

WURTH CANADA 60x37 RAIL SPAN CHART
 Maximum Rail / Standoff Location Span (m / ft) **

		ROOF SLOPE: 7/12 Pitch - 30 DEGREES									
WIND EXPOSURE	HOURLY WIND PRESSURE (q) 1/50 (kPa)	GROUND SNOW LOAD (Ss) 1/50 (kPa)									
		1.00	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50	
OPEN TERRAIN	0.25	2.00	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.30	2	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.35	2	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.40	1.83	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.00	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.45	1.61	1.61	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		5.28	5.28	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.50	1.44	1.44	1.44	1.39	1.21	1.21	1.13	1.07	0.96	
		4.72	4.72	4.72	4.56	3.97	3.97	3.71	3.51	3.15	
	0.55	1.3	1.3	1.3	1.3	1.29	1.21	1.13	1.07	0.96	
		4.26	4.26	4.26	4.26	4.23	3.97	3.71	3.51	3.15	
	0.60	1.18	1.18	1.18	1.18	1.18	1.18	1.13	1.07	0.96	
		3.87	3.87	3.87	3.87	3.87	3.87	3.71	3.51	3.15	
ROUGH TERRAIN	0.25	2.00	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.30	2.00	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.35	2.00	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.40	2.00	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.45	2.00	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.50	2.00	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.56	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.55	1.86	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		6.10	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	
	0.60	1.7	1.64	1.51	1.39	1.29	1.21	1.13	1.07	0.96	
		5.58	5.38	4.95	4.56	4.23	3.97	3.71	3.51	3.15	

WURTH CANADA 60x37 RAIL SPAN CHART
 Maximum Rail / Standoff Location Span (m / ft) **

		ROOF SLOPE: 6/12 Pitch - 26.5 DEGREES									
WIND EXPOSURE	HOURLY WIND PRESSURE (q) 1/50 (kPa)	GROUND SNOW LOAD (Ss) 1/50 (kPa)									
		1.00	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50	
OPEN TERRAIN	0.25	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.30	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.35	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.40	1.83	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.00	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.45	1.61	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		5.28	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.50	1.44	1.44	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		4.72	4.72	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.55	1.3	1.3	1.3	1.29	1.19	1.11	1.04	0.98	0.87	
		4.26	4.26	4.26	4.23	3.90	3.64	3.41	3.21	2.85	
	0.60	1.18	1.18	1.18	1.18	1.18	1.11	1.04	0.98	0.87	
		3.87	3.87	3.87	3.87	3.87	3.64	3.41	3.21	2.85	
ROUGH TERRAIN	0.25	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.30	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.35	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.40	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.45	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.50	1.89	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.20	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.55	1.86	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		6.10	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	
	0.60	1.7	1.53	1.40	1.29	1.19	1.11	1.04	0.98	0.87	
		5.58	5.02	4.59	4.23	3.90	3.64	3.41	3.21	2.85	

WURTH CANADA 60x37 RAIL SPAN CHART
Maximum Rail / Standoff Location Span (m / ft) **

		ROOF SLOPE: 5/12 Pitch - 22.5 DEGREES								
WIND EXPOSURE	HOURLY WIND PRESSURE (q) 1/50 (kPa)	GROUND SNOW LOAD (Ss) 1/50 (kPa)								
		1.00	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50
OPEN TERRAIN	0.25	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.30	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.35	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.40	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.45	1.61	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.28	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.50	1.44	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		4.72	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.55	1.3	1.3	1.3	1.20	1.11	1.03	0.96	0.9	0.8
		4.26	4.26	4.26	3.94	3.64	3.38	3.15	2.95	2.62
	0.60	1.18	1.18	1.18	1.18	1.11	1.03	0.96	0.9	0.8
		3.87	3.87	3.87	3.87	3.64	3.38	3.15	2.95	2.62
ROUGH TERRAIN	0.25	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.30	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.35	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.40	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.45	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.50	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.55	1.79	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.87	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62
	0.60	1.7	1.44	1.31	1.20	1.11	1.03	0.96	0.9	0.8
		5.58	4.72	4.30	3.94	3.64	3.38	3.15	2.95	2.62

WURTH CANADA 60x37 RAIL SPAN CHART
Maximum Rail / Standoff Location Span (m / ft) **

		ROOF SLOPE: 4/12 Pitch - 18.5 DEGREES								
WIND EXPOSURE	HOURLY WIND PRESSURE (q) 1/50 (kPa)	GROUND SNOW LOAD (Ss) 1/50 (kPa)								
		1.00	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.50
OPEN TERRAIN	0.25	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.30	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.35	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.40	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.45	1.61	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.28	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.50	1.44	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		4.72	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.55	1.3	1.3	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		4.26	4.26	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.60	1.18	1.18	1.18	1.12	1.03	0.96	0.89	0.84	0.74
		3.87	3.87	3.87	3.67	3.38	3.15	2.92	2.76	2.43
ROUGH TERRAIN	0.25	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.30	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.35	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.40	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.45	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.50	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.55	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43
	0.60	1.70	1.35	1.23	1.12	1.03	0.96	0.89	0.84	0.74
		5.58	4.43	4.03	3.67	3.38	3.15	2.92	2.76	2.43

****IMPORTANT NOTES:**

- Parameters: Rain Load $S_r=0.4$, Importance Category: Normal (ULS $I_w = 1$) , Unobstructed Slippery Roof ($C_s=1$)
- Spans indicated are maximum acceptable distance of L bracket stand-off location utilizing Würth 60/37 Rail.
- Maximum Mean roof height 9m (29.5ft)
- Wind Exposure: Rough Terrain typically downtown; buildings, trees surround site. Open Terrain: Farmland, rural, exposed site. Review 500m radius.
- Spans indicated for Interior Roof Zones (r) only. Allow min. 1 m (3.28') around roof edges and corners. For Edge Zone (s) and Corner Zone (c) installations contact Würth Canada. Refer to OBC 2006 for definitions.
- For typical roof of standard construction, regular shape and geometrical form. LBD 10m (32.8'), GBD 30m (98.5')
- For gable roof with <45 deg. pitch, or a hip roof with <27 deg. pitch.
- Standoff utilizing single Würth L bracket and Würth WSF Solar Fastener, M10x250, (min. 3" into wood substructure)
- 2 rails below per module. Always verify approved clamping method, locations and loads with module manufacturer.
- Typical for modules 20Kg, 991mm x 1971 mm, 40mm Thick. (44lbs, 3'3" x 6'6", 1.46" thick).
- Rails to be installed parallel to roof, flush and perpendicular to roof joists.
- Maximum end cantilever span is 20 percent of adjacent interior span.
- Climatic Data and info as per Ontario Building Code (OBC), 2006 Division B, Appendix C, and Table C-2.
- Chart does not include roof capacity check or standoff connection check.
- Installer to review and verify racking components, final roof connections, roof and joist/truss capacity and base building capacity by Licensed Professional Structural Engineer.
- Refer to and follow the latest Ontario Building Code (OBC) for structural requirements, parameters, definitions.
- Contact Würth Canada Ltd. for review of parameters not indicated or clear above.
- Number of standoff locations and Würth rail sizes can be provided to increase rail span and standoff span as required. Please Contact Würth Canada Ltd.

