

## BUREAU OF INDIAN STANDARDS

### Program of Work

#### MTD 11 : Welding General and its Applications sectional Committee

**Scope:** Standardization in the field of welding fundamentals, consumables, equipments (other than electrical), testing, training, safety etc. and all welding processes including joining, surfacing, repairing and thermal cutting, soldering, brazing, friction welding, explosive, ultrasonic welding, beam welding (laser and electron beam), etc.

**Liaison:** **ISO TC-44 (O):** *Welding and allied processes* **ISO TC-44 SC-10 (P):** *Quality management in the field of welding* **ISO TC-44 SC-11 (P):** *Qualification requirements for welding and allied processes personnel* **ISO TC-44 SC-12 (O):** *Soldering materials* **ISO TC-44 SC-13 (O):** *Brazing materials and processes* **ISO TC-44 SC-15 (P):** *Underwater welding* **ISO TC-44 SC-3 (P):** *Welding consumables* **ISO TC-44 SC-5 (P):** *Testing and inspection of welds* **ISO TC-44 SC-6 (P):** *Resistance welding and allied mechanical joining* **ISO TC-44 SC-7 (P):** *Representation and terms* **ISO TC-44 SC-8 (O):** *Equipment for gas welding, cutting and allied processes* **ISO TC-44 SC-9 (O):** *Health and safety*

### Published Standards

S.No	IS No.	TITLE	Reaffirm M-Y	No. of Amds	Eqv.
1	IS 10178 : 1995 <i>Reviewed In : 2024</i>	Co2 gas shielded metal - Arc welding of structural steels - Recommendations (First Revision)	February, 2024	-	Indigenous
2	IS 10186 : 2015 <i>Reviewed In : 2020</i>	Recommendations for manual tungsten insert gas arc welding of copper and copper alloys (First Revision)	March, 2020	-	Indigenous
3	IS 10234 : 1982 <i>Reviewed In : 2019</i> Reaffirmed but not taken up for revision	Recommendations for general pipeline welding	January, 2019	1	Indigenous
4	IS 1024 : 1999 <i>Reviewed In : 2024</i>	Use of welding in bridges and structures subject to dynamic loading - Code of practice (Second Revision)	January, 2024	-	Indigenous
5	IS 10793 (Part 1) : 2018 ISO 6520-1 : 2007 <i>Reviewed In : 2023</i> <i>ISO 6520-1:2007</i>	Welding and allied processes - Classification of geometric imperfections in metallic materials: Part 1 fusion welding (First Revision)	September, 2023	-	Identical under dual numbering
6	IS 10793 (Part 2) : 2018 ISO 6520-2 : 2013 <i>Reviewed In : 2023</i> <i>ISO 6520-2:2013</i>	Welding and Allied Processes - Classification of Geometric Imperfections in Metallic Materials Part 2 Welding with Pressure (First Revision)	September, 2023	-	Identical under dual numbering
7	IS 10801 : 1984	Recommended procedure for heat	March, 2021	-	Indigenous

	Reviewed In : 2021	treatment of welded fabrication			
8	IS 10803 : 1984 Reviewed In : 2019 Reaffirmed but not taken up for revision	Method of sampling and preparation of weld pad for chemical analysis of weld metal from covered electrodes for manual metal arc welding	January, 2019	1	Indigenous
9	IS 10811 : 1984 Reviewed In : 2021	Specification for oxygen and acetylene manifold regulators for welding, cutting and related processes	March, 2021	-	Indigenous
10	IS 10842 (Part 1) : 2019 ISO 17642-1 : 2004 Reviewed In : 2023 ISO 17642-1 : 2004	Destructive Tests on Welds in Metallic Materials - Cold Cracking Tests for Weldments - Arc Welding Processes Part 1 General ( First Revision )	September, 2023	-	Identical under dual numbering
11	IS 10842 (Part 2) : 2019 ISO 17642-2 : 2005 Reviewed In : 2023 ISO 17642-2 : 2005	Destructive Tests on Welds in Metallic Materials - Cold Cracking Tests for Weldments - Arc Welding Processes Part 2 Self-Restraint Tests ( First Revision )	September, 2023	-	Identical under dual numbering
12	IS 10842 (Part 3) : 2019 ISO 17642-3 : 2005 Reviewed In : 2023 ISO 17642-3 : 2005	Destructive Tests on Welds in Metallic Materials - Cold Cracking Tests for Weldments - Arc Welding Processes Part 3 Externally Loaded Test ( First Revision )	September, 2023	-	Identical under dual numbering
13	IS 11368 (Part 1) : 1985 Reviewed In : 2024	Comparison of indian and overseas classification and coding of welding filler materials: Part 1 flux coated mild steel and medium tensile steel stick electrodes for manual metal - Arc welding	January, 2024	1	Indigenous
14	IS 1179 : 1967 Reviewed In : 2024	Specification for equipment for eye and face protection during welding (First Revision)	January, 2024	2	Indigenous
15	IS 11802 : 1986 Reviewed In : 2024	Methods for determination of diffusible hydrogen content of deposited weld metal from covered electrodes in welding mild and low alloy steels	January, 2024	1	Indigenous
16	IS 11991 : 1986 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommended practice for flash butt welding of tubes, rods and other sections in carbon and alloy steels	January, 2019	1	Indigenous
17	SP 12 : 1975 Reviewed In : 2021	Handbook for gas welders	March, 2021	-	Indigenous
18	IS 1261 : 1959 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for seam welding in mild steel	January, 2019	1	Indigenous
19	IS 1278 : 1972 Reviewed In : 2024	Specification for filler rods and wires for gas welding (Second Revision)	January, 2024	2	Indigenous
20	IS 13007 : 2018 ISO 6848 : 2015 Reviewed In : 2023 ISO 6848:2015	Arc welding and cutting - Nonconsumable tungsten electrodes - Classification (First Revision)	March, 2023	-	Identical under dual numbering

21	IS 13043 : 1991 Reviewed In : 2024 None	Covered manual metal arc welding electrodes - Determination of efficiency, metal recovery and deposition co - Efficient	January, 2024	-	Not Equivalent
22	IS 1323 : 1982 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for Oxy - Acetylene welding for structural work in mild (Second Revision)	January, 2019	-	Indigenous
23	IS 13851 : 1993 Reviewed In : 2019 Reaffirmed but not taken up for revision	Storage and redrying of covered electrodes before use - Recommendations	January, 2019	2	Indigenous
24	IS 1393 : 1961 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for training and testing of oxy - Acetylene welders	January, 2019	-	Indigenous
25	IS 1395 : 1982 Reviewed In : 2024 ISO 18265	Specification for low and medium alloy steel covered electrodes for manual metal arc welding (Third Revision)	January, 2024	1	Not Equivalent
26	IS 14289 : 1995 Reviewed In : 2021	Manual tungsten insert gas arc welding of nickel and nickel alloys - Recommendations (Second Revision)	March, 2021	-	Indigenous
27	IS 14419 : 1996 Reviewed In : 2019 Reaffirmed but not taken up for revision	Acceptance standards for radiographic examination of welds for ships - Recommendations	January, 2019	-	Indigenous
28	IS 15326 (Part 1) : 2018 ISO 3834-1 : 2005 Reviewed In : 2023 ISO 3834-1:2005	Quality requirements for fusion welding of metallic materials: Part 1 criteria for the selection of the appropriate level of quality requirements (First Revision)	January, 2023	-	Identical under dual numbering
29	IS 15326 (Part 2) : 2022 ISO 3834-2:2021 ISO 3834-2:2021	Quality requirements for fusion welding of metallic materials: Part 2 comprehensive quality requirements Second Revision		-	Identical under dual numbering
30	IS 15326 (Part 3) : 2022 ISO 3834-3:2021 ISO 3834-3:2021	Quality requirements for fusion welding of metallic materials: Part 3 standard quality requirements Second Revision		-	Identical under dual numbering
31	IS 15326 (Part 4) : 2022 ISO 3834-4:2021 ISO 3834-4:2021	Quality requirements for fusion welding of metallic materials: Part 4 elementary quality requirements Second Revision		-	Identical under dual numbering
32	IS 15326 (Part 5) : 2019 ISO 3834-5 : 2015 Reviewed In : 2024 ISO 3834-5: 2015	Quality requirements for fusion welding of metallic materials: Part 5 documents with which it is necessary to conform to claim conformity to the quality requirements of ISO 3834 - 2, ISO 3834 - 3 or ISO 3834 - 4 (First Revision)	January, 2024	-	Identical under dual numbering
33	IS 15327 : 2022 ISO 14731:2019	Welding coordination - Tasks and responsibilities (Second Revision)		-	Identical under dual numbering

	ISO 14731:2019				
34	IS 15387 : 2003 ISO 5830:1984 Reviewed In : 2023 ISO 5830:1984	Resistance spot welding - Male electrode caps	September, 2023	-	Identical under dual numbering
35	IS 15728 : 2022 ISO 15620:2019 ISO 15620:2019	Welding - Friction welding of metallic materials (First Revision)		-	Identical under dual numbering
36	IS 15769 : 2008 Reviewed In : 2021	Flux cored (Tubular) electrodes for gas shielded and self - Shielded metal welding of carbon or carbon - Manganese steel	March, 2021	1	Indigenous
37	IS 15946 : 2018 ISO 9539:2010 Reviewed In : 2023 ISO 9539:2010	Gas welding equipment - Materials for equipment used in gas welding, cutting and allied processes (First Revision)	September, 2023	-	Identical under dual numbering
38	IS 15977 : 2013 Reviewed In : 2024	Classification and acceptance tests for bare solid wire electrodes and wire flux combination for submerged arc welding of structural steel - Specification	February, 2024	-	Indigenous
39	IS 16002 (Part 1) : 2012 ISO 17652-1:2003 Reviewed In : 2023 ISO 17652-1:2003	Welding - Test for shop primers in relation to welding and allied processes: Part 1 general requirements	September, 2023	-	Identical under dual numbering
40	IS 16002 (Part 2) : 2012 ISO 17652-2:2003 Reviewed In : 2023 ISO 17652-2:2003	Welding - Test for shop primers in relation to welding and allied processes: Part 2 welding properties of shop primers	September, 2023	-	Identical under dual numbering
41	IS 16002 (Part 3) : 2012 ISO 17652-3:2003 Reviewed In : 2023 ISO 17652-3:2003	Welding - Test for shop primers in relation to welding and allied processes: Part 3 thermal cutting	September, 2023	-	Identical under dual numbering
42	IS 16002 (Part 4) : 2012 ISO 17652-4:2003 Reviewed In : 2023 ISO 17652-4:2003	Welding - Test for shop primers in relation to welding and allied processes: Part 4 emission of fumes and gases	September, 2023	-	Identical under dual numbering
43	IS 16003 : 2022 ISO 15607:2019 ISO 15607:2019	Specification and qualification of welding procedures for metallic materials General rules (First Revision)		-	Identical under dual numbering
44	IS 16277 (Part 1) : 2014 ISO 10882-1 : 2011 Reviewed In : 2023 ISO 10882-1:2011	Health and Safety in Welding and Allied Processes Sampling of Airborne Particles and Gases in the Operator's Breathing Zone Part 1 Sampling of Airborne Particles	September, 2023	-	Identical under dual numbering
45	IS 16278 (Part 1) : 2014 ISO 15011-1 : 2009 Reviewed In : 2023 ISO 15011-1 : 2009	Health and safety in welding and allied processes - Laboratory method for sampling fumes and gases: Part 1 determination of fume emission rate during arc welding and collection of fumes for analysis	September, 2023	-	Identical under dual numbering
46	IS 16278 (Part 2) : 2018	Health and Safety in Welding and Allied Processes	September, 2023	-	Identical under dual numbering

	ISO 15011-2 : 2009 Reviewed In : 2023 ISO 15011-2:2009	Laboratory Method for Sampling Fume and Gases Part 2 Determination of the Emission Rates of Carbon Monoxide (CO), Carbon Dioxide (CO2), Nitrogen Monoxide (NO) and Nitrogen Dioxide (NO2) During Arc Welding, Cutting and Gouging			
47	IS 16681 (Part 1) : 2022 ISO 21904-2:2020 ISO 21904-2:2020	Health and safety in welding and allied processes - Equipment for capture and separation of welding fume: Part 1 Requirements for testing and marking of separation efficiency (First Revision)		-	Identical under dual numbering
48	ISIHBB MMAW : 1965 Reviewed In : 2019 Reaffirmed but not taken up for revision	ISI Handbook of Manual Metal-arc Welding for Welders	January, 2019	-	Indigenous
49	IS 18224 : 2023	General standard for qualification and certification of welding inspection personnel		-	Indigenous
50	IS 18632 : 2024 ISO 14344:2010 ISO 14344:2010	Welding consumables - Procurement of filler materials and fluxes		-	Identical under dual numbering
51	IS 2751 : 1979 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for welding of mild steel plain and deformed bars for reinforced concrete construction (First Revision)	January, 2019	-	Indigenous
52	IS 2811 : 1987 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommendations for manual tungsten inert - Gas arc welding of austenitic stainless steel (First Revision)	January, 2019	1	Indigenous
53	IS 2812 : 1993 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommendations for manual tungsten inert gas arc welding of aluminium and aluminium alloys (First Revision)	January, 2019	2	Indigenous
54	IS 2927 : 1975 Reviewed In : 2024	Specification for brazing alloys (First Revision)	January, 2024	1	Indigenous
55	IS 3016 : 1982 Reviewed In : 2021	Code of practice for fire precautions in welding and cutting operations (First Revision)	March, 2021	-	Indigenous
56	IS 3023 : 2013 Reviewed In : 2024	Recommended practice for building - Up by thermal spraying (First Revision)	February, 2024	-	Indigenous
57	IS 3525 : 1998 Reviewed In : 2019 Reaffirmed but not taken up for revision	Metal arc welding for hull construction of merchant ship in carbon and carbon manganese steels - Code of practice (Second Revision)	January, 2019	-	Indigenous
58	IS 3600 (Part 1) : 2022 ISO 9018 : 2015 ISO 9018 : 2015	Method of testing fusion welded joints and weld metal in steel Part 1 Destructive tests on welds in metallic materials - Tensile test on cruciform and lapped joints (Third		-	Identical under dual numbering

		revision of IS 3600 (Part 1))			
59	IS 3600 (Part 2) : 2022 ISO 9016 : 2012 ISO 9016 : 2012	Method of testing fusion welded joints and weld metal in steel Part 2 Destructive tests on welds in metallic materials Impact tests Test specimen location notch orientation and examination (Third Revision of IS 3600 (Part 2))		-	Identical under dual numbering
60	IS 3600 (Part 3) : 2018 ISO 4136:2001 Reviewed In : 2023 ISO 4136:2012	Method of testing fusion welded joints and weld metal in steel: Part 3 destructive tests on welds in metallic materials - Transverse tensile test (Fourth Revision)	February, 2023	-	Identical under dual numbering
61	IS 3600 (Part 4) : 1984 Reviewed In : 2021 ISO 5178	Method of testing fusion welded joints and weld metal in steel: Part 4 longitudinal tensile test on cylindrical all weld metal test pieces using butt joints (Second Revision)	March, 2021	-	Not Equivalent
62	IS 3600 (Part 5) : 2018 ISO 5173:1981 Reviewed In : 2023 ISO 5173:2009	Method of testing fusion welded joints and weld metal in steel: Part 5 destructive tests on welds in metallic materials - Bend tests (Third Revision)	June, 2023	-	Identical under dual numbering
63	IS 3600 (Part 8) : 1985 Reviewed In : 2024	Method of testing fusion welded joints and weld metal in steel: Part 8 nick break test and fillet weld fracture test (Second Revision)	January, 2024	-	Indigenous
64	IS 3600 (Part 9) : 2022 ISO 17639 : 2003 ISO 17639 : 2003	Method of testing fusion welded joints and weld metal in steel Part 9 Destructive tests on welds in metallic materials Macroscopic and microscopic examination of welds (Third Revision of IS 3600 (Part 9))		-	Identical under dual numbering
65	IS 4353 : 1995 Reviewed In : 2021	Submerged arc welding of mild steel and low alloy steels - Recommendations (First Revision)	March, 2021	-	Indigenous
66	IS 4943 : 1968 Reviewed In : 2019 Reaffirmed but not taken up for revision ISO 9017	Assessment of butt and fillet fusion welds in steel sheet, plate and pipe	January, 2019	-	Not Equivalent
67	IS 4972 (Part 1) : 2022 ISO 8430-1 : 2016 ISO 8430-1 : 2016	Resistance Spot Welding Part 1 Electrode Holders - Taper Fixing 1:10 (First Revision of IS 4972)		-	Identical under dual numbering
68	IS 4972 (Part 2) : 2022 ISO 8430-2 : 2016 ISO 8430-2 : 2016	Resistance Spot Welding Part 2 Electrode Holders - Morse Taper Fixing (First Revision of IS 4972)		-	Identical under dual numbering
69	IS 4972 (Part 3) : 2022 ISO 8430-3 : 2016 ISO 8430-3 : 2016	Resistance Spot Welding Part 3 Electrode Holders — Parallel Shank Fixing For End Thrust (First revision of IS 4972)		-	Identical under dual numbering
70	IS 4972 (Part 4) : 2022 ISO 5183 - 1 : 1983 ISO 5183 - 1 : 1998	Resistance Spot Welding Part 4 Electrode Adaptors Male Taper 1:10 — Conical Fixing Taper 1:10 (First revision of IS 4972)		-	Identical under dual numbering



71	IS 4972 (Part 5) : 2022 ISO 5183-2 : 2000 ISO 5183-2 : 2000	Resistance Spot Welding Part 5 Electrode Adaptors Male Taper 1:10 - Parallel Shank Fixing For End Thrust Electrodes (First Revision of IS 4972)		-	Identical under dual numbering
72	IS 4972 (Part 6) : 2022 ISO 5184 : 1979 ISO 5184 : 1979	Resistance Spot Welding Part 6 Straight Resistance Spot Welding Electrodes (First Revision of IS 4972)		-	Identical under dual numbering
73	IS 4972 (Part 7) : 2022 ISO 1089 : 1980 ISO 1089 : 1980	Resistance Spot Welding Part 7 Electrode Taper Fits For Spot Welding Equipment -- Dimensions (First Revision of IS 4972)		-	Identical under dual numbering
74	IS 4972 (Part 8) : 2022 ISO 5182 : 2016 ISO 5182 : 2016	Resistance spot welding Part 8 Materials for electrodes and ancillary equipment (First Revision of IS 4972)		-	Identical under dual numbering
75	IS 5139 : 1995 Reviewed In : 2021	Repair of cast iron castings by Oxy - Acetylene and manual metal arc welding - Recommendations (First Revision)	March, 2021	-	Indigenous
76	IS 5206 : 1983 Reviewed In : 2024 ISO 3580, 3581	Specification for covered electrodes for manual metal arc welding of stainless steel and other similar high alloy steels (First Revision)	January, 2024	-	Not Equivalent
77	IS 5511 : 1991 Reviewed In : 2024 ISO 1071	Covered electrodes for manual metal arc welding of cast iron - Specification (First Revision)	January, 2024	1	Not Equivalent
78	IS 5530 : 2005 Reviewed In : 2023	Recommendations for production, rectification and repair of steel castings by metal arc welding process (Second Revision)	September, 2023	-	Indigenous
79	IS 5687 : 1970 Reviewed In : 2019 Reaffirmed but not taken up for revision	Glossary of terms relating to welding of plastics	January, 2019	-	Indigenous
80	IS 5856 : 2022 ISO 14343:2017 ISO 14343:2017	Welding consumables Wire electrodes strip electrodes wires and rods for arc welding of stainless and heat resisting steels Classification (Third Revision)		-	Identical under dual numbering
81	IS 5857 : 1970 Reviewed In : 2024	Specification for nickel and nickel alloy bare solid welding rods and electrodes	January, 2024	-	Indigenous
82	IS 5897 : 1985 Reviewed In : 2024 ISO 18273, 19288	Specification for aluminium and aluminium alloy welding rods and wires and magnesium alloy welding rods (First Revision)	January, 2024	-	Not Equivalent
83	IS 5898 : 1970 Reviewed In : 2024 ISO 24373	Specification for copper and copper alloy bare solid welding rods and electrodes	January, 2024	-	Not Equivalent
84	IS 5922 : 1970 Reviewed In : 2019 Reaffirmed but not taken up for revision	Qualifying tests for welders engaged in aircraft welding	January, 2019	1	Indigenous
85	IS 6016 : 2009	Gas welding equipment - Hose	March, 2021	-	Identical under dual

	ISO 3253:1998 Reviewed In : 2021 ISO 3253 : 1998	connections for equipment for welding, cutting and allied processes (Second Revision)			numbering
86	IS 6409 : 1971 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for Oxy - Acetylene flame cleaning	January, 2019	-	Indigenous
87	IS 6419 : 1996 Reviewed In : 2021	Welding rods and bare electrodes for gas shielded arc welding of structural steel - Specification (First Revision)	March, 2021	1	Indigenous
88	IS 6431 : 1971 Reviewed In : 2019 Reaffirmed but not taken up for revision	Tolerances on dimensions of plates cut by flame	January, 2019	-	Indigenous
89	IS 6560 : 2017 ISO 21952 : 2012 Reviewed In : 2023 ISO 21952:2012	Welding Consumables- Wire Electrodes, Wires, Rods and Deposits for Gas Shielded Arc Welding of Creep-Resisting Steels- Classification (Second Revision)	March, 2023	-	Identical under dual numbering
90	IS 6901 : 2018 ISO 2503:2009 Reviewed In : 2023 ISO 2503:2009	Gas welding equipment - Pressure regulators and pressure regulators with flow - Metering devices for gas cylinders used in welding, cutting and allied processes up to 300 bar (30 MPA) (Third Revision)	September, 2023	-	Identical under dual numbering
91	IS 6916 : 1973 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for fabrication welding of steel castings	January, 2019	-	Indigenous
92	IS 7273 : 1974 Reviewed In : 2019 Reaffirmed but not taken up for revision ISO 15614-2	Methods of testing fusion welded joints in aluminium and aluminium alloys	January, 2019	-	Not Equivalent
93	IS 7303 : 1974 Reviewed In : 2024	Specification for covered electrodes for surfacing of metal by manual metal arc welding	February, 2024	-	Indigenous
94	IS 7307 (Part 1) : 1974 Reviewed In : 2019 Reaffirmed but not taken up for revision	Approval tests for welding procedures: Part 1 fusion welding of steel	January, 2019	-	Indigenous
95	IS 7310 (Part 1) : 2019 ISO 9606-1 : 2012 Reviewed In : 2023 ISO 9606-1 : 2012	Qualification Testing of Welders - Fusion Welding Part 1 Steels (First Revision)	September, 2023	-	Identical under dual numbering
96	IS 7310 (Part 2) : 2019 ISO 9606-2 : 2004 Reviewed In : 2023 ISO 9606-2 : 2004	Qualification Test of Welders - Fusion Welding Part 2 Aluminium and Aluminium Alloys ( First Revision )	September, 2023	-	Identical under dual numbering
97	IS 7310 (Part 3) :	Approval Testing of Welders -	September, 2023	-	Identical under dual



	2019 ISO 9606-3 : 1999 Reviewed In : 2023 ISO 9606-3 : 1999	Fusion Welding Part 3 Copper and Copper Alloys ( First Revision )			numbering
98	IS 7310 (Part 4) : 2019 ISO 9606-4 : 1999 Reviewed In : 2023 ISO 9606-4 : 1999	Approval Testing of Welders - Fusion Welding Part 4 Nickel and Nickel Alloys ( First Revision )	September, 2023	-	Identical under dual numbering
99	IS 7310 (Part 5) : 2019 ISO 9606-5 : 2000 Reviewed In : 2023 ISO 9606-5 : 2000	Approval Testing of Welders - Fusion Welding Part 5 Titanium and Titanium Alloys, Zirconium and Zirconium Alloys (First Revision)	September, 2023	-	Identical under dual numbering
100	IS 7318 (Part 1) : 1974 Reviewed In : 2023 15610, 15611,15612	Approval test for welders when welding procedure approval is not required: Part 1 fusion welding of steel	September, 2023	-	Not Equivalent
101	IS 7318 (Part 2) : 1974 Reviewed In : 2023 15610, 15611,15612	Approval tests for welders when welding procedure approval is not required: Part 2 tig or mig welding of aluminium and its alloys	September, 2023	-	Not Equivalent
102	IS 7653 : 1975 Reviewed In : 2019 Reaffirmed but not taken up for revision	Specification for manual blow pipes for welding and cutting	January, 2019	-	Indigenous
103	IS 8002 : 1976 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommended procedure for welding of flexible pvc (Flexible Polyvinyl Chloride)	January, 2019	-	Indigenous
104	IS 8004 : 1976 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommended procedure welding of rigid PVC for (Rigid Polyvinyl Chloride)	January, 2019	-	Indigenous
105	IS 812 : 1957 Reviewed In : 2024 TR 25901	Glossary of terms relating to welding and cutting of metals	January, 2024	-	Not Equivalent
106	IS 813 (Part 1) : 2018 ISO 2553:2013 Reviewed In : 2023 ISO 2553:2013	Welding and Allied Processes Symbolic Representation on Drawings-Welded Joints (Second Revision)	June, 2023	-	Identical under dual numbering
107	IS 813 (Part 2) : 2018 ISO 4063 : 2009 Reviewed In : 2023 ISO 4063:2009	Welding and allied processes: Part 2 nomenclature of processes and reference numbers (Second Revision)	January, 2023	-	Identical under dual numbering
108	IS 814 : 2004 Reviewed In : 2021 ISO 2560	Covered electrodes for manual metal arc welding of carbon and carbon manganese steel - Specification (Sixth Revision)	March, 2021	2	Not Equivalent
109	IS 816 : 1969 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for use of metal arc welding for general construction in mild steel (First Revision)	January, 2019	1	Indigenous

110	IS 817 : 1966 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for training and testing of metal arc welders (Revised)	January, 2019	-	Indigenous
111	IS 817 (Part 1) : 1992 Reviewed In : 2019 Reaffirmed but not taken up for revision	Training of welders - Code of practice: Part 1 manual metal arc welding (Second Revision)	January, 2019	-	Indigenous
112	IS 817 (Part 2) : 1996 Reviewed In : 2019 Reaffirmed but not taken up for revision	Training of welders - Code of practice: Part 2 oxyfuel welding (Second Revision)	January, 2019	-	Indigenous
113	IS 818 : 1968 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for safety and health requirements in electric and gas welding and cutting operations (First Revision)	January, 2019	-	Indigenous
114	IS 819 : 1957 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of practice for resistance spot welding for light assemblies in mild steel	January, 2019	1	Indigenous
115	IS 822 : 1970 Reviewed In : 2019 Reaffirmed but not taken up for revision	Code of procedure for inspection of welds	January, 2019	-	Indigenous
116	IS 8363 : 1976 Reviewed In : 2019 Reaffirmed but not taken up for revision	Specification for bare wire electrodes for electroslag welding of steels	January, 2019	1	Indigenous
117	IS 8455 : 1977 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommended procedure for welding of polyethylene	January, 2019	1	Indigenous
118	IS 8484 : 1998 Reviewed In : 2021	Metal powders for welding electrodes - Specification (First Revision)	March, 2021	-	Indigenous
119	IS 8666 : 1977 Reviewed In : 2024 ISO 17777, 24373	Specification for copper and copper alloy covered electrodes for manual metal arc welding	January, 2024	-	Not Equivalent
120	IS 8736 : 1977 Reviewed In : 2024 ISO 14172	Specification for nickel and nickel alloy covered electrodes for metal arc welding	January, 2024	-	Not Equivalent
121	IS 8987 : 1978 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommended practices for air carbon arc gauging and cutting	January, 2019	1	Indigenous
122	IS 9006 : 1978 Reviewed In : 2019 Reaffirmed but not	Recommended practice for welding of clad steels	January, 2019	-	Not Equivalent

	taken up for revision ISO 9692-4				
123	IS 9495 : 1980 Reviewed In : 2019 Reaffirmed but not taken up for revision	Test for brazeability of brazing alloys	January, 2019	-	Indigenous
124	IS 9524 : 1980 Reviewed In : 2019 Reaffirmed but not taken up for revision	Recommended procedure for repair welding of steel components by aluminothermic process	January, 2019	1	Indigenous
125	IS 9595 : 1996 Reviewed In : 2019 Reaffirmed but not taken up for revision	Metal - Arc welding of carbon and carbon manganese steels - Recommendations (Fifth Revision)	January, 2019	-	Indigenous

### Standards under Development

#### Projects Approved

SI. No.	Doc No.	Title
1	MTD 11 (23174) Revision of: IS 5206:1983	Welding consumables - Covered electrodes for manual metal arc welding of stainless and heat-resisting steels Classification Second Revision
2	MTD 11 (23179) Revision of: IS 814:2004	Welding consumables Covered electrodes for manual metal arc welding of non-alloy and fine grain steels Classification Seventh Revision
3	MTD 11 (24779) Revision of: IS 3600:2022	Method of testing fusion welded joints and weld metal in steel Part 2 Destructive tests on welds in metallic materials Impact tests Test specimen location notch orientation and examination Fourth Revision
4	MTD 11 (24780) Revision of: IS 3600:2018	Method of testing fusion welded joints and weld metal in steel Part 3 destructive tests on welds in metallic materials - Transverse tensile test Fifth Revision
5	MTD 11 (24784) Revision of: IS 3600:2018	Method of testing fusion welded joints and weld metal in steel Part 5 destructive tests on welds in metallic materials - Bend tests

#### Preliminary Draft Standards

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

#### Drafts Standards in WC Stage

SI. No.	Doc No.	Title
1	MTD 11 (24613)	Welding rods and bare electrodes for gas shielded arc welding of structural steel - Specification First Revision Amendment - 2

#### Draft Standards Completed WC Stage

SI. No.	Doc No.	Title
1	MTD 11 (21536)	Repair of cast iron castings by oxy-acetylene and manual metal arc welding-recommendations Second Revision
2	MTD 11 (22285)	Use of welding in bridges and structures subject to dynamic loading - Code of practice Third Revision
3	MTD 11 (22960)	Brazing - Qualification testing of brazers and brazing operators
4	MTD 11 (22974)	Brazing - Specification and qualification of brazing procedures for metallic materials
5	MTD 11 (23173)	Welding consumables Covered electrodes for manual metal arc welding of high-strength steels Classification Fourth Revision
6	MTD 11 (23175)	Welding consumables Wire electrodes wires and rods for welding of aluminium and aluminium

		alloys Classification Second Revision
7	MTD 11 (23176)	Welding consumables Covered electrodes wires rods and tubular cored electrodes for fusion welding of cast iron Classification Second Revision
8	MTD 11 (23177)	Welding consumables Solid wires and rods for fusion welding of copper and copper alloys Classification First Revision
9	MTD 11 (23178)	Welding consumables Solid wire electrodes solid strip electrodes solid wires and solid rods for fusion welding of nickel and nickel alloys Classification First Revision
10	MTD 11 (23180)	Welding consumables - Covered electrodes for manual metal arc welding of copper and copper alloys - Classification First Revision
11	MTD 11 (24184)	Welding and allied processes Vocabulary Part 2 Health and safety First Revision
12	MTD 11 (24283)	Welding Consumables - Covered Electrodes for Manual Metal Arc Welding of Creep-Resisting Steels - Classification
13	MTD 11 (24285)	Welding consumables - Solid wire electrodes solid wires and rods for fusion welding of magnesium and magnesium alloys - Classification
14	MTD 11 (24320)	Welding consumables Tubular cored electrodes and rods for gas shielded and non-gas shielded metal arc welding of stainless and heat-resisting steels Classification
15	MTD 11 (24321)	Welding consumables - Tubular cored electrodes for gas shielded metal arc welding of creep-resisting steels - Classification
16	MTD 11 (24322)	Welding Consumables Tubular Cored Electrodes for Gas-Shielded and Non-Gas-Shielded Metal Arc Welding of High Strength Steels Classification
17	MTD 11 (24324)	Welding Consumables Solid Wire Electrodes Tubular Cored Electrodes and Electrode-Flux Combinations for Submerged Arc Welding of Creep-Resisting Steels Classification
18	MTD 11 (24326)	Welding Consumables Solid Wire Electrodes Tubular Cored Electrodes and Electrode-Flux Combinations for Submerged Arc Welding of High Strength Steels Classification
19	MTD 11 (24329)	Welding consumables Tubular-cored electrodes for gas-shielded and non-gas-shielded metal arc welding of nickel and nickel alloys Classification
20	MTD 11 (24330)	Welding Consumables Solid Wire Electrodes Tubular Cored Electrodes and ElectrodeFlux Combinations for Submerged Arc Welding of Non Alloy and Fine Grain Steels Classification
21	MTD 11 (24770)	Welding Consumables Covered Electrodes for Manual Metal Arc Welding of Stainless and Heat-Resisting Steels Classification Second Revision

### Finalized Draft Indian Standard

SI. No.	Doc No.	Title
1	MTD 11 (24331)	Welding personnel Qualification testing of welding operators and weld setters for mechanized and automatic welding of metallic materials

### Finalized Draft Indian Standards under Print

SI. No.	Doc No.	Title
1	MTD 11 (17166) <b>Revision of: IS 3600:1985</b>	Fusion welded joints and weld metal in steel Method of test Part 8 Destructive tests on welds in metallic materials Fracture test Third Revision
2	MTD 11 (21493) <b>Revision of: IS 3600:1984</b>	Fusion welded joints and weld metal in steel Method of test Part 4 Destructive tests on welds in metallic materials Longitudinal tensile test on weld metal in fusion welded joints Third Revision
3	MTD 11 (22276) <b>Revision of: IS 15326:2018</b>	Quality Requirements for Fusion Welding of Metallic Materials Part 1 Criteria for the Selection of the Appropriate Level of Quality Requirements Second Revision
4	MTD 11 (22952)	Welding consumables Technical delivery conditions for filler materials and fluxes Type of product dimensions tolerances and markings
5	MTD 11 (22954)	Welding consumables Deposition of a weld metal pad for chemical analysis
6	MTD 11 (22957)	Welding and allied processes Welding positions
7	MTD 11 (22962)	Welding Consumables - Gases and Gas Mixtures for Fusion Welding and Allied Processes
8	MTD 11 (22966)	Welding consumables Methods of test Part 1 Preparation of all-weld metal test pieces and specimens in steel nickel and nickel alloys
9	MTD 11 (22968)	Welding consumables Methods of test Part 2 Preparation of single-run and two-run technique test pieces and specimens in steel
10	MTD 11 (22969)	Welding consumables Methods of test Part 3 Classification testing of positional capacity and root penetration of welding consumables in a fillet weld
11	MTD 11 (23214) <b>Revision of: IS 11802:1986</b>	Welding and allied processes Determination of hydrogen content in arc weld metal First Revision

12	MTD 11 (24183) Revision of: IS 812:1957	Welding and allied processes Vocabulary Part 1 General terms
13	MTD 11 (24185) Revision of: IS 812:1957	Welding and allied processes Vocabulary Part 3 Welding processes
14	MTD 11 (24186) Revision of: IS 812:1957	Welding and allied processes Vocabulary Part 4 Arc welding

**Total Published Standards:123 Total Standards Under development:43**

### Aspect Wise Report

Product : 24  
Code of Practices : 63  
Methods of Test : 15  
Terminology : 2  
Dimensions : 8  
System Standard : 2  
Safety Standard : 3  
Others : 7  
Service Specification : 0  
Process Specification : 0  
Unclassified : 0

### Annexure-I :List of Indian Standards Withdrawn/Superseded

Sl. No.	IS No. & Year	Title
1	IS 10793 : 1983 Reviewed In : 2021 ISO 6520:1982	Classification of imperfections in metallic fusion welds with explanations
2	IS 10842 : 1984 Reviewed In : 2016 ISO 17642	Evaluation procedure for Y-groove weld crackability test in structural steel
3	IS 1181 : 1967	Qualifying Tests For Metal Arc Welders engaged In Welding Structures Other Than Pipes
4	IS 1442 : 1964	Specification for precast reinforced concrete street lighting poles First Revision
5	IS 192 : 1956	Silver Solder
6	IS 24 : 1956	Brazing Solder
7	IS 2680 : 1964	Filler rods and wire for inert gas tungsten arc welding
8	IS 3600 (Part 6) : 1983 ISO 5177:1984 Reviewed In : 2013 ISO 5177:1984	Method of Testing Fusion Welded Joints and Weld Metal in Steel Part 6 Transverse side bend test on butt welds
9	IS 3600 (Part 7) : 1985 Reviewed In : 2019 ISO 5173	Method of testing fusion welded joints and weld metal in steel Part 7 longitudinal root and face bend test on butt welds Second Revision
10	IS 3613 : 1974 Reviewed In : 2010	Acceptance tests for wire flux combination for submerged arc welding
11	IS 4972 : 1968 Reviewed In : 2019 ISO 8430	Specification for resistance spot - Welding electrodes
12	IS 5462 : 1969	Colour code for identification of covered electrodes and metal arc welding
13	IS 6227 : 1971	Code of practice for use of metal arc welding in tubular structure
14	IS 6901 : 2009	Gas welding equipment - Pressure regulators for gas cylinders used in welding cutting and allied

	ISO 2503:1998 ISO 18079-1	processes up to 300 bar
15	IS 7280 : 1974 Reviewed In : 2013	Bare wire electrodes for submerged arc welding of structural steels
16	IS 813 : 1986 Reviewed In : 2013	Scheme Of Symbols For Welding
17	IS 815 : 1974	Classification coding of covered electrodes for metal arc welding of structural steels
18	IS 823 : 1964	Code of procedure for manual metal arc welding of mild steel

### Annexure-II :List of Indian Product Standards

Sl. No.	IS No. & Year	Title
1	IS 10811 : 1984 Reviewed In : 2021	Specification for oxygen and acetylene manifold regulators for welding cutting and related processes
2	IS 1179 : 1967 Reviewed In : 2024	Specification for equipment for eye and face protection during welding First Revision
3	IS 1278 : 1972 Reviewed In : 2024	Specification for filler rods and wires for gas welding Second Revision
4	IS 1395 : 1982 Reviewed In : 2024 ISO 18265	Specification for low and medium alloy steel covered electrodes for manual metal arc welding Third Revision
5	IS 15387 : 2003 ISO 5830:1984 Reviewed In : 2023 ISO 5830:1984	Resistance spot welding - Male electrode caps
6	IS 15769 : 2008 Reviewed In : 2021	Flux cored Tubular electrodes for gas shielded and self - Shielded metal welding of carbon or carbon - Manganese steel
7	IS 15946 : 2018 ISO 9539:2010 Reviewed In : 2023 ISO 9539:2010	Gas welding equipment - Materials for equipment used in gas welding cutting and allied processes First Revision
8	IS 2927 : 1975 Reviewed In : 2024	Specification for brazing alloys First Revision
9	IS 4972 (Part 8) : 2022 ISO 5182 : 2016 ISO 14300-2:2011	Resistance spot welding Part 8 Materials for electrodes and ancillary equipment First Revision of IS 4972
10	IS 5206 : 1983 Reviewed In : 2024 ISO 3580, 3581	Specification for covered electrodes for manual metal arc welding of stainless steel and other similar high alloy steels First Revision
11	IS 5511 : 1991 Reviewed In : 2024 ISO 1071	Covered electrodes for manual metal arc welding of cast iron - Specification First Revision
12	IS 5857 : 1970 Reviewed In : 2024	Specification for nickel and nickel alloy bare solid welding rods and electrodes
13	IS 5897 : 1985 Reviewed In : 2024 ISO 18273, 19288	Specification for aluminium and aluminium alloy welding rods and wires and magnesium alloy welding rods First Revision
14	IS 5898 : 1970 Reviewed In : 2024 ISO 24373	Specification for copper and copper alloy bare solid welding rods and electrodes
15	IS 6016 : 2009 ISO 3253:1998 Reviewed In : 2021 ISO 3253 : 1998	Gas welding equipment - Hose connections for equipment for welding cutting and allied processes Second Revision
16	IS 6419 : 1996 Reviewed In : 2021	Welding rods and bare electrodes for gas shielded arc welding of structural steel - Specification First Revision
17	IS 6560 : 2017	Welding Consumables- Wire Electrodes Wires Rods and Deposits for Gas Shielded Arc Welding



	ISO 21952 : 2012 Reviewed In : 2023 ISO 21952:2012	of Creep-Resisting Steels- Classification Second Revision
18	IS 7303 : 1974 Reviewed In : 2024	Specification for covered electrodes for surfacing of metal by manual metal arc welding
19	IS 7653 : 1975 Reviewed In : 2019 Reaffirmed but not taken up for revision	Specification for manual blow pipes for welding and cutting
20	IS 814 : 2004 Reviewed In : 2021 ISO 2560	Covered electrodes for manual metal arc welding of carbon and carbon manganese steel - Specification Sixth Revision
21	IS 8363 : 1976 Reviewed In : 2019 Reaffirmed but not taken up for revision	Specification for bare wire electrodes for electroslag welding of steels
22	IS 8484 : 1998 Reviewed In : 2021	Metal powders for welding electrodes - Specification First Revision
23	IS 8666 : 1977 Reviewed In : 2024 ISO 17777, 24373	Specification for copper and copper alloy covered electrodes for manual metal arc welding
24	IS 8736 : 1977 Reviewed In : 2024 ISO 14172	Specification for nickel and nickel alloy covered electrodes for metal arc welding