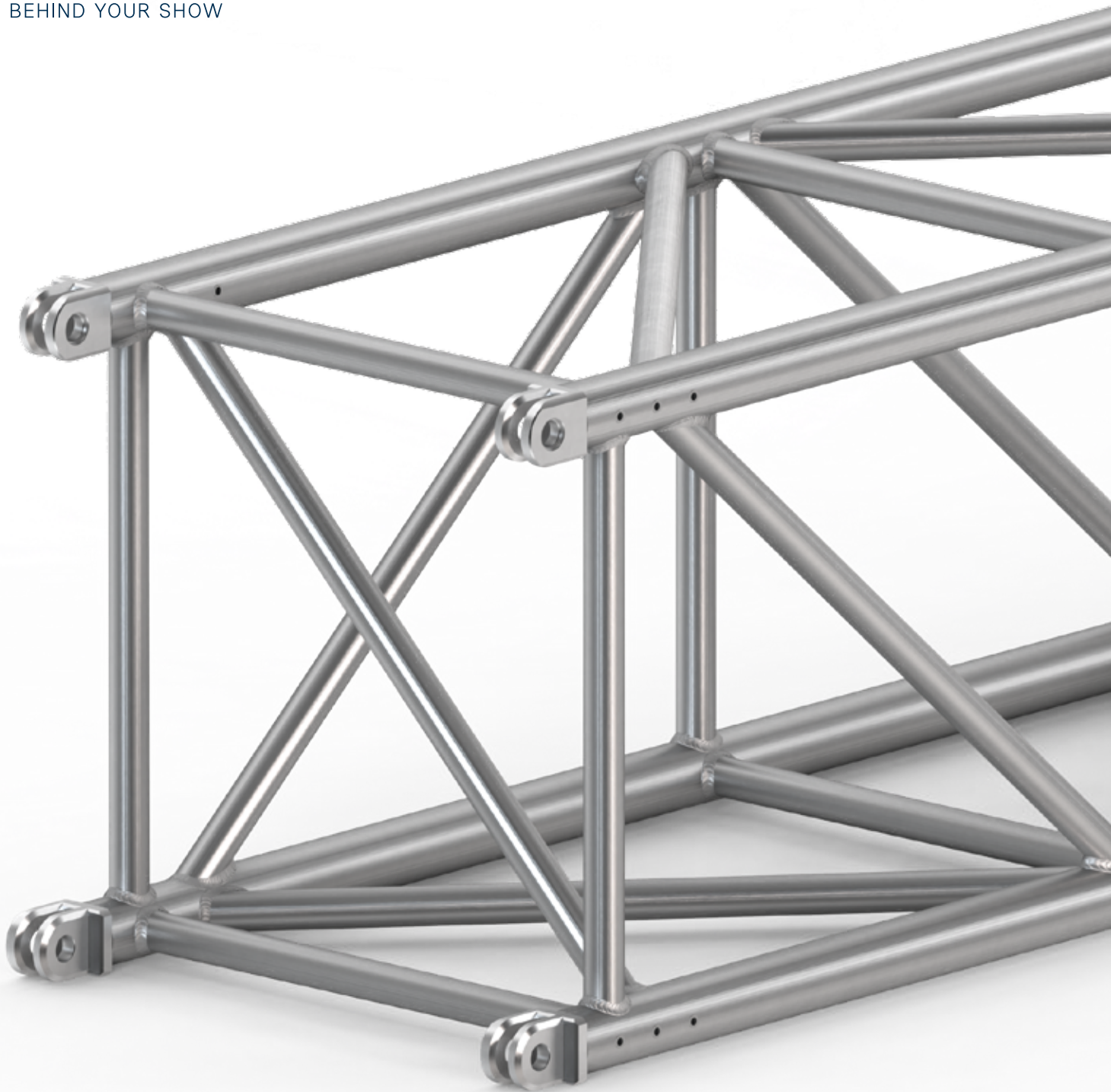




Index

FORK TRUSS

Contents

FORK High Load Trusses	4
RF40	6
QL40A	10
QL52A	16
QL52Z	22
QL76A	24
QL85A	28
RL76A	30
RL76AZ3	31
RL105A	38
MyT High Load Trusses	42
MyT	48
MyT Steroid	50
MyT Folding Steroid	52
LIBERA STAR System Trusses	56
Libera FL52	62
Libera FL76	66
Libera FL105	70

High-Load Aluminium Structures for Demanding Applications

The growing demand for high load aluminium structures with extended spans has led to an expanded range of models featuring fork-end connections.

When your event calls for top-level performance, LITEC provides the most suitable structure for the job.

Designed to deliver strength and long-term durability, these trusses are ideal as structural components in grids, heavy-duty beams, or ground-support towers.

For specific applications such as ground-support towers, delay towers and roofing systems, please refer to the dedicated catalogues listed on the back cover.

FORK Series

Aluminium Truss

Fork Trusses, Engineered for Performance

Fork connections have long been one of the most widely used solutions for joining trusses.

To combine the lightness of aluminium with the high performance of fork connection systems, the forks are secured to the chords using steel spring pins. *(Only the circles with aluminium forks remain welded.)*

This design choice has allowed our engineers to overcome the limitations of welding, making it possible to use different materials.

From the well-known **AW-6082 T6 aluminium**, to the higher-strength **AW-7003 T6 aluminium**, each truss is built with forks made from the most suitable materials, selected according to the function of each component.

Aluminium trusses with fork connections are available in various models, made from different alloys depending on structural requirements.

Each truss is designed according to its specific application, using the most appropriate geometries and materials to ensure maximum performance.

The world of LITEC fork trusses is broad and versatile, reflecting the wide range of structural challenges we face every day. Shapes, materials and solutions are engineered to provide the most effective technical response - always ensuring the right balance of efficiency, performance and reliability.

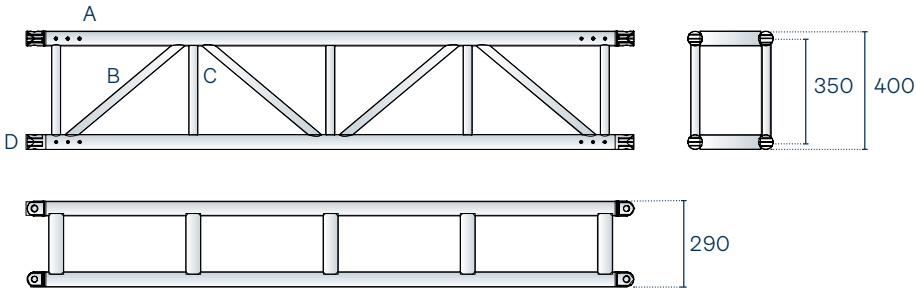


High Load 40 x 29 cm rectangular-section aluminium truss.

It is the most compact truss of the High Load series with a fork connection. Suitable for quite long spans, it keeps an optimum ratio between maximum load and truss deflection. The horizontally-aligned fork ends allow the truss to be used with only minimal accessories to build grid structures.

LINEAR ELEMENTS					
Code	W × H × D (cm)	kg	Code	W × H × D (cm)	kg
RF40100	40 × 29 × 100	13.2	RF40300	40 × 29 × 300	20.0
RF40200	40 × 29 × 200	16.8	RF40400	40 × 29 × 400	23.2

Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 50 × 3 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Aluminium Fork Connector EN AW – 6082 T6	KHLP: cylindrical pin + safety R-clip



Load table / Fork connection

span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
3	1928	5785	5	2524	2524	4	1593	3186	4	1222	3665	4	1009	4038	5
4	1257	5029	11	2084	2084	7	1351	2702	8	1059	3176	9	887	3549	9
5	852	4262	18	1770	1770	12	1171	2343	14	932	2797	15	771	3084	16
6	616	3696	28	1537	1537	18	1032	2065	21	832	2496	24	666	2662	24
7	458	3205	38	1356	1356	26	920	1840	30	750	2250	34	585	2340	34
8	353	2822	50	1211	1211	35	830	1659	41	667	2000	45	519	2077	45
9	279	2515	64	1090	1090	45	754	1508	53	595	1786	58	467	1867	58
10	226	2264	80	990	990	57	690	1380	67	537	1610	73	423	1692	73
11	187	2054	98	905	905	70	634	1269	83	487	1462	88	386	1543	89
12	156	1875	117	832	832	85	586	1172	101	445	1336	106	354	1416	107
13	132	1721	138	768	768	101	544	1088	120	409	1227	125	326	1305	127
14	113	1586	160	711	711	119	505	1010	141	377	1131	146	302	1207	149
15	98	1467	185	660	660	138	471	942	164	349	1047	169	280	1120	172
16	85	1361	211	615	615	158	440	881	188	324	972	193	261	1042	197
17	74	1266	239	574	574	180	413	825	215	301	904	218	243	972	223
18	66	1180	268	536	536	204	387	774	243	281	843	246	227	908	252
19	58	1099	299	502	502	230	364	727	273	263	788	275	212	850	282
20	51	1026	331	471	471	257	342	684	305	245	736	306	199	796	314

Cantilever load table / Fork connection

span	Unif. distributed load			Centre point load	
	Point load	Full load	mm	Point load	mm
[m]	[kg/m]	[kg]	mm	[kg]	mm
1	2165	2165	1	1593	1
2	790	1581	4	1035	7
3	413	1238	11	762	18
4	252	1010	22	598	34
5	169	846	36	488	55
6	120	722	55	408	81
7	89	624	77	348	111

Axial load table

span	Axial load
	[kg/m]
[m]	[kg/m]
3	17392
6	8148
9	3852
12	2222
15	1407

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

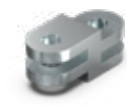
The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

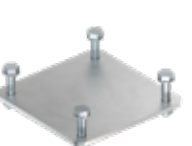
FORK Truss **RF40**



The fork connection is secured by a 20 mm steel pin. In specific cases, bolts with nuts or bolts with lifting eyes can be used. A range of adapters with different fork orientations is also available to optimise special configurations.

 KHLP 20 mm Cylindrical pin + 3 mm safety R-clip	 KHLB M20 screw bolt + spring washer	 KHLD M20 screw nut + spring washer	 KHLF Threaded female fork connector + spring washer	 KHLG M20 Lifting Eye
 KHLM Male fork connector complete	 KHL180A 180° double fork aluminum connector	 KHL180S 180° double fork steel connector	 KHL90LA 90° double fork alum. connector, left	 KHL90LS 90° double fork steel connector, left
 KHL90RA 90° double fork alum. connector, right	 KHL90RS 90° double fork steel connector, right			

Complements

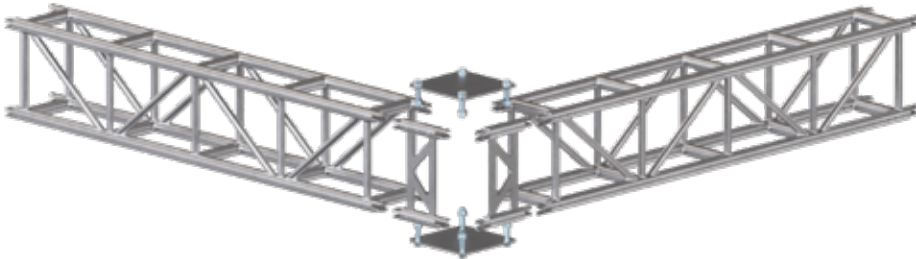
 CBT3040 2 points Bridle Hook for 29/40 cm truss	 CBQ3040 4 points Bridle Hook for 29/40 cm truss	 CS029-40 Ceiling support for 30-40 truss series - silver	 C030 Bar hook for 29 cm. truss
 KF30P3030 Plate for 90° corner incl. Bolts	 FF40023M9P Heavy Load 40 Gate - 23.9 cm	 KF30L2135 Kit for 135° corner	

Corner Solutions

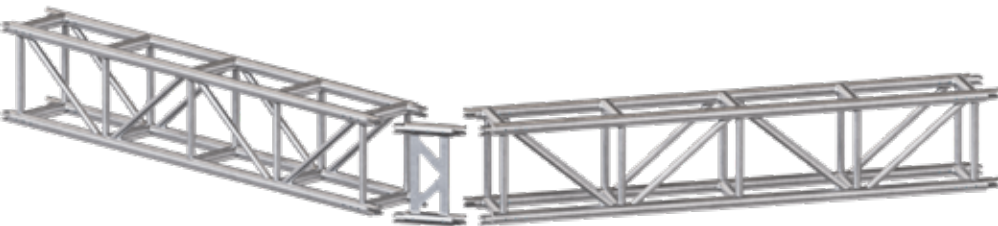
FORK TRUSS
RF40

By using the appropriate complements, angles at various degrees can be achieved.

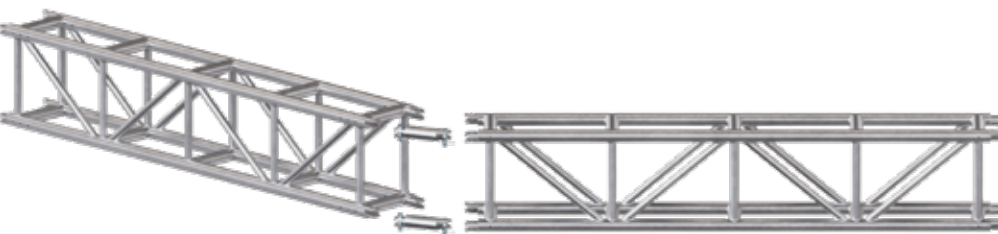
2-Way Corner 90° KF30P3030



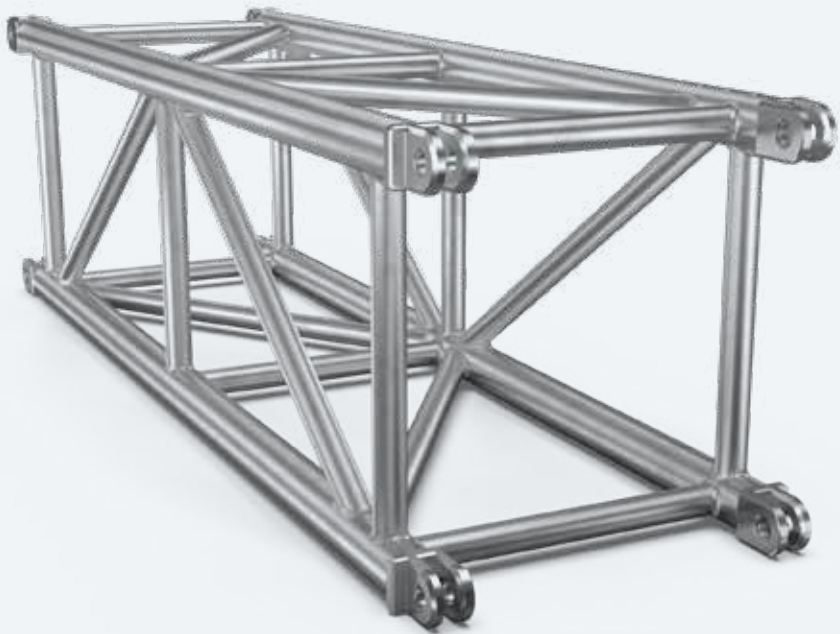
2-Way Corner 120° FF40023M9P



2-Way Corner 135° KF30L2135



The drawings shown on these pages are intended as examples of possible configurations between trusses and selected accessories. Many other combinations are possible, including the development of custom accessories when required by specific project needs.

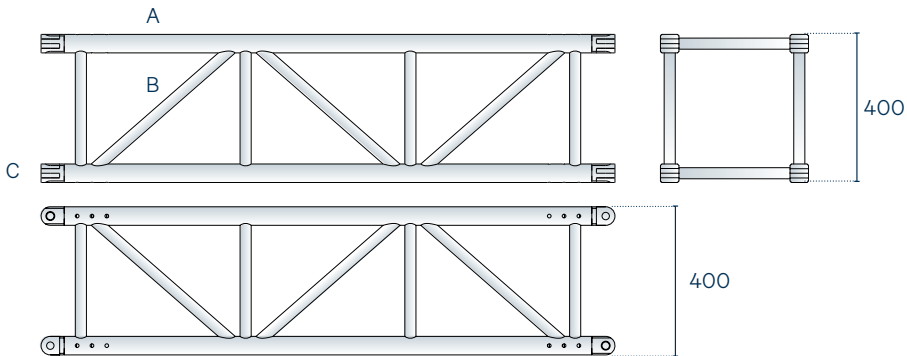


Square section High Load aluminium truss with 40 cm long sides.

It is diagonalized on all faces and is provided with an aluminium fork connection. This guarantees excellent rigidity and elevated resistance in both horizontal and vertical applications despite its reduced section.

LINEAR ELEMENTS					
Code	W × H × D (cm)	kg	Code	W × H × D (cm)	kg
QL40100A	40 × 40 × 100	14.70	QL40200A	40 × 40 × 200	25.30
QL40130A	40 × 40 × 130	17.50	QL40300A	40 × 40 × 300	36.20

Chords A	Diagonals B	Ends C	Connection systems
Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Aluminium Fork Connector EN AW – 6082 T6	KHLP: cylindrical pin + safety R-clip



Load table / Fork connection

span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
3	1673	5018	3	3238	3238	4	2080	4161	4	1624	4871	4	1255	5018	4
4	1252	5007	8	2643	2643	7	1742	3484	8	1383	4149	9	1154	4615	9
5	999	4995	16	2230	2230	12	1497	2993	13	1206	3618	15	966	3862	15
6	742	4454	25	1926	1926	17	1310	2620	20	1068	3203	23	830	3320	23
7	542	3796	34	1692	1692	25	1163	2326	29	930	2789	32	726	2904	32
8	412	3300	45	1505	1505	33	1044	2088	39	819	2457	42	644	2576	42
9	323	2911	56	1353	1353	42	945	1889	50	728	2183	54	578	2310	54
10	260	2598	70	1227	1227	53	862	1724	63	650	1949	66	522	2087	68
11	213	2340	84	1119	1119	66	791	1582	78	585	1755	80	475	1902	83
12	177	2122	101	1027	1027	79	729	1459	95	531	1592	96	436	1742	100
13	149	1937	118	946	946	94	675	1350	113	484	1453	113	401	1604	118
14	127	1776	137	875	875	111	627	1254	133	444	1332	131	370	1480	138
15	109	1635	158	812	812	129	584	1169	154	409	1226	151	341	1363	159
16	94	1510	180	755	755	148	546	1091	177	378	1133	172	315	1259	181
17	82	1399	203	700	700	168	511	1021	202	350	1049	194	291	1166	205
18	72	1299	228	649	649	189	478	956	229	325	974	218	271	1082	230
19	64	1208	255	604	604	212	449	897	257	302	906	244	252	1006	256
20	56	1125	283	562	562	237	422	843	288	281	844	271	234	937	284

Cantilever load table / Fork connection

span	Unif. distributed load			Centre point load	
	Point load	Full load	mm	Point load	mm
[m]	[kg/m]	[kg]	mm	[kg]	mm
0.5	5042	2521	0	2521	0
1.0	2515	2515	1	2081	1
1.5	1619	2429	2	1613	4
2.0	1033	2066	4	1315	7
2.5	720	1799	7	1108	11
3.0	530	1590	11	955	17
3.5	406	1422	15	838	24
4.0	321	1284	21	745	32

Axial load table

span	Point load	Full load
	[kg]	[kg]
[m]	[kg]	[kg]
2	18054	17392
4	16913	9701
6	14903	5359
8	12244	
10	9631	
12	7507	
14	5898	
16	4696	

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

The fork connection is secured by a 20 mm steel pin. In specific cases, bolts with nuts or bolts with lifting eyes can be used. A range of adapters with different fork orientations is also available to optimise special configurations.



KHLP
20 mm Cylindrical pin
+ 3 mm safety R-clip



KHLB
M20 screw bolt
+ spring washer



KHLD
M20 screw nut
+ spring washer



KHLF
Threaded female fork
connector + spring washer



KHLG
M20 Lifting Eye



KHLM
Male fork
connector complete



KHL180A
180° double fork aluminum
connector



KHL180S
180° double fork
steel connector



KHL90LA
90° double fork
alum. connector, left



KHL90LS
90° double fork steel
connector, left

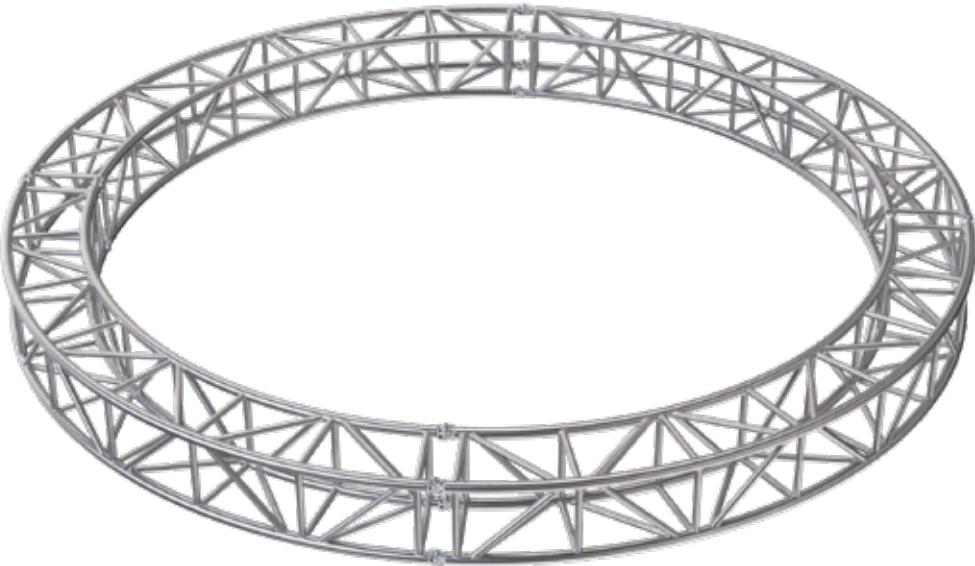


KHL90RA
90° double fork alum.
connector, right



KHL90RS
90° double fork steel
connector, right

Circles



Custom Curved Structures

Curves, ellipses and circular shapes can be created in any size. As these are generally custom-made, support from our technical department is required for project engineering.

Gates



FL40035P
HL 40 cm flat - 35 cm



FL40049M5P
HL 40 cm flat - 49.5 cm



FL40047HS
HL40 cm flat - 47 cm gate w/hoist support



FL40047PH
HL40 cm flat - 47 cm gate w/forks



QL40X4C - HL40
4 ways compact corner



QL40X6C - HL4
6 ways compact corner



MTC30D - MT30
lower frame w/wheels



MTC30G - MT30
upper frame w/wheels
& eye bolts

Accessories



C040
Bar hook for 40 cm. truss



FP40Z1
Universal 40 cm truss floor plate



Corner Configurations

FORK Truss **QL40A**

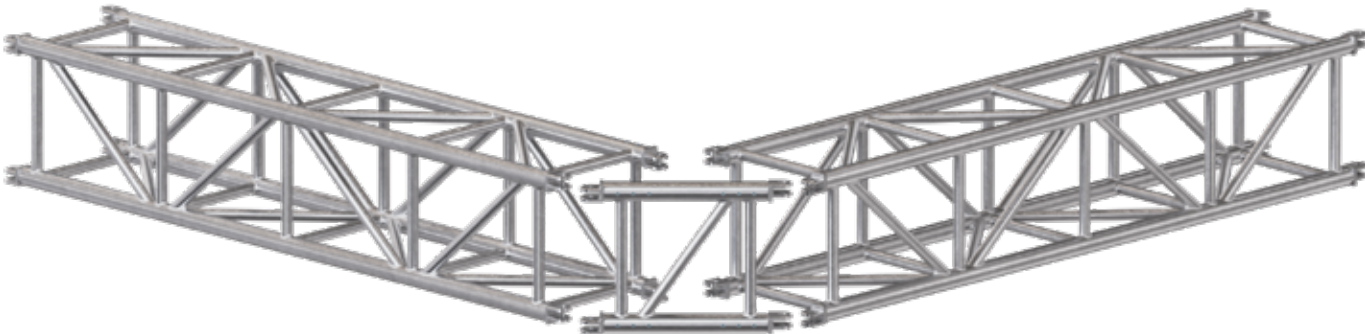


FORK TRUSS
QL40A

By using the appropriate complements, angles at various degrees can be achieved.

2-Way Corner 90°

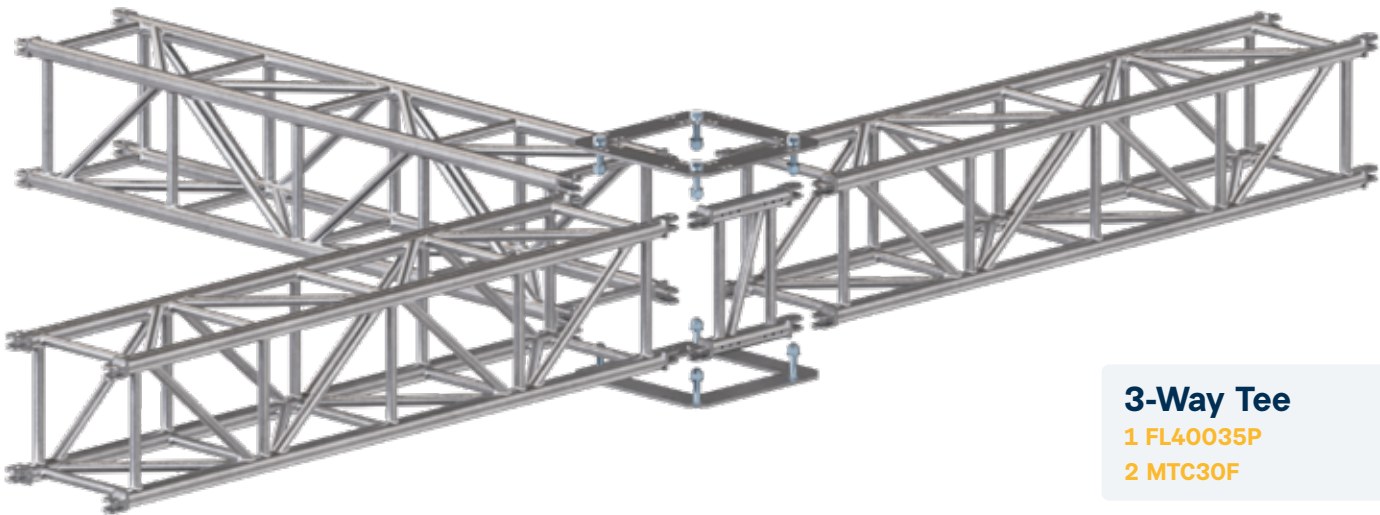
1 FL40049M5P



Sleeve Block on QH30SA

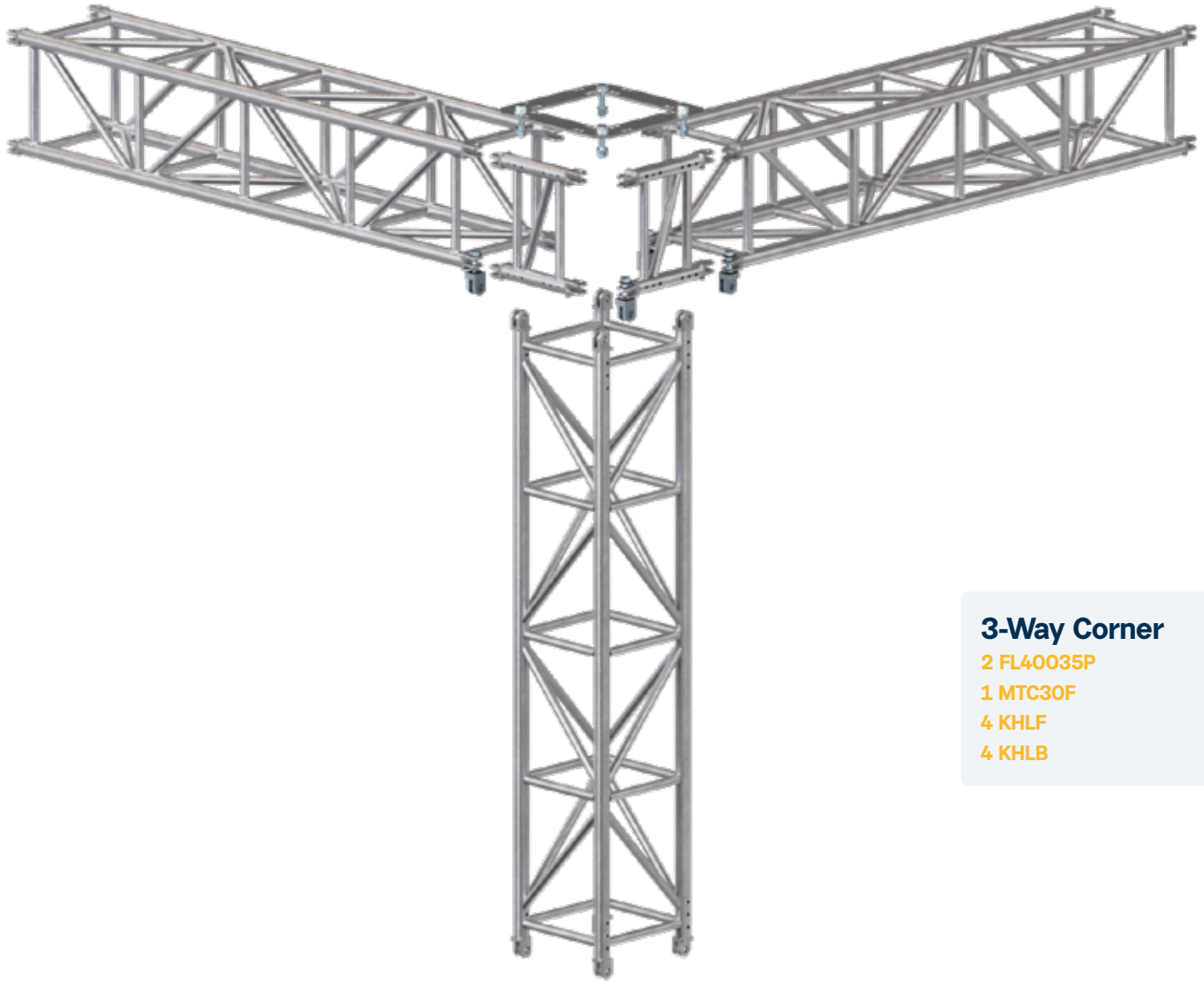
2 FL40035P
2 MTC30D (or MT30G)

The drawings shown on these pages are intended as examples of possible configurations between trusses and selected accessories. Many other combinations are possible, including the development of custom accessories when required by specific project needs.



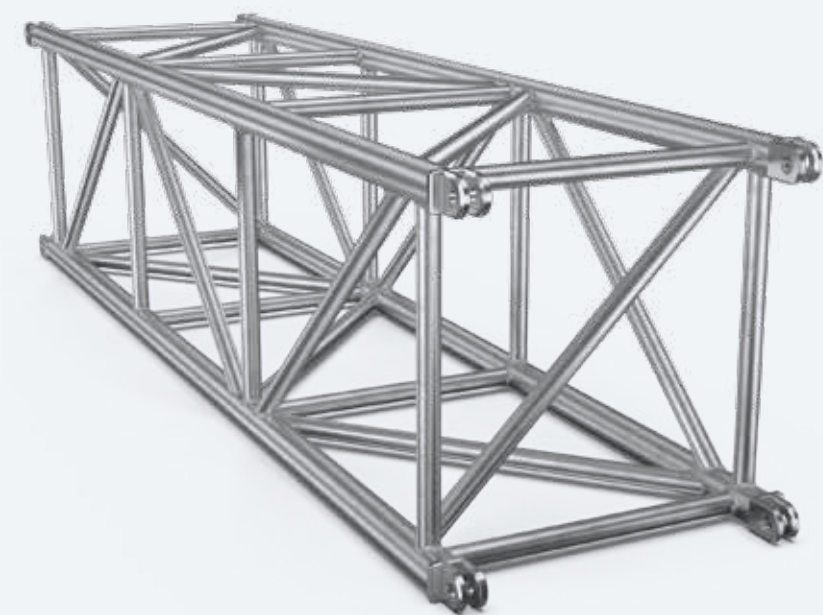
3-Way Tee

1 FL40035P
2 MTC30F



3-Way Corner

2 FL40035P
1 MTC30F
4 KHLF
4 KHLB

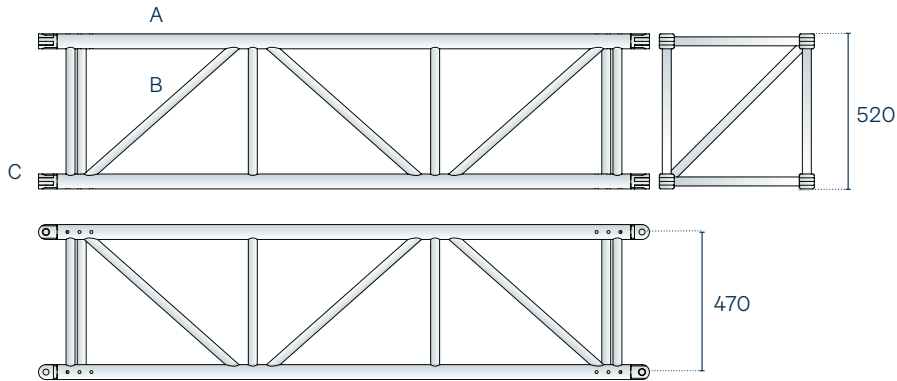


Square-section High-Load aluminium truss with 52 cm sides.

It is diagonalized on all faces and is provided with an aluminium fork connection. It shows great versatility in use both as a tower (Maxitower 52) and as a span.

LINEAR ELEMENTS				
Code	W × H × D (cm)	kg	Code	W × H × D (cm)
QL52050A	52 × 52 × 50	12.30	QL52200A	52 × 52 × 200
QL52100A	52 × 52 × 100	16.70	QL52250A	52 × 52 × 250
QL52130A	52 × 52 × 130	19.20	QL52300A	52 × 52 × 300

Chords A	Diagonals B	Ends C	Connection systems
Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Aluminium Fork Connector EN AW – 6082 T6	KHLP: cylindrical pin + safety R-clip



Load table / Fork connection

span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
3	1432	4296	2	3905	3905	2	2148	4296	2	1432	4296	2	1074	4296	2
4	1071	4285	4	3248	3248	5	2087	4174	5	1428	4285	5	1071	4285	5
5	855	4273	8	2779	2779	8	1820	3641	9	1424	4273	10	1068	4273	9
6	710	4262	13	2426	2426	12	1613	3226	14	1291	3872	15	1055	4219	16
7	607	4250	21	2150	2150	17	1447	2893	20	1169	3507	22	930	3721	22
8	523	4186	31	1927	1927	23	1310	2620	27	1046	3139	30	831	3323	30
9	386	3473	37	1736	1736	30	1196	2391	35	868	2605	35	723	2894	37
10	312	3124	46	1562	1562	37	1098	2196	44	781	2343	44	651	2603	47
11	256	2815	56	1407	1407	45	1014	2028	55	704	2111	53	586	2346	56
12	213	2554	67	1277	1277	54	941	1881	67	638	1915	63	532	2128	67
13	179	2333	78	1166	1166	64	875	1749	80	583	1749	74	486	1944	79
14	153	2139	90	1069	1069	74	802	1604	92	535	1604	86	446	1782	91
15	131	1969	104	984	984	85	738	1476	106	492	1476	99	410	1640	105
16	114	1818	118	909	909	97	682	1364	120	455	1364	113	379	1515	119
17	99	1684	133	842	842	109	631	1263	136	421	1263	127	351	1403	134
18	87	1563	149	781	781	123	586	1172	152	391	1172	142	326	1302	150
19	76	1453	166	727	727	137	545	1090	169	363	1090	159	303	1211	167
20	68	1354	183	677	677	153	508	1015	187	338	1015	176	282	1128	185
21	60	1262	202	631	631	169	473	946	206	315	946	194	263	1052	203
22	54	1178	221	589	589	186	442	883	225	294	883	212	245	981	223

Cantilever load table / Fork connection

span	Unif. distributed load			Centre point load	
	Point load	Full load	Central deflection	Point load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	mm
0.5	4319	2160	0	2160	0
1.0	2154	2154	0	2154	1
1.5	1432	2148	1	1947	2
2.0	1071	2142	2	1617	5
2.5	855	2137	5	1381	8
3.0	641	1924	7	1204	12
3.5	497	1740	10	1066	17
4.0	396	1586	14	954	23

Axial load table

span	Axial load	
	Point load	Full load
[m]	[kg]	[kg]
3	17713	15145
5	16850	10342
10	12720	
12	10729	
14	8930	
16	7418	
18	6186	
20	5191	

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

FORK Truss **QL52A**

The fork connection is secured by a 20 mm steel pin. In specific cases, bolts with nuts or bolts with lifting eyes can be used. A range of adapters with different fork orientations is also available to optimise special configurations.



KHLP
20 mm Cylindrical pin
+ 3 mm safety R-clip



KHLB
M20 screw bolt
+ spring washer



KHLD
M20 screw nut
+ spring washer



KHLF
Threaded female fork
connector + spring washer



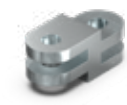
KHLG
M20 Lifting Eye



KHLM
Male fork
connector complete



KHL180A
180° double fork aluminum
connector



KHL180S
180° double fork
steel connector



KHL90LA
90° double fork
alum. connector, left



KHL90LS
90° double fork steel
connector, left

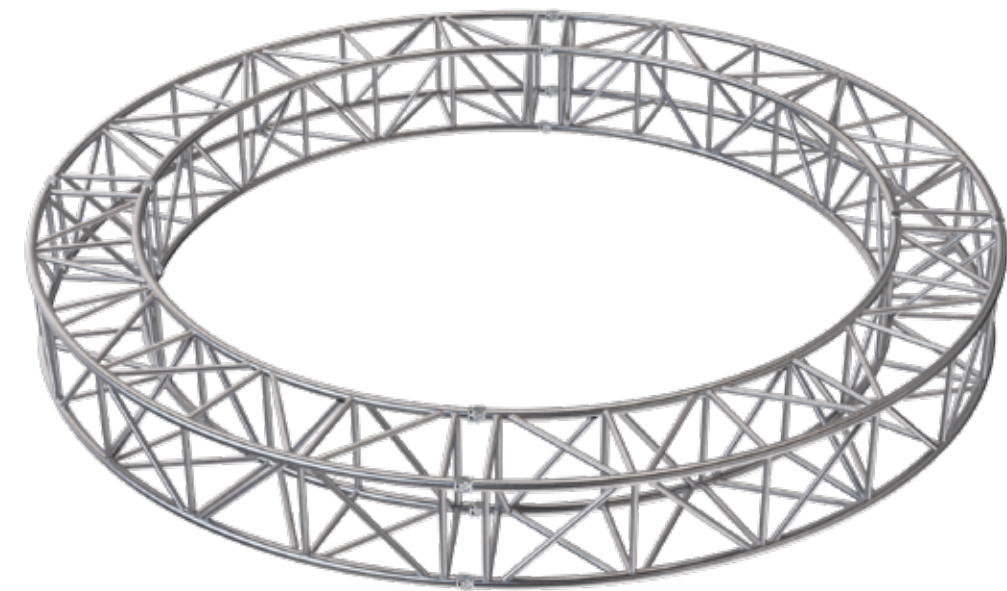


KHL90RA
90° double fork alum.
connector, right



KHL90RS
90° double fork steel
connector, right

Circles



Custom Curved Structures

Curves, ellipses and circular shapes can be created in any size. As these are generally custom-made, support from our technical department is required for project engineering.

Gates

FORK TRUSS
QL52A



FL52047P
HL 52 cm flat - 47 cm



FL52066M5P
HL 52 cm flat - 66.5 cm



FL52047HS
HL52 cm flat - 47 cm gate w/hoist support



FL52059PH
HL52 cm flat - 59 cm gate w/forks



QL52X6C
HL 52 - 6 ways compact corner



FL52047HSZ1
Hoist support



MTC40G
Upper frame MT40, w/ wheels and eye bolts



MTC40D
Lower frame MT40, w/ wheels



MTC40F
Square frame with bolts

Accessories



C052D
Bar hook for 52 cm truss



FP52Z1
Universal 52 cm truss floor plate



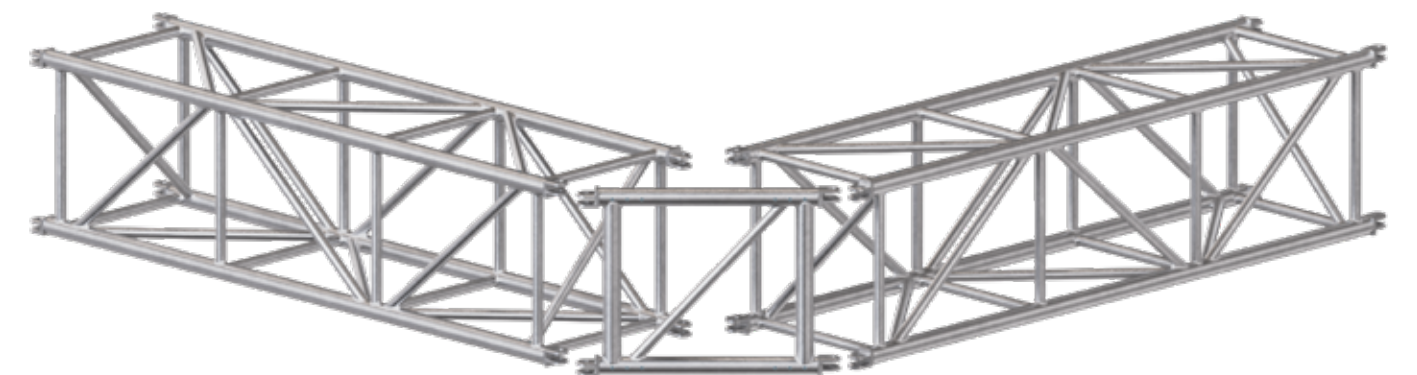
Corner Configurations

FORK Truss **QL52A**

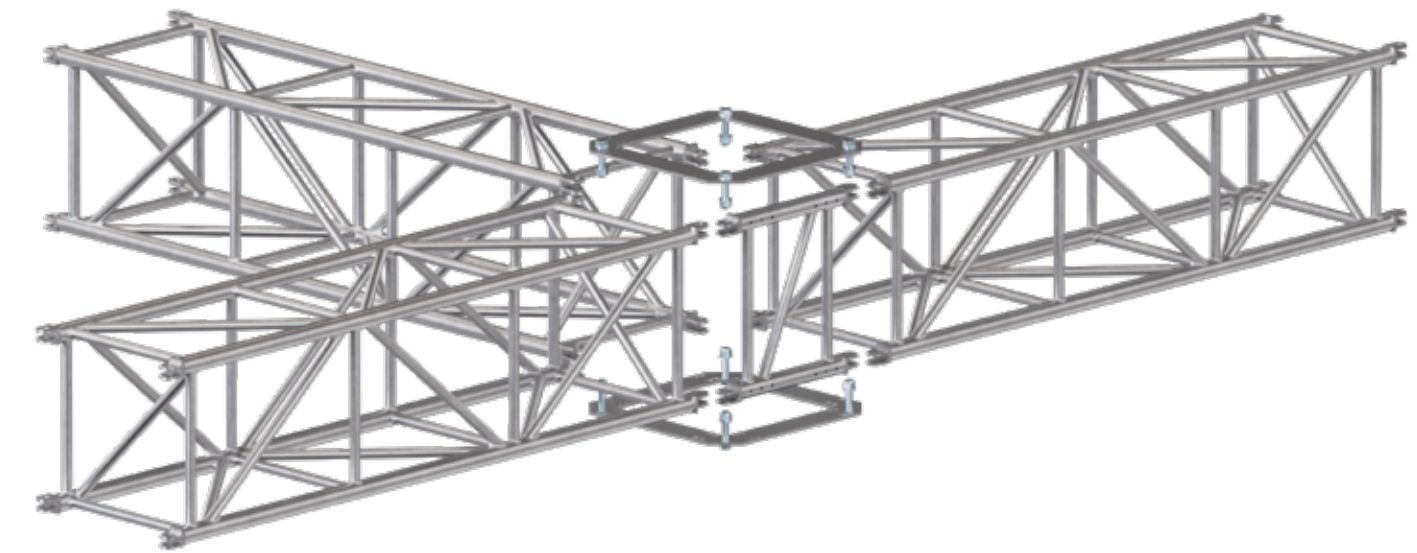


By using the appropriate complements, angles at various degrees can be achieved.

2-Way corner 90°
1 FL52066M5P



3-Way Tee
1 FL52047P
2 MTC52F

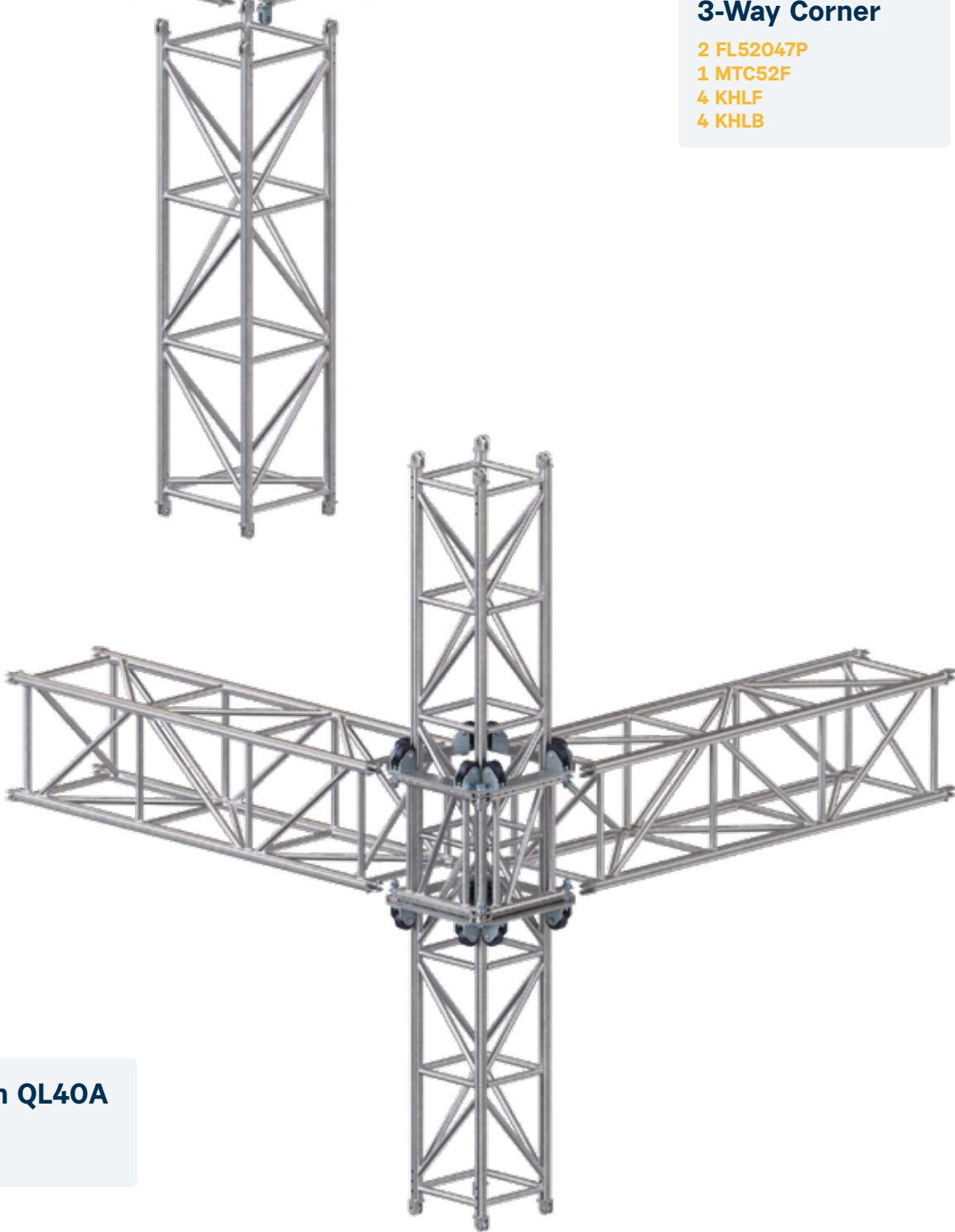


The drawings shown on these pages are intended as examples of possible configurations between trusses and selected accessories. Many other combinations are possible, including the development of custom accessories when required by specific project needs.

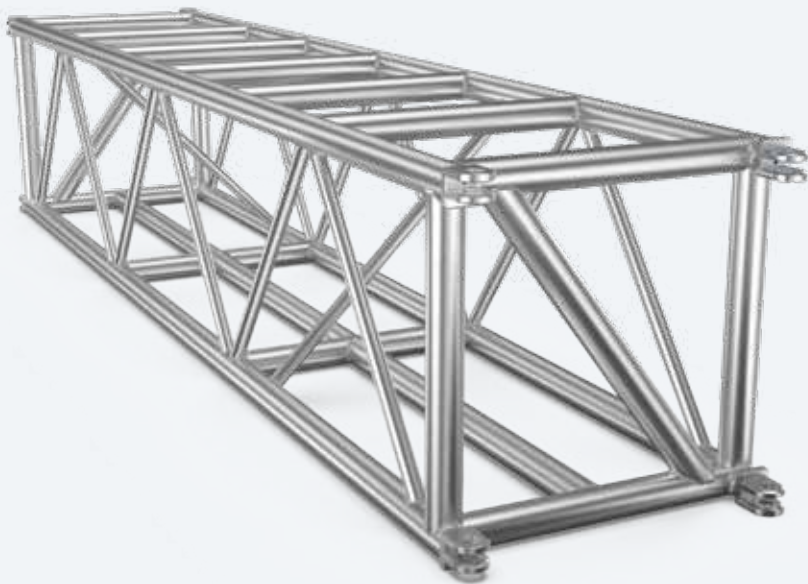
FORK TRUSS
QL52A



3-Way Corner
2 FL52047P
1 MTC52F
4 KHLF
4 KHLB



Sleeve Block on QL40A
2 FL52047P
2 MTC40D (or MT30G)



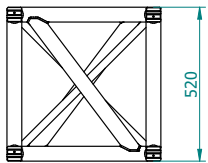
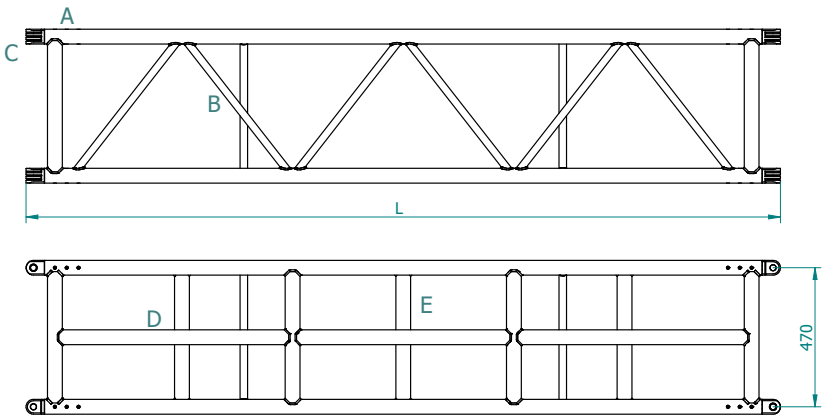
MIDDLE CHORD TRUSS

Square-section High-Load aluminium truss with 52 cm sides.

The addition of the fifth central chord balances the load in applications requiring the support of heavy loads, especially LED walls.

Available in lengths of 100, 150, 200, 250 and 300 cm. Other lengths on request.

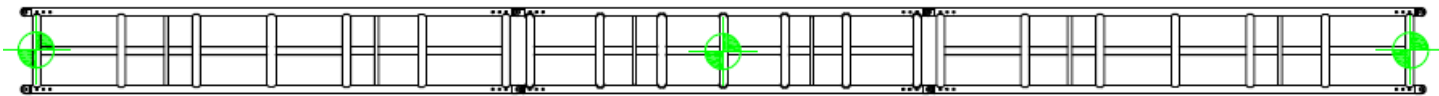
Chords A	Diagonals B	Ends C	Chord D	Diagonals E	Connection systems
Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Aluminium Forks Connector EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	KHLP: cylindrical pin + safety R-clip



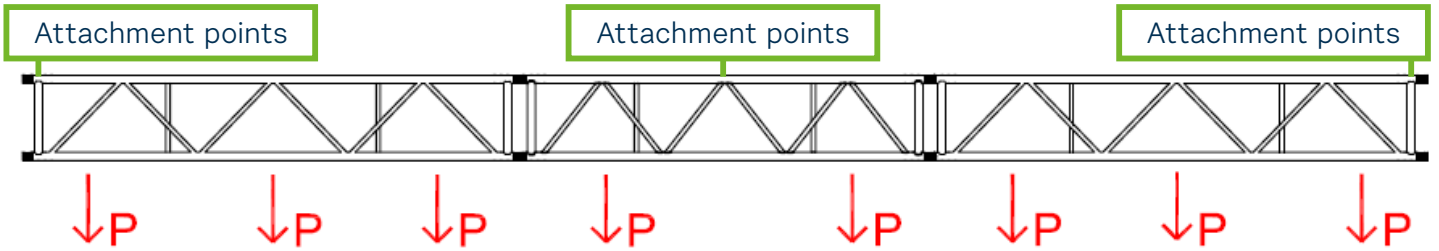
Safety Factor and Dynamic Factor

The use of a truss with an additional central chord allows for a better distribution of the suspended load. As a case study, we report an example where two 3-meter trusses and one 2.5-meter truss in the center were used, with 8 rigging points and 3 chain hoists.

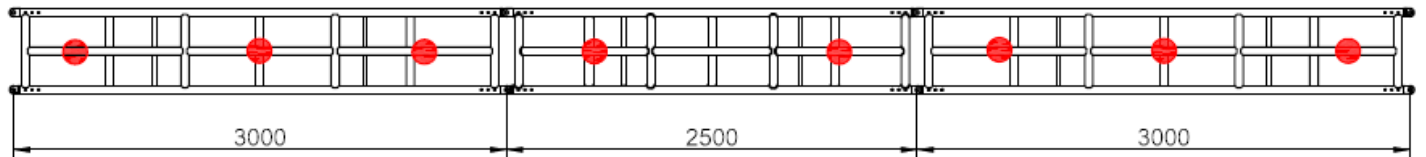
Top view:



Side view:



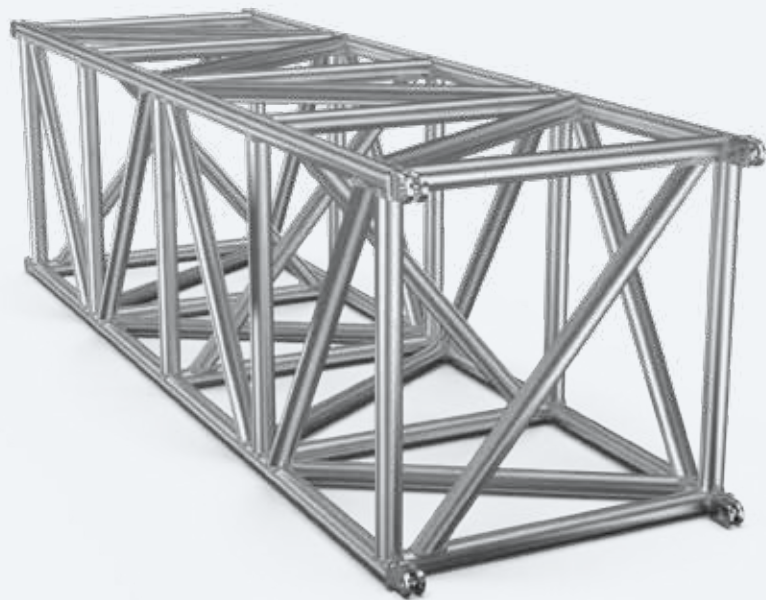
Bottom view:



P = 285 kg (safety and dynamic factor included).
A **safety factor of 1.5** has been applied in accordance with EN 1990-1 (Eurocode) for variable loads.

NOTE. During lifting and lowering operations with electric chain hoists, starting and stopping generate additional dynamic forces, expressed by a dynamic factor. **The dynamic factor varies depending on several parameters.** In this simulation, a **dynamic factor of 1.2** has been applied.

This represents a basic configuration, illustrating the behavior of a structure with defined length and loads. Our technical team is available for consultation regarding applications with different configurations.

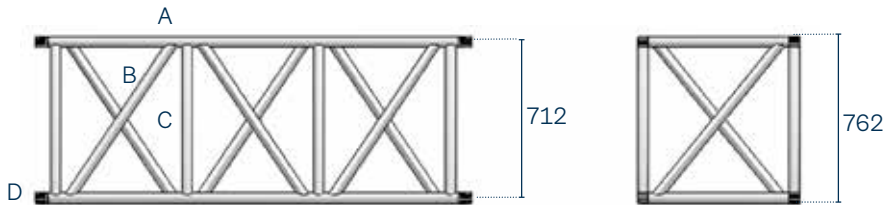


Square section High Load aluminium truss with 76 cm long sides.

It is provided with steel fork connections and Ø 50 x 4 mm chords. Thanks to its elevated moment of inertia and resistance of its connections, it is mainly used in the composition of towers (Maxitower 76).

LINEAR ELEMENTS					
Code	W × H × D (cm)	kg	Code	W × H × D (cm)	kg
QL76200A	76.2 × 76.2 × 200	56.70	QL76250A	76.2 × 76.2 × 250	68.60

Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 50 × 3 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Aluminium Forks Connector EN AW – 6082 T6	KHLP: cylindrical pin + safety R-clip



Load table / Fork connection															
span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
															
[m]	Point load [kg/m]	Full load [kg]	Central deflection mm	Point load [kg]	Full load [kg]	Central deflection mm	Point load [kg]	Full load [kg]	Central deflection mm	Point load [kg]	Full load [kg]	Central deflection mm	Point load [kg]	Full load [kg]	Central deflection mm
5	1141	5705	5	3891	3891	5	2201	4401	5	1701	5104	5	1414	5654	5
6	947	5680	8	3388	3388	8	1972	3945	7	1544	4631	8	1295	5179	9
7	808	5654	12	2994	2994	11	1782	3565	11	1411	4233	12	1193	4771	13
8	704	5628	19	2677	2677	14	1625	3250	15	1298	3894	16	1070	4281	17
9	563	5065	24	2414	2414	19	1490	2981	20	1200	3599	22	968	3870	22
10	451	4506	30	2194	2194	24	1374	2747	25	1112	3337	28	881	3526	28
11	368	4048	36	2005	2005	29	1271	2542	31	1012	3036	34	807	3230	35
12	305	3662	43	1831	1831	35	1180	2360	38	916	2747	41	743	2972	42
13	256	3330	51	1665	1665	41	1099	2197	46	832	2497	48	686	2745	50
14	217	3041	59	1521	1521	48	1025	2050	54	760	2281	56	634	2535	59
15	186	2789	67	1395	1395	56	958	1917	64	697	2092	65	581	2324	68
16	160	2565	77	1283	1283	64	897	1795	74	641	1924	74	534	2138	77
17	139	2364	87	1182	1182	73	841	1683	85	591	1773	83	492	1970	88
18	121	2182	98	1091	1091	82	789	1578	97	546	1637	94	455	1819	98
19	106	2017	109	1009	1009	92	741	1482	109	504	1513	105	420	1681	110
20	93	1866	121	933	933	103	696	1392	123	467	1400	117	389	1555	122
21	82	1727	134	864	864	114	648	1295	136	432	1295	129	360	1439	135
22	73	1598	147	799	799	126	599	1199	150	400	1199	142	333	1332	148
23	64	1479	161	739	739	139	554	1109	164	370	1109	156	308	1232	162
24	57	1367	176	683	683	153	512	1025	179	342	1025	170	285	1139	177
25	50	1261	192	631	631	167	473	946	194	315	946	186	263	1051	193
26	45	1162	208	581	581	183	436	872	211	291	872	202	242	969	209
27	40	1069	225	534	534	199	401	802	228	267	802	218	223	891	226
28	35	980	243	490	490	216	368	735	246	245	735	236	204	817	244
29	31	896	261	448	448	234	336	672	264	224	672	254	187	747	262
30	27	815	280	408	408	253	306	612	284	204	612	274	170	680	282

Cantilever load table / Fork connection					
span	Unif. distributed load			Centre point load	
					
[m]	[kg/m]	[kg]	mm	[kg]	mm
0.5	5808	2904	0	2904	0
1	2891	2891	0	2891	0
1.5	1919	2878	1	2733	1
2.0	1433	2866	1	2263	3
2.5	1141	2853	3	1927	5
3.0	894	2682	4	1675	7
3.5	691	2417	6	1477	10
4.0	549	2194	9	1317	14
4.5	445	2004	12	1186	18
5.0	368	1840	15	1075	22
5.5	308	1696	18	980	28
6.0	261	1569	22	898	33

Axial load table		
span		
	[kg]	[kg]
5	16788	13954
10	15087	6692
15	12178	
20	8914	
25	6307	

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

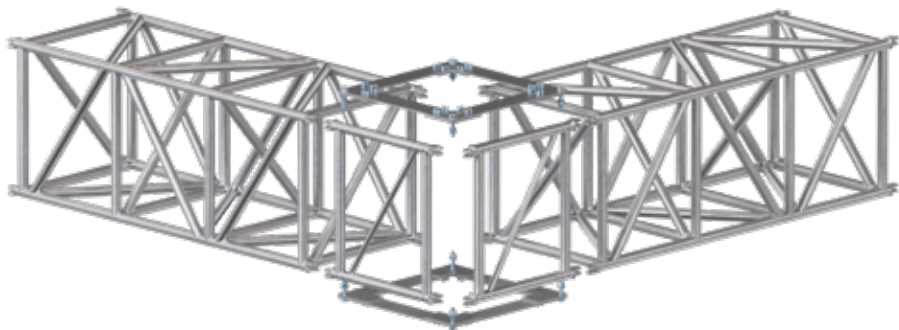
The fork connection is secured by a 20 mm steel pin. In specific cases, bolts with nuts or bolts with lifting eyes can be used. A range of adapters with different fork orientations is also available to optimise special configurations.

 KHLP 20 mm Cylindrical pin + 3 mm safety R-clip	 KHLB M20 screw bolt + spring washer	 KHLD M20 screw nut + spring washer	 KHLF Threaded female fork connector + spring washer	 KHLG M20 Lifting Eye
 KHLM Male fork connector complete	 KHL180A 180° double fork aluminum connector	 KHL180S 180° double fork steel connector	 KHL90LA 90° double fork alum. connector, left	 KHL90LS 90° double fork steel connector, left
 KHL90RA 90° double fork alum. connector, right	 KHL90RS 90° double fork steel connector, right			

Accessories

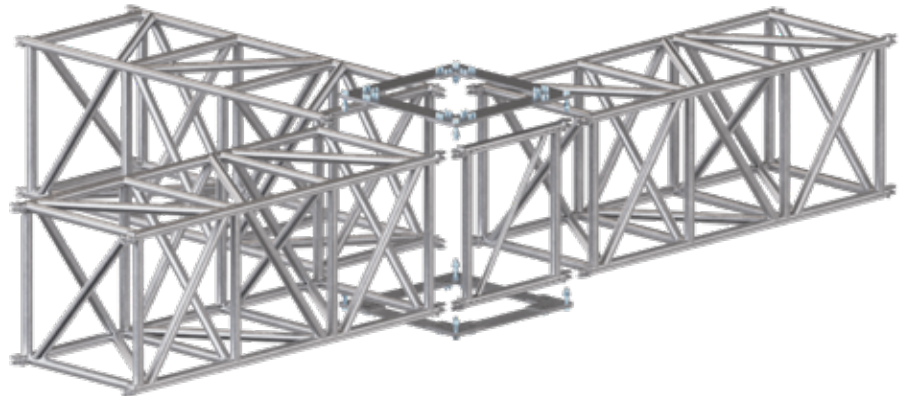
 MTC76F MT76 frame with bolts	 MTC76D MT76 frame with wheels	 FL76071M2HS FL76 cm 71.2 + motor support	 FL76071M2P Gate - HL76 Flat truss L = 71.2 cm
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Corner Configuration Examples



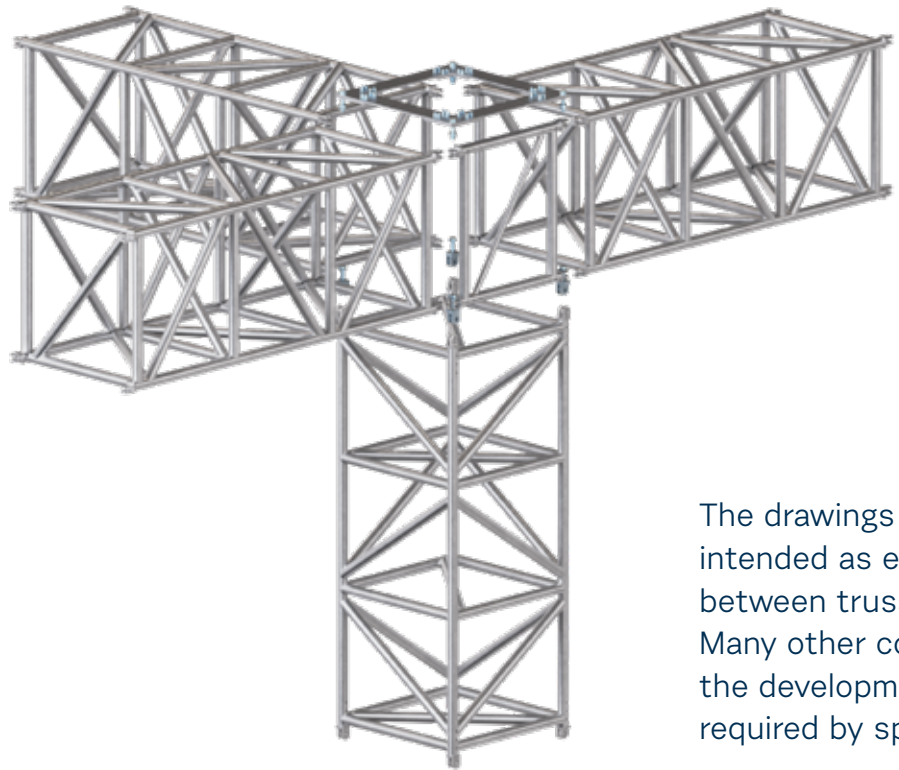
2-Way Corner 90°

- 2 FL76071M2P
- 2 MTC76F



3-Way Tee

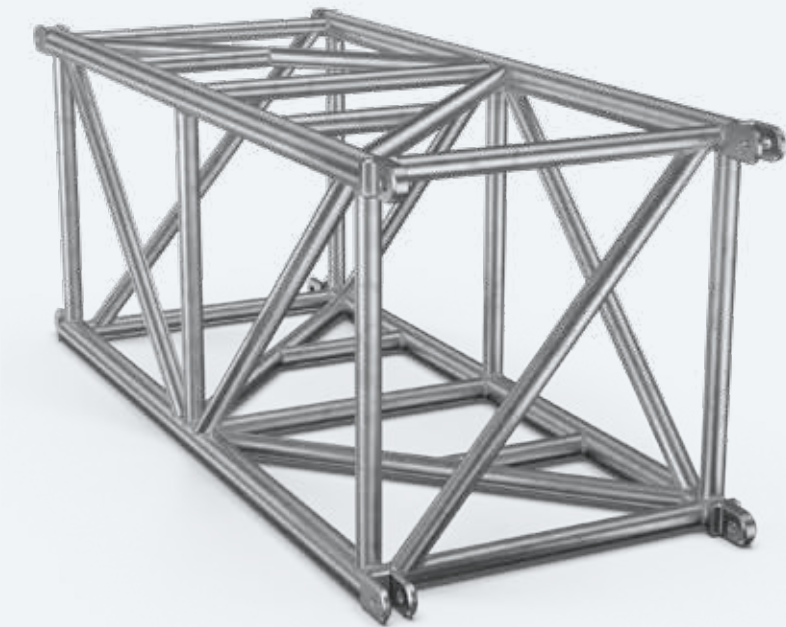
- 1 FL76071M2P
- 2 MTC76C



4-Way Corner

- 1 FL76071M2P
- 1 MTC76C
- 4 KHLF
- 4 KHLB

The drawings shown on these pages are intended as examples of possible configurations between trusses and selected accessories. Many other combinations are possible, including the development of custom accessories when required by specific project needs.



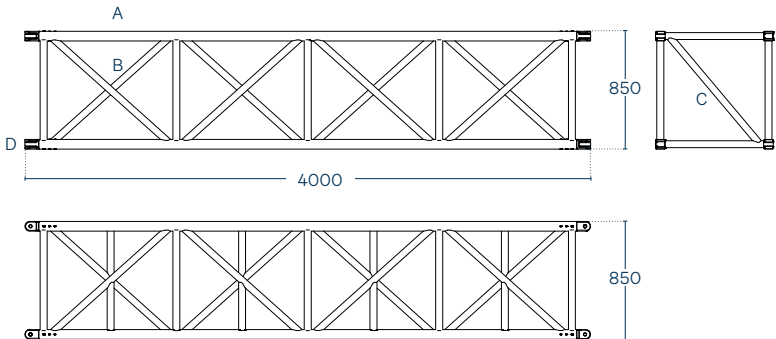
Square section High Load aluminium truss with 85 cm long sides.

It is provided with steel fork connections and Ø 70 x 5 mm chords. Thanks to its elevated moment of inertia and resistance of its connections, it is mainly used in the composition of towers.

For further information, please refer to the LITEC Towers Catalogue, Maxitower MT85 section.

LINEAR ELEMENTS					
Code	W × H × D (cm)	kg	Code	W × H × D (cm)	kg
QL85200A	85 × 85 × 200	83.6	QL85300AB	85 × 85 × 300	105.2
QL85300A	85 × 85 × 300	105.2			

Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 70 × 5 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Steel forks connector EN AW-6082 T6	KHLP: cylindrical pin + safety R-clip



Load table / Fork connection

span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
5	1072	5362	2	5362	5362	3	2681	5362	3	1787	5362	3	1340	5362	2
6	888	5329	4	5329	5329	6	2664	5329	5	1776	5329	4	1332	5329	4
7	757	5296	6	5089	5089	8	2648	5296	8	1765	5296	7	1324	5296	7
8	658	5263	8	4681	4681	12	2631	5263	11	1754	5263	10	1316	5263	10
9	581	5230	12	4329	4329	15	2615	5230	16	1743	5230	15	1307	5230	14
10	520	5197	16	4021	4021	20	2565	5130	22	1732	5197	20	1299	5197	19
11	469	5164	22	3665	3665	24	2413	4826	27	1721	5164	27	1291	5164	26
12	428	5131	28	3366	3366	29	2275	4551	34	1683	5049	35	1283	5131	34
13	392	5098	36	3098	3098	35	2150	4301	41	1549	4647	41	1274	5098	43
14	362	5064	45	2867	2867	41	2036	4072	49	1433	4300	48	1194	4778	51
15	335	5031	55	2643	2643	47	1931	3862	57	1321	3964	55	1101	4405	58
16	306	4890	66	2445	2445	54	1834	3667	67	1222	3667	63	1019	4075	66
17	267	4537	74	2268	2268	61	1701	3403	76	1134	3403	71	945	3781	75
18	234	4219	83	2110	2110	69	1582	3165	85	1055	3165	80	879	3516	84
19	207	3932	93	1966	1966	77	1475	2949	95	983	2949	89	819	3277	94
20	184	3670	103	1835	1835	86	1376	2753	105	918	2753	99	765	3059	104
21	163	3430	114	1715	1715	95	1286	2573	116	858	2573	109	715	2859	115
22	146	3209	125	1605	1605	105	1203	2407	127	802	2407	120	669	2674	126
23	131	3004	137	1502	1502	116	1127	2253	139	751	2253	132	626	2504	138
24	117	2814	150	1407	1407	127	1055	2111	152	704	2111	144	586	2345	150
25	105	2636	163	1318	1318	138	989	1977	165	659	1977	157	549	2197	164
26	95	2470	176	1235	1235	151	926	1852	179	617	1852	170	515	2058	177
27	86	2313	190	1157	1157	164	867	1735	193	578	1735	184	482	1928	191
28	77	2165	205	1083	1083	177	812	1624	208	541	1624	198	451	1804	206
29	70	2025	221	1013	1013	192	759	1519	224	506	1519	213	422	1688	222
30	63	1893	237	946	946	207	710	1419	240	473	1419	229	394	1577	238

Cantilever load table / Fork connection

span	Unif. distributed load			Centre point load	
	Point load	Full load	mm	Point load	mm
[m]	[kg/m]	[kg]	mm	[kg]	mm
0.5	5494	2747	0	2747	0
1	2730	2730	0	2730	0
1.5	1809	2714	0	2714	1
2.0	1349	2697	1	2697	2
2.5	1072	2681	1	2681	3
3.0	888	2664	2	2664	5
3.5	757	2648	3	2496	8
4.0	658	2631	5	2289	11
4.5	581	2615	7	2111	15
5.0	520	2598	10	1936	19
5.5	469	2582	13	1744	23
6.0	428	2565	17	1583	27

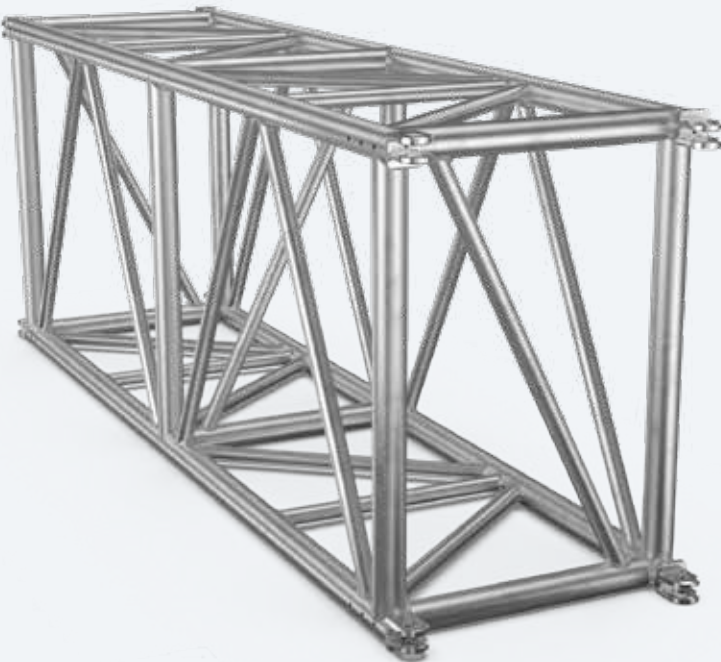
Axial load table

span	Axial load	
	Point load	Full load
[m]	[kg]	[kg]
10	24548	12417
12	23038	9508
14	21323	7358
16	19490	
18	17636	
20	15842	
22	14165	
24	12631	
26	11249	

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.



Rectangular section High Load aluminium truss with 76 x 52 cm long sides.

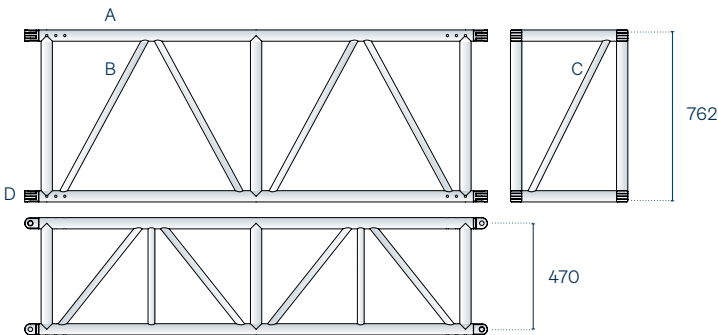
It is diagonalized on all faces and equipped with high-strength steel fork connections. The optimized design of its main components ensures high load capacity on medium-long spans.



HORIZONTAL FORK

LINEAR ELEMENTS		
Code	W × H × D (cm)	kg
RL76100A	52 × 76.2 × 100	29.7
RL76200A	52 × 76.2 × 200	44.1
RL76300A	52 × 76.2 × 305	58.9

Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Steel forks connector 11SMn37	KHLP: Cylindrical pin + safety R-clip



This truss is available in two models: one with horizontal forks and one with vertical forks.

The choice between the two fork orientations is subjective and depends on the user's specific requirements.



VERTICAL FORK

LINEAR ELEMENTS		
Code	W × H × D (cm)	kg
RL76100AZ2	52 × 76.2 × 100	29.7
RL76200AZ3	52 × 76.2 × 200	44.1
RL76300AZ2	52 × 76.2 × 300	58.9

Our technical team can provide support for specific applications.

Load table															
span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
3	1910	5729	2	5593	5593	3	2864	5729	3	1910	5729	3	1432	5729	3
4	1428	5711	5	4633	4633	7	2855	5711	7	1904	5711	7	1428	5711	6
5	1139	5693	10	3952	3952	11	2601	5202	13	1898	5693	13	1423	5693	12
6	946	5675	18	3441	3441	17	2299	4597	20	1846	5539	22	1419	5675	21
7	808	5657	28	3043	3043	24	2057	4114	28	1669	5006	32	1314	5258	32
8	705	5639	42	2724	2724	33	1859	3718	38	1492	4476	42	1172	4688	42
9	586	5271	57	2462	2462	43	1694	3387	50	1318	3953	54	1056	4224	55
10	471	4710	70	2242	2242	54	1553	3106	63	1177	3532	66	959	3836	69
11	386	4247	85	2054	2054	66	1432	2864	78	1062	3186	81	877	3508	84
12	322	3859	101	1892	1892	80	1326	2652	95	965	2894	96	804	3216	101
13	271	3528	118	1751	1751	96	1233	2466	113	882	2646	113	735	2940	119
14	232	3241	137	1621	1621	112	1150	2301	133	810	2431	131	675	2701	138
15	199	2991	158	1495	1495	129	1076	2152	155	748	2243	151	623	2492	159
16	173	2769	180	1384	1384	148	1009	2018	179	692	2077	172	577	2307	181
17	151	2571	203	1286	1286	167	948	1896	204	643	1928	194	536	2143	205
18	133	2394	228	1197	1197	189	892	1785	232	598	1795	218	499	1995	230
19	118	2233	255	1116	1116	211	837	1675	260	558	1675	244	465	1861	256
20	104	2086	283	1043	1043	235	782	1565	288	522	1565	271	435	1738	285
21	93	1952	312	976	976	261	732	1464	318	488	1464	299	407	1626	314
22	83	1828	343	914	914	288	686	1371	349	457	1371	329	381	1523	345
23	75	1714	376	857	857	316	643	1285	382	428	1285	361	357	1428	378
24	67	1607	410	804	804	347	603	1205	417	402	1205	394	335	1339	412
25	60	1508	446	754	754	379	565	1131	453	377	1131	429	314	1256	448

Cantilever load table					
span	Unif. distributed load			Centre point load	
	Point load	Full load	Central deflection	Point load	Full load
[m]	[kg/m]	[kg]	mm	[kg]	mm
1.0	2873	2873	0	2873	1
2.0	1428	2855	3	2305	7
3.0	917	2751	10	1707	17
4.0	564	2257	20	1348	32
5.0	380	1902	34	1106	52
6.0	272	1633	52	931	77

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

FORK TRUSS
RL76A

The fork connection is secured by a 20 mm steel pin. In specific cases, bolts with nuts or bolts with lifting eyes can be used. A range of adapters with different fork orientations is also available to optimise special configurations.

KHLP	KHLB	KHLD	KHLF	KHLG
20 mm Cylindrical pin + 3 mm safety R-clip	M20 screw bolt + spring washer	M20 screw nut + spring washer	Threaded female fork connector + spring washer	M20 Lifting Eye
KHLM	KHL180A	KHL180S	KHL90LA	KHL90LS
Male fork connector complete	180° double fork aluminum connector	180° double fork steel connector	90° double fork alum. connector, left	90° double fork steel connector, left
KHL90RA	KHL90RS			
90° double fork alum. connector, right	90° double fork steel connector, right			

Accessories

FP7652Z1	RL76TTZ1	RL76TTZ2	C052D
RL76 truss floor plate	HL76 Transport trolley for RL76 & QL52 (longitudinal)	HL76 Transport trolley for RL76 & QL52 (transverse)	Bar Hook for 52 cm truss (double view depending on application)

Corner and sleeve blocks can be created either by assembling individual components or by using pre-assembled systems.

There are several variations depending on the fork type, motor supports and, more generally, on the possible combinations with other Litec fork trusses. The illustrations show only some of the possible configurations, our technical team is available to provide further information or to assist with specific project requirements.



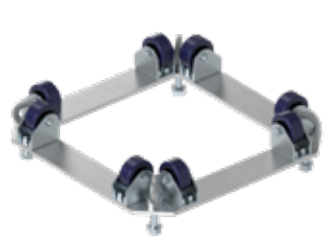
Code	W × D × H (cm)	Kg
MTC40F	58.8 × 58.8 × 10.2	5.8

MT40 square frame with bolts



Code	W × D × H (cm)	Kg
MTC40D	58.8 × 58.8 × 18.7	14.1

MT40 lower frame w/wheels



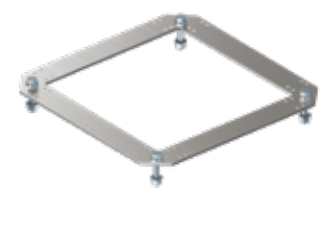
Code	W × D × H (cm)	Kg
MTC40G	58.8 × 58.8 × 15	14.6

MT40 upper frame w/wheels + lifting eyes



Code	W × D × H (cm)	Kg
FL76CS04C	19 × 19 × 76.2	3.7

HL76 single 4 Way Cross w/rounded forks



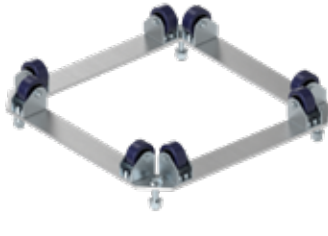
Code	W × D × H (cm)	Kg
MTC52F	70.8 × 70.8 × 10.3	6.9

MT52 Frame + Bolts



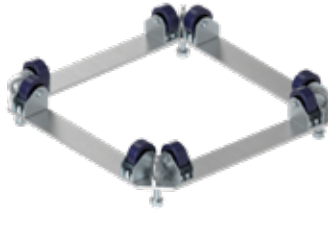
Code	W × D × H (cm)	Kg
MTC52PD	66.8 × 66.8 × 11.2	6.6

MT52 Upper Frame w/sliding blocks



Code	W × D × H (cm)	Kg
MTC52D	70.8 × 70.8 × 18.7	14.4

MT52 lower frame w/wheels



Code	W × D × H (cm)	Kg
MTC52G	70.8 × 70.8 × 17.5	16.4

MT52 upper frame w/wheels + lifting eyes



Code	W × D × H (cm)	Kg
FL76033V	38 × 61 × 76.2	10.3

HL76 L=033 cm reinforcement corner side (vertical forks)



Code	W × D × H (cm)	Kg
FL76047HS	52 × 35 × 76.2	16.6

HL76 L=047 cm corner side w/hoist lifting eye (horizontal forks)



Code	W × D × H (cm)	Kg
FL76059HS	35.5 × 64 × 79.3	17.9

HL76 L=59 cm corner side hoist lifting eye (horizontal forks)



Code	W × D × H (cm)	Kg
FL76047HSZ1	52 × 30 × 76.2	23.7

HL76 L=59 cm corner side hoist lifting eye (horizontal forks)



Code	W × D × H (cm)	Kg
FL76047P	52 × 6 × 76.2	9

RL76 Frame L=47 cm - Horizontal forks



Code	W × D × H (cm)	Kg
FL76059P	64 × 61 × 76.2	9.4

RL76 Frame L=59 cm - Horizontal forks



Code	W × D × H (cm)	Kg
FL76066M5P	71.5 × 61 × 76.2	9.7

RL76 Frame L=66.5 cm - Horizontal forks



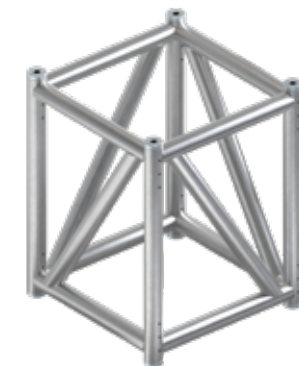
Code	W × D × H (cm)	Kg
FL76059PH	64 × 12.4 × 76.2	13.1

RL76 frame L=59cm - FL/RL76 - 8 Horizontal forks



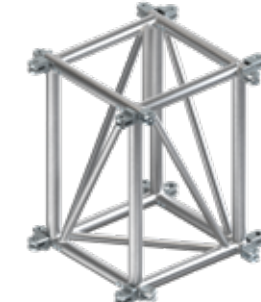
Code	W × D × H (cm)	Kg
RL76R2W	52 × 5 × 66.2	8.4

HL76 Reinforcement module
Corner Block Side



Code	W × D × H (cm)	Kg
RL76R4W	52 × 52 × 66.2	21.5

HL76 4 way Corner Block
reinforcement module



Code	W × D × H (cm)	Kg
RL76X4	66.4 × 66.4 × 76.2	30.9

RL76 4 way Corner



Code	W × D × H (cm)	Kg
RL7652X4	66 × 66 × 77.6	69.6

Multi-standard 4 way Corner - 52/76 cm +
reinforcement arms



Code	W × D × H (cm)	Kg
TLS40-004	66 × 66 × 99.6	96.3

RL76 V40 4 way Sleeve Block w/4
FL76033V reinforcements (fitted for a
QL40A tower)



Code	W × D × H (cm)	Kg
TLS40-003	84 × 66 × 99.6	109.7

RL76 V40 4 way Sleeve Block w/4
FL76033V reinforcements + hoist block
support (fitted for a QL40A tower)



Code	W × D × H (cm)	Kg
TLS40-007	66 × 66 × 99.6	100.8

RL76/QL52 V40 Sleeve Block - 4 ways w/
side reinforcements (fitted for a QL40A
tower)



Code	W × D × H (cm)	Kg
TLS40-006	87 × 66 × 99.6	114.4

RL76/QL52 V40 Sleeve Block - 4 ways w/
side reinforcements & hoist lifting eye
(fitted for a QL40A tower)



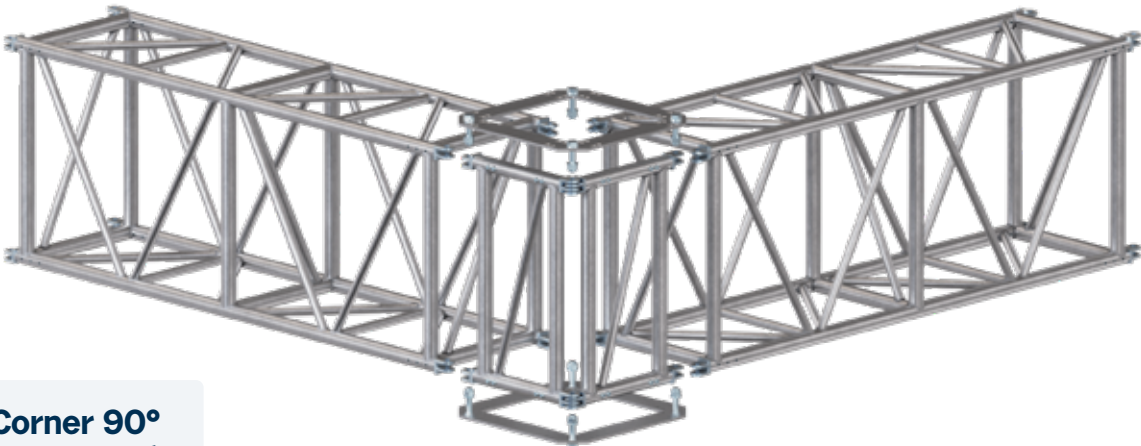
Corner Assemblies

FORK Truss **RL76A**

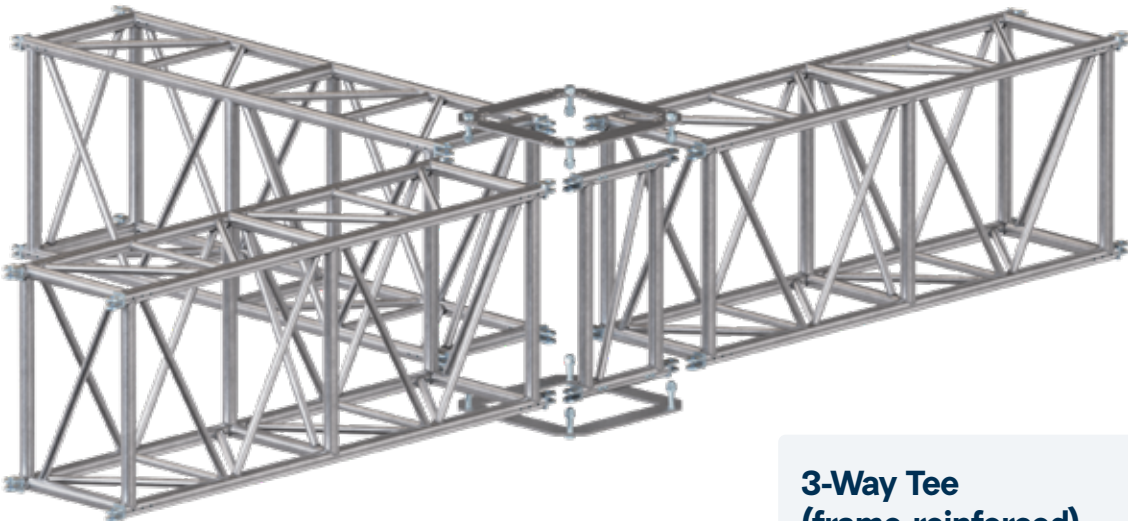


FORK TRUSS
RL76A

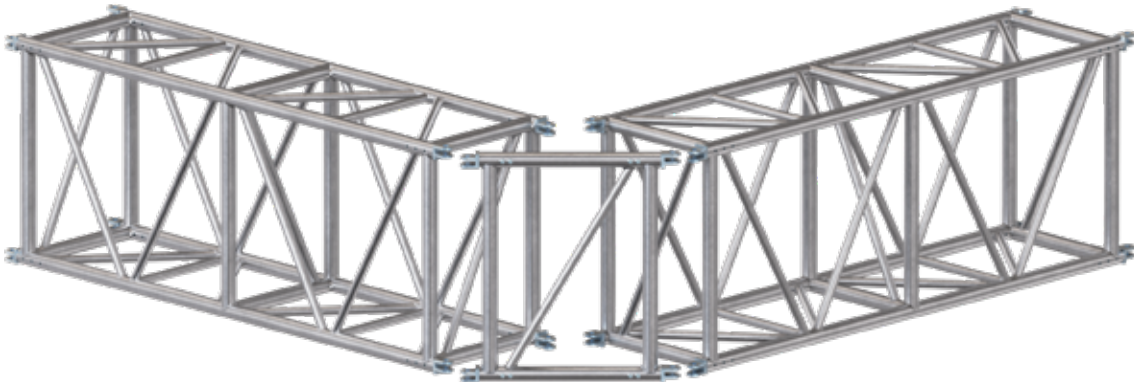
A few gates and frames are all it takes to create corners, T-junctions and multi-way corners



**2-Way Corner 90°
(frame-reinforced)**
2 FL76047P
2 MTC52F

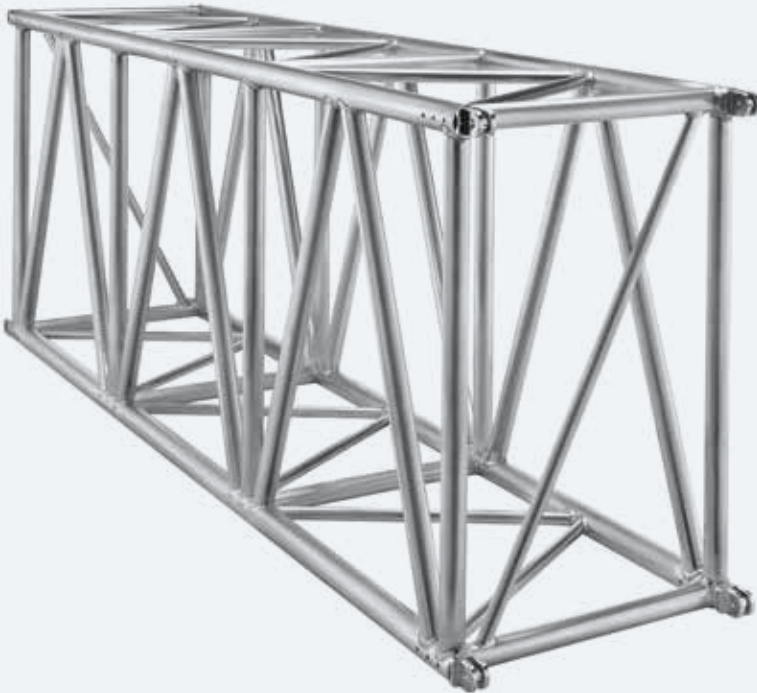


**3-Way Tee
(frame-reinforced)**
1 FL76047P
2MTC52F



**2-Way Corner 90°
(gate-only)**
1 FL76064M5P

The drawings shown on these pages are intended as examples of possible configurations between trusses and selected accessories. Many other combinations are possible, including the development of custom accessories when required by specific project needs.

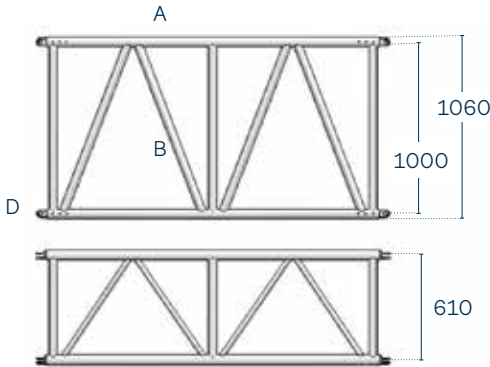


Rectangular section High Load aluminium truss with 105 x 67 cm long sides.

It is intended for uses that require elevated loads on large spans. The steel fork connection bestows sturdiness and wear resistance to the system. It is designed and tested according to the most widespread international standards.

LINEAR ELEMENTS					
Code	W × H × D (cm)	kg	Code	W × H × D (cm)	kg
RL105100A	106 × 67 × 100	41.5	RL105300A	106 × 67 × 300	83.5
RL105200A	106 × 67 × 200	62.5			

Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 60 × 5 mm EN AW – 6082 T6	Extruded tube Ø 50 × 3 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Steel forks connector 11SMnPb37	KHLP: cylindrical pin + safety R-clip



Load table / Fork connection

Unif. distributed load	Centre point load	Third point load	Quarter point load	Fifth point load
				

span	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
3	3471	10414	1	9669	9669	1	5207	10414	1	3471	10414	1	2603	10414	1
4	2596	10386	1	8615	8615	2	5009	10018	2	3462	10386	2	2596	10386	2
5	2072	10358	3	7394	7394	3	4619	9238	3	3398	10193	4	2590	10358	3
6	1722	10330	5	6461	6461	5	4273	8546	5	3190	9569	6	2574	10294	6
7	1472	10303	8	5735	5735	7	3841	7683	8	3002	9005	9	2441	9764	9
8	1284	10275	12	5149	5149	9	3484	6969	11	2827	8482	12	2222	8887	12
9	1139	10247	16	4663	4663	12	3184	6368	14	2587	7761	16	2006	8024	16
10	990	9896	22	4255	4255	15	2927	5854	18	2340	7019	20	1826	7303	20
11	819	9005	27	3905	3905	19	2704	5409	22	2132	6395	24	1672	6689	24
12	687	8246	32	3603	3603	23	2509	5019	27	1954	5863	29	1540	6160	29
13	584	7591	38	3342	3342	27	2337	4674	32	1801	5403	34	1425	5698	34
14	501	7020	44	3108	3108	32	2183	4366	37	1667	5000	40	1323	5292	40
15	434	6516	50	2899	2899	37	2045	4090	43	1548	4645	46	1232	4926	46
16	379	6068	57	2711	2711	42	1920	3839	50	1442	4326	52	1151	4603	53
17	333	5666	65	2540	2540	48	1805	3611	57	1346	4039	59	1078	4311	60
18	295	5302	73	2387	2387	54	1704	3408	65	1262	3786	66	1011	4046	68
19	261	4968	81	2244	2244	61	1608	3216	72	1183	3548	74	951	3803	76
20	234	4671	90	2113	2113	68	1519	3038	81	1111	3332	82	895	3580	84
21	209	4392	99	1995	1995	75	1439	2877	90	1047	3140	91	844	3376	93
22	188	4135	109	1884	1884	83	1362	2723	99	986	2957	100	797	3190	102
23	169	3891	119	1779	1779	91	1290	2580	109	930	2791	109	752	3010	112
24	152	3660	129	1681	1681	100	1222	2443	119	877	2631	119	711	2843	122
25	138	3452	139	1589	1589	109	1160	2320	130	828	2483	129	672	2687	133
26	125	3254	150	1503	1503	118	1100	2201	141	781	2344	139	634	2538	143
27	114	3069	162	1421	1421	128	1044	2088	152	737	2210	150	601	2403	155
28	103	2897	173	1343	1343	138	991	1981	164	697	2090	162	568	2272	166
29	94	2730	185	1270	1270	149	940	1880	177	658	1974	173	537	2149	179
30	86	2573	198	1200	1200	160	891	1783	189	621	1863	185	508	2031	191
31	78	2424	210	1133	1133	171	845	1690	203	586	1757	198	480	1919	204
32	71	2283	223	1069	1069	183	801	1602	216	552	1657	210	453	1812	217
33	65	2148	237	1008	1008	196	759	1517	231	520	1561	224	427	1710	231

Cantilever load table / Fork connection

Unif. distributed load	Centre point load
	

span	[kg/m]	[kg]	mm	[kg]	mm
2	1976	3952	1	3018	1
4	734	2936	4	2005	7
6	382	2290	11	1467	18
8	229	1831	22	1124	34
10	148	1479	36	882	54

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.



Connections

FORK Truss **RL105A**



The fork connection is secured by a 20 mm steel pin. In specific cases, bolts with nuts or bolts with lifting eyes can be used. A range of adapters with different fork orientations is also available to optimise special configurations.



KHLP
20 mm Cylindrical pin
+ 3 mm safety R-clip



KHLB
M20 screw bolt
+ spring washer



KHLD
M20 screw nut
+ spring washer



KHLF
Threaded female fork
connector + spring washer



KHLG
M20 Lifting Eye



KHLM
Male fork
connector complete



KHL180A
180° double fork aluminum
connector



KHL180S
180° double fork
steel connector



KHL90LA
90° double fork
alum. connector, left



KHL90LS
90° double fork steel
connector, left



KHL90RA
90° double fork alum.
connector, right



KHL90RS
90° double fork steel
connector, right



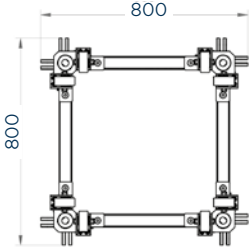
FL105CS04
4-way fork
connection system



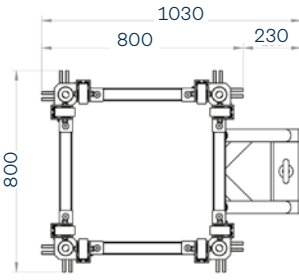
Sleeve Blocks & Corners

FORK TRUSS
RL105A

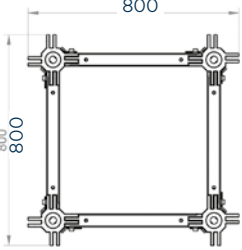
Examples of sleeve blocks configured to slide along a QL52A tower.
The corner shown is a standard 4-way cross.



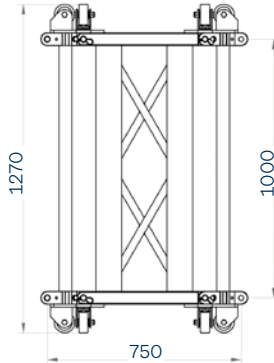
800
800



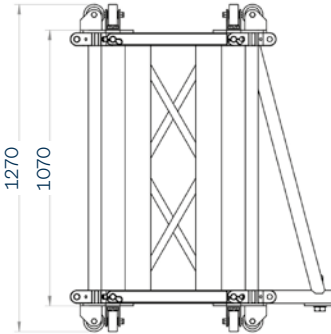
1030
800
230
800



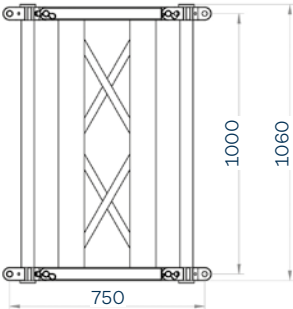
800
800



1270
750
1000



1270
1070
750



1000
1060
750



MTS52R105
Sleeve block for QL52A, assembled with wheels and frames around 4 × FL105CS04C



MTS52R105H
Sleeve block for QL52A, w/ wheels and frames around 4 × FL105CS04C, w/ hoist attachments



RL105x4
Standard 4-way cross, assembled with 4 gates around 4 × FL105CS04C



MyT

High Load Trusses

Beyond Standard Truss Design

An unconventional truss. Made from profiles in special aluminium alloys, it differs from all other Litec trusses and from most products in this category by other brands.

Completely weld-free. All elements are bolted, offering three major advantages:

- Allows the use of different aluminium alloys that cannot be welded together.
- No material deformation caused by welding fusion, preserving the original mechanical properties of the aluminium.
- Easy replacement of individual components in case of deformation after accidental impacts.

Available in three models, all with the same overall dimensions (146 x 84 cm H x W). Models differ in load capacity, with an additional foldable version for easier transport and storage.

Can be supplied with a 4-swivel castor block for each truss. Unless otherwise specified, the standard finish is black.

MYT

Standard & Specials

MYT is designed for high load capacities and long spans. Ideal for large ground support structures, roofs, and large portals for sporting events.

Three models available. Sleeve blocks available for **Litec MTS76** and **MTS85** towers, and for new **HiPe steel towers**.

4-way corner supplied as standard for 90°connections. Custom solutions available, including special corners and dedicated sleeve blocks.



LT MTS76R150

Sleeve block suitable for sliding on **Litec MTS76 aluminium towers** and **HiPe steel towers**. Supplied with clamping jaws for the fall arrest devices of the respective towers.



LT MTS85R150

Sleeve block suitable for sliding on **Litec MTS85 aluminium towers**. Supplied with clamping jaws for the fall arrest devices of the tower.



TE TR150M-C4-2

Standard 4-way corner

MyT Foldable Steroid Roofing System on LITEC HiPe Steel Towers



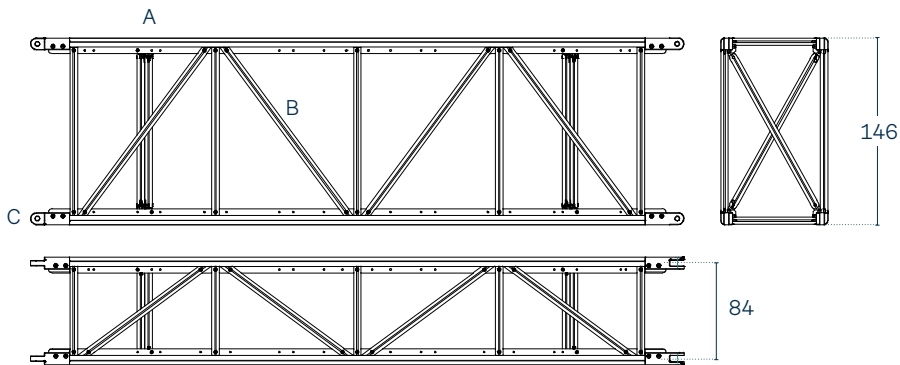


Rectangular truss,
146 × 84 cm section, in
special aluminium alloys

It measures 84 cm in width and 146 cm in height. The flagship model is 500 cm long, with a self-weight of 430 kg. Manufactured from high-performance aluminium alloy EN AW-7003 T6, offering high mechanical properties. Suitable for large-scale entertainment installations and for temporary and semi-permanent structures. At the maximum permitted span, it exhibits no significant bending.

LINEAR ELEMENTS					
Code	W × H × D (cm)	kg	Code	W × H × D (cm)	kg
TR150M-25M-A	84 × 146 × 250	233.5	TR150M-50M-A	84 × 146 × 500	430

Chords A	Diagonals B	Ends C	Connection systems
Extruded aluminium EN AW – 7003 T6	Extruded aluminium EN AW – 7003 T6	Aluminium forks connector EN AW – 7003 T6	Connection system 11SMnPb37



Load table / Fork connection

Unif. distributed load	Centre point load	Third point load	Quarter point load	Fifth point load
				

span	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
2	5039	10077	0	10076	10076	0	5039	10077	0	3359	10076	0	2519	10075	0
4	2476	9904	0.1	9905	9905	0.2	4953	9906	0.2	3302	9905	0.2	2476	9904	0.2
6	1623	9737	0.5	9734	9734	0.8	4867	9735	0.6	3245	9734	0.6	2433	9733	0.6
8	1196	9566	1.1	9563	9563	1.8	4782	9564	1.5	3188	9563	1.4	2390	9562	1.4
10	939	9388	2.2	9391	9391	3.4	4696	9392	3	3130	9391	2.8	2348	9390	2.7
12	769	9223	3.9	9220	9220	5.9	4611	9221	5.1	3073	9220	4.8	2305	9219	4.6
14	646	9048	6.1	9049	9049	9.4	4525	9050	8.1	3016	9049	7.6	2262	9048	7.3
16	555	8873	9.2	8878	8878	13.9	4439	8879	12	2959	8878	11.3	2219	8877	10.8
18	484	8716	13.1	8594	8594	19.4	4354	8707	17.1	2902	8706	16	2176	8705	15.4
20	427	8542	18	8134	8134	25.7	4268	8536	23.4	2845	8535	21.9	2134	8534	21.1
22	380	8365	24	1589	1589	33.1	4182	8365	31	2788	8364	29.1	2091	8363	28
24	341	8196	31.2	7305	7305	41.7	4097	8194	40.1	2731	8193	37.7	2048	8192	36.3
26	309	8031	39.8	6930	6930	51.4	4007	8014	50.8	2674	8021	47.9	2005	8020	46.2
28	280	7849	49.8	6577	6577	62.4	3819	7637	61.9	2617	7850	59.7	1962	7849	57.6
30	256	7676	61	6244	6244	75	3639	7278	74	2560	7679	73	1919	7678	71
32	234	7503	75	5928	5928	89	3466	6932	88	2503	7508	89	1877	7507	86
34	216	7348	90	5628	5628	104	3300	6599	104	2445	7336	106	2038	8151	103
36	199	7156	107	5327	5327	120	3139	6277	121	2351	7052	124	1791	7164	122
38	185	7011	126	4882	4882	135	2984	5967	139	2245	6734	144	1748	6993	143
40	170	6809	147	4472	4472	151	2834	5668	159	2141	6422	165	1705	6822	166

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.



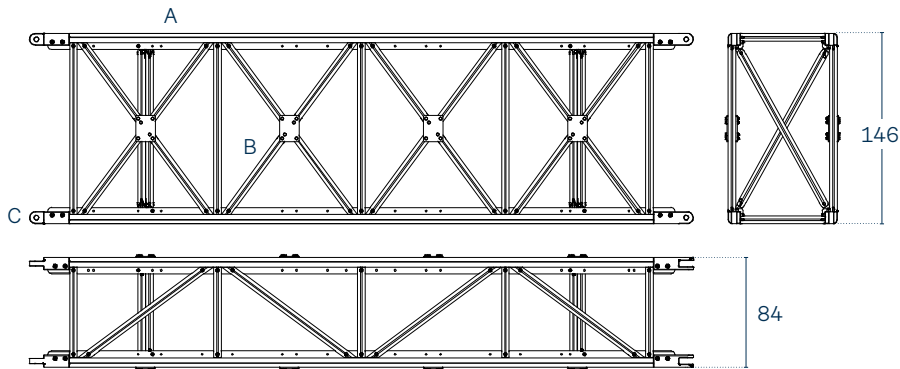
Rectangular truss,
146 × 84 cm section, in
special aluminium alloys
– Steroid version

Manufactured from high-performance aluminium alloy EN AW-7003 T6, offering high mechanical properties. The increased number of diagonals on the vertical faces provides higher performance compared to the Regular version.

Suitable for large-scale entertainment installations and for temporary and semi-permanent structures. At the maximum permitted span, it exhibits no significant bending undergoes virtually no bending.

LINEAR ELEMENTS		
Code	W × H × D (cm)	kg
TR150M-50M-G	84 × 146 × 500	495

Chords A	Diagonals B	Ends C	Connection systems
Extruded aluminium EN AW – 7003 T6	Extruded aluminium EN AW – 7003 T6	Aluminium forks connector EN AW – 7003 T6	Connection system 11SMnPb37



Load table / Fork connection

Unif. distributed load	Centre point load	Third point load	Quarter point load	Fifth point load
				

span	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
2	7671	15341	0	14332	14332	0	7324	14648	0	4938	14811	0	3729	14913	0
4	3792	15168	0	13303	13303	0	6929	13853	0	4720	14159	0	2587	14343	0
6	2499	14995	1	12396	12396	1	6565	13129	1	4514	13537	1	3451	13802	1
8	1853	14832	2	11590	11590	2	6228	12457	2	4319	12956	2	3321	13282	2
10	1466	14659	3	10877	10877	4	5916	11835	4	4136	12406	4	3197	12783	4
12	1207	14485	6	10224	10224	7	5626	11254	6	3961	11886	6	3077	12314	6
14	1022	14312	9	9633	9633	10	5353	10703	9	3795	11386	9	2962	11845	9
16	884	14139	14	9093	9093	14	5097	10194	14	3636	10907	14	2851	11407	14
18	776	13976	20	8594	8594	19	4855	9710	19	3484	10459	19	2745	10979	19
20	690	13802	27	8134	8134	26	4627	9254	25	3339	10017	25	2641	10571	25
22	620	13629	36	7705	7705	33	4410	8820	32	3200	9599	33	2541	10166	33
24	561	13456	47	7305	7305	42	4204	8408	41	3065	9197	42	2444	9779	42
26	511	13282	60	6930	6930	51	4007	8014	51	2936	8808	52	2351	9403	53
28	465	13007	74	6577	6577	62	3819	7638	62	2811	8434	63	2260	9038	64
30	421	12620	90	6244	6244	75	3639	7277	74	2691	8072	76	2170	8683	78
32	382	12232	108	5928	5928	89	3466	6932	88	2574	7723	91	2085	8337	93
34	338	11509	125	5628	5628	104	3300	6598	104	2461	7382	107	2000	8000	109
36	294	10561	141	5327	5327	120	3139	6277	121	2351	7053	124	1917	7672	128
38	255	9682	157	4882	4882	135	2984	5967	139	2245	6733	144	1838	7351	148
40	222	8876	175	4472	4472	151	2834	5669	159	2141	6421	165	1759	7038	170

Cantilever load table / Fork connection

	Unif. distributed load	Centre point load
span		

[m]	[kg/m]	[kg]	mm	[kg]	mm
1	15199	7600	0	7451	0
2	4871	7307	0	6906	0
3	2813	7038	0	6435	1
4	1938	6782	1	6025	2
5	1455	6547	1	5668	3

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

FORK TRUSS

MyT Folding Steroid

CE

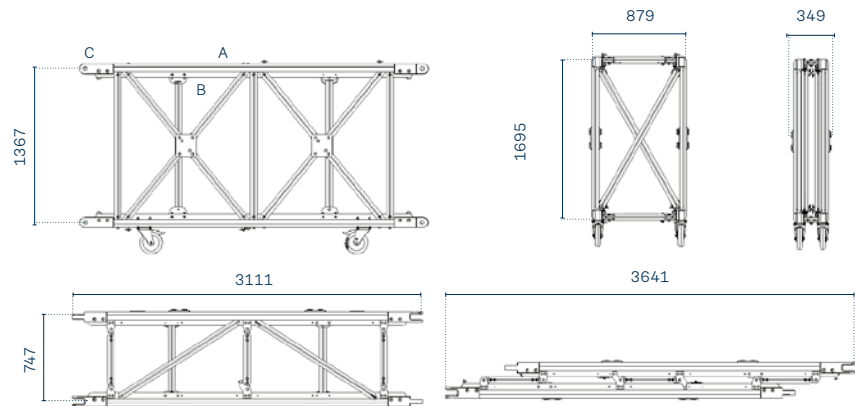


Rectangular truss,
146 × 84 cm section, in
special aluminium alloys –
Steroid Foldable version

Manufactured from high-performance aluminium alloy EN AW-7003 T6, offering high mechanical properties. The increased number of diagonals on the vertical faces provides higher performance compared to the Regular version. This model can be easily folded onto itself by operators, significantly simplifying transport and storage operations. At the maximum permitted span, it exhibits no significant bending.

LINEAR ELEMENTS				
Code	W × H × D (cm)	kg	Code	W × H × D (cm)kg
TF150M-30M-A	84 × 146 × 300	326	TR150-C4	150 × 150 × 136.7995
TF150M-25M-A	84 × 146 × 250	300	TR150-C4-2	150 × 150 × 136.7404
TF150M-20M-A	84 × 146 × 200	230		

Chords A	Diagonals B	Ends C	Connection systems
Extruded aluminium EN AW – 7003 T6	Extruded aluminium EN AW – 7003 T6	Aluminium forks connector EN AW – 7003 T6	Connection system 11SMnPb37



Load table / Fork connection

span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
2	7671	15341	0	14332	14332	0	7324	14648	0	4938	14811	0	3729	14913	0
4	3792	15168	0	13303	13303	0	6929	13853	0	4720	14159	0	2587	14343	0
6	2499	14995	1	12396	12396	1	6565	13129	1	4514	13537	1	3451	13802	1
8	1853	14832	2	11590	11590	2	6228	12457	2	4319	12956	2	3321	13282	2
10	1466	14659	3	10877	10877	4	5916	11835	4	4136	12406	4	3197	12783	4
12	1207	14485	6	10224	10224	7	5626	11254	6	3961	11886	6	3077	12314	6
14	1022	14312	9	9633	9633	10	5353	10703	9	3795	11386	9	2962	11845	9
16	884	14139	14	9093	9093	14	5097	10194	14	3636	10907	14	2851	11407	14
18	776	13976	20	8594	8594	19	4855	9710	19	3484	10459	19	2745	10979	19
20	690	13802	27	8134	8134	26	4627	9254	25	3339	10017	25	2641	10571	25
22	620	13629	36	7705	7705	33	4410	8820	32	3200	9599	33	2541	10166	33
24	561	13456	47	7305	7305	42	4204	8408	41	3065	9197	42	2444	9779	42
26	511	13282	60	6930	6930	51	4007	8014	51	2936	8808	52	2351	9403	53
28	465	13007	74	6577	6577	62	3819	7638	62	2811	8434	63	2260	9038	64
30	421	12620	90	6244	6244	75	3639	7277	74	2691	8072	76	2170	8683	78
32	382	12232	108	5928	5928	89	3466	6932	88	2574	7723	91	2085	8337	93
34	338	11509	125	5628	5628	104	3300	6598	104	2461	7382	107	2000	8000	109
36	294	10561	141	5327	5327	120	3139	6277	121	2351	7053	124	1917	7672	128
38	255	9682	157	4882	4882	135	2984	5967	139	2245	6733	144	1838	7351	148
40	222	8876	175	4472	4472	151	2834	5669	159	2141	6421	165	1759	7038	170

Cantilever load table / Fork connection

span	Unif. distributed load			Centre point load	
	Point load	Full load	mm	Point load	mm
[m]	[kg/m]	[kg]	mm	[kg]	mm
1	15199	7600	0	7451	0
2	4871	7307	0	6906	0
3	2813	7038	0	6435	1
4	1938	6782	1	6025	2
5	1455	6547	1	5668	3



Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.

The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.





LIBERA STAR

High Load Trusses

One Star. Infinite Possibilities.

LIBERA is a flat aluminium beam system designed to create load-bearing structures in a wide variety of configurations.

Its modular concept allows the construction of complex shapes with a high degree of flexibility.

The core of the LIBERA system is a **4-way star connector**, interfacing with **FL52**, **FL76** and **FL105** flat trusses to create freely configurable grid structures.

Compact, modular and robust, LIBERA is reliable and easy to transport and store.

LIBERA helps reduce running costs.

The system can also be easily combined with the High Load truss range using forked connections.

Free Your Imagination



LIBERA is a flat aluminium beam system that can easily be used to create and build load-bearing structures in a virtually infinite number of shapes.

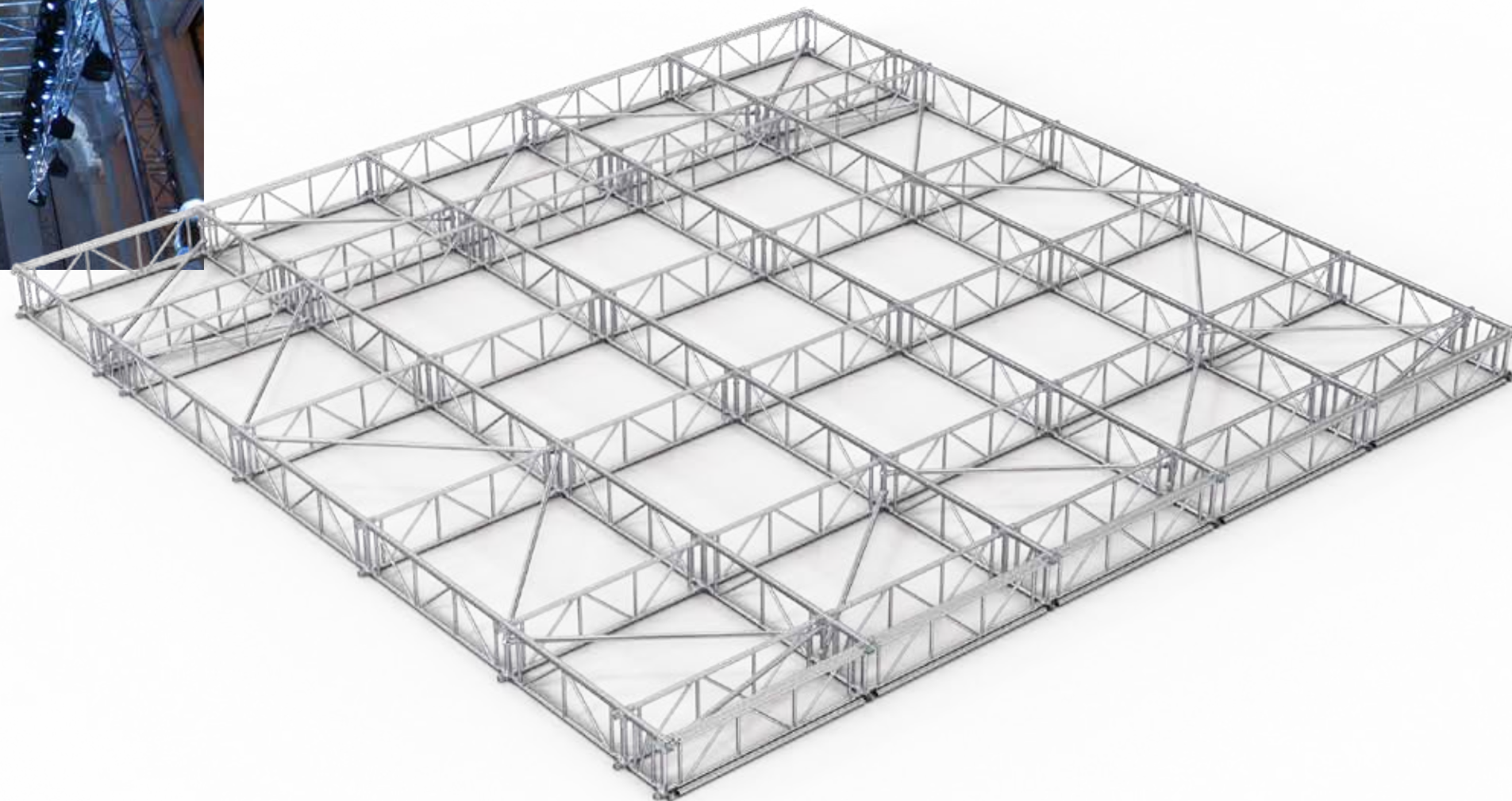
Around the 4-way star connector, grid structures with geometric configurations can be developed to meet specific project requirements.

The modularity of the system also allows the creation of reinforced sections to increase load capacity.

A complete range of bracing arms is available to brace the grid modules, increasing stiffness and preventing structural deformation.

The configuration possibilities of LIBERA are extensive. Our technical department is available to identify the most effective combination between the structure and its wide range of accessories.

In addition, LIBERA is suitable for the development of roofing systems, which are presented in the **Roofing catalogue**.



Alusfera: The Modular Dome

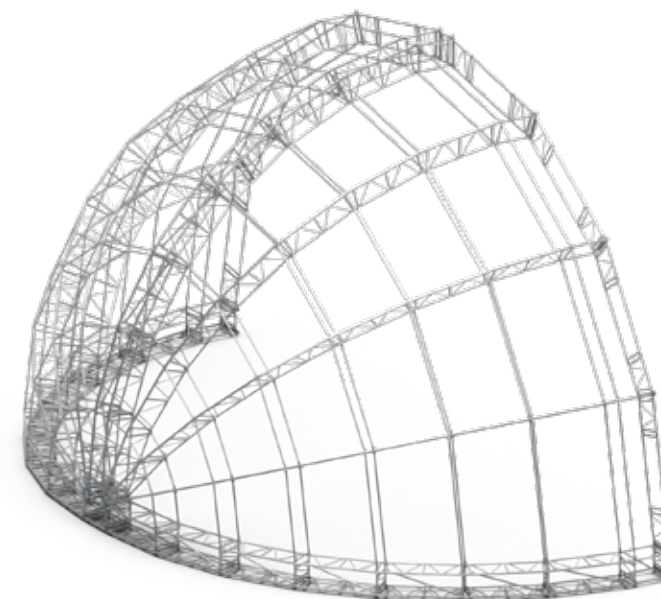


By integrating standard trusses with dedicated elements, and always using the central star connection, dome structures can be created in various sizes, depending on the truss model used.

This configuration places LIBERA in a further dimension, evolving from flat grid systems to highly evocative three-dimensional structures.



Given the specific nature of these structures, especially for outdoor applications, our technical team should be involved from the early stages of the project.





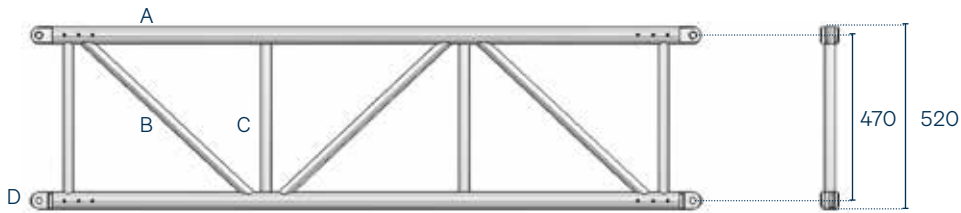
This is the most suitable LIBERA system for fairs and medium-sized installations. The modular grid structure allows the creation of single spans up to 16–18 metres in length, with standard centre-to-centrespacing of 0.5 m, 1 m and 2 m.

- 33 to 186 cm flat trusses
- Available in two versions:
 - standard and with built-in roofing sheet guides
- Ends with aluminium forks
- Curved parts for grid structure end fittings
- Universal four-way connection

LINEAR ELEMENTS				
Code	H (cm)	L (cm)	Code	H (cm) L (cm)
FL52035V	flat section 52	35	FL52035R	flat section 52 35 with guide
FL52086V	flat section 52	86	FL520865R	flat section 52 86 with guide
FL52137V	flat section 52	137	FL521865R	flat section 52 186 with guide
FL52186V	flat section 52	186		

“**R**” codes identify trusses featuring a top chord profile with an integrated track for the sliding of roofing sheets. The connection between trusses is ensured by the **FL52CS04R** Star connector. For the full “**R**” series range, please contact our sales department.

Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Forks connector EN AW – 6082 T6	FL52C504: four-way connection KHLP: cylindrical pin + safety R-clip KHLM+KHL



Load table

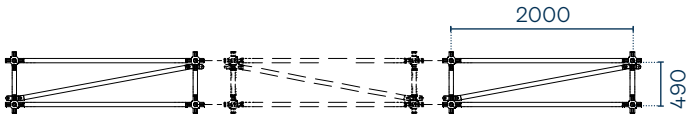
Unif. distributed load	Centre point load	Third point load	Quarter point load	Fifth point load
				

span	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
5	372	1859	7	930	930	5	697	1395	7	465	1395	6	387	1549	7
6	256	1536	10	768	768	8	576	1152	10	384	1152	9	320	1280	10
7	186	1303	13	651	651	11	489	977	14	326	977	13	271	1086	13
8	141	1126	17	563	563	14	422	845	18	282	845	17	235	939	17
9	110	987	22	494	494	18	370	740	22	247	740	21	206	823	22
10	87	875	27	437	437	22	328	656	28	219	656	26	182	729	27
11	71	781	33	391	391	27	293	586	34	195	586	31	163	651	33
12	58	702	39	351	351	32	263	526	40	175	526	38	146	585	40
13	49	634	46	317	317	38	238	475	47	158	475	44	132	528	47
14	41	574	54	287	287	45	215	431	55	144	431	52	120	479	54
15	35	522	62	261	261	52	196	391	63	130	391	59	109	435	62
16	30	475	71	238	238	59	178	356	72	119	356	68	99	396	71
17	25	433	80	216	216	68	162	325	81	108	325	77	90	361	80
18	22	395	90	197	197	77	148	296	91	99	296	87	82	329	90
19	19	360	100	180	180	86	135	270	102	90	270	97	75	300	101
20	16	327	112	164	164	97	123	245	113	82	245	108	68	273	112
21	14	297	123	149	149	108	111	223	125	74	223	120	62	248	124
22	12	269	136	135	135	120	101	202	138	67	202	132	56	225	137
23	11	243	149	122	122	132	91	183	151	61	183	145	51	203	150
24	9	219	163	109	109	146	82	164	165	55	164	159	46	182	164
25	8	196	178	98	98	160	73	147	180	49	147	173	41	163	178

Cantilever load table

Unif. distributed load	Centre point load
	

span	[kg/m]	[kg]	mm	[kg]	mm
1.0	1156	1156	0	1101	1
1.5	768	1152	1	785	2
2.0	546	1092	2	585	3
2.5	372	930	4	465	5
3.0	256	768	6	384	8
3.5	186	651	8	326	11
4.0	141	563	10	282	14



These load capacity values are only valid if the trusses are connected together every 2 metres (Lo). The load capacity values are only valid for a single line.

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end. The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

LIBERA FL52



LIBERA is an open structural system. The distinguishing feature of the system is that it uses standard modular elements connected together in ways that allow varied design and geometry of the finished structure. These two pages show connections and accessories that are helpful in the assembly or set up of your LIBERA FL52 system. The wide range of accessories for LIBERA System include bar hooks, spacers for the construction of arched geometries, complimentary elements for sleeve-blocks and transport trolley systems for flat trusses.

KHLP
20 mm Cylindrical pin
+ 3 mm safety R-clip

KHLB
M20 screw bolt
+ spring washer

KHLD
M20 screw nut
+ spring washer

KHLF
Threaded female fork
connector + spring washer

KHLG
M20 Lifting Eye

KHLM
Male fork
connector complete

KHL180A
180° double fork aluminum
connector

KHL180S
180° double fork
steel connector

KHL90LA
90° double fork
alum. connector, left

KHL90LS
90° double fork steel
connector, left

KHL90RA
90° double fork alum.
connector, right

KHL90RS
90° double fork steel
connector, right

KHL180AL149R
Alusfera spacer connector

Connection Stars

FL52CS02
2-way fork
connection
system

FL52CS03
3-way fork
connection
system

FL52CS04
4-way fork
connection
system

FL52CS04C
4-way fork
connection
system rounded
end

FL52CS04L
4-way fork
connection system
w/foot

FL52CS04R
4-way fork
connection
system w/foot
and vertical fork

Accessories

LIBERA
FL52

C052D
Bar hook for 52 cm truss

FL52033HSZ1
Hoist support

FL52047HSZ1
Hoist support

FL52ST
FL52 Transport trolley system
for 20 pieces

FL52MS
Hoist support

FL52IS40-L
Inclination system
for MT52 tower/Libera 52 - Left

FL52IS40-R
Inclination system
for MT52 tower/Libera 52 - Right

RAF / Reinforced tube w/forks
FL52 Transport trolley system
for 20 pieces

RAH / Diagonal brace w/hooks
RAH014M2P – working length 14.2 cm
RAH049P – working length 49 cm
RAH141M4 – working length 141 cm
RAH158M8 – working length 158 cm
RAH205M9S – working length 205 cm
RAH213M5 – working length 213 cm
RAH223M6 – working length 223 cm
RAH250M6 – working length 250 cm
RAH282M8 – working length 282 cm

RAL / Aluminium pipe
RAL047 – length 47 cm
RAL086 – length 86 cm
RAL100 – length 100 cm
RAL186 – length 186 cm
RAL200 – length 200 cm

RAT / Aluminium pipe w/caps
RAT050 – working length 50 cm
RAT100 – working length 100 cm
RAT150 – working length 150 cm
RAT200 – working length 200 cm
RAT250 – working length 250 cm
RAT300 – working length 300 cm

FORK TRUSS

LIBERA FL76

CE



This LIBERA system is designed for large grids and complex installations, allowing the construction of structures up to 22 metres in length.

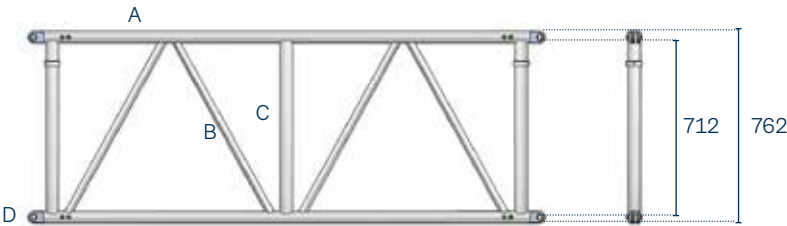
For indoor applications, it is suitable for theatre grid structures, as well as for TV and cinema studios.

- 47 to 200 cm flat trusses
- Available in two versions: standard and with built-in roofing sheet guides
- Ends with aluminium forks
- Curved parts for grid structure end fittings
- Universal four-way connection

LINEAR ELEMENTS					
			*V - standard truss *R - built-in rail for canopy		
Code	H (cm)	L (cm)	Code	H (cm)	L (cm)
FL76047V	flat section 76	47	FL76047R	flat section 76	47 with guide
FL76086V	flat section 76	86	FL76086R	flat section 76	86 with guide
FL76100V	flat section 76	100	FL76100R	flat section 76	100 with guide
FL76186V	flat section 76	186	FL76186R	flat section 76	186 with guide
FL76200V	flat section 76	200	FL76200R	flat section 76	200 with guide
			FL76111RHC	flat section 76	105 curved

“**R**” codes identify trusses featuring a top chord profile with an integrated track for the sliding of roofing sheets. The connection between trusses is ensured by the **FL76CS04R** Star connector. For the full “**R**” series range, please contact our sales department.

Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 30 × 3 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Forks connector EN AW – 6082 T6	FL52C504: four-way connection KHLP: cylindrical pin + safety R-clip KHLM+KHL



Load table - Type A						
4 WAY STAR CONNECTION						
Unif. distributed load			Centre point load			
						
span	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm
3	818	2453	1	2118	2118	1
4	610	2441	2	1579	1579	2
5	486	2430	4	1253	1253	3
6	344	2067	6	1033	1033	5
7	250	1750	8	875	875	6
8	189	1510	10	755	755	8
9	147	1320	13	660	660	11
10	117	1167	16	583	583	13
11	94	1039	19	519	519	16
12	78	930	23	465	465	19
13	64	836	27	418	418	23
14	54	755	32	377	377	27
15	45	682	37	341	341	31
16	39	617	42	309	309	36
17	33	559	47	279	279	41
18	28	505	53	253	253	46
19	24	456	60	228	228	52
20	21	411	66	206	206	58
21	18	369	73	185	185	65
22	15	330	81	165	165	72
23	13	293	89	147	147	80
24	11	259	97	129	129	88

Cantilever load table - Type A					
Unif. distributed load			Centre point load		
					
span	Point load	Full load	Central deflection	Point load	Full load
[m]	[kg/m]	[kg]	mm	[kg]	mm
1.0	1232	1232	0	1232	0
1.5	818	1226	1	1057	1
2.0	610	1221	1	787	2
2.5	486	1215	2	625	3
3.0	344	1031	3	515	5
3.5	249	873	5	436	6
4.0	188	753	6	377	8

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end. The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

Load table - Type A						
MALE / FEMALE FORK CONNECTION						
Unif. distributed load			Centre point load			
						
span	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm
3	462	1387	0	1387	1387	1
4	344	1375	1	1375	1375	2
5	273	1364	2	1253	1253	3
6	225	1352	4	1033	1033	5
7	192	1341	6	875	875	6
8	166	1329	9	755	755	8
9	146	1318	13	660	660	11
10	117	1167	16	583	583	13
11	94	1039	19	519	519	16
12	78	930	23	465	465	19
13	64	836	27	418	418	23
14	54	755	32	377	377	27
15	45	682	37	341	341	31
16	39	617	42	309	309	36
17	33	559	47	279	279	41
18	28	505	53	253	253	46
19	24	456	60	228	228	52
20	21	411	66	206	206	58
21	18	369	73	185	185	65
22	15	330	81	165	165	72
23	13	293	89	147	147	80
24	11	259	97	129	129	88

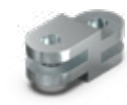
Cantilever load table - Type B					
Unif. distributed load			Centre point load		
					
span	Point load	Full load	Central deflection	Point load	Full load
[m]	[kg/m]	[kg]	mm	[kg]	mm
1.0	699	699	0	699	0
1.5	462	693	0	693	1
2.0	344	688	1	688	2
2.5	273	682	1	625	3
3.0	225	676	2	515	5
3.5	192	670	4	436	6
4.0	166	665	5	377	8

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

LIBERA FL76

LIBERA is an open structural system. The distinguishing feature of the system is that it uses standard modular elements connected together in ways that allow varied design and geometry of the finished structure. These two pages show connections and accessories that are helpful in the assembly or set up of your LIBERA FL76 system. The wide range of accessories for LIBERA System include bar hooks, spacers for the construction of arched geometries, complimentary elements for sleeve-blocks and transport trolley systems for flat trusses.

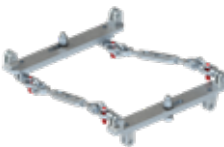
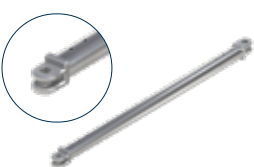
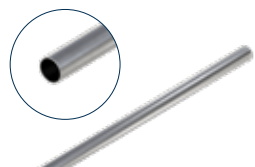
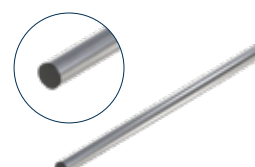
				
KHLP	KHLB	KHLD	KHLF	KHLG
20 mm Cylindrical pin + 3 mm safety R-clip	M20 screw bolt + spring washer	M20 screw nut + spring washer	Threaded female fork connector + spring washer	M20 Lifting Eye
				
KHLM	KHL180A	KHL180S	KHL90LA	KHL90LS
Male fork connector complete	180° double fork aluminum connector	180° double fork steel connector	90° double fork alum. connector, left	90° double fork steel connector, left
				
KHL90RA	KHL90RS	KHL180AL149R		
90° double fork alum. connector, right	90° double fork steel connector, right	Alusfera spacer connector		

Connection Stars

				
FL76CS02	FL76CS03	FL76CS04	FL76CS04C	FL76CS04L
2-way fork connection system	3-way fork connection system	4-way fork connection system	4-way fork connection system rounded end	4-way fork connection system w/foot
				
FL76CS04Z1	FL76CS04Z2	FL76CS04R		
4-way cross special connection	4-way cross special connection	4-way fork connection system w/foot and vertical fork		

Accessories

LIBERA FL76

				
C052D	C066	FL76059HS	FL76047HSV	FL76FP
Bar hook for 52 cm truss	Bar hook for 61 cm. truss	HL 76 cm. gate cm 59 truss - hoist support	HL 76 cm. gate cm 47 truss - hoist support	Stage floor plate
				
FLRS52E-L	FLRS52E-R	FLRS40E-L	FLRS40E-R	
Inclination system for MT52 tower/Libera 76 - Left	Inclination system for MT52 tower/ Libera 76 - Right	Inclination system for MT40 tower/ Libera 76 - Left	Inclination system for MT40 tower/ Libera 76 - Right	
				
RAF / Reinforced tube w/forks	RAH / Diagonal brace w/hooks	RAL / Aluminium pipe	RAT / Aluminium pipe w/caps	
FL52 Transport trolley system for 20 pieces	RAH014M2P – working length 14.2 cm RAH049P – working length 49 cm RAH141M4 – working length 141 cm RAH158M8 – working length 158 cm RAH205M9S – working length 205 cm RAH213M5 – working length 213 cm RAH223M6 – working length 223 cm RAH250M6 – working length 250 cm RAH282M8 – working length 282 cm	RAL047 – length 47 cm RAL086 – length 86 cm RAL100 – length 100 cm RAL186 – length 186 cm RAL200 – length 200 cm	RAT050 – working length 50 cm RAT100 – working length 100 cm RAT150 – working length 150 cm RAT200 – working length 200 cm RAT250 – working length 250 cm RAT300 – working length 300 cm	

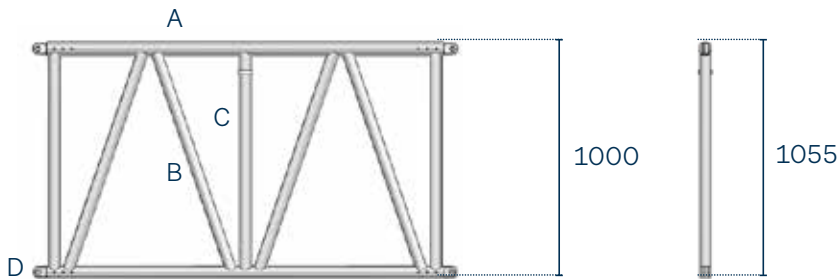


The top of the LIBERA range. Designed for Heavy-Duty applications, with high load capacity and long spans. LIBERA105 is primarily intended for outdoor use and is particularly suitable for roofing systems and large-scale structures.Itallows the construction of spans up to 30 metres in length with high load capacity

- 47 to 186 cm flat trusses
- Available in standard versions
- Ends with aluminium forks
- Universal four-way or male/female pass through connection

LINEAR ELEMENTS					
Code	H (cm)	L (cm)	Code	H (cm)	L (cm)
FL105045V	flat section 105	45	FL105136V	flat section 105	136
FL105086V	flat section 105	86	FL105186V	flat section 105	186

Upper Chords A	Lower Chords A	Diagonals B	Braces C	Ends D	Connection systems
Extruded tube Ø 60 × 5 mm EN AW – 6082 T6	Extruded tube Ø 50 × 5 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Extruded tube Ø 50 × 4 mm EN AW – 6082 T6	Forks connector EN AW – 6082 T6	KHLP: Cylindrical pin + safety R-clip KHLM+KHLF



Load table															
span	Unif. distributed load			Centre point load			Third point load			Quarter point load			Fifth point load		
															
[m]	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection	Point load	Full load	Central deflection
[m]	[kg/m]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm	[kg]	[kg]	mm
5	499	2493	1	2491	2491	2	1246	2493	2	831	2493	2	623	2493	2
6	413	2477	2	2277	2277	3	1238	2477	3	826	2477	3	619	2477	3
7	351	2460	4	1996	1996	5	1230	2460	5	820	2460	5	615	2460	4
8	306	2444	6	1731	1731	6	1187	2373	7	815	2444	7	611	2444	7
9	270	2428	8	1524	1524	8	1114	2229	10	762	2285	9	607	2428	10
10	241	2412	11	1356	1356	10	1017	2034	12	678	2034	12	656	2260	12
11	218	2396	15	1217	1217	12	913	1826	15	609	1826	14	507	2029	15
12	183	2201	18	1101	1101	14	825	1651	18	550	1651	17	459	1834	18
13	154	201	21	1000	1000	17	750	1501	21	500	1501	20	417	1667	21
14	131	1827	24	914	914	20	685	1370	25	457	1370	23	381	1523	24
15	112	1674	28	837	837	23	628	1256	28	419	1256	26	349	1395	28
16	96	1538	32	769	769	26	577	1154	32	385	1154	30	321	1282	32
17	83	1417	36	708	708	30	531	1063	36	354	1063	34	295	1181	36
18	73	1307	40	653	653	34	490	980	41	327	980	38	272	1089	40
19	64	1207	45	603	603	38	453	905	45	302	905	43	251	1006	45
20	56	1115	50	558	558	42	418	836	51	279	836	48	232	929	50
21	49	1031	55	515	515	47	387	773	56	258	773	53	215	859	55
22	43	953	60	476	476	52	357	714	61	238	714	58	198	794	61
23	38	880	66	440	440	57	330	660	67	220	660	64	183	733	67
24	34	812	72	406	406	63	304	609	73	203	609	70	169	676	73
25	30	748	79	374	374	69	280	561	80	187	561	76	156	623	79
26	26	687	85	344	344	75	258	516	86	172	516	83	143	573	86
27	23	630	92	315	315	82	236	473	93	158	473	90	131	525	93
28	21	576	100	288	288	89	216	432	101	144	432	97	120	480	100
29	18	525	107	262	262	96	197	394	108	131	394	105	109	437	108
30	16	476	115	238	238	104	178	357	116	119	357	112	99	397	116

Cantilever load table					
span	Unif. distributed load			Centre point load	
					
[m]	[kg/m]	[kg]	mm	[kg]	mm
1.0	1270	1270	0	1270	0
2.0	627	1254	0	1129	1
3.0	410	1229	1	859	3
4.0	273	1091	3	630	5
5.0	195	975	5	490	7
5.5	159	875	7	438	9
6.0	131	787	8	393	10

These load capacity values are only valid if the trusses are connected together every 2 metres (L₀)
The load capacity values are only valid for a single line.

Load table has been prepared in accordance with EN 1999-1-1. When calculating the allowable loads it is assumed that the load is suspended from the bottom chord and the truss is supported from the top chord at each end.
The values shown in the table are the allowable static loads that can be applied the the truss. This is the live load or the payload.

The self weight of the truss has been taken into account when calculating the values in the table. It should be noted that this are idealised loading conditions and the User shall re-analyze the truss for the loading conditions which prevail for the application being considered.

Connections

LIBERA FL105

LIBERA is an open structural system. The distinguishing feature of the system is that it uses standard modular elements connected together in ways that allow varied design and geometry of the finished structure. These two pages show connections and accessories that are helpful in the assembly or set up of your LIBERA FL105 system. The wide range of accessories for LIBERA System include bar hooks, spacers for the construction of arched geometries, complimentary elements for sleeve-blocks and transport trolley systems for flat trusses.

KHLP

20 mm Cylindrical pin
+ 3 mm safety R-clip

KHLB

M20 screw bolt
+ spring washer

KHLD

M20 screw nut
+ spring washer

KHLF

Threaded female fork
connector + spring washer

KHLG

M20 Lifting Eye

KHLM

Male fork
connector complete

KHL180A

180° double fork aluminum
connector

KHL180S

180° double fork
steel connector

KHL90LA

90° double fork
alum. connector, left

KHL90LS

90° double fork steel
connector, left

KHL90RA

90° double fork alum.
connector, right

KHL90RS

90° double fork steel
connector, right

Connection Stars

FL105CS02

2-way fork
connection
system

FL105CS03

3-way fork
connection
system

FL105CS04

4-way fork
connection
system

FL105CS04C

4-way fork
connection
system rounded
end

FL105CS04L

4-way fork
connection
system w/foot

Accessories

LIBERA FL105

C066

Bar hook for 61 cm. truss

FL105059HS

HL 105 cm Gate, 59 cm
truss - hoist support

FL105047HSV

HL 105 cm Gate, 47 cm
truss - hoist support

FL105MSZ1

Hoist support

FL76ST

FL76 transport trolley
system for 20 pieces

FL105MS

Hoist support

RAF / Reinforced tube w/forks

FL52 Transport trolley system
for 20 pieces

RAH / Diagonal brace w/hooks

RAH014M2P – working length 14.2 cm
RAH049P – working length 49 cm
RAH141M4 – working length 141 cm
RAH158M8 – working length 158 cm
RAH205M9S – working length 205 cm
RAH213M5 – working length 213 cm
RAH223M6 – working length 223 cm
RAH250M6 – working length 250 cm
RAH282M8 – working length 282 cm

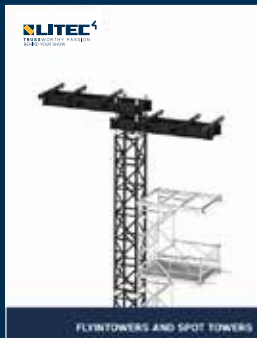
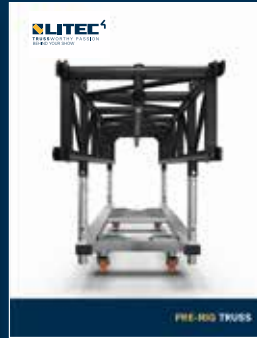
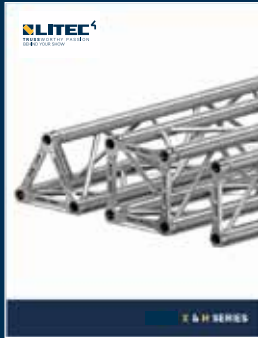
RAL / Aluminium pipe

RAL047 – length 47 cm
RAL086 – length 86 cm
RAL100 – length 100 cm
RAL186 – length 186 cm
RAL200 – length 200 cm

RAT / Aluminium pipe w/caps

RAT050 – working length 50 cm
RAT100 – working length 100 cm
RAT150 – working length 150 cm
RAT200 – working length 200 cm
RAT250 – working length 250 cm
RAT300 – working length 300 cm





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