WESTMAN STEEL
STATEMENTS IN STEEL™

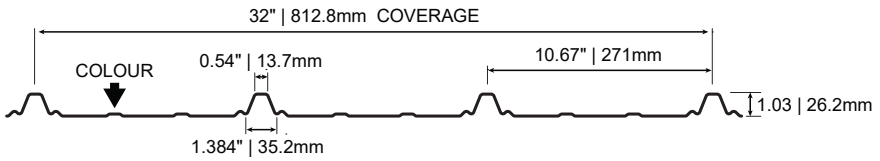
Imperial | Load Table Pinnacle Rib Roof Profile

05.28.21

westmansteel.com

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 S136-16.

LIMIT STATES DESIGN



SECTION PROPERTIES | Per Foot of Width

Base Steel Thickness (in.)	Weight [G90] (psf)	Yield Stress (ksi)	Section Modulus Midspan (in^3)	Section Modulus Support (in^3)	Deflection Moment of Inertia (in^4)	Specified Web Crippling Data Pe1 End (lb)	Pe2 End (lb)	Pi1 Interior (lb)	Pi2 Interior (lb)
0.0180	1.00	50	0.0240	0.0195	0.0217	52.9	13.2	96.7	16.4

LLF = 1.50; IMPF = 0.90; NORMAL OCCUPANCY = 1.0

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

Span Length (ft)		1-Span Base Steel Thickness (in.)	2-Span Base Steel Thickness (in.)	3-Span Base Steel Thickness (in.)
		0.0180	0.0180	0.0180
Y.S.* (ksi)		50	50	50
1.0	S	480	390	488
1.0	D	2099	5037	3966
1.5	S	214	173	217
1.5	D	622	1492	1175
2.0	S	120	98	122
2.0	D	262	630	496
2.5	S	77	62	78
2.5	D	134	322	254
3.0	S	53	43	54
3.0	D	78	187	147
3.5	S	39	32	40
3.5	D	49	117	93
4.0	S	30	24	30
4.0	D	33	79	62

* Y.S. = Yield Stress

WESTMAN STEEL
STATEMENTS IN STEEL™

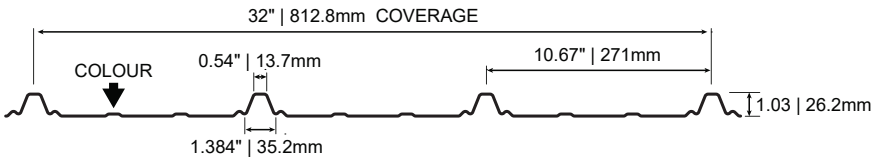
Metric | Load Table Pinnacle Rib Roof Profile

05.28.21

westmansteel.com

1. Based on ASTM A 653M 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 S136-16.

LIMIT STATES DESIGN



SECTION PROPERTIES | Per Metre of Width

Base Steel Thickness (mm)	Mass [Z275] (kg/m²)	Yield Stress (MPa)	Section Modulus Midspan (x10³ mm³)	Section Modulus Support (x10³ mm³)	Deflection Moment of Inertia (x10⁶ mm⁴)	Specified Web Crippling Data Pe1 End (kN)	Pe2 End (kN)	Pi1 Interior (kN)	Pi2 Interior (kN)
0.457	4.82	345	1.29	1.05	0.0296	0.772	0.193	1.41	0.240

LLF = 1.50; IMPF = 0.90; 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
Y.S.* (MPa)		345	345	345
0.4	S	13.4	10.9	13.6
0.4	D	44.5	107	84.0
0.5	S	8.55	6.95	8.68
0.5	D	22.8	54.6	43.0
0.6	S	5.94	4.82	6.03
0.6	D	13.2	31.6	24.9
0.8	S	3.34	2.71	3.39
0.8	D	5.56	13.3	10.5
1.0	S	2.14	1.74	2.17
1.0	D	2.85	6.83	5.38
1.2	S	1.49	1.21	1.51
1.2	D	1.65	3.95	3.11

* Y.S. = Yield Stress