INSTALLATION GUIDE

SUPERTIE™
FIBERGLASS FORM-TIE SYSTEMS

ULTIMATE TENSILE STRENGTH 6K

NEVER PATCH . . . NEVER RUST
SuperTie™ Patented Fiberglass Form Tie Systems are used to secure concrete form work during concrete placement and initial hydration, without the inherent limitations of previously popular steel form tie systems. SuperTie™ systems eliminate the possibility of rust stains as well as the structural deterioration often caused by failure of patching for steel form tie holes. SuperTie™ Systems are appropriate for use in all forming applications but are especially beneficial in situations such as architectural finishes.

1. **Superior Finishes:** Improved architectural finishes, without patches or rust.

2. **No Corrosion:** The fiberglass form tie material cannot rust, eliminating the need to have a break-back and the need for subsequent plugging and patching to forestall rust.

3. **Saves Money:** Saves dramatically on labor costs. Reduces form-tie related costs as much as 70%. Reduced Inventory: One size fits any wall. Bulk lengths are cut to the working measurements at the jobsite.

4. **Extends Form Life:** All forms and form liners strip easily from the structure without damage from the ties.

5. **Natural Insulator:** Fiberglass tie, which is left in the structure, is electromagnetically transparent, making it ideal for special situations where magnetic or electrical interference is undesirable. Fiberglass will not promote radio frequency and shields nuclear energy.

6. **Compatible:** SuperTie™ systems are compatible with all job-built and commercially available forming systems.

---

**SuperTie™ 6K Patented Gripper – GND6000**

SuperTie™ 6K Patented Gripper offers an ultimate tensile strength of 6,000 pounds (3,000 pounds safe working load at 2:1 safety factor) and is most commonly used with the jobsite-built (plywood and 2×4) forms and hand-set modular forms.

**SuperTie™ Bearing Plate – BP615**

The SuperTie™ Bearing Plate is a 4”x4” steel plate and fits the 6K and 15K systems. The SuperTie™ bearing plates are a required component of the “SuperTie™ Gripper System” when using a wooden forming system.

**Ordering SuperTie™ Rods**

Formula for a 12” thick structure

\[ 2 (a) + 2 (b) + c = \text{required materials} \]

- a. 2 (4.75” Grippers + Rod Tails) \ldots \ldots. 9.5”
- b. 2 (7.75” forms width) \ldots \ldots. 15.5”
- c. Structure width \ldots \ldots 12”

Total rod length needed \ldots \ldots 37”

---

**Non-Corrosive Fiberglass Smooth Rod**

RJD Fiberglass Smooth Rod, utilizes a specially blended and formulated custom engineered resin providing ultimate tensile strength and maximizing our GND6000 Gripper strength. Our American made RJD Fiberglass Smooth Rod will never rust thus eliminating the need for breakback, plugging and patching, providing a superior architectural finish.
INSTALLATION STEPS

1. Slide the fiberglass rod through the form. Short lengths of fiberglass rod can be used as internal spreaders; these spreaders can be either tied to the rebar cage, or attached to the tie rod by using two Spreader Clips.

2. Slip Bearing Plate and Gripper onto the fiberglass rod. For a battered wall, add wedge shaped spacers so that the fiberglass rod is kept straight. The strength of a bent rod is significantly reduced.

3. Lock the Gripper onto the fiberglass rod by hand tightening the “tightening bolt,” and then with a wrench, a 3/4 turn clockwise. On the opposite side of the form, lock another Gripper onto the fiberglass rod.

4. Use the “tensioning nut” to adjust width of form, or tighten form against internal spreaders (there is a maximum of 1/2” of adjustability for each Gripper). You are now ready to place concrete.

5. Cut the fiberglass rod between the Gripper and the form.

6. After removing the forms, you will see short lengths of fiberglass rod sticking out of your structure.

7. To ensure protection of exposed concrete surface, drill sheet metal 3/8” hole and slide over rod, then cut.

8. Grind the stubs of fiberglass rod off flush to the concrete structure using a grinder with a diamond blade.


© 2017 RJD Industries, LLC. All rights reserved. Revised date: 4/12/2018
Tie spacing is determined by standard industry practices. Some typical tie spacings at common placement rates are indicated in the table below. After determining tie spacing, drill holes in the plywood forms with a 3/8” dia. drill bit for SuperTie™ 6K System (6,000 lbs. ultimate tensile strength). When calculating tie spacing, always allow a 2:1 safety factor.

### Lateral Pressure of Concrete Equations per ACI 347R-14 with Rate of Placement

<table>
<thead>
<tr>
<th>Rate of Concrete Placement: ft/hr</th>
<th>Horz.</th>
<th>Vert.</th>
<th>Area ft²</th>
<th>Pressure (psf)</th>
<th>S.W.L. (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6' 9&quot;</td>
<td>10'</td>
<td>10'</td>
<td>24&quot;</td>
<td>1.78</td>
<td>1685</td>
</tr>
<tr>
<td>6'</td>
<td>10'</td>
<td>10'</td>
<td>24&quot;</td>
<td>2.00</td>
<td>1500</td>
</tr>
<tr>
<td>4' 4&quot;</td>
<td>6' 6&quot;</td>
<td>10'</td>
<td>16&quot;</td>
<td>2.67</td>
<td>1123</td>
</tr>
<tr>
<td>2' 8&quot;</td>
<td>6&quot;</td>
<td>24&quot;</td>
<td>4&quot;</td>
<td>4.00</td>
<td>750</td>
</tr>
</tbody>
</table>

### Tie Spacing Chart Per A.C.I. 347 Recommended Values

<table>
<thead>
<tr>
<th>Ambient temp. @ time of pour (ºF)</th>
<th>Form-Tie Spacing</th>
<th>Form-Tie Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>40º</td>
<td>60º</td>
<td>80º</td>
</tr>
</tbody>
</table>

### Component List

<table>
<thead>
<tr>
<th>Prod Number</th>
<th>Description</th>
<th>Packaging</th>
<th>Ship Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>R6/37-100</td>
<td>SuperTie Rod 37” lengths 6K lbs. ultimate strength, gray in color, 3,000 lbs. SWL</td>
<td>308 ft. 22 lbs.</td>
<td></td>
</tr>
<tr>
<td>R6/48-100</td>
<td>SuperTie Rod 48” lengths 6K lbs. ultimate strength, gray in color, 3,000 lbs. SWL</td>
<td>28 lbs.</td>
<td></td>
</tr>
<tr>
<td>R6/12G</td>
<td>.308” dia. Rod 6K lbs. ultimate strength. 12 ft. lengths, gray color, 3,000 lbs. SWL</td>
<td>42 lbs.</td>
<td></td>
</tr>
<tr>
<td>R6/20G</td>
<td>.308” dia. Rod 6K lb. ultimate strength. 20 ft. lengths, gray color, 3,000 lbs. SWL.</td>
<td>68 lbs.</td>
<td></td>
</tr>
<tr>
<td>GND6000</td>
<td>Gripper – New Design</td>
<td>76 lbs.</td>
<td></td>
</tr>
<tr>
<td>BP615</td>
<td>Bearing Plate</td>
<td>55 lbs.</td>
<td></td>
</tr>
<tr>
<td>SC6000</td>
<td>Spreader Clip</td>
<td>9 oz.</td>
<td></td>
</tr>
<tr>
<td>WS6000</td>
<td>WaterStop</td>
<td>15.5 oz.</td>
<td></td>
</tr>
</tbody>
</table>

For custom rod lengths and/or custom colors, please call for quote and lead times.

*SWL = Safe Working Load

**IMPORTANT:** When using admixtures, retardants, self-compacting concrete, or other products that create a full liquid head of pressure, a new safe working load must be used at a 2.5:1 ratio in lieu of the 2:1 safe working load which ultimately decreases your tie spacing.

SuperTie™ Systems are sold exclusively through quality construction materials dealers. Scan the QR code to see our distributor locations or just call us for the name of the dealer nearest you.

RJD Industries, LLC
1508 Stone Field Way, Ogden, UT 84404
(805) 456-5980 • rjdindustries.com

© 2017 RJD Industries, LLC. All rights reserved. Revised date: 4/12/2018

Technical questions: Info@rjdindustries.com