

BUREAU OF INDIAN STANDARDS

Program of Work

MTD 21 : Non-Destructive Testing Sectional Committee

Scope: Standardization in the field of non-destructive testing

Liaison: **ISO TC-135 (P): Non-destructive testing ISO TC-135 SC-2 (P): Surface methods ISO TC-135 SC-3 (P): Ultrasonic testing ISO TC-135 SC-4 (P): Eddy current testing ISO TC-135 SC-5 (P): Radiographic testing ISO TC-135 SC-5 (Convenorship): Gammatopography of shielding integrity ISO TC-135 SC-6 (P): Leak testing ISO TC-135 SC-7 (P): Personnel qualification ISO TC-135 SC-8 (P): Thermographic testing ISO TC-135 SC-9 (P): Acoustic emission testing**

Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10543 : 1983 <i>Reviewed In : 2020</i> ISO 9934-1:2016	Method for dry powder magnetic particle testing	February, 2020	-	Not Equivalent
2	IS 11612 : 2004 <i>Reviewed In : 2020</i>	Code of practice for eddy current testing of non-ferrous seamless pipes and tubes (First Revision)	February, 2020	-	Indigenous
3	IS 11626 : 2005 <i>Reviewed In : 2020</i>	Recommended practice for ultrasonic testing and acceptance for plain carbon and low alloy forging quality steel blooms (First Revision)	February, 2020	-	Indigenous
4	IS 11630 : 2005 <i>Reviewed In : 2020</i>	Method for ultrasonic testing of steel plates for pressure vessels and special applications (First Revision)	February, 2020	-	Indigenous
5	IS 11655 : 1986 <i>Reviewed In : 2020</i>	Procedure for stray flux testing of ferrous magnetic seamless steel tubular products	February, 2020	-	Indigenous
6	IS 1182 : 1983 <i>Reviewed In : 2020</i>	Recommended - Practice for radiographic examination of fusion welded butt joints in steel plates (Second Revision)	February, 2020	-	Indigenous
7	IS 12147 : 2013 <i>Reviewed In : 2020</i>	Recommended practice for wet magnetic particle examination (First Revision)	February, 2020	-	Indigenous
8	IS 12148 : 1987 <i>Reviewed In : 2020</i>	Guidelines for requirements of non-destructive testing agencies	February, 2020	-	Indigenous
9	IS 12666 : 2018 <i>Reviewed In : 2024</i> ISO 16831:2012	Performance assessment of ultrasonic flaw detection equipment (First Revision)	March, 2024	-	Not Equivalent
10	IS 12710 : 1989 <i>Reviewed In : 2020</i>	Acoustic emission testing - Glossary of terms	February, 2020	-	Not Equivalent

	ISO 12716				
11	IS 12782 : 1989 Reviewed In : 2020	Guidelines for using thermography for monitoring of industrial components	February, 2020	-	Indigenous
12	IS 12860 : 1989 Reviewed In : 2020	Metallic coating thickness by X-ray fluorescence technique method - Determination	February, 2020	-	Indigenous
13	IS 12889 : 2018 Reviewed In : 2024 ISO 3452-2:2013	Performance evaluation of materials used for liquid penetrant test (First Revision)	March, 2024	-	Not Equivalent
14	IS 12965 : 1990 Reviewed In : 2020 ISO 12718:2008	Glossary of terms used in electro magnetic (Eddy Current) testing	February, 2020	-	Not Equivalent
15	IS 13190 : 1991 Reviewed In : 2020 ISO 15548-2:2013	Recommended practice for eddy current examination by rotating probe method of round steel bars	February, 2020	-	Not Equivalent
16	IS 13805 : 2004 Reviewed In : 2020 ISO 9712	General standard for qualification and certification of non - Destructive testing personnel - Specification (First Revision)	February, 2020	1	Not Equivalent
17	IS 14669 : 1999 Reviewed In : 2020	Thermal neutron radiography - Recommended practices	February, 2020	-	Indigenous
18	IS 14670 : 1999 Reviewed In : 2020	Recommended practice for acoustic emission inspection during hydrostatic pressure testing of system	February, 2020	-	Indigenous
19	IS 14800 : 2000 Reviewed In : 2020 ISO 20669:2017	Recommended practice for sorting of ferrous/non - Ferrous materials using electromagnetic (Eddy Current) technique	February, 2020	-	Not Equivalent
20	IS 15404 : 2003 Reviewed In : 2020	Recommended practice for measuring ultrasonic velocity in materials	February, 2020	-	Indigenous
21	IS 15435 : 2003 Reviewed In : 2020 ISO 16809:2017	Recommended practice for measuring thickness using ultrasonic method	February, 2020	-	Not Equivalent
22	IS 15452 : 2004 Reviewed In : 2020	Recommended practice for flaw sizing by ultrasonic DGS method	February, 2020	-	Indigenous
23	IS 15468 : 2004 Reviewed In : 2020 ISO 16831:2012	Performance evaluation of ultrasonic thickness gauges	February, 2020	-	Not Equivalent
24	IS 15531 : 2004 Reviewed In : 2020	Recommended practice for ultrasonic testing of weld fillets of non-linear joints	February, 2020	-	Indigenous
25	IS 15539 : 2004 Reviewed In : 2020	Recommended practice for magnetic particle examination of steam turbine rotor blades	February, 2020	-	Indigenous
26	IS 15540 : 2004 Reviewed In : 2020	Recommended practice for eddy current testing of installed non-ferromagnetic heat exchanger tubing using dual frequency method	February, 2020	-	Indigenous
27	IS 15643 : 2006 Reviewed In : 2020	Non - Destructive examination of polymer based composite materials - Code of practice	February, 2020	-	Indigenous
28	IS 15775 : 2008 Reviewed In : 2020	Glossary of terms for signal analysis related to non-destructive testing	February, 2020	-	Indigenous

29	IS 15987 : 2013 Reviewed In : 2020	Non - Destructive testing of concrete structures using impact - Echo technique - Recommended practice	February, 2020	-	Indigenous
30	IS 16168 : 2014 Reviewed In : 2020	Guidelines for infrared thermography inspection of electrical installations	February, 2020	-	Indigenous
31	IS 16241 : 2018 Reviewed In : 2024	Realtime radiosopic examination of weldments	March, 2024	-	Indigenous
32	IS 16979 : 2018 Reviewed In : 2024	Guidelines for visual inspection using borescopes and videoscopes	March, 2024	-	Indigenous
33	IS 17069 (Part 1) : 2019 ISO 14096-1 : 2005 Reviewed In : 2024 ISO 14096-1:2005	Non - Destructive testing - Qualification of radiographic film digitization systems: Part 1 definitions, quantitative measurements of image quality parameters, standard reference film and qualitative control	March, 2024	-	Identical under dual numbering
34	IS 17069 (Part 2) : 2019 ISO 14096-2 : 2005 Reviewed In : 2024 ISO 14096-2 : 2005	Non - Destructive testing - Qualification of radiographic film digitization systems: Part 2 minimum requirements	March, 2024	-	Identical under dual numbering
35	IS 17180 : 2020	Guidelines for Using Infrared Thermography for Condition of Rotating Components		-	Indigenous
36	IS 17181 : 2020 Nil	Remote Field Eddy Current Testing of Steam Generator and Heat Exchanger Tubes		-	Not Equivalent
37	IS 17182 : 2020	X-ray Diffraction Based Residual Stress Measurements		-	Indigenous
38	IS 17537 (Part 1) : 2021 ISO 15708-1 : 2017 ISO 15708-1 : 2017	Non-destructive testing - Radiation methods for computed tomography - Part 1: Terminology		-	Identical under dual numbering
39	IS 17537 (Part 2) : 2021 ISO 15708-2 : 2017 ISO 15708-2 : 2017	Non-destructive testing - Radiation methods for computed tomography - Part 2 Principles, equipment and samples		-	Identical under dual numbering
40	IS 18115 : 2023 ISO 16827 : 2012 ISO 16827 : 2012	Non-destructive testing - Ultrasonic testing - Characterization and sizing of discontinuities		-	Identical under dual numbering
41	IS 2417 : 2003 Reviewed In : 2020 ISO 5577:2017	Glossary of terms used in ultrasonic non-destructive testing (Second Revision)	February, 2020	-	Not Equivalent
42	IS 2478 : 1991 Reviewed In : 2020	Glossary of terms relating to industrial radiology (Second Revision)	February, 2020	-	Indigenous
43	IS 2595 : 2008 Reviewed In : 2020	Industrial radiographic testing - Code of practice (Second Revision)	February, 2020	-	Indigenous
44	IS 2953 : 1985 Reviewed In : 2020	Glossary of terms used for interpretation of welds and castings radiographs (First Revision)	February, 2020	-	Indigenous
45	IS/ISO 3057 : 1998	Non - Destructive testing -	February, 2020	-	Identical under single

	Reviewed In : 2020 ISO 3057:1998	Metallographic replica techniques of surface examination			numbering
46	IS 3415 : 1998 Reviewed In : 2020 ISO 12707:2016	Glossary of terms used in magnetic particle flaw detection (Second Revision)	February, 2020	-	Not Equivalent
47	IS 3657 : 2018 Reviewed In : 2024 ISO 19232-1:2013	Specification for radiographic image quality indicators (Second Revision)	March, 2024	-	Not Equivalent
48	IS 3658 : 1999 Reviewed In : 2020	Code of practice for liquid penetrant flaw detection (Second Revision)	February, 2020	-	Indigenous
49	IS 3664 : 1981 Reviewed In : 2020 ISO 18175 ISO 2400 ISO 7963	Code of practice for ultrasonic pulse echo testing by contact and immersion methods (first revision)	February, 2020	-	Not Equivalent
50	IS 3703 : 2023	Recommended practice for magnetic particle flaw detection Third Revision		-	Indigenous
51	IS 4225 : 2021 ISO 17577 : 2016	Steel — Ultrasonic Testing of Steel Flat Products of Thickness Equal to or Greater than 6 mm (Third Revision)		-	Identical under dual numbering
52	IS 4260 : 2004 Reviewed In : 2021	Recommended practice for ultrasonic testing of butt welds in ferritic steel (Third Revision)	March, 2021	-	Indigenous
53	IS 4853 : 1982 Reviewed In : 2020	Recommended practice for radiographic inspection of fusion welded butt joints in steel pipes (First Revision)	February, 2020	-	Indigenous
54	IS 4904 : 2006 Reviewed In : 2023 ISO 16946:2017	Calibration blocks for use in ultrasonic non - Destructive testing - Specification (Fourth Revision)	March, 2023	-	Not Equivalent
55	IS 5334 : 2014 Reviewed In : 2020	Magnetic particle flaw detection of welds - Code of practice (Third Revision)	February, 2020	-	Indigenous
56	IS/ISO 5580 : 1985 Reviewed In : 2023 ISO 5580:1985	Non - Destructive testing - Industrial radiographic illuminators - Minimum requirements	March, 2023	-	Identical under single numbering
57	IS 6394 : 2006 Reviewed In : 2023	Ultrasonic testing of seamless metallic tubular products by contact and immersion methods - Code of practice (Second Revision)	March, 2023	-	Indigenous
58	IS 6398 (Part 2) : 2020 ISO 10893-2 : 2011 ISO 10893-2:2011	Non-Destructive Testing of Steel Tubes Part 2 Automated Eddy Current Testing of Seamless and Welded (Except Submerged Arc-Welded) Steel Tubes for the Detection of imperfections (Second Revision)	-	1	Identical under dual numbering
59	IS 6410 : 2013 Reviewed In : 2020 ISO 9934-2	Magnetic flaw detection inks and powders - Specification (Second Revision)	February, 2020	-	Not Equivalent
60	IS 6752 : 2014 Reviewed In : 2020	Code of practice for magnetic particle flaw detection of ferrous pipes and tubes (Second Revision)	February, 2020	-	Indigenous
61	IS 7343 : 1986 Reviewed In : 2020	Code of practice for ultrasonic testing of ferrous welded pipes and	February, 2020	-	Indigenous

		tubular products - (First Revision)			
62	IS 7666 : 1988 Reviewed In : 2020	Ultrasonic examination of ferritic castings of carbon and low alloy steel - Recommended procedure (First Revision)	February, 2020	-	Indigenous
63	IS 7743 : 2006 Reviewed In : 2023	Recommended practice for magnetic particle testing and inspection of steel forgings (First Revision)	March, 2023	-	Indigenous
64	IS 7810 : 1999 Reviewed In : 2020	Code of practice for radiographic examination of resistance spot welds on aluminium and its alloys (First Revision)	February, 2020	-	Indigenous
65	IS 8780 : 2004 Reviewed In : 2020	Non - Destructive testing of steel castings - Code of practice (First Revision)	February, 2020	-	Indigenous
66	IS 8791 : 1978 Reviewed In : 2020	Code of practice for ultrasonic flaw detection of ferritic steel forgings	February, 2020	-	Indigenous
67	IS 8973 : 1991 Reviewed In : 2020 ISO 20484:2017	Leak detection techniques glossary (First Revision)	February, 2020	-	Not Equivalent
68	IS 9902 : 2004 Reviewed In : 2020	Recommended practice for leak testing (First Revision)	February, 2020	-	Indigenous

Standards under Development

Projects Approved

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Preliminary Draft Standards

SI. No.	Doc No.	Title
1	MTD 21 (26454)	NON-DESTRUCTIVE TESTING OF STEEL WIRES AUTOMATED EDDY CURRENT TESTING OF STEEL WIRES FOR DETECTION OF SURFACE IMPERFECTIONS

Drafts Standards in WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
<i>No Records Found</i>		

Finalized Draft Indian Standard

SI. No.	Doc No.	Title
1	MTD 21 (19953)	Non-destructive testing Eddy Current Testing Determination of Electrical Conductivity of Non-magnetic Metals

Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
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1	MTD 21 (21512)	MICRO-FOCAL RADIOGRAPHY FOR INDUSTRIAL COMPONENTS RECOMMENDED PRACTICES
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Total Published Standards:68 Total Standards Under development:3

Aspect Wise Report

Product : 1
 Code of Practices : 36
 Methods of Test : 15
 Terminology : 10
 Dimensions : 1
 System Standard : 0
 Safety Standard : 0
 Others : 5
 Service Specification : 0
 Process Specification : 0
 Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

SI. No.	IS No. & Year	Title
1	IS 2598 : 1966	Safety code for industrial radiographic practice
2	IS 7281 : 1974	Code of practice for immersed ultrasonic testing by the reflection method using pulse longitudinal waves
3	IS 9346 : 1979 Reviewed In : 1993	Recommended practice for certification of NDT personnel for ultrasonic examination

Annexure-II :List of Indian Product Standards

SI. No.	IS No. & Year	Title
1	IS 6410 : 2013 Reviewed In : 2020 ISO 9934-2	Magnetic flaw detection inks and powders - Specification Second Revision