

# Steel truss

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## Straight specifications

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# S-M530 Quatro

- 530 x 530 mm tower truss made from bespoke, high-strength steels
- Greatly increased load capacity compared to aluminium truss with similar dimensions for an optimised weight to strength ratio
- Orientation-free connectors for ease of use
- Pinned connectors for increased strength
- End frames with 22mm holes for lateral connections on all sides
- Double fork couplers, zinc coated pins and matt black, impact-resistant industrial paint finish
- Ladder tubes for ease of climbing when used as tower



Fork coupler

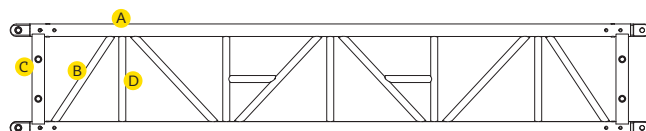
## S-M530 Quatro Tower truss section

S-QTPT	mm	in	Main Chords A:	Diagonals B:	End braces C:	Intermediate cross braces D:	Pin type:
			60.3 x 4 (2.4 x 0.16)	33.7 x 2.6 (1.3 x 0.1)	60 x 60 x 4 (2.4 x 2.4 x 0.16)	33.7 x 2.6 (1.3 x 0.1)	PQ

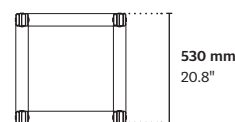
## STANDARD LENGTHS AND WEIGHTS AVAILABLE

S-QTPT	m	ft	1.00 (3.28)		2.00 (6.56)		2.50 (8.20)		3.00 (9.84)		4.00 (13.12)		5.00 (16.41)		6.00 (19.68)	
	kg	lbs	80.70 (177.91)	118.60 (261.47)	181.60 (400.36)	156.20 (344.36)	204.60 (451.07)	231.30 (509.93)	258.00 (568.79)							

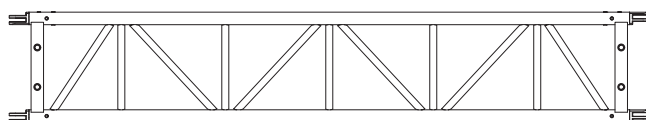
Connection material and packaging are not included in above weights



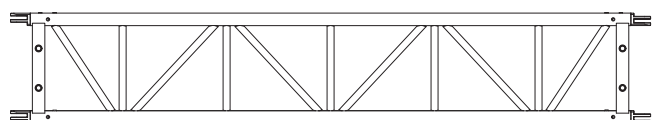
Side view



End view



Top view



Bottom view

# S-QTPT

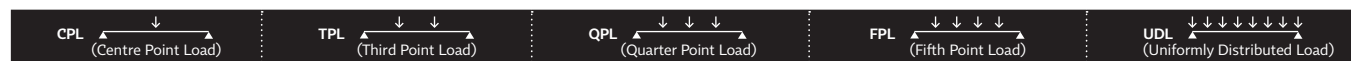
LOADING CHART

Span	m (ft)	5.00 (16.40)	6.00 (19.70)	7.00 (23.00)	8.00 (26.20)	9.00 (29.50)	10.00 (32.80)	11.00 (36.10)
CPL	kg (lbs)	11655 (25695)	11606 (25587)	10210 (22509)	8887 (19592)	7853 (17313)	7021 (15479)	6335 (13966)
Deflection	mm (in)	9 (0.35)	16 (0.63)	23 (0.91)	30 (1.18)	38 (1.50)	47 (1.85)	57 (2.24)
TPL	kg (lbs)	5825 (12842)	5803 (12793)	5778 (12738)	5753 (12683)	5729 (12630)	5265 (11607)	4751 (10474)
Deflection	mm (in)	8 (0.31)	14 (0.55)	22 (0.87)	33 (1.30)	46 (1.81)	59 (2.32)	71 (2.80)
QPL	kg (lbs)	3885 (8565)	3869 (8530)	3852 (8492)	3836 (8457)	3819 (8419)	3510 (7738)	3168 (6984)
Deflection	mm (in)	7 (0.28)	13 (0.51)	20 (0.79)	30 (1.18)	43 (1.69)	55 (2.17)	67 (2.64)
FPL	kg (lbs)	2914 (6424)	2901 (6396)	2889 (6369)	2877 (6343)	2864 (6314)	2852 (6288)	2640 (5820)
Deflection	mm (in)	7 (0.28)	12 (0.47)	19 (0.75)	29 (1.14)	41 (1.61)	57 (2.24)	70 (2.76)
UDL	kg/m (lbs/ft)	2331 (1566)	1934 (1300)	1651 (1109)	1438 (966)	1273 (855)	1141 (767)	1033 (694)
Deflection	mm (in)	6 (0.24)	10 (0.39)	16 (0.63)	24 (0.94)	34 (1.34)	47 (1.85)	63 (2.48)

Span	m (ft)	12.00 (39.40)	13.00 (42.70)	14.00 (45.90)	15.00 (49.20)	16.00 (52.50)	17.00 (55.80)	18.00 (59.10)
CPL	kg (lbs)	5760 (12699)	5269 (11616)	4845 (10681)	4474 (9863)	4147 (9143)	3855 (8499)	3592 (7919)
Deflection	mm (in)	68 (2.68)	79 (3.11)	93 (3.66)	107 (4.21)	122 (4.80)	138 (5.43)	155 (6.10)
TPL	kg (lbs)	4320 (9524)	3952 (8713)	3634 (8012)	3356 (7399)	3110 (6856)	2891 (6374)	2694 (5939)
Deflection	mm (in)	85 (3.35)	100 (3.94)	116 (4.57)	133 (5.24)	152 (5.98)	171 (6.73)	192 (7.56)
QPL	kg (lbs)	2880 (6349)	2635 (5809)	2422 (5340)	2237 (4932)	2073 (4570)	1927 (4248)	1796 (3960)
Deflection	mm (in)	79 (3.11)	93 (3.66)	108 (4.25)	125 (4.92)	142 (5.59)	161 (6.34)	180 (7.09)
FPL	kg (lbs)	2400 (5291)	2195 (4839)	2019 (4451)	1864 (4109)	1728 (3810)	1606 (3541)	1497 (3300)
Deflection	mm (in)	84 (3.31)	99 (3.90)	114 (4.49)	131 (5.16)	150 (5.91)	169 (6.65)	190 (7.48)
UDL	kg/m (lbs/ft)	942 (633)	811 (545)	692 (465)	597 (401)	518 (348)	453 (304)	399 (268)
Deflection	mm (in)	82 (3.23)	98 (3.86)	114 (4.49)	130 (5.12)	149 (5.87)	168 (6.61)	189 (7.44)

Span	m (ft)	19.00 (62.30)	20.00 (65.60)	21.00 (68.90)	22.00 (72.20)	23.00 (75.50)	24.00 (78.70)	25.00 (82.00)
CPL	kg (lbs)	3355 (7397)	3139 (6920)	2941 (6484)	2759 (6083)	2591 (5712)	2434 (5366)	2288 (5044)
Deflection	mm (in)	174 (6.85)	194 (7.64)	215 (8.46)	237 (9.33)	260 (10.24)	285 (11.22)	311 (12.24)
TPL	kg (lbs)	2516 (5547)	2354 (5190)	2206 (4863)	2069 (4561)	1943 (4284)	1826 (4026)	1716 (3783)
Deflection	mm (in)	214 (8.43)	238 (9.37)	263 (10.35)	289 (11.38)	316 (12.44)	344 (13.54)	374 (14.72)
QPL	kg (lbs)	1678 (3699)	1570 (3461)	1471 (3243)	1380 (3042)	1295 (2855)	1217 (2683)	1144 (2522)
Deflection	mm (in)	201 (7.91)	224 (8.82)	247 (9.72)	272 (10.71)	298 (11.73)	325 (12.80)	354 (13.94)
FPL	kg (lbs)	1398 (3082)	1308 (2884)	1226 (2703)	1150 (2535)	1079 (2379)	1014 (2235)	954 (2103)
Deflection	mm (in)	212 (8.35)	235 (9.25)	260 (10.24)	285 (11.22)	312 (12.28)	341 (13.43)	370 (14.57)
UDL	kg/m (lbs/ft)	353 (237)	314 (211)	280 (188)	251 (169)	225 (151)	203 (136)	183 (123)
Deflection	mm (in)	210 (8.27)	233 (9.17)	258 (10.16)	283 (11.14)	310 (12.20)	338 (13.31)	368 (14.49)

Span	m (ft)	26.00 (85.30)	27.00 (88.60)	28.00 (91.90)	29.00 (95.10)	31.00 (101.70)	33.00 (108.30)	35.00 (114.80)
CPL	kg (lbs)	2152 (4744)	2024 (4462)	1903 (4195)	1788 (3942)	1577 (3477)	1386 (3056)	1210 (2668)
Deflection	mm (in)	339 (13.35)	368 (14.49)	398 (15.67)	430 (16.93)	498 (19.61)	573 (22.56)	655 (25.79)
TPL	kg (lbs)	1614 (3558)	1518 (3347)	1427 (3146)	1341 (2956)	1183 (2608)	1039 (2291)	908 (2002)
Deflection	mm (in)	405 (15.94)	438 (17.24)	472 (18.58)	507 (19.96)	581 (22.87)	661 (26.02)	746 (29.37)
QPL	kg (lbs)	1076 (2372)	1012 (2231)	951 (2097)	894 (1971)	789 (1739)	693 (1528)	605 (1334)
Deflection	mm (in)	384 (15.12)	415 (16.34)	448 (17.64)	482 (18.98)	554 (21.81)	632 (24.88)	716 (28.19)
FPL	kg (lbs)	897 (1978)	843 (1858)	793 (1748)	745 (1642)	657 (1448)	577 (1272)	504 (1111)
Deflection	mm (in)	401 (15.79)	433 (17.05)	467 (18.39)	502 (19.76)	576 (22.68)	655 (25.79)	740 (29.13)
UDL	kg/m (lbs/ft)	166 (112)	150 (101)	136 (91)	123 (83)	102 (69)	84 (56)	69 (46)
Deflection	mm (in)	399 (15.71)	431 (16.97)	464 (18.27)	499 (19.65)	573 (22.56)	652 (25.67)	737 (29.02)



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 1933-1-12 • 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

# S-M780 Quatro

- 780 x 780 mm tower truss made from bespoke, high-strength steels
- Greatly increased load capacity compared to aluminium truss with similar dimensions for optimised weight to strength ratio
- Orientation-free connectors for ease of use
- Pinned connectors for increased strength
- End frames with 22mm holes for lateral connections on all sides
- Ladder tubes for ease of climbing when used as tower
- Integrated forklift pick up points, double fork couplers, zinc coated pins and matt black, impact-resistant industrial paint finish



Forklift pick up points

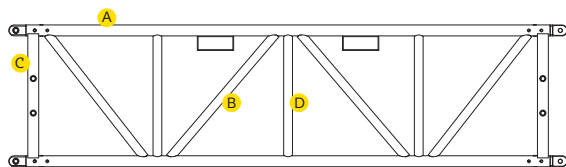
## S-M780 Quatro Tower truss section

S-QTQT	mm	in	Main Chords A:	Diagonals B:	End braces C:	Intermediate cross braces D:	Pin type:
			60.3 x 4 (2.4 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	60 x 60 x 4 (2.4 x 2.4 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	PQ

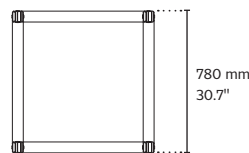
## STANDARD LENGTHS AND WEIGHTS AVAILABLE

S-QTQT	m	ft	1.00	2.00	2.50	3.00	4.00	5.00	6.00
	kg	lbs	(3.28)	(6.56)	(8.20)	(9.84)	(13.12)	(16.41)	(19.68)
			102.20 (225.31)	164.90 (363.54)	181.60 (400.36)	209.60 (462.09)	259.60 (572.32)	304.00 (670.21)	348.4 (768.09)

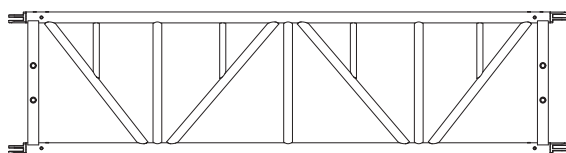
Connection material and packaging are not included in above weights



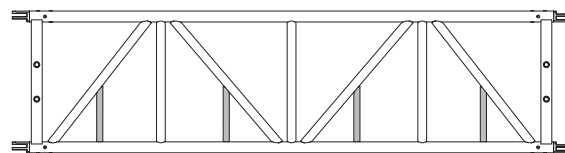
Side view



End view



Top view



Bottom view

# S-QTQT

LOADING CHART

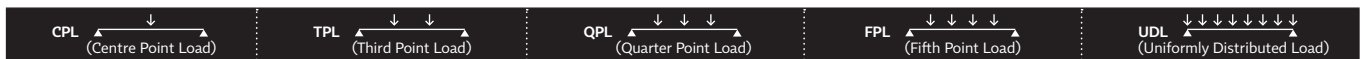
Span	m (ft)	7.00 (23.00)	8.00 (26.20)	9.00 (29.50)	10.00 (32.80)	11.00 (36.10)	12.00 (39.40)	13.00 (42.70)
CPL	kg (lbs)	15719 (34654)	13695 (30192)	12114 (26707)	10843 (23905)	9797 (21599)	8920 (19665)	8173 (18018)
Deflection	mm (in)	15 (0.59)	19 (0.75)	25 (0.98)	30 (1.18)	37 (1.46)	44 (1.73)	52 (2.05)
TPL	kg (lbs)	9470 (20878)	9438 (20807)	9086 (20031)	8132 (17928)	7348 (16200)	6690 (14749)	6130 (13514)
Deflection	mm (in)	15 (0.59)	23 (0.91)	31 (1.22)	39 (1.54)	47 (1.85)	56 (2.20)	65 (2.56)
QPL	kg (lbs)	6313 (13918)	6292 (13871)	6057 (13353)	5421 (11951)	4899 (10800)	4460 (9833)	4087 (9010)
Deflection	mm (in)	14 (0.55)	21 (0.83)	29 (1.14)	36 (1.42)	43 (1.69)	52 (2.05)	61 (2.40)
FPL	kg (lbs)	4735 (10439)	4719 (10404)	4703 (10368)	4518 (9960)	4082 (8999)	3717 (8195)	3406 (7509)
Deflection	mm (in)	14 (0.55)	20 (0.79)	29 (1.14)	38 (1.50)	46 (1.81)	55 (2.17)	64 (2.52)
UDL	kg/m (lbs/ft)	2706 (1818)	2360 (1586)	2090 (1404)	1875 (1260)	1699 (1142)	1487 (999)	1257 (845)
Deflection	mm (in)	11 (0.43)	17 (0.67)	24 (0.94)	33 (1.30)	44 (1.73)	54 (2.13)	64 (2.52)

Span	m (ft)	14.00 (45.90)	15.00 (49.20)	16.00 (52.50)	17.00 (55.80)	18.00 (59.10)	19.00 (62.30)	20.00 (65.60)
CPL	kg (lbs)	7529 (16599)	6966 (15357)	6470 (14264)	6028 (13289)	5632 (12416)	5274 (11627)	4949 (10911)
Deflection	mm (in)	60 (2.36)	69 (2.72)	79 (3.11)	90 (3.54)	101 (3.98)	113 (4.45)	126 (4.96)
TPL	kg (lbs)	5647 (12450)	5225 (11519)	4852 (10697)	4521 (9967)	4224 (9312)	3956 (8721)	3712 (8184)
Deflection	mm (in)	76 (2.99)	87 (3.43)	99 (3.90)	112 (4.41)	126 (4.96)	140 (5.51)	155 (6.10)
QPL	kg (lbs)	3764 (8298)	3483 (7679)	3235 (7132)	3014 (6645)	2816 (6208)	2637 (5814)	2474 (5454)
Deflection	mm (in)	71 (2.80)	81 (3.19)	93 (3.66)	105 (4.13)	118 (4.65)	131 (5.16)	146 (5.75)
FPL	kg (lbs)	3137 (6916)	2903 (6400)	2696 (5944)	2512 (5538)	2347 (5174)	2198 (4846)	2062 (4546)
Deflection	mm (in)	75 (2.95)	86 (3.39)	98 (3.86)	110 (4.33)	124 (4.88)	138 (5.43)	153 (6.02)
UDL	kg/m (lbs/ft)	1076 (723)	929 (624)	809 (544)	709 (476)	626 (421)	555 (373)	495 (333)
Deflection	mm (in)	74 (2.91)	85 (3.35)	97 (3.82)	110 (4.33)	123 (4.84)	137 (5.39)	152 (5.98)

Span	m (ft)	21.00 (68.90)	22.00 (72.20)	23.00 (75.50)	24.00 (78.70)	25.00 (82.00)	26.00 (85.30)	27.00 (88.60)
CPL	kg (lbs)	4652 (10256)	4379 (9654)	4127 (9098)	3893 (8583)	3676 (8104)	3472 (7654)	3282 (7236)
Deflection	mm (in)	139 (5.47)	153 (6.02)	168 (6.61)	184 (7.24)	201 (7.91)	218 (8.58)	237 (9.33)
TPL	kg (lbs)	3489 (7692)	3284 (7240)	3095 (6823)	2920 (6437)	2757 (6078)	2604 (5741)	2462 (5428)
Deflection	mm (in)	171 (6.73)	188 (7.40)	206 (8.11)	225 (8.86)	244 (9.61)	264 (10.39)	285 (11.22)
QPL	kg (lbs)	2326 (5128)	2189 (4826)	2063 (4548)	1947 (4292)	1838 (4052)	1736 (3827)	1641 (3618)
Deflection	mm (in)	161 (6.34)	177 (6.97)	194 (7.64)	211 (8.31)	230 (9.06)	249 (9.80)	270 (10.63)
FPL	kg (lbs)	1938 (4273)	1824 (4021)	1719 (3790)	1622 (3576)	1532 (3377)	1447 (3190)	1368 (3016)
Deflection	mm (in)	169 (6.65)	186 (7.32)	204 (8.03)	222 (8.74)	241 (9.49)	261 (10.28)	282 (11.10)
UDL	kg/m (lbs/ft)	443 (298)	398 (267)	359 (241)	324 (218)	294 (198)	267 (179)	243 (163)
Deflection	mm (in)	168 (6.61)	185 (7.28)	202 (7.95)	221 (8.70)	240 (9.45)	260 (10.24)	280 (11.02)

Span	m (ft)	28.00 (91.90)	29.00 (95.10)	30.00 (98.40)	31.00 (101.70)	32.00 (105.00)	33.00 (108.30)	34.00 (111.50)
CPL	kg (lbs)	3103 (6841)	2934 (6468)	2774 (6116)	2623 (5783)	2479 (5465)	2342 (5163)	2211 (4874)
Deflection	mm (in)	256 (10.08)	276 (10.87)	298 (11.73)	320 (12.60)	343 (13.50)	367 (14.45)	392 (15.43)
TPL	kg (lbs)	2327 (5130)	2201 (4852)	2081 (4588)	1967 (4336)	1859 (4098)	1756 (3871)	1658 (3655)
Deflection	mm (in)	307 (12.09)	330 (12.99)	354 (13.94)	378 (14.88)	404 (15.91)	430 (16.93)	457 (17.99)
QPL	kg (lbs)	1551 (3419)	1467 (3234)	1387 (3058)	1311 (2890)	1239 (2732)	1171 (2582)	1105 (2436)
Deflection	mm (in)	291 (11.46)	313 (12.32)	335 (13.19)	359 (14.13)	384 (15.12)	409 (16.10)	436 (17.17)
FPL	kg (lbs)	1293 (2851)	1223 (2696)	1156 (2549)	1093 (2410)	1033 (2277)	976 (2152)	921 (2030)
Deflection	mm (in)	304 (11.97)	327 (12.87)	350 (13.78)	374 (14.72)	400 (15.75)	426 (16.77)	453 (17.83)
UDL	kg/m (lbs/ft)	222 (149)	202 (136)	185 (124)	169 (114)	155 (104)	142 (95)	130 (87)
Deflection	mm (in)	302 (11.89)	325 (12.80)	348 (13.70)	372 (14.65)	398 (15.67)	424 (16.69)	451 (17.76)

Span	m (ft)	35.00 (114.80)	36.00 (118.10)	37.00 (121.40)	38.00 (124.70)	39.00 (128.00)	40.00 (131.20)
CPL	kg (lbs)	2085 (4597)	1965 (4332)	1850 (4079)	1739 (3834)	1632 (3598)	1529 (3371)
Deflection	mm (in)	418 (16.46)	445 (17.52)	474 (18.66)	503 (19.80)	534 (21.02)	566 (22.28)
TPL	kg (lbs)	1564 (3448)	1474 (3250)	1388 (3060)	1304 (2875)	1224 (2698)	1147 (2529)
Deflection	mm (in)	485 (19.09)	514 (20.24)	544 (21.42)	575 (22.64)	607 (23.90)	639 (25.16)
QPL	kg (lbs)	1043 (2299)	983 (2167)	925 (2039)	870 (1918)	816 (1799)	765 (1687)
Deflection	mm (in)	463 (18.23)	492 (19.37)	521 (20.51)	552 (21.73)	583 (22.95)	615 (24.21)
FPL	kg (lbs)	869 (1916)	819 (1806)	771 (1700)	725 (1598)	680 (1499)	637 (1404)
Deflection	mm (in)	481 (18.94)	510 (20.08)	540 (21.26)	570 (22.44)	602 (23.70)	635 (25.00)
UDL	kg/m (lbs/ft)	119 (80)	109 (73)	100 (67)	92 (62)	84 (56)	76 (51)
Deflection	mm (in)	478 (18.82)	507 (19.96)	537 (21.14)	568 (22.36)	599 (23.58)	632 (24.88)



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 1993-1-2 • 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

# S-M1010 Rect

- 1010 x 580 mm rectangular span section made from bespoke, high-strength steels
- 2.7 times higher bending strength compared to aluminium truss with similar dimensions
- Orientation-free connectors for ease of use
- Pinned connectors for increased strength
- End braces with 22 mm holes for lateral connections
- Optimised truss design for convenient insertion of lateral truss
- Integrated forklift pick up points, double fork couplers, zinc coated pins and matt black, impact-resistant industrial paint finish



Forklift pick up points

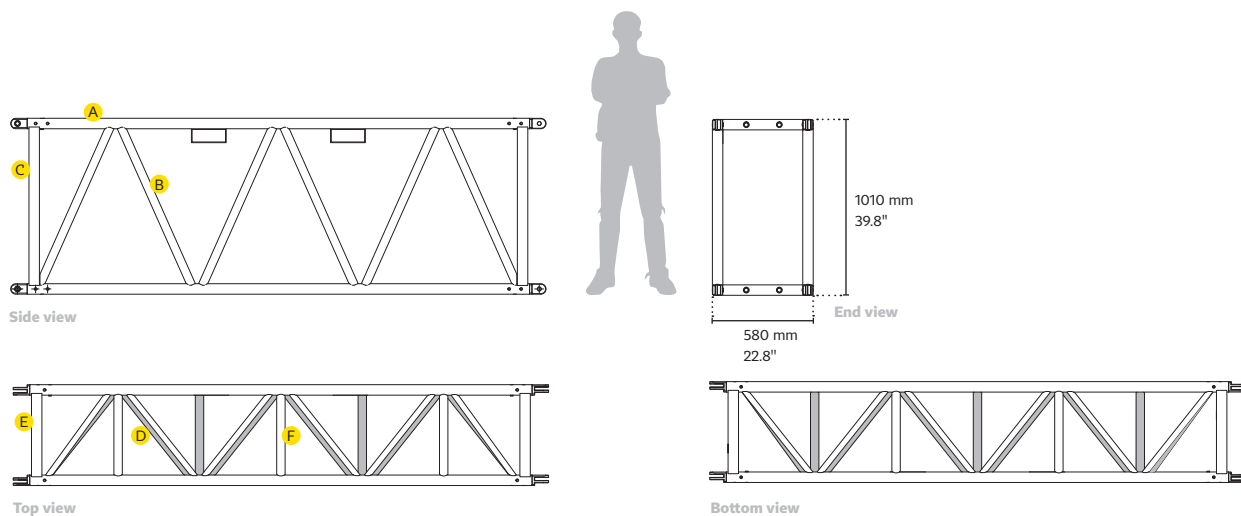
## S-M1010 Rectangular truss section

S-RTD	mm	in	Vertical			Horizontal		Pin type:	
			Main Chords A:	Diagonals B:	End braces C:	Diagonals D:	End braces E:		Intermediate cross braces F:
			60.3 x 4 (24 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	60 x 60 x 4 (24 x 24 x 0.16)	33.7 x 2.6 (1.3 x 0.1)	60 x 60 x 4 (24 x 24 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	PQ

## STANDARD LENGTHS AND WEIGHTS AVAILABLE

S-RTD	m	ft	1.00 (3.28)		2.00 (6.56)		2.50 (8.20)		3.00 (9.84)		4.00 (13.12)		5.00 (16.41)		6.00 (19.68)	
	kg	lbs	106.40 (234.57)	150.70 (332.24)	172.90 (381.18)	195.00 (429.90)	239.30 (527.57)	284.00 (626.11)	328.70 (724.66)							

Connection material and packaging are not included in above weights





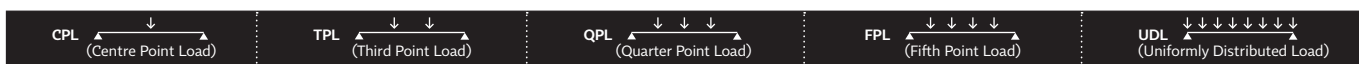
Span	m (ft)	10.00 (32.80)	11.00 (36.10)	12.00 (39.40)	13.00 (42.70)	14.00 (45.90)	15.00 (49.20)	16.00 (52.50)
CPL	kg (lbs)	14407 (31762)	13037 (28742)	11890 (26213)	10915 (24063)	10075 (22212)	9342 (20596)	8697 (19174)
Deflection	mm (in)	23 (0.91)	28 (1.10)	33 (1.30)	39 (1.54)	45 (1.77)	52 (2.05)	60 (2.36)
TPL	kg (lbs)	10805 (23821)	9778 (21557)	8918 (19661)	8186 (18047)	7556 (16658)	7007 (15448)	6523 (14381)
Deflection	mm (in)	29 (1.14)	35 (1.38)	42 (1.65)	49 (1.93)	57 (2.24)	66 (2.60)	75 (2.95)
QPL	kg (lbs)	7204 (15882)	6519 (14372)	5945 (13106)	5458 (12033)	5037 (11105)	4671 (10298)	4349 (9588)
Deflection	mm (in)	27 (1.06)	33 (1.30)	39 (1.54)	46 (1.81)	54 (2.13)	62 (2.44)	70 (2.76)
FPL	kg (lbs)	5649 (12454)	5432 (11976)	4954 (10922)	4548 (10027)	4198 (9255)	3893 (8583)	3624 (7990)
Deflection	mm (in)	27 (1.06)	35 (1.38)	42 (1.65)	49 (1.93)	57 (2.24)	65 (2.56)	74 (2.91)
UDL	kg/m (lbs/ft)	2260 (1519)	2048 (1376)	1872 (1258)	1679 (1128)	1439 (967)	1246 (837)	1087 (730)
Deflection	mm (in)	23 (0.91)	30 (1.18)	39 (1.54)	48 (1.89)	56 (2.20)	65 (2.56)	74 (2.91)

Span	m (ft)	17.00 (55.80)	18.00 (59.10)	19.00 (62.30)	20.00 (65.60)	21.00 (68.90)	22.00 (72.20)	23.00 (75.50)
CPL	kg (lbs)	8125 (17913)	7612 (16782)	7150 (15763)	6731 (14839)	6349 (13997)	5999 (13226)	5676 (12513)
Deflection	mm (in)	68 (2.68)	76 (2.99)	85 (3.35)	94 (3.70)	104 (4.09)	115 (4.53)	126 (4.96)
TPL	kg (lbs)	6093 (13433)	5709 (12586)	5362 (11821)	5048 (11129)	4762 (10498)	4499 (9919)	4257 (9385)
Deflection	mm (in)	85 (3.35)	95 (3.74)	106 (4.17)	118 (4.65)	130 (5.12)	142 (5.59)	156 (6.14)
QPL	kg (lbs)	4062 (8955)	3806 (8391)	3575 (7882)	3366 (7421)	3175 (7000)	2999 (6612)	2838 (6257)
Deflection	mm (in)	79 (3.11)	89 (3.50)	99 (3.90)	110 (4.33)	121 (4.76)	134 (5.28)	146 (5.75)
FPL	kg (lbs)	3385 (7463)	3172 (6993)	2979 (6568)	2805 (6184)	2645 (5831)	2500 (5512)	2365 (5214)
Deflection	mm (in)	84 (3.31)	94 (3.70)	105 (4.13)	116 (4.57)	128 (5.04)	141 (5.55)	154 (6.06)
UDL	kg/m (lbs/ft)	956 (642)	846 (568)	753 (506)	673 (452)	605 (407)	545 (366)	494 (332)
Deflection	mm (in)	83 (3.27)	93 (3.66)	104 (4.09)	115 (4.53)	127 (5.00)	140 (5.51)	153 (6.02)

Span	m (ft)	24.00 (78.70)	25.00 (82.00)	26.00 (85.30)	27.00 (88.60)	28.00 (91.90)	29.00 (95.10)	30.00 (98.40)
CPL	kg (lbs)	5378 (11856)	5101 (11246)	4843 (10677)	4602 (10146)	4376 (9647)	4163 (9178)	3962 (8735)
Deflection	mm (in)	138 (5.43)	150 (5.91)	163 (6.42)	177 (6.97)	191 (7.52)	205 (8.07)	221 (8.70)
TPL	kg (lbs)	4034 (8893)	3826 (8435)	3633 (8009)	3452 (7610)	3282 (7236)	3122 (6883)	2972 (6552)
Deflection	mm (in)	170 (6.69)	184 (7.24)	200 (7.87)	216 (8.50)	232 (9.13)	249 (9.80)	267 (10.51)
QPL	kg (lbs)	2689 (5928)	2551 (5624)	2422 (5340)	2301 (5073)	2188 (4824)	2082 (4590)	1981 (4367)
Deflection	mm (in)	159 (6.26)	173 (6.81)	188 (7.40)	203 (7.99)	219 (8.62)	235 (9.25)	252 (9.92)
FPL	kg (lbs)	2241 (4941)	2126 (4687)	2018 (4449)	1918 (4228)	1823 (4019)	1735 (3825)	1651 (3640)
Deflection	mm (in)	168 (6.61)	182 (7.17)	197 (7.76)	213 (8.39)	229 (9.02)	246 (9.69)	264 (10.39)
UDL	kg/m (lbs/ft)	448 (301)	408 (274)	373 (251)	341 (229)	313 (210)	287 (193)	264 (177)
Deflection	mm (in)	167 (6.57)	181 (7.13)	196 (7.72)	212 (8.35)	228 (8.98)	245 (9.65)	262 (10.31)

Span	m (ft)	31.00 (101.70)	32.00 (105.00)	33.00 (108.30)	34.00 (111.50)	35.00 (114.80)	36.00 (118.10)	37.00 (121.40)
CPL	kg (lbs)	3773 (8318)	3593 (7921)	3422 (7544)	3259 (7185)	3104 (6843)	2955 (6515)	2813 (6202)
Deflection	mm (in)	237 (9.33)	254 (10.00)	271 (10.67)	289 (11.38)	308 (12.13)	328 (12.91)	348 (13.70)
TPL	kg (lbs)	2829 (6237)	2695 (5941)	2566 (5657)	2444 (5388)	2328 (5132)	2217 (4888)	2110 (4652)
Deflection	mm (in)	285 (11.22)	304 (11.97)	324 (12.76)	345 (13.58)	366 (14.41)	387 (15.24)	410 (16.14)
QPL	kg (lbs)	1886 (4158)	1796 (3960)	1711 (3772)	1630 (3594)	1552 (3422)	1478 (3258)	1407 (3102)
Deflection	mm (in)	270 (10.63)	288 (11.34)	307 (12.09)	327 (12.87)	347 (13.66)	368 (14.49)	390 (15.35)
FPL	kg (lbs)	1572 (3466)	1497 (3300)	1426 (3144)	1358 (2994)	1293 (2851)	1231 (2714)	1172 (2584)
Deflection	mm (in)	282 (11.10)	301 (11.85)	321 (12.64)	341 (13.43)	362 (14.25)	383 (15.08)	406 (15.98)
UDL	kg/m (lbs/ft)	243 (163)	225 (151)	207 (139)	192 (129)	177 (119)	164 (110)	152 (102)
Deflection	mm (in)	281 (11.06)	299 (11.77)	319 (12.56)	339 (13.35)	360 (14.17)	381 (15.00)	403 (15.87)

Span	m (ft)	38.00 (125)	39.00 (128)	40.00 (131)	41.00 (135)	42.00 (138)	43.00 (141)	45.00 (148)
CPL	kg (lbs)	2677 (5901.78)	2546 (5612.97)	2421 (5337.39)	2299 (5068.43)	2182 (4810.49)	2069 (4561.36)	1854 (4087.37)
Deflection	mm (in)	369 (15)	391 (15)	414 (16)	438 (17)	462 (18)	487 (19)	540 (21)
TPL	kg (lbs)	2008 (4426.88)	1910 (4210.83)	1815 (4001.39)	1724 (3800.77)	1637 (3608.97)	1552 (3421.57)	1391 (3066.63)
Deflection	mm (in)	433 (17)	456 (18)	481 (19)	506 (20)	532 (21)	558 (22)	613 (24)
QPL	kg (lbs)	1339 (2951.99)	1273 (2806.49)	1210 (2667.59)	1150 (2535.32)	1091 (2405.24)	1035 (2281.78)	927 (2043.69)
Deflection	mm (in)	412 (16)	435 (17)	459 (18)	484 (19)	509 (20)	535 (21)	589 (23)
FPL	kg (lbs)	1116 (2460.36)	1061 (2339.11)	1009 (2224.46)	958 (2112.03)	909 (2004.00)	862 (1900.39)	773 (1704.17)
Deflection	mm (in)	429 (17)	452 (18)	476 (19)	501 (20)	527 (21)	553 (22)	608 (24)
UDL	kg/m (lbs/ft)	141 (94.75)	131 (88.03)	121 (81.31)	112 (75.26)	104 (69.88)	96 (64.51)	82 (55.10)
Deflection	mm (in)	426 (16.77)	450 (17.7165)	474 (18.66138)	499 (19.64)	525 (20.66)	551 (21.69)	606 (23.85)



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

# S-M1010 Trio

- 1010 x 580 mm triangular steel truss made from bespoke, high-strength steels
- 2.7 times higher bending strength compared to aluminium truss with similar dimensions
- Can be inserted as cross truss into the larger S-M1450 steel truss
- Orientation-free connectors for ease of use
- Pinned connectors for increased strength
- End brace with 22 mm holes for the connection of e.g. wind bracings
- Optimised truss design for convenient insertion of lateral truss
- Integrated forklift pick up points, double fork couplers, zinc coated pins and matt black, impact-resistant industrial paint finish



Fork couplers

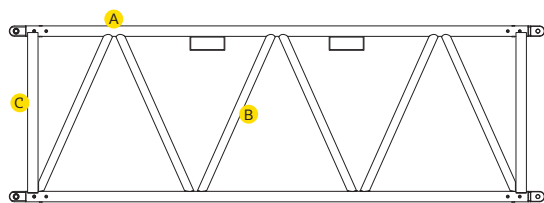
## S-M1010 Triangular truss section

S-FTD	mm	in	Vertical			Horizontal		Pin type:	
			Main Chords A:	Diagonals B:	End braces C:	Diagonals D:	End braces E:		Intermediate cross braces F:
			60.3 x 4 (24 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	60 x 60 x 4 (24 x 24 x 0.16)	33.7 x 2.6 (1.3 x 0.1)	60 x 60 x 4 (24 x 24 x 0.16)	48.3x3.2 (1.9x0.1)	PQ-FTD & PQ

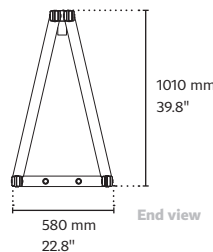
## STANDARD LENGTHS AND WEIGHTS AVAILABLE

S-FTD	m		ft		kg		lbs	
	1.00 (3.28)	2.00 (6.56)	2.50 (8.20)	3.00 (9.84)	4.00 (13.12)	5.00 (16.41)	6.00 (19.68)	
	95.00 (209.44)	140.90 (310.63)	159.00 (350.53)	176.70 (389.56)	217.60 (479.73)	258.30 (569.45)	299.00 (659.18)	

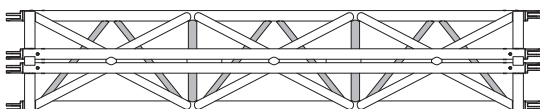
Connection material and packaging are not included in above weights



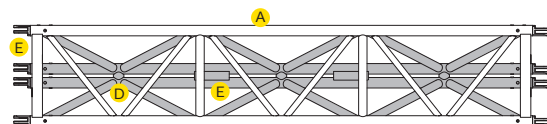
Side view



End view



Top view



Bottom view



# S-FTD

LOADING CHART

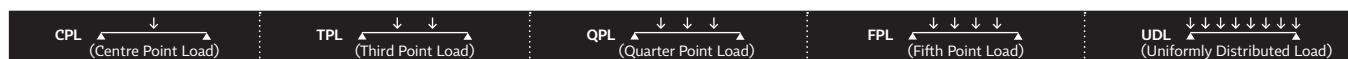
Span	m (ft)	10.00 (32.80)	11.00 (36.10)	12.00 (39.40)	13.00 (42.70)	14.00 (45.90)	15.00 (49.20)	16.00 (52.50)
CPL	kg (lbs)	14407 (31762)	13037 (28742)	11890 (26213)	10915 (24063)	10075 (22212)	9342 (20596)	8697 (19174)
Deflection	mm (in)	23 (0.91)	28 (1.10)	33 (1.30)	39 (1.54)	45 (1.77)	52 (2.05)	60 (2.36)
TPL	kg (lbs)	10805 (23821)	9778 (21557)	8918 (19661)	8186 (18047)	7556 (16658)	7007 (15448)	6523 (14381)
Deflection	mm (in)	29 (1.14)	35 (1.38)	42 (1.65)	49 (1.93)	57 (2.24)	66 (2.60)	75 (2.95)
QPL	kg (lbs)	7204 (15882)	6519 (14372)	5945 (13106)	5458 (12033)	5037 (11105)	4671 (10298)	4349 (9588)
Deflection	mm (in)	27 (1.06)	33 (1.30)	39 (1.54)	46 (1.81)	54 (2.13)	62 (2.44)	70 (2.76)
FPL	kg (lbs)	5451 (12017)	5432 (11976)	4954 (10922)	4548 (10027)	4198 (9255)	3893 (8583)	3624 (7990)
Deflection	mm (in)	26 (1.02)	35 (1.38)	42 (1.65)	49 (1.93)	57 (2.24)	65 (2.56)	74 (2.91)
UDL	kg/m (lbs/ft)	2180 (1465)	1976 (1328)	1806 (1214)	1663 (1117)	1439 (967)	1246 (837)	1087 (730)
Deflection	mm (in)	22 (0.87)	29 (1.14)	38 (1.50)	48 (1.89)	56 (2.20)	65 (2.56)	74 (2.91)

Span	m (ft)	17.00 (55.80)	18.00 (59.10)	19.00 (62.30)	20.00 (65.60)	21.00 (68.90)	22.00 (72.20)	23.00 (75.50)
CPL	kg (lbs)	8125 (17913)	7612 (16782)	7150 (15763)	6731 (14839)	6349 (13997)	5999 (13226)	5676 (12513)
Deflection	mm (in)	68 (2.68)	76 (2.99)	85 (3.35)	94 (3.70)	104 (4.09)	115 (4.53)	126 (4.96)
TPL	kg (lbs)	6093 (13433)	5709 (12586)	5362 (11821)	5048 (11129)	4762 (10498)	4499 (9919)	4257 (9385)
Deflection	mm (in)	85 (3.35)	95 (3.74)	106 (4.17)	118 (4.65)	130 (5.12)	142 (5.59)	156 (6.14)
QPL	kg (lbs)	4062 (8955)	3806 (8391)	3575 (7882)	3366 (7421)	3175 (7000)	2999 (6612)	2838 (6257)
Deflection	mm (in)	79 (3.11)	89 (3.50)	99 (3.90)	110 (4.33)	121 (4.76)	134 (5.28)	146 (5.75)
FPL	kg (lbs)	3385 (7463)	3172 (6993)	2979 (6568)	2805 (6184)	2645 (5831)	2500 (5512)	2365 (5214)
Deflection	mm (in)	84 (3.31)	94 (3.70)	105 (4.13)	116 (4.57)	128 (5.04)	141 (5.55)	154 (6.06)
UDL	kg/m (lbs/ft)	956 (642)	846 (568)	753 (506)	673 (452)	605 (407)	545 (366)	494 (332)
Deflection	mm (in)	83 (3.27)	93 (3.66)	104 (4.09)	115 (4.53)	127 (5.00)	140 (5.51)	153 (6.02)

Span	m (ft)	24.00 (78.70)	25.00 (82.00)	26.00 (85.30)	27.00 (88.60)	28.00 (91.90)	29.00 (95.10)	30.00 (98.40)
CPL	kg (lbs)	5378 (11856)	5101 (11246)	4843 (10677)	4602 (10146)	4376 (9647)	4163 (9178)	3962 (8735)
Deflection	mm (in)	138 (5.43)	150 (5.91)	163 (6.42)	177 (6.97)	191 (7.52)	205 (8.07)	221 (8.70)
TPL	kg (lbs)	4034 (8893)	3826 (8435)	3633 (8009)	3452 (7610)	3282 (7236)	3122 (6883)	2972 (6552)
Deflection	mm (in)	170 (6.69)	184 (7.24)	200 (7.87)	216 (8.50)	232 (9.13)	249 (9.80)	267 (10.51)
QPL	kg (lbs)	2689 (5928)	2551 (5624)	2422 (5340)	2301 (5073)	2188 (4824)	2082 (4590)	1981 (4367)
Deflection	mm (in)	159 (6.26)	173 (6.81)	188 (7.40)	203 (7.99)	219 (8.62)	235 (9.25)	252 (9.92)
FPL	kg (lbs)	2241 (4941)	2126 (4687)	2018 (4449)	1918 (4228)	1823 (4019)	1735 (3825)	1651 (3640)
Deflection	mm (in)	168 (6.61)	182 (7.17)	197 (7.76)	213 (8.39)	229 (9.02)	246 (9.69)	264 (10.39)
UDL	kg/m (lbs/ft)	448 (301)	408 (274)	373 (251)	341 (229)	313 (210)	287 (193)	264 (177)
Deflection	mm (in)	167 (6.57)	181 (7.13)	196 (7.72)	212 (8.35)	228 (8.98)	245 (9.65)	262 (10.31)

Span	m (ft)	31.00 (101.70)	32.00 (105.00)	33.00 (108.30)	34.00 (111.50)	35.00 (114.80)	36.00 (118.10)	37.00 (121.40)
CPL	kg (lbs)	3773 (8318)	3593 (7921)	3422 (7544)	3259 (7185)	3104 (6843)	2955 (6515)	2813 (6202)
Deflection	mm (in)	237 (9.33)	254 (10.00)	271 (10.67)	289 (11.38)	308 (12.13)	328 (12.91)	348 (13.70)
TPL	kg (lbs)	2829 (6237)	2695 (5941)	2566 (5657)	2444 (5388)	2328 (5132)	2217 (4888)	2110 (4652)
Deflection	mm (in)	285 (11.22)	304 (11.97)	324 (12.76)	345 (13.58)	366 (14.41)	387 (15.24)	410 (16.14)
QPL	kg (lbs)	1886 (4158)	1796 (3960)	1711 (3772)	1630 (3594)	1552 (3422)	1478 (3258)	1407 (3102)
Deflection	mm (in)	270 (10.63)	288 (11.34)	307 (12.09)	327 (12.87)	347 (13.66)	368 (14.49)	390 (15.35)
FPL	kg (lbs)	1572 (3466)	1497 (3300)	1426 (3144)	1358 (2994)	1293 (2851)	1231 (2714)	1172 (2584)
Deflection	mm (in)	282 (11.10)	301 (11.85)	321 (12.64)	341 (13.43)	362 (14.25)	383 (15.08)	406 (15.98)
UDL	kg/m (lbs/ft)	243 (163)	225 (151)	207 (139)	192 (129)	177 (119)	164 (110)	152 (102)
Deflection	mm (in)	281 (11.06)	299 (11.77)	319 (12.56)	339 (13.35)	360 (14.17)	381 (15.00)	403 (15.87)

Span	m (ft)	38.00 (125)	39.00 (128)	40.00 (131)	41.00 (135)	42.00 (138)	43.00 (141)	45.00 (148)
CPL	kg (lbs)	2677 (5901.78)	2546 (5612.97)	2421 (5337.39)	2299 (5068.43)	2182 (4810.49)	2069 (4561.36)	1854 (4087.37)
Deflection	mm (in)	369 (15)	391 (15)	414 (16)	438 (17)	462 (18)	487 (19)	540 (21)
TPL	kg (lbs)	2008 (4426.88)	1910 (4210.83)	1815 (4001.39)	1724 (3800.77)	1637 (3608.97)	1552 (3421.57)	1391 (3066.63)
Deflection	mm (in)	433 (17)	456 (18)	481 (19)	506 (20)	532 (21)	558 (22)	613 (24)
QPL	kg (lbs)	1339 (2951.99)	1273 (2806.49)	1210 (2667.59)	1150 (2535.32)	1091 (2405.24)	1035 (2281.78)	927 (2043.69)
Deflection	mm (in)	412 (16)	435 (17)	459 (18)	484 (19)	509 (20)	535 (21)	589 (23)
FPL	kg (lbs)	1116 (2460.36)	1061 (2339.11)	1009 (2224.46)	958 (2112.03)	909 (2004.00)	862 (1900.39)	773 (1704.17)
Deflection	mm (in)	429 (17)	452 (18)	476 (19)	501 (20)	527 (21)	553 (22)	608 (24)
UDL	kg/m (lbs/ft)	141 (94.75)	131 (88.03)	121 (81.31)	112 (75.26)	104 (69.88)	96 (64.51)	82 (55.10)
Deflection	mm (in)	426 (16.77)	450 (17.71)	474 (18.66)	499 (19.64)	525 (20.66)	551 (21.69)	606 (23.85)



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

# 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

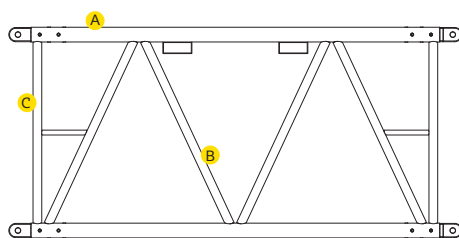
## S-M1450 Rectangular truss section

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

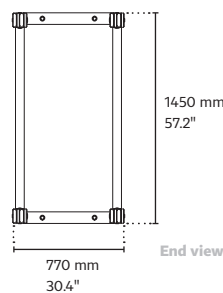
## STANDARD LENGTHS AND WEIGHTS AVAILABLE

S-RTW	m	ft	1.00 (3.28)		2.00 (6.56)		2.50 (8.20)		3.00 (9.84)		4.00 (13.12)		5.00 (16.41)		6.00 (19.68)	
	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)							

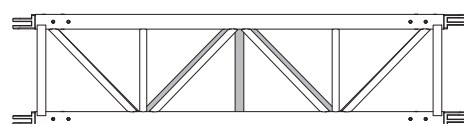
Connection material and packaging are not included in above weights



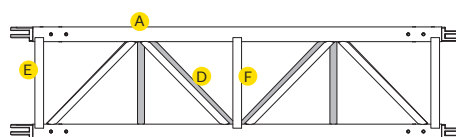
Side view



End view



Top view



Bottom view

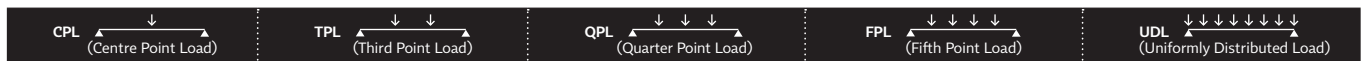
Span	m (ft)	15.00 (49.20)	16.00 (52.50)	17.00 (55.80)	18.00 (59.10)	19.00 (62.30)	20.00 (65.60)	21.00 (68.90)
CPL	kg (lbs)	30379 (66974)	28367 (62539)	26584 (58608)	24994 (55102)	23564 (51950)	22272 (49101)	21097 (46511)
Deflection	mm (in)	47 (1.85)	54 (2.13)	61 (2.40)	68 (2.68)	76 (2.99)	85 (3.35)	93 (3.66)
TPL	kg (lbs)	21123 (46568)	21064 (46438)	19938 (43956)	18745 (41326)	17673 (38962)	16704 (36826)	15823 (34884)
Deflection	mm (in)	56 (2.20)	67 (2.64)	77 (3.03)	86 (3.39)	96 (3.78)	107 (4.21)	118 (4.65)
QPL	kg (lbs)	14082 (31046)	14043 (30960)	13292 (29304)	12497 (27551)	11782 (25975)	11136 (24551)	10549 (23257)
Deflection	mm (in)	52 (2.05)	63 (2.48)	72 (2.83)	80 (3.15)	90 (3.54)	99 (3.90)	110 (4.33)
FPL	kg (lbs)	10561 (23283)	10532 (23219)	10503 (23155)	10414 (22959)	9819 (21647)	9280 (20459)	8791 (19381)
Deflection	mm (in)	50 (1.97)	60 (2.36)	72 (2.83)	85 (3.35)	95 (3.74)	105 (4.13)	116 (4.57)
UDL	kg/m (lbs/ft)	2816 (1892)	2633 (1769)	2471 (1660)	2327 (1564)	2199 (1478)	2083 (1400)	1978 (1329)
Deflection	mm (in)	41 (1.61)	50 (1.97)	60 (2.36)	71 (2.80)	84 (3.31)	98 (3.86)	113 (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)
CPL	kg (lbs)	20024 (44145)	19039 (41974)	18131 (39972)	17291 (38120)	16511 (36401)	15785 (34800)	15106 (33303)
Deflection	mm (in)	103 (4.06)	113 (4.45)	123 (4.84)	134 (5.28)	145 (5.71)	157 (6.18)	169 (6.65)
TPL	kg (lbs)	15018 (33109)	14279 (31480)	13598 (29978)	12968 (28590)	12384 (27302)	11839 (26101)	11330 (24978)
Deflection	mm (in)	129 (5.08)	141 (5.55)	154 (6.06)	167 (6.57)	181 (7.13)	195 (7.68)	210 (8.27)
QPL	kg (lbs)	10012 (22073)	9519 (20986)	9066 (19987)	8646 (19061)	8256 (18201)	7893 (17401)	7553 (16652)
Deflection	mm (in)	121 (4.76)	132 (5.20)	144 (5.67)	156 (6.14)	169 (6.65)	182 (7.17)	196 (7.72)
FPL	kg (lbs)	8343 (18393)	7933 (17489)	7555 (16656)	7205 (15884)	6880 (15168)	6577 (14500)	6294 (13876)
Deflection	mm (in)	127 (5.00)	139 (5.47)	152 (5.98)	165 (6.50)	178 (7.01)	192 (7.56)	207 (8.15)
UDL	kg/m (lbs/ft)	1820 (1223)	1656 (1113)	1511 (1015)	1383 (929)	1270 (853)	1169 (786)	1079 (725)
Deflection	mm (in)	126 (4.96)	138 (5.43)	151 (5.94)	164 (6.46)	177 (6.97)	191 (7.52)	206 (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)
CPL	kg (lbs)	14470 (31901)	13873 (30585)	13310 (29344)	12779 (28173)	12277 (27066)	11800 (26015)	11348 (25018)
Deflection	mm (in)	182 (7.17)	195 (7.68)	209 (8.23)	223 (8.78)	238 (9.37)	253 (9.96)	269 (10.59)
TPL	kg (lbs)	10853 (23927)	10405 (22939)	9983 (22009)	9585 (21131)	9208 (20300)	8850 (19511)	8511 (18764)
Deflection	mm (in)	225 (8.86)	241 (9.49)	258 (10.16)	275 (10.83)	292 (11.50)	310 (12.20)	329 (12.95)
QPL	kg (lbs)	7235 (15950)	6937 (15293)	6655 (14672)	6390 (14088)	6138 (13532)	5900 (13007)	5674 (12509)
Deflection	mm (in)	211 (8.31)	226 (8.90)	242 (9.53)	258 (10.16)	275 (10.83)	292 (11.50)	310 (12.20)
FPL	kg (lbs)	6029 (13292)	5780 (12743)	5546 (12227)	5325 (11740)	5115 (11277)	4917 (10840)	4728 (10423)
Deflection	mm (in)	222 (8.74)	238 (9.37)	254 (10.00)	271 (10.67)	289 (11.38)	307 (12.09)	325 (12.80)
UDL	kg/m (lbs/ft)	998 (671)	925 (622)	859 (577)	799 (537)	744 (500)	694 (466)	648 (435)
Deflection	mm (in)	221 (8.70)	236 (9.29)	253 (9.96)	269 (10.59)	287 (11.30)	305 (12.01)	323 (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)
CPL	kg (lbs)	10917 (31901)	10507 (23164)	10115 (22300)	9740 (21473)	9381 (20682)	9037 (19923)	8706 (19193)
Deflection	mm (in)	286 (7.17)	303 (11.93)	321 (12.64)	339 (13.35)	358 (14.09)	377 (14.84)	397 (15.63)
TPL	kg (lbs)	8188 (23927)	7880 (17372)	7586 (16724)	7305 (16105)	7036 (15512)	6778 (14943)	6529 (14394)
Deflection	mm (in)	349 (8.86)	368 (14.49)	389 (15.31)	410 (16.14)	432 (17.01)	454 (17.87)	477 (18.78)
QPL	kg (lbs)	5459 (15950)	5253 (11581)	5057 (11149)	4870 (10737)	4691 (10342)	4518 (9960)	4353 (9597)
Deflection	mm (in)	328 (8.31)	347 (13.66)	367 (14.45)	387 (15.24)	408 (16.06)	429 (16.89)	451 (17.76)
FPL	kg (lbs)	4549 (13292)	4378 (9652)	4215 (9292)	4058 (8946)	3909 (8618)	3765 (8300)	3627 (7996)
Deflection	mm (in)	345 (8.74)	364 (14.33)	385 (15.16)	405 (15.94)	427 (16.81)	449 (17.68)	472 (18.58)
UDL	kg/m (lbs/ft)	607 (671)	568 (382)	532 (357)	499 (335)	469 (315)	441 (296)	415 (279)
Deflection	mm (in)	342 (8.70)	362 (14.25)	382 (15.04)	403 (15.87)	424 (16.69)	446 (17.56)	469 (18.46)

Span	m (ft)	43.00 (141)	44.00 (144)	45.00 (148)	46.00 (151)	47.00 (154)	48.00 (157)	50.00 (164)
CPL	kg (lbs)	8388 (18492.38)	8082 (17817.76)	7786 (17165.19)	7501 (16536.88)	7226 (15930.61)	6960 (15344.18)	6452 (14224.23)
Deflection	mm (in)	418 (16)	440 (17)	462 (18)	484 (19)	508 (20)	532 (21)	582 (23)
TPL	kg (lbs)	6291 (13869.28)	6061 (13362.22)	5840 (12875.00)	5626 (12403.21)	5419 (11946.85)	5220 (11508.13)	4839 (10668.17)
Deflection	mm (in)	500 (20)	524 (21)	549 (22)	574 (23)	600 (24)	626 (25)	681 (27)
QPL	kg (lbs)	4194 (9246.19)	4041 (8908.88)	3893 (8582.60)	3751 (8269.54)	3613 (7965.30)	3480 (7672.09)	3226 (7112.11)
Deflection	mm (in)	474 (19)	497 (20)	520 (20)	545 (21)	570 (22)	596 (23)	649 (26)
FPL	kg (lbs)	3495 (7705.16)	3367 (7422.97)	3244 (7151.80)	3126 (6891.65)	3011 (6638.12)	2900 (6393.41)	2688 (5926.03)
Deflection	mm (in)	495 (19)	519 (20)	543 (21)	568 (22)	594 (23)	620 (24)	675 (27)
UDL	kg/m (lbs/ft)	390 (262.07)	367 (246.61)	346 (232.50)	326 (219.06)	307 (206.29)	290 (194.87)	258 (173.37)
Deflection	mm (in)	492 (19.37)	516 (20.31)	540 (21.25)	565 (22.24)	591 (23.26)	617 (24.29)	671 (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

# S-M2000 Fold

- 2002 x 772 mm foldable truss for optimised transport and storage, and made from bespoke, high strength steels
- Unique product for the event industry with increased loading on extremely wide spans
- Orientation-free connectors for ease of use
- Optimised weight to strength ratio
- Pinned connectors for increased strength
- Optimised webbing pattern for ease of use when assembling cross trusses
- Integrated forklift pick up points, double fork couplers, zinc coated pins and matt black, impact-resistant industrial paint finish



Detail of hinge

## S-M2000 Foldable truss section

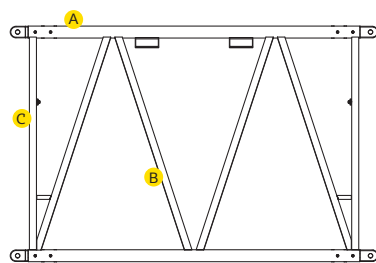
S-FTZ	mm	in	Vertical		Horizontal		Pin type:
			Main Chords A:	Diagonals B:	End braces C:	Diagonals D:	
			101.6 x 4 (4 x 0.16)	60 x 60 x 4 (2.4 x 2.4 x 0.16)	60 x 60 x 4 (2.4 x 2.4 x 0.16)	48.3 x 3.2 (1.9 x 0.1)	PW-FTZ & PW

## STANDARD LENGTHS AND WEIGHTS AVAILABLE

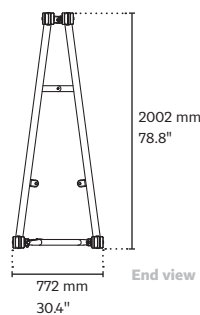
S-FTZ	m	ft	1.00 (3.28)		2.00 (6.56)		2.50 (8.20)		3.00 (9.84)		4.00 (13.12)		5.00 (16.41)		6.00 (19.68)	
	kg	lbs	243.20 (536.16)	350.00 (771.62)	387.20 (853.62)	424.30 (935.42)	525.40 (1158.31)	627.10 (1382.52)	728.70 (1606.51)							

Connection material and packaging are not included in above weights

### In-service

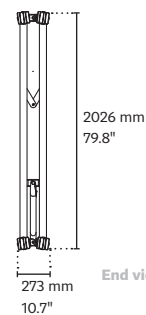


Side view

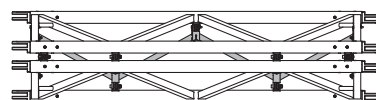


End view

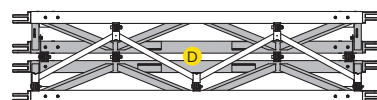
### Transport mode



End view



Top view



Bottom view



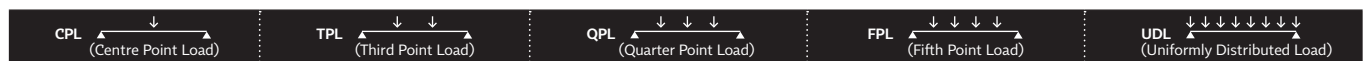
Span	m (ft)	25.00 (82.00)	26.00 (85.30)	27.00 (88.60)	28.00 (91.90)	29.00 (95.10)	30.00 (98.40)	31.00 (101.70)
CPL	kg (lbs)	24932 (54966)	23858 (52598)	22860 (50398)	21928 (48343)	21057 (46423)	20240 (44622)	19472 (42928)
Deflection	mm (in)	94 (3.70)	102 (4.02)	110 (4.33)	119 (4.69)	128 (5.04)	137 (5.39)	147 (5.79)
TPL	kg (lbs)	16699 (36815)	16640 (36685)	16582 (36557)	16446 (36257)	15793 (34818)	15180 (33466)	14604 (32196)
Deflection	mm (in)	107 (4.21)	120 (4.72)	134 (5.28)	149 (5.87)	160 (6.30)	171 (6.73)	183 (7.20)
QPL	kg (lbs)	11133 (24544)	11094 (24458)	11055 (24372)	10964 (24171)	10529 (23212)	10120 (22311)	9736 (21664)
Deflection	mm (in)	100 (3.94)	112 (4.41)	125 (4.92)	139 (5.47)	149 (5.87)	160 (6.30)	171 (6.73)
FPL	kg (lbs)	8349 (18406)	8320 (18342)	8291 (18279)	8262 (18215)	8232 (18148)	8203 (18085)	8113 (17886)
Deflection	mm (in)	95 (3.74)	107 (4.21)	120 (4.72)	134 (5.28)	149 (5.87)	165 (6.50)	180 (7.09)
UDL	kg/m (lbs/ft)	1336 (898)	1280 (860)	1228 (825)	1180 (793)	1136 (763)	1094 (735)	1055 (709)
Deflection	mm (in)	80 (3.15)	90 (3.54)	101 (3.98)	113 (4.45)	125 (4.92)	139 (5.47)	153 (6.02)

Span	m (ft)	32.00 (105.00)	33.00 (108.30)	34.00 (111.50)	35.00 (114.80)	36.00 (118.10)	37.00 (121.40)	38.00 (124.70)
CPL	kg (lbs)	18748 (41332)	18065 (39827)	17418 (38400)	16805 (37049)	16223 (35766)	15669 (34544)	15142 (33382)
Deflection	mm (in)	157 (6.18)	167 (6.57)	177 (6.97)	189 (7.44)	200 (7.87)	212 (8.35)	224 (8.82)
TPL	kg (lbs)	14061 (30999)	13549 (29870)	13064 (28801)	12604 (27787)	12167 (26824)	11752 (25909)	11356 (25036)
Deflection	mm (in)	195 (7.68)	207 (8.15)	220 (8.66)	233 (9.17)	247 (9.72)	261 (10.28)	275 (10.83)
QPL	kg (lbs)	9374 (20666)	9033 (19914)	8709 (19200)	8403 (18525)	8112 (17884)	7835 (17273)	7571 (16691)
Deflection	mm (in)	182 (7.17)	194 (7.64)	206 (8.11)	219 (8.62)	232 (9.13)	245 (9.65)	259 (10.20)
FPL	kg (lbs)	7812 (17223)	7527 (16594)	7258 (16001)	7002 (15437)	6760 (14903)	6529 (14394)	6309 (13909)
Deflection	mm (in)	192 (7.56)	205 (8.07)	217 (8.54)	230 (9.06)	244 (9.61)	258 (10.16)	272 (10.71)
UDL	kg/m (lbs/ft)	1018 (684)	984 (661)	951 (639)	921 (619)	892 (599)	847 (569)	797 (536)
Deflection	mm (in)	168 (6.61)	185 (7.28)	202 (7.95)	221 (8.70)	240 (9.45)	256 (10.08)	270 (10.63)

Span	m (ft)	39.00 (128.00)	40.00 (131.20)	41.00 (134.50)	42.00 (137.80)	43.00 (141.10)	44.00 (144.40)	45.00 (147.60)
CPL	kg (lbs)	14638 (32271)	14156 (31209)	13695 (30192)	13254 (29220)	12830 (28285)	12423 (27388)	12031 (26524)
Deflection	mm (in)	236 (9.29)	249 (9.80)	263 (10.35)	276 (10.87)	290 (11.42)	305 (12.01)	320 (12.60)
TPL	kg (lbs)	10978 (24202)	10617 (23406)	10272 (22646)	9940 (21914)	9622 (21213)	9317 (20540)	9023 (19892)
Deflection	mm (in)	290 (11.42)	306 (12.05)	321 (12.64)	337 (13.27)	354 (13.94)	371 (14.61)	388 (15.28)
QPL	kg (lbs)	7319 (16136)	7078 (15604)	6848 (15097)	6627 (14610)	6415 (14143)	6211 (13693)	6015 (13261)
Deflection	mm (in)	273 (10.75)	287 (11.30)	302 (11.89)	318 (12.52)	333 (13.11)	349 (13.74)	366 (14.41)
FPL	kg (lbs)	6099 (13446)	5898 (13003)	5706 (12580)	5522 (12174)	5346 (11786)	5176 (11411)	5013 (11052)
Deflection	mm (in)	287 (11.30)	302 (11.89)	318 (12.52)	333 (13.11)	350 (13.78)	367 (14.45)	384 (15.12)
UDL	kg/m (lbs/ft)	751 (505)	708 (476)	668 (449)	631 (424)	597 (401)	565 (380)	535 (360)
Deflection	mm (in)	285 (11.22)	300 (11.81)	315 (12.40)	331 (13.03)	347 (13.66)	364 (14.33)	381 (15.00)

Span	m (ft)	46.00 (150.90)	47.00 (154.20)	48.00 (157.50)	49.00 (160.80)	50.00 (164.00)	51.00 (167.30)	52.00 (170.60)
CPL	kg (lbs)	11654 (25693)	11290 (24890)	10939 (24116)	10600 (23369)	10272 (22646)	9955 (21947)	9647 (21268)
Deflection	mm (in)	335 (13.19)	351 (13.82)	367 (14.45)	384 (15.12)	401 (15.79)	418 (16.46)	436 (17.17)
TPL	kg (lbs)	8740 (19268)	8467 (18667)	8204 (18087)	7950 (17527)	7704 (16984)	7466 (16460)	7236 (15953)
Deflection	mm (in)	406 (15.98)	424 (16.69)	442 (17.40)	461 (18.15)	481 (18.94)	501 (19.72)	521 (20.51)
QPL	kg (lbs)	5827 (12846)	5645 (12445)	5469 (12057)	5300 (11685)	5136 (11323)	4977 (10972)	4824 (10635)
Deflection	mm (in)	383 (15.08)	400 (15.75)	418 (16.46)	436 (17.17)	455 (17.91)	474 (18.66)	493 (19.41)
FPL	kg (lbs)	4856 (10706)	4704 (10371)	4558 (10049)	4417 (9738)	4280 (9436)	4148 (9145)	4020 (8863)
Deflection	mm (in)	401 (15.79)	419 (16.50)	438 (17.24)	456 (17.95)	476 (18.74)	495 (19.49)	515 (20.28)
UDL	kg/m (lbs/ft)	507 (341)	480 (323)	456 (306)	433 (291)	411 (276)	390 (262)	371 (249)
Deflection	mm (in)	399 (15.71)	417 (16.42)	435 (17.13)	454 (17.87)	473 (18.62)	492 (19.37)	512 (20.16)

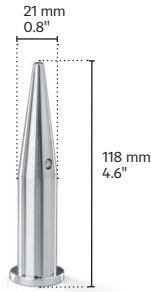
Span	m (ft)	53.00 (174)	54.00 (177)	55.00 (180)	56.00 (184)	57.00 (187)	58.00 (190)	60.00 (197)
CPL	kg (lbs)	9350 (20613.23)	9061 (19976.09)	8780 (19356.59)	8507 (18754.73)	8242 (18170.50)	7984 (17601.71)	7488 (16508.22)
Deflection	mm (in)	455 (18)	474 (19)	493 (19)	513 (20)	533 (21)	554 (22)	598 (24)
TPL	kg (lbs)	7012 (15458.82)	6795 (14980.41)	6585 (14517.44)	6380 (14065.49)	6181 (13626.77)	5988 (13201.28)	5616 (12381.16)
Deflection	mm (in)	541 (21)	563 (22)	584 (23)	606 (24)	628 (25)	651 (26)	698 (27)
QPL	kg (lbs)	4675 (10306.61)	4530 (9986.94)	4390 (9678.29)	4254 (9378.47)	4121 (9085.25)	3992 (8800.86)	3744 (8254.11)
Deflection	mm (in)	513 (20)	534 (21)	555 (22)	576 (23)	598 (24)	620 (24)	665 (26)
FPL	kg (lbs)	3896 (8589.21)	3775 (8322.45)	3658 (8064.51)	3545 (7815.39)	3434 (7570.68)	3327 (7334.78)	3120 (6878.42)
Deflection	mm (in)	536 (21)	557 (22)	578 (23)	600 (24)	622 (24)	645 (25)	692 (27)
UDL	kg/m (lbs/ft)	353 (237.21)	336 (225.78)	319 (214.36)	304 (204.28)	289 (194.20)	275 (184.79)	250 (167.99)
Deflection	mm (in)	533 (20.98)	554 (21.81)	575 (22.63)	597 (23.50)	619 (24.37)	641 (25.23)	688 (27.08)



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 1993-1-2 • 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

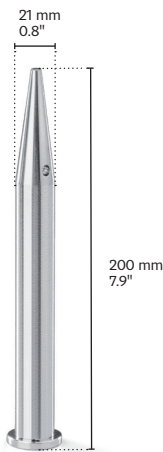
# Accessories



## PQ

Series	kg	lbs
S-M530 Quatro	0.2	(0.4)
S-M780 Quatro		
S-M1010 Rect		
S-M1010 Trio		

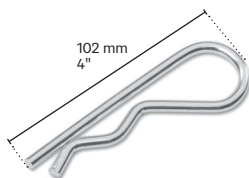
Pin Q



## PQ-FTD

Series	kg	lbs
S-M1010 Trio	0.5	(1.1)

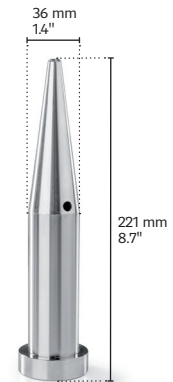
Pin Q-FTD



## SRPQ

Series	kg	lbs
S-M530 Quatro	0.03	(0.07)
S-M780 Quatro		
S-M1010 Rect		
S-M1010 Trio		

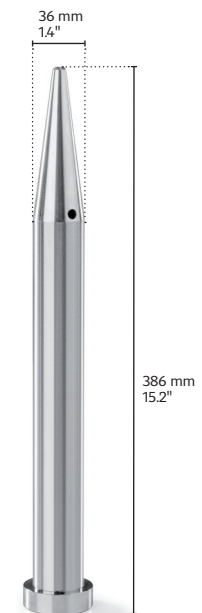
Safety R clip Q



## PW

Series	kg	lbs
S-M1450 Rect	1.4	(3.1)
S-FTZ Fold		

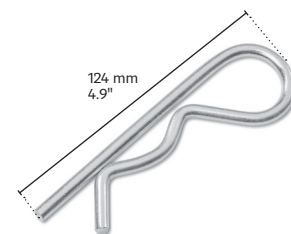
Pin W



## PW-FTZ

Series	kg	lbs
S-FTZ Fold	2.7	(5.9)

Pin W-FTZ



## SRPW

Series	kg	lbs
S-M1450 Rect	0.06	(0.13)
S-FTZ Fold Trio		

Safety R clip W



# MILOS

## tests its new steel truss line



## Truss spans that support 47 tons? Absolutely!!

In February 2018, Milos s.r.o. carried out load tests for two types of its new steel truss series – the large 1450 mm S-RTW and 780 mm high S-QTQT tower truss. The final test of the day included one 16 metre span supporting 47 tons! Hard to believe? Read on...

Since 1994, MILOS has strictly focused on the manufacture of aluminium products. The success they experienced first across Europe, and then the world, was nothing short of incredible. But the forward thinking MILOS engineers and design department were never ones to remain content to rest on their laurels. So in early 2016, they started work on a new steel truss line that answered the call of live event organizers who required larger and larger capacity truss for their biggest events. The goal was to be the first manufacturer in the world to have steel truss as a regular part of their product range.

Development of the new steel truss line was complete in February 2018 and tests performed at the MILOS factory grounds that same month. The tests served as

quality control and confirmation that Milos was ready to bring its high quality steel products to market.

Load tests for steel truss are much different than for aluminium and require heavy-duty equipment and weights. For example, compared to standard 29cm truss, the 1.45 m high S-RTW truss is able to support more than 100 times the weight! So with the help of two mobile cranes and massive steel counterweights of up to 4 tons each, the tests were ready to begin!

The first test was what we could consider a "light weight" exercise. A 16 metre section of the S-QTQT tower truss was loaded with counterweights that were gradually increased, in a total of 5 steps, to test its structural integrity. Although this type of truss had been designed for use as a tower, and would mostly experience compressed loads in the future, this setup tested all components of the truss, such as the main chords, connectors, and lattice members. All had to demonstrate their load-bearing capacity, and all passed with flying colours!

The next test moved on to the larger truss - the S-RTW truss segment. A 16 metre span was again constructed and loaded in 5 steps. Due to the dimensions of the counterweights, a central point load was not possible. Therefore, two point loads were applied at a distance of only 1.5 m. This test was also successful, with all components handling the increasing payload without breaking a sweat.

As a final test, the maximum payload applied to the 16 metre span was an unbelievable 47 tons! It was quite a sight to behold and one that all attendees won't soon forget! Even with this massive load, no damage or unexpected permanent deformation was observed, and final dye penetration tests on the main welds confirmed their integrity. Total success with a more than impressive load!

At the conclusion of all tests, MILOS was confident their steel truss could go into series production and soon supply live event production crews with the ammunition they needed to host the largest and most demanding live events across Europe and the world!

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