SELECTIVELY HARDENED SELF-DRILLING AND TAPPING FASTENERS THAT ATTACH SIMILAR OR DISSIMILAR METALS AND HAVE A GRADE 5 PERFORMANCE INSTALLING FASTER THAN NUTS AND BOLTS
The Difference Can Last a Lifetime!

**Grade 5 Performance!** Designed to attach similar or dissimilar metals, Teks Select fasteners have strength and ductility performance similar to Grade 5 bolts. These characteristics in the fastener’s load-bearing area improve resistance to shear failure due to wind and other loads requiring mechanical flex (ductility). This strength and ductility also equips the Teks Select to maintain mechanical integrity when attaching different metals. This attachment can apply shear pressure on the fastener due to the different rates of expansion and contraction (expansion coefficients) present in each type of metal.

An independent 3rd party laboratory tested Teks Selects for strength and ductility performance similar to Grade 5 bolts tested to SAE J429 and ASTM A449. Teks Select hydrogen embrittlement testing was conducted in a 5% neutral salt spray environment per ASTM B117. Fasteners were installed in a wedge plate fixture to induce stress and exposed to over 80% fastener torsion strength of torque every 24 hours for 240 hours resulting in no head pops.

**Teks Select features selective hardening.** When dissimilar metals (for example, aluminum and steel) are mechanically fastened and water (from moisture or other sources) is present, a galvanic corrosion takes place. This releases atomic Hydrogen. The presence of the Hydrogen creates the specific conditions in which the Hydrogen assisted stress corrosion cracking (HASCC) or Hydrogen embrittlement of the fasteners may occur. If the fastener material is ductile enough, this situation is prevented. Teks Select’s selective hardening process produces drill point and lead threads hard enough (HRC 52 minimum) to drill and tap through metals. The load-bearing area remains soft enough (HRC 28-34) to remain ductile accommodating the expansion coefficients of dissimilar metals and resisting Hydrogen embrittlement. And that means the integrity of the connection between the fastened metals is maintained over the life of the building and the building requires less fastener maintenance.

**Self-drilling fasteners can install twice as fast as nuts and bolts.** When a job requires a large number of nuts and bolts instead of having to:
1) Pre-drill
2) Insert the bolt
3) Thread on the nut
4) Tighten the nut to the required torque

Now these four steps are replaced by one step:
1) Install the Teks Select

The Teks Select replaces four steps with one. And that means you save time and money.

**ROI Calculator - Self-Drilling**

<table>
<thead>
<tr>
<th>STEP</th>
<th>NUTS &amp; BOLTS</th>
<th>TEKS SELECT</th>
<th>SAVINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Number of Nuts &amp; Bolts/Fasteners</td>
<td>10,000</td>
<td>10,000</td>
<td>x x</td>
</tr>
<tr>
<td>2. Installation Time/Fasteners</td>
<td>12 seconds</td>
<td>6 seconds</td>
<td>x x</td>
</tr>
<tr>
<td>3. Total Time</td>
<td>33 Hours</td>
<td>16 Hours</td>
<td>16 Hours</td>
</tr>
<tr>
<td>4. Labor Rate</td>
<td>$45.00</td>
<td>$45.00</td>
<td>$45.00</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$1500.00</td>
<td>$750</td>
<td>$750</td>
</tr>
</tbody>
</table>

**Teks Select features Climaseal Advanced Corrosion Resistance (ACR) coating.** This coating enables Teks Select fasteners to outperform competitive fasteners in a 5% neutral salt spray test (conducted per ASTM B117 standards) by both ITW Buildex and an independent 3rd party laboratory. And that means, the work you invest in during fastener installation resists galvanic corrosion and delivers a longer lasting building to your customer.

AFTER 1000 HOURS OF 5% NEUTRAL SALT SPRAY EXPOSURE

TEKS SELECT™

ELCO DRIL-FLEX®
A drill point that starts faster along with a more efficient thread design combine to enable the Teks Select™ to drill and tap up to 40% faster than other drilling and tapping fasteners.

**DRILL TIMES IN STEEL: TEKS SELECT VS. DRIL-FLEX**

<table>
<thead>
<tr>
<th>FASTENER DESCRIPTION</th>
<th>SECONDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-20 x 1-1/2&quot;</td>
<td>8</td>
</tr>
<tr>
<td>1/4-14 x 1-1/2&quot;</td>
<td>9</td>
</tr>
<tr>
<td>12-14 x 2&quot;</td>
<td>10</td>
</tr>
</tbody>
</table>

**DRILL TIMES IN ALUMINUM: TEKS SELECT VS. DRIL-FLEX**

<table>
<thead>
<tr>
<th>FASTENER DESCRIPTION</th>
<th>SECONDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-20 x 1-1/2&quot;</td>
<td>8</td>
</tr>
<tr>
<td>1/4-14 x 1-1/2&quot;</td>
<td>9</td>
</tr>
<tr>
<td>12-14 x 2&quot;</td>
<td>10</td>
</tr>
</tbody>
</table>

In laboratory tests at ITW Buildex, Teks Select out performed Elco Drill-Flex® in speed tests conducted in a fixture drilling and tapping into steel and aluminum.

A drill point that starts faster along with a more efficient thread design combine to enable the Teks Select to drill and tap with fewer stalls than other drilling and tapping fasteners. In laboratory tests at ITW Buildex, using a test fixture, Teks Select drilled and tapped into a 1/4" steel plate, in 20 out of 20 attempts. The competitive fasteners stalled in as many as 8 out of 20 attempts.

**ROI CALCULATOR - FEWER STALLS**

**STEP 2**

- **Number of Fasteners Attempted to Install**: 10,000
- **Number of Fasteners Stalled**: 0

**STEP 5**

- **Installation Time/Fasteners**: 18 seconds
- **Labor Rate**: $45.00

**TOTAL COST**

- **= $675.00**

**APPLICATIONS**

Because Teks Select is specifically designed to meet the challenges of attaching similar or dissimilar types of metal, it provides extended fastener life for these applications:

- Glass and Metal Curtain Walls
- Fenestration: Window Systems, Door Systems, and Store Front Systems
- Solar System Attachment
- Grade 5 Nut and Bolt Substitution
- Anchoring Metal Clips to Metal Structures for Masonry Facades

**SPECIFICATIONS**

- **Application**: Metal attachments, including aluminum to steel
- **Short Form**: Self-drilling and tapping, selectively hardened fastener with strength and ductility performance similar to a Grade 5 (1/4-20 diameter) SAE J 429 and ASTM A 449 fastener
- **Diameters**: #10, #12, 1/4"
- **Thread Form**: 10-16, 12-14, 1/4-14, 1/4-20
- **Head Styles**: Hex washer head, undercut Phillips flat head
- **Drill Point**: Teks® 3, Teks® 4
- **Finish**: Climaseal ACR corrosion-resistant finish meets a minimum of 1,000 hours salt spray per ASTM B117 standards with 0% red rust

**CLIMASEAL ACR COATING**

Provides superior resistance to surface corrosion

**EFFICIENT SELF-TAPPING THREAD DESIGN**

A drill tip that starts faster geometry for drilling into aluminum and steel

**LOWER HARDNESS**

- Load-bearing section provides ductility

**HIGHER HARDNESS**

- Drill point and lead threads for reliable drilling
The screws must be installed perpendicular to the work surface using a screw driving tool. The installation speed for 1/4" screws should not exceed 1,800 RPM. The installation speed for all other screws should not exceed 2,500 RPM. Overdriving may result in torsional failure of the fastener or stripout of the substrate.

The screw must penetrate beyond the metal structure a minimum of 3 threads. The fastener must penetrate through the supporting metal with a minimum of three threads protruding past the back side of the supporting metal, or the length which ensures that only the load-bearing area of the screw is engaged in the material being fastened, whichever is greater.