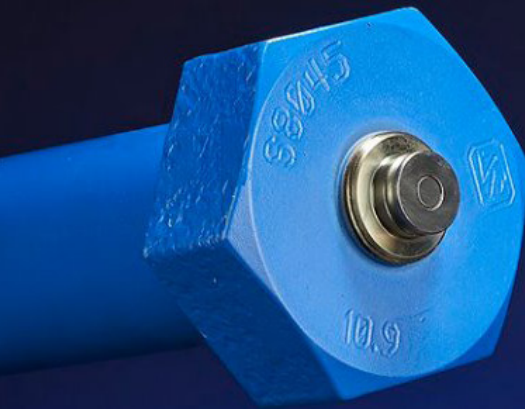




# SPC4™ Load Indicating System

Interchangeable Meters  
& Wireless Sensors



## TAKE CLAMP LOAD MONITORING TO THE NEXT LEVEL.



SAFER INSTALLATION · LESS DOWNTIME · OPTIMIZE EQUIPMENT PERFORMANCE · COST SAVINGS · JOINT INTEGRITY

### Markets

Mining • Oil & Gas • Petro/Chem •  
Power • Crane • Rail • Steel • Subsea

### SPC4™ Advantages

- Install joints accurately to within +/- 5% of desired clamp load.
- Suitable for high-temp applications.
- Ability to continuously monitor fastener tension.
- Accurate, faster, and repeatable installs.
- Inexperienced operators can complete complex assemblies with accuracy.
- Direct control of tightening tool force during installation.
- Shut-off installation tool at predetermined fastener tension.
- Easy-to-read displays for faster maintenance inspections.



## The Load Indicating Fastener with Fully Interchangeable Mechanical or Electronic Meters and Wireless Sensors for Accurate Readout, Load Data Logging, and Wireless Remote Monitoring of Any SPC4™ Bolted Joint.

Knowing the tension of critical joints is a matter of safety, peak performance, and maximum uptime. Valley Forge is shifting the paradigm with SPC4™ Load Indicating Technology that makes it possible to measure the direct tension in a fastener, not just the preload that is being applied by torque or another tightening method. It brings a level of precision to controlled bolting unlike any other system.

The SPC4 joint makes it possible to re-tighten only the bolts or studs that have lost their clamp load. **This results in a tremendous saving of maintenance time, money, and replacement parts.** For a minimal investment, the SPC4 offers maximum joint integrity with optimum performance.

SPC4™ Meters and Sensors precisely measure the direct tension of any SPC4 fastener via the gauge pin.





# SPC4™ Load Indicating System

## Interchangeable Meters & Wireless Sensors

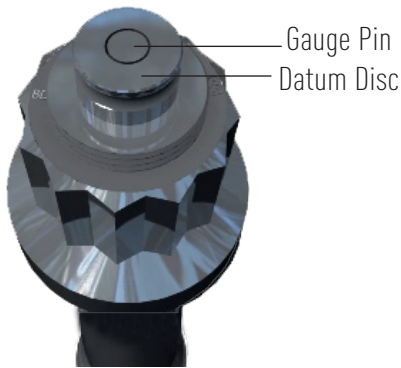
FREE YOURSELF FROM  
THE MYSTERIES OF TORQUE.  
READ TENSION DIRECTLY  
FROM THE FASTENER.

**ASTM F-2482 compliant. Accuracy to +/-5%.**

- SPC4™ fasteners are fitted with an application-specific gauge pin.
- The standard datum disc forms a flat surface with the top of the gauge pin prior to fastener tensioning.
- During tightening, the fastener elongates and the pin is drawn away from the datum disc surface.
- SPC4 meters and sensors measure and monitor tension; the distance between the datum disc surface and the top of the gauge pin.
- The meters and sensors then translates and displays this distance as a percentage of fastener minimum yield strength.

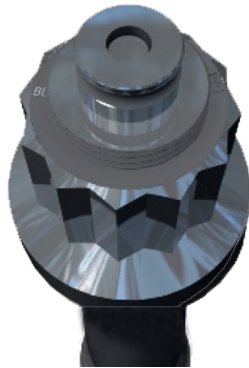
### Unloaded Fastener

0%



### Loaded Fastener

100%



With SPC4™ technology, a fastener is manufactured or retrofitted with a gauge pin and datum disc that can be used with all SPC4 meters and sensors.



### SPC4™ Meters and Sensors: Options for Every Application.

Any of our analog or electronic meters and wireless sensors can be used with any of our SPC4 fasteners. Analog meters are intrinsically safe. Electronic meters offer digital output, installation tool control, and load data recording systems. Wireless meters allow for real-time remote load monitoring and include WiFi, low frequency, and Bluetooth options.

**SPC4™ 500A** (MECHANICAL METER)

**SPC4™ 404A** (ELECTRONIC LOAD INDICATING METER)

**SPC4™ 406A** (ELECTRONIC LOAD INDICATING METER WITH BLUETOOTH OUTPUT)

**SPC4™ 424A** (ELECTRONIC LOAD INDICATING METER, WITH INSTALLATION TOOL CONTROL)

**SPC4™ 600A** (ELECTRONIC LOAD INDICATING METER, DATA RECORDING SYSTEM)

**SPC4™ 702 SERIES** (WIRELESS LOAD INDICATING SYSTEM AND LOAD DATA LOGGING SYSTEM)



Increase productivity. Mechanical and electronic meters with the ability to touch-and-display direct tension make maintenance inspections faster.



ALSO  
AVAILABLE

### MAXBOLT™ LOAD INDICATING FASTENERS

**Built-in Meter**

Features:

- Sealed mechanical readout on each bolt
- Measures direct tension in the fastener, eliminating the mystery of torque
- ASTM F-2482 compliant.



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