

INTERPRETATION OF INDIAN STANDARD DESIGNATION OF STEEL AND ALUMINIUM

1	Structural Steel St 32 K	St, Structural Steel 32, Minimum tensile strength of 320 N/mm ² K, Special limit for phosphorus or sulphur content
2	Plain Carbon Steel C 45 *	C, Plain Carbon Steel 45, Average carbon content in hundredth of a per cent *, Any of the following symbols: W, Fusion weldable W _p , Pressure weldable W _r , Resistance weldable W _s , Spot weldable
3	Alloy Steel 20 Cr 18 Ni 25 Mn 25 *	20, 0.2% Carbon Cr 18, 18% Chromium Ni 25, 2.5% Nickel Mn 25, 0.25% Manganese *, Any of the following symbols: J ₁ , Bright drawn or rolled J ₂ , Precision ground A, Non aging ground D, Killed deoxidised G, Grain size controlled H, Hardenability controlled M, Structural homogeneity
4	Tool Steel T 90 *	T, Tool Steel 90, Average carbon content in hundredth of a per cent *, Any of the following symbols: a, annealed c, case carburized d, cold drawn h, hot rolled n, normalised o, spheroidised p, patented q, hardened and tempered s, stress relieved t, tempered
5	Wrought Aluminium (5 Digit System) 64423	6, 1 st digit major alloying element 1 for unalloyed 2 for Copper 3 for Manganese 4 for Silicon 5 for Magnesium 6 for Magnesium Silicide 7 for Zinc 8 for other elements (Ni, Ti, Cr) 4, 2 nd digit indicates rounded off mean value in per cent of the major alloying element except elements 4 and 6 423, 3 rd , 4 th and 5 th digit indicates the minor alloying elements in the descending order of their percentage
6	Cast Aluminium (4 Digit System) 4680	4, 1 st digit major alloying element 6, 2 nd digit indicates rounded off half mean value in per cent of the major alloying element 80, 3 rd and 4 th digit indicates the minor alloying elements in the descending order of their percentage