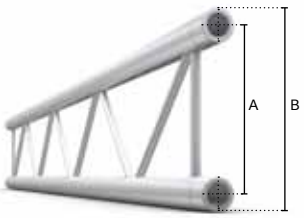
M290 Heavy-Duty

- Certified 48mm tube heavy-duty M290 series truss range
- Keystone system used within PA & Rigging Towers & Roofs
- Durable construction with diagonal anti-twist end brace
- Fast connection for quick, simple and secure assembly
- Great free-span & loading characteristics (up to 20m / 65.61 ft)
- Connection kit supplied with every truss length & junction
- Compatible with 200/400/500/600 series cell clamps
- Compatible with Xtruss accessories
- Powder coat colour finish available on request

DUO

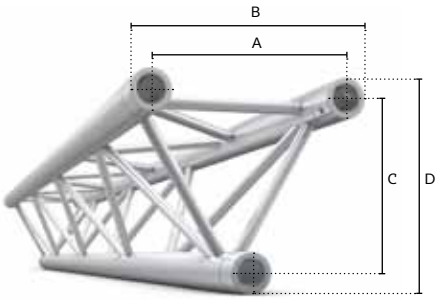


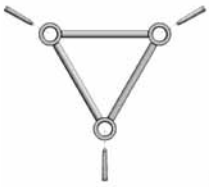
M290V

mm in

	Main Chords	Diagonals	Alloy	A	B	Coupler
BTV	**48x3** (1.89x0.12)	**16x2** (0.62x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**CCB**
BTVF	**48x3** (1.89x0.12)	**16x2** (0.62x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**CCF**
BTVU	**48x3** (1.89x0.12)	**20x2** (0.78x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**CCU**

TRIO



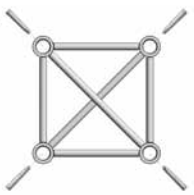


M290V

mm in

	Main Chords	Diagonals	Alloy	A	B	C	D	Coupler
STV	**48x3** (1.89x0.12)	**16x2** (0.62x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**207** (8.15)	**255** (10.04)	**CCB**
STVF	**48x3** (1.89x0.12)	**16x2** (0.62x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**207** (8.15)	**255** (10.04)	**CCF**
STVU	**48x3** (1.89x0.12)	**20x2** (0.78x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**207** (8.15)	**255** (10.04)	**CCU**

QUATRO



M290V

mm in

	Main Chords	Diagonals	Alloy	A	B	Coupler
QTV	**48x3** (1.89x0.12)	**16x2** (0.62x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**CCB**
QTVF	**48x3** (1.89x0.12)	**16x2** (0.62x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**CCF**
QTVU	**48x3** (1.89x0.12)	**20x2** (0.78x0.08)	**EN - AW 6082 T6**	**240** (9.44)	**288** (11.34)	**CCU**

STANDARD LENGTHS AND WEIGHTS AVAILABLE

	m (ft)	0.50 (1.64)	1.00 (3.28)	1.50 (4.92)	2.00 (6.56)	2.50 (8.20)	3.00 (9.84)	4.00 (13.12)	5.00 (16.41)
DUO	kg (lbs)	1.70 (3.9)	3.10 (6.83)	4.30 (9.57)	5.70 (12.57)	6.90 (15.21)	8.20 (18.07)	10.70 (23.7)	13.30 (29.34)
TRIO	kg (lbs)	2.90 (6.39)	5.00 (11.02)	7.10 (15.65)	9.30 (20.50)	11.40 (25.13)	13.50 (29.76)	18.00 (39.68)	22.00 (48.50)
QUATRO	kg (lbs)	4.10 (9.04)	7.00 (15.43)	9.90 (21.83)	12.50 (27.56)	15.50 (34.17)	18.30 (40.35)	24.00 (52.91)	29.70 (65.48)

Connection material (pins/clips/couplers) and packaging are not included in above weights

M290V DUO

LOADING CHART

Span	m (ft)	3.00 (9.84)	4.00 (13.12)	5.00 (16.40)	6.00 (19.69)	7.00 (22.97)	8.00 (26.25)	9.00 (29.53)
Centre Point Load (CPL)	kg (lbs)	666.90 (1470.26)	664.40 (1464.75)	648.80 (1430.36)	538.30 (1186.75)	459.00 (1011.92)	399.20 (880.08)	352.40 (776.91)
Deflection	mm (in)	4.30 (0.17)	10.10 (0.40)	19.30 (0.76)	27.90 (1.10)	38.00 (1.50)	49.70 (1.96)	63.10 (2.48)
Third Point Load (TPL)	kg (lbs)	333.50 (735.24)	332.20 (732.37)	330.90 (729.51)	329.60 (726.64)	328.30 ((723.78)	299.40 (660.06)	264.30 (582.68)
Deflection	mm (in)	3.60 (0.14)	8.60 (0.34)	16.80 (0.66)	29.00 (1.14)	46.10 (1.81)	63.10 (2.48)	79.90 (3.15)
Quarter Point Load (QPL)	kg (lbs)	222.30 490.09)	221.50 (488.32)	220.60 (486.34)	219.70 (484.36)	218.90 (482.59)	199.60 (440.04)	176.20 (388.45)
Deflection	mm (in)	3.40 (0.13)	8.00 (0.31)	15.60 (0.61)	27.00 (1.06)	42.90 (1.69)	58.70 (2.31)	74.40 (2.93)
Fifth Point Load (FPL)	kg (lbs)	166.70 (367.51)	166.10 (366.19)	165.50 (364.86)	164.80 (363.32)	164.20 (362.00)	163.50 (360.46)	146.90 (323.86)
Deflection	mm (in)	3.20 (0.13)	7.70 (0.30)	15.00 (0.59)	25.80 (1.02)	41.00 (1.61)	61.20 (2.41)	78.80 (3.10)
Uniformly Distributed Load (UDL)	kg (lbs)	222.30 (149.38)	166.10 (111.61)	132.40 (88.97)	109.90 (73.85)	93.80 (63.03)	81.80 (54.97)	72.40 (48.65)
Deflection	mm (in)	2.70 (0.11)	6.30 (0.25)	12.40 (0.49)	21.40 (0.84)	34.10 (1.34)	50.90 (2.00)	72.50 (2.85)

DUO figures are based on use in vertical mode and stabilized every 1m

M290V TRIO

LOADING CHART

Span	m (ft)	4.00 (13.12)	6.00 (19.69)	8.00 (26.25)	10.00 (32.81)	12.00 (39.37)	16.00 (52.49)	20.00 (65.61)
Centre Point Load (CPL)	kg (lbs)	700.50 (1544.34)	459.80 (1013.68)	337.30 (743.62)	262.10 (577.83)	210.50 (464.07)	142.80 (314.82)	98.70 (217.59)
Deflection	mm (in)	10.60 (0.42)	24.00 (0.94)	43.10 (1.70)	68.00 (2.68)	99.20 (3.91)	182.00 (7.17)	295.60 (11.64)
Third Point Load (TPL)	kg (lbs)	525.40 (1158.31)	344.90 (760.37)	253.00 (557.77)	196.60 (433.43)	157.90 (348.11)	107.10 (236.11)	74.00 (163,14)
Deflection	mm (in)	13.50 (0.53)	30.50 (1.20)	54.30 (2.14)	85.00 (3.35)	122.70 (4.83)	219.80 (8.65)	346.70 (13.64)
Quarter Point Load (QPL)	kg (lbs)	350.20 (772.06)	229.90 (506.84)	168.70 (371.92)	131.00 (288.81)	105.30 (232.15)	71.40 (157.41)	49.40 (108.90)
Deflection	mm (in)	12.60 (0.50)	28.40 (1.12)	50.60 (1.99)	79.50 (3.13)	115.10 (4.53)	207.50 (8.17)	330.10 (12.99)
Fifth Point Load (FPL)	kg (lbs)	287.80 (634.49)	191.60 (422.41)	140.50 (309.75)	109.20 (240.74)	87.70 (193.35)	59.50 (131.17)	41.10 (90.60)
Deflection	mm (in)	13.20 (0.52)	30.10 (1.19)	53.60 (2.11)	83.90 (3.30)	121.20 (4.77)	217.40 (8.56)	343.40 (13.52)
Uniformly Distributed Load (UDL)	kg (lbs)	287.80 (193.39)	153.30 (103.01)	84.30 (56.65)	52.40 (35.21)	35.10 (23.59)	17.80 (11.96)	9.90 (21.82)
Deflection	mm (in)	10.90 (0.43)	29.80 (1.17)	53.10 (2.09)	83.30 (3.28)	120.40 (4.74)	216.00 (8.50)	341.60 (13.44)

TRIO figures are based on use in apex up/down orientation

M290V QUATRO

LOADING CHART

Span	m (ft)	4.00 (13.12)	6.00 (19.69)	8.00 (26.25)	10.00 (32.81)	12.00 (39.37)	16.00 (52.49)	20.00 (65.61)
Centre Point Load (CPL)	kg (lbs)	1328.00 (2927.74)	1076.00 (2372.17)	797.70 (1758.63)	628.60 (1385.82)	514.10 (1133.40)	366.90 (808.88)	274.40 (604.94)
Deflection	mm (in)	10.10 (0.40)	27.90 (1.10)	49.70 (1.96)	78.20 (3.08)	113.30 (4.46)	205.00 (8.07)	327.20 (12.88)
Third Point Load (TPL)	kg (lbs)	664.00 (1463.87)	658.70 (1452.18)	598.30 (1319.02)	471.40 (1039.26)	385.60 (850.10)	275.20 (606.71)	205.80 (453.71)
Deflection	mm (in)	8.60 (0.34)	29.00 (1.14)	63.10 (2.48)	98.70 (3.89)	142.30v (5.60)	254.00 (10.00)	398.80 (15.70)
Quarter Point Load (QPL)	kg (lbs)	442.70 (975.99)	439.10 (968.05)	398.90 (879.42)	314.30 (692.91)	257.00 (566.59)	183.50 (404.55)	137.20 (302.47)
Deflection	mm (in)	8.00 (0.31)	27.00 (1.06)	58.70 (2.31)	92.00 (3.62)	132.90 (5.23)	238.00 (9.37)	375.60 (14.78)
Fifth Point Load (FPL)	kg (lbs)	332.00 (731.93)	329.30 (725.98)	326.70 (720.25)	261.90 (577.39)	214.20 (472.23)	152.90 (337.09)	114.30 (251.98)
Deflection	mm (in)	7.70 (0.30)	25.80 (1.02)	61.20 (2.41)	97.40 (3.83)	140.50 (5.53)	250.80 (9.87)	394.30 (15.52)
Uniformly Distributed Load (UDL)	kg (lbs)	332.00 (223.09)	219.60 (147.56)	163.30 (109.73)	125.70 (84.47)	85.70 (57.59)	45.90 (30.84)	27.40 (60.40)
Deflection	mm (in)	6.30 (0.25)	21.40 (0.84)	50.90 (2.00)	96.60 (3.80)	139.40 (5.49)	249.10 (9.81)	391.7 (15.42)

CPL (Centre Point Load)	TPL (Third Point Load)	QPL (Quarter Point Load)	FPL (Fifth Point Load)	UDL (Uniformly Distributed Load)

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 in all listed load capacities • Spans made of different truss lengths • Interaction of bending moment and shear force at connector is considered • Structural analysis based on EN 1999 • All loading data should be multiplied by 0.85 to comply with BS 7905-2 and ANSI E1.2-2006 • For any other application, or in case of an assembled structure, contact Milos or a structural engineer • Safety factors used: self-weight 1.35 / variable loads 1.5