



PROOF RING LOADING FIXTURE

The Proof Ring test system is the most widely used method for evaluating sulfide stress corrosion behavior on materials. Its compact size, accuracy, and ease of use provide an economical means for testing multiple specimens simultaneously in a fume hood. In the past, Proof Rings were loaded by means of tightening the loading bolt using wrenches, and then comparing the measured ring deflection to a load/deflection calibration chart. This method was difficult for the operator, and would lead to errors which could exceed the 1% applied load accuracy criterion in the TM-01-77 standard. The new technique uses a load cell for direct load measurement, and a loading fixture to accurately apply the load consistently within 0.3% of desired load. The identity of the Proof Ring/load cell and the load cell calibration are stored in a chip in the load cell, eliminating possible errors from mix-up when testing multiple samples. Available software then displays ring number, specimen ID, applied load, test duration and time to failure and stores the data automatically. To use the test fixture, the operator inserts the Proof Ring assembly, connects the load cell to the controller, and inputs desired load. The fixture then quickly applies the desired load and automatically stops when full load is achieved. The data is displayed on the control screen. Loading takes only one minute, start to finish.

CATEGORIES : OIL & GAS | STEEL | RESEARCH

TEST METHODS
NACE TM0177
(Method A)

CAPACITY
UP TO 10,000 lb
(4500 kg)

ACCURACY
0.3% OF APPLIED
LOAD

SYSTEM FEATURES

- 10,000 lb loading capacity (4,500 kg)
- 0.3% accuracy of applied load
- Touch screen operator interface
- AC servo driven
- E-stop
- Two handed activation for safety
- Load cell

