

# IPN

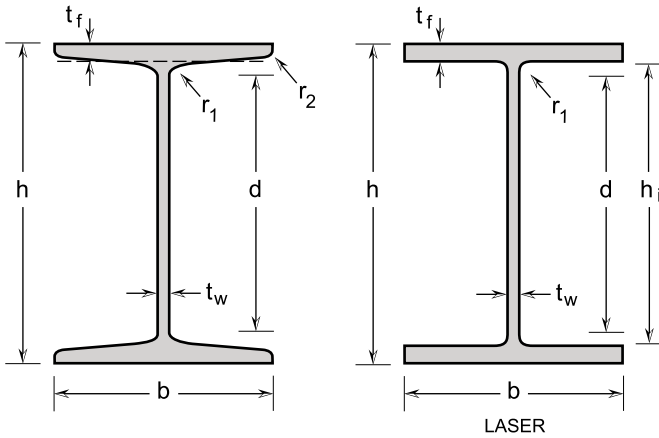
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## Chiwa Group

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Designation		Dimensions							Dimensions for detailing	
	G kg/m	h mm	b mm	t <sub>w</sub> mm	t <sub>f</sub> mm	r <sub>1</sub> mm	r <sub>2</sub> mm	A mm <sup>2</sup> x10 <sup>2</sup>	h <sub>i</sub> mm	d mm
IPN 80	6.1	80	42	3.9	5.9	3.9	2.3	7.57	-	59.0
IPN 80*	6.1	80	42	3.9	5.9	2	< 1	7.65	68.2	64.2
IPN 100	8.48	100	50	4.5	6.8	4.5	2.7	10.60	-	75.7
IPN 100*	8.6	100	50	4.5	6.8	2	< 1	10.72	86.4	82.4
IPN 120	11.36	120	58	5.1	7.7	5.1	3.1	14.20	-	92.4
IPN 120*	11.4	120	58	5.1	7.7	2	< 1	14.30	104.6	100.6
IPN 140	14.56	140	66	5.7	8.6	5.7	3.4	18.20	-	109.1
IPN 140*	14.7	140	66	5.7	8.6	2	< 1	18.39	122.8	118.8
IPN 160	18.24	160	74	6.3	9.5	6.3	3.8	22.80	-	125.8
IPN 160*	18.4	160	74	6.3	9.5	2	< 1	22.98	141.0	137.0
IPN 180	22.32	180	82	6.9	10.4	6.9	4.1	27.90	-	142.5
IPN 180*	22.5	180	82	6.9	10.4	2	< 1	28.08	159.2	155.2
IPN 200	26.72	200	90	7.5	11.3	7.5	4.5	33.4	-	159.1
IPN 200*	26.9	200	90	7.5	11.3	2	< 1	33.68	177.4	173.4
IPN 220 <sub>3</sub>	31.8	220	98	8.1	12.2	2	< 1	39.79	195.6	191.6
IPN 240 <sub>3</sub>	37.1	240	106	8.7	13.1	2	< 1	46.41	213.8	209.8
IPN 260 <sub>3</sub>	43.0	260	113	9.4	14.1	2	< 1	53.69	231.8	227.8
IPN 280 <sub>3</sub>	49.1	280	119	10.1	15.2	2	< 1	61.42	249.6	245.6
IPN 300 <sub>3</sub>	55.5	300	125	10.8	16.2	2	< 1	69.44	267.6	263.6
IPN 320 <sub>3</sub>	62.5	320	131	11.5	17.3	2	< 1	78.18	285.4	281.4
IPN 340 <sub>3</sub>	69.8	340	137	12.2	18.3	2	< 1	87.19	303.4	299.4
IPN 360 <sub>3</sub>	78.0	360	143	13	19.5	2	< 1	97.53	321.0	317.0

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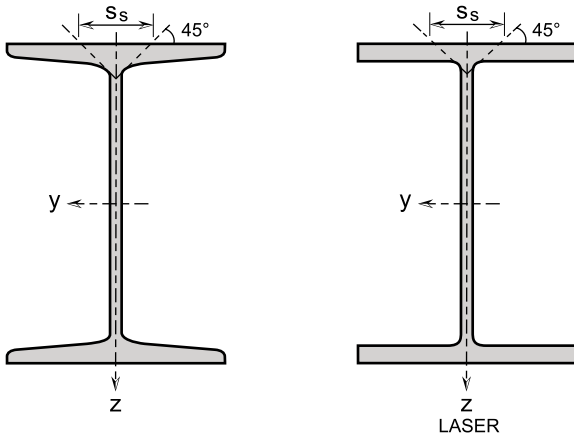
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Designation	Strong axis y-y					Weak axis z-z				S <sub>s</sub> mm	I <sub>t</sub> mm <sup>4</sup> x10 <sup>4</sup>	I <sub>w</sub> mm <sup>6</sup> x10 <sup>9</sup>
	I <sub>y</sub> mm <sup>4</sup> x10 <sup>4</sup>	W <sub>el,y</sub> mm <sup>3</sup> x10 <sup>3</sup>	W <sub>pl,y</sub> mm <sup>3</sup> x10 <sup>3</sup>	i <sub>y</sub> mm x10	A <sub>vz</sub> mm <sup>2</sup> x10 <sup>2</sup>	I <sub>z</sub> mm <sup>4</sup> x10 <sup>4</sup>	W <sub>el,z</sub> mm <sup>3</sup> x10 <sup>3</sup>	W <sub>pl,z</sub> mm <sup>3</sup> x10 <sup>3</sup>	i <sub>z</sub> mm x10			
IPN 80	77.80	19.50	22.80	3.20	3.41	6.29	3.00	5.00	0.91	21.60	0.87	0.09
IPN 80	78.87	19.72	23.01	3.21	3.16	7.32	3.49	5.47	0.98	18.04	0.73	0.1
IPN 100	171.00	34.20	39.80	4.01	4.85	12.20	4.88	8.10	1.07	25.00	1.60	0.27
IPN 100	172.74	34.55	40.23	4.01	4.50	14.23	5.69	8.95	1.15	20.44	1.34	0.31
IPN 120	328.00	54.70	63.60	4.81	6.63	21.50	7.41	12.40	1.23	28.4	2.71	0.69
IPN 120	331.61	55.27	64.28	4.82	6.07	25.16	8.68	13.64	1.33	22.84	2.26	0.79
IPN 140	573.00	81.90	95.40	5.61	8.65	35.20	10.70	17.90	1.40	31.80	4.32	1.54
IPN 140	579.94	82.85	96.28	5.62	7.87	41.40	12.55	19.74	1.50	25.24	3.59	1.78
IPN 160	935.00	117.00	136.00	6.40	10.83	54.70	14.80	24.90	1.55	35.2	6.57	3.14
IPN 160	946.07	118.26	137.35	6.42	9.90	64.46	17.42	27.42	1.67	27.64	5.44	3.63
IPN 180	1450.00	161.00	187.00	7.20	13.35	81.30	19.80	33.20	1.71	38.60	9.58	5.92
IPN 180	1462.20	162.47	188.63	7.22	12.15	96.01	23.42	36.87	1.85	30.04	7.93	6.87
IPN 200	2140.00	214.00	250.00	8.00	16.03	117.00	26.00	43.50	1.87	42.00	13.5	10.5
IPN 200	2164.42	216.44	251.22	8.02	14.64	137.92	30.65	48.27	2.02	32.44	11.18	12.22
IPN 220	3092.71	281.16	326.26	8.82	17.35	192.25	39.23	61.81	2.20	34.84	15.33	20.66
IPN 240	4290.91	357.58	414.86	9.62	20.30	261.22	49.29	77.66	2.37	37.24	20.56	33.47
IPN 260	5802.58	446.35	518.46	10.40	23.71	340.69	60.30	95.16	2.52	39.94	27.48	51.26
IPN 280	7662.64	547.33	636.71	11.17	27.39	429.06	72.11	114.01	2.64	42.84	36.3	74.84
IPN 300	9894.54	659.64	768.50	11.94	31.33	530.16	84.83	134.39	2.76	45.54	46.46	106.18
IPN 320	12628.81	789.30	920.68	12.71	35.54	651.83	99.52	157.90	2.89	48.44	59.34	148.48
IPN 340	15834.34	931.43	1087.81	13.48	40.01	788.87	115.16	183.05	3.01	51.14	73.86	202.91
IPN 360	19774.69	1098.59	1284.92	14.24	45.08	956.26	133.74	212.96	3.13	54.34	93.50	275.46

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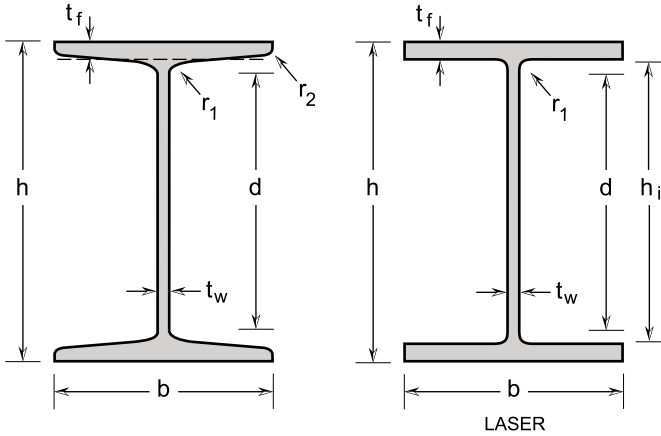
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IPN 380 <sub>3</sub>	86.1	380	149	13.7	20.5	2	< 1	107.57	339.0	335.0
IPN 400 <sub>3</sub>	94.7	400	155	14.4	21.6	2	< 1	118.37	356.8	352.8
IPN 450 <sub>3</sub>	118.1	450	170	16.2	24.3	2	< 1	147.68	401.4	397.4
IPN 500 <sub>3</sub>	144.2	500	185	18	27	2	< 1	180.21	446.0	442.0
IPN 550 <sub>3</sub>	170.5	550	200	19	30	2	< 1	213.13	490.0	486.0
IPN 600 <sub>3</sub>	204.0	600	215	21.6	32.4	2	< 1	254.96	535.2	531.2

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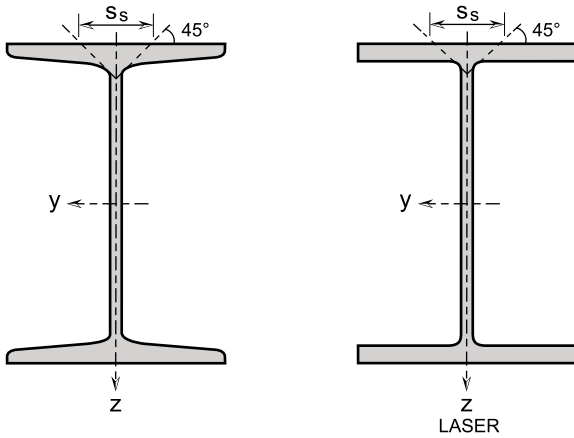
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	I <sub>y</sub> mm <sup>4</sup> x10 <sup>4</sup>	W <sub>el,y</sub> mm <sup>3</sup> x10 <sup>3</sup>	W <sub>pl,y</sub> mm <sup>3</sup> x10 <sup>3</sup>	i <sub>y</sub> mm x10	A <sub>vz</sub> mm <sup>2</sup> x10 <sup>2</sup>	I <sub>z</sub> mm <sup>4</sup> x10 <sup>4</sup>	W <sub>el,z</sub> mm <sup>3</sup> x10 <sup>3</sup>	W <sub>pl,z</sub> mm <sup>3</sup> x10 <sup>3</sup>	i <sub>z</sub> mm x10			
IPN 380	24217.16	1274.59	1492.28	15.00	50.11	1137.50	152.68	243.49	3.25	57.04	113.74	365.17
IPN 400	29457.08	1472.85	1725.80	15.77	55.39	1349.49	174.13	277.99	3.38	59.94	138.42	479.89
IPN 450	46216.56	2054.07	2411.80	17.69	69.97	2004.01	235.77	377.50	3.68	67.14	217.25	901.47
IPN 500	69261.49	2770.46	3258.52	19.60	86.25	2870.94	310.37	498.20	3.99	74.34	325.67	1593.64
IPN 550	99858.29	3631.21	4261.31	21.65	100.03	4028.04	402.80	644.26	4.35	81.34	463.35	2704
IPN 600	139952.50	4665.08	5501.59	23.43	123.93	5411.71	503.42	811.31	4.61	88.74	658.38	4322.49