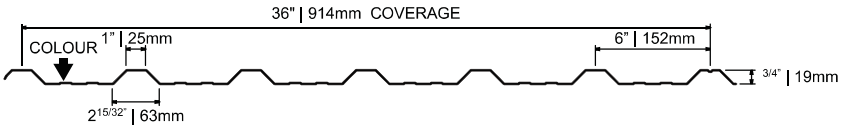
Load Table | Imperial
Diamond Rib Cladding Profile

1. Based on ASTM A 653 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-12.

LIMIT STATES DESIGN



SECTION PROPERTIES | Per Foot of Width

Base Steel Thickness (inches)	Weight [G90] (psf)	Yield Stress (ksi)	Section Modulus		Deflection Moment of Inertia (in^4)	Specified Web Crippling Data			
			Midspan (in^3)	Support (in^3)		Pe1 End (lb)	Pe2 End (lb)	Pi1 Interior (lb)	Pi1 Interior (lb)
0.0180	0.93	50	0.0347	0.0325	0.0211	77.8	19.5	148	25.2
0.0180	0.93	80	0.0336	0.0311	0.0208	93.3	23.3	178	30.2

LLF = 1.40; IMPF = 0.75; NORMAL OCCUPANCY = 1.0

LOAD TABLE | Maximum Uniformly Distributed Specified Loads (psf).

Span Length (ft)		1-Span Base Steel Thickness (inches)						2-Span Base Steel Thickness (inches)						3-Span Base Steel Thickness (inches)					
		0.0180	0.0180					0.0180	0.0180					0.0180	0.0180				
Y.S.* (ksi)		50	80					50	80					50	80				
2.0	S	186	216					174	200					218	250				
2.0	D	307	303					737	727					580	572				
2.5	S	119	138					112	128					139	160				
2.5	D	157	155					377	372					297	293				
3.0	S	83	96					77	89					97	111				
3.0	D	91	90					218	215					172	170				
3.5	S	61	70					57	65					71	82				
3.5	D	57	56					138	136					108	107				
4.0	S	46	54					44	50					54	63				
4.0	D	38	38					92	91					73	72				
4.5	S	37	43					34	40					43	49				
4.5	D	27	27					65	64					51	50				
5.0	S	30	35					28	32					35	40				
5.0	D	20	19					47	47					37	37				
5.5	S	25	29					23	26					29	33				
5.5	D	15	15					35	35					28	28				
6.0	S	21	24					19	22					24	28				
6.0	D	11	11					27	27					21	21				

* Y.S. = Yield Strength

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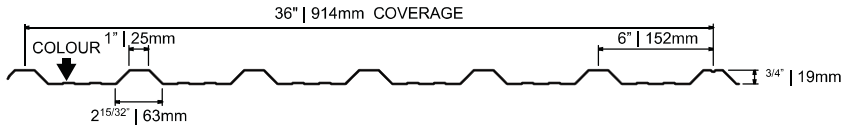
Load Table | Metric
Diamond Rib Cladding Profile

1. Based on ASTM A 653 structural steel.
2. Values in row "S" are based on strength.
3. Values in row "D" are based on deflection of 1/180th span.
4. Web crippling not included in strength calculation. See example.
5. Limit States Design principles were used in accordance with CSA Standard S136-12.

LIMIT STATES DESIGN



SECTION PROPERTIES | Per Metre of Width

Base Steel Thickness (mm)	Mass [Z275] (kg/m²)	Yield Stress (MPa)	Section Modulus		Deflection Moment of Inertia	Specified Web Crippling Data			
			Midspan (x10³mm³)	Support (x10³mm³)	(x10⁶ mm⁴)	Pe1 End (kN)	Pe2 End (kN)	Pi1 Interior (kN)	Pi1 Interior (kN)
0.457	4.56	345	1.86	1.75	0.0288	1.14	0.284	2.16	0.367
0.457	4.56	550	1.81	1.68	0.0284	1.36	0.340	2.58	0.439

LLF = 1.40; IMPF = 0.75; NORMAL OCCUPANCY = 1.0

LOAD TABLE | Maximum Uniformly Distributed Specified Loads (kPa).

Span Length (m)		1-Span Base Steel Thickness (mm)						2-Span Base Steel Thickness (mm)						3-Span Base Steel Thickness (mm)					
		0.457	0.457					0.457	0.457					0.457	0.457				
Y.S.* (MPa)		345	550					345	550					345	550				
0.6	S	9.18	10.6					8.62	9.87					10.8	12.3				
0.6	D	15.4	15.2					37.0	36.5					29.1	28.7				
0.8	S	5.16	5.98					4.85	5.55					6.06	6.94				
0.8	D	6.50	6.42					15.6	15.4					12.3	12.1				
1.0	S	3.30	3.83					3.10	3.55					3.88	4.44				
1.0	D	3.33	3.28					7.99	7.88					6.29	6.21				
1.2	S	2.30	2.66					2.16	2.47					2.69	3.08				
1.2	D	1.93	1.90					4.63	4.56					3.64	3.59				
1.4	S	1.69	1.95					1.58	1.81					1.98	2.27				
1.4	D	1.21	1.20					2.91	2.87					2.29	2.26				
1.6	S	1.29	1.50					1.21	1.39					1.52	1.74				
1.6	D	0.81	0.80					1.95	1.92					1.54	1.52				
1.8	S	1.02	1.18					0.96	1.10					1.20	1.37				
1.8	D	0.57	0.56					1.37	1.35					1.08	1.06				
2.0	S	0.83	0.96					0.78	0.89					0.97	1.11				
2.0	D	0.42	0.41					1.00	0.99					0.79	0.78				

* Y.S. = Yield Strength

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