1/2" - 1-5/8" diameter hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft with the Grip-Max compression sleeve or SS Toggle (located approximately 1" - 2" from the anchor shaft end) to the Grip-Tie 501 setting tool; slide assembly through the drilled holes until the expansion anchor bottoms in the backup drilled hole; tighten by turning clockwise until 50 - 100 in-lbs of torque is reached; remove setting tool.
6. When using the Grip-Max Compression Sleeve: Activate the Grip-Max using the Grip-Max Expansion Socket, expand the compression sleeve by engaging the Grip-Max Socket to the brass hex expander cone and expand the sleeve by turning the cone 6-10 turns. Remove socket
- 6a. For the Grip-Max: Using the twin tang "Compression Sleeve" positioning tool, slide prong of tool into the slot of the expanded sleeve until contact is made. Rotate counter-clockwise the assembly until contact is made to the back of the marble veneer plus 1/4 turn; remove the positioning tool.
7. For the toggle: Using the toggle positioning tool, slide tool into the channel section of sprung-open toggle until contact is made. Rotate toggle counter-clockwise until contact is made to the back of the stone veneer plus 1/4 turn; remove the positioning tool.
8. Attach Stone-Grip head with EPDM washer to the anchor shaft using the 'T' handle hex wrench, rotate clockwise until the washer and head bottom out into the counter-bore, tighten 20 - 25 in-lbs; remove tool.
9. Installation complete, patch or conceal anchorage per specification requirements.

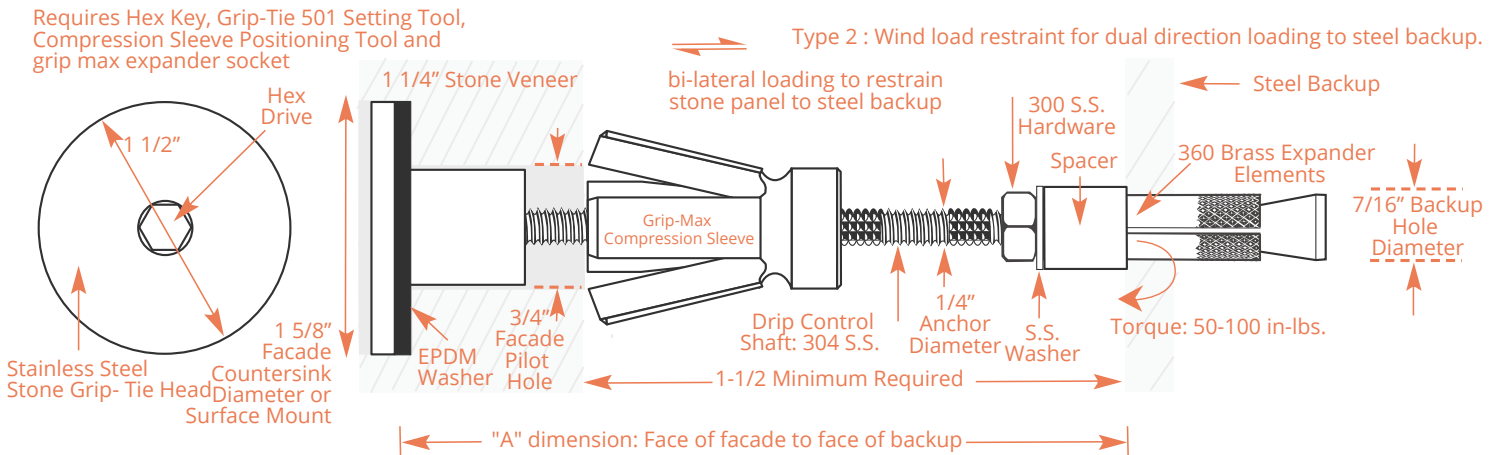
CATALOG #		ANCHOR SHAFT LENGTH	A
Grip-Max	Toggle		
62320-112N450	62325-150N450	4.5"	3" - 4"
62320-112N550	62325-150N550	5.5"	4" - 5"
62320-112N650	62325-150N650	6.5"	5" - 6"
62320-112N750	62325-150N750	7.5"	6" - 7"

other lengths available upon request

TYPE 2 ANCHORS

WIND RESTRAINT; DUAL DIRECTION STONE WIND LOAD

6200-2 (w/ Grip-Max) & 2LD (w/ SS Toggle) Series Anchor



1. Locate anchor placement per specified location.
2. Drill 3/4" diameter hole through the stone with a suitable "stone drilling" drill bit, without percussion.
3. Using a suitable 7/16" diameter quality carbide, drill a 7/16" hole into the steel backup, on center with the 3/4" facade hole.
4. On center with the 3/4" nominal hole through the stone facade. Counter-bore a 1-1/2" – 1-5/8" diameter hole into the stone facade 3/8" – 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft with the Grip-Max compression sleeve or SS Toggle (located approximately 1" – 2" from the anchor shaft end) to the 501 setting tool; slide assembly through the drilled holes until the expansion anchor bottoms in the backup drilled hole; tighten by turning clockwise until 50 – 100 in-lbs of torque is reached; remove setting tool.
6. When using the Grip-Max Compression Sleeve: Activate the Grip-Max using the Grip-Max Expansion Socket, expand the compression sleeve by engaging the Grip-Max Socket to the brass hex expander cone and expand the sleeve by turning the cone 6-10 turns. Remove socket
- 6a. For the Grip-Max: Using the twin tang "Compression Sleeve" positioning tool, slide prong of tool into the slot of the expanded sleeve until contact is made. Rotate counter-clockwise the assembly until contact is made to the back of the marble veneer plus 1/4 turn; remove the positioning tool.
7. For the toggle: Using the toggle positioning tool, slide tool into the channel section of sprung-open toggle until contact is made. Rotate toggle counter-clockwise until contact is made to the back of the stone veneer plus 1/4 turn; remove the positioning tool.
8. Attach Stone-Grip head with EPDM washer to the anchor shaft using the 'T' handle hex wrench, rotate clockwise until the washer and head bottom out into the counter-bore, tighten 20 – 25 in-lbs; remove tool.
9. Installation complete, patch or conceal anchorage per specification requirements.

CATALOG #		ANCHOR SHAFT LENGTH	A
Grip-Max	Toggle		
62335-112N450	62340-150N450	4.5"	3" – 4"
62335-112N550	62340-150N550	5.5"	4" – 5"
62335-112N650	62340-150N650	6.5"	5" – 6"

other lengths available upon request

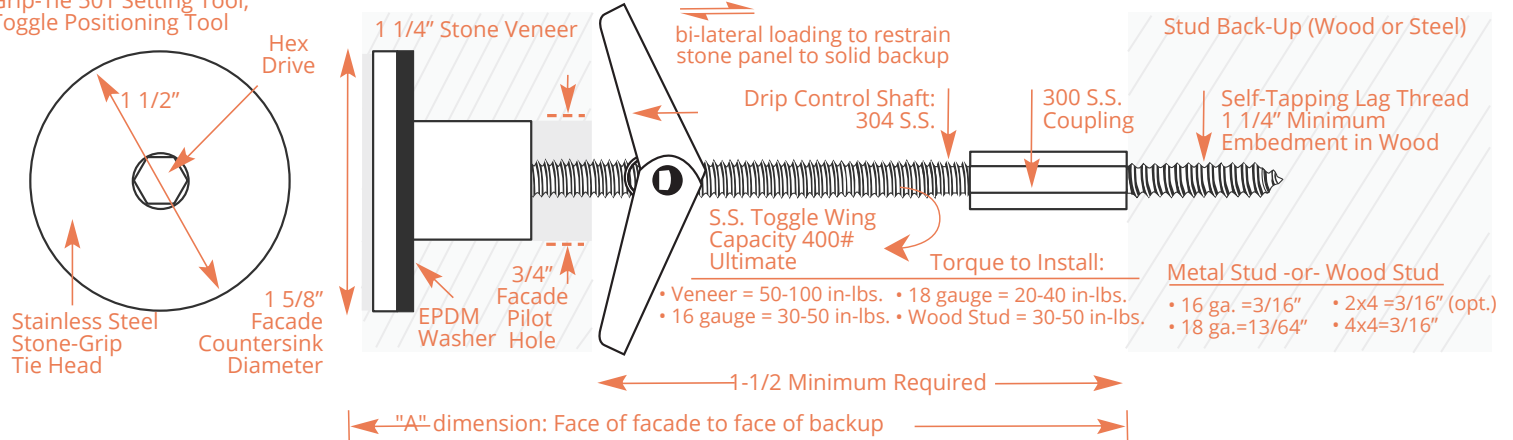
TYPE 2 ANCHORS

WIND RESTRAINT; DUAL DIRECTION STONE LOAD

6300-2LD Series Anchor

Requires Hex Key,
Grip-Tie 501 Setting Tool,
Toggle Positioning Tool

Type 2 : Wind load Type 2LD: Light Duty restraint for bi-lateral loading to wood or steel backup.



1. Locate anchor placement per specified location.
2. Drill 3/4" diameter hole through the stone with a suitable "stone drilling" drill bit, without percussion.
3. Using a suitable twist drill per the diameter illustrated drill a pilot hole into the back-up, on center with the 3/4" facade hole.
4. On center with the 3/4" drilled hole, drill a counter-bore 1-1/2" - 1-5/8" hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. SS Toggle (located approximately 1" - 2" from the anchor shaft end) to the Grip-Tie 501 Setting Tool; slide assembly through the drilled holes until the shaft bottoms in the back-up drilled hole; tighten by turning clockwise until torque is reached; remove setting tool.
6. For the toggle: Using the toggle positioning tool, slide tool into the channel section of sprung open toggle until contact is made. Rotate toggle counter-clockwise until contact is made to the back of the stone veneer plus 1/4 turn; remove the positioning tool.
7. Attach Stone-Grip head with EPDM washer to the anchor shaft using the 'T' handle hex wrench, rotate clockwise until the washer and head bottom out into the counter-bore, tighten 20 - 25 in-lbs; remove tool.
8. Installation complete, patch or conceal anchorage per specification requirements.

CATALOG #	ANCHOR SHAFT LENGTH	A
Toggle		
62355-150N450	4.5"	2-3/4" - 3-3/4"
62355-150N550	5.5"	3-3/4" - 4-3/4"
62355-150N650	6.5"	4-3/4" - 5-3/4"
62355-150N650	7.5"	5-3/4" - 6-3/4"

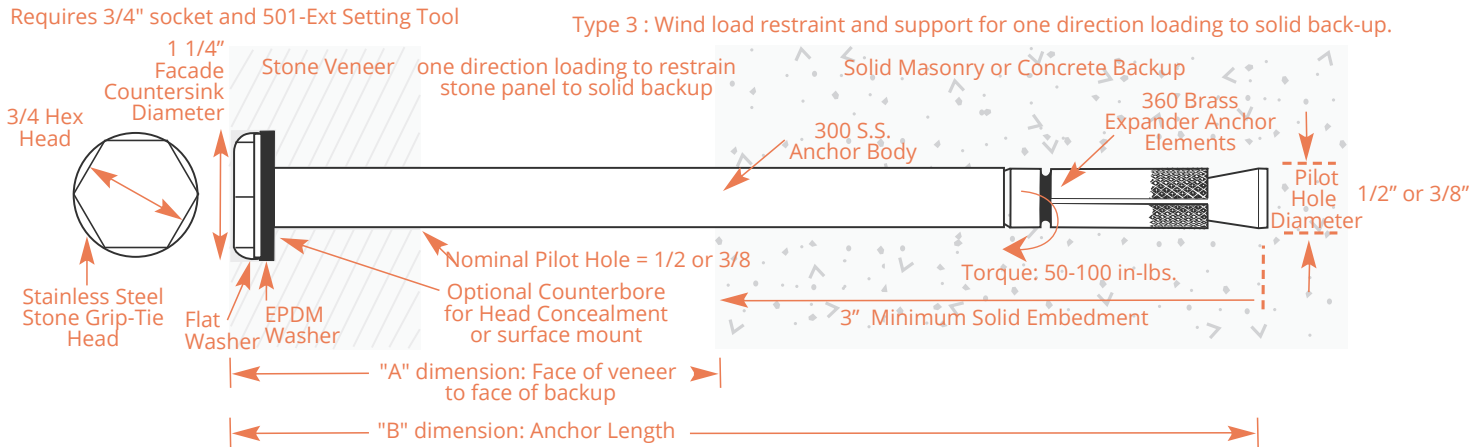
other lengths available upon request

TYPE 3 ANCHORS

WIND RESTRAINT AND SUPPORT; ONE DIRECTION STONE WIND LOAD

6500 (1/2" Dia.) 3 Series Anchor

6600 (3/8" Dia.) 3 Series Anchor



1. Locate anchor placement per specified location.
2. Drill appropriate diameter hole through the stone with a suitable "stone drilling" drill bit, and into the solid backup to a depth 3/8" greater than the anchor length.
3. Blow out drill fines.
4. On center with the pilot hole, drill a counter-bore 1-1/4" minimum diameter hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble anchor shaft without head to the 501-EXT Setting Tool; slide assembly through the drilled holes until the expansion anchor bottoms in the concrete drilled hole; tighten by turning clockwise until 50-100 in-lbs of torque is reached; remove setting tool.
6. Attach Stone Grip head and washer with EPDM washer to the anchor shaft using an appropriate hex socket, hand-tighten clockwise until the washer and head bottom out into the counter-bore, tighten 20 - 25 in-lbs; remove tool.
7. Installation complete, patch or conceal anchorage per specification requirements.

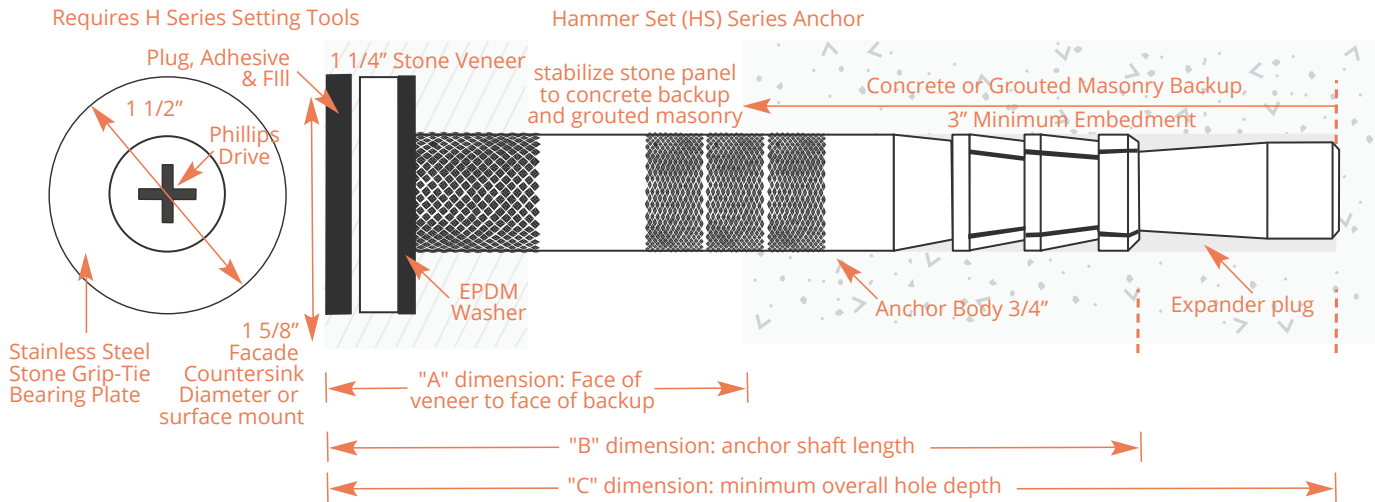
CATALOG #		A	B
6500 SERIES	6600 SERIES		
Backup & Pilot Hole Diameter			
1/2"	3/8"		
62365-50N500	62365-37N600	0-2"	5"
62365-50N600	62365-37N600	0-3"	6"
62365-50N700	62365-37N700	0-4"	7"
62365-50N800	62365-37N800	0-5"	8"

other lengths available upon request

TYPE 3 ANCHORS

WIND RESTRAINT AND SUPPORT; ONE DIRECTION STONE WIND LOAD

6800-3 Series Anchor



1. Locate anchor placement per specified location.
2. Drill appropriate diameter hole through the stone with a suitable "stone drilling" drill bit, and into the solid backup to a depth indicated in the chart.
3. Blow out drill fines.
4. On center with the pilot hole, drill a counter-bore 1-1/2" minimum diameter hole into the stone facade 3/8" - 1/2" deep from the face of the stone on center with the previous drilled holes.
5. Assemble the anchor shaft without the Stone Grip-Tie Bearing Plate assembly to the H Series Setting Tool; slide assembly through the drilled holes until the expansion anchor bottoms in the concrete drilled hole; using a hand-held hammer, firmly strike the setting tool until hammer rebounds lively; remove setting tool.
6. Attach Stone Grip-Tie Bearing Plate assembly to the anchor shaft; hand tighten clockwise until the assembly bottoms out into the counter-bore, 20-25 in-lbs.
7. Installation complete, patch or conceal anchorage per specification requirements.

CATALOG #	A: FACE OF VENEER TO FACE OF BACK-UP	B: ANCHOR SHAFT LENGTH (IN)	C: MINIMUM OVERALL HOLE DEPTH (IN)
62375-75N462	2-1/2"	4-5/8"	5-3/8"
62375-75N562	3-1/2"	5-5/8"	6-3/8"
62375-75N662	4-1/2"	6-5/8"	7-3/8"

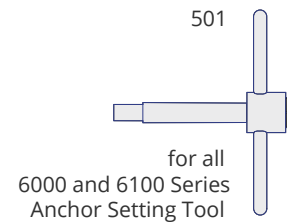
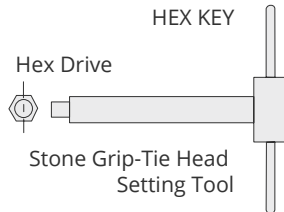
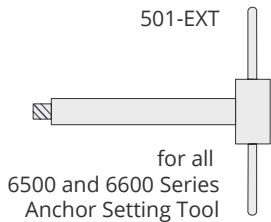
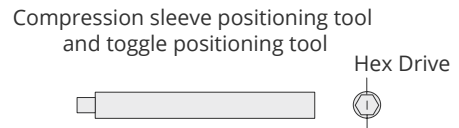
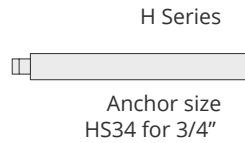
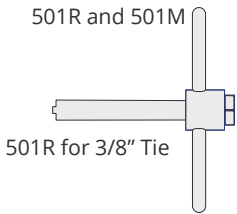
Head can be surface mounted or recessed in a 3/16" deep counterbore.
Minimum concrete cover at anchor bottom = 3.5 X F. Other lengths available upon request

STONE-GRIP TIE PLANNING GUIDE

STONE-GRIP ACCESSORIES, SETTING TOOLS, AND OPTIONS

1. Stone-Grip heads can be customized to suit a particular architectural finish appearance, size or shape.
2. Stone-Grip heads can be powder-coated for color-matching and surface-mounting.
3. Diamond-tipped core drills are available upon request for granite drilling.
4. Upon request, dual diameter diamond-tipped core drills are available. Contact Customer Service for assistance.
5. Carbide-tipped counter-bore drills are available for drilling into marble, travertine, limestone, sandstone, concrete for hand-held drills.
6. EPDM washers can be made to different thickness (.090 is typical) and hardness (60 + Durometer typical).

Setting Tools



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.

Notes

Approval

Anchor Systems

Secure masonry buildings with restoration anchors and wall ties.

Hard Surface Care

Clean and protect interior and exterior masonry, architectural metal and more.

Air & Water Barriers

Control the leakage of air and water for maximum building envelope performance.



Where building meets science

We have invested years and years of resources into testing and developing the best products on the market to improve the performance and durability of our built environment. Here's a look at where we can help you extend the life of your building (it's not just masonry cleaning!).



Water Repellents

Protect masonry and increase its service life by locking water out.

Concrete Flooring

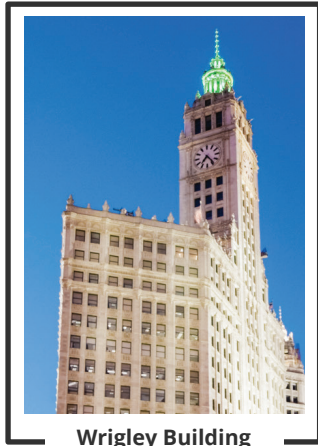
Optimize floor performance and aesthetics with hardeners, decorative colors, maintenance cleaners and more.

Hardscapes & Pavers

Enhance the appearance, performance and life of exterior hard surfaces.



Grand Central Station
New York, NY



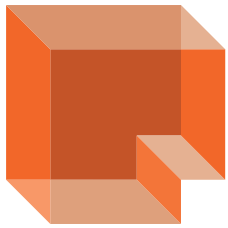
Wrigley Building
Chicago, IL



United States Capitol
Washington D.C.



R.W. Kern Center
at Hampshire College



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