



PHIM Regis No. 07020229

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Think Roof, Think Rofo.

欲しい 屋根 , 欲しい Rofo



High Tensile Galvanized Steel (HTGS) Lipped Channel

Product Series: RLC

Advantages:



Recyclable



Termite Free



Fire Resistance



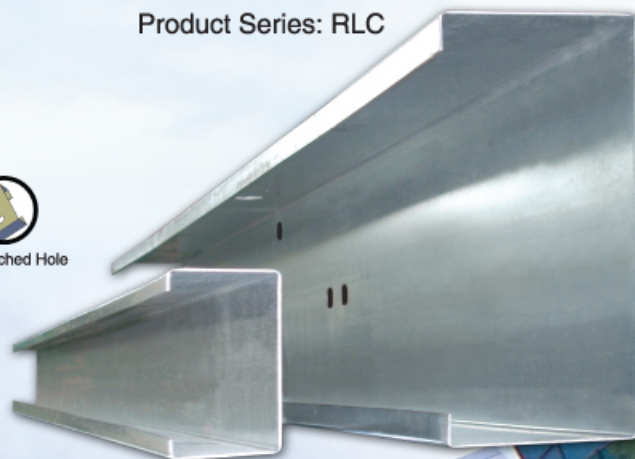
Low Maintenance



Any Length



Pre-punched Hole



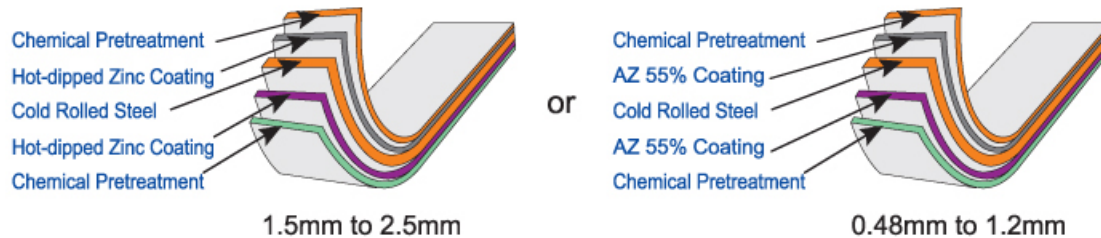
Suria Sabah
Product Name: RLC 25020



Introduction

Rofo-Lipped channels / C Channels are cold roll-formed from high tensile galvanized steel strips to meet an efficient structural framing requirements. Rofo-Lipped Channels are available in various sizes (65 mm to 300 mm) and thickness (0.8mm to 2.5mm). We also provide "cut-to-length" and pre-punched holes to our standard details. Please contact Kina Sales Office for any length over 12m.

Material Specification



Base Material Thickness : 0.8mm, 1.0mm, 1.2mm, 1.6mm, 2.0mm, 2.5mm
Steel Grade : High Tensile ASTM 446 Grade D, JIS G3302, MS1196, AS 1397-1993
Tensile Strength : Below or same with 1.2mm (T) 550Mpa, Above or same with 1.5mm (T) 450-490Mpa
Zinc Coating Mass : 275 or 220 for 1.5mm to 2.0mm
AZ Coating Mass : 150g or 100g/m² for 0.8-1.2mm

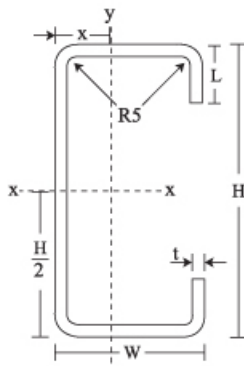
Our Product Assurance

Not only the stringent material selection, we have also adopted the latest developed of AS/NZS4600:1996 Cold Form Steel Structures, automatic machine to ensure our lipped channel's quality. All Galvanized Lipped Channel manufactured by us have our registered trade mark  imprinted for identification purpose.



Tolerances

Height : $\pm 3.0\text{mm}$
Width (W) : $\pm 3.0\text{mm}$
Length : $\pm 3.0\text{mm}$
Thickness (t) : $\pm 10\%$
Hole centers : $\pm 1.5\text{mm}$
Lip Dimension (L) : $\pm 4.0\text{mm}$



Packing

Rofo-Lipped Channels are packed in strapped bundle.



Handling and storage



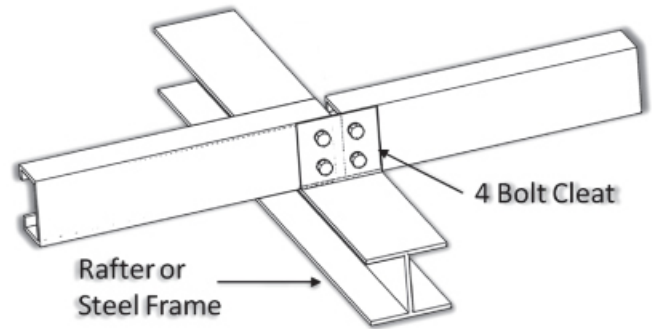
Bundles of Rofo-Lipped Channels should be kept in a covered well ventilated dry environment and stacked above the ground to prevent any stagnant water condensations or moisture ingress into the surface material.

Dimensions and properties

Rofo-Lipped Channels are suitable for any construction in which the spans are simply supported. Typical applications are single bay building, tower structure, recesses roofs or walls. End walls and building with odd shaped roof plans.

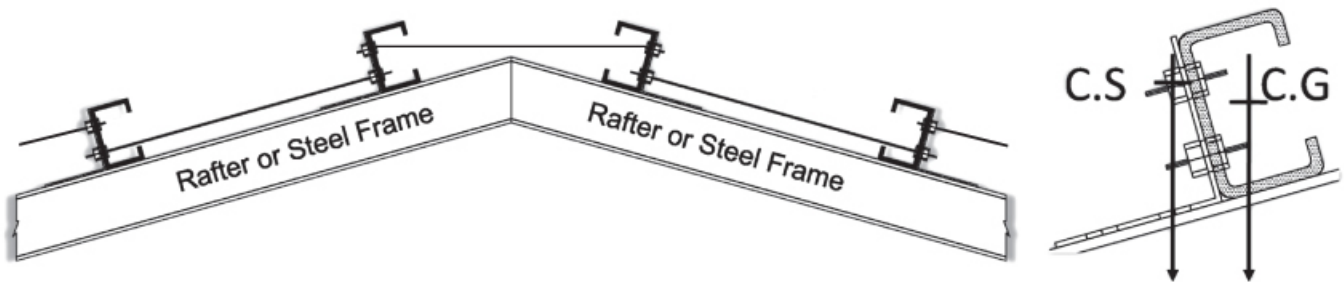


Pre-Punch Hole System



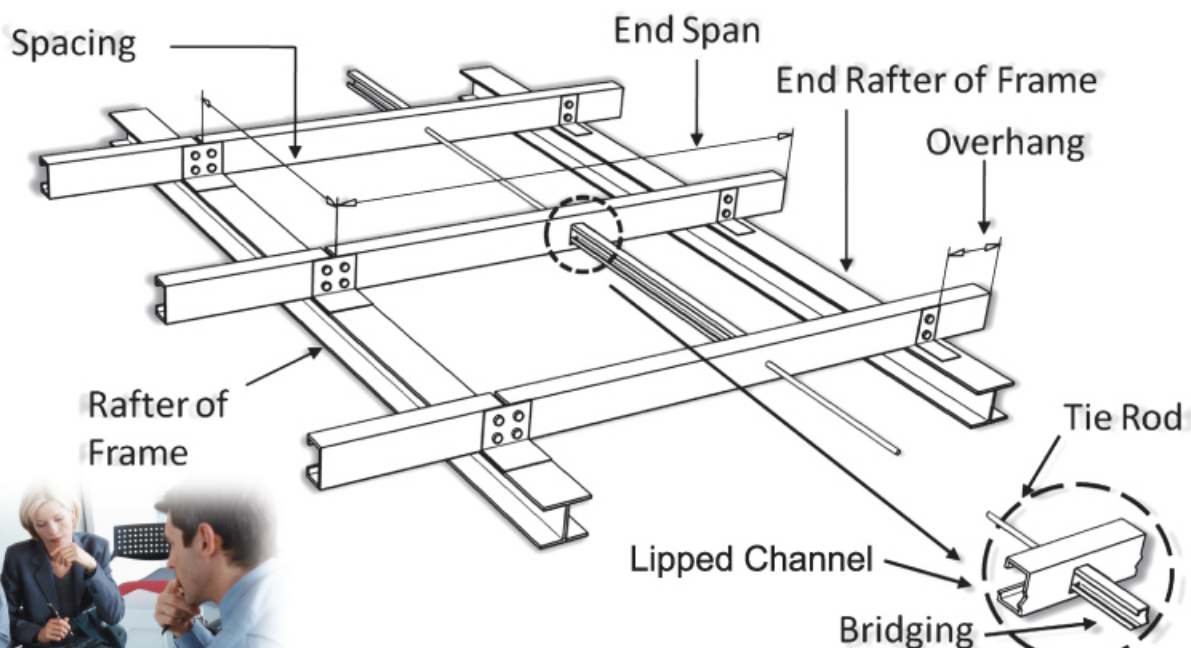
* Pre-Punched holes are available at no extra cost. Our factory pre-punched holes services provide cost savings in the double handling works of drilling holes at site.

Lipped Channel Rafter Connection Details



Note: To minimize the inclination of Lipped Channel to rotate, it is necessary to have the top flange pointing up the slope.

Bridging & Tie Rods Connection Details



Simple Span Lipped Channel Selection Guideline

Dead Load (Self Weight + Metal Roof)	= 0.08 kN/m ²
Live Load	= 0.25 kN/m ²
Basic Design wind speed	= 25 m/s
Building	= Class C
Ground Roughness	= 3
External pressure coefficient for pitch roof	
Internal pressure coefficient for pitch roof	
Span & Spacing	= Centre to centre

Rofo HTGS Lipped Channel

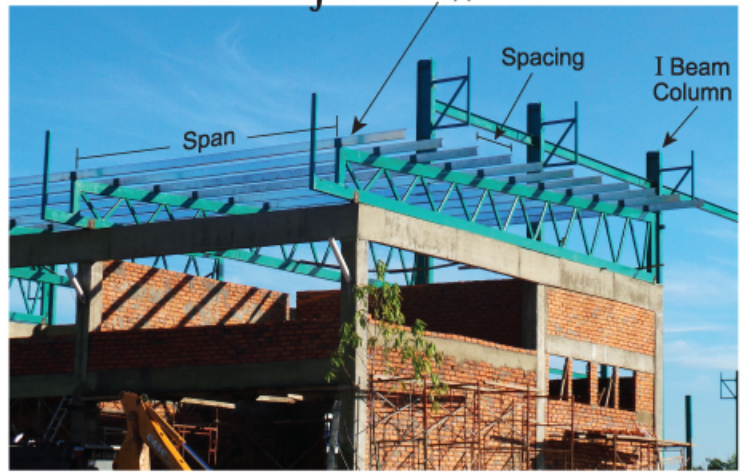


Table Simple Span Lipped Channel Selection Guideline

Span (mm)	Lipped Channel Spacing (mm)				
	900	1200	1500	1800	2100
3,000	7516	7516	10016	10016	10020
3,500	7516	10016	10016	10020	12516
4,000	10016	10016	10020	12516	15016
4,500	10016	12516	12516	15016	15020
5,000	12516	12520	15016	15020	15025
5,500	12516	15016	15020	15025	20020
6,000	15016	15020	15025	20016	20025
7,000	15020	20016	20016	20020	20025
8,000	20016	20020	20020	25020	25020
9,000	20020	20025	25016	25020	25025
10,000	25016	25020	25020	25020	-
11,000	25020	25025	25025	25025	-
12,000	25020	25025	-	-	-

Note: The above datas are guideline only, may varies subject to individual Structural Engineer design.

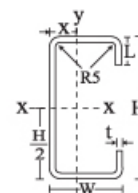
Structural & Section Properties of Rofo® Lipped channel

Product Code	Section Dimensions				Cross Section	Centroid at x-Axis	Mass Per Meter	Second Moment of Area		Section Modulus		Radius of Gyration	
	Height	Width	Lip Length	Thickness				I _x	I _y	Z _x	Z _y	r _x	r _y
	H	W	L	t									
	mm	mm	mm	mm	mm ²	mm	kg/m	x10 ⁶ mm ⁴	x10 ⁶ mm ⁴	x10 ³ mm ³	x10 ³ mm ³	mm	mm
RLC7508	75	38	13	0.8	124	13.6	0.971	0.1099	0.0254	2.930	1.044	29.82	14.34
RLC7510	75	38	13	1.0	164	13.6	1.285	0.1442	0.0331	3.845	1.358	29.69	14.23
RLC7512	75	38	13	1.2	195	13.6	1.533	0.1710	0.0390	4.560	1.598	29.61	14.14
RLC7516	75	38	13	1.6	257	13.5	2.020	0.2225	0.0501	5.932	2.048	29.42	13.96
RLC10010	100	45	12	1.0	201	14.4	1.576	0.3151	0.0536	6.302	1.750	39.64	16.35
RLC10012	100	45	12	1.2	240	14.3	1.882	0.3744	0.0633	7.489	2.063	39.54	16.26
RLC10016	100	50	17	1.6	348	17.8	2.736	0.5484	0.1229	10.968	3.810	39.68	18.78
RLC10020	100	50	17	2.0	431	17.7	3.390	0.6730	0.1494	13.461	4.624	39.50	18.61
RLC12516	125	50	17	1.6	388	16.0	3.050	0.9249	0.1331	14.799	3.913	48.81	18.51
RLC12520	125	50	17	2.0	481	15.9	3.782	1.1376	0.1618	18.201	4.750	48.61	18.33
RLC15016	150	65	20	1.6	486	21.1	3.817	1.7177	0.2858	22.903	6.511	59.46	24.26
RLC15020	150	65	20	2.0	603	21.0	4.741	2.1194	0.3497	28.259	7.954	59.27	24.07
RLC15025	150	65	20	2.5	748	21.0	5.879	2.6063	0.4254	34.751	9.661	59.02	23.85
RLC20016	200	75	20	1.6	598	21.9	4.697	3.6835	0.4439	36.835	8.353	78.50	27.25
RLC20020	200	75	20	2.0	743	21.8	5.841	4.5561	0.5444	45.561	10.231	78.29	27.06
RLC20025	200	75	20	2.5	923	21.7	7.254	5.6201	0.6643	56.201	12.466	78.02	26.82
RLC25020	250	75	20	2.0	843	19.3	6.627	7.7029	0.5825	61.623	10.452	95.57	26.28
RLC25025	250	75	20	2.5	1048	19.2	8.236	9.5159	0.7108	76.127	12.736	95.28	26.04
RLC30020	300	100	20	2.0	1043	25.6	8.198	14.1241	1.2513	94.161	16.810	116.35	34.63
RLC30025	300	100	20	2.5	1298	25.5	10.200	17.4878	1.5347	116.586	20.593	116.07	34.38

*Remarks: Updated with most available section dimension

Section Code Identification

R	LC	100	20
Brand Initial	Lipped Channel	Section High	Section Thickness



Note: Other thickness may available upon request.

Cantilevers: Allowable Uniform Distributed Loads

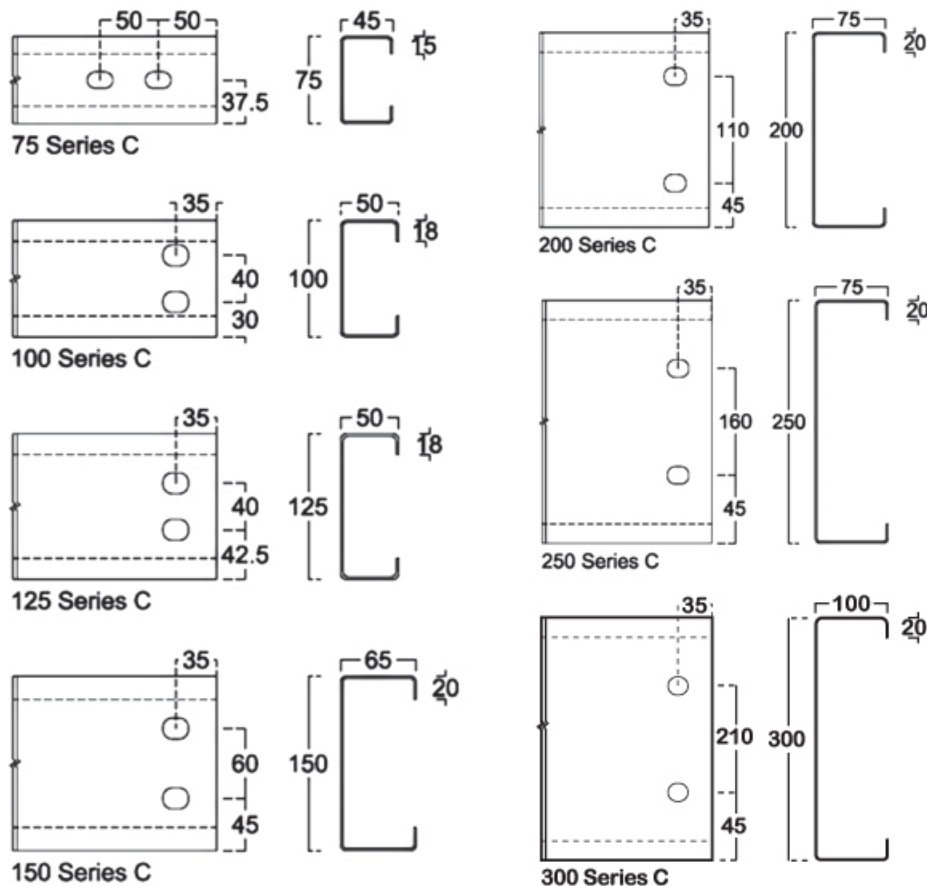
C Section	Cantilever Length (mm)											
	600		900		1200		1500		1800		2100	
	W _s	W _D	W _s	W _D	W _s	W _D	W _s	W _D	W _s	W _D	W _s	W _D
10016	21.66	22.76	9.63	6.74	5.42	2.84	3.47	1.46	2.41	0.84	1.77	0.53
10020	27.60	28.19	12.27	8.35	6.90	3.52	4.42	1.80	3.07	1.04	2.25	0.66
10025	34.80	34.81	15.47	10.32	8.70	4.35	5.57	2.23	3.87	1.29	2.84	0.81
12516	29.40	39.59	13.00	11.73	7.31	4.95	4.68	2.53	3.25	1.47	2.39	0.92
12520	37.63	49.22	16.73	14.58	9.41	6.15	6.02	3.15	4.18	1.82	3.07	1.15
12525	47.88	60.95	21.28	18.06	11.97	7.62	7.66	3.90	5.32	2.26	3.91	1.42
15016	42.61	71.40	18.94	21.16	10.65	8.92	6.82	4.57	4.73	2.64	3.48	1.67
15020	55.34	88.85	24.59	26.33	13.83	11.11	8.85	5.69	6.15	3.29	4.52	2.07
15025	70.94	-	31.53	32.64	17.74	13.77	11.35	7.05	7.88	4.08	5.79	2.57
20016	62.13	-	27.61	44.22	15.53	18.66	9.94	9.55	6.90	5.53	5.07	3.48
20020	82.31	-	36.58	55.10	20.58	23.25	13.17	11.90	9.15	6.89	6.72	4.34
20025	-	-	47.64	68.50	26.80	28.90	17.15	14.00	11.91	8.56	8.75	5.39
25016	80.37	-	35.72	77.46	20.09	32.68	12.86	16.73	8.93	9.68	6.56	6.10
25020	-	-	48.38	96.62	27.21	40.76	17.42	20.87	12.09	12.08	8.89	7.61
25025	-	-	64.02	-	36.01	50.74	23.05	25.98	16.00	15.03	11.76	9.47

Note: The above datas are guideline only, any varies subject to individual Structural Engineer design.

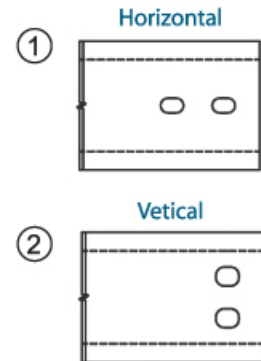
Holing, Cleats, Fastening

Rofo-Lipped Channels can supply pre-punched holes in accordance with international standard. They are intended for use with 12mm diameter bolts.

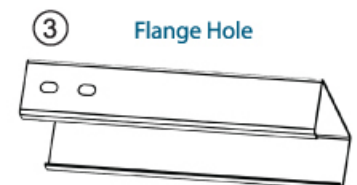
Standard Punch Distance Diagram



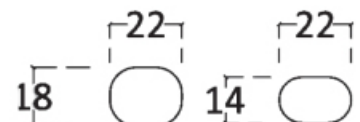
3 Types Hole:



Now, we are able to provide you the flange hole to ease your installation!

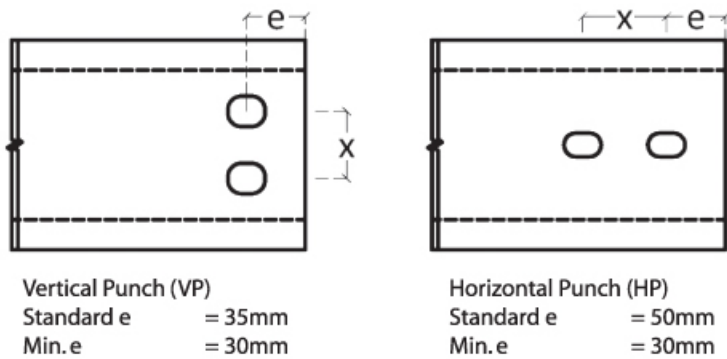


Hole Sizes Available



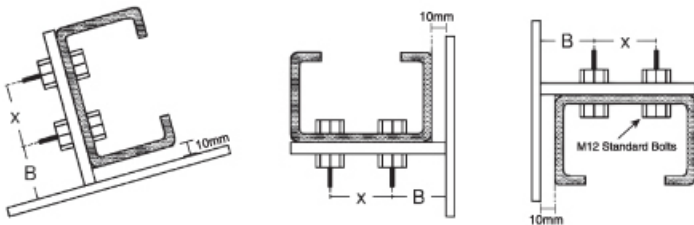
*Note: All the dimension stated above are in mm sizes.

Punch Recommendations & Limitations

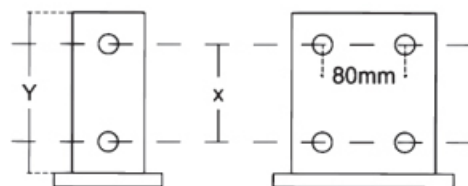


Series C	Standard x	Minimum x
	HP (mm)	VP (mm)
75	50	-
100	40	40
125	40	40
150	60	40
200	110	60
250	160	100
300	200	150

Recommended Installation



MS Cleats



Rofo Lipped Channel Shown Punch Flange Hole

Recommended Dimensions			
Channel Height (mm)	Dimension (mm)		
	B	x	Y
75	37.5	-	85
100	40	40	110
125	52.5	40	125
150	55	60	150
200	55	110	200
250	85	100	250
300	85	150	300



Rofo Lipped Channel loaded to long vehicle for delivery

Manufactured by:



Kina Roof Industries (Sabah) Sdn. Bhd. (667221-X)
Rofofor You Marketing Sdn. Bhd. (1030310-X)



Project Show Rofo Lipped Channel

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