The Tension Control bolting system has quickly become the most widely used method of tensioning high strength structural bolts. The ease of use and economic benefits has provided tens of thousands of projects with consistent, reliable, and economical steel connections.

The TC bolt is formally recognized by the AISC (American Institute of Steel Construction) and the RCSC (Research Council on Structural Connections) as an approved installation method.

The Tension Control System consists of one each: A325 TC Bolt, A194 2-H Heavy Hex Nut, F-436 Flat Washer

Key advantages of the Tension Control assembly include:

- Cost effective, one operator, single sided installation
- Lightweight, non-impacting installation tools
- Visual inspection
- Pre-certified, matched and tested assemblies
- Reliable and efficient bolt tensioning
- Bolt tension is not dependent on operator skill or tool settings

### Installation

1. Place the bolt into the connection with the washer under the nut.
2. Slide the inner socket over the bolt tip and the outer socket over the nut. Press the trigger switch. The outer socket will rotate and tighten until the bolt reaches the required tension.
3. When the proper bolt tension is reached, the tip of the bolt will shear. When the tip of the bolt shears, pull back on the wrench until the outer socket is no longer engaging the nut.
4. Push the ejector lever to discharge the severed bolt tip.
5. Catch the sheared bolt tips to prevent them from falling below.

### Mechanical Requirements

The bolt reacts to the fastening torque and shears at the Torque Control (TC) groove when the required tension is reached.

### Specifications

**Impact Shear Wrench**

- Anti-slipping mechanism: tool won’t start until inner sleeve engages with bolt tip
- Compact and light weight
- Handy tip lever for ejecting sheared tips
- Rubber bumper for tool body protection

**Fasteners**

**A325 Tension Control Bolt System**

<table>
<thead>
<tr>
<th>DIA.</th>
<th>MIN. FASTENER TENSION (KIPS)</th>
<th>MIN. TENSILE STRENGTH (LBF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4&quot;-10</td>
<td>28</td>
<td>40,100</td>
</tr>
<tr>
<td>7/8&quot;-9</td>
<td>39</td>
<td>55,450</td>
</tr>
<tr>
<td>1&quot;-8</td>
<td>51</td>
<td>72,700</td>
</tr>
</tbody>
</table>

**Determining Proper Bolt Length**

- Excluding washers, the lengths determined by the use of this table should be rounded up to the next 1/4"