

**DATA SHEET**  
**R1 TRUSS**

**Specifications**



**Ø Main Tube** 60 x 6mm  
**Ø Braces Tube** 48 x 3 mm  
**Alloy** EN AW 6082T6  
**Height** 1010 mm  
**Width** 580mm  
**Connection** CBC6F  
**Color** Silver | Black RAL9005



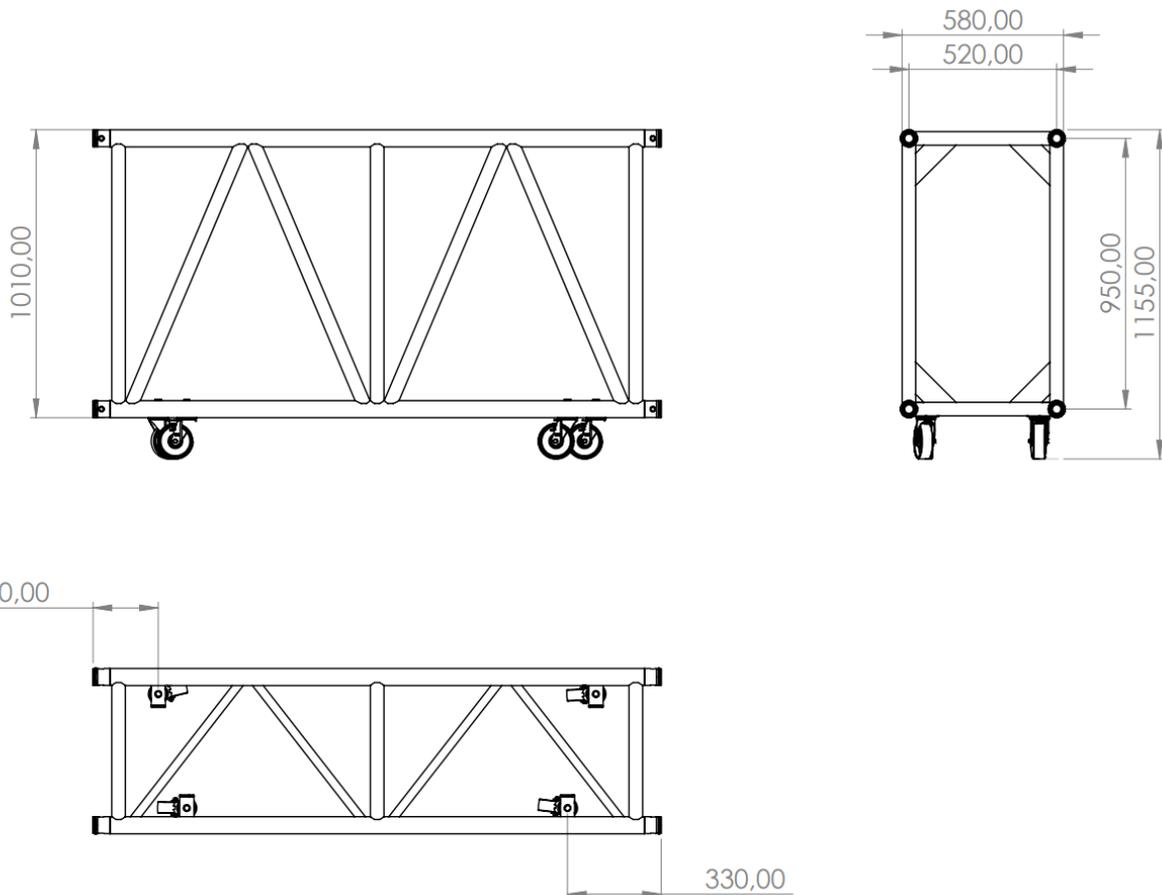
**Main Features**

- ✓ Modular range truss for heavy duty
- ✓ Great free-span & Loading characteristics
- ✓ Indoor & Outdoor applications
- ✓ Fast Connection for quick, simple and secure assembly

**Rectangular Standard Length**

Code	Description	Size	Weight
F70ER1100	Rectangular Standard Length	1010 x 580 x 1000 mm	33.11 kg
F70ER1200	Rectangular Standard Length	1010 x 580 x 2000 mm	53.46 kg
F70ER1300	Rectangular Standard Length	1010 x 580 x 3000 mm	73.66 kg

**Product Size**



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Metric Loading Chart

Span		CPL		UDL		2x Load		3x Load		4x Load	
m	kg	mm	Kg / m	mm	kg	mm	kg	mm	kg	mm	
4	7099,8	3	2741,6	4	4103,4	4	2955,7	4	2324,2	4	
5	6408,8	5	2188,8	6	3798,4	7	2780,8	6	2211,1	6	
6	5827,6	7	1820,3	9	3527,4	9	2619,7	9	2104,3	9	
7	5334,3	10	1557	13	3286,6	13	2472	12	2004	13	
8	4911,2	13	1359,6	16	3072	17	2336,6	16	1910,3	16	
9	4544,8	17	1192,9	21	2880,1	21	2212,6	20	1822,8	21	
10	4224,5	21	1010,6	26	2707,6	26	2098,8	24	1741,2	26	
11	3942,2	25	862,2	31	2551,8	32	1994,1	29	1665	31	
12	3691,5	30	737	37	2410,6	38	1897,5	35	1593,9	37	
13	3467,3	35	624,7	43	2281,9	44	1808,3	41	1506,3	44	
14	3265,4	41	535,5	50	2164,2	51	1725,6	48	1414,6	51	
15	3082,6	47	463,6	58	2056	59	1648,7	55	1332,1	58	
16	2916,2	53	404,7	66	1956,3	67	1577,1	63	1257,4	66	
17	2763,9	60	355,9	74	1864	76	1510,1	71	1189,3	75	
18	2624	68	315,1	83	1778,3	85	1417,8	79	1127,1	84	
19	2494,9	76	280,5	93	1698,4	95	1332,2	89	1069,8	94	
20	2375,3	84	250,9	103	1623,8	105	1254,6	98	1017	104	
21	2264,1	93	225,5	114	1553,9	116	1183,9	109	968,1	114	
22	2160,4	103	203,5	125	1488,3	127	1119,1	119	922,6	126	
23	2063,4	113	184,2	137	1426,5	139	1059,4	131	880,2	138	
24	1972,3	123	167,4	149	1368,1	152	1004,3	142	836,9	150	
25	1886,6	134	152,5	162	1312,9	165	953,1	155	794,2	163	
26	1805,8	145	139,3	175	1260,5	178	905,4	168	754,5	176	
27	1721,6	157	127,5	189	1210,8	193	860,8	181	717,3	190	
28	1638	170	117	204	1163,4	207	819	195	682,5	205	
29	1559,4	183	107,5	219	1118,3	223	779,7	210	649,8	220	
30	1485,3	197	99	234	1075,2	239	742,7	225	618,9	236	
31	1415,3	211	91,3	251	1033,9	255	707,6	241	589,7	252	
32	1348,9	226	84,3	267	994,4	272	674,5	257	562	269	
33	1285,9	242	77,9	285	956,5	290	642,9	274	535,8	287	
34	1225,9	258	72,1	303	919,4	308	612,9	292	510,8	305	
35	1168,7	275	66,8	321	876,5	327	584,3	310	487	323	
36	1114	292	61,9	341	835,5	346	557	328	464,2	342	
37	1061,7	310	57,4	360	796,3	366	530,9	348	442,4	362	
38	1011,6	329	53,2	380	758,7	386	505,8	368	421,5	383	
39	963,4	348	49,4	402	722,6	408	481,7	388	401,4	404	
40	917,1	368	45,9	423	687,8	429	458,6	410	382,1	425	

in is the deflection in inches of the truss at the given load | 1 inch = 25,4 mm | 1 m = 3.38 ft | 1 lbs = 0,453 kg

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Imperial Loading Chart

Span ft	CPL		UDL		2x Load		3x Load		4x Load	
	lbs	in	lbs / ft	in	lbs	in	lbs	in	lbs	in
13,12	15652,38	0,12	1842,27	0,16	1861,27	0,16	1340,68	0,16	1054,24	0,16
16,40	14128,99	0,20	1470,81	0,24	1722,93	0,28	1261,35	0,24	1002,94	0,24
19,69	12847,66	0,28	1223,19	0,35	1600,00	0,35	1188,28	0,35	954,49	0,35
22,97	11760,12	0,39	1046,26	0,51	1490,78	0,51	1121,28	0,47	909,00	0,51
26,25	10827,34	0,51	913,61	0,63	1393,44	0,67	1059,86	0,63	866,50	0,63
29,53	10019,57	0,67	801,59	0,83	1306,39	0,83	1003,62	0,79	826,81	0,83
32,81	9313,43	0,83	679,09	1,02	1228,15	1,02	952,00	0,94	789,80	1,02
36,09	8691,06	0,98	579,37	1,22	1157,48	1,26	904,51	1,14	755,23	1,22
39,37	8138,36	1,18	495,24	1,46	1093,43	1,50	860,69	1,38	722,98	1,46
42,65	7644,09	1,38	419,78	1,69	1035,05	1,73	820,23	1,61	683,25	1,73
45,93	7198,97	1,61	359,84	1,97	981,66	2,01	782,72	1,89	641,65	2,01
49,21	6795,97	1,85	311,52	2,28	932,59	2,32	747,84	2,17	604,23	2,28
52,49	6429,12	2,09	271,95	2,60	887,36	2,64	715,36	2,48	570,35	2,60
55,77	6093,36	2,36	239,15	2,91	845,50	2,99	684,97	2,80	539,46	2,95
59,06	5784,93	2,68	211,74	3,27	806,62	3,35	643,10	3,11	511,24	3,31
62,34	5500,31	2,99	188,49	3,66	770,38	3,74	604,28	3,50	485,25	3,70
65,62	5236,64	3,31	168,60	4,06	736,54	4,13	569,08	3,86	461,30	4,09
68,90	4991,49	3,66	151,53	4,49	704,84	4,57	537,01	4,29	439,12	4,49
72,18	4762,87	4,06	136,75	4,92	675,08	5,00	507,62	4,69	418,48	4,96
75,46	4549,02	4,45	123,78	5,39	647,05	5,47	480,54	5,16	399,25	5,43
78,74	4348,18	4,84	112,49	5,87	620,56	5,98	455,54	5,59	379,61	5,91
82,02	4159,24	5,28	102,48	6,38	595,52	6,50	432,32	6,10	360,24	6,42
85,30	3981,11	5,71	93,61	6,89	571,75	7,01	410,68	6,61	342,24	6,93
88,58	3795,48	6,18	85,68	7,44	549,21	7,60	390,45	7,13	325,36	7,48
91,86	3611,17	6,69	78,62	8,03	527,71	8,15	371,49	7,68	309,58	8,07
95,14	3437,89	7,20	72,24	8,62	507,25	8,78	353,67	8,27	294,74	8,66
98,43	3274,53	7,76	66,52	9,21	487,70	9,41	336,88	8,86	280,73	9,29
101,71	3120,20	8,31	61,35	9,88	468,97	10,04	320,96	9,49	267,48	9,92
104,99	2973,82	8,90	56,65	10,51	451,05	10,71	305,95	10,12	254,92	10,59
108,27	2834,92	9,53	52,35	11,22	433,86	11,42	291,61	10,79	243,03	11,30
111,55	2702,65	10,16	48,45	11,93	417,03	12,13	278,01	11,50	231,69	12,01
114,83	2576,54	10,83	44,89	12,64	397,57	12,87	265,03	12,20	220,90	12,72
118,11	2455,95	11,50	41,59	13,43	378,98	13,62	252,65	12,91	210,56	13,46
121,39	2340,65	12,20	38,57	14,17	361,20	14,41	240,81	13,70	200,67	14,25
124,67	2230,20	12,95	35,75	14,96	344,14	15,20	229,43	14,49	191,19	15,08
127,95	2123,93	13,70	33,20	15,83	327,77	16,06	218,50	15,28	182,07	15,91
131,23	2021,86	14,49	30,84	16,65	311,98	16,89	208,02	16,14	173,32	16,73

in is the deflection in inches of the truss at the given load | 1 inch = 25,4 mm | 1 m = 3.38 ft | 1 lbs = 0,453 kg

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**FANTEK®**  
LIFTERS, PLATFORMS & TRUSS

### Metric Cantilever Chart



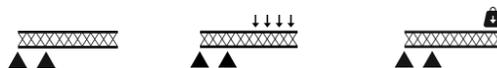
Span	UDL		Single Load	
	kg / m	mm	kg	mm
1	4999,3	1	4438,9	1
2	2206,9	2	3523,8	3
3	1300,5	6	2882,6	7
4	867,3	10	2421,1	13
5	621,1	15	2075,6	20
6	466,2	22	1807,5	29
7	361,8	30	1593,2	40

**mm** is the deflection in millimeters of the Truss at the given load

### All Loading calculations are based on:

- The loads listed in the charts are static. For dynamic loads multiply the loading chart by 0.8
- If the truss is expected to have excessive wear caused by frequent use, apply a reduction factor of 0.85 to the loading charts above to comply with the EN-17115.
- To comply with the ANSI E1.2-2006 multiply the loading charts by 0,85.
- Loads are applied at nodes.
- Loading figures are only valid for single spans supported at both ends.
- Spans can be made of different truss lengths.
- The interaction between bending moment and shear force at connection points has been considered.
- The self-weight of the truss has been considered.
- Any truss configuration other than the ones listed above need an individual structural analysis.
- The loading charts have been obtained according to the Eurocodes.

### Imperial Cantilever Chart



Span	UDL		Single Load	
	lbs / ft	in	lbs	in
3,28	3359,37	0,04	9786,10	0,04
6,56	1482,97	0,08	7768,65	0,12
9,84	873,90	0,24	6355,05	0,28
13,12	582,80	0,39	5337,61	0,51
16,40	417,36	0,59	4575,91	0,79
19,69	313,27	0,87	3984,86	1,14
22,97	243,12	1,18	3512,40	1,57

**in** is the deflection in inches of the truss at the given load  
**1 inch = 25,4 mm | 1 m = 3.38 ft | 1 lbs = 0,453 kg**

### Definitions:

- Span** Distance between two hanging points.
- CPL** Central Point Load dividing a span into two equal sections.
- 2x Load** Two-point loads dividing a span into three equal sections.
- 3x Load** Three-point loads dividing a span into four equal sections.
- 4x Load** Four-point loads dividing a span into five equal sections.
- UDL** Uniformly Distributed Load.
- Cantilever** Distance from the end of the truss until the next hanging point.
- Single Load** Point Load at the end of the cantilever.



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TRUSS DATA SHEET

 **CBC60 Connection System**



 **R1 Truss Standard Corners**



 **Truss Accessories**



## EU Declaration of Conformity Declaración de Conformidad



We,  
*Nosotros,*

### FANTEK INDUSTRIAL S.L.

declare under our sole responsibility that the following product:  
*declaramos bajo nuestra entera responsabilidad que el siguiente producto:*

Reference <i>Referencia</i>	R1 Series
Description <i>Descripción</i>	Aluminium Truss Estructura Truss de Aluminio

complies with the essential protection requirements of the directives:  
*cumple con todos los requerimientos y requisitos exigidos por las directivas:*

#### UNE-EN 17115

*Entertainment technology - Specifications for design and manufacture of aluminium and steel trusses.  
Tecnologías del entretenimiento. Especificaciones para el diseño y la fabricación de trusses de acero y aluminio.*

#### UNE-EN 1090-1:2011 + A1:2012 | UNE-EN 1090-3:2019

*Execution of steel structures and aluminium structures. Part 1 & Part 3.  
Ejecución de estructuras de acero y aluminio. Parte 1 y Parte 3.*

#### EN EUROCODES



##### UNE-EN 1990:2019

*Eurocode - Basis of structural design.  
Eurocódigos. Bases de cálculo de estructuras.*



##### UNE-EN 1991:2019

*Eurocode 1: Actions on structures.  
Eurocódigo 1: Acciones en estructuras.*



##### UNE-EN 1993:2012

*Eurocode 3 - Design of steel structures.  
Eurocódigo 3: Proyecto de estructuras de acero.*



##### UNE-EN 1999:2007/A2:2013

*Eurocode 9: Design of aluminium structures.  
Eurocódigo 9: Diseño de estructuras de aluminio.*

Valencia - Spain, on 20.01.22

Jose Vila Ortiz  
General Manager | Administrador  
FANTEK INDUSTRIAL S.L.



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