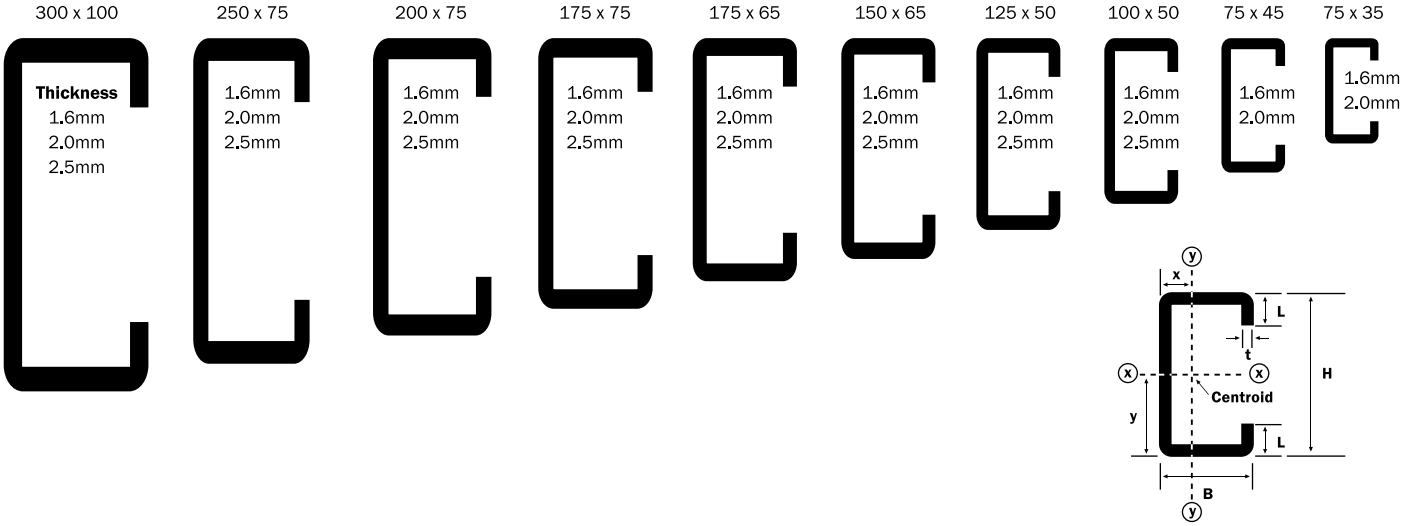
8 PURLINS AND LIPPED CHANNELS

8.1 C-Purlins ASTM 446

Specifications and Section Properties



Identification

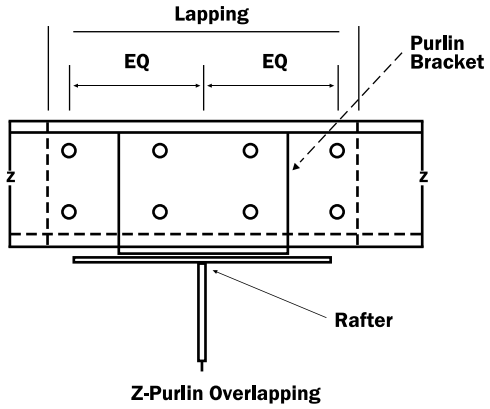
	ACP C-Purlin	125 Nominal Height	20 Thickness	50 Flange Width

Identification	Web	Flange	Thickness	Tip Size	Area	Weight	x	y	I_{xx}	I_{yy}	Z_{xx}	Z_{yy}	R_{xx}	R_{yy}
	H	B	t	L										
	mm	mm	mm	mm	mm^2	kg/m	mm	mm	$10^6\ mm^4$	$10^6\ mm^4$	$10^3\ mm^3$	$10^3\ mm^3$	mm	mm
ACP07516-35	75	35	1.6	16	267	2.20	13.2	37.5	0.231	0.050	6.160	2.294	29.395	13.636
ACP07520-35	75	35	2.0	16	331	2.76	13.2	37.5	0.283	0.060	7.547	2.752	29.244	13.482
ACP07516-45	75	45	1.6	16	299	2.46	17.5	37.5	0.274	0.090	6.373	3.262	30.262	17.323
ACP07520-45	75	45	2.0	16	371	3.08	17.5	37.5	0.337	0.011	8.987	0.400	30.111	17.170
ACP10016-50	100	50	1.6	16	355	2.80	17.6	50.0	0.572	0.128	11.440	3.951	40.160	19.000
ACP10020-50	100	50	2.0	16	441	3.45	17.6	50.0	0.706	0.156	14.120	4.815	40.003	18.824
ACP10025-50	100	50	2.5	16	548	4.40	17.6	50.0	0.868	0.190	17.360	5.864	39.810	18.631
ACP12516-50	125	50	1.6	16	394	3.10	15.9	62.5	0.960	0.138	15.360	4.047	49.314	18.693
ACP12520-50	125	50	2.0	16	491	3.82	15.9	62.5	1.187	0.169	18.992	4.956	49.153	18.534
ACP12525-50	125	50	2.5	16	610	4.89	15.9	62.5	1.462	0.205	23.392	6.012	48.951	18.337
ACP15016-65	150	65	1.6	16	483	3.85	20.1	75.0	1.737	0.275	23.160	6.125	59.958	23.872
ACP15020-65	150	65	2.0	16	601	4.73	20.1	75.0	2.149	0.338	28.635	7.528	59.794	23.712
ACP15025-65	150	65	2.5	16	748	5.89	20.2	75.0	2.654	0.413	35.387	9.219	59.590	23.513
ACP17516-65	175	65	1.6	16	523	4.15	18.6	87.5	2.480	0.286	28.343	6.228	68.866	23.508
ACP17520-65	175	65	2.0	16	651	5.10	18.7	87.5	3.073	0.355	35.120	7.667	68.697	23.346
ACP17525-65	175	65	2.5	16	810	6.35	18.7	87.5	3.799	0.434	43.417	9.374	68.495	23.145
ACP17516-75	175	75	1.6	16	555	4.41	22.4	87.5	2.720	0.409	31.086	7.776	70.018	27.164
ACP17520-75	175	75	2.0	16	691	5.42	22.4	87.5	3.372	0.504	38.537	9.582	69.851	27.002
ACP17525-75	175	75	2.5	16	860	6.75	22.4	87.5	4.171	0.618	47.669	11.749	69.643	26.801
ACP20016-75	200	75	1.6	16	595	4.76	20.9	100.0	3.702	0.427	37.020	7.893	78.885	26.785
ACP20020-75	200	75	2.0	16	741	5.90	21.0	100.0	4.592	0.525	45.920	9.722	78.714	26.622
ACP20025-75	200	75	2.5	16	923	7.39	21.0	100.0	5.685	0.644	56.850	11.926	78.500	26.419
ACP25016-75	250	75	1.6	16	675	5.38	18.5	125.0	6.236	0.455	49.888	8.053	96.120	25.975
ACP25020-75	250	75	2.0	16	841	6.59	18.6	125.0	7.742	0.560	61.936	9.929	95.939	25.811
ACP25025-75	250	75	2.5	16	1048	8.35	18.6	125.0	9.596	0.687	76.768	12.181	95.713	25.607
ACP30016-100	300	100	1.6	16	841	6.64	24.9	150.0	11.526	0.998	76.840	13.289	117.074	34.445
ACP30020-100	300	100	2.0	16	1048	8.35	24.9	150.0	14.314	1.230	95.427	16.378	116.869	34.261
ACP30025-100	300	100	2.5	16	1305	10.26	24.9	150.0	17.746	1.511	118.307	20.147	116.613	34.032

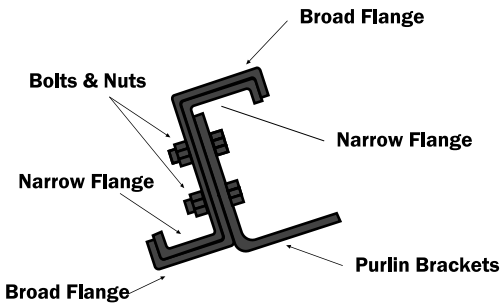
8 PURLINS AND LIPPED CHANNELS

8.2 Z-Purlins ASTM 446

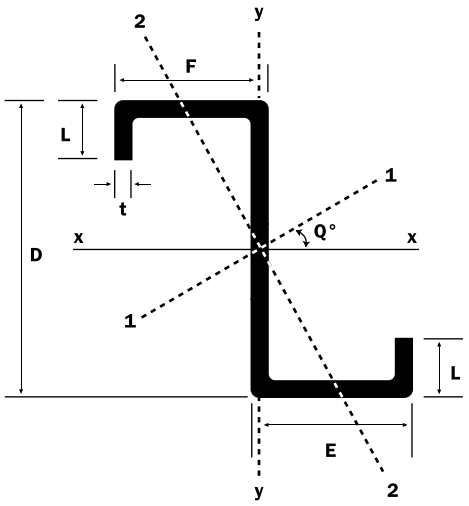
Specifications and Section Properties



Z-Purlin Overlapping



Section View



D - Depth
F - Narrow Flange
E - Broad Flange
L - Lipped
t - Thickness

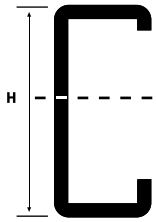
Z-Purlin Code No.	D	Dimension			t	Area	Mass per Unit Length	Second Moment of Area		Section Modulus		Radius of Gyration	
		E	F	L		A		1_x	1_y	1_x	Z_x	r_x	r_y
	mm	mm	mm	mm	mm	mm	kg/m	10mm	10mm	10mm	10mm	mm	mm
AZP10016	100	54	49	13	1.6	331.2	2.80	0.601	0.154	9.501	3.324	40.10	22.30
AZP10020	100	54	49	13	2.0	414.0	3.45	0.622	0.189	11.797	4.085	39.90	22.00
AZP10025	100	54	49	13	2.5	517.5	4.40	0.776	0.242	14.763	5.157	39.80	22.20
AZP12516	125	54	49	13	1.6	371.2	3.10	1.030	0.162	15.74	4.30	49.90	24.40
AZP12520	125	54	49	13	2.0	464.0	3.82	1.250	0.198	16.70	5.51	49.60	24.60
AZP12525	125	54	49	13	2.5	580.0	4.89	1.590	0.264	21.46	7.10	49.30	24.60
AZP15016	150	70	64	14	1.6	457.6	3.85	1.612	0.395	17.741	6.30	60.00	29.70
AZP15020	150	70	64	14	2.0	572.0	4.73	2.020	0.498	26.147	7.936	59.80	29.70
AZP15025	150	70	64	14	2.5	715.0	5.89	2.524	0.627	32.671	10.032	59.50	29.70
AZP20016	200	79	73	15	1.6	588.0	4.76	3.556	0.643	34.483	8.374	79.70	33.90
AZP20020	200	79	73	15	2.0	710.0	5.90	4.535	0.860	43.981	11.227	79.60	34.60
AZP20025	200	79	73	15	2.5	887.5	7.39	5.709	1.103	55.513	14.397	79.40	34.90
AZP25016	250	79	73	15	1.6	644.6	5.38	7.283	0.781	54.83	10.03	100.60	33.00
AZP25020	250	79	73	15	2.0	806.0	6.59	7.620	0.833	59.30	10.80	97.10	32.10
AZP26025	250	79	73	15	2.5	1007.5	8.35	8.640	1.080	74.90	14.20	96.90	32.50

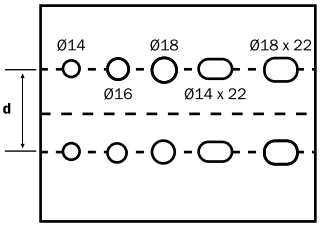
8 PURLINS AND LIPPED CHANNELS

8.2 Z-Purlins ASTM 446

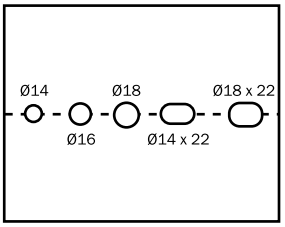
Pre-Punched Hole Arrangements and Options

Galvanized C and Z-Purlins are manufactured in custom cut lengths. It can be supplied either with or without punched holes. If punched holes are required, the following are pre-punched holes arrangements and options:

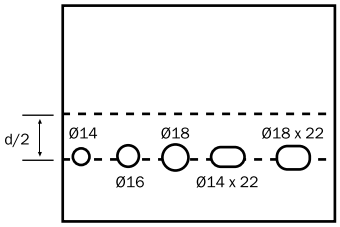




Double Holes Offset



Single Hole Centre



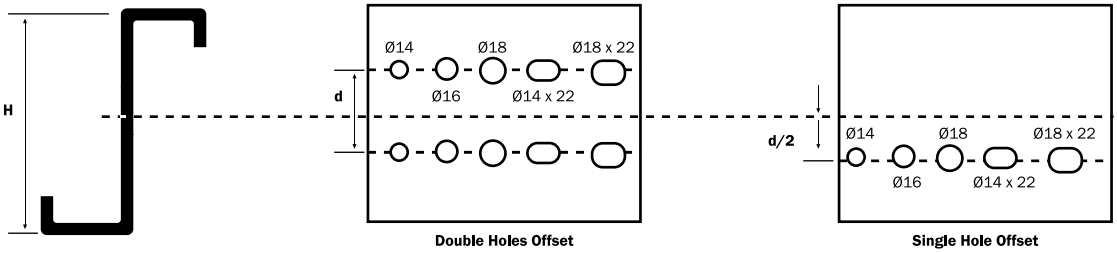
Single Hole Offset

Height	ø 14mm		ø 16mm		ø 18mm		ø 14 x 22mm		ø 18 x 22mm	
H	d	d/2	d	d/2	d	d/2	d	d/2	d	d/2
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
100	50	25	50	25	50	25	50	25	50	25
125	50	25	50, 70	25, 35	50, 60	25, 30	50, 55, 60	25, 27.5	50	25
150	50, 80	25, 40	50, 70, 100	25, 35, 50	50, 60, 100	25, 30, 50	50, 55, 60	25, 27.5, 50	50	25
175	50, 80	25, 40	50, 70, 100	25, 35, 50	50, 60, 100	25, 30, 50	50, 55, 60	25, 27.5, 50	50	25
200	50, 80	25, 40	50, 70, 100	25, 35, 50	50, 60, 100	25, 30, 50	50, 55, 60	25, 27.5, 50	50	25
250	50, 80	25, 40	50, 70, 100	25, 35, 50	50, 60, 100	25, 30, 50	50, 55, 60	25, 27.5, 50	50	25
300	50, 80	25, 40	50, 70, 100	25, 35, 50	50, 60, 100	25, 30, 50	50, 55, 60	25, 27.5, 50	50	25

The following are pre-punched holes arrangement:

Height	ø 14mm		ø 16mm		ø 18mm		ø 14 x 22mm		ø 18 x 22mm	
H	d	d/2	d	d/2	d	d/2	d	d/2	d	d/2
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
100	40, 50	20, 25	40, 50	20, 25	40, 50	20, 25	40, 50	20, 25	40, 50	20, 25
125	40, 75	25, 37.5	40, 75	20, 37.5	40, 75	25, 37.5	40, 75	20, 37.5	40, 75	20, 37.5
150	40, 100	20, 50	40, 100	20, 50	40, 100	20, 50	40, 100	20, 50	40, 100	20, 50
175	40, 125	20, 62.5	40, 125	20, 62.5	40, 125	20, 62.5	40, 125	20, 62.5	40, 125	20, 62.5
200	40, 150	20, 75	40, 150	20, 75	40, 150	25, 75	40, 150	20, 75	40, 150	20, 75
250	80, 200	40, 100	80, 200	40, 100	80, 200	40, 100	80, 200	40, 100	80, 200	40, 100

Note: The minimum distance from the edge of C-Purlin to the centre of the first set of pre-punched holes is 25mm.



Double Holes Offset

Single Hole Offset

Standard Pre-Punched Holes Distance

Height	ø 14mm		ø 16mm		ø 18mm		ø 14 x 22mm		ø 18 x 22mm	
H	d	d/2	d	d/2	d	d/2	d	d/2	d	d/2
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
100	50	25	50	25	50	25	50	25	50	25
125	50, 75	25, 37.5	50, 75	25, 37.5	50, 75	25, 37.5	50, 75	25, 37.5	50, 75	25, 37.5
150	50, 100	25, 50	50, 100	25, 50	50, 100	25, 50	50, 100	25, 50	50, 100	25, 50
175	50, 125	25, 62.5	50, 125	25, 62.5	50, 125	25, 62.5	50, 125	25, 62.5	50, 125	25, 62.5
200	50, 150	25, 75	50, 150	25, 75	50, 150	25, 75	50, 150	25, 75	50, 150	25, 75
250	50, 200	25, 100	50, 200	25, 100	50, 200	25, 100	50, 200	25, 100	50, 200	25, 100
300	50, 200	25, 100	50, 200	25, 100	50, 200	25, 100	50, 200	25, 100	50, 200	25, 100

Note: The minimum distance from the edge of Z-Purlin to the centre of the first set of pre-punched holes is 25mm.

8 PURLINS AND LIPPED CHANNELS

8.2 Z-Purlins ASTM 446

The purlin load table are derived in accordance to 855950 : Part 5 : 1987 “Code of Practice for Design of Cold Formed Section” with maximum roof pitch 30° and roofing sheet distributed load 6.55kg/m^2.

Maximum Allowable Span (m)

Size	Purlin Spacing					
	0.9	1.2	1.5	1.8	2.1	2.4
75 x 35 x 1.6	4.0	3.7	3.4	3.2	3.1	2.9
75 x 35 x 2.0	4.3	3.9	3.7	3.5	3.3	3.1
75 x 45 x 1.6	4.3	3.9	3.6	3.4	3.3	3.1
75 x 45 x 2.0	4.5	4.1	3.9	3.7	3.5	3.3
100 x 50 x 1.6	5.4	5.0	4.6	4.4	4.2	4.0
100 x 50 x 2.0	5.8	5.3	4.9	4.7	4.4	4.3
100 x 50 x 2.5	6.1	5.6	5.2	5.0	4.7	4.5
125 x 50 x 1.6	6.4	5.9	5.5	5.2	4.9	4.7
125 x 50 x 2.0	6.8	6.3	5.8	5.5	5.3	5.1
125 x 50 x 2.5	7.2	6.7	6.2	5.9	5.6	5.4
150 x 65 x 1.6	7.7	7.1	6.6	6.3	6.0	5.7
150 x 65 x 2.5	8.2	7.6	7.1	6.7	6.4	6.1
150 x 65 x 2.5	8.7	8.0	7.5	7.1	6.8	6.5
175 x 65 x 1.6	8.7	8.0	7.5	7.1	6.7	6.4
175 x 65 x 2.0	9.2	8.5	8.0	7.5	7.2	6.9
175 x 65 x 2.5	9.8	9.0	8.5	8.0	7.7	7.4
175 x 75 x 1.6	9.0	8.2	7.7	7.3	6.9	6.7
175 x 75 x 2.0	9.5	8.8	8.2	7.8	7.4	7.1
175 x 75 x 2.5	10.1	9.3	8.7	8.3	7.9	7.6
200 x 75 x 1.6	9.9	9.1	8.5	8.0	7.7	7.4
200 x 75 x 2.0	10.5	9.7	9.1	8.6	8.2	7.9
200 x 75 x 2.5	11.1	10.2	9.6	9.1	8.7	8.4
250 x 75 x 1.6	11.7	10.7	10.1	9.5	9.1	8.7
250 x 75 x 2.0	12.4	11.4	10.7	10.2	9.7	9.3
250 x 75 x 2.5	13.1	12.1	11.4	10.8	10.3	9.9
300 x 95 x 1.6	14.1	13.0	12.2	11.6	11.1	10.6
300 x 95 x 2.0	14.9	13.9	13.0	12.4	11.8	11.4
300 x 95 x 2.5	15.8	14.7	13.8	13.1	12.6	12.1

Precautions

Contact between galvanized steel and incompatible materials (e.g. Copper tube) must be avoided as premature corrosion could happen. Purlins should be stored off the ground on a slightly sloped position.

Delivery, Storage and Handling

Upon delivery, exercise care in unloading, stacking, moving, storing and erecting to prevent twisting, bending, scratching or denting. Store it in a safe, dry environment under a waterproof covering. Allow adequate ventilation to prevent condensation. Purlins should be stored off the ground on a slightly sloped position.

8 PURLINS AND LIPPED CHANNELS

8.3 Mild Steel Lipped and Plain Channels

Technical Specification References

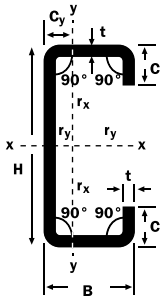
Tolerances - JIS G 3350 & SS 104

Tolerances	Lipped Channels & Plain Channels		
		JIS G 3350	SS 104
Outside Dimension	Height (H) - Under 150mm	± 1.5mm	± 1.5mm
	Height (H) - 150mm or over to 300mm, excl.	± 2.0mm	± 2.0mm
	Height (H) - 300mm or over	± 3.0mm	± 3.0mm
	Side (A)	± 1.5mm	± 1.5mm
	Lip (C)	± 2.0mm	± 1.0mm
Thickness	Wall Thickness	Tolerances	
	1.6mm	± 0.22mm	
	2.0mm, 2.3mm	± 0.25mm	
	2.8mm	± 0.28mm	
	3.0mm, 3.2mm	± 0.30mm	
	4.0mm, 4.5mm	± 0.45mm	
	6.0mm	± 0.60mm	
Tolerances of Length	7m or under	± 40mm, -0mm	
	Over 7m	For each increase of 1m or its fraction in length, and 5mm to the tolerances on plus side given.	
Out of Roundness	-		
Concavity / Convexity	-		
Squareness of Size	Angle between adjacent plate parts ± 1.5°		
External Corner Profile	-		
Twist	-		
Straightness	2mm/m		
Mass	mass < 600kg : ± 10% 600kg ≤ mass < 2000kg : ± 7.5% 2000kg ≥ mass : = 5%		

Note: SS 104 specification can be produced upon customer request.

8 PURLINS AND LIPPED CHANNELS

8.4 Mild Steel Lipped Channels



Lipped Channels

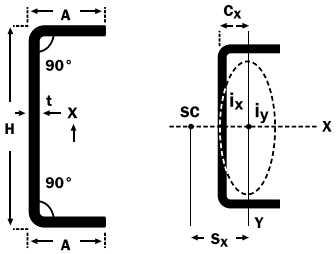
Dimensions and Properties

JIS G 3350

Designation		Thickness	Inside Outside Radius		Area of Section	Centre of Gravity	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus	
Size	Unit Weight													
H x B x C		t	r_1	r_2	A	C_y	I_x	I_y	r_x	r_y	Z_x	Z_y	S_x	S_y
mm (in)	kg/m	mm	mm	mm	cm^2	cm	cm^4	cm^4	cm	cm	cm^3	cm^3	cm^3	cm^3
60 x 30 x 10 (2 1/2 x 1 1/4 x 3/8)	1.62	1.6	4.0	2.4	2.05	1.06	11.4	2.50	2.36	1.10	3.81	1.29	4.48	2.12
	1.99	2.0	5.0	3.0	2.50	1.05	13.7	2.93	2.34	1.08	4.56	1.50	5.41	2.54
	2.25	2.3	5.8	3.5	2.83	1.05	15.2	3.20	2.32	1.06	5.06	1.64	6.05	2.57
75 x 45 x 15 (3 x 1 3/4 x 1/2)	2.31	1.6	4.0	2.4	2.93	1.72	26.8	8.59	3.03	1.71	7.15	3.09	8.27	4.62
	2.86	2.0	5.0	3.0	3.60	1.71	32.5	10.3	3.00	1.69	8.66	3.69	10.1	5.61
	3.24	2.3	5.8	3.5	4.09	1.71	36.5	11.5	2.99	1.67	9.73	4.11	11.4	6.31
	4.12	3.0	7.5	4.5	5.18	1.70	44.9	13.8	2.94	1.63	12.0	4.94	14.2	7.79
	4.37	3.2	8.0	4.8	5.48	1.70	47.1	14.4	2.93	1.62	12.6	5.15	14.9	8.18
100 x 50 x 20 (4 x 2 x 3/4)	2.88	1.6	4.0	2.4	3.65	1.86	57.9	13.8	3.98	1.95	11.6	4.41	13.5	6.73
	3.60	2.0	5.0	3.0	4.50	1.86	70.5	16.7	3.96	1.93	14.1	5.32	16.5	8.22
	4.06	2.3	5.8	3.5	5.13	1.86	79.6	18.7	3.94	1.91	15.9	5.95	18.7	9.28
	5.18	3.0	7.5	4.5	6.53	1.85	99	22.9	3.90	1.87	19.8	7.27	23.6	11.6
	5.50	3.2	8.0	4.8	6.92	1.85	104	24.0	3.88	1.86	20.9	7.60	24.9	12.2
	6.71	4.0	10.0	6.0	8.41	1.84	123	27.7	3.83	1.82	24.7	8.79	29.8	14.5
	7.43	4.5	11.3	6.8	9.29	1.84	134	29.7	3.80	1.79	26.8	9.40	32.6	14.4
125 x 50 x 20 (5 x 2 x 3/4)	3.95	2.0	5.0	3.0	5.00	1.68	119	18.1	4.88	1.90	19.1	5.46	22.5	7.90
	4.51	2.3	5.8	3.5	5.70	1.68	135	20.3	4.86	1.89	21.5	6.11	25.5	8.91
	5.77	3.0	7.5	4.5	7.28	1.68	169	24.8	4.81	1.85	27.0	7.47	32.2	11.2
	6.13	3.2	8.0	4.8	7.72	1.68	178	26.0	4.80	1.84	28.4	7.82	34.0	11.8
	7.50	4.0	10.0	6.0	9.41	1.67	212	30.2	4.74	1.79	33.9	9.05	40.9	14.1
	8.31	4.5	11.3	6.8	10.4	1.67	231	32.3	4.71	1.76	36.9	9.70	45.0	15.4
150 x 65 x 20 (6 x 2 1/2 x 3/4)	5.50	2.3	5.8	3.5	6.97	2.11	245	40.5	5.93	2.41	32.7	9.23	38.1	13.8
	7.07	3.0	7.5	4.5	8.93	2.10	310	50.2	5.89	2.37	41.3	11.4	48.4	17.4
	7.51	3.2	8.0	4.8	9.48	2.10	327	52.7	5.87	2.36	43.6	12.0	51.2	18.4
	9.22	4.0	10.0	6.0	11.6	2.09	393	62.0	5.82	2.31	52.4	14.1	62.1	22.1
	10.25	4.5	11.3	6.8	12.9	2.09	432	67.1	5.78	2.28	57.5	15.2	68.5	24.2
175 x 75 x 20 (7 x 3 x 3/4)	6.31	2.3	5.8	3.5	8.0	2.34	386	60.3	6.95	2.75	44.1	11.7	51.1	17.8
	8.13	3.0	7.5	4.5	10.3	2.33	489	75.1	6.90	2.70	55.9	14.5	65.2	22.5
	8.63	3.2	8.0	4.8	10.9	2.33	518	79.1	6.88	2.69	59.1	15.3	69.1	23.7
	10.63	4.0	10.0	6.0	13.4	2.32	626	93.6	6.83	2.64	71.5	18.1	84.1	28.7
	11.84	4.5	11.3	6.8	14.9	2.31	689	102	6.80	2.61	78.7	19.6	93.0	31.6
200 x 75 x 20 (10 x 3 x 3/4)	6.76	2.3	5.8	3.5	8.58	2.19	527	63.0	7.84	2.71	52.7	11.9	61.5	18.0
	8.71	3.0	7.5	4.5	11.0	2.18	669	78.5	7.79	2.67	66.9	14.8	78.5	22.9
	9.27	3.2	8.0	4.8	11.7	2.18	708	82.6	7.77	2.65	70.8	15.5	83.2	24.3
	11.40	4.0	10.0	6.0	14.4	2.17	857	98	7.71	2.61	85.7	18.4	101	29.5
	12.73	4.5	11.3	6.8	16.0	2.17	945	106	7.68	2.57	94.5	19.9	112	32.6
200 x 75 x 25 (10 x 3 x 1)	6.95	2.3	5.8	3.5	8.81	2.33	540	69.0	7.83	2.80	54.0	13.3	63.3	19.6
	8.93	3.0	7.5	4.5	11.3	2.32	687	86.3	7.78	2.76	68.7	16.7	80.8	24.9
	9.52	3.2	8.0	4.8	12.0	2.32	727	90.9	7.77	2.75	72.7	17.5	85.7	26.4
	11.70	4.0	10.0	6.0	14.8	2.31	881	108	7.71	2.70	88.1	20.8	105	32.0
	13.10	4.5	11.3	6.8	16.5	2.31	972	118	7.68	2.67	97.2	22.7	116	35.4
225 x 75 x 20 (9 x 3 x 3/4)	7.21	2.3	5.8	3.5	9.15	2.06	694	65.3	8.71	2.67	61.7	12.0	72.6	18.3
	9.30	3.0	7.5	4.5	11.8	2.05	883	81.4	8.66	2.63	78.4	14.9	92.8	23.4
	9.89	3.2	8.0	4.8	12.5	2.05	934	85.7	8.64	2.62	83.1	15.7	98.4	24.8
	12.20	4.0	10.0	6.0	15.4	2.05	1134	101	8.58	2.57	101	18.6	120	30.3
	13.61	4.5	11.3	6.8	17.2	2.04	1252	110	8.54	2.53	111	20.2	133	33.6
225 x 75 x 25 (9 x 3 x 1)	7.40	2.3	5.8	3.5	9.38	2.19	713	71.6	8.72	2.76	63.3	13.5	74.6	19.9
	9.54	3.0	7.5	4.5	12.1	2.19	907	89.6	8.66	2.72	80.6	16.9	95.5	25.3
	10.10	3.2	8.0	4.8	12.8	2.18	960	94.4	8.65	2.71	85.4	17.8	101	26.9
	12.50	4.0	10.0	6.0	15.8	2.18	1166	112	8.59	2.66	104	21.1	124	32.8
	14.00	4.5	11.3	6.8	17.6	2.17	1288	122	8.55	2.64	115	23.0	137	36.4
250 x 75 x 20 (10 x 3 x 3/4)	7.67	2.3	5.8	3.5	9.73	1.94	890	67.3	9.57	2.63	71.2	12.1	84.4	18.6
	9.89	3.0	7.5	4.5	12.5	1.94	1133	83.9	9.51	2.59	90.7	15.1	108	23.8
	10.52	3.2	8.0	4.8	13.3	1.94	1200	88.4	9.49	2.58	96.0	15.9	115	25.3
	12.99	4.0	10.0	6.0	16.4	1.93	1459	105	9.43	2.53	117	18.8	140	31.1
	14.49	4.5	11.3	6.8	18.3	1.93	1612	114	9.39	2.49	129	20.4	155	34.6
250 x 75 x 25 (10 x 3 x 1)	7.85	2.3	5.8	3.5	10.0	2.07	914	74.0	9.58	2.73	73.1	13.6	86.7	20.1
	10.13	3.0	7.5	4.5	12.8	2.07	1165	92.5	9.53	2.69	93.2	17.0	111	25.8
	10.80	3.2	8.0	4.8	13.6	2.07	1234	97.5	9.51	2.67	98.7	17.9	118	27.4
	13.30	4.0	10.0	6.0	16.8	2.06	1501	116	9.45	2.63	120	21.3	144	33.6
	14.85	4.5	11.3	6.8	18.7	2.06	1659	126	9.41	2.60	133	23.2	160	37.4

8 PURLINS AND LIPPED CHANNELS

8.5 Plain Channels



Plain Channels - Available in Hot Rolled & Galvanized Material

JIS G 3350 SSC 400
SS 104

Dimension mm (in)		Sectional Area	Calculated Weight	Centre of Gravity		Secondary Moment of Area		Radius of Gyration of Area		Modulus of Section		Centre of Shear	
				C_x	C_y	I_x	I_y	i_x	i_y	Z_x	Z_y	S_x	S_y
H x A x A	t	cm^2	kg/m	cm	cm	cm^4	cm^4	cm	cm	cm^3	cm^3	cm	cm
250 x 75 x 75	4.5	17.33	13.6	0	1.60	1502	82.9	9.31	2.19	120	14.1	3.7	0
	4.0	15.47	12.1	0	1.58	1348	74.5	9.33	2.19	108	12.6	3.7	0
	3.2	12.46	9.78	0	1.54	1096	60.6	9.38	2.20	87.7	10.2	3.7	0
	3.0	11.70	9.19	0	1.54	1032	57.0	9.39	2.21	82.5	9.56	3.7	0
	2.3	9.026	7.09	0	1.50	802	44.3	9.43	2.22	64.2	7.40	3.8	0
225 x 75 x 75	4.5	16.21	12.7	0	1.70	1166	80.6	8.48	2.23	104	13.9	3.9	0
	4.0	14.47	11.4	0	1.67	1048	72.4	8.51	2.24	93.1	12.4	3.9	0
	3.2	11.66	9.16	0	1.64	852	58.9	8.55	2.25	75.8	10.1	3.9	0
	3.0	10.95	8.60	0	1.63	803	55.5	8.56	2.25	71.3	9.45	3.9	0
	2.3	8.451	6.63	0	1.60	624	43.2	8.60	2.26	55.5	7.31	3.9	0
200 x 75 x 75	4.5	15.08	11.8	0	1.80	881	78.0	7.64	2.27	88.1	13.7	4.1	0
	4.0	13.47	10.6	0	1.78	792	70.1	7.67	2.26	79.2	12.3	4.1	0
	3.2	10.86	8.53	0	1.75	645	57.0	7.71	2.29	64.5	9.92	4.1	0
	3.0	10.20	8.01	0	1.74	608	53.7	7.72	2.29	60.8	9.32	4.1	0
	2.3	7.876	6.18	0	1.71	473	41.8	7.75	2.30	47.3	7.22	4.1	0
175 x 75 x 75	4.5	13.96	11.0	0	1.93	643	75.0	6.78	2.32	73.4	13.5	4.3	0
	4.0	12.47	9.79	0	1.91	578	67.4	6.81	2.32	66.1	12.1	4.3	0
	3.2	10.06	7.90	0	1.87	472	54.9	6.85	2.33	54.0	9.75	4.4	0
	3.0	9.454	7.42	0	1.86	445	51.7	6.86	2.34	50.8	9.17	4.4	0
	2.3	7.301	5.73	0	1.83	347	40.2	6.89	2.35	39.6	7.10	4.4	0
150 x 65 x 65	4.5	11.93	9.37	0	1.71	400	47.9	5.79	2.00	53.4	10.0	3.7	0
	4.0	10.07	8.38	0	1.69	361	43.1	5.82	2.01	48.2	8.96	3.8	0
	3.2	9.623	6.77	0	1.65	296	35.2	5.86	2.02	39.4	7.26	3.8	0
	3.0	8.104	6.36	0	1.64	279	33.2	5.87	2.02	37.2	6.83	3.8	0
	2.3	6.266	4.92	0	1.61	218	25.9	5.90	2.03	29.1	5.30	3.8	0
125 x 50 x 50	4.5	9.459	7.43	0	1.31	212	21.6	4.73	1.51	33.9	5.85	2.8	0
	4.0	8.474	6.65	0	1.29	192	19.6	4.76	1.52	30.7	5.26	2.8	0
	3.2	6.863	5.39	0	1.25	158	16.0	4.80	1.53	25.3	4.28	2.8	0
	3.0	6.454	5.07	0	1.24	149	15.1	4.81	1.53	23.9	4.03	2.8	0
	2.3	5.001	3.93	0	1.21	117	11.9	4.85	1.54	18.8	3.13	2.8	0
100 x 50 x 50	4.5	8.334	6.54	0	1.46	125	20.1	3.87	1.55	24.9	5.67	3.0	0
	4.0	7.474	5.87	0	1.43	113	18.2	3.89	1.56	22.6	5.09	3.0	0
	3.2	6.063	4.76	0	1.40	93.6	14.9	3.93	1.57	18.7	4.15	3.1	0
	3.0	5.704	4.48	0	1.39	88.5	14.1	3.94	1.57	17.7	3.90	3.1	0
	2.3	4.426	3.47	0	1.36	69.6	11.1	3.97	1.58	14.0	3.04	3.1	0

Note:
- Minimum coating mass : 0.244kg/m (applicable for Galvanized Plain Channel only)
- Galvanized Plain Channel is made by hot-dip galvanized steel strip with extra-smooth surface