

Verto Truss



A twist on fast performance

The Verto truss is a new revolutionary system, making truss connection fast, silent and safe. The Verto truss brings a totally new perspective on truss assembly and is described as a game changer in our industry.

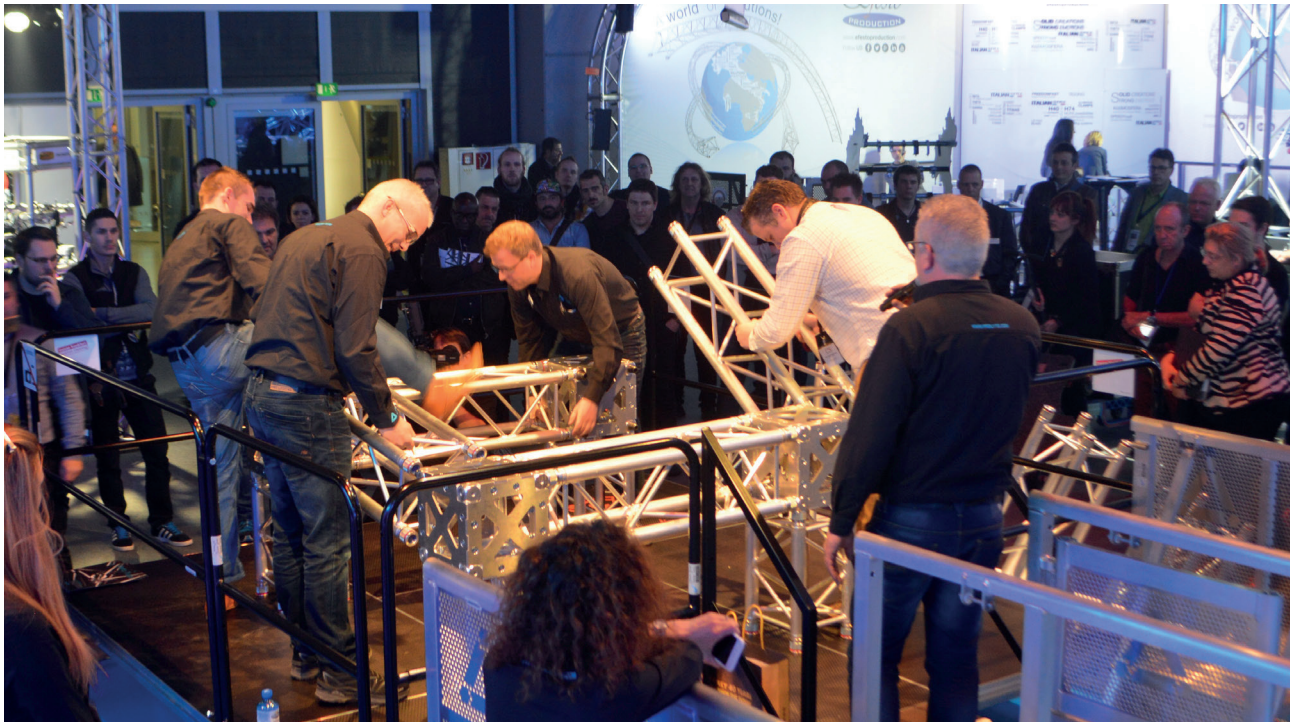


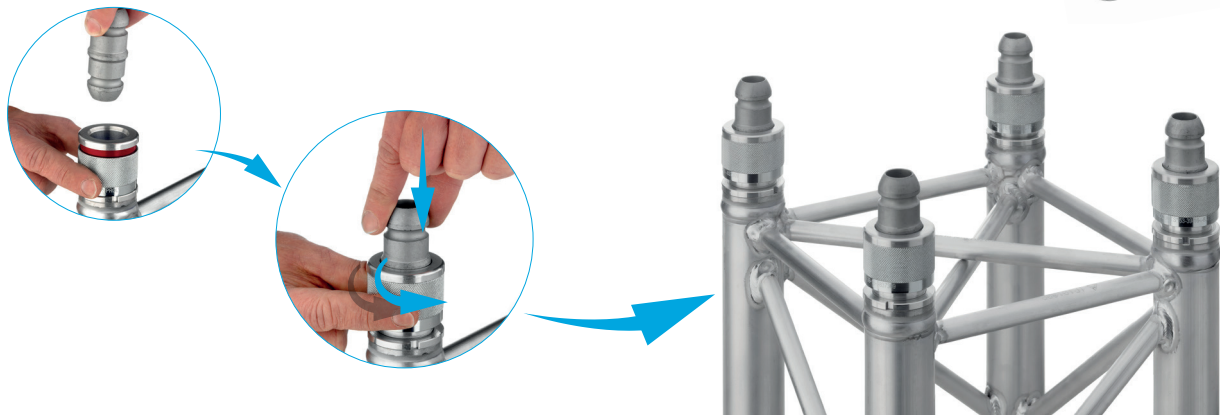
Photo: © Prolyte, Introduction of the Verto Truss at Prolight + Sound, Frankfurt, Germany

ROTATING COUPLING SYSTEM

The Verto* truss is based on a new principle of truss connection, where the sections are joined by a rotating coupler system. This system has great advantages over existing systems. The name Verto is derived from Latin, meaning to turn or to turn around and that is exactly how this coupler works. A simple flick of your wrist will connect the truss modules.

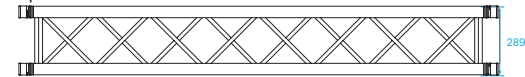
The Verto truss is designed as an additional system, for those circumstances where its specific characteristics come into play, like the silent connection and reduced assembly time. Its structure resembles that of the standard H30V truss.

COUPLING SYSTEM: VER6-600

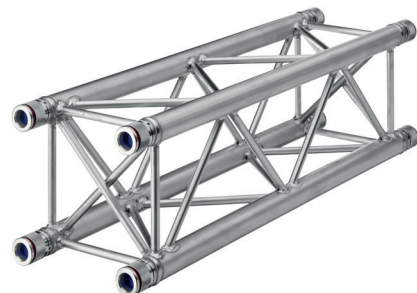
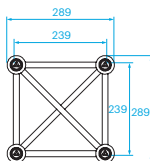
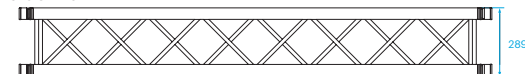


VER-H30V

Top View

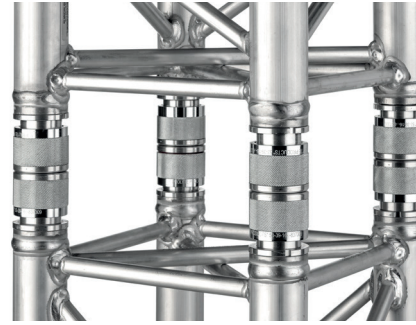


Side View



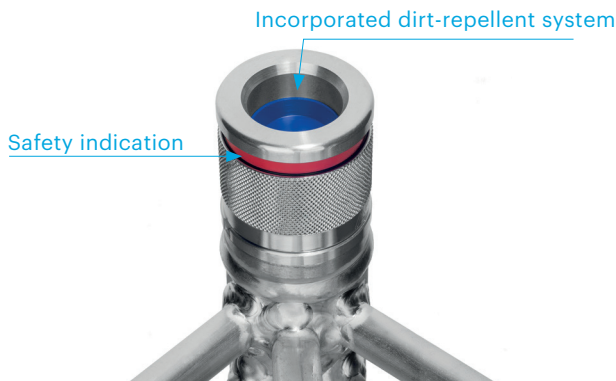
BRINGING BENEFITS TO THE WORK FLOOR

This truss can greatly benefit the daily working practice for technicians, its tool-less connection is almost completely silent, thereby greatly adding to safety on the work floor. Tested general sound levels are around 55dB, where a conical truss system generates a sound level of 80dB during assembly. Furthermore, it reduces the assembly and disassembly time. Tested general assembly times are up to 5 times faster than those for truss with conical coupling systems and 10 times faster than any bolted truss.



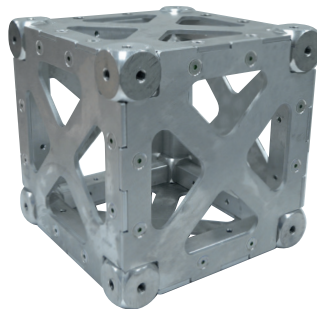
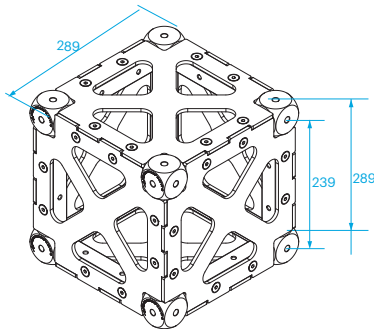
VERTO SYSTEM BENEFITS

- Tool-less system, no tools needed for assembly and disassembly.
- Safety indication: when the red ring is still visible, the connection is not (fully) closed.
- No protruding parts, ideal for attaching banners or drapes.
- Bringing safety to the work floor – its silent connection adds greatly to work floor communication.
- Incredible fast connection and disconnection, reducing production time.
- Strong and compact, based on the H30V truss with similar loading capacity.
- Coupling parts can be replaced, prolonging the general lifetime of your truss.
- Versatile system with many application possibilities, the additional box corner completes the system.



BOX-30V-HD-0

Box corner for Verto truss.



VER6-600

Conical coupler 600 series for Verto truss



VER6-652S

Coupler half male
To be used with bolt VER-M12xO30-652S



VER6-605

A plastic clip is available as a secondary safety measure. It can be simply clipped into place when a visual identifier is required.



VER6-649

Coupler half male
To mount on the Prolyte standard baseplate





VER-H30V - Allowable Loading - Single Use - Deflection not limited

SPAN		MAXIMUM ALLOWABLE POINT LOADS										
		Uniformly Distributed Load			Centre Point Load		Single Load Third Points Load per Point		Single Load Fourth Points Load per Point		Single Load Fifth Points Load per Point	
		Load	Total Load	Deflection	Load	Deflection	Load	Deflection	Load	Deflection	Load	Deflection
ft	m	lbs/ft	lbs	inch	lbs	inch	lbs	inch	lbs	inch	lbs	inch
5'	1.5	776	3,880	0.022	3,880	0.035	1,940	0.030	1,293	0.028	970	0.026
10'	3	386	3,860	0.172	3,860	0.277	1,930	0.237	1,287	0.220	965	0.208
15'	4.6	256	3,840	0.581	2,639	0.643	1,920	0.800	1,280	0.741	960	0.701
20'	6	191	3,820	1.377	1,962	1.146	1,471	1.465	981	1.359	817	1.425
25'	7.6	124	3,100	2.209	1,551	1.795	1,163	2.288	776	2.124	646	2.227
30'	9.1	85	2,550	3.182	1,274	2.594	955	3.293	637	3.060	531	3.206
35'	10.7	61	2,135	4.330	1,073	3.544	805	4.480	537	4.168	447	4.363
40'	12.2	46	1,840	5.656	920	4.65	690	5.874	460	5.448	383	5.698
45'	13.7	35	1,575	7.159	798	5.915	599	7.395	399	6.902	333	7.210
50'	15.2	28	1,400	8.838	699	7.344	524	9.122	350	8.529	291	8.899
55'	16.8	22	1,210	10.694	616	8.942	462	11.027	308	10.332	257	10.766
60'	18.3	18	1,080	12.726	545	10.714	409	13.109	273	12.310	227	12.809
65'	19.8	15	975	14.936	484	12.666	363	15.367	242	14.467	202	15.029

1 inch = 25,4 mm | 1m = 3.28 ft | 1 lbs = 0,453 kg

- The truss was reviewed for load in one direction only. If loads are applied vertically and horizontally then the loading shall be reviewed by a qualified person.
- The truss is analyzed as a simple span beam. Truss support points are located at truss panel points.
- The truss is analyzed for static loads only.
- All loads are applied at the centroid of the truss as to not induce twisting or torsion in the truss.
- All loads are applied at the panel points of the truss as to not induce local bending stresses in the chords.
- Self-weight has been included.
- Allowable loads based on 2015 aluminum design manual.
- Maximum deflection is theoretical and are not used to limit loads.
- ANSI E1.2-2021 repetitive use factors of 0.85 are not applied to loads.

VER-H30V - Standard available Lengths and Codes - Imperial

Feet	Code
2.00	VER-H30V-L2FT
3.00	VER-H30V-L3FT
4.00	VER-H30V-L4FT
5.00	VER-H30V-L5FT
8.00	VER-H30V-L8FT
10.00	VER-H30V-L10FT

VER-H30V - Standard available Lengths and Codes - Metric

Metres	Feet	Code
0,25	0.82	VER-H30V-L025
0,29	0.95	VER-H30V-L029
0,50	1.64	VER-H30V-L050
0,71	2.33	VER-H30V-L071
1,00	3.28	VER-H30V-L100
1,50	4.57	VER-H30V-L150
2,00	6.56	VER-H30V-L200
2,50	8.20	VER-H30V-L250
3,00	9.84	VER-H30V-L300
4,00	13.12	VER-H30V-L400

Technical Specifications - Verto

Type	VER-H30V
Alloy	EN AW 6082 T6
Main Chords	48 x 3 mm
Diagonal Members	16 x 2 mm
Coupling System	Verto, CrMo4



VER-H30V - Allowable Loading - Single Use - Deflection limited to L/100

SPAN		MAXIMUM ALLOWABLE POINT LOADS										
		Uniformly Distributed Load			Centre Point Load		Single Load Third Points Load per Point		Single Load Fourth Points Load per Point		Single Load Fifth Points Load per Point	
		Load	Total Load	Deflection	Load	Deflection	Load	Deflection	Load	Deflection	Load	Deflection
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15'	4.6	256	3,840	0.581	2,639	0.643	1,920	0.800	1,280	0.741	960	0.701
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25'	7.6	124	3,100	2.209	1,551	1.795	1,163	2.288	776	2.124	646	2.227
30'	9.1	85	2,550	3.182	1,274	2.594	955	3.293	637	3.060	531	3.206
35'	10.7	59	2,065	4.200	1,073	3.544	751	4.200	537	4.168	429	4.200
40'	12.2	38	1,520	4.800	920	4.650	556	4.800	400	4.800	318	4.800
45'	13.7	26	1,170	5.400	719	5.400	419	5.400	302	5.400	240	5.400
50'	15.2	18	900	6.000	548	6.000	320	6.000	230	6.000	183	6.000
55'	16.8	12	660	6.600	418	6.600	244	6.600	176	6.600	139	6.600
60'	18.3	9	540	7.200	317	7.200	185	7.200	133	7.200	106	7.200
65'	19.8	6	390	7.800	235	7.800	137	7.800	99	7.800	78	7.800

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- All loads are applied at the panel points of the truss as to not induce local bending stresses in the chords.
- Selfweight has been included.
- Allowable loads based on 2015 aluminum design manual.
- Theoretical maximum deflection based on the span/100.
- ANSI E1.2-2021 repetitive use factors of 0.85 are not applied to loads.

VER-H30V - Deflection table

% of allowable UDL		0% of UDL		25% of UDL		50% of UDL		75% of UDL		100% of UDL	
Span	Total UDL	Load	Deflection	Load	Deflection	Load	Deflection	Load	Deflection	Load	Deflection
5'	3880	0 lbs	0.000 in	970 lbs	0.005 in	1940 lbs	0.011 in	2910 lbs	0.017 in	3880 lbs	0.022 in
10'	3860	0 lbs	0.002 in	965 lbs	0.045 in	1930 lbs	0.087 in	2895 lbs	0.129 in	3860 lbs	0.172 in
15'	3840	0 lbs	0.011 in	960 lbs	0.153 in	1920 lbs	0.296 in	2880 lbs	0.438 in	3840 lbs	0.581 in
20'	3820	0 lbs	0.034 in	955 lbs	0.370 in	1910 lbs	0.705 in	2865 lbs	1.041 in	3820 lbs	1.377 in
25'	3100	0 lbs	0.082 in	775 lbs	0.614 in	1550 lbs	1.146 in	2325 lbs	1.677 in	3100 lbs	2.209 in
30'	2550	0 lbs	0.170 in	637 lbs	0.923 in	1275 lbs	1.676 in	1912 lbs	2.429 in	2550 lbs	3.182 in
35'	2065	0 lbs	0.316 in	516 lbs	1.287 in	1032 lbs	2.258 in	1548 lbs	3.229 in	2065 lbs	4.200 in
40'	1520	0 lbs	0.538 in	380 lbs	1.604 in	760 lbs	2.669 in	1140 lbs	3.735 in	1520 lbs	4.800 in
45'	1170	0 lbs	0.842 in	292 lbs	1.981 in	585 lbs	3.120 in	877 lbs	4.260 in	1170 lbs	5.400 in
50'	900	0 lbs	1.263 in	225 lbs	2.447 in	450 lbs	3.632 in	675 lbs	4.816 in	900 lbs	6.000 in
55'	660	0 lbs	1.886 in	165 lbs	3.064 in	330 lbs	4.243 in	495 lbs	5.421 in	660 lbs	6.600 in
60'	540	0 lbs	2.504 in	135 lbs	3.678 in	270 lbs	4.852 in	405 lbs	6.026 in	540 lbs	7.200 in
65'	390	0 lbs	3.467 in	97 lbs	4.550 in	195 lbs	5.633 in	292 lbs	6.717 in	390 lbs	7.800 in

- Deflection is theoretical only based on the above loading criteria.
- Truss self-weight is included.



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