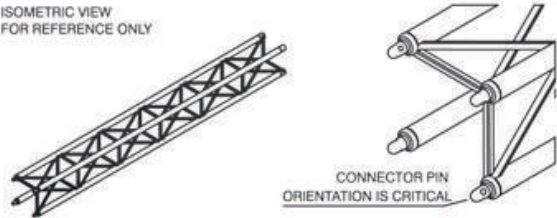


ISOMETRIC VIEW FOR REFERENCE ONLY



LOAD CHARTS

OV30 LOAD CHART

The following table summarises the allowable loads on spans up to 18 metres.

Span		3.0 m	6.0 m	9.0 m	12.0 m	15.0 m	18.0 m
Uniformly distributed	kg	2390	1750	1122	790	572	408
	kN	23.43	17.16	11.00	7.74	5.61	4.00
Central point load	kg	1195	875	561	395	286	204
	kN	11.71	8.58	5.50	3.87	2.80	2.00
Quarter point loads at each point	kg	597	437	280	197	143	102
	kN	5.86	4.28	2.75	1.94	1.40	1.00
Third point loads at each point	kg	896	656	420	296	214	153
	kN	8.78	6.43	4.12	2.90	2.10	1.50

OV40 LOAD CHART

The following table summarises the allowable loads on spans up to 18 metres.

Span		3.0 m	6.0 m	9.0 m	12.0 m	15.0 m	18.0 m
Uniformly distributed	kg	3852	2832	1508	1243	947	714
	kN	37.76	27.76	14.78	12.19	9.28	7.00
Central point load	kg	1926	1416	754	622	474	357
	kN	18.88	13.88	7.39	6.09	4.64	3.50
Quarter point loads at each point	kg	963	708	377	311	237	179
	kN	9.44	6.94	3.70	3.05	2.32	1.75
Third point loads at each point	kg	1445	1062	566	467	356	268
	kN	14.16	10.41	5.54	4.57	3.49	2.63

Notes:

- All loads are given in kilograms and kilonewtons
- Allowance has been made for self-weight of truss
- Allowance has been made for frequent use factor of 83%
- 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.

ITEM CODES

OV30

Straight

Lengths	Code	Description
	OV30-050	'OV' Truss, 30cm Squ, 0.5Mt section
	OV30-100	'OV' Truss, 30cm Squ, 1.0Mt section
	OV30-200	'OV' Truss, 30cm Squ, 2.0Mt section
	OV30-300	'OV' Truss, 30cm Squ, 3.0Mt section
	OV30-400	'OV' Truss, 30cm Squ, 4.0Mt section

Corners

	OV30-90	'OV' Truss, 30cm Squ, 90deg corner
	OV30-90+1	'OV' Truss, 30cm Squ, 90deg corner with vertical face
	OV30-3W	'OV' Truss, 30cm Squ, 3way corner
	OV30-4W	'OV' Truss, 30cm Squ, 4way corner
	OV30-CB	'OV' Truss, 30cm Squ, Basic Corner Block
	OV30-CF	'OV' Truss, 30cm Squ, Corner Block Face

Accessories

	OV30-BP	'OV' Truss, 30cm Squ, Ali Base plate, 50cm Squ - No conns
	OV30-FC	'OV' Truss, 30cm Squ, Female bolt-on Connector
	OV30-MC	'OV' Truss, 30cm Squ, Male bolt-on Connector
	OV30-PB	'OV' Truss, 30cm Squ, Pickup Beam

OV40

Straight

Lengths	Code	Description
	OV40-025	'OV' Truss, 40cm Squ, 0.25Mt section
	OV40-050	'OV' Truss, 40cm Squ, 0.5Mt section
	OV40-100	'OV' Truss, 40cm Squ, 1.0Mt section
	OV40-200	'OV' Truss, 40cm Squ, 2.0Mt section
	OV40-300	'OV' Truss, 40cm Squ, 3.0Mt section
	OV40-400	'OV' Truss, 40cm Squ, 4.0Mt section

Corners

	OV40-90	'OV' Truss, 40cm Squ, 90deg corner
	OV40-90+1	'OV' Truss, 40cm Squ, 90deg corner with vertical face
	OV40-3W	'OV' Truss, 40cm Squ, 3way corner
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	OV40-CB	'OV' Truss, 40cm Squ, Basic Corner Block
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Accessories

	OV40-BP	'OV' Truss, 40cm Squ, Ali Base plate, 50cm Squ - No conns
	OV40-FC	'OV' Truss, 40cm Squ, Female bolt-on Connector
	OV40-MC	'OV' Truss, 40cm Squ, Male bolt-on Connector
	OV40-PB	'OV' Truss, 40cm Squ, Pickup Beam

INDUSTRY STANDARDS

BSEN1991	Actions on Structures Part 1-1: General actions – Densities, self-weights, imposed loads Part 1-4: General actions – Wind actions
BSEN1999	Design of Aluminium Structures Part 1-1: General structural rules
CWA15902-2	Lifting and load-bearing equipment for stages and other production area within the entertainment industry. Part 2: Specifications for design, manufacture and for use of aluminium and steel trusses and towers

StageAudioWorks
TECHNOLOGY & ENGINEERING GROUP

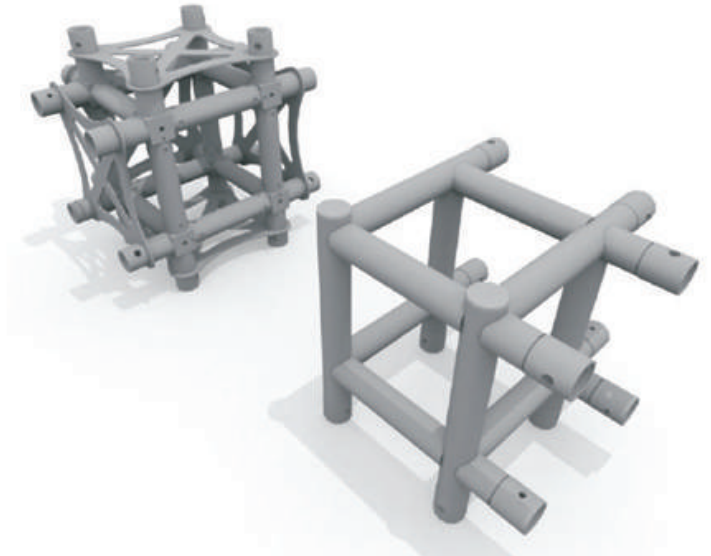
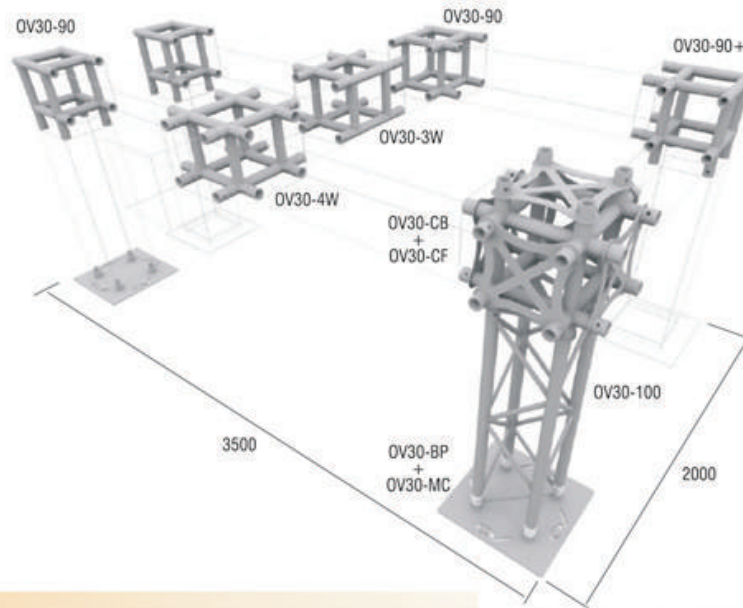
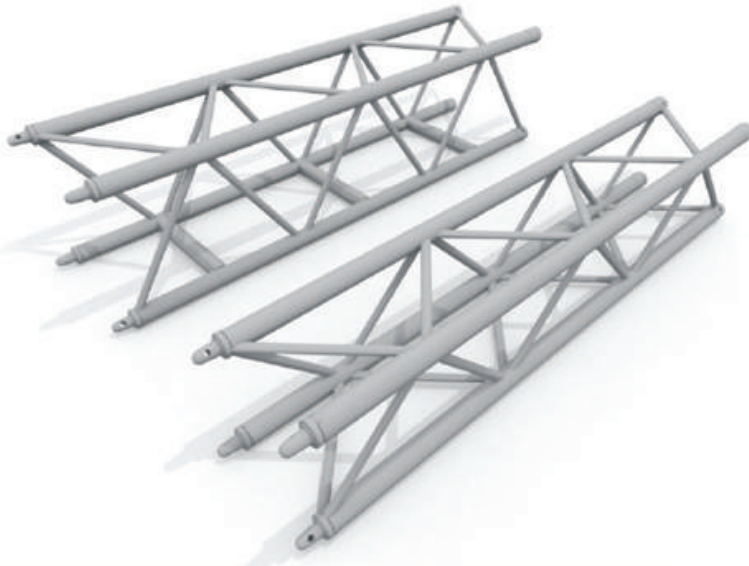
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OV Truss NEW From Total Solutions Group

- Designed to current Eurocodes
- Greater loading for a reduction in self-weight
- Quick to put together
- Innovative Engineering and Design
- Available in 30cm square and 40cm square
- Looks sleek and modern

Total Solutions Group



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

Philosophy

To create a truss range that is 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.

Design

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. OV might resemble what you see from commonplace rivals on the market; but look closer and you discover the subtleties that define a product designed by a company with a history of innovation.

Sizes

The OV range currently comes in a 30cm and 40cm size, both of which are of square section. Lightweight and Heavy Duty variants are not required as we have engineered the OV product to offer the highest load capacities whilst maintain low self-weight.

All OV ranges come in standard section lengths from 0.25 up to 4.0 metres in 0.5m increments. The ranges have been designed with the

exhibition stand test in mind, i.e. any configuration of truss, including base plates, will fit perfectly with a metric sized stand space, thus maximising your structure within the foot print of your stand.

Fixings

The OV range uses a conical connector for fast, quick and ridged joining. All truss lengths have a male one end, female the other configuration. This means less 'eggs' to loose and also means that a perfect, flowing brace pattern is maintained. All corners are a female configuration, maintaining complete flexibility with your inventory.

Structural Analysis

The OV range has been designed from the very beginning to the latest Eurocodes. All published load charts are to Eurocode. There is no need to down rate the published charts to meet the current standards. Note: Check the equivalent competitor products. Look for notes on their loading figures that might say 'To comply with BS 7905-2 / ANSI E1.2-2006 / CWA 15902-2, the loading data must be multiplied by 0.85 (or 0.83)'. The OV range is already CWA 15902-2 compliant (Eurocode)

The OV range has also been designed from the very beginning to correctly transmit the loads implied by the most common slinging and support methods. The brace patterns have been arranged so that heat effected zones in unsupported cords have been nullified and so no overloading of one side of the truss or the other incurs when slinging / supporting. Note :- Check comparative products to see if this has even been taken into account, you might be surprised to see it hasn't !!

The extrusions in the OV range are unique to Total Solutions Group. On one level they allow us to manufacture the product more efficiently, on another they introduce favourable structural qualities that allow us to maintain the high strength to weight ratio.

Aesthetics

One of the primary goals in designing the OV range was to maintain the crisp, clean lines and patterns of the truss when fixed together. Truss systems are often one of the largest visual items in a stand or structure. Taking care that the truss looked sleek and beautiful when put together was a priority to us. The OV range is not interrupted by vertical support braces at every junction, making the truss look structurally heavy, nor does it have the problem that mis-noding can occur. This attention to detail means that no matter what truss size section you have to include in your structure, you will always see a clean, un-interrupted, skeletal, diagonal pattern making the truss appear light and airy.

Corners

Corners, in the OV range, come in two forms. The first is the standard truss block corner. This maintains the visuals of the truss and has all female fittings for maximum flexibility. The second is a universal corner. Occupying the same overall dimensions as the truss corner, both corners can be intermixed in any configuration. The universal corner can dramatically reduce your corner block inventory.

Accessories

A variety of accessories is available for the OV range of products, from swivels to base plates. All are designed to maintain maximum flexibility. Specialist connections are also available for unusual loading scenarios.

Material Specifications

Main Cord:	48 x 2.6mm
Braces:	Special Extrusion
Material:	EN AW-6082 T6
Connection Type:	Conical