

EXPECTATIONS

Patently Superior - Titan products are covered by numerous patents and patents pending for its designs in Torque & Tensioning products.

Technical Expertise - Bolting applications experience in multiple industries including offshore, subsea, power generation, oil & gas, petrochemical, mining, pulp and paper and more.

Local Availability - Local offices, independent sales representatives and authorized dealers located worldwide.

Quality Guarantee

Extensive Warranty

ABOUT TITAN

Titan Technologies International, Inc., is a worldwide company with headquarters in Houston, TX. We provide a full range of products and solutions for bolting.



Your Local Titan Representative



TITAN AquaTite™ SUBSEA TENSIONERS

- Titan Aquatite Subsea tensioners feature a stroke limiter (avoiding seal extrusion) and a piston spring return system for piston retraction
- Both above features totally eliminate the need to send the tensioners top side for either piston retraction or seal replacement.

TITAN SOLUTIONS

- Torque and Tensioner Sales
- Torque Wrench Rentals
- Local Service
- On-site consulting services
- Customized engineered solutions
- Customized torque & tensioning packages
- Offices Worldwide

Titan World Headquarters

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TITAN AquaTite™



STOP
sending your **SUBSEA Tensioners**
topside during the alignment and
tightening process

- SAVE 45% TO 80% ON DIVE TIME
- REDUCE DIVER FATIGUE
- INCREASES SAFETY
- IMPROVES SUBSEA BOLTING PROCESS



Titan AquaTite™

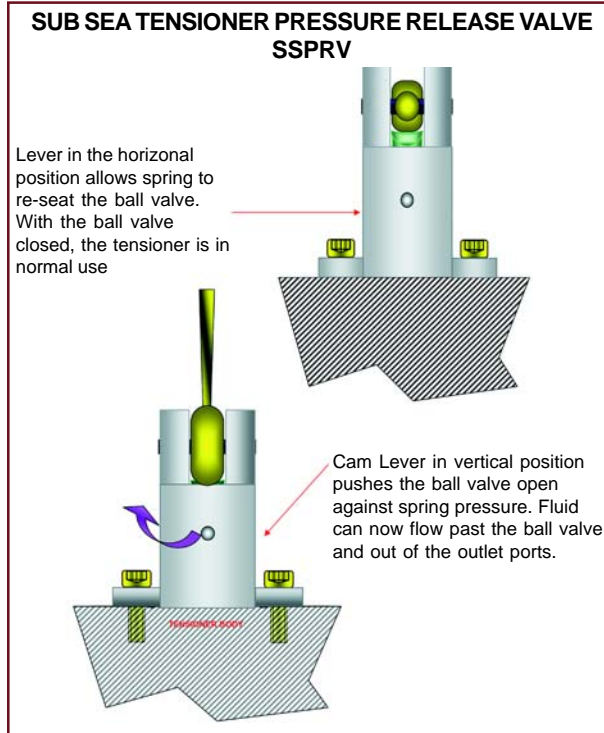
The revolutionary new and patent pending Titan AquaTite™ Subsea Tensioners are the standard by which all Subsea Tensioners are judged today. Features include:

- **Finite Element design**
- **Corrosion Resistant coating**
- **Auto Return Piston system (Multiple Patents Pending).**
- **The Hydraulic Fluid (Water) is released LOCALLY into the environment allowing the springs to retract the piston and the Tensioner to take successive strokes**
- **NO MORE RETURNING THE SUBSEA TENSIONER TOPSIDE to retract the piston**
- **Up to 30mm stroke**
- **STROKE LIMITER** avoids the possibility of seal extrusion and hence the need to change damaged extruded seals.
- **Environmental seal to stop the ingress of sand, mud etc. into the piston return spring chamber.**



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How The System Works



- **Due to positioning of the pipeline, sub sea tensioners are often used to align the flanges just prior to tightening. This gap is often 25 to 90 mm wide.**
- **To achieve this 2 or 3 tensioner strokes are often needed.**
- **The Titan AquaTite™ SUBSEA Tensioners have an automatic PISTON RETURN SYSTEM.**
- **The need to dismantle the harness, undo all the split nuts, send all the Tensioners up to the barge, retract all the pistons, send back down, reinstall, re-harness and finally carry out final tightening ...**

IS ELIMINATED!

The Revolutionary Titan AquaTite™

- **After many consultations with leading diving companies, the message was loud and clear: Give us a tensioner which does not extrude seals and one with auto return. They considered the continuous sending of the tools topside an extremely costly operation to maintain.**
- **Stroke limiting was quite easy to achieve for our designers, but auto return was something else!! Springs would not push the oil back up and double acting cylinders were too complex and big,....**
- **Titan AquaTite™ provides the perfect solution:**
- **Use of water as the hydraulic fluid, and the patented design of a Pressure Release Valve enables the auto piston return to take place right on the sea bed, at the flange itself, by simply moving one lever!!!**

