FORK TRUSS

LIBERA FL52



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.

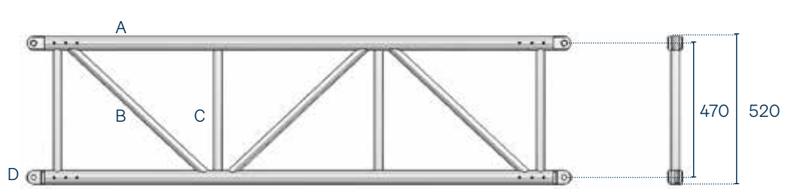
- 33 to 186 cm flat trusses
- Available in two versions:
- standard and with built-in roofing sheet guides
- Ends with aluminium forks
- Curved parts for grid structure end fittings
- Universal four-way connection

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

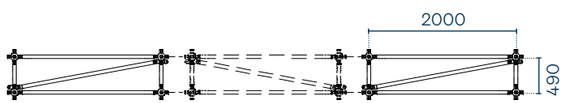


Load table

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	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

span	Unif. distributed load			Centre point load	
[m]	[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 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



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



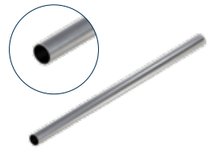
RAF / Reinforced tube w/forks

FL52 Transport trolley system
for 20 pieces



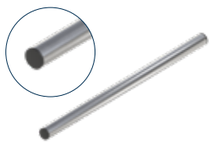
RAH / Diagonal brace w/hooks

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