

Key Features

Bolt Testing" generally describes using our hydraulic load cells i.e. HS, J, K, M, MZ, S etc. to measure fastener performance as follows:

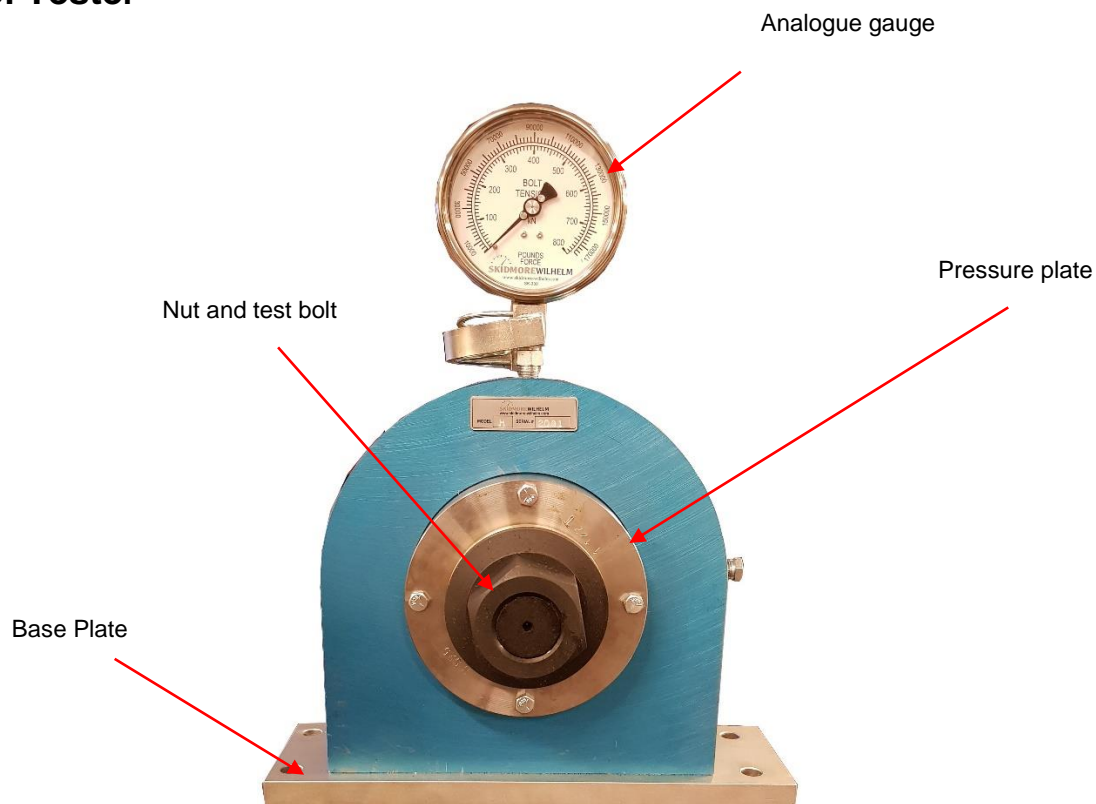
- Pre-Installation Verification Tension Testing & Rotational Capacity Testing of structural fasteners per AISC/RCSC specifications.
- General fastener testing to determine torque/tension relationships.
- The types of components that can be tested include but are not limited to Hex Bolts, Tension Control Bolts, Anchor Bolts, Studs, Lock Nuts, Direct Tension Indicating Washers, etc.
- Testing of Impact Tool Performance.

Skidmore Wilhelm's hydraulic tension calibrator, or bolt tension calibrator, has been the industry standard for testing high-strength bolts since the technology was invented in the 1950's. Our units are special made to be used on steel buildings, bridges and other structures using fasteners in tension critical joints.

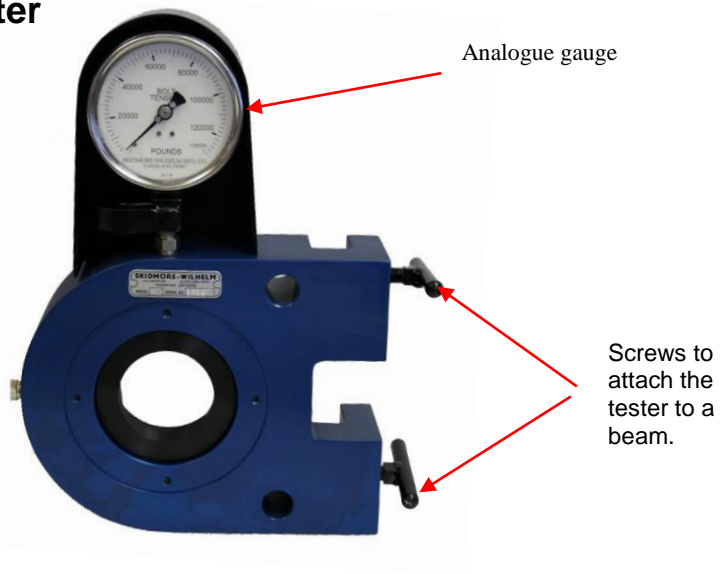
Our units can safely be used with hand torque wrenches, impact guns, electric wrenches and hydraulic wrenches



Tool Tester



Bolt & Tool Tester



Base Unit Model HS



- Convert tool output to bolt-tension specs
- Set production preload standards
- Tests M20 (3/4") through M36 (1 1/2") high-strength bolts to 750kN (170,000 lbf.) Preload

The Model HS is a highly reliable direct- action hydraulic load cell instrument designed for use with high-strength bolts through 1 1/2 inch size. Direct dial readings to 170,000 pounds of bolt tension within 1% accuracy show the preload delivered. Recommended minimum bolt tensions are plainly indicated on the gauge face. The Model HS can be clamped to a convenient column or bench. The model HS is available with interchangeable bolt bushing and plate sets for each size bolt to be tested in a complete range through 1 1/2 inch bolt sizes. Adapters can be made for special applications.

Base Unit Model J



- Fastener: Screws and M5-M16 bolts.
- Preload Capacity: 130kN / 30,000 lbs. Maximum
- Tool/Size: 1/4" to 3/4" square drive Test Bolt Assembly: 2 sizes available – M16 and M22
- Features a separate low- range gage for easy reading over the tester's entire operating range.

Base Unit Model MZ



The Model MZ Bolt Tension Calibrator Allows you to verify:

- Fasteners meet minimum bolt tension specifications – 550kN or 120,000 pounds
- Impact wrenches are properly calibrated to achieve proper tension in the bolted joint.
- Tension-control fasteners shear off at the correct tension.
- Direct Tension Indicating (DTI) washers are indicating at proper tension
- Bolting crew understands how to achieve proper tension in all types of fasteners

Base Unit Model H



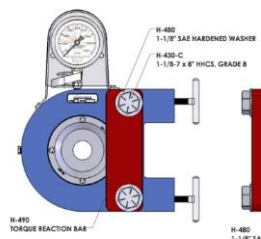
- Fastener: High-strength bolts 1 1/8" through 1 1/2" (M30-M39).
- Preload Capacity: 750kN maximum.
- Tool/Size: 3/4" to 1 1/2" square drive
- Test Bolt Assembly: 3 standard sizes available - 1" (M24), 1 1/4" (M32) and 1 1/2" (M39)
Other sizes available on request.
- Specially designed for performance testing of (impact) tools.

Other Units



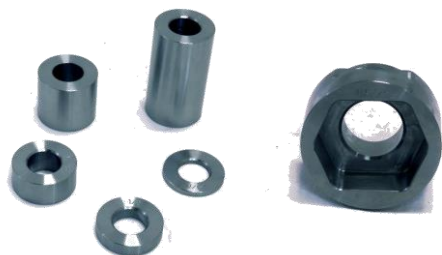
- There are numerous other versions and variations.
- Some of the testers can be custom made to suit your specific needs.
- Testers for higher load and larger size bolts are available on request.
- Please contact us for further information.

Torque Reaction Kit



- Special reaction plate for use with hydraulic or pneumatic torque tools.
- Available to most models.
- Please contact us for further information.

Accessories



- A wide range of accessories are available. Examples are custom spaces for longer bolts, special bolt plates and bushings
- Please contact us for further information.

For Accurate Measurement of Bolt Tension In Short Structural Fasteners

Two developments in construction practice have created a demand for the Skidmore Wilhelm bolt tension calibrator: thinner sections of structural steel and the use of tension-control bolts.

Whether calibrating power wrenches or testing fasteners, you need no special training, no additional equipment. Simply clamp the calibrator to a beam or column and insert your fastener. Tightening it gives a direct dial pressure reading equivalent to the tension created in the fastener—guaranteed accurate within 1% every time.

For Economical Quality Assurance

With a Skidmore-Wilhelm tester, you can accurately simulate joint conditions, then transfer your tightening procedure to the joint itself. Result: consistent tightening to bolt tension specifications.

The Research Council on Structural Connections recommends that a tension measuring device such as the Skidmore-Wilhelm tester be available at every job site.* Obsolete torque checking methods will not let you meet approved bolt tension specifications.

Avoid Costly Rework and Re-inspection.

How do you give the best evidence of properly installed fasteners? First demonstrate with the calibrator that your tightening procedures produce proper bolt tension. Then consistently apply these procedures to the job itself.

Skidmore-Wilhelm Bolt Tension Calibrators let you build the inspection into your selected bolt tightening procedure. Proof of correct bolt tightening is right on the Skidmore-Wilhelm calibrator dial.

* Research Council On Structural Connections, "Specification for Structural Joints Using ASTM or A490 Bolts

" * Research Council On Structural Connections, "Specification for Structural Joints Using ASTM A325 or A490 Bolts."

