GRIP-TIE
Mechanical repair anchors for stabilizing existing facades

We help you get a grip on your facade problems! Add high-strength mechanical anchors to an existing brick facade to fortify and stabilize against external forces. PROSOCO Grip-Ties, formerly called CTP Grip Ties, are an excellent solution to re-anchor a masonry or stone facade to metal or wood stud, structural steel, tile, block, concrete, and brick.

- **Mechanical Grip**: Brass shield expanders for flexible & durable gripping action
- **Durable Materials**: Every component is corrosion-resistant
- **Engineered Shaft Design**: A stainless steel connector for the backup and veneer anchorage that provides for flexibility during thermal cycles and strength to resist live loads
- **Jobsite Quality Control**: Mechanical activation provides a means to inspect during installation and after by either torque measurement or tension testing
- **Stabilizing Grip**: The design of the anchor prevents drawing the wythes of material together which prevents additional lateral stresses

CORROSION-RESISTANT
SECURES VARIETY OF WALL MAKEUPS
EASY POST-INSTALL QUALITY CONTROL
NO EXPOSED HARDWARE
TORQUE-ACTIVATED GRIPPING ACTION
NO DISTURBING HAMMERING ACTIVITY
Typically, masonry facades are intended to resist wind loads. In lieu of tear-down or replacement, an existing masonry or terra cotta facade can be fortified by the addition of mechanical ties or anchors. The Grip-Tie anchors provide additional facade stability, which may be needed to fulfill a myriad of requirements. The Grip-Tie selection process evolves by evaluating the type of anchors one can use to satisfy the repair (compatibility) and strengthening criteria. Also, one cannot ignore the means and methods of installation which can also influence the remedial anchor choice.

Post-installed Grip-Tie repair anchors are available to accomplish the task. When dealing with a repair situation, the as-built material quality and current building conditions are often unknown. It is therefore not uncommon that installation criteria and performance qualification be obtained via field tests in order to confirm design assumptions. The Grip-Tie mechanical repair anchors consist of a dual expansion anchor for a mechanical connection that grips the backup and veneer which is then bridged with an anchor rod. The Grip-Tie anchor creates formidable gripping strength to the base material to which it is attached. The anchor does not draw walls together, thereby eliminating additional tension stresses between wythes of material. The backup material can be concrete, metal stud, wood stud, CMU (hollow or grouted), structural steel, or brick. The veneer can be brick, stone, or precast. The Grip-Tie anchor assembly is manufactured from corrosion-resistant materials which will contribute to the facade’s long-term durability and design life. The Grip-Tie anchorage system has been designed to accommodate easy installation via hand tools or power tools. Combining the strength, generous spacing, and affordable installation technique, the Grip-Tie mechanical repair anchor product line is a value-reward choice for facade re-anchoring.

The following application descriptions will provide a quick Grip-Tie Repair Anchor Guideline when determining the appropriate series tie for veneers greater than 3” thick:
- Solid backup conditions – refer to the 5000 or 5000R Series Anchors
- Hollow backup conditions – refer to the 5100 Series Anchors
- Structural steel backup conditions – refer to the 5200 Series Anchors
- Stud (wood or steel) backup conditions – refer to the 5300 Series Anchors

Anchor Spacing

It is recommended to first check with local building codes for spacing condition requirements for proper masonry tie spacing. Typically, the Grip-Tie is spaced at one tie per four square feet of veneer for masonry or concrete backup conditions. For metal or wood stud backup, a 16” horizontal by 24” vertical is common spacing. Consult with local design professionals to establish wind load criteria for all scenarios.

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.
Re-anchoring brick facade to wood stud backup

Re-anchoring brick facade to metal stud backup

Brick veneer cavity walls with
  • Insufficient or corroded ties
  • Concrete or metal stud backup
  • Wind-load fortification

Composite walls where header brick has failed
  • Soft brick or mortar
  • Deep-reaching multi-wythe connections

Peripheral areas around bulges in walls or areas to be removed

Non-brick facades such as
  • Limestone
  • Granite
  • Precast
# Tension Capacities with Various Backup Material

## Backup Material

<table>
<thead>
<tr>
<th>Backup</th>
<th>Anchor Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>OR STEEL</td>
<td>WOOD</td>
</tr>
<tr>
<td>OR STEEL</td>
<td>WOOD</td>
</tr>
</tbody>
</table>

## Metal Stud Tension Capacities (lbs)

<table>
<thead>
<tr>
<th>METAL STUD</th>
<th>WOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 Gauge</td>
<td>18 Gauge</td>
</tr>
<tr>
<td>835</td>
<td>500</td>
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<tr>
<td>835</td>
<td>500</td>
</tr>
</tbody>
</table>

## Typical Grip-Tie Shaft Properties

<table>
<thead>
<tr>
<th>SHAFT LENGTH (in)</th>
<th>CAPACITY (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 1/2</td>
<td>1620</td>
</tr>
<tr>
<td>6 1/2</td>
<td>1425</td>
</tr>
<tr>
<td>9 1/2</td>
<td>1100</td>
</tr>
<tr>
<td>11 1/2</td>
<td>725</td>
</tr>
</tbody>
</table>
# Tension/Compression Capacities with Various Veneers

## Anchor Series

<table>
<thead>
<tr>
<th>Veneer Material</th>
<th>Mortar Joint</th>
<th>Brick</th>
<th>Precast</th>
<th>Limestone</th>
<th>Granite</th>
</tr>
</thead>
<tbody>
<tr>
<td>5300R Series</td>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
<td><img src="image4" alt="Diagram" /></td>
<td><img src="image5" alt="Diagram" /></td>
</tr>
<tr>
<td>5300 Series</td>
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<td><img src="image13" alt="Diagram" /></td>
<td><img src="image14" alt="Diagram" /></td>
<td><img src="image15" alt="Diagram" /></td>
</tr>
<tr>
<td>5000R Series</td>
<td><img src="image21" alt="Diagram" /></td>
<td><img src="image22" alt="Diagram" /></td>
<td><img src="image23" alt="Diagram" /></td>
<td><img src="image24" alt="Diagram" /></td>
<td><img src="image25" alt="Diagram" /></td>
</tr>
<tr>
<td>5000 Series</td>
<td><img src="image31" alt="Diagram" /></td>
<td><img src="image32" alt="Diagram" /></td>
<td><img src="image33" alt="Diagram" /></td>
<td><img src="image34" alt="Diagram" /></td>
<td><img src="image35" alt="Diagram" /></td>
</tr>
<tr>
<td>5100 Series</td>
<td><img src="image41" alt="Diagram" /></td>
<td><img src="image42" alt="Diagram" /></td>
<td><img src="image43" alt="Diagram" /></td>
<td><img src="image44" alt="Diagram" /></td>
<td><img src="image45" alt="Diagram" /></td>
</tr>
<tr>
<td>5200 Series</td>
<td><img src="image51" alt="Diagram" /></td>
<td><img src="image52" alt="Diagram" /></td>
<td><img src="image53" alt="Diagram" /></td>
<td><img src="image54" alt="Diagram" /></td>
<td><img src="image55" alt="Diagram" /></td>
</tr>
</tbody>
</table>
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5000 SERIES ANCHOR
Installation procedure and criteria for solid backup

1. Select proper anchor length based on face of veneer to face of backup (dimension A).
2. Drill appropriate hole at “TEE” joint location (no impact) to depth “B”.
4. Assemble threaded portion of complete anchor assembly to the Grip-Tie 501 Setting Tool.
   (Hex bolt on tool MUST be seated) thread shaft into tool until it stops.
5. Insert entire assembly into drilled hole until it bottoms, tighten 50 – 100 in-lbs, remove setting tool.
   (Loosen bolt head on tool while holding tool firmly, spin tool from anchor).
6. Slide socket and adaptor onto the square drive of the 501 Tool, and onto the 5/16 hex nut of the installed anchor, tighten 50-100 in-lbs.
7. Remove socket and plug hole.

5000R SERIES ANCHOR
Installation procedure and criteria for solid backup

1. Select proper anchor length based on face of veneer to face of backup (dimension A).
2. Drill 1/2” hole through mortar joint (no impact) and a 7/16” hole in the steel back-up.
4. Assemble threaded portion of complete anchor assembly to the Grip-Tie 501 Setting Tool.
   (Hex bolt on the setting tool MUST be seated), thread shaft into setting tool until it stops; Insert assembly into drilled hole until it bottoms; tighten 50 – 100 in-lbs.
5. Remove tool by holding firmly and loosening the hex bolt, then spin tool off anchor shaft by hand.
6. Slide socket drive and adaptor onto the square drive of the 501 tool and on to the 5/16 hex nut of the installed anchor, tighten 50 – 100 in-lbs.
7. Remove socket, patch hole.
**INSTALLATION**

5100 SERIES ANCHOR  
Installation procedure and criteria for hollow backup

1. Select proper anchor length based on face of veneer to face of backup (dimension A).
2. Drill 1/2" hole through "tee" joint (no impact) and a 3/8" hole in the backup, at least 2" deep.
4. Assemble threaded portion of complete anchor assembly to the Grip-Tie 501 Setting Tool. (Hex bolt on the setting tool MUST be seated), thread shaft into setting tool until it stops; Insert assembly into drilled hole until it bottoms; tighten 50 – 100 in-lbs.
5. Remove tool by holding firmly and loosening the hex bolt, then spin tool off anchor shaft by hand.
6. Slide socket drive and adaptor onto the square drive of the 501 tool and on to the 5/16" nut of the installed anchor, tighten 50 – 100 in-lbs.
7. Remove socket, patch hole.

**SERIES ANCHOR**  
Installation procedure and criteria for steel backup

1. Select proper anchor length based on face of veneer to face of backup (dimension A).
2. Drill 1/2" hole through mortar joint (no impact) and a 7/16" hole in the steel backup.
4. Assemble threaded portion of complete anchor assembly to the Grip-Tie 501 Setting Tool. (Hex bolt on the setting tool MUST be seated), thread shaft into setting tool until it stops; Insert assembly into drilled hole until it bottoms; tighten 50 – 100 in-lbs.
5. Remove tool by holding firmly and loosening the hex bolt, then spin tool off anchor shaft by hand.
6. Slide socket drive and adaptor onto the square drive of the 501 tool and on to the 5/16" nut of the installed anchor, tighten 50 – 100 in-lbs.
7. Remove socket, patch hole.
1. Select proper anchor length based on face of veneer to face of backup (dimension A).

2. Drill appropriate hole in mortar joint at stud location using a rotary hammer or hammer drill. Rotary only in soft material.

3. Drill 9/16” hole through outer wythe of material.
   - For metal stud, a 5/32” pilot hole is needed for 18, 20 and 22 gauge stud, a pilot hole of 3/16” for 16 gauge and greater is required.
   - For wood stud backup, a pilot may not be needed, 3/16” if necessary.

4. Blow out excess drill fines.

5. Assemble threaded portion of complete anchor assembly to the setting tool. (Hex bolt on the setting tool must be fully seated) thread anchor shaft into setting tool until it stops.

6. Insert entire assembly into drilled hole until the pointed end of the shaft makes contact with the stud, firmly thread by hand in drilled hole backup.

7. Rotate tool clockwise and tighten backup anchor in metal stud 20 - 50 in-lb. (50 - 100 in-lb. in 16 ga. and wood stud) remove setting tool.

8. To remove setting tool, loosen bolt head while holding setting tool firmly, spin off by hand.

9. Slide socket drive tool over hex segment of setting tool on the hex nut of the anchor and tighten to 50 - 100 in-lbs.

10. Remove tool, patch hole.
SPECIAL DUAL DIAMETER DRILL BITS
8” and 14” Dual Diameter Drill Bits for 5100 Series

SETTING TOOLS

Grip-Tie 501 Setting Tool
For 5000, 5100, 5100S, and 5300 Series

Grip-Tie 501R Setting Tool
For 5300R

Grip-Tie Adapter

Grip-Tie Deep Well Socket

Notes

Warranty
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