Technical Definition

Tensile Fatigue on Fasteners
A286 steel

Please comply with the HSE policy of your laboratory for each test performed.

Instructions to participant laboratories

Please read these instructions carefully BEFORE starting the tests.

1. Five specimens (Ø 0,24 x 1 inch, Ø 6,32 x 25,4 mm) are supplied to each participant – 5 results must be provided.
   If one result is missing your test will be considered as an outlier. A RCA shall be completed.

2. No additional machining is required.

3. All tests are to be performed at room temperature in accordance with the methods of **NASM 1312-11 (Revision 1 2013).**

Temperature (°C)	22
Wave form	Sinus
Ratio	0.1
Max Frequency (Hz)	150
Max load	18 kN
Min Load	1.8 kN
N stop (cycles)	500 000

The tests shall be performed respecting the following conditions:
- One operator only
- One testing machine only
- Tests performed in sequence

Nominal Diameter : 6,32 mm (0,2400 inch)

4. The following information is to be reported:

Characteristic	Unit	Significant digits	Mandatory / Not mandatory	Evaluated Yes/no
Machine type (Hydraulic or Electro Mechanical)	N/A	N/A	Mandatory	No
Tooling type (nuts, test retainer…)	N/A	N/A	Mandatory	No
Load cell capacity	N/A	N/A	Mandatory	No
Test frequency	Hz	XXX	Mandatory	No
Specimen diameter	mm	X,XX	Mandatory	No
Number Cycles NF	cycles	XXXXX	Mandatory	Yes
Fracture Location	N/A	N/A	Mandatory	No

All evaluated characteristics will be analysed according to the algorithm A and S (ISO 13528 – 2022) and evaluated using z-score. The algorithm will be applied to the logarithm of the number of cycles.

5. Testing shall start **as soon as test specimens are received**. Please contact the following e-mail address for any technical or administrative query.

Submission date	**July 1st, 2023**
Technical and administrative support	info@ptpscheme.com

6. Instructions for submission of results are detailed on the website:
https://ptpscheme.com

7. To ensure the confidential treatment of your results in the final report, you will be allocated a unique identity number when you register for the program.

8. Collusion and falsification of your PTP results are totally forbidden. In case of identification or suspicion of collusion or falsification, the laboratory will be excluded from the program and the sponsors will be immediately informed. The sponsors could ask you for proof of your results, so be sure to conserve data, curves and specimens.

9. The tested specimens do not need to be sent back to the PTP office.

APPENDIX : Instructions for IRR participation

The Internal Round Robin participation (IRR) is **optional** and **independent** from your PTP participation.
Confidentiality: The IRR results and reports are confidential and only accessible by your laboratory. They are not shared with the scheme sponsors or any other accreditation or certification bodies.

The extra samples shall be tested according to the following table:

	Operator 1	**Operator 2**	**Operator 3**	**Operator 4**	**Operator X**
Test machine 1	PTP kit (5 samples)	3 samples	3 samples	3 samples	3 samples
Test machine 2	3 samples				
Test machine 3	3 samples				
Test machine Y	3 samples				

Operator 1 (OP1) is to be the most experienced operator currently conducting tests on a regular basis and shall perform tests on all machines (TM1, TM2, TM3…)
Test Machine 1 (TM 1) is to be the most utilised machine for this test in your laboratory and shall be tested by all operators (OP1, OP2, OP3…)

Example: A laboratory has 2 operators and 3 test machines. They receive a PTP kit and 9 extra specimens.
Operator 1 shall test the PTP kit on TM1, 3 specimens on TM2 and 3 specimens on TM3.
Operator 2 shall test 3 specimens on TM1.

The IRR results have to be submitted on a separate results form available on the PTP website.
The identification of operators and test machines you provide will appear on the IRR final report. These identifications will not be seen by other laboratories.

The IRR results will be classified against the acceptance classes of the kit 1-1-20XX.

Reminder: Laboratories are not permitted to switch specimens between the PTP kit and IRR samples. The traceability of the samples will be checked during the evaluation. Laboratories found to have switched samples will invalidate their PTP participation.

VERSION HISTORY

Version Date	Version N°		Changes
24/05/2023	1		Document creation