
SQUARE SECTION TRUSS

Code	Length L [cm]	Weight [kg]	Volume [m ³]
S85AJ/300	300	105,6	2,28
S85AJ/120	120	61,0	0,95

INERTIAL PROPERTIES

Area (A)	55,79 cm ²
Elastic modulus (E)	700000 kg / cm ²
Moment of inertia (I _{yy})	85248 cm ⁴
Moment of inertia (I _{xx})	85248 cm ⁴
Elastic section modulus (W _y)	1982 cm ³
Elastic section modulus (W _x)	1982 cm ³
Self-weight (P)	35,0 kg/m

TECHNICAL DATA

Section:	Square 86 cm long sides
Material:	Aluminum EN AW-6082 T6
Ends :	Aluminum fork EN AW-7020 T6
Connection:	K85
Welding:	TIG UNI EN 9606-2:2006
Main tubes :	Ø80x6 mm (EN AW-6082 T6)
Diagonals:	Ø50x4 mm (EN AW-6082 T6)

HIGH LOAD

S85AJ: maximum allowable loads

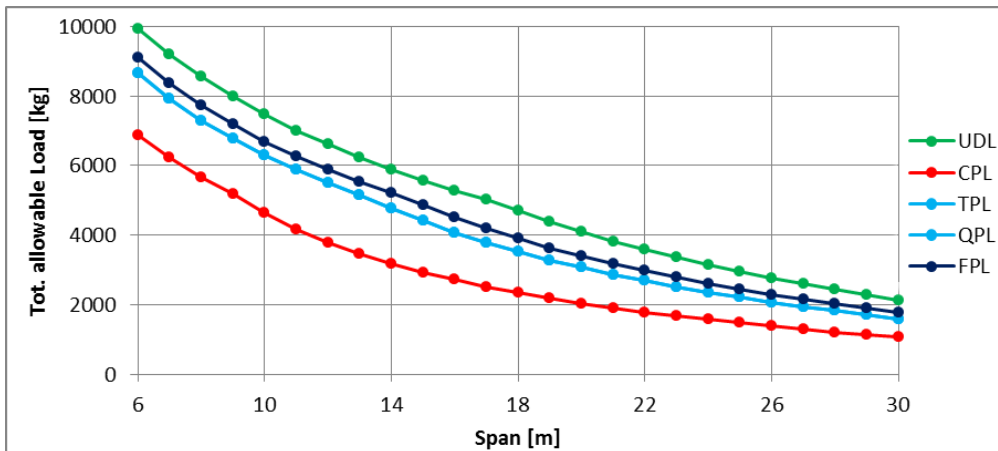
Span [m]	UNIFORMLY DISTRIBUTED LOAD UDL			CENTER POINT LOAD CPL			SINGLE THIRD POINT LOAD TPL			SINGLE QUARTER POINT LOAD QPL			SINGLE FIFTHS POINT LOAD FPL		
	q _{am} [kg/m]	q _{am} *L [kg]	def. [mm]	F _{am} [kg]	F _{am} [kg]	def. [mm]	F _{am} [kg]	2*F _{am} [kg]	def. [mm]	F _{am} [kg]	3*F _{am} [kg]	def. [mm]	F _{am} [kg]	4*F _{am} [kg]	def. [mm]
6	1655	9929	5	6886	6886	5	4322	8645	6	2882	8645	5	2274	9097	5
7	1313	9189	7	6221	6221	7	3960	7920	8	2640	7921	8	2091	8364	8
8	1068	8546	10	5666	5666	10	3650	7301	11	2433	7300	10	1933	7733	11
9	886	7975	13	5183	5183	13	3381	6763	15	2254	6763	14	1796	7183	14
10	747	7469	17	4631	4631	17	3145	6291	19	2097	6291	18	1674	6697	18
11	638	7015	21	4176	4176	20	2937	5873	24	1957	5872	22	1567	6266	23
12	550	6605	26	3794	3794	24	2750	5499	29	1833	5498	27	1470	5878	28
13	479	6229	31	3468	3468	28	2581	5162	35	1721	5162	33	1382	5527	34
14	421	5890	38	3186	3186	33	2389	4779	41	1593	4779	38	1302	5208	40
15	371	5572	44	2939	2939	38	2204	4408	47	1469	4408	44	1220	4878	46
16	330	5284	51	2721	2721	43	2040	4081	54	1360	4081	50	1129	4516	53
17	295	5013	59	2526	2526	49	1894	3789	61	1263	3789	57	1048	4193	60
18	261	4702	67	2351	2351	55	1763	3526	68	1175	3526	64	976	3903	67
19	231	4385	74	2192	2192	61	1644	3289	76	1096	3289	71	910	3639	75
20	205	4096	82	2048	2048	68	1536	3072	84	1024	3072	79	850	3400	83
21	182	3831	91	1916	1916	76	1437	2874	92	958	2874	87	795	3180	91
22	163	3587	100	1794	1794	83	1345	2691	101	897	2691	96	744	2978	100
23	146	3362	109	1681	1681	91	1261	2521	111	840	2521	105	698	2790	109
24	131	3152	119	1576	1576	100	1182	2364	121	788	2364	114	654	2616	119
25	118	2956	129	1478	1478	109	1108	2217	131	739	2217	124	613	2453	129
26	107	2772	139	1386	1386	118	1040	2079	142	693	2079	134	575	2301	140
27	96	2599	150	1300	1300	128	975	1950	153	650	1950	145	539	2157	151
28	87	2436	161	1218	1218	139	914	1827	164	609	1827	156	506	2022	162
29	79	2282	173	1141	1141	149	856	1712	176	571	1712	167	474	1894	174
30	71	2136	185	1068	1068	161	801	1602	188	534	1602	179	443	1773	186

The calculation at the base of the table has been prepared in accordance with the UNI EN 1999-1-1.

The allowable loads are net of the weight of the truss .

The deflection includes the weight of the truss.

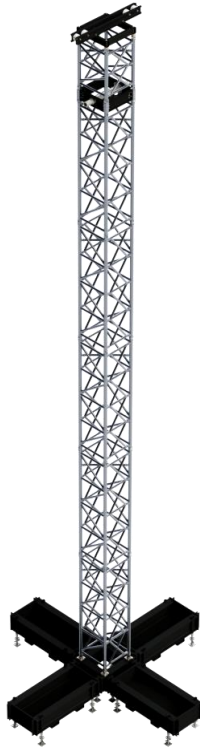
The constraints must be considered as an ideal condition; It will be the customer's responsibility analyze the structure in the light of the actual conditions of load, constraint and use.



HIGH LOAD



S85A J - AXIAL ALLOWABLE LOAD



H [m]	N _{am} [kg]
9	17275
10	16415
11	15540
12	14650
13	13765
14	12890
15	12035
16	11215
17	10435
18	9695
19	9000
20	8355

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 The allowable loads are net of the weight of the truss .
 The constraints must be considered as an ideal condition; It will be the customer's responsibility analyze
 the structure in the light of the actual conditions of load, constraint and use.