PROLYTE

Verto Truss

Product Specific Brochure

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Prolyte Verto Truss

ROTATING COUPLING SYSTEM

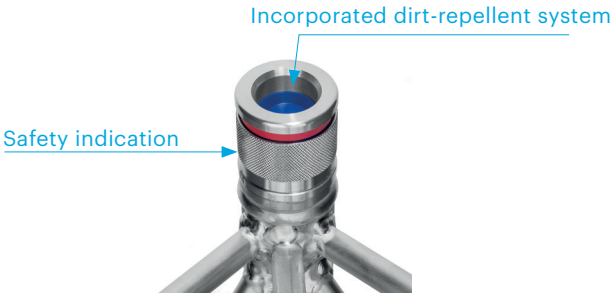
The Verto truss is based on a new principle of truss connection, where the sections are joined by a rotating coupler system. This system has great advantages over existing systems. The name Verto is derived from Latin, meaning to turn or to turn around and that is exactly how this coupler works. A simple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

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.

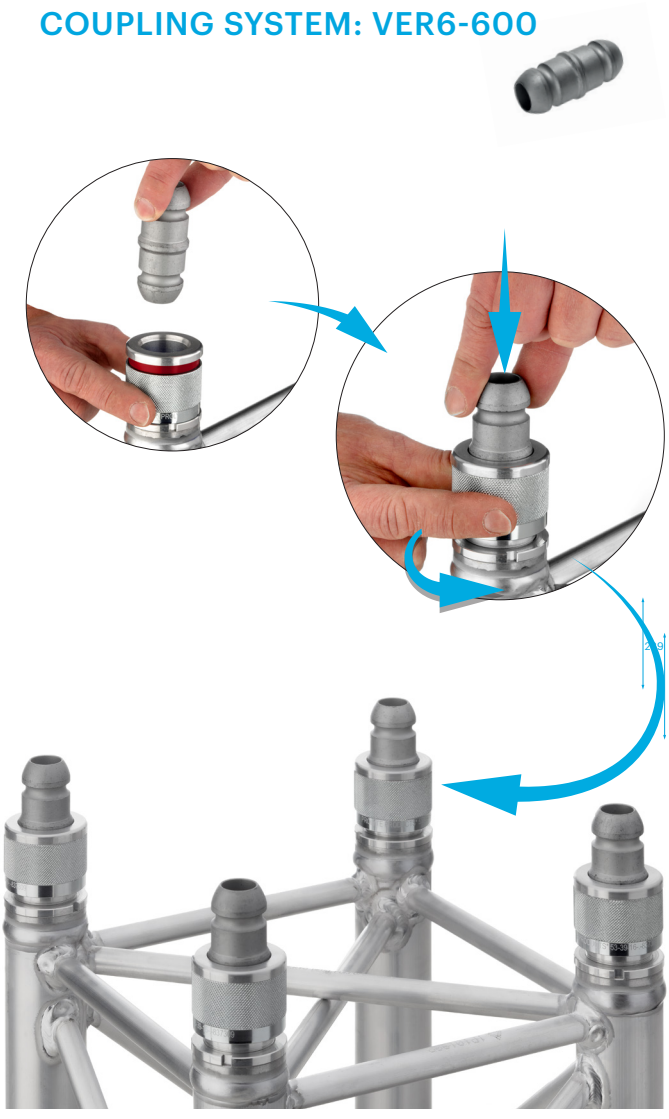
BRINGING BENEFITS TO THE WORK FLOOR

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.



COUPLING SYSTEM: VER6-600



Advantages:

- 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
- Free 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

Verto H30V

Verto H30 Series truss is constructed of main chords (48 x 3 mm) and diagonal members (16 x 2 mm). Equipped with the Verto coupling system, the Verto H30 truss is fast and easy to assemble.

The Verto H30 truss can be found in rental fleets all over the globe, where its optimum strength and flexible application possibilities makes it well loved and much used. H30 truss is available in a square profile and a range accessories.

Technical Specifications - Verto H30V

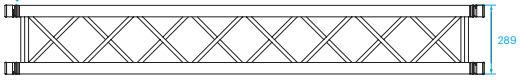
Type	VER-H30V
Alloy	EN AW 6082 T6
Main Chords	48 x 3 mm
Diagonal Members	16 x 2 mm
Coupling System	Verto, CrMo4

VER-H30V - Standard available Lengths and Codes

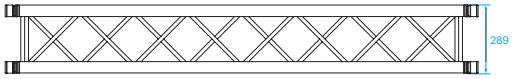
Metres	Feet	Code
0,25	0,82	VER-H30V-L025
0,29	0,95	VER-H30V-L029
0,50	1,64	VER-H30V-L050
0,71	2,33	VER-H30V-L071
1,00	3,28	VER-H30V-L100
1,50	4,57	VER-H30V-L150
2,00	6,56	VER-H30V-L200
2,50	8,20	VER-H30V-L250
3,00	9,84	VER-H30V-L300
4,00	13,12	VER-H30V-L400

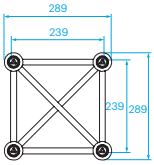
VER-H30V

Top View



Side View





VER-H30V - Allowable Loading

		Uniformly Distributed Load				MAXIMUM ALLOWABLE POINT LOADS										
						Centre Point Load				Single Load Third Points Load per Point		Single Load Fourth Points Load per Point		Single Load Fifth Points Load per Point		
SPAN		UDL		DEFLECTION		CPL		DEFLECTION		TPL		QPL		FPL		SPAN
m	ft	kg/m	lbs/ft	mm	inch	kgs	lbs	mm	inch	kgs	lbs	kgs	lbs	kgs	lbs	total weight
3	9,8	647,4	435,6	10	0,4	1557,0	3436,4	8	0,3	971,1	2143,3	647,4	1428,9	485,6	1071,6	21,4
4	13,1	483,8	325,5	18	0,7	1228,7	2711,7	15	0,6	862,4	1903,3	645,0	1423,6	483,8	1067,7	28,4
5	16,4	385,6	259,4	28	1,1	1025,0	2262,2	23	0,9	702,7	1550,8	565,7	1248,4	449,8	992,7	35,5
6	19,7	320,1	215,4	41	1,6	877,2	1935,9	33	1,3	609,1	1344,2	476,9	1052,6	375,4	828,5	42,6
7	23,0	254,1	170,9	56	2,2	764,6	1687,4	45	1,8	536,3	1183,6	411,1	907,3	326,1	719,7	49,7
8	26,2	192,8	129,7	73	2,9	675,8	1491,4	58	2,3	477,9	1054,8	360,2	794,9	287,4	634,4	56,8
9	29,5	150,8	101,5	92	3,6	603,7	1332,3	74	2,9	430,0	949,0	319,5	705,2	256,3	565,6	63,9
10	32,8	120,8	81,3	114	4,5	543,9	1200,3	91	3,6	389,8	860,2	286,2	631,6	230,5	508,7	71
11	36,1	98,6	66,3	137	5,4	493,3	1088,6	110	4,3	355,5	784,6	258,3	570,1	208,8	460,8	78,1
12	39,4	81,7	55,0	164	6,5	449,8	992,7	131	5,2	325,8	719,1	234,6	517,7	190,2	419,8	85,2
13	42,6	68,5	46,1	192	7,6	411,9	909,1	154	6,1	299,8	661,7	214,0	472,4	174,1	384,2	92,3
14	45,9	58,1	39,1	223	8,8	378,6	835,5	178	7,0	276,8	611,0	196,1	432,8	159,9	352,9	99,4
15	49,2	49,7	33,4	256	10,1	348,9	770,0	205	8,1	256,3	565,6	180,2	397,7	147,3	325,1	106,5
16	52,5	42,8	28,8	291	11,5	322,2	711,1	233	9,2	237,7	524,6	166,0	366,4	136,0	300,2	113,6
17	55,8	37,1	25,0	328	12,9	298,1	657,9	263	10,4	220,9	487,4	153,2	338,2	125,8	277,7	120,7
18	59,0	32,3	21,7	368	14,5	276,1	609,3	295	11,6	205,4	453,4	141,6	312,6	116,5	257,2	127,8
19	62,3	28,3	19,0	410	16,1	255,9	564,8	328	12,9	191,2	422,1	131,0	289,2	108,0	238,4	134,9
20	65,6	24,8	16,7	454	17,9	237,3	523,6	364	14,3	178,1	393,0	121,3	267,6	100,2	221,1	142

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

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- Loading figures are only valid for single spans with supports at both ends.
- All static systems, other than single spans, need an individual structural calculation. Please contact a structural engineer or Prolyte for assistance.
- Loading figures are calculated according to and in full compliance with European standards (Eurocode).
- The self-weight of the trusses is already taken into account.
- Loading figures are only valid for the cross sectional orientation of the truss as shown by the icon in the loading table.
- The interaction between bending moment and shear force at the connection point is already taken into account.
- Truss spans can be assembled from different truss lengths.
- Read the manual before assembling, using and loading the truss.

Verto H40V

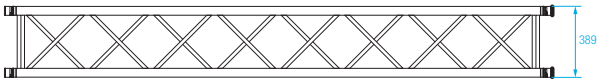
The Verto H40V offers extra strength compared to the Verto H30V, next to its flexible application possibilities and is the ideal solution for the event or exhibition market.

Technical Specifications - Verto H40V

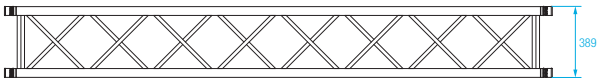
Type	VER-H40V
Alloy	EN AW 6082 T6
Main Chords	48 x 3 mm
Diagonal Members	20 x 2 mm
Coupling System	Verto, CrMo4

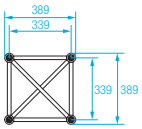
VER-H40V

Top View



Side View





VER-H40V - Standard available Lengths and Codes

Metres	Feet	Code
0,50	1,64	VER-H40V-L050
1,00	3,28	VER-H40V-L100
1,50	4,57	VER-H40V-L150
2,00	6,56	VER-H40V-L200
2,50	8,20	VER-H40V-L250
3,00	9,84	VER-H40V-L300
4,00	13,12	VER-H40V-L400

VER-H40V - Allowable Loading

						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		
SPAN		UDL		DEFLECTION		CPL		DEFLECTION		TPL		QPL		FPL		SPAN
m	ft	kg/m	lbs/ft	mm	inch	kgs	lbs	mm	inch	kgs	lbs	kgs	lbs	kgs	lbs	total weight
3	9,8	834,5	561,5	7	0,3	2011,3	4438,9	6	0,2	1251,7	2762,5	834,5	1841,7	625,8	1381,2	24
4	13,1	624,0	419,9	13	0,5	1595,7	3521,8	10	0,4	1100,7	2429,2	832,1	1836,4	624,0	1377,3	32
5	16,4	497,8	334,9	20	0,8	1352,2	2984,4	16	0,6	915,7	2021,0	768,2	1695,3	612,0	1350,7	40
6	19,7	413,6	278,3	29	1,1	1171,3	2585,1	23	0,9	793,0	1750,2	656,1	1448,0	506,0	1116,8	48
7	23,0	353,5	237,9	40	1,6	1031,4	2276,3	32	1,2	706,6	1559,4	569,5	1256,9	443,4	978,6	56
8	26,2	276,5	186,1	52	2,0	919,6	2029,6	41	1,6	636,2	1404,1	502,1	1108,2	394,0	869,5	64
9	29,5	217,0	146,0	65	2,6	828,2	1827,8	52	2,1	577,6	1274,8	448,1	988,9	353,8	780,9	72
10	32,8	174,4	117,3	81	3,2	751,8	1659,1	65	2,5	528,0	1165,4	403,7	890,9	320,4	707,2	80
11	36,1	142,9	96,1	98	3,8	686,8	1515,9	78	3,1	485,5	1071,4	366,5	808,8	292,2	644,9	88
12	39,4	118,9	80,0	116	4,6	630,9	1392,4	93	3,7	448,4	989,7	334,8	738,9	268,0	591,4	96
13	42,6	100,2	67,4	137	5,4	582,1	1284,4	109	4,3	415,8	917,7	307,4	678,5	246,9	545,0	104
14	45,9	85,4	57,5	158	6,2	539,0	1189,6	127	5,0	386,9	853,9	283,5	625,7	228,4	504,1	112
15	49,2	73,5	49,5	182	7,2	500,7	1105,0	146	5,7	361,0	796,7	262,4	579,1	212,0	467,9	120
16	52,5	63,7	42,9	207	8,1	466,3	1029,0	166	6,5	337,6	745,1	243,5	537,5	197,3	435,4	128
17	55,8	55,6	37,4	234	9,2	435,1	960,4	187	7,4	316,4	698,2	226,6	500,1	184,0	406,1	136
18	59,0	48,8	32,9	262	10,3	406,8	897,8	210	8,3	296,9	655,4	211,3	466,3	171,9	379,5	144
19	62,3	43,1	29,0	292	11,5	380,9	840,6	233	9,2	279,1	615,9	197,3	435,5	160,9	355,2	152
20	65,6	38,2	25,7	323	12,7	357,0	787,8	259	10,2	262,6	579,5	184,5	407,2	150,8	332,8	160

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

Without deflection limit

- Tüv certification only valid for loading table above.
- Loading figures are only valid for static loads.
- Loading figures are only valid for single spans with supports at both ends.
- All static systems, other than single spans, need an individual structural calculation. Please contact a structural engineer or Prolyte for assistance.
- Loading figures are calculated according to and in full compliance with European standards (Eurocode).
- The self-weight of the trusses is already taken into account.
- Loading figures are only valid for the cross sectional orientation of the truss as shown by the icon in the loading table.
- The interaction between bending moment and shear force at the connection point is already taken into account.
- Truss spans can be assembled from different truss lengths.
- Read the manual before assembling, using and loading the truss.

Verto H40R

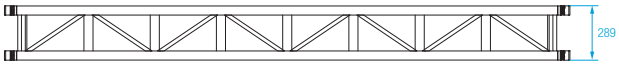
The Verto-H40R has a clever program of specifications; compact and strong, and three-sided webbing. The thicker braces on the bottom side allow easy mounting of moving heads and central loading, reducing the torsion effect resulting from one-sided loading in standard trusses.

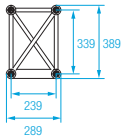
Technical Specifications - Verto H40R

Type	VER-H40R
Alloy	EN AW 6082 T6
Main Chords	48 x 3 mm
Diagonal Members	20 x 2 mm
Coupling System	Verto, CrMo4

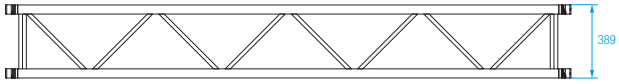
VER-H40R

Top View





Side View



VER-H40R - Standard available Lengths and Codes

Metres	Feet	Code
0,50	1,64	VER-H40R-L050
1,00	3,28	VER-H40R-L100
1,50	4,57	VER-H40R-L150
2,00	6,56	VER-H40R-L200
2,50	8,20	VER-H40R-L250
3,00	9,84	VER-H40R-L300
4,00	13,12	VER-H40R-L400

VER-H40R - Allowable Loading

						MAXIMUM AvvLLOWABLE 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		
SPAN		UDL		DEFLECTION		CPL		DEFLECTION		TPL		QPL		FPL		SPAN
m	ft	kg/m	lbs/ft	mm	inch	kgs	lbs	mm	inch	kgs	lbs	kgs	lbs	kgs	lbs	total weight
3	9,8	834,5	561,5	7	0,3	2011,3	4438,9	6	0,2	1251,7	2762,5	834,5	1841,7	625,8	1381,2	24
4	13,1	624,0	419,9	13	0,5	1595,7	3521,8	10	0,4	1100,7	2429,2	832,1	1836,4	624,0	1377,3	32
5	16,4	497,8	334,9	20	0,8	1352,2	2984,4	16	0,6	915,7	2021,0	768,2	1695,3	612,0	1350,7	40
6	19,7	413,6	278,3	29	1,1	1171,3	2585,1	23	0,9	793,0	1750,2	656,1	1448,0	506,0	1116,8	48
7	23,0	353,5	237,9	40	1,6	1031,4	2276,3	32	1,2	706,6	1559,4	569,5	1256,9	443,4	978,6	56
8	26,2	276,5	186,1	52	2,0	919,6	2029,6	41	1,6	636,2	1404,1	502,1	1108,2	394,0	869,5	64
9	29,5	217,0	146,0	65	2,6	828,2	1827,8	52	2,1	577,6	1274,8	448,1	988,9	353,8	780,9	72
10	32,8	174,4	117,3	81	3,2	751,8	1659,1	65	2,5	528,0	1165,4	403,7	890,9	320,4	707,2	80
11	36,1	142,9	96,1	98	3,8	686,8	1515,9	78	3,1	485,5	1071,4	366,5	808,8	292,2	644,9	88
12	39,4	118,9	80,0	116	4,6	630,9	1392,4	93	3,7	448,4	989,7	334,8	738,9	268,0	591,4	96
13	42,6	100,2	67,4	137	5,4	582,1	1284,4	109	4,3	415,8	917,7	307,4	678,5	246,9	545,0	104
14	45,9	85,4	57,5	158	6,2	539,0	1189,6	127	5,0	386,9	853,9	283,5	625,7	228,4	504,1	112
15	49,2	73,5	49,5	182	7,2	500,7	1105,0	146	5,7	361,0	796,7	262,4	579,1	212,0	467,9	120
16	52,5	63,7	42,9	207	8,1	466,3	1029,0	166	6,5	337,6	745,1	243,5	537,5	197,3	435,4	128
17	55,8	55,6	37,4	234	9,2	435,1	960,4	187	7,4	316,4	698,2	226,6	500,1	184,0	406,1	136
18	59,0	48,8	32,9	262	10,3	406,8	897,8	210	8,3	296,9	655,4	211,3	466,3	171,9	379,5	144
19	62,3	43,1	29,0	292	11,5	380,9	840,6	233	9,2	279,1	615,9	197,3	435,5	160,9	355,2	152
20	65,6	38,2	25,7	323	12,7	357,0	787,8	259	10,2	262,6	579,5	184,5	407,2	150,8	332,8	160

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- Truss spans can be assembled from different truss lengths.
- Read the manual before assembling, using and loading the truss.

Verto H40V-MB

SYSTEM DESCRIPTION

Verto H40V-MB Series truss is the latest addition to the Verto program, constructed of main chords (48 x 3 mm) and diagonal members (20 x 2 mm).

Equipped with the Verto coupling system, the H40V-MB truss is fast and easy to assemble. The H40V-MB offers extra strength, next to its flexible application possibilities and is the ideal solution for the event or exhibition market.

The extra middle beam in the bottom surface will guarantee safe and easy suspension of your LED wall.

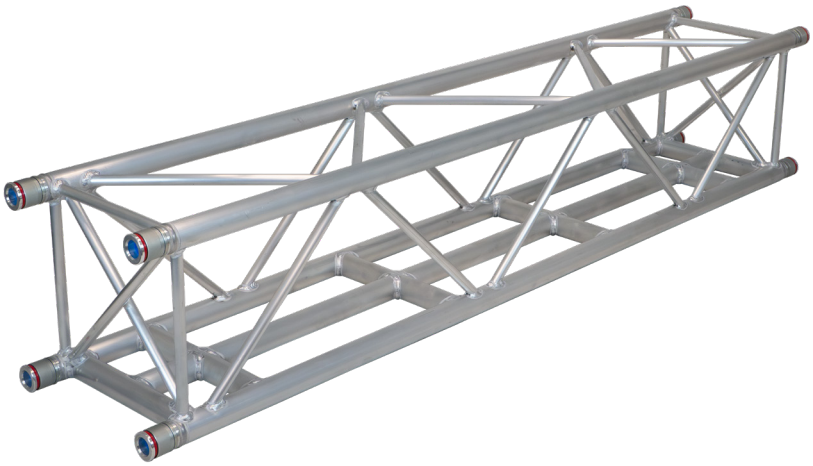
Keeping the total load in the middle of your truss section, thereby avoiding unbalanced loading or using the truss in a diamond shape. The Verto H40V-MB series is fully compatible with the regular Verto H40V-MB truss series and can be combined in one grid.

H40-MB - Allowable loading on the middle beam

		MAXIMUM ALLOWABLE POINT LOADS			
		Centre Point load			
SPAN		CPL		DEFLECTION	
m	ft	kgs	lbs	cm	in
3	9,8	300,0	201,9	0,7	0,28
4	13,1	290,0	195,1	1,3	0,51
5	16,4	230,0	154,8	2,0	0,79
6	19,7	190,0	127,8	2,9	1,14
7	23,0	160,0	107,7	4,0	1,57
8	26,2	130,0	87,5	5,2	2,05
9	29,5	100,0	67,3	6,5	2,56
10	32,8	80,0	53,8	8,1	3,19
11	36,1	60,0	40,4	9,8	3,86
12	39,4	50,0	33,6	11,6	4,57
13	42,6	40,0	26,9	13,7	5,39
14	45,9	40,0	26,9	15,8	6,22
15	49,2	30,0	20,2	18,2	7,17
16	52,5	30,0	20,2	20,7	8,15
17	55,8	20,0	13,5	23,4	9,21
18	59,0	20,0	13,5	26,2	10,31
19	62,6	20,0	13,5	29,2	11,50
20	65,6	10,0	6,7	32,3	12,72

Technical Specifications - Verto H40R-MB

Alloy	EN AW 6082 T6
Main Chords	48 x 3 mm
Diagonal Members	20 x 2 mm
Coupling System	Verto



Verto HT Tower

SYSTEM DESCRIPTION

The Verto HT tower is an upgrade on the MPT Tower. It is based on Verto H30V truss sections and uses a new type of sleeve block that fits the 40 square series (Verto or conical) truss on all four sides by means of bolted half couplers.

The HT sleeve block is a fully bolted structural element, making it much stronger and more precise than conventional welded versions. Compared to the current MPT sleeve block, the HT sleeve block is reduced in size and has the same measurements as the standard H40V box corner. The transfer of forces is optimised, which makes the element as strong as the truss is; creating a significant increase of, for example, cantilever loads.

Also, a dedicated guywire attachment is integrated into the sleeve block. The sleeve block has wire thread holes on all 4 sides, which are suitable to attach eye bolts that can take guywires to stabilize your system.

Verto HT Tower Technical Specifications:

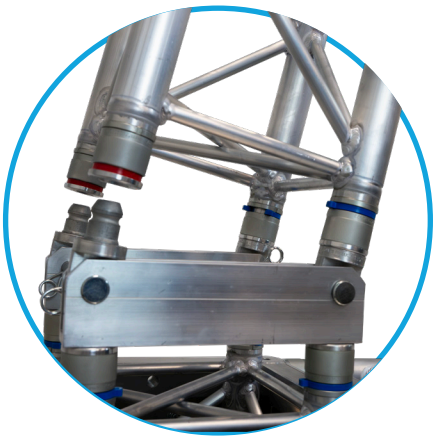
Max. truss tower height	• 7.50 meters
Max. loading capacity	• 1000 kg*
Type mast sections	• VER-H30V
Sleeve block suitable for truss-series	• 40 square series
Alloy aluminium parts	• EN-AW 6082 T6
Coupling system tower	• Verto
Self weight	• 125 kg

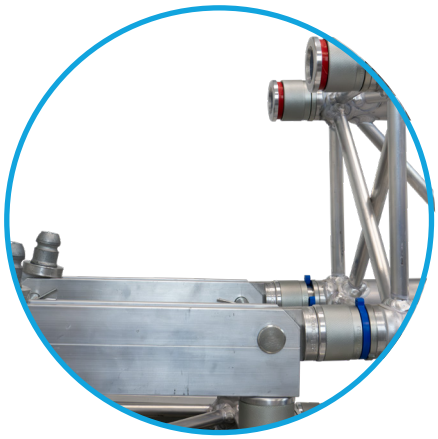
*There is a structural relation between tower height and size, further the applied load and the method of restraining the tower base and top also have its influence on the total loading capacity. All these factors must be taken into consideration when determining the allowable load. More information can be found in the Prolyte Blackbook.

Verto HT Tower

NEW HINGE SYSTEM

The hinge set is completely redesigned, to make it more user friendly and to improve the force transfer during the erecting of the tower. The couplers of the hinge part are automatically in the right position to take connectors of the two main chords when the complete tower reaches the final vertical position.





HT TOWER DEAD HANG SOLUTION

The HT tower also has a new dead hang solution. The dead hang of the system can now be done by a dead hang pin which will be placed through the sleeve block in a special Verto H30V tower section with a length of 50 cm. This dead hang solution is quick, lightweight, easy to attach and protects your system against uplift. The top section (VER-009S) and base section (VER-004) can facilitate the use of either a hand winch or a chain hoist.

VER-004 with the HT-010

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Find out more about Verto here: