

# ALMIA TECH

## LIGHT GAUGE STEEL STRUCTURE BUILDING SYSTEM

Lipped Cee Section Properties

Name	S8955	S8975	S8995	S89115
Grade	G550	G550	G550	G550
Coating	AZ150	AZ150	AZ150	AZ150
Yield Stress $f_y$	Mpa 550	Mpa 550	Mpa 550	Mpa 500
Tensile Strength $f_u$	Mpa 550	Mpa 550	Mpa 550	Mpa 520
Height $h$	mm 89.0	mm 89.0	mm 89.0	mm 89.0
Width Top $w_t$	mm 41.0	mm 41.0	mm 41.0	mm 41.0
Width Bottom $w_b$	mm 39.0	mm 39.0	mm 39.0	mm 39.0
Thickness $t$	mm 0.55	mm 0.75	mm 0.95	mm 1.15
Lip Top $l$	mm 9.6	mm 10.1	mm 10.6	mm 11.1
Feed	mm 182.0	mm 182.0	mm 182.0	mm 182.0
Area	mm <sup>2</sup> 100.1	mm <sup>2</sup> 136.5	mm <sup>2</sup> 172.9	mm <sup>2</sup> 209.3
Mass	kg 0.786	kg 1.072	kg 1.357	kg 1.643
Second Moment of Area $I_x$	mm <sup>4</sup> 128428	mm <sup>4</sup> 174103	mm <sup>4</sup> 219213	mm <sup>4</sup> 263748
Second Moment of Area $I_y$	mm <sup>4</sup> 21998	mm <sup>4</sup> 29996	mm <sup>4</sup> 37985	mm <sup>4</sup> 45959
Radius of Gyration $r_x$	mm 35.8	mm 35.7	mm 35.6	mm 35.5
Radius of Gyration $r_y$	mm 14.8	mm 14.8	mm 14.8	mm 14.8
Centroid Position $x$	mm 12.4	mm 12.6	mm 12.7	mm 12.8
Centroid Position $y$	mm 44.0	mm 44.0	mm 44.0	mm 44.0
Shear Centre $x_o$	mm 32.8	mm 33.2	mm 33.6	mm 34.0
Shear Centre $y_o$	mm 0	mm 0	mm 0	mm 0
Polar Radius of Gyration $r_{o1}$	mm 43.7	mm 43.6	mm 43.6	mm 43.6
Torsion Constant $J$	mm <sup>4</sup> 10.1	mm <sup>4</sup> 25.6	mm <sup>4</sup> 52.1	mm <sup>4</sup> 92.4
Warping Constant $I_w$	mm <sup>6</sup> 35721601	mm <sup>6</sup> 48912422	mm <sup>6</sup> 62199319	mm <sup>6</sup> 75573890
Sectional Modulus $Z_{xt}$	mm <sup>3</sup> 2919	mm <sup>3</sup> 3957	mm <sup>3</sup> 4982	mm <sup>3</sup> 5994
Sectional Modulus $Z_{xb}$	mm <sup>3</sup> 2853	mm <sup>3</sup> 3869	mm <sup>3</sup> 4871	mm <sup>3</sup> 5861
Sectional Modulus $Z_{yt}$	mm <sup>3</sup> 1774	mm <sup>3</sup> 2381	mm <sup>3</sup> 2991	mm <sup>3</sup> 3591
Sectional Modulus $Z_{yb}$	mm <sup>3</sup> 769	mm <sup>3</sup> 1056	mm <sup>3</sup> 1342	mm <sup>3</sup> 1630

