TENTEC V-SERIES
COMPACT FLANGE
BOLT TENSIONERS

The worldwide standard for bolt tensioning tools for use on Vector* SPO compact flanges.
The V-Series range of tensioners have been designed for use on the following flange classes. Starting from 3/4” bolt diameter.

- 150 Lbs
- 300 Lbs
- 600 Lbs
- 900 Lbs
- 1500 Lbs
- 2500 Lbs
- 7500 lbs 520bar (Formerly 4500i)
- 5000 psi
- 10000 psi
- 15000 psi

The SPO Compact Flange has been used across the globe since 1989, offshore, onshore and subsea, offering significant weight and space savings over conventional flanges, leak-free joint integrity and therefore is the most effective environmentally friendly piping joint available today.

The preferred method of tightening the SPO compact flange bolts is with the use of bolt tensioning tools. Due to the compact size and relatively high bolt load requirements of the flanges, most conventional bolt tensioners either do not physically fit onto the flanges or do not have enough bolt load capacity.

The V-Series tensioners are a purpose designed range of tools designed specifically for use on SPO Compact flanges. The range consists of 11 powerful bolt tensioning tools covering bolt sizes from 3/4” to 4”

### Pressure Class.

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**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 Vector International compact flanges along with the correct tensioner pressures to apply.
During the engineering development of the V-Series tensioners, over 300 different configurations of standard SPO compact flanges were 3D modelled using the latest 3D solid model CAD software.

Our design team then set about designing tensioners to perfectly clear not only the elliptical hub profile of the SPO compact flanges but also the weld protrusion and the pipe diameter. Care was taken to design profile machined tensioners that also stay clear of the adjacent hexagon nuts. The resulting tools fit perfectly onto the standard SPO compact flanges.

The bolt load offered by the V-Series bolt tensioning tools offers exactly the bolt load specified by Vector International to ensure a leak free bolted joint. A minimum of 1 x Thread diameter of stud protrusion above the joint nut is required.

Sculpted to Fit.

All V-Series tensioners have been designed without the need for small bonded seals. Bonded seals are used by most bolt tensioning manufacturers to seal the hydraulic connections to the tensioner. These tiny seals are prone to failure and when just one of the many bonded seals used in a tensioning system fail, the whole tensioning procedure comes to a halt until the failed bonded seal is replaced. We have designed out the use of these fragile seals so that this new range of tensioners no longer rely on bonded seals, improving safety and minimising downtime.
## Technical Specifications

Maximum Working Pressure = 1500bar : 21750 psi

<table>
<thead>
<tr>
<th>Tool Ident</th>
<th>Part No</th>
<th>Thread Size</th>
<th>Bolt Load</th>
<th>Ram Area</th>
<th>Stroke</th>
<th>Weight</th>
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</table>

Designs and specifications are subject to change without notice or obligation. Read all safety instructions in the manual before usage.

TENTEC BOLT TIGHTENING SOLUTIONS

ISO 14001 | BS OHSAS 18001 | ISO 9001

COMMITTED TO SUSTAINABLE PRODUCTIVITY

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