

# S-M1450 Rect

- 1451 x 771 mm rectangular truss made from special, ultra-high-strength steel alloys
- 2.2 times more loading capacity than aluminium truss with similar dimensions
- Webbing pattern allows the insertion of cross trusses
- Compression tubes are located at important rigging points
- Orientation-free double fork connector arrangement for ease of use
- End braces with 22mm holes for lateral connections
- Pinned connectors for increased strength
- Integrated forklift pick up points and ladder tubes
- Zinc-coated pins and matt black, impact resistant industrial paint finish



Forklift pick up points

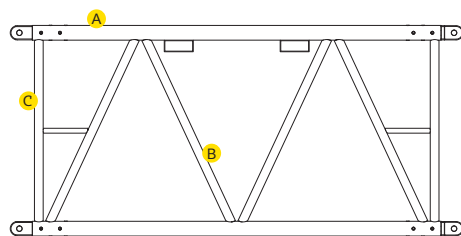
## S-M1450 Rectangular truss section

S-RTW	mm	in	Vertical			Horizontal		Pin type:	
			Main Chords A:	Diagonals B:	End braces C:	Diagonals D:	End braces E:		Intermediate cross braces F:
			101.6 x 4 (4 x 0.16)	60.3 x 4 (24 x 0.16)	60.3 x 4 (24 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	80 x 60 x 4 (3.2 x 24 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	PW

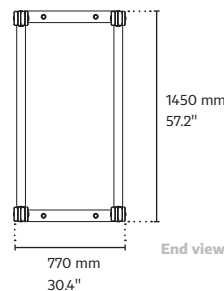
## STANDARD LENGTHS AND WEIGHTS AVAILABLE

S-RTW	m		ft		m		ft	
	kg	lbs	kg	lbs	kg	lbs	kg	lbs
	222.40 (490.31)	288.60 (636.25)	310.50 (684.53)	375.30 (827.39)	459.30 (1012.58)	526.50 (1160.73)	593.70 (1308.88)	

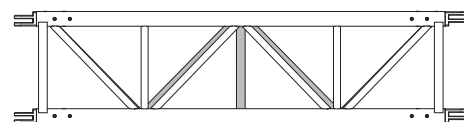
Connection material and packaging are not included in above weights



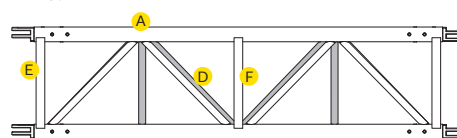
Side view



End view



Top view



Bottom view

# S-RTW

LOADING CHART

Steel trusses

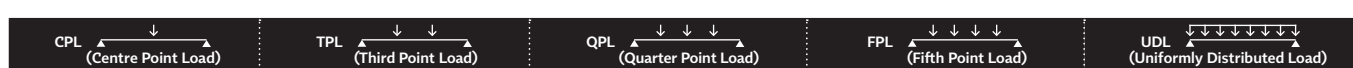
Span	m (ft)	15.00 (49.20)	16.00 (52.50)	17.00 (55.80)	18.00 (59.10)	19.00 (62.30)	20.00 (65.60)	21.00 (68.90)
Centre Point Load (CPL)	kg (lbs)	30379.00 (66974.00)	28367.00 (62539.00)	26584.00 (58608.00)	24994.00 (55102.00)	23564.00 (51950.00)	22272.00 (49101.00)	21097.00 (46511.00)
Deflection	mm (in)	47.00 (1.85)	54.00 (2.13)	61.00 (2.40)	68.00 (2.68)	76.00 (2.99)	85.00 (3.35)	93.00 (3.66)
Third Point Load (TPL)	kg (lbs)	21123.00 (46568.00)	21064.00 (46438.00)	19938.00 (43956.00)	18745.00 (41326.00)	17673.00 (38962.00)	16704.00 (36826.00)	15823.00 (34884.00)
Deflection	mm (in)	56.00 (2.20)	67.00 (2.64)	77.00 (3.03)	86.00 (3.39)	96.00 (3.78)	107.00 (4.21)	118.00 (4.65)
Quarter Point Load (QPL)	kg (lbs)	14082.00 (31046.00)	14043.00 (30960.00)	13292.00 (29304.00)	12497.00 (27551.00)	11782.00 (25975.00)	11136.00 (24551.00)	10549.00 (23257.00)
Deflection	mm (in)	52.00 (2.05)	63.00 (2.48)	72.00 (2.83)	80.00 (3.15)	90.00 (3.54)	99.00 (3.90)	110.00 (4.33)
Fifth Point Load (FPL)	kg (lbs)	10561.00 (23283.00)	10532.00 (23219.00)	10503.00 (23155.00)	10414.00 (22959.00)	9819.00 (21647.00)	9280.00 (20459.00)	8791.00 (19381.00)
Deflection	mm (in)	50.00 (1.97)	60.00 (2.36)	72.00 (2.83)	85.00 (3.35)	95.00 (3.74)	105.00 (4.13)	116.00 (4.57)
Uniformly Distributed Load (UDL)	kg/m (lbs/ft)	2816.00 (1892.00)	2633.00 (1769.00)	2471.00 (1660.00)	2327.00 (1564.00)	2199.00 (1478.00)	2083.00 (1400.00)	1978.00 (1329.00)
Deflection	mm (in)	41.00 (1.61)	50.00 (1.97)	60.00 (2.36)	71.00 (2.80)	84.00 (3.31)	98.00 (3.86)	113.00 (4.45)

Span	m (ft)	22.00 (72.20)	23.00 (75.50)	24.00 (78.70)	25.00 (82.00)	26.00 (85.30)	27.00 (88.60)	28.00 (91.90)
Centre Point Load (CPL)	kg (lbs)	20024.00 (44145.00)	19039.00 (41974.00)	18131.00 (39972.00)	17291.00 (38120.00)	16511.00 (36401.00)	15785.00 (34800.00)	15106.00 (33303.00)
Deflection	mm (in)	103.00 (4.06)	113.00 (4.45)	123.00 (4.84)	134.00 (5.28)	145.00 (5.71)	157.00 (6.18)	169.00 (6.65)
Third Point Load (TPL)	kg (lbs)	15018.00 (33109.00)	14279.00 (31480.00)	13598.00 (29978.00)	12968.00 (28590.00)	12384.00 (27302.00)	11839.00 (26101.00)	11330.00 (24978.00)
Deflection	mm (in)	129.00 (5.08)	141.00 (5.55)	154.00 (6.06)	167.00 (6.57)	181.00 (7.13)	195.00 (7.68)	210.00 (8.27)
Quarter Point Load (QPL)	kg (lbs)	10012.00 (22073.00)	9519.00 (20986.00)	9066.00 (19987.00)	8646.00 (19061.00)	8256.00 (18201.00)	7893.00 (17401.00)	7553.00 (16652.00)
Deflection	mm (in)	121.00 (4.76)	132.00 (5.20)	144.00 (5.67)	156.00 (6.14)	169.00 (6.65)	182.00 (7.17)	196.00 (7.72)
Fifth Point Load (FPL)	kg (lbs)	8343.00 (18393.00)	7933.00 (17489.00)	7555.00 (16656.00)	7205.00 (15884.00)	6880.00 (15168.00)	6577.00 (14500.00)	6294.00 (13876.00)
Deflection	mm (in)	127.00 (5.00)	139.00 (5.47)	152.00 (5.98)	165.00 (6.50)	178.00 (7.01)	192.00 (7.56)	207.00 (8.15)
Uniformly Distributed Load (UDL)	kg/m (lbs/ft)	1820.00 (1223.00)	1656.00 (1113.00)	1511.00 (1015.00)	1383.00 (929.00)	1270.00 (853.00)	1169.00 (786.00)	1079.00 (725.00)
Deflection	mm (in)	126.00 (4.96)	138.00 (5.43)	151.00 (5.94)	164.00 (6.46)	177.00 (6.97)	191.00 (7.52)	206.00 (8.11)

Span	m (ft)	29.00 (95.10)	30.00 (98.40)	31.00 (101.70)	32.00 (105.00)	33.00 (108.30)	34.00 (111.50)	35.00 (114.80)
Centre Point Load (CPL)	kg (lbs)	14470.00 (31901.00)	13873.00 (30585.00)	13310.00 (29344.00)	12779.00 (28173.00)	12277.00 (27066.00)	11800.00 (26015.00)	11348.00 (25018.00)
Deflection	mm (in)	182.00 (7.17)	195.00 (7.68)	209.00 (8.23)	223.00 (8.78)	238.00 (9.37)	253.00 (9.96)	269.00 (10.59)
Third Point Load (TPL)	kg (lbs)	10853.00 (23927.00)	10405.00 (22939.00)	9983.00 (22009.00)	9585.00 (21131.00)	9208.00 (20300.00)	8850.00 (19511.00)	8511.00 (18764.00)
Deflection	mm (in)	225.00 (8.86)	241.00 (9.49)	258.00 (10.16)	275.00 (10.83)	292.00 (11.50)	310.00 (12.20)	329.00 (12.95)
Quarter Point Load (QPL)	kg (lbs)	7235.00 (15950.00)	6937.00 (15293.00)	6655.00 (14672.00)	6390.00 (14088.00)	6138.00 (13532.00)	5900.00 (13007.00)	5674.00 (12509.00)
Deflection	mm (in)	211.00 (8.31)	226.00 (8.90)	242.00 (9.53)	258.00 (10.16)	275.00 (10.83)	292.00 (11.50)	310.00 (12.20)
Fifth Point Load (FPL)	kg (lbs)	6029.00 (13292.00)	5780.00 (12743.00)	5546.00 (12227.00)	5325.00 (11740.00)	5115.00 (11277.00)	4917.00 (10840.00)	4728.00 (10423.00)
Deflection	mm (in)	222.00 (8.74)	238.00 (9.37)	254.00 (10.00)	271.00 (10.67)	289.00 (11.38)	307.00 (12.09)	325.00 (12.80)
Uniformly Distributed Load (UDL)	kg/m (lbs/ft)	998.00 (671.00)	925.00 (622.00)	859.00 (577.00)	799.00 (537.00)	744.00 (500.00)	694.00 (466.00)	648.00 (435.00)
Deflection	mm (in)	221.00 (8.70)	236.00 (9.29)	253.00 (9.96)	269.00 (10.59)	287.00 (11.30)	305.00 (12.01)	323.00 (12.72)

Span	m (ft)	36.00 (95.10)	37.00 (121.40)	38.00 (124.70)	39.00 (128.00)	40.00 (131.20)	41.00 (134.50)	42.00 (137.80)
Centre Point Load (CPL)	kg (lbs)	10917.00 (31901.00)	10507.00 (23164.00)	10115.00 (22300.00)	9740.00 (21473.00)	9381.00 (20682.00)	9037.00 (19923.00)	8706.00 (19193.00)
Deflection	mm (in)	286.00 (7.17)	303.00 (11.93)	321.00 (12.64)	339.00 (13.35)	358.00 (14.09)	377.00 (14.84)	397.00 (15.63)
Third Point Load (TPL)	kg (lbs)	8188.00 (23927.00)	7880.00 (17372.00)	7586.00 (16724.00)	7305.00 (16105.00)	7036.00 (15512.00)	6778.00 (14943.00)	6529.00 (14394.00)
Deflection	mm (in)	349.00 (8.86)	368.00 (14.49)	389.00 (15.31)	410.00 (16.14)	432.00 (17.01)	454.00 (17.87)	477.00 (18.78)
Quarter Point Load (QPL)	kg (lbs)	5459.00 (15950.00)	5253.00 (11581.00)	5057.00 (11149.00)	4870.00 (10737.00)	4691.00 (10342.00)	4518.00 (9960.00)	4353.00 (9597.00)
Deflection	mm (in)	328.00 (8.31)	347.00 (13.66)	367.00 (14.45)	387.00 (15.24)	408.00 (16.06)	429.00 (16.89)	451.00 (17.76)
Fifth Point Load (FPL)	kg (lbs)	4549.00 (13292.00)	4378.00 (9652.00)	4215.00 (9292.00)	4058.00 (8946.00)	3909.00 (8618.00)	3765.00 (8300.00)	3627.00 (7996.00)
Deflection	mm (in)	345.00 (8.74)	364.00 (14.33)	385.00 (15.16)	405.00 (15.94)	427.00 (16.81)	449.00 (17.68)	472.00 (18.58)
Uniformly Distributed Load (UDL)	kg/m (lbs/ft)	607.00 (671.00)	568.00 (382.00)	532.00 (357.00)	499.00 (335.00)	469.00 (315.00)	441.00 (296.00)	415.00 (279.00)
Deflection	mm (in)	342.00 (8.70)	362.00 (14.25)	382.00 (15.04)	403.00 (15.87)	424.00 (16.69)	446.00 (17.56)	469.00 (18.46)

Span	m (ft)	43.00 (141.00)	44.00 (144.00)	45.00 (148.00)	46.00 (151.00)	47.00 (154.00)	48.00 (157.00)	50.00 (164.00)
Centre Point Load (CPL)	kg (lbs)	8388.00 (18492.38)	8082.00 (17817.76)	7786.00 (17165.19)	7501.00 (16536.88)	7226.00 (15930.61)	6960.00 (15344.38)	6452.00 (14224.23)
Deflection	mm (in)	418.00 (16.00)	440.00 (17.00)	462.00 (18.00)	484.00 (19.00)	508.00 (20.00)	532.00 (21.00)	582.00 (23.00)
Third Point Load (TPL)	kg (lbs)	6291.00 (13869.28)	6061.00 (13362.22)	5840.00 (12875.00)	5626.00 (12403.21)	5419.00 (11946.85)	5220.00 (11508.13)	4839.00 (10668.17)
Deflection	mm (in)	500.00 (20.00)	524.00 (21.00)	549.00 (22.00)	574.00 (23.00)	600.00 (24.00)	626.00 (25.00)	681.00 (27.00)
Quarter Point Load (QPL)	kg (lbs)	4194.00 (9246.19)	4041.00 (8908.88)	3893.00 (8582.60)	3751.00 (8269.54)	3613.00 (7965.30)	3480.00 (7672.09)	3226.00 (7112.11)
Deflection	mm (in)	474.00 (19.00)	497.00 (20.00)	520.00 (20.00)	545.00 (21.00)	570.00 (22.00)	596.00 (23.00)	649.00 (26.00)
Fifth Point Load (FPL)	kg (lbs)	3495.00 (7705.16)	3367.00 (7422.97)	3244.00 (7151.80)	3126.00 (6891.65)	3011.00 (6638.12)	2900.00 (6393.41)	2688.00 (5926.03)
Deflection	mm (in)	495.00 (19.00)	519.00 (20.00)	543.00 (21.00)	568.00 (22.00)	594.00 (23.00)	620.00 (24.00)	675.00 (27.00)
Uniformly Distributed Load (UDL)	kg/m (lbs/ft)	390.00 (262.07)	367.00 (246.61)	346.00 (232.50)	326.00 (219.06)	307.00 (206.29)	290.00 (194.87)	258.00 (173.37)
Deflection	mm (in)	492.00 (19.37)	516.00 (20.31)	540.00 (21.25)	565.00 (22.24)	591.00 (23.26)	617.00 (24.29)	671.00 (26.41)



All truss loading calculations are based on:  
 Truss supported or suspended at both ends • Static loadings only • Loads applied in the node points • Self-weight of the truss is included • Spans made of different truss lengths • Interaction of bending moment and shear force at connector • Structural analysis based on EN 1993-1-1, EN 1993-1-8 and EN 1993-1-12 • To comply with BS 7905-2 / ANSI E1.2-2006 / EN 17115 all loading data should be multiplied by 0.85 • For any other application, or in case of an assembled structure, contact Milos or a structural engineer • Safety factors used – self-weight 1.35 / loading 1.5