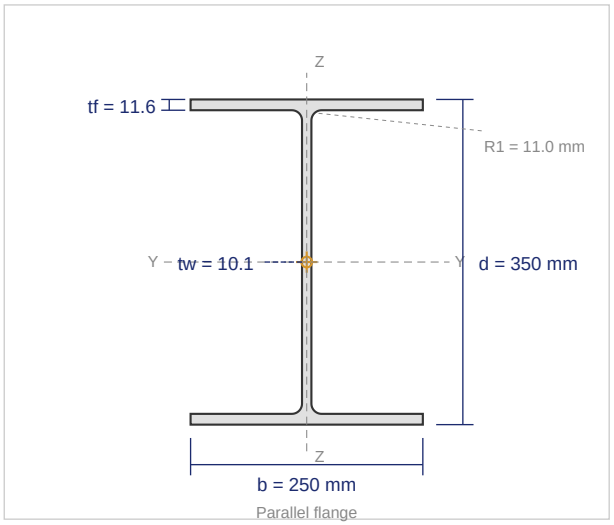
ISHB 350 H

Indian Standard Heavy Beam -- IS 808 : 1989

CROSS SECTION (Proportionally Accurate)



DIMENSIONS

Depth (d)	**350 mm**
Flange Width (b)	**250 mm**
Web Thickness (tw)	**10.1 mm**
Flange Thickness (tf)	**11.6 mm**
Root Radius (R1)	**11.0 mm**
Variant	**Heavy**
Weight per Meter	**67.4 kg/m**
Cross-sectional Area	**8591 mm2**
Surface Area	**1.635 m2/m**

SECTIONAL PROPERTIES

Property	About X-X Axis	About Y-Y Axis
Moment of Inertia	**Ix = 176,563,000 mm4**	**Iy = 30,450,000 mm4**
Elastic Section Modulus	**Zx = 1,009,000 mm3**	**Zy = 243,600 mm3**
Plastic Section Modulus	**Zpx = 1,153,400 mm3**	**Zpy = 372,300 mm3**
Radius of Gyration	**rx = 143.4 mm**	**ry = 59.5 mm**
Distance to Extreme Fibre	**cx = 175.0 mm**	**cy = 125.0 mm**
Shape Factor (Zp/Z)	**1.143**	**1.528**
Torsional Constant	**It = 471,000 mm4**	
Warping Constant	**Iw = 855,700,000,000 mm6**	
Shear Area	**Av = 3,535 mm2**	

FACTORED CAPACITY (per IS 800:2007, gamma_m0 = 1.10)

Grade	Mp X-X (kN.m)	Mp Y-Y (kN.m)	Axial Pd (kN)
E 250 (Fe 410W)	262.1	84.6	1952
E 350	367.0	118.5	2734
E 410	429.9	138.8	3202
E 450	471.8	152.3	3514

APPLICABLE STANDARDS

IS 808 : 1989	Dimensions for hot rolled steel beam, column, channel and angle sections
IS 2062 : 2011	Hot rolled medium and high tensile structural steel
IS 800 : 2007	General construction in steel -- Code of practice
IS 1852	Tolerances for hot rolled structural steel sections