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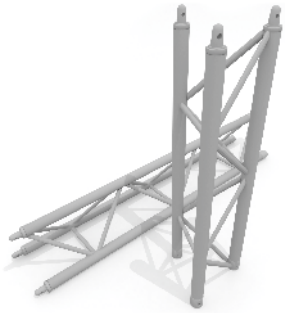
info@trussing.com
www.trussing.com

OV Truss
OV30 Triangular



The OV range represents an innovative engineering solution to a common size of truss for the entertainment, event and presentation industry.

Designed to the latest Eurocodes, combines high comparative load capacities, low self-weight, and comes at a competitive price. All this whilst analysing the most common slinging / support methods on the truss has determined an 'engineered' product that can utilise the most modern manufacturing techniques.

The OV range is a series of square and triangular truss systems using conical connectors for a quick fixing method. Brace patterns are specifically designed to withstand the loads and forces implied by all common slinging and support methods. The extrusions used in the construction of the trusses are bespoke to Total Solutions Group and have been rigorously designed to enhance the structural effectiveness of the trusses and also to speed up manufacturing.

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Load Tables - Apex Up

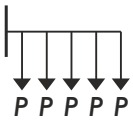
Span (metres)	3	6	9	12	15
UDL kg	1500	730	460	320	230
DEFL mm	7	28	60	98	137
CPL kg	790	380	240	170	120
DEFL mm	6	24	50	83	117
TPL kg	1120	540	340	240	170
DEFL mm	7	28	61	100	139
QPL kg	1180	560	360	250	180
DEFL mm	7	28	60	99	139

Third and Quarter point loads are displayed as a total load and NOT individual point loads.

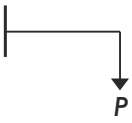
Cantilever - Apex Up

Span (metres) Cantilever Span		3
UDL	kg	380
DEFL	mm	14.4
EPL	kg	190
DEFL	mm	18.4
CPL	kg	380
DEFL	mm	12.6

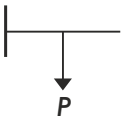
Uniform Load (UDL)



Point Load (Edge)



Point Load (Central)



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Load Tables - Apex Down

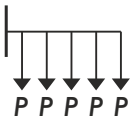
Span (metres)	3	6	9	12	15
UDL kg	1650	810	520	370	270
DEFL mm	7	29	63	106	153
CPL kg	790	390	250	170	130
DEFL mm	6	22	48	81	116
TPL kg	1150	600	380	270	200
DEFL mm	7	29	64	107	155
QPL kg	1230	600	380	270	200
DEFL mm	7	27	59	99	144

Third and Quarter point loads are displayed as a total load and NOT individual point loads.

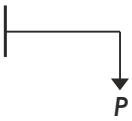
Cantilever - Apex Down

Span (metres) Cantilever Span		3
UDL	kg	330
DEFL	mm	13.8
EPL	kg	165
DEFL	mm	18.6
CPL	kg	330
DEFL	mm	11.3

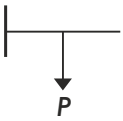
Uniform Load (UDL)



Point Load (Edge)



Point Load (Central)



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- All loads are given in kilograms and are total safe working loads (unfactored) at node points of a chord members only.
- Allowance has been made for self-weight of the truss
- Allowance has been made for frequent use factor of 85%
- The payload on a truss has been calculated as a permanent action. Should it be necessary to consider the payload as a variable action, the tabulated figures should be reduced to 90% of the given values
- No allowance for dynamic loading has been made
- Capacity has been calculated in accordance with BS EN 1999 – Design of Aluminium Structures
- All loads applied are symmetrical between bottom 2 chords considering apex on top.
- All loads applied at the bottom chord considering apex downward
- All deflections stated are theoretical deflections which do not account for any connection slippage. As such the values stated in these tables will be less than the actual deflection of the truss.
- Care must be taken regarding the support condition of the truss. Figures 1 and 2 show the acceptable supporting conditions and figures 3 and 4 show the support condition that should not be used.

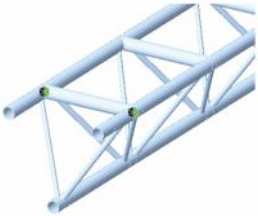

Figure 1: Orientation of the truss supported of top chords

Figure 2: Orientation of the truss supported of bottom chords

Figure 3: Not allowed orientation of the truss supported of bottom chords

Figure 4: Not allowed orientation of the truss supported of top chords

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Material Specifications

Main Cord:	48.3 x 2.6mm
Braces:	Special Extrusion
Material Specifications:	EN AW-6082 T6
Fixings:	Conical : TFC pins & R3 Clips

Accessories

Circles
Hinges and Swivels
Bespoke Lengths
Ladder Sections

Item Codes, Weights and Dimensions

OV30T-025	'OV' Truss, 30cm Tri, 0.25Mt section	250mm x 300mm x 266mm	2.3kg
OV30T-050	'OV' Truss, 30cm Tri, 0.5Mt section	500mm x 300mm x 266mm	3.1kg
OV30T-100	'OV' Truss, 30cm Tri, 1.0Mt section	1000mm x 300mm x 266mm	5.1kg
OV30T-200	'OV' Truss, 30cm Tri, 2.0Mt section	2000mm x 300mm x 266mm	9.2kg
OV30T-300	'OV' Truss, 30cm Tri, 3.0Mt section	3000mm x 300mm x 266mm	13.4kg
OV30T-400	'OV' Truss, 30cm Tri, 4.0Mt section	4000mm x 300mm x 266mm	17.5kg
OV30T-90	'OV' Truss, 30cm Tri, 90deg Horz corner	400mm x 400mm x 266mm	5.1kg
OV30T-3W	'OV' Truss, 30cm Tri, 3 Way Horz. corner	500mm x 400mm x 266mm	5.8kg
OV30T-4W	'OV' Truss, 30cm Tri, 4 Way Horz. corner	500mm x 500mm x 266mm	6.5kg
OV30T-GPC	'OV' Truss, 30cm Tri, Goal Post corner	400mm x 400mm x 266mm	5kg
OV30-FC100	'OV' Truss, Female bolt-on Connector - 100mm	100mm x 48mm x 48mm	0.4kg
OV30-MC100	'OV' Truss, Male bolt-on Connector - 100mm	100mm x 48mm x 48mm	0.6kg
OV30T-BP	'OV' Truss, 30cm Squ, Ali Base plate, 50cm Squ - No conns	500mm x 500mm x 8mm	5kg
OV30-TPB	'OV' Truss, 30cm, Truss Pickup Beam - 1000Kgs	322mm x 170mm x 65mm	4.2kg

Design Specification

Manufactured in accordance with
BS EN 1090-3:2008 : Technical Requirements for aluminium structures
EN ISO 9001:2015 : Quality management systems
BS EN 1999 Pt 1-1 : Design of Aluminium Structures, General structural rules
EN17115: Entertainment Technology : Specifications for design, manufacture of aluminium and steel trusses and towers

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