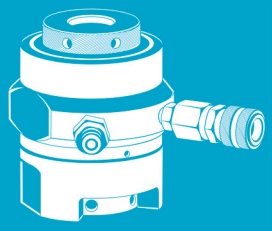
TENTEC MULTI-STUD (MST) BOLT TENSIONING



The worldwide standard for MST systems.

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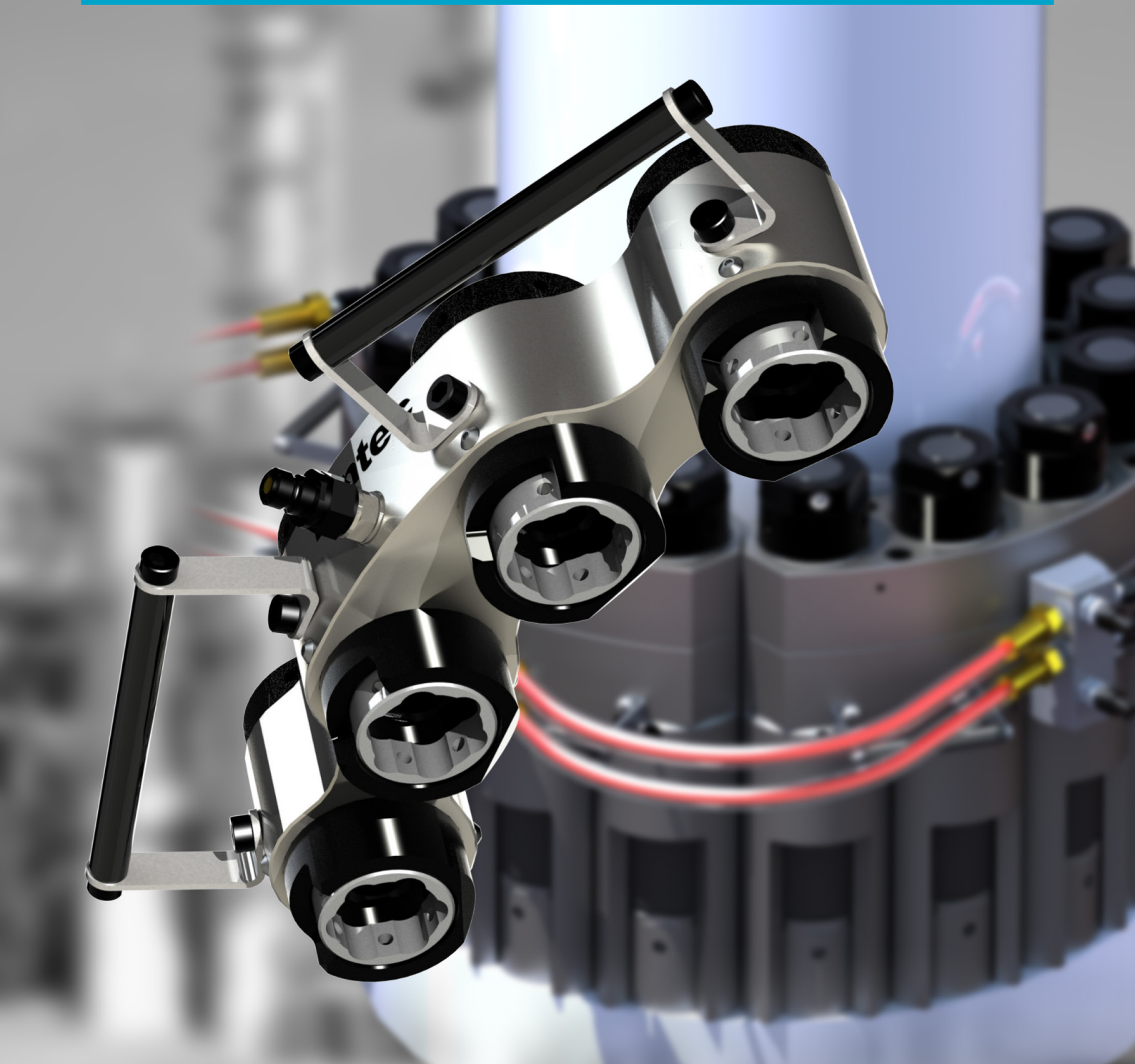


TENTEC MULTI-STUD BOLT TENSIONING (MST)

The Segmented Multi-Stud bolt tensioning System (MST) is a detachable system designed to simultaneously tension all studs on system closures such as steam generator primary and secondary manways, handwheel and valve covers.

This state of the art system applies a predictable and accurate pre-load to all studs simultaneously, thus eliminating the problems normally associated with conventional torque tightening techniques such as uneven gasket pre-loads resulting in closure leakage, galling, broken fasteners, etc.

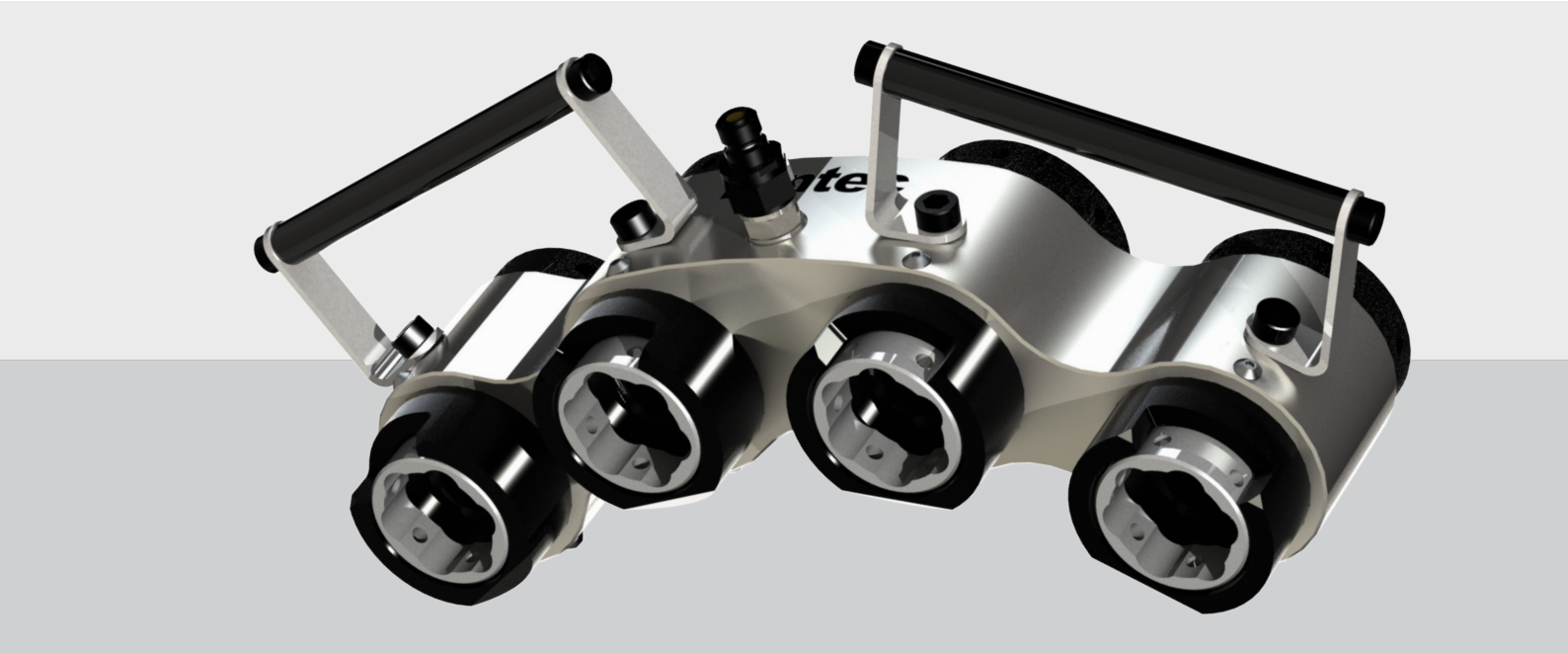
Hydraulic pressure is applied simultaneously to each segmented stud tensioner. All frictional factors connected with conventional bolt tightening methods are alleviated since MST systems apply a direct axial force to the bolts which generates a bolt elongation. This elongation (tension) is permanently retained by means of the applications hexagon nuts.

BOLT TIGHTENING SOLUTIONS

MST systems are designed to order and can incorporate many bespoke design features. Contact us for more information

A Complete MST consists of a number of segments. The number of segments is determined at the design stage in order to optimise the individual weight of each segment. An MST segment can typically cover 4, 5 or 6 bolts therefore a conventional 16 bolt closure flange would need 4 segments, each segment simultaneously tensioning 4 bolts.

Everything about the design of a Tentec MST is included to allow for extremely rapid and simple bolt tensioning. Each segment is fitted with just a single hydraulic inlet port which means that a typical 16 bolt, 4 segment MST system uses just 4 lengths of high pressure flexible hydraulic hose to simultaneously feed the segments. This makes the hydraulic hose installation very simple and fast.



Profile machine cut segment profiles, reduce segment weight.

FEATURES

WEIGHT
In order to optimise the individual weight of each segment Tentec MST systems can be profile machine cut to remove unnecessary material.

AXIAL BOLT LOAD
Bolt load is applied axially to the bolts. Inconsistencies such as friction, bending and lubricant are not a factor when using MST systems. No torsional stresses are involved.

FAST TENSIONING
MST systems offer an extremely rapid and simple method of simultaneously, accurately tensioning every bolt on a closure flange. A typical applications for MST's are nuclear manway covers where the elevated radioactive environment demands an extremely rapid tensioning time in order to minimise personnel exposure.

DETACHABLE
MST systems are removed from the closure once the bolts are loaded. This allows for a single MST system to be used on many identical closure joints.

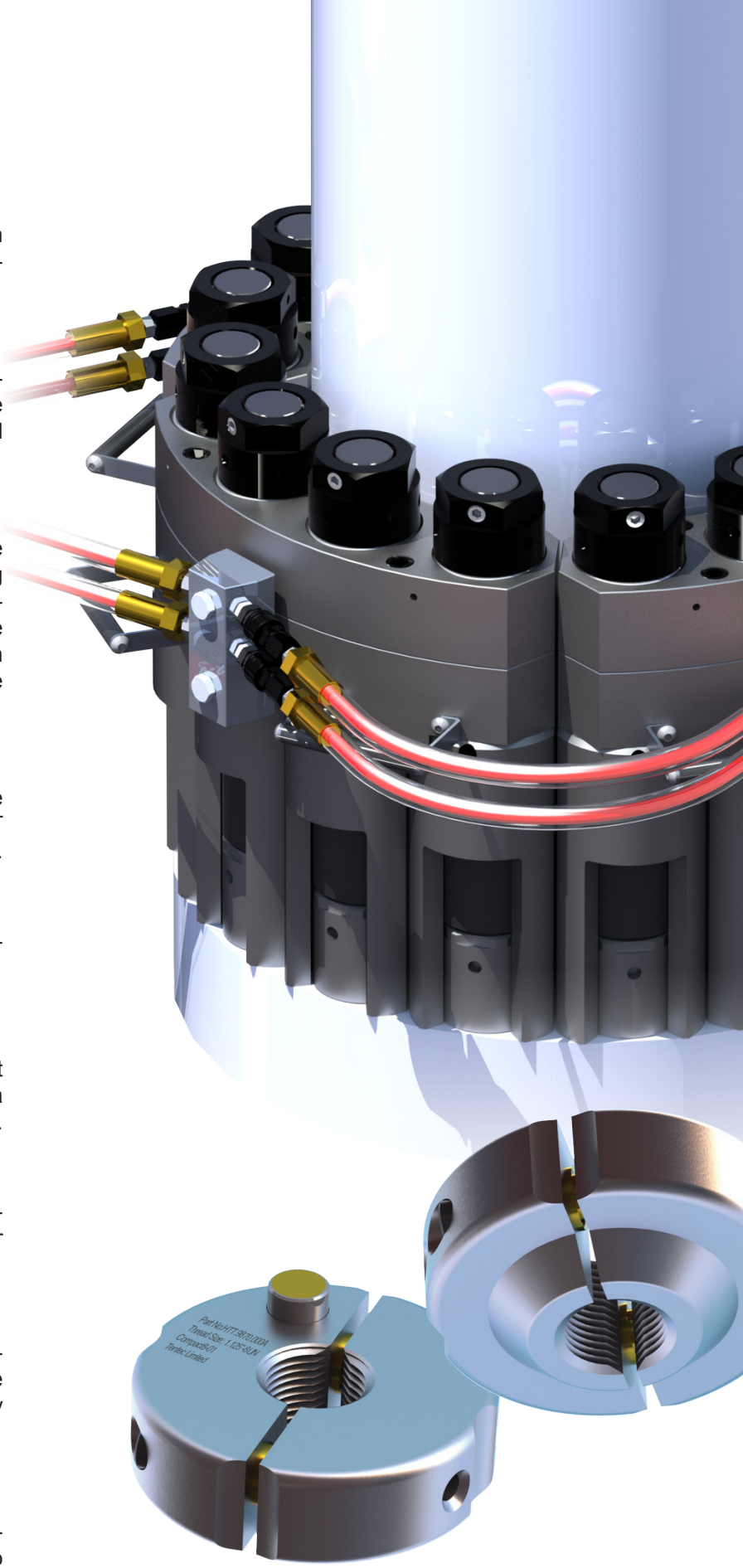
ACCURATE
Bolt load is directly proportional to the pressure applied to the tensioner.

ELLIPTICAL PISTON RAMS
In order to maximise the space between each bolt and to achieve the correct hydraulic pressure area a special non-circular piston ram can be utilised.

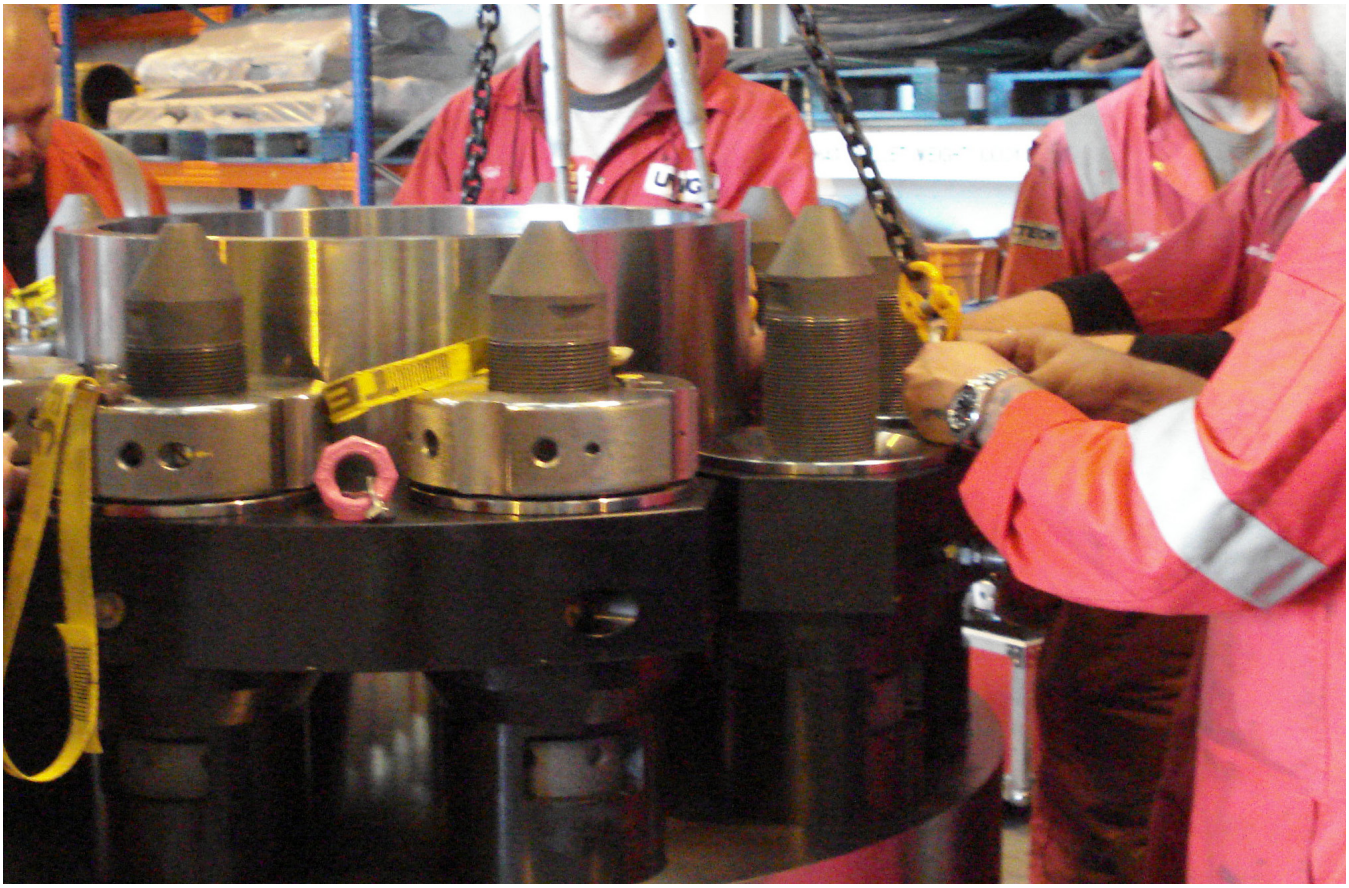
SPLIT REACTION NUTS
Tentec quick fitting Split Reaction Nuts can be incorporated into the MST design. These allow for even quicker installation and de-installation times.

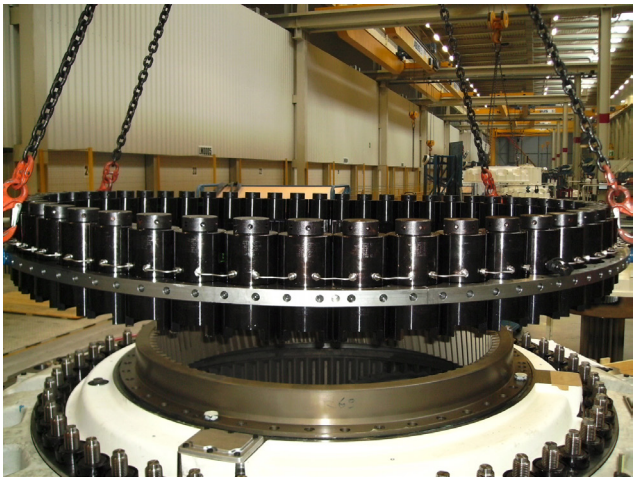
SEAL TECHNOLOGY
Over the years Tentec has developed a class leading high pressure seal technology. This innovative seal technology is industry proven and offers many 1000's of reliable and safe pressure cycles.

SAFETY & RELIABILITY
Integrated into the design of each MST are enhanced safety features including mechanisms to remove the hazard of over-stroking the hydraulic rams All Tentec MST systems 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 system.



Tentec Split Reaction Nuts





TENTEC BOLT TIGHTENING SOLUTIONS

ISO 14001 BS OHSAS 18001 ISO 9001

ECITB Engineering Construction Industry Training Board APPROVED PROVIDER

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