

केन्द्रीय मुहर विभाग -2

संदर्भ -: केमूवी-2/16:4454 (Part 1)

13-03-2026

विषय: आई एस 4454 (Part 1):2001 के संशोधन संख्या 01 का कार्यान्वयन के लिए दिशानिर्देश।

यह उपरोक्त विषय के संदर्भ में है।

सक्षम अधिकारी द्वारा अनुमोदित दिशानिर्देश अनुपालन हेतु संलग्न है।

सभी क्षेत्रीय/शाखा कार्यालयों से अनुरोध है की दिशानिर्देशों का तत्काल प्रभाव से अनुपालन सुनिश्चित करें।

**रंजीत कुमार
वैज्ञानिक ई**

प्रमुख (केमूवी 2)

सभी क्षेत्रीय/शाखा कार्यालय/प्रयोगशालाएँ/MTD/LRMD

CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16:4454 (Part 1)

13-03-2026

Subject: Guidelines for implementation of Amendment No.01 to IS 4454 (Part 1):2001.

This has reference to the subject mentioned above.

The Competent Authority has approved the enclosed Guidelines for implementation.

All ROs/BOs are requested to ensure the implementation of the above Guidelines with immediate effect.

**(Ranjit Kumar)
Scientist E**

Head (CMD-2)

All ROs/BOs/Labs/MTD/LRMD

CENTRAL MARKS DEPARTMENT-2

OurRef:CMD-2/16:4454 (Part 1)

Date: 13-03-2026

Subject: Guidelines for implementation of Amendment No. 01 to IS 4454 (Part 1):2001 (Steel Wire for Mechanical Springs)

1. Amendment no. 1 to IS 4454 (Part 1):2001 has been published. The last date for implementation of the amendment is **19th May 2026**.

2. The significant changes in the standard through this amendment as listed in the Table are given for the purpose of general guidance. BOs shall ensure that the product conforms to all the requirements, as applicable, as per the amendment.

Clause	Change
1 Scope	Clause 1 has been modified to expand the scope of the standard by including shaped wire, in addition to the existing steel wires of circular cross-section.
3 Terminology	The terminology for Shaped Wire (Cl 3.7), Equivalent Round Diameter (Cl3.8) & Shape Factor (Cl 3.9) have been added
9 Dimensions and Tolerances	Clause 9.3 has been modified to specify that tolerances for sizes other than those given in Table 4 may be mutually agreed upon between the purchaser and the manufacturer, in place of the earlier provision stating that sizes and tolerances other than those specified in Table 4 may be mutually agreed between them. Upon inclusion of shaped wire in the scope of the standard, a new clause 9.4 has been added specifying the requirement of size and tolerances on characteristic dimensions of the shaped wires.
10.1 Tensile Test	Upon inclusion of shaped wire in the scope of the standard, the requirement of Tensile Test has been modified specifying the method for calculating the tensile properties for shaped wire as well.
10.2 Wrapping Test	Clause 10.2 (Wrapping Test) has been modified to state that this test is not applicable to shaped wire.
Table 5 (Tensile strength requirements), Table 6 (Torsion test requirement) & Table 7 (Scale of sampling and Permissible Number of defectives)	Upon the addition of a new Table 5 (Tolerances on Characteristic Dimensions of Shaped Wires), the subsequent tables have been renumbered accordingly. Consequently, references to Table 5 have been substituted with Table 6, Table 6 with Table 7, and Table 7 with Table 8, wherever they appear.
10.4 Bend Test	Upon inclusion of shaped wire in the scope of the standard, the requirements of Bend Test, Coiling and Stretching Test, Cast of the

10.5 Coiling and Stretching Test	wire test, Deep Etch Test and Decarburization Test for 'shaped wire' have been added.
10.6 Cast of the Wire	
10.7 Deep Etch Test	
10.8 Decarburization Test	

3. Since Amendment No. 1 to the Indian Standard introduces a new variety, namely 'shaped wire', along with the relevant test requirements, the existing licensee is not required to submit evidence of conformity for the existing variety of wire. However, for inclusion of 'shaped wire' in the scope of the existing licence, the case shall be processed in accordance with the CSOL guidelines.

4. Consequent upon the issuance of aforementioned amendment, the existing product manual of IS 4454 (Part 1):2001 has been revised which is being circulated separately.

5. BOs are requested to circulate these guidelines to licensees and applicants under their jurisdiction immediately after issuance of this circular.

6. The above guidelines shall come into force with immediate effect.

Ranjit Kumar
Scientist-E

Head (CMD-2)

DDG (Certification)