

BUREAU OF INDIAN STANDARDS

Program of Work

CED 7 : Structural Engineering And Structural Sections

Scope: STANDARDIZATION IN THE FIELD OF STRUCTURAL ENGINEERING USING STEEL/ALUMINIUM STRUCTURAL SECTIONS INCLUDING PIPELINES FOR GAS AND FORMULATION OF INDIAN STANDARDS ON DIMENSIONS/TOLERANCES OF VARIOUS HOT ROLLED/COLD FORMED SECTIONS, BARS AND FLAT PRODUCTS IN STEEL AND ALUMINIUM FOR STRUCTURAL AND GENERAL ENGINEERING APPLICATIONS.

Liaison: **ISO TC-167 (P):** *Steel and aluminium structures*

Published Standards

| S.No | IS No. | TITLE | Reaffirm M-Y | No. of Amds | Eqv. |
|------|--|--|----------------|-------------|------------|
| 1 | IS 10182 (Part 1) : 1982 <i>Reviewed In : 2021</i> | Dimensions and tolerances for hot rolled track shoe sections: Part 1: Sec TS - L1 | January, 2021 | - | Indigenous |
| 2 | IS 10182 (Part 2) : 1985 <i>Reviewed In : 2021</i> | Dimensions and tolerances for hot rolled track shoe sections: Part 2: Sec TS - H1 | January, 2021 | - | Indigenous |
| 3 | IS 10987 : 1992 <i>Reviewed In : 2022</i> | Code of Practice for Design, Fabrication, Testing and Installation of Under - Ground/Above - Ground Horizontal Cylindrical Steel Storage Tanks for Petroleum Products (First Revision) | December, 2022 | - | Indigenous |
| 4 | IS 1173 : 1978 <i>Reviewed In : 2024</i> | Specification for Hot Rolled and Slit Steel Tee Bars (Second Revision) | March, 2024 | - | |
| 5 | IS 1252 : 1991 <i>Reviewed In : 2022</i> | Hot Rolled Steel Bulb Angles - Dimensions (First Revision) | December, 2022 | - | Indigenous |
| 6 | IS 12778 : 2004 <i>Reviewed In : 2019</i> | Hot rolled parallel flange steel sections for beams, columns and bearing piles - Dimensions and section properties | | - | Indigenous |
| 7 | IS 12779 : 1989 <i>Reviewed In : 2024</i> | Rolling and cutting tolerances for hot rolled parallel flange beam and column sections - Specification | March, 2024 | - | Indigenous |
| 8 | IS 12843 : 1989 <i>Reviewed In : 2021</i> | Tolerances for erection of steel structures | January, 2021 | - | |
| 9 | IS 15663 (Part 1) : 2006 <i>Reviewed In : 2021</i> | Design and installation of natural gas pipelines - Code of Practice : Part 1 Laying of pipelines | July, 2021 | - | Indigenous |
| 10 | IS 15663 (Part 2) : 2006 <i>Reviewed In : 2021</i> | Design and installation of natural gas pipelines - Code of Practice : Part 2 Laying of pipelines in | July, 2021 | - | Indigenous |

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|----|---|---|----------------|---|---------------------------------|
| 11 | IS 15663 (Part 3) : 2006 Reviewed In : 2021 | Design and installation of natural gas pipelines - Code of Practice : Part 3 Pre-commissioning and commissioning of pipelines | July, 2021 | - | Indigenous |
| 12 | IS 1730 : 1989 Reviewed In : 2019 Reaffirmed but not taken up for revision ISO 1035-3:1980 | Steel Plates, Sheets Strips and Flats for Structural and General Engineering Purposes - Dimensions (Second Revision) | | - | Modified/Technically Equivalent |
| 13 | IS 1732 : 1989 Reviewed In : 2019 Reaffirmed but not taken up for revision | Steel Bars, Round and Square for Structural and General Engineering Purposes - Dimensions (Second Revision) | | - | |
| 14 | IS 17740 : 2022 | Isolated Towers, Masts and Poles using Structural Steel - Code of Practice | | - | Indigenous |
| 15 | IS 1863 : 1979 ISO 657-19 Reviewed In : 2024 ISO 657-19 | Specification for Rolled Steel Bulb Flats (First Revision) | March, 2024 | - | Identical under dual numbering |
| 16 | IS 1864 : 1979 ISO 657-18 Reviewed In : 2024 ISO 657-18 | Specification for Hot Rolled Steel 'L' Sections for Ship Building (First Revision) | March, 2024 | - | Not Equivalent |
| 17 | IS 2314 (Part 1) : 2023 | Steel Sheet Piling Section "S" Specification Part 1 Hot Rolled Sheet Pile (Second Revision) | | - | Indigenous |
| 18 | IS 2314 (Part 2) : 2023 | Steel Sheet Piling Section "S" Specification Part 2 Cold Formed Sheet Pile (Second Revision) | | - | Indigenous |
| 19 | IS 2713 (Part 1 to 3) : 1980 Reviewed In : 2022 | Tubular Steel Poles for Overhead Power Lines | December, 2022 | 2 | |
| 20 | IS 2750 : 1964 Reviewed In : 2021 | Specification for steel scaffoldings | January, 2021 | 3 | Indigenous |
| 21 | IS 3443 : 1980 Reviewed In : 2019 Reaffirmed but not taken up for revision | Specification for Crane Rail Sections (First Revision) | | 1 | |
| 22 | IS 3908 : 1986 Reviewed In : 2022 | Specification for Aluminium Equal Leg Angles (First Revision) | December, 2022 | - | |
| 23 | IS 3909 : 1986 Reviewed In : 2022 | Specification for Aluminium Unequal Leg Angles (First Revision) | December, 2022 | - | |
| 24 | IS 3921 : 1985 Reviewed In : 2021 | Specification for Aluminium Channels (First Revision) | January, 2021 | - | |
| 25 | IS 3954 : 1991 Reviewed In : 2021 Reaffirmed but not taken up for revision | Hot Rolled Steel Channel Sections for General Engineering Purposes - Dimensions (First Revision) | January, 2021 | - | |
| 26 | IS 3964 : 1980 Reviewed In : 2021 Reaffirmed but not taken up for revision | Specification for Light Rails (First Revision) | January, 2021 | 1 | |

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|----|--|--|----------------|---|----------------|
| 27 | IS 4000 : 1992 Reviewed In : 2022 | High strength bolts in steel structures - Code of practice (First Revision) | December, 2022 | 1 | Indigenous |
| 28 | IS 4014 (Part 1) : 1967 Reviewed In : 2021 Reaffirmed but not taken up for revision | Code of practice for steel tubular scaffolding: Part 1 definitions and materials | January, 2021 | - | Indigenous |
| 29 | IS 5384 : 1985 Reviewed In : 2021 | Specification for Aluminium I-Beam (First Revision) | January, 2021 | - | |
| 30 | IS 5488 : 1987 Reviewed In : 2021 Reaffirmed but not taken up for revision ISO 657-10 | Dimensions and Dimensional Tolerances for Hot Rolled Steel Plates for Ship's Hull Structure (First Revision) | January, 2021 | - | Not Equivalent |
| 31 | SP 6-4 : 1969 | Isi handbook for structural engineers: Part 4 use of high strength friction grip bolts | | - | Indigenous |
| 32 | SP 6-5 : 1980 | Handbook for structural engineers: Part 5 cold - Formed, light gauge steel structures | | 1 | Indigenous |
| 33 | SP 6-6 : 1972 | Isi handbook for structural engineers: Part 6 application of plastic theory in design of steel structures: sec A | | - | Indigenous |
| 34 | IS 6445 : 1985 Reviewed In : 2021 | Specification for Aluminium Tee - Sections (First Revision) | January, 2021 | - | Indigenous |
| 35 | IS 6449 : 1987 Reviewed In : 2024 | Specification for Aluminium Bulb Angles for Marine Application (First Revision) | March, 2024 | - | Indigenous |
| 36 | IS 6475 : 1987 Reviewed In : 2024 | Specification for Aluminium Tee bars for Marine Application (First Revision) | March, 2024 | - | Indigenous |
| 37 | IS 6476 : 1987 Reviewed In : 2024 | Specification for Aluminium Bulb Plates for Marine Application (First Revision) | March, 2024 | - | Indigenous |
| 38 | IS 7205 : 1974 Reviewed In : 2021 | Safety Code for Erection of Structural Steel Work | January, 2021 | - | Indigenous |
| 39 | IS 7215 : 1974 Reviewed In : 2021 | Tolerances for fabrication of steel structures | January, 2021 | 1 | Indigenous |
| 40 | IS 800 : 2007 Reviewed In : 2022 | General construction in steel - Code of practice (Third Revision) | December, 2022 | 2 | Indigenous |
| 41 | IS 801 : 1975 Reviewed In : 2021 | Code of practice for use of cold - Formed light gauge steel structural members in general building construction (First Revision) | January, 2021 | 1 | Indigenous |
| 42 | IS 802 (Part 1/Sec 1) : 2015 Reviewed In : 2020 | Use of structural steel in overhead transmission line towers - Code of practice: Part 1 materials, loads and design strengths: sec 1 materials and loads (Fourth Revision) | August, 2020 | 1 | Indigenous |
| 43 | IS 802 (Part 1/Sec 2) : 2016 Reviewed In : 2021 | Use of Structural Steel in Overhead Transmission Line Towers - Code of Practice: Part 1 Material, Loads and Design Strengths: Sec 2 Design Strengths (Fourth Revision) | October, 2021 | - | Indigenous |
| 44 | IS 802 (Part 2) : 1978 | Code of practice for use of structural steel in overhead | December, 2022 | 1 | Indigenous |

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|----|--|--|----------------|---|------------|
| | Reviewed In : 2022 | transmission line towers: Part 2 fabrication galvanizing, inspection and packing | | | |
| 45 | IS 802 (Part 3) : 1978 Reviewed In : 2022 | Code of Practice for Use of Structural Steel In Overhead Transmission Line Towers, Part 3 Testing | December, 2022 | - | |
| 46 | IS 802 (Part 4) : 2023 | Use of Structural Steel in Overhead Transmission Line Towers - Code of Practice Part 4 Requirements for Latticed Switchyard Structures | | - | Indigenous |
| 47 | IS 802 (Part 6) : 2022 | Use of Structural Steel in Overhead Transmission Line Towers “ Code of Practice Part 6 Tower Erection | | - | Indigenous |
| 48 | IS 803 : 1976 Reviewed In : 2022 Reaffirmed but not taken up for revision | Code of Practice for Design, Fabrication and Erection of Vertical Mild Steel Cylindrical Welded Oil Storage Tanks (First Revision) | December, 2022 | 1 | |
| 49 | IS 804 : 1967 Reviewed In : 2022 Reaffirmed but not taken up for revision | Specification for Rectangular Pressed Steel Tanks (First Revision) | December, 2022 | 2 | Indigenous |
| 50 | IS 805 : 1968 Reviewed In : 2022 Reaffirmed but not taken up for revision | Code of practice for use of steel in gravity water tanks | December, 2022 | - | Indigenous |
| 51 | IS 806 : 1968 Reviewed In : 2022 | Code of Practice for Use of Steel Tubes in General Building Construction (First Revision) | December, 2022 | 1 | Indigenous |
| 52 | IS 808 : 2021 | Hot Rolled Steel Beam, Column, Channel and Angle Sections “ Dimensions and Properties (Fourth Revision) | | - | Indigenous |
| 53 | IS 8081 : 1976 Reviewed In : 2021 Reaffirmed but not taken up for revision | Specification for slotted sections | January, 2021 | 1 | Indigenous |
| 54 | IS 811 : 1987 Reviewed In : 2024 | Specification for cold formed light gauge structural steel sections (Second Revision) | March, 2024 | 1 | Indigenous |
| 55 | IS 8147 : 1976 Reviewed In : 2021 | Code of practice for use of aluminium alloys in structures | January, 2021 | - | Indigenous |
| 56 | IS 8640 : 1977 Reviewed In : 2021 Reaffirmed but not taken up for revision | Recommendations for dimensional parameters for industrial buildings | January, 2021 | - | Indigenous |
| 57 | IS 9964 (Part 1) : 1981 Reviewed In : 2021 | Recommendations for maintenance and operation of petroleum storage tanks: Part 1 preparation of tank for safe entry and work | January, 2021 | - | Indigenous |
| 58 | IS 9964 (Part 2) : 1981 Reviewed In : 2021 | Recommendations for maintenance and operation of petroleum storage tanks: Part 2 inspection | January, 2021 | - | Indigenous |

Standards under Development

Projects Approved

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

Preliminary Draft Standards

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

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 |
|-------------------------|---------|-------|
| <i>No Records Found</i> | | |

Finalized Draft Indian Standards under Print

| SI. No. | Doc No. | Title |
|---------|--|---|
| 1 | CED 7 (22216) Revision of: IS 1173:1978 | Hot Rolled and Slit Steel Tee Bars Dimensions and Properties |
| 2 | CED 7 (22217) Revision of: IS 1252:1991 | Hot Rolled Steel Sections for Shipbuilding Dimensions and Tolerances |
| 3 | CED 7 (22225) Revision of: IS 3908:1986 | Aluminium Beam Channel and Angle Sections Dimensions and Properties |
| 4 | CED 7 (24910) | Use of structural steel in overhead transmission line towers - Code of practice Part 1 material loads and design strengths sec 2 Design strengths Fourth Revision Amendment - 1 |

Total Published Standards:56 Total Standards Under development:4

Aspect Wise Report

Product : 20
 Code of Practices : 19
 Methods of Test : 0
 Terminology : 0
 Dimensions : 12
 System Standard : 0
 Safety Standard : 1
 Others : 6
 Service Specification : 0
 Process Specification : 0
 Unclassified : 0

Annexure-I :List of Indian Standards Withdrawn/Superseded

| Sl. No. | IS No. & Year | Title |
|---------|--------------------------------------|---|
| 1 | IS 1731 : 1971 | Dimensions for steel flats for structural and general engineering purposes |
| 2 | IS 2314 : 1986 Reviewed In : 2017 | Steel Sheet Piling Sections |
| 3 | SP 38 : 1987 | Handbook of Typified Designs for Structures With Steel Roof Trusses With and Without Cranes Based on IS Codes |
| 4 | SP 40 : 1987 | Handbook on Structures With Steel Portal Frames Without Cranes |
| 5 | SP 47 : 1988 | Handbook on Structures with Steel Lattice Portal Frames Without Cranes |
| 6 | SP 6-1 : 1964 | Handbook for Structural Engineers - Part-1 Structural Steel Sections |
| 7 | SP 6-2 : 1962 | Handbook for Structural Engineers -Part-2 Steel Beams and Plate Girders |
| 8 | SP 6-3 : 1962 | Handbook on Structural Engineers - Part-3 Steel Columns and Struts |
| 9 | SP 6-7 : 1972 Reviewed In : 2010 | ISI Handbook for Structural Engineers - Part 7 Simple Welded Girders |

Annexure-II :List of Indian Product Standards

| Sl. No. | IS No. & Year | Title |
|---------|--|--|
| 1 | IS 1173 : 1978 Reviewed In : 2024 | Specification for Hot Rolled and Slit Steel Tee Bars Second Revision |
| 2 | IS 1863 : 1979 ISO 657-19 Reviewed In : 2024 ISO 657-19 | Specification for Rolled Steel Bulb Flats First Revision |
| 3 | IS 1864 : 1979 ISO 657-18 Reviewed In : 2024 ISO 657-18 | Specification for Hot Rolled Steel 39 L 39 Sections for Ship Building First Revision |
| 4 | IS 2314 (Part 1) : 2023 | Steel Sheet Piling Section Specification Part 1 Hot Rolled Sheet Pile Second Revision |
| 5 | IS 2314 (Part 2) : 2023 | Steel Sheet Piling Section Specification Part 2 Cold Formed Sheet Pile Second Revision |
| 6 | IS 2713 (Part 1 to 3) : 1980 Reviewed In : 2022 | Tubular Steel Poles for Overhead Power Lines |
| 7 | IS 2750 : 1964 Reviewed In : 2021 | Specification for steel scaffoldings |
| 8 | IS 3908 : 1986 Reviewed In : 2022 | Specification for Aluminium Equal Leg Angles First Revision |
| 9 | IS 3909 : 1986 Reviewed In : 2022 | Specification for Aluminium Unequal Leg Angles First Revision |
| 10 | IS 3921 : 1985 Reviewed In : 2021 | Specification for Aluminium Channels First Revision |
| 11 | IS 3964 : 1980 Reviewed In : 2021 Reaffirmed but not taken up for revision | Specification for Light Rails First Revision |
| 12 | IS 5384 : 1985 Reviewed In : 2021 | Specification for Aluminium I-Beam First Revision |
| 13 | IS 6445 : 1985 Reviewed In : 2021 | Specification for Aluminium Tee - Sections First Revision |
| 14 | IS 6449 : 1987 Reviewed In : 2024 | Specification for Aluminium Bulb Angles for Marine Application First Revision |
| 15 | IS 6475 : 1987 | Specification for Aluminium Tee bars for Marine Application First Revision |

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| | Reviewed In : 2024 | |
| 16 | IS 6476 : 1987 Reviewed In : 2024 | Specification for Aluminium Bulb Plates for Marine Application First Revision |
| 17 | IS 804 : 1967 Reviewed In : 2022 Reaffirmed but not taken up for revision | Specification for Rectangular Pressed Steel Tanks First Revision |
| 18 | IS 8081 : 1976 Reviewed In : 2021 Reaffirmed but not taken up for revision | Specification for slotted sections |
| 19 | IS 811 : 1987 Reviewed In : 2024 | Specification for cold formed light gauge structural steel sections Second Revision |