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ISO 2002-001 2026 VERSUS ISO 2002-001 2005

AEROSPACE SERIES - METALLIC MATERIALS - TEST METHODS - PART 001: TENSILE TESTING AT AMBIENT TEMPERATURE

STANC KONE LLP
RIVISION:01

ISO 2002-001 2026 Versus ISO 2002-001 2005

Revision:01

Report Description	ISO 2002-001 2026 Versus ISO 2002-001 2005
Industry Type	Aerospace
Document Type	Pre-audit record
Summary of changes	Based on the clause-by-clause comparison between ISO 2002-001:2026 and ISO 2002-001:2005, the 2026 edition introduces several editorial refinements and a few substantive changes affecting strain rate references, proof stress determination, and documentation clarity.

1.0. Comparison Table:

Below Table describes the alignment clause-by-clause between the two versions of the ISO standard, which can be fully aligned (**Full**) or partially aligned (**Part**) or not aligned (**Not**) or Not applicable (**NA**)

Clause ISO 2002-001 2026	Requirement ISO 2002-001 2026	Clause ISO 2002-001 2005	Requirement ISO 2002-001 2005	Alignment	Remarks
6 Testing requirements **6.1 Resources** **6.1.1 Equipment/plant** **6.1.1.1 Testing machine**	Testing machines are expected to maintain both precision and reliability over time. Regular verification—at least once every 12 months—ensures accuracy to Class 1 standards, while annual alignment checks confirm that strain distribution remains consistent and within acceptable limits. Referencing ASTM E1012 provides a recognized method for this verification. Modern systems often integrate computer control, streamlining the process by automatically calculating and recording key mechanical properties like Young's modulus, proof stress, tensile strength, and elongation. In essence, the emphasis is on sustained accuracy, proper alignment, and efficient data capture to guarantee trustworthy test results.	**6 Testing requirements** **6.1 Resources** **6.1.1 Equipment/plant** **6.1.1.1 Testing machine**	Testing machines are expected to uphold consistent accuracy and alignment. Annual verification to Class 1 standards ensures precision, while yearly alignment checks with strain-gauged specimens confirm uniform strain distribution, often referencing ASTM E1012. Modern designs support automatic alignment and computer control, making it easier to calculate and record key mechanical properties like Young's modulus, proof stress, tensile strength, and elongation. In short, the focus is on dependable calibration, reliable alignment, and efficient data capture for trustworthy results.	**Full**	The 2026 wording is essentially the same as 2005, with only minor editorial changes in capitalization and hyphenation.

6.1.1.2 Extensometer	Extensometers are expected to deliver consistent precision through annual verification under EN ISO 9513. For measuring Young's modulus, Class 0.5 accuracy is required, with preference for designs that capture extension on both sides of a specimen to allow averaged readings. Proof stress measurements demand Class 1 accuracy. In commentary terms, the focus is on maintaining high-grade accuracy and using designs that reduce bias, ensuring dependable mechanical property data.	**6.1.1.2 Extensometer**	Extensometer accuracy is kept reliable through annual verification under EN ISO 9513. For Young's modulus, Class 0.5 precision is required, with preference for designs that measure extension on both sides of a specimen to allow averaged readings. Proof stress demands Class 1 accuracy. In commentary terms, the focus is on sustaining high-grade precision and minimizing bias so that mechanical property measurements remain trustworthy.	**Part**	The annual verification interval, EN ISO 9513 reference, and certification levels for Young's modulus and proof stress remain unchanged, with only minor formatting changes from bullets to numbered items..
6.1.1.3 Grips	Grips are expected to ensure that tensile forces are applied axially, using designs such as screwed holders, shouldered holders, wedges, or pin grips. Screwed holders are generally preferred and become the standard in case of dispute. For tubes, plugs may be used, provided they match the diameter for secure gripping at both ends, have sufficient length, and do not interfere with the gauge length's deformation. In commentary terms, the focus is on secure, unbiased load application and grip design that preserves the integrity of the test specimen.	**6.1.1.3 Grips**	Grips are meant to apply tensile forces axially, using designs like screwed holders, wedges, or pin grips. Screwed holders are generally preferred and become the default in case of dispute. For tubes, plugs can be used if they match the diameter for secure gripping, have enough length, and do not interfere with the gauge length's deformation. In commentary terms, the emphasis is on ensuring secure axial loading and grip designs that preserve specimen integrity during testing.	**Full**	the 2026 grips clause matches 2005 exactly in technical content, differing only in formatting (e.g., numbering vs. em-dashes for tube plugs).