

SPX®

› Bolting Systems

SPX Bolting Systems Product Overview

**SALES • RENTAL • CALIBRATION
SOFTWARE • TRAINING • REPAIR**



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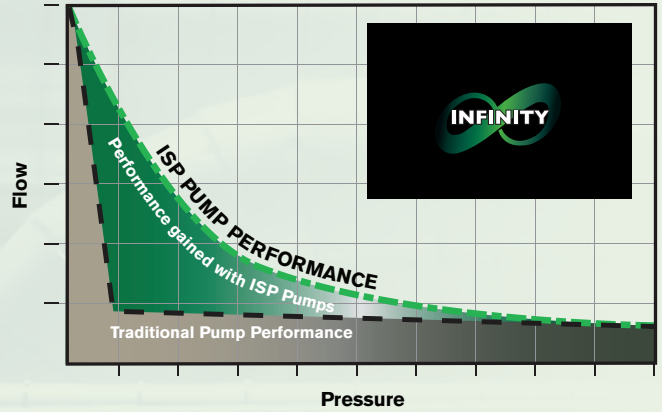
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Pumps

Get Work Done Faster

The Infinity Series Pump (ISP) from SPX helps get work done faster so you achieve higher productivity more safely and effectively. The innovative, patent pending design takes advantage of a continuously variable output that provides maximum flow within the rated pressure range of the pump from 0 - 690 Bar (0 to 10,000 PSI). Most torqueing, splitting and spreading work is done between 70 - 400 Bar (1,000 - 6,000), which is where the Infinity Series Pumps (ISP) provide the most significant advantage over traditional pumps. For example, at 70 Bar (1,000 PSI) there is 5X as much flow as a traditional pump. At 275 Bar (4,000 PSI) there is 2X as much flow as a traditional pump. The return stroke (on auto pump) works on oil-flow not pressure, for more efficient operation and less heat build-up.

The additional flow moves tools faster which allows work to be done quicker and more efficiently. The increased efficiency saves you time – allowing you to get onto your next job sooner and more profitably



For Bolting and Torqueing

The next generation is here! SPX has long been the market leader in high pressure hydraulic pumps due to durability, ease of use and life cycle cost benefits. SPX introduces Infinite Stage Pump Technology - the first continuously variable output hydraulic pump maximizes flow at any given pressure that results in up to 200% speed improvement - to make jobs faster and easier.

Quality means lower life-cycle costs:

- Over 100,000 cycles
- Continuous duty up to 50°C / 122°F ambient
- Proven, reliable design

Enhanced Usability for all ISP Pumps:

- Pendant control
- Oil sight port with reservoir drain
- Fixed 1500 psi / 103 bar retract relief valve
- Easy adjust system pressure regulator (relief valve)
- Removable, 100mm (4 in) calibratable gauge
- Optional four tool manifold
- Optional roll cage

PA60A

ISP HIGH VOLUME AIR PUMP

The SPX PA60A is an Infinite Stage Pump which increases productivity on the job by providing continuous pressure for up to 2x the speed of typical 2-stage pumps. Jobs get done faster and easier.

- Sealed hydraulic reservoir
- Modular pumping cartridges
- Includes FRL (filter/regulator/lubricator)
- CE II 2 GDC T4



PE45

ISP HIGH VOLUME AUTO CYCLE ELECTRIC PUMP

The PE45 is an Infinite Stage Pump which increases productivity on the job by providing continuous pressure for up to 2x the speed of typical 2-stage pumps. Jobs get done faster and easier.

- Over 100,000 cycles
- Auto-Cycle option available
- Continuous duty up to 50°C / 122°F ambient (optional)
- Portable: 32,2 kg (without oil)
- Up to four tools on one pump
- Removable control pendant (15 ft / 5 m cord length)
- Improved oil filtration
- Easily adjusted pressure regulator (relief valve)
- Fixed 1500 psi / 103 Bar pressure retract relief valve



RWP55-BS STANDARD AIR PUMP

Our classic work horse pump, is durable, dependable and built to last. Use where air is the preferred source of power.

- Powerful 3 hp motor starts under load
- External adjustable pressure regulator
- Retract side internal relief valve protects tool
- Use for double or single acting tools
- 10,000 psi/700 bar maximum working pressure
- Available with Roll-Cage and 4-Port manifold for torque wrench operation



PE55TWP-BS STANDARD ELECTRIC PUMP

The PE55TWP-BS is durable, dependable and built to last. Used where electricity or generators are the primary power source.

- Two-speed high performance electric torque pump
- External adjustable pressure regulator
- Retract side internal relief valve protects tool
- Pendant Control
- Use for double or single acting tools



PE39 COMPACT ELECTRIC PUMP

The PE39 is a compact light weight pump and capable of being used in a vertical or horizontal orientation.

- Over 100,000 cycles
- Continuous duty up to 50°C / 122°F ambient (optional cooling kit)
- Proven design: proven reliability
- Light weight and portable: 17.7 kg (without oil)
- Vertical or horizontal operation
- Removable control pendant (5 m cord length)

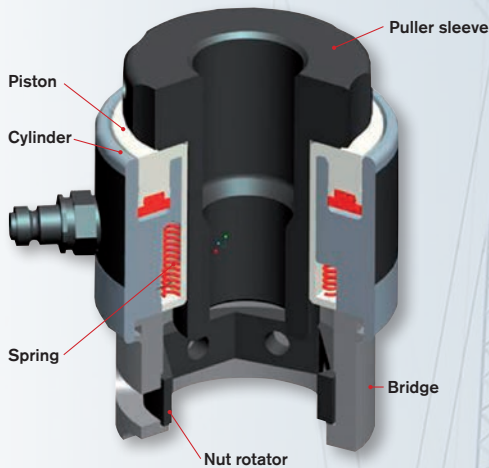


Tensioners

SRT SPRING RETURN TENSIONER

The Spring Return Tensioner design dramatically increases productivity and safety compared to older manual return tensioners by incorporating the following features:

- Piston Over stroke safety relief valve to eliminate blowing a seal
- Full enclosed load cell eliminates entry of debris into piston
- Piston over stroke indicator line
- Designed to fit BS1560/ANSI B16.5/API flanges
- Quick Release Bridge for easy change of adapter kits
- Piston misalignment compensation
- Stud coverage from 1" to 3 1/2" with just 4 tools



MRT MANUAL RETURN BOLT TENSIONER

- Piston stroke limiting indication
- Compatible with SRT tensioner range
- Piston/Cylinder misalignment compensation
- Bolt coverage from 1" to 3 1/2" with just 4 tools
- Designed to fit BS1560/ANSI B16.5/API flanges
- Unique quick release bridge assembly

WD/WS WIND TENSIONERS

Tensioners have quality designed in with standard features that enhance durability and efficiency to get jobs done faster and safer.

- Internal over-stroke prevention for safe operation
- 1350 Bar maximum operating pressure
- Piston stroke indicator
- Achieves 90% proof load requirement for ISO 898 grade 10.9 bolts
- Auto-engaging geared nut rotator
- Spring return pistons
- High pressure swivel coupling (optional on WSS & WSL)
- Anti-slip grip surface

SST QUICK REACTION SUBSEA TENSION

Subsea bolt tensioner incorporating the quick reaction nut feature reduces diver fatigue, improving diver safety and productivity.

- Visible piston stroke indication
- Piston/cylinder misalignment compensation
- Low friction seals
- Anti-corrosion coating
- Bolt coverage from 3/4" to 3 1/2"
- Now up to 4" bolts
- Designed to fit BS1560/ANSI B16.5/ API flanges, as well as many compact flanges

Torque Wrench

TWHC TORQUE WRENCH HIGH CYCLE

The TWHC was designed for those applications where constant use and rough environments are present. All the same features as the TWSD - but with 2 to 3x the life of the standard torque wrench. It's features include:

- Increased reliability
- Designed for high cycle life: 2-3x more than existing technology
- Corrosion resistant material for use in harsh environments
- Compact nose radius allows the tool to fit in tighter, hard-to-reach spaces
- Low weight, high strength design
- Fast operation, long stroke and optimum flow
- Multi-direction high flow swivel manifold
- 360° Push button reaction arm
- Fully enclosed drive mechanism for operator safety
- Swivel manifold internal relief valve prevents retract side over-pressurization
- Fine tooth ratchet prevents tool 'lock-on'



TWSD SQUARE DRIVE TORQUE WRENCHES

The TWSD are designed with the following:

- Low weight, high strength design
- Superior torsional strength
- Push button reversal of square drive
- Floating piston design
- Internal swivel manifold relief
- Fine tooth ratchet
- Compact frame size
- Fast operation cycle
- Corrosion resistant finish
- 360° Push button reaction arm



TWLC LOW CLEARANCE TORQUE WRENCH

The TWLC has a head/body that is interchangeable with a range of link sizes. It is light weight and has a tight nose radius to fit in low clearance areas

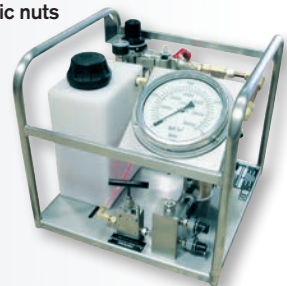
- Fine Tooth ratchet eliminates the requirement for reaction pawls, no tool lock-on
- 360° high flow Multi-Swivel
- Retaining Pin is captive within head - no lost parts or tools on site.
- Auto-connect drive, piston will automatically engage the head upon first pressurisation



HPUTP-1 STANDARD AIR TENSION PUMP

Typical uses: Topside bolt tensioners, hydraulic nuts

- 1500 bar (21,750 psi) max working pressure (restricted)
- Calibrated 6" (150 mm) pressure gauge
- Flow rate up to 44 cu.in/min (0.72 liters/min)
- Dual oil outlets with quick-connect couplings
- Pneumatic filter/regulator/lubricator
- Air consumption 28 cfm (800 liters/min)



HPUTP-2 HIGH FLOW AIR TENSION PUMP

Typical uses: Subsea bolt tensioners, hydraulic nuts. Same as HPUTP-1, Except:

- Flow rate up to 65cu.in/min (1.06 liters/min)
- Air consumption 56 cfm (1600 liters/min)

PE8 ELECTRIC TENSIONER

- Light weight (45.5 lbs/ 20.6 kg without oil) and compact for portability and working in small spaces.
- Low current draw allows for remote location use
- Heavy duty drive train provides durability for rapid and repetitive cycling applications.
- Removable 100 mm (4 in), calibration capable, gauge
- Dual oil outlets with quick-connect couplings
- Easily adjusted pressure regulator (relief) valve
- Removable control pendant (15 ft/ 5m cord length)



Other Tools

Accessories

ENS NUT SPLITTER

- Triple edge replaceable cutting blade
- Bolt diameter scale
- Cutting depth adjusted by rotating the cylinder
- Size Range from 3/4" to 3-1/2" bolt diameter
- Designed to fit BS1560/ANSIB16.5 flanges
- Various Power Team hand - and electric pumps are recommended to use with the Nut Splitter



FLS SPREADER

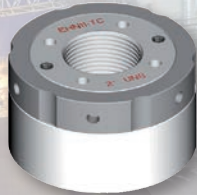
The hydraulic flange spreaders are designed to assist in spreading all types of flanges including those with no access gaps between them. Our kit is portable, easy to use and comes in a light weight carrying case. We recommend you to use Power Team hand pumps.



HN HYDRAULIC NUT

In addition to standard features normally associated with hydraulic nuts, our system also provides the following benefits:

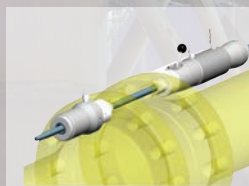
- Compact enough to fit the most confined spaces.
- Available in locking collar or shim type
- Manufactured to order



SFP FLANGE PULLER

Subsea Flange Puller

- Compact design
- Long piston stroke – 4" (102mm)
- Self activating collet design
- Auto grab anchor collet with hydraulic release
- Manually releasable retract
- Collet prevents lock on
- High strength, low rotation wire rope
- Anti-slip surfaces
- Threaded bar version also available



ACCESSORIES

We offer a full range of impact sockets from 1/2" drive to 3 1/2" square drive, as well as pneumatic torque multipliers, special reaction arms, hand clicker wrenches, back up wrenches and much more to fit all your bolting requirements.



SPX OFFERS MANY ACCESSORIES

TWLC, TWHC and TWSD torque wrenches:

- Reaction Pads
- Reaction Arms
- Extended length Reaction Arms
- Sockets for the TWSD & TWHC wrenches
- Hex drive for TWSD & TWHC wrenches
- Reducers for internal TWLC wrenches



TORQUE WRENCH SOCKETS

We stock a full range of sockets and reducers to support our low clearance and square drive torque wrenches. We offer sockets and reducers that are designed using the latest in CAD and CAM software with stress simulation. They are made from a special alloy, high quality spring steel specially designed to be used with high torque hydraulic wrenches and other large impact tools. Please ask us about these special sockets.





HYDRAULIC PUMPS

As an OEM manufacturer of hydraulic pump units for over 40 years, SPX has the experience it takes to design and manufacture quality pump units for various bolt torquing & tensioning applications.



HYDRAULIC WRENCHES

SPX has rugged, proven designs of both square drive and low clearance torque wrenches. We believe strongly in the quality and workmanship of our equipment, we offer the best warranty in the business - lifetime!



HYDRAULIC TENSIONERS

The SPX hydraulic stud tensioners encompasses our state of the art Spring Return tools, Manual Return tools and our Subsea line of tensioners. Designed and manufactured by SPX for quality and durability.



HYDRAULIC NUT SPLITTERS

The SPX Nut Splitter is made to fit in the tightest of applications both topside and subsea. It is operated by a standard 10,000 psi/700 bar torque pump and hoses. We offer a 3- sided cutting blade to maximize blade life.



HYDRAULIC SPREADERS

The hydraulic flange spreaders are designed to assist in spreading all types of flanges including those with no access gaps between them. Our kit is portable, easy to use and comes in a light weight carrying case.



TRAINING

SPX has over 75 years of combined bolting expertise to support our customer base. We are accredited by API and ECITB to provide training classes on hydraulic torque and tension via our certified trainers. A course includes classroom training as well as hands-on practical training for both torque and hydraulic stud tensioning.



SOFTWARE

SPX Bolt-Load Calculation and Flange Management Software provides accountability and traceability when a leak free start up is essential. Our software is available in the Cloud and accessible from anywhere you have an internet connection. Includes P&ID markup tool, customized documentation with your own logo, multi-project tracking dashboard.



RENTAL

SPX has rental centers located in Pasadena, Texas; Aberdeen, United Kingdom; Perth, Australia; Rio de Janeiro, Brazil (coming soon), Dubai and provides support around the world. We have a full range of hydraulic torquing, SRT Tensioners, Subsea Tensioners, Nut Splitters, Pump Units and ancillary equipment all available 24/7 to meet your emergency needs.



SPX BOLTING SYSTEMS

SPX Bolting Systems is a full service global manufacturer of controlled bolting solutions, including hydraulic torque and tensioning systems, industry specific certified training programs, system rentals, and flange management database software. We are your 'Solution Provider' and partner in flange management, both in regards to infrastructure construction and operations and maintenance applications, enabling you to complete your project safely, efficient, effective and on budget.

SPX Bolting Systems was formed when SPX Hydraulic Technologies, a division of SPX Corporation, acquired Torque Tension Systems LTD (TTS), of Ashington, UK. The new partnership combined the best high pressure (10,000 psi) hydraulic power pack manufacturer, Power Team, with one of the industry's best torque and tensioning tool manufacturers, resulting in a best-in-class bolting system.

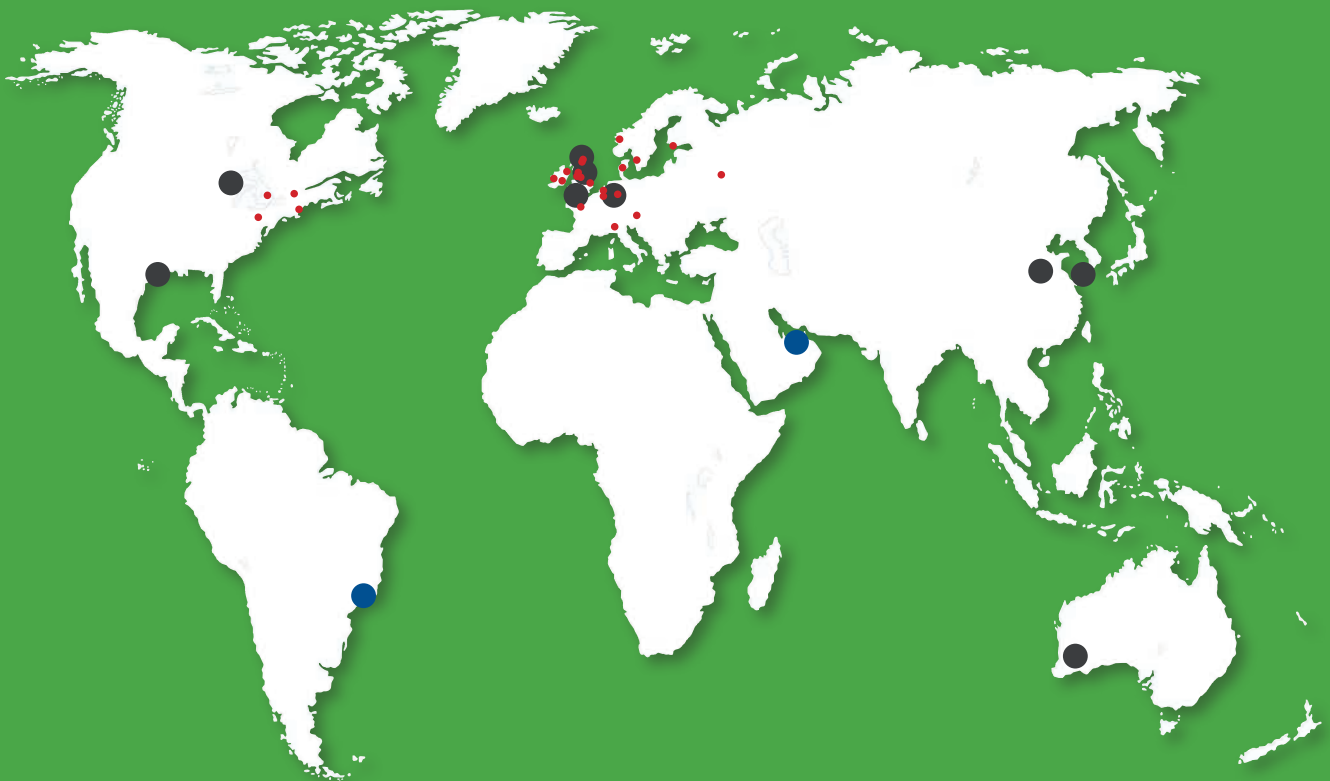
SPX Bolting Systems has Rental and Sales facilities located around the globe including Houston, Texas | Aberdeen, U.K. | Singapore |

Rio de Janerio, Brazil (coming soon) | Dubai UAE | and Perth, Australia. Additional customer service offices are located in the Netherlands and Shanghai. We also have a large distribution network that can offer local sales and service support in over 150 countries.

ABOUT SPX

Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader with over \$5 billion in annual revenue, operations in more than 35 countries and approximately 15,000 employees. The company's highly-specialized, engineered products and technologies are concentrated in Flow Technology and industrial/energy infrastructure. Many of SPX's innovative solutions are playing a role in helping to meet rising global demand for power and processed foods and beverages, including emerging markets. The company's key products include critical pumps, valves, tooling and ancillary equipment used in oil & gas processing, power transformers used by utility companies, and heat transfer technology for power plants as well as food processing systems for the food and beverage industry.

SALES, SERVICE AND RENTAL CENTERS



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