## Contents

### Brass Inserts

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All data is correct to the best of our knowledge, however TR cannot be held responsible for any errors or omissions.
## Conversion Table

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Note: PSM codes are made up of Product 1st, Material type 2nd and Diameter 3rd. Example: An alternative to a PSM Headed Sonic Lok, M3 in Brass. PSM code SHK-B-M3. The TR alternative would be M3 - HDBRSTO
Tech-Sert™ Unheaded (UHBRT)

Dimensions (Metric)

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<th>M2.5</th>
<th>M3</th>
<th>M3.5</th>
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<th>M6</th>
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<td>5.7</td>
<td>7.1</td>
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Tech-Sert™ information for designers

The Tech-Sert™ has been designed for post mould installation into thermoplastics using heat or ultrasonics with the opposing knurls and vanes providing high levels of pull out and torque resistance. The symmetrical design means the insert can be installed either way round which allows for automated installation.

Advantages:
• Rapid installation
• Symmetrical design for automated installation
• Allows for thin walls in the boss
• High pull out and torque resistance

Installation Data
The Tech-Sert™ is installed using either heat or ultrasonics.

Heat Installation
Where heat is used you must ensure that the insert softens, but does not melt the plastic, which helps avoid flash forming around the top of the insert.

Ultrasonic Installation
Ultrasonic installation works best with low amplitude vibrations and enough power to soften the surrounding plastic.

Care should be taken to avoid excessive downward pressure being applied during installation which can result in the insert being forced into the hole rather than allowing the plastic to soften around it.

Stud versions available on request.
The Sonic-Sert™ has been designed for post mould installation into thermoplastics using heat or ultrasonics with the opposing knurls providing a combination of high pull out and torque resistance.

**Advantages:**
- Rapid installation
- Allows for thin walls in the boss
- High pull out and torque resistance

**Installation Data**
The Sonic-Sert™ is installed using either heat or ultrasonics.

**Heat Installation**
Where heat is used you must ensure that the insert softens, but does not melt the plastic, which helps avoid flash forming around the top of the insert.

**Ultrasonic Installation**
Ultrasonic installation works best with low amplitude vibrations and enough power to soften the surrounding plastic.

Care should be taken to avoid excessive downward pressure being applied during installation which can result in the insert being forced into the hole rather than allowing the plastic to soften around it.

---

**Dimensions (Metric)**

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<th>Thread size</th>
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<td>0.61</td>
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<td>6.3</td>
<td>7.9</td>
<td>9.5</td>
<td>11.8</td>
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</table>

**Recommended Hole Size mm (-0.0/+0.1)**

| Minimum Wall Thickness mm | 1.3| 1.6 | 1.6| 1.8  | 2.1| 2.6| 3.3 | 4.5 | 6.0 |

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Stud versions available on request.
Press-Sert™ Unheaded (UHRPR)

Dimensions (Metric)

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<td>2.8</td>
<td>3.2</td>
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Press-Sert™ information for designers

The Press-Sert™ is a press-in insert, designed for post mould installation into thermoplastics. The combination of plain and knurled vanes provides good levels of pull out and torque resistance.

Advantages:
- Simple, press-in installation
- Provides self-locking action on mating screw
- Good pull out and torque resistance

Installation Data
The Press-Sert™ should be installed with a press that can provide a steady squeezing action to prevent damage to the mating boss.

The mating screw should always be installed into the knurled end of the insert to allow it to expand. It is important that the screw fully penetrates the insert to achieve full expansion and optimum pull-out resistance.

Press-Sert™ inserts should not be used in notch-sensitive plastics.
**Fin-Sert™ Unheaded (UHBRFI) Headed (HDBRFI)**

**Dimensions (Metric)**

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**Fin-Sert™ information for designers**

The Fin-Sert™ is a press-in insert, designed for post mould installation into thermoplastics. The combination of fins and knurls provides good levels of pull out and torque resistance.

**Advantages:**
- Simple, press-in installation
- Free running female thread
- Good pull out and torque resistance

**Installation Data**

The Fin-Sert™ should be installed with a press that can provide a steady squeezing action to prevent damage to the mating boss.

*Stud versions available on request.*
## Dimensions (Metric)

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## Heat-Sert™ information for designers

The **Heat-Sert™** has been designed for post mould installation into notch-sensitive thermoplastics using heat. The rounded knurls alleviate stress in the mating boss.

**Advantages:**
- Designed specifically for notch-sensitive plastics
- Symmetrical design for automated installation
- High pull out and torque resistance

**Installation Data**
The **Heat-Sert™** is installed using heat and you must ensure that the insert softens, but does not melt the plastic which helps to avoid flash forming around the top of the insert.
**Dimensions (Metric)**

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**Recommended Hole Size**

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<td>4.1-4.3</td>
</tr>
<tr>
<td>4.6-4.8</td>
</tr>
<tr>
<td>5.5-5.7</td>
</tr>
<tr>
<td>6.0-6.2</td>
</tr>
<tr>
<td>7.3-7.6</td>
</tr>
<tr>
<td>9.0-9.4</td>
</tr>
<tr>
<td>11.0-11.4</td>
</tr>
<tr>
<td>13.0-13.4</td>
</tr>
</tbody>
</table>

---

**Thread-Sert™** is a self-tapping insert, designed for post mould installation into thermoplastics and thermosets. They are ideally suited to applications which may involve high jack-out loading.

**Advantages:**
- Simple, self-tapping installation
- Helps prevent jack-out
- High torque resistance

**Installation Data**
The Thread-Sert™ is installed by tapping using a hand tool, vertical drill with tapping attachment or standard tapping machine. Max RPM 35-40. Mandrel must not go past slot.

---

Stud versions available on request.
**Broaching-Sert™** Unheaded (UHBRBR) Headed (HDBRBR)

![Diagram of Broaching-Sert™](image)

### Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread size</th>
<th>M2</th>
<th>M2.5</th>
<th>M3</th>
<th>M3.5</th>
<th>M4</th>
<th>M5</th>
<th>M6</th>
<th>M8</th>
<th>M10</th>
</tr>
</thead>
<tbody>
<tr>
<td>L mm</td>
<td>4.1</td>
<td>5.3</td>
<td>5.3</td>
<td>6.3</td>
<td>7.4</td>
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<td>9.2</td>
<td>9.2</td>
<td>9.2</td>
</tr>
<tr>
<td>B mm</td>
<td>0.51</td>
<td>0.58</td>
<td>0.58</td>
<td>0.74</td>
<td>0.89</td>
<td>1.07</td>
<td>1.32</td>
<td>1.32</td>
<td>1.57</td>
</tr>
<tr>
<td>C mm</td>
<td>4.8</td>
<td>5.5</td>
<td>5.5</td>
<td>6.4</td>
<td>7.1</td>
<td>7.9</td>
<td>9.5</td>
<td>11.1</td>
<td>14.0</td>
</tr>
<tr>
<td>K mm</td>
<td>3.3</td>
<td>4.2</td>
<td>4.2</td>
<td>5.0</td>
<td>5.8</td>
<td>6.6</td>
<td>8.2</td>
<td>9.7</td>
<td>12.7</td>
</tr>
<tr>
<td>N mm</td>
<td>3.0</td>
<td>3.7</td>
<td>3.7</td>
<td>4.5</td>
<td>5.3</td>
<td>6.1</td>
<td>7.7</td>
<td>9.3</td>
<td>12.2</td>
</tr>
<tr>
<td><strong>Recommended Hole Size mm (-0.0/+0.1)</strong></td>
<td>3.1</td>
<td>3.8</td>
<td>3.8</td>
<td>4.6</td>
<td>5.4</td>
<td>6.2</td>
<td>7.8</td>
<td>9.3</td>
<td>12.2</td>
</tr>
<tr>
<td><strong>Minimum Wall Thickness mm</strong></td>
<td>1.6</td>
<td>2.0</td>
<td>2.0</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>2.8</td>
<td>3.8</td>
<td>5.0</td>
</tr>
</tbody>
</table>

### Broaching-Sert™ information for designers

The **Broaching-Sert™** is a press-in insert, designed for post mould installation into thermosets. The sharp knurls of the insert cut into the mating material during installation thereby reducing stress in brittle thermosets.

**Advantages:**
- Simple, press-in installation
- Allows for thin walls in the boss
- Good pull out and torque resistance

**Installation Data**

The Broaching-Sert™ should be installed with a press that can provide a steady squeezing action to prevent damage to the mating boss.

The insert should be allowed to freely rotate during installation.

*Stud versions available on request.*
**Expansion-Sert™**

Unheaded (UHBRXP) Headed (HDBRXP) Reverse Headed (RVBRXP)

---

### Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread size</th>
<th>M2</th>
<th>M2.5</th>
<th>M3</th>
<th>M3.5</th>
<th>M4</th>
<th>M5</th>
<th>M6</th>
<th>M8</th>
</tr>
</thead>
<tbody>
<tr>
<td>L mm</td>
<td>3.9</td>
<td>4.7</td>
<td>4.7</td>
<td>6.3</td>
<td>7.9</td>
<td>9.4</td>
<td>12.6</td>
<td>12.6</td>
</tr>
<tr>
<td>B mm</td>
<td>0.43</td>
<td>0.51</td>
<td>0.51</td>
<td>0.66</td>
<td>0.82</td>
<td>0.99</td>
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<td>1.25</td>
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<tr>
<td>C mm</td>
<td>4.8</td>
<td>5.5</td>
<td>5.5</td>
<td>6.4</td>
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<td>11.1</td>
</tr>
<tr>
<td>N max mm</td>
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<td>4.0</td>
<td>4.7</td>
<td>5.5</td>
<td>6.3</td>
<td>7.9</td>
<td>9.5</td>
</tr>
<tr>
<td>Recommended Hole Size mm (&lt;0.0/+0.1)</td>
<td>3.2</td>
<td>4.0</td>
<td>4.0</td>
<td>4.8</td>
<td>5.6</td>
<td>6.4</td>
<td>8.0</td>
<td>9.6</td>
</tr>
<tr>
<td>Minimum Wall Thickness mm</td>
<td>2.4</td>
<td>3.2</td>
<td>3.2</td>
<td>3.6</td>
<td>4.0</td>
<td>4.8</td>
<td>6.0</td>
<td>7.0</td>
</tr>
</tbody>
</table>

---

**Expansion-Sert™ information for designers**

The Expansion-Sert™ is a press-in insert, designed for post mould installation into thermosets. The knurl pattern makes this insert ideal for hard thermosets.

**Advantages:**
- Simple, press-in installation
- Provides self-locking action on mating screw
- Good pull out and torque resistance

**Installation Data**

The Expansion-Sert™ should be installed with a press that can provide a steady squeezing action to prevent damage to the mating boss. It is important that the mating screw fully penetrates the insert to achieve full expansion and optimum pull-out resistance.

---

Reverse Headed Expansion-Sert™ - RVBRXP

Stud versions available on request.
Flow-Sert™ Unheaded (UHRBFL)

Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread size</th>
<th>M2</th>
<th>M2.5</th>
<th>M3</th>
<th>M3.5</th>
<th>M4</th>
<th>M5</th>
<th>M6</th>
<th>M8</th>
<th>M10</th>
</tr>
</thead>
<tbody>
<tr>
<td>L mm</td>
<td>5.5</td>
<td>6.4</td>
<td>7.3</td>
<td>9.2</td>
<td>10.2</td>
<td>11.2</td>
<td>14.4</td>
<td>16.5</td>
<td>17.9</td>
</tr>
<tr>
<td>K mm</td>
<td>3.4</td>
<td>4.3</td>
<td>4.7</td>
<td>5.5</td>
<td>6.3</td>
<td>7.3</td>
<td>9.8</td>
<td>11.4</td>
<td>13.8</td>
</tr>
<tr>
<td>A min. mm</td>
<td>3.6</td>
<td>4.0</td>
<td>4.6</td>
<td>6.0</td>
<td>6.7</td>
<td>7.4</td>
<td>8.1</td>
<td>11.1</td>
<td>11.9</td>
</tr>
<tr>
<td>C mm</td>
<td>1.0</td>
<td>1.2</td>
<td>1.3</td>
<td>1.6</td>
<td>1.8</td>
<td>2.0</td>
<td>2.0</td>
<td>2.3</td>
<td>2.4</td>
</tr>
</tbody>
</table>

Flow-Sert™ information for designers

The Flow-Sert™ is a blind insert, designed to be installed during the moulding process.

Advantages:
- The blind end prevents plastic ingress during moulding
- Very high pull out and torque resistance

Installation Data
The Flow-Sert™ is designed to be installed during moulding. It is critical that the mould pin used is designed to locate the Flow-Sert™ and prevent plastic ingress.

Please contact your nearest TR location for mould pin design assistance.
**Plas-Tech® 30** Pan CR Pozi (Z) (PR30)

![Image of a screw](image)

### Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread Dimensions</th>
<th>Screw Size</th>
<th>2.2</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>5.0</th>
<th>6.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>d2 nom.</td>
<td></td>
<td>1.25</td>
<td>1.40</td>
<td>1.66</td>
<td>1.91</td>
<td>2.17</td>
<td>2.68</td>
<td>3.19</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.98</td>
<td>1.12</td>
<td>1.34</td>
<td>1.57</td>
<td>1.79</td>
<td>2.24</td>
<td>2.69</td>
</tr>
<tr>
<td>s (L &gt; 3 x d1)</td>
<td></td>
<td>2.2</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
<td>5.0</td>
<td>6.0</td>
</tr>
<tr>
<td>s (L &lt; 3 x d1)</td>
<td></td>
<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

| Recommended Hole Size mm | 1.54 - 1.87 | 1.75 - 2.12 | 2.10 - 2.55 | 2.45 - 2.97 | 2.80 - 3.40 | 3.50 - 4.25 | 4.20 - 5.10 |

<table>
<thead>
<tr>
<th>Head Dimensions</th>
<th>D</th>
<th>3.9</th>
<th>4.4</th>
<th>5.3</th>
<th>6.1</th>
<th>7.0</th>
<th>8.8</th>
<th>10.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>1.5</td>
<td>1.7</td>
<td>2.0</td>
<td>2.5</td>
<td>2.7</td>
<td>3.4</td>
<td>4.0</td>
<td></td>
</tr>
<tr>
<td>Recess No.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

### Preferred Range (Metric)

**Preferred lengths:** 4mm - 40mm

**Materials available:** Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)

**Driver bits are available from stock for all screw sizes**
**Plas-Tech® 30**  Flange CR Pozi (Z) (FL30)

### Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread Dimensions</th>
<th>Screw Size</th>
<th>2.2</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>5.0</th>
<th>6.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>d2 nom.</td>
<td></td>
<td>1.25</td>
<td>1.40</td>
<td>1.66</td>
<td>1.91</td>
<td>2.17</td>
<td>2.68</td>
<td>3.19</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.98</td>
<td>1.12</td>
<td>1.34</td>
<td>1.57</td>
<td>1.79</td>
<td>2.24</td>
<td>2.69</td>
</tr>
<tr>
<td>s (L &gt; 3 x d1)</td>
<td></td>
<td>2.2</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
<td>5.0</td>
<td>6.0</td>
</tr>
<tr>
<td>s (L &lt; 3 x d1)</td>
<td></td>
<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Hole Size mm</td>
<td></td>
<td>1.54 - 1.87</td>
<td>1.75 - 2.12</td>
<td>2.10 - 2.55</td>
<td>2.45 - 2.97</td>
<td>2.80 - 3.40</td>
<td>3.50 - 4.25</td>
<td>4.20 - 5.10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head Dimensions</th>
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<th>5.0</th>
<th>6.0</th>
<th>7.0</th>
<th>8.0</th>
<th>10.0</th>
<th>12.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>1.6</td>
<td>1.8</td>
<td>2.1</td>
<td>2.4</td>
<td>2.5</td>
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<td></td>
</tr>
<tr>
<td>t</td>
<td>0.5</td>
<td>0.6</td>
<td>0.7</td>
<td>0.8</td>
<td>0.9</td>
<td>1.1</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>Recess No.</td>
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<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Preferred Range (Metric)**

**Preferred lengths:** 5mm - 30mm

**Materials available:** Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)

**Driver bits are available from stock for all screw sizes**
## Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread Dimensions</th>
<th>Screw Size</th>
<th>2.2</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>5.0</th>
<th>6.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>d2 nom.</td>
<td></td>
<td>1.25</td>
<td>1.40</td>
<td>1.66</td>
<td>1.91</td>
<td>2.17</td>
<td>2.68</td>
<td>3.19</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.98</td>
<td>1.12</td>
<td>1.34</td>
<td>1.57</td>
<td>1.79</td>
<td>2.24</td>
<td>2.69</td>
</tr>
<tr>
<td>s (L &gt; 3 x d1)</td>
<td></td>
<td>2.2</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
<td>5.0</td>
<td>6.0</td>
</tr>
<tr>
<td>s (L &lt; 3 x d1)</td>
<td></td>
<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

| Recommended Hole Size mm | 1.54 - 1.87 | 1.75 - 2.12 | 2.10 - 2.55 | 2.45 - 2.97 | 2.80 - 3.40 | 3.50 - 4.25 | 4.20 - 5.10 |

<table>
<thead>
<tr>
<th>Head Dimensions</th>
<th>D</th>
<th>3.8</th>
<th>4.7</th>
<th>5.5</th>
<th>7.3</th>
<th>8.4</th>
<th>9.3</th>
<th>11.3</th>
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</thead>
<tbody>
<tr>
<td>K</td>
<td>1.30</td>
<td>1.75</td>
<td>2.05</td>
<td>2.80</td>
<td>3.25</td>
<td>3.40</td>
<td>3.80</td>
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<tr>
<td>Recess No.</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

## Preferred Range (Metric)

- **Preferred lengths:** 5mm - 30mm
- **Materials available:** Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)
- **Driver bits are available from stock for all screw sizes**
**Plas-Tech® 30** Pan T-Drive (PT30)

### Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread Dimensions</th>
<th>Screw Size</th>
<th>1.8</th>
<th>2.2</th>
<th>2.5</th>
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<th>3.5</th>
<th>4.0</th>
<th>5.0</th>
<th>6.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>d2 nom.</td>
<td></td>
<td>1.04</td>
<td>1.25</td>
<td>1.40</td>
<td>1.66</td>
<td>1.91</td>
<td>2.17</td>
<td>2.68</td>
<td>3.19</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.80</td>
<td>0.98</td>
<td>1.12</td>
<td>1.34</td>
<td>1.57</td>
<td>1.79</td>
<td>2.24</td>
<td>2.69</td>
</tr>
<tr>
<td>s (L &gt; 3 x d1)</td>
<td></td>
<td>1.8</td>
<td>2.2</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
<td>5.0</td>
<td>6.0</td>
</tr>
<tr>
<td>s (L &lt; 3 x d1)</td>
<td></td>
<td>0.9</td>
<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td><strong>Recommended Hole Size mm</strong></td>
<td></td>
<td>1.26 - 1.53</td>
<td>1.54 - 1.87</td>
<td>1.75 - 2.12</td>
<td>2.10 - 2.55</td>
<td>2.45 - 2.97</td>
<td>2.80 - 3.40</td>
<td>3.50 - 4.25</td>
<td>4.20 - 5.10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head Dimensions</th>
<th></th>
<th>D</th>
<th>K</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td></td>
<td>3.6</td>
<td>4.0</td>
<td>4.2</td>
<td>5.6</td>
<td>6.9</td>
<td>7.5</td>
<td>8.2</td>
<td>10.8</td>
</tr>
<tr>
<td>K</td>
<td></td>
<td>1.3</td>
<td>1.5</td>
<td>1.6</td>
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<td>2.3</td>
<td>2.6</td>
<td>2.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Recess No.</td>
<td>T6</td>
<td>T6</td>
<td>T7/T8*</td>
<td>T10</td>
<td>T10</td>
<td>T20</td>
<td>T20</td>
<td>T23/T25*</td>
<td></td>
</tr>
</tbody>
</table>

**Preferred Range (Metric)**

Preferred lengths: 4mm - 30mm

Materials available: Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)

Driver bits are available from stock for all screw sizes

* Please contact sales for details
**Plas-Tech® 30 Flange T-Drive (FT30)**

**Dimensions (Metric)**

<table>
<thead>
<tr>
<th>Thread Dimensions</th>
<th>Screw Size</th>
<th>2.2</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>5.0</th>
<th>6.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>d2 nom.</td>
<td></td>
<td>1.25</td>
<td>1.40</td>
<td>1.66</td>
<td>1.91</td>
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<td>2.68</td>
<td>3.19</td>
</tr>
<tr>
<td>p</td>
<td></td>
<td>0.98</td>
<td>1.12</td>
<td>1.34</td>
<td>1.57</td>
<td>1.79</td>
<td>2.24</td>
<td>2.69</td>
</tr>
<tr>
<td>s (L &gt; 3 x d1)</td>
<td></td>
<td>2.2</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
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<td>s (L &lt; 3 x d1)</td>
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<table>
<thead>
<tr>
<th>Recommended Hole Size mm</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.54 - 1.87</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Head Dimensions</th>
<th>D</th>
<th>K</th>
<th>t</th>
<th>Recess No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>4.5</td>
<td>1.4</td>
<td>0.5</td>
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</tr>
<tr>
<td>K</td>
<td>5.0</td>
<td>1.5</td>
<td>0.5</td>
<td>T6/T7*</td>
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<tr>
<td>t</td>
<td>6.0</td>
<td>2.1</td>
<td>0.6</td>
<td>T10</td>
</tr>
<tr>
<td>Recess No.</td>
<td></td>
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<td>T10</td>
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<table>
<thead>
<tr>
<th>Preferred Range (Metric)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preferred lengths:</strong></td>
</tr>
<tr>
<td><strong>Materials available:</strong></td>
</tr>
<tr>
<td><strong>Driver bits are available from stock for all screw sizes</strong></td>
</tr>
</tbody>
</table>

* Please contact sales for details
### Plas-Tech® 30 Countersunk T-Drive (KT30)

![Image of screw with dimensions](image)

### Dimensions (Metric)

<table>
<thead>
<tr>
<th>Thread Dimensions</th>
<th>Screw Size</th>
<th>1.8</th>
<th>2.2</th>
<th>2.5</th>
<th>3.0</th>
<th>3.5</th>
<th>4.0</th>
<th>5.0</th>
<th>6.0</th>
</tr>
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<tbody>
<tr>
<td>d2 nom.</td>
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<td>1.04</td>
<td>1.25</td>
<td>1.40</td>
<td>1.66</td>
<td>1.91</td>
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<td>3.19</td>
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<tr>
<td>p</td>
<td></td>
<td>0.80</td>
<td>0.98</td>
<td>1.12</td>
<td>1.34</td>
<td>1.57</td>
<td>1.79</td>
<td>2.24</td>
<td>2.69</td>
</tr>
<tr>
<td>s (L &gt; 3 x d1)</td>
<td></td>
<td>1.8</td>
<td>2.2</td>
<td>2.5</td>
<td>3.0</td>
<td>3.5</td>
<td>4.0</td>
<td>5.0</td>
<td>6.0</td>
</tr>
<tr>
<td>s (L &lt; 3 x d1)</td>
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<td>1.1</td>
<td>1.3</td>
<td>1.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Recommended Hole Size mm</td>
<td></td>
<td>1.26 - 1.53</td>
<td>1.54 - 1.87</td>
<td>1.75 - 2.12</td>
<td>2.10 - 2.55</td>
<td>2.46 - 2.97</td>
<td>2.80 - 3.40</td>
<td>3.50 - 4.25</td>
<td>4.20 - 5.10</td>
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<table>
<thead>
<tr>
<th>Head Dimensions</th>
<th>D</th>
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<th>3.8</th>
<th>4.7</th>
<th>5.5</th>
<th>7.3</th>
<th>8.4</th>
<th>9.2</th>
<th>11.3</th>
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<tr>
<td></td>
<td>K</td>
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<td>0.35</td>
<td>0.35</td>
<td>0.35</td>
<td>0.40</td>
<td>0.45</td>
<td>0.50</td>
<td>0.55</td>
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<tr>
<td>Recess No.</td>
<td>T6</td>
<td>T6</td>
<td>T6</td>
<td>T6</td>
<td>T8</td>
<td>T8</td>
<td>T15</td>
<td>T20</td>
<td>T20</td>
</tr>
</tbody>
</table>

### Preferred Range (Metric)

**Preferred lengths:** 6mm - 25mm

**Materials available:** Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)

**Driver bits are available from stock for all screw sizes**
Plas-Fix® 45  Pan CR Pozi (Z) (PR45)

Dimensions (Metric)

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>1.8</th>
<th>2.2</th>
<th>2.5</th>
<th>3</th>
<th>3.5</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
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<td>2.25</td>
<td>2.55</td>
<td>3.05</td>
<td>3.55</td>
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<td>D</td>
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<td>4.24</td>
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<td>5.00</td>
<td>6.00</td>
<td>7.00</td>
<td>8.00</td>
<td>10.00</td>
</tr>
<tr>
<td>K - Max</td>
<td>1.50</td>
<td>1.57</td>
<td>1.60</td>
<td>1.95</td>
<td>2.30</td>
<td>2.45</td>
<td>2.80</td>
<td>3.50</td>
</tr>
<tr>
<td>Recess</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Recommended Hole Size mm</td>
<td>1.19 - 1.45</td>
<td>1.47 - 1.79</td>
<td>1.80 - 2.00</td>
<td>2.26 - 2.50</td>
<td>2.73 - 2.95</td>
<td>3.18 - 3.41</td>
<td>3.62 - 4.10</td>
<td>4.55 - 5.05</td>
</tr>
</tbody>
</table>

Preferred Range (Metric)

Preferred lengths: 5mm - 30mm
Materials available: Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)
Driver bits are available from stock for all screw sizes
**Plas-Fix® 45  Flange CR Pozi (Z) (FL45)**

**Dimensions (Metric)**

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>3.5</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
<td>3.55</td>
<td>4.06</td>
<td>5.06</td>
<td>6.06</td>
</tr>
<tr>
<td>D</td>
<td>6.60</td>
<td>8.00</td>
<td>9.60</td>
<td>12.00</td>
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<tr>
<td>K - Max</td>
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<tr>
<td>Recess</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Recommended Hole Size mm</td>
<td>2.73 - 2.95</td>
<td>3.18 - 3.41</td>
<td>3.62 - 4.10</td>
<td>4.55 - 5.05</td>
</tr>
</tbody>
</table>

**Preferred Range (Metric)**

*Preferred lengths: 6mm - 25mm*

*Materials available: Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)*

*Driver bits are available from stock for all screw sizes*
Plas-Fix® 45  Countersunk CR Pozi (Z) (KR45)

Dimensions (Metric)  Steel/Zinc & Clear (CR3) | A2 Stainless Steel/Self Colour (SF)

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>2.5</th>
<th>3</th>
<th>3.5</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
<td>2.55</td>
<td>3.05</td>
<td>3.55</td>
<td>4.06</td>
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<td>D</td>
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<td>5.50</td>
<td>6.30</td>
<td>7.35</td>
<td>8.40</td>
<td>10.00</td>
</tr>
<tr>
<td>K - Max</td>
<td>1.30</td>
<td>1.50</td>
<td>1.65</td>
<td>1.90</td>
<td>2.20</td>
<td>2.50</td>
</tr>
<tr>
<td>Recess</td>
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<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Recommended Hole Size mm</td>
<td>1.80 - 2.00</td>
<td>2.26 - 2.50</td>
<td>2.73 - 2.95</td>
<td>3.18 - 3.41</td>
<td>3.62 - 4.10</td>
<td>4.55 - 5.05</td>
</tr>
</tbody>
</table>

Preferred Range (Metric)

Preferred lengths: 6mm - 30mm
Materials available: Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)

Driver bits are available from stock for all screw sizes
**Dimensions (Metric)**

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>2.5</th>
<th>3</th>
<th>3.5</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
<td>2.55</td>
<td>3.05</td>
<td>3.55</td>
<td>4.06</td>
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<tr>
<td>K - Max</td>
<td>1.60</td>
<td>1.95</td>
<td>2.30</td>
<td>2.45</td>
<td>2.80</td>
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<tr>
<td>Recess</td>
<td>T6</td>
<td>T8</td>
<td>T10</td>
<td>T15</td>
<td>T20</td>
</tr>
<tr>
<td>Recommended Hole Size mm</td>
<td>1.80 - 2.00</td>
<td>2.26 - 2.50</td>
<td>2.73 - 2.95</td>
<td>3.18 - 3.41</td>
<td>3.62 - 4.10</td>
</tr>
</tbody>
</table>

**Preferred Range (Metric)**

**Preferred lengths:** 6mm - 30mm

**Materials available:** Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)

**Driver bits are available from stock for all screw sizes**
### Dimensions (Metric)

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>2.5</th>
<th>3</th>
<th>3.5</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
<td>2.55</td>
<td>3.05</td>
<td>3.55</td>
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<td>5.06</td>
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<tr>
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<td>4.40</td>
<td>5.50</td>
<td>6.30</td>
<td>7.35</td>
<td>8.40</td>
</tr>
<tr>
<td>K - Max</td>
<td>1.30</td>
<td>1.50</td>
<td>1.65</td>
<td>1.90</td>
<td>2.20</td>
</tr>
<tr>
<td>Recess</td>
<td>T6</td>
<td>T8</td>
<td>T10</td>
<td>T15</td>
<td>T20</td>
</tr>
<tr>
<td>Recommended Hole Size mm</td>
<td>1.80 - 2.00</td>
<td>2.26 - 2.50</td>
<td>2.73 - 2.95</td>
<td>3.18 - 3.41</td>
<td>3.62 - 4.10</td>
</tr>
</tbody>
</table>

### Preferred Range (Metric)

**Preferred lengths:** 6mm - 30mm  
**Materials available:** Steel/Zinc & Clear (CR3), A2 Stainless Steel/Self Colour (SF)  
**Driver bits are available from stock for all screw sizes**
Plas-Fix® 60 Pan CR Pozi (Z) (PR60)

Dimensions (Imperial)

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>No 2</th>
<th>No 4</th>
<th>No 6</th>
<th>No 8</th>
<th>No 10</th>
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</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
<td>0.089</td>
<td>0.123</td>
<td>0.143</td>
<td>0.179</td>
<td>0.208</td>
</tr>
<tr>
<td>D</td>
<td>0.167</td>
<td>0.219</td>
<td>0.270</td>
<td>0.322</td>
<td>0.373</td>
</tr>
<tr>
<td>K - Max</td>
<td>0.062</td>
<td>0.080</td>
<td>0.097</td>
<td>0.115</td>
<td>0.133</td>
</tr>
<tr>
<td>Recess</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Recommended Hole Size In</td>
<td>0.079 - 0.080</td>
<td>0.099 - 0.106</td>
<td>0.121 - 0.128</td>
<td>0.147 - 0.157</td>
<td>0.173 - 0.184</td>
</tr>
</tbody>
</table>

Preferred Range (Imperial)

Preferred lengths: 3/16 - 1 1/2

Materials available: Steel/Zinc & Clear (CR3)

Driver bits are available from stock for all screw sizes
**Screws for Plastic**

**Dimensions (Imperial)**

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>No 2</th>
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<th>No 6</th>
<th>No 8</th>
<th>No 10</th>
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</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
<td>0.089</td>
<td>0.123</td>
<td>0.143</td>
<td>0.179</td>
<td>0.208</td>
</tr>
<tr>
<td>D</td>
<td>0.167</td>
<td>0.219</td>
<td>0.270</td>
<td>0.322</td>
<td>0.373</td>
</tr>
<tr>
<td>K - Max</td>
<td>0.062</td>
<td>0.080</td>
<td>0.097</td>
<td>0.115</td>
<td>0.133</td>
</tr>
<tr>
<td>Recess</td>
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<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Recommended Hole Size In</td>
<td>0.079 - 0.080</td>
<td>0.099 - 0.106</td>
<td>0.121 - 0.128</td>
<td>0.147 - 0.157</td>
<td>0.173 - 0.184</td>
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</table>

**Preferred Range (Imperial)**

**Preferred lengths:** 1/4 - 1

**Materials available:** Steel/Zinc & Clear (CR3)

**Driver bits are available from stock for all screw sizes**
## Dimensions (Imperial)

<table>
<thead>
<tr>
<th>Screw Size</th>
<th>No 2</th>
<th>No 4</th>
<th>No 6</th>
<th>No 8</th>
<th>No 10</th>
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</thead>
<tbody>
<tr>
<td>Dia. d1 Max</td>
<td>0.089</td>
<td>0.123</td>
<td>0.143</td>
<td>0.179</td>
<td>0.208</td>
</tr>
<tr>
<td>D</td>
<td>0.172</td>
<td>0.225</td>
<td>0.279</td>
<td>0.332</td>
<td>0.385</td>
</tr>
<tr>
<td>K - Max</td>
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<td>0.083</td>
<td>0.100</td>
<td>0.116</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Recommended Hole Size In</td>
<td>0.079 - 0.080</td>
<td>0.099 - 0.106</td>
<td>0.121 - 0.128</td>
<td>0.147 - 0.157</td>
<td>0.173 - 0.184</td>
</tr>
</tbody>
</table>

| Preferred Range (Imperial) |

**Preferred lengths:** 3/16 - 3/4

**Materials available:** Steel/Zinc & Clear (CR3)

**Driver bits are available from stock for all screw sizes**
Specials

High-low Screws

High-low screws have two widely spaced threads. One, the high thread, shall have a 30° included angle whilst the second, the low thread, has a 60° included angle. The unique thread form has three important advantages in plastic applications:

1. High pull out loads
2. Wider differential between driving and stripping torque values
3. Reduced radial pressure which minimises both cracking or busting

Type BT Screws

Type BT thread cutting screws have spaced threads with a blunt point and tapered lead threads, as with Type F self tappers with a thread cutting edge and chip cavity.

These screws cut their mating thread form and are therefore more suited to applications in less ductile materials (which are unsuitable for the Type F screws) such as thermoset plastics and cast aluminium.

Type Y Screws

Type Y thread cutting screws have spaced threads with a blunt point and tapered entering threads, as with Type F self tappers, with multi cutting flutes extended from point to under head.

The screws cut their mating thread and are therefore suitable to less ductile materials such as thermoset plastics and aluminium.