Tentec CTST
General purpose bolt tensioners

The worldwide standard for bolt tensioning tools.
**TENTEC CTST GENERAL PURPOSE BOLT TENSIONERS**

**Topside Bolt Tensioning**

The CTST range of Tentec topside bolt tensioning tools consist of 6 base tools covering bolt sizes from 3/4” to 4” (M20 to M100). The tools are designed to fit on to most ANSI B16.5, ANSI B16.47 Series 1, MSS-SP44, API-6A and API-17D flanges. Each base tool can be converted for use on a different bolt size by the use of a conversion kit.

**BOLT TIGHTENING SOLUTIONS**

We have many years experience of designing bespoke bolt tensioning tools for instances where standard tools are not suitable. Contact us for more information.

**Conversion Kits**

Conversion Kits offer a very economical way to expand your inventory of bolt tensioning tools. Kits are available to convert a CTST tensioner to suit an alternative bolt size within its size range. Kits consist of a Puller, Bridge and Nut Rotating Socket. Get in touch with us and we can advise on suitable Conversion Kits part numbers.

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**Long Ram Stroke**

15mm piston/ram stroke capability on models CTST 02 - CTST 06

**Reliable Seals**

Proven seal technology ensures many 1000’s of tool pressure cycles

**Hydraulic Connections**

User configurable quick release connections

**Versatile**

Detachable and Interchangable bridge component.

**Thread Insert**

Contains a matching female thread to the bolt being tensioned
Part of the conversion kit

**Load Cell Assembly**

The load generating part of the tensioner

**Bridge**

Part of the conversion kit

**Nut Rotating Socket (NRS)**

Fits around the bolted joint nut to allow for easy rotation
Part of the conversion kit

**BOLT TIGHTENING SOLUTIONS**

**Consistent, Dependable and Safe.**

Consistent: Using multiple bolt tensioning tools on a bolted joint gives a much improved uniform bolt load across all bolts.

Axial Bolt Load: Bolt load is applied axially to the bolt. Inconsistencies such as friction, bending and lubricant are not a factor when using bolt tensioners. No torsional stresses are involved.

Rapid: Multiple bolt tensioners offer a rapid and accurate method of tightening a bolt.

Adaptable: Conversion kits are available to convert a tensioner from one bolt size to another offering an economical and versatile solution.

Accurate: Bolt load is directly proportional to the pressure applied to the tensioner.

**Bolt Protrusion**

CTST-Series tensioners need a minimum of 1 x bolt diameter protruding above the hexagon or round nut.
### Technical Specifications

<table>
<thead>
<tr>
<th>Part No</th>
<th>Thread Size</th>
<th>Part No</th>
<th>Thread Size</th>
<th>Bolt Load</th>
<th>Ram Area</th>
<th>Stroke</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTT5551.034</td>
<td>3/4&quot;-10UNC</td>
<td>M40x2.5</td>
<td>227.61</td>
<td>22.66</td>
<td>2.354</td>
<td>151.785</td>
<td>10</td>
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<td>71.0</td>
<td>63</td>
</tr>
<tr>
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<td>1&quot;-DUNC</td>
<td>M46x4.5</td>
<td>1.9</td>
<td>24.0</td>
<td>66.0</td>
<td>71.0</td>
<td>64</td>
</tr>
<tr>
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</tr>
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<td>71.0</td>
<td>66</td>
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</tbody>
</table>

### Maximum Working Pressure = 1500bar : 21750psi

Integrated into the design of each CTST tensioners are enhanced safety features including mechanisms to remove the hazard of over-stroking the tensioner rams. All CTST Models feature a mechanism which directs oil flow away from the operator in the instance the ram is over-stroked and exhausts oil harmlessly into the internal section of the tensioner.

**Seal Technology**

Over the years Tentec has developed a class leading high pressure seal technology. This innovative seal technology is industry proven and offers many 1000's of reliable and safe pressure cycles.

### Designs and Specifications

**Safety & Reliability**

Read all safety instructions in the manual before usage.
Tentec BTS-Bolt Tightening Software

Tentec software allows users to manage and rapidly calculate bolt tensioner pressures. Tentec Bolt Load Software has been designed with the philosophy of minimal input, maximum output.

Documentation for multiple bolted joint projects can be created very quickly with minimal operator input. The software package contains data for all standard flanges along with the correct tensioner pressures to apply.