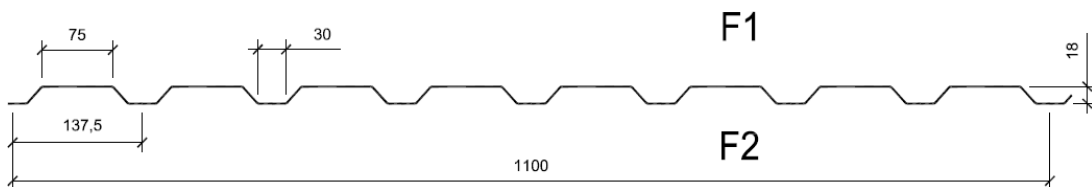


**TECHNICAL DATA SHEET
OF PROFILE
Trapeza[®] 20/137,5 T**

Trapeza® 20/137,5 T



Technical parameters:

Coil width:	1250 mm
Profile width:	1100 mm
Yield strength:	S320GD, S350GD according to EN 10346
Thickness:	0,40; 0,50; 0,55; 0,60; 0,63; 0,70; 0,75; 0,80; 0,88, 1,00 acc. to EN 10143
Durability/Coating quality:	ZM 60, ZM80, ZM100, ZM120, ZM175, ZM275 and Z100, 140, 200, 225, 275, 350 acc. to EN 10346
Organic coating:	Interieur (DU912, DU901), Hairplus, Hairultra, Hairflon, Keyron, Hairexcel, Sinea, (or acc. to Material guide), acc. to EN 10169
Max. length:	14 m
Min. length:	2 m

Tables of resistance of profiled sheeting ArcelorMittal

For all profiles, steel S320 is used. Material characteristics are as follows:

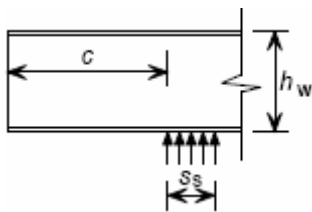
- yield strength $f_y = 320$ MPa
- proof strength $f_u = 390$ MPa
- modulus of elasticity $E = 210\,000$ MPa
- density 7850 kg/m³

The design thickness of the sheet given in the tables is the core thickness only. No coatings or paintings are included neither in the thickness nor in the calculated weight of the profiled sheeting. Minus tolerance in the sheet thickness is lower than 5 %.

The design resistances are calculated for uniformly loaded simply supported or continuous beams (where the spans are also uniform).

Ultimate limit state (ULS)

The design resistance according to the ultimate limit state is given by " q_{Ed} " which is calculated with respect to the bending resistance, shear resistance, local transverse forces and their interactions as defined in CSN EN 1993-1-3 and other referenced codes. The width of the end support s_s is 40 mm and 120 mm for the internal support respectively. In the tables, two different resistances are given according to the distance " c " (see figure below the paragraph) from the end support to the free end. One resistance " $q_{Ed} (c < 1,5h)$ " is for profiles which meets the minimal distance of the overhang " c " at least 40 mm. For the second resistance " $q_{Ed} (c \geq 1,5h)$ ", the distance at least $1.5 \times h_w$ (web height) clear from a free end is considered.



The real design load must be always smaller or at least equal to the resistance given in the tables. The maximal design resistances (load values) in the tables are related to a one-meter width of the profiled sheeting. Units used in the tables are kN/m². The self-weight of the sheeting must be included in the load.

Serviceability limit state (SLS)

The characteristic load " q_{Ek} " that meets the serviceability limit for deflection of $L/200$ (where L means the span) is given in the table. In view of the fact that the behavior in the SLS is elastic, characteristic load for different limits may be extrapolated from the table. To fulfil the condition of the limit, the real characteristic load must be lower or at least equal to the value given by the tables.



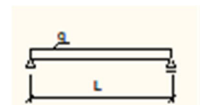
Used design codes:

ČSN EN 1993-1-1: Navrhování ocelových konstrukcí, Část 1-1: Obecná pravidla a pravidla pro pozemní stavby, ČNI, 2006. (Design of steel structures, Part 1-1: General rules and rules for buildings)

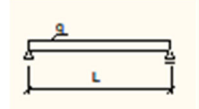
ČSN EN 1993-1-3: Navrhování ocelových konstrukcí, Část 1-3: Obecná pravidla – Doplnující pravidla pro tenkostěnné za studena tvarované prvky a plošné profily, ČNI, 2008. (Design of steel structures, Part 1-3: General rules - Supplementary rules for cold-formed members and sheeting)

ČSN EN 1993-1-5: Navrhování ocelových konstrukcí, Část 1-5: Boulení stěn, ČNI, 2008. (Design of steel structures, Part 1-5: Plated structural elements)

Single span – positive position

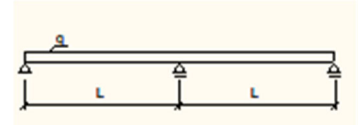


Trapeza® 20/137,5 T		Span [m]														
t [mm]	S320	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,4	q _{Ed} (c<1.5h)	10,389	4,618	2,597	1,662	1,154	0,848	0,649	0,513	0,416	0,343	0,289	0,246	0,212	0,185	0,162
	q _{Ed} (c≥1.5h)	10,389	4,618	2,597	1,662	1,154	0,848	0,649	0,513	0,416	0,343	0,289	0,246	0,212	0,185	0,162
	q _{Ed} (L/200)	6,155	1,824	0,769	0,394	0,228	0,144	0,096	0,068	0,049	0,037	0,028	0,022	0,018	0,015	0,012
0,5	q _{Ed} (c<1.5h)	15,768	7,008	3,942	2,523	1,752	1,287	0,986	0,779	0,631	0,521	0,438	0,373	0,322	0,280	0,246
	q _{Ed} (c≥1.5h)	15,768	7,008	3,942	2,523	1,752	1,287	0,986	0,779	0,631	0,521	0,438	0,373	0,322	0,280	0,246
	q _{Ed} (L/200)	9,367	2,775	1,171	0,599	0,347	0,218	0,146	0,103	0,075	0,056	0,043	0,034	0,027	0,022	0,018
0,55	q _{Ed} (c<1.5h)	18,735	8,327	4,684	2,998	2,082	1,529	1,171	0,925	0,749	0,619	0,520	0,443	0,382	0,333	0,293
	q _{Ed} (c≥1.5h)	18,735	8,327	4,684	2,998	2,082	1,529	1,171	0,925	0,749	0,619	0,520	0,443	0,382	0,333	0,293
	q _{Ed} (L/200)	11,062	3,278	1,383	0,708	0,410	0,258	0,173	0,121	0,088	0,066	0,051	0,040	0,032	0,026	0,022
0,6	q _{Ed} (c<1.5h)	21,880	9,725	5,470	3,501	2,431	1,786	1,368	1,081	0,875	0,723	0,608	0,518	0,447	0,389	0,342
	q _{Ed} (c≥1.5h)	21,880	9,725	5,470	3,501	2,431	1,786	1,368	1,081	0,875	0,723	0,608	0,518	0,447	0,389	0,342
	q _{Ed} (L/200)	12,812	3,796	1,602	0,820	0,475	0,299	0,200	0,141	0,102	0,077	0,059	0,047	0,037	0,030	0,025
0,63	q _{Ed} (c<1.5h)	23,850	10,600	5,963	3,816	2,650	1,947	1,491	1,178	0,954	0,788	0,663	0,565	0,487	0,424	0,373
	q _{Ed} (c≥1.5h)	23,850	10,600	5,963	3,816	2,650	1,947	1,491	1,178	0,954	0,788	0,663	0,565	0,487	0,424	0,373
	q _{Ed} (L/200)	13,887	4,115	1,736	0,889	0,514	0,324	0,217	0,152	0,111	0,083	0,064	0,051	0,040	0,033	0,027
0,7	q _{Ed} (c<1.5h)	28,679	12,746	7,170	4,589	3,187	2,341	1,792	1,416	1,147	0,948	0,797	0,679	0,585	0,510	0,448
	q _{Ed} (c≥1.5h)	28,679	12,746	7,170	4,589	3,187	2,341	1,792	1,416	1,147	0,948	0,797	0,679	0,585	0,510	0,448
	q _{Ed} (L/200)	16,461	4,877	2,058	1,054	0,610	0,384	0,257	0,181	0,132	0,099	0,076	0,060	0,048	0,039	0,032
0,75	q _{Ed} (c<1.5h)	32,391	14,396	8,098	5,183	3,599	2,644	2,024	1,600	1,296	1,071	0,900	0,767	0,661	0,576	0,506
	q _{Ed} (c≥1.5h)	32,391	14,396	8,098	5,183	3,599	2,644	2,024	1,600	1,296	1,071	0,900	0,767	0,661	0,576	0,506
	q _{Ed} (L/200)	19,312	5,722	2,414	1,236	0,715	0,450	0,302	0,212	0,154	0,116	0,089	0,070	0,056	0,046	0,038
0,8	q _{Ed} (c<1.5h)	34,907	15,514	8,727	5,585	3,879	2,850	2,182	1,724	1,396	1,154	0,970	0,826	0,712	0,621	0,545
	q _{Ed} (c≥1.5h)	34,907	15,514	8,727	5,585	3,879	2,850	2,182	1,724	1,396	1,154	0,970	0,826	0,712	0,621	0,545
	q _{Ed} (L/200)	21,206	6,283	2,651	1,357	0,785	0,495	0,331	0,233	0,170	0,127	0,098	0,077	0,062	0,050	0,041
0,88	q _{Ed} (c<1.5h)	38,943	17,308	9,736	6,231	4,327	3,179	2,434	1,923	1,558	1,287	1,082	0,922	0,795	0,692	0,608
	q _{Ed} (c≥1.5h)	38,943	17,308	9,736	6,231	4,327	3,179	2,434	1,923	1,558	1,287	1,082	0,922	0,795	0,692	0,608
	q _{Ed} (L/200)	24,320	7,206	3,040	1,557	0,901	0,567	0,380	0,267	0,195	0,146	0,113	0,089	0,071	0,058	0,048
1	q _{Ed} (c<1.5h)	45,008	20,004	11,252	7,201	5,001	3,674	2,813	2,223	1,800	1,488	1,250	1,065	0,919	0,800	0,703
	q _{Ed} (c≥1.5h)	45,008	20,004	11,252	7,201	5,001	3,674	2,813	2,223	1,800	1,488	1,250	1,065	0,919	0,800	0,703
	q _{Ed} (L/200)	29,163	8,641	3,645	1,866	1,080	0,680	0,456	0,320	0,233	0,175	0,135	0,106	0,085	0,069	0,057



Single span – negative position

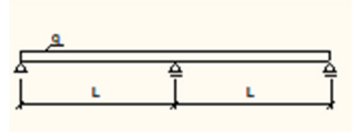
Trapeza® 20/137,5 T		Span [m]														
t [mm]	S320	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,4	Q _{Ed} (<1.5h)	10,666	5,014	2,820	1,805	1,253	0,921	0,705	0,557	0,451	0,373	0,313	0,267	0,230	0,201	0,176
	Q _{Ed} (≥1.5h)	11,281	5,014	2,820	1,805	1,253	0,921	0,705	0,557	0,451	0,373	0,313	0,267	0,230	0,201	0,176
	Q _{Ed} (L/200)	8,367	2,479	1,046	0,535	0,310	0,195	0,131	0,092	0,067	0,050	0,039	0,030	0,024	0,020	0,016
0,5	Q _{Ed} (<1.5h)	16,729	7,435	4,182	2,677	1,859	1,366	1,046	0,826	0,669	0,553	0,465	0,396	0,341	0,297	0,261
	Q _{Ed} (≥1.5h)	16,729	7,435	4,182	2,677	1,859	1,366	1,046	0,826	0,669	0,553	0,465	0,396	0,341	0,297	0,261
	Q _{Ed} (L/200)	12,674	3,755	1,584	0,811	0,469	0,296	0,198	0,139	0,101	0,076	0,059	0,046	0,037	0,030	0,025
0,55	Q _{Ed} (<1.5h)	19,643	8,730	4,911	3,143	2,183	1,604	1,228	0,970	0,786	0,649	0,546	0,465	0,401	0,349	0,307
	Q _{Ed} (≥1.5h)	19,643	8,730	4,911	3,143	2,183	1,604	1,228	0,970	0,786	0,649	0,546	0,465	0,401	0,349	0,307
	Q _{Ed} (L/200)	14,926	4,422	1,866	0,955	0,553	0,348	0,233	0,164	0,119	0,090	0,069	0,054	0,044	0,035	0,029
0,6	Q _{Ed} (<1.5h)	22,666	10,074	5,666	3,626	2,518	1,850	1,417	1,119	0,907	0,749	0,630	0,536	0,463	0,403	0,354
	Q _{Ed} (≥1.5h)	22,666	10,074	5,666	3,626	2,518	1,850	1,417	1,119	0,907	0,749	0,630	0,536	0,463	0,403	0,354
	Q _{Ed} (L/200)	17,232	5,106	2,154	1,103	0,638	0,402	0,269	0,189	0,138	0,104	0,080	0,063	0,050	0,041	0,034
0,63	Q _{Ed} (<1.5h)	24,525	10,900	6,131	3,924	2,725	2,002	1,533	1,211	0,981	0,811	0,681	0,580	0,501	0,436	0,383
	Q _{Ed} (≥1.5h)	24,525	10,900	6,131	3,924	2,725	2,002	1,533	1,211	0,981	0,811	0,681	0,580	0,501	0,436	0,383
	Q _{Ed} (L/200)	18,639	5,523	2,330	1,193	0,690	0,435	0,291	0,205	0,149	0,112	0,086	0,068	0,054	0,044	0,036
0,7	Q _{Ed} (<1.5h)	28,979	12,880	7,245	4,637	3,220	2,366	1,811	1,431	1,159	0,958	0,805	0,686	0,591	0,515	0,453
	Q _{Ed} (≥1.5h)	28,979	12,880	7,245	4,637	3,220	2,366	1,811	1,431	1,159	0,958	0,805	0,686	0,591	0,515	0,453
	Q _{Ed} (L/200)	21,979	6,512	2,747	1,407	0,814	0,513	0,343	0,241	0,176	0,132	0,102	0,080	0,064	0,052	0,043
0,75	Q _{Ed} (<1.5h)	33,071	14,698	8,268	5,291	3,675	2,700	2,067	1,633	1,323	1,093	0,919	0,783	0,675	0,588	0,517
	Q _{Ed} (≥1.5h)	33,071	14,698	8,268	5,291	3,675	2,700	2,067	1,633	1,323	1,093	0,919	0,783	0,675	0,588	0,517
	Q _{Ed} (L/200)	25,679	7,608	3,210	1,643	0,951	0,599	0,401	0,282	0,205	0,154	0,119	0,094	0,075	0,061	0,050
0,8	Q _{Ed} (<1.5h)	36,347	16,154	9,087	5,815	4,039	2,967	2,272	1,795	1,454	1,202	1,010	0,860	0,742	0,646	0,568
	Q _{Ed} (≥1.5h)	36,347	16,154	9,087	5,815	4,039	2,967	2,272	1,795	1,454	1,202	1,010	0,860	0,742	0,646	0,568
	Q _{Ed} (L/200)	28,070	8,317	3,509	1,796	1,040	0,655	0,439	0,308	0,225	0,169	0,130	0,102	0,082	0,067	0,055
0,88	Q _{Ed} (<1.5h)	41,657	18,514	10,414	6,665	4,629	3,401	2,604	2,057	1,666	1,377	1,157	0,986	0,850	0,741	0,651
	Q _{Ed} (≥1.5h)	41,657	18,514	10,414	6,665	4,629	3,401	2,604	2,057	1,666	1,377	1,157	0,986	0,850	0,741	0,651
	Q _{Ed} (L/200)	31,936	9,463	3,992	2,044	1,183	0,745	0,499	0,350	0,255	0,192	0,148	0,116	0,093	0,076	0,062
1	Q _{Ed} (<1.5h)	48,729	21,657	12,182	7,797	5,414	3,978	3,046	2,406	1,949	1,611	1,354	1,153	0,994	0,866	0,761
	Q _{Ed} (≥1.5h)	48,729	21,657	12,182	7,797	5,414	3,978	3,046	2,406	1,949	1,611	1,354	1,153	0,994	0,866	0,761
	Q _{Ed} (L/200)	37,256	11,039	4,657	2,384	1,380	0,869	0,582	0,409	0,298	0,224	0,172	0,136	0,109	0,088	0,073



Double span – positive position

Trapeza® 20/137,5 T		Span [m]														
t [mm]	S320	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,4	q _{Ed} (<1.5h)	8,256	4,258	2,604	1,758	1,253	0,921	0,705	0,557	0,451	0,373	0,313	0,267	0,230	0,201	0,176
	q _{Ed} (≥1.5h)	8,256	4,258	2,604	1,758	1,253	0,921	0,705	0,557	0,451	0,373	0,313	0,267	0,230	0,201	0,176
	q _{Ed} (L/200)	15,226	4,511	1,903	0,974	0,564	0,355	0,238	0,167	0,122	0,092	0,070	0,055	0,044	0,036	0,030
0,5	q _{Ed} (<1.5h)	12,507	6,419	3,913	2,637	1,859	1,366	1,046	0,826	0,669	0,553	0,465	0,396	0,341	0,297	0,261
	q _{Ed} (≥1.5h)	12,507	6,419	3,913	2,637	1,859	1,366	1,046	0,826	0,669	0,553	0,465	0,396	0,341	0,297	0,261
	q _{Ed} (L/200)	23,174	6,866	2,897	1,483	0,858	0,540	0,362	0,254	0,185	0,139	0,107	0,084	0,068	0,055	0,045
0,55	q _{Ed} (<1.5h)	14,837	7,596	4,624	3,113	2,183	1,604	1,228	0,970	0,786	0,649	0,546	0,465	0,401	0,349	0,307
	q _{Ed} (≥1.5h)	14,837	7,596	4,624	3,113	2,183	1,604	1,228	0,970	0,786	0,649	0,546	0,465	0,401	0,349	0,307
	q _{Ed} (L/200)	27,368	8,109	3,421	1,752	1,014	0,638	0,428	0,300	0,219	0,164	0,127	0,100	0,080	0,065	0,053
0,6	q _{Ed} (<1.5h)	17,289	8,831	5,368	3,611	2,518	1,850	1,417	1,119	0,907	0,749	0,630	0,536	0,463	0,403	0,354
	q _{Ed} (≥1.5h)	17,289	8,831	5,368	3,611	2,518	1,850	1,417	1,119	0,907	0,749	0,630	0,536	0,463	0,403	0,354
	q _{Ed} (L/200)	31,697	9,392	3,962	2,029	1,174	0,739	0,495	0,348	0,254	0,191	0,147	0,115	0,092	0,075	0,062
0,63	q _{Ed} (<1.5h)	18,814	9,598	5,829	3,918	2,725	2,002	1,533	1,211	0,981	0,811	0,681	0,580	0,501	0,436	0,383
	q _{Ed} (≥1.5h)	18,814	9,598	5,829	3,918	2,725	2,002	1,533	1,211	0,981	0,811	0,681	0,580	0,501	0,436	0,383
	q _{Ed} (L/200)	34,355	10,179	4,294	2,199	1,272	0,801	0,537	0,377	0,275	0,206	0,159	0,125	0,100	0,081	0,067
0,7	q _{Ed} (<1.5h)	22,518	11,452	6,943	4,637	3,220	2,366	1,811	1,431	1,159	0,958	0,805	0,686	0,591	0,515	0,453
	q _{Ed} (≥1.5h)	22,518	11,452	6,943	4,637	3,220	2,366	1,811	1,431	1,159	0,958	0,805	0,686	0,591	0,515	0,453
	q _{Ed} (L/200)	40,724	12,066	5,090	2,606	1,508	0,950	0,636	0,447	0,326	0,245	0,189	0,148	0,119	0,097	0,080
0,75	q _{Ed} (<1.5h)	25,679	13,062	7,920	5,291	3,675	2,700	2,067	1,633	1,323	1,093	0,919	0,783	0,675	0,588	0,517
	q _{Ed} (≥1.5h)	25,679	13,062	7,920	5,291	3,675	2,700	2,067	1,633	1,323	1,093	0,919	0,783	0,675	0,588	0,517
	q _{Ed} (L/200)	47,777	14,156	5,972	3,058	1,770	1,114	0,747	0,524	0,382	0,287	0,221	0,174	0,139	0,113	0,093
0,8	q _{Ed} (<1.5h)	28,507	14,466	8,758	5,815	4,039	2,967	2,272	1,795	1,454	1,202	1,010	0,860	0,742	0,646	0,568
	q _{Ed} (≥1.5h)	28,507	14,466	8,758	5,815	4,039	2,967	2,272	1,795	1,454	1,202	1,010	0,860	0,742	0,646	0,568
	q _{Ed} (L/200)	52,462	15,544	6,558	3,358	1,943	1,224	0,820	0,576	0,420	0,315	0,243	0,191	0,153	0,124	0,102
0,88	q _{Ed} (<1.5h)	33,175	16,773	10,132	6,665	4,629	3,401	2,604	2,057	1,666	1,377	1,157	0,986	0,850	0,741	0,651
	q _{Ed} (≥1.5h)	33,175	16,773	10,132	6,665	4,629	3,401	2,604	2,057	1,666	1,377	1,157	0,986	0,850	0,741	0,651
	q _{Ed} (L/200)	60,168	17,827	7,521	3,851	2,228	1,403	0,940	0,660	0,481	0,362	0,279	0,219	0,175	0,143	0,118
1	q _{Ed} (<1.5h)	39,922	20,045	12,058	7,797	5,414	3,978	3,046	2,406	1,949	1,611	1,354	1,153	0,994	0,866	0,761
	q _{Ed} (≥1.5h)	39,922	20,045	12,058	7,797	5,414	3,978	3,046	2,406	1,949	1,611	1,354	1,153	0,994	0,866	0,761
	q _{Ed} (L/200)	72,147	21,377	9,018	4,617	2,672	1,683	1,127	0,792	0,577	0,434	0,334	0,263	0,210	0,171	0,141

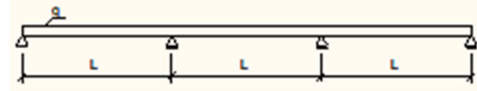
Double span – negative position



Trapeza® 20/137,5 T		Span [m]														
t [mm]	S320	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,4	q _{Rs} (<1.5h)	7,861	4,023	2,449	1,648	1,154	0,848	0,649	0,513	0,416	0,343	0,289	0,246	0,212	0,185	0,162
	q _{Rs} (≥1.5h)	7,861	4,023	2,449	1,648	1,154	0,848	0,649	0,513	0,416	0,343	0,289	0,246	0,212	0,185	0,162
	q _{Rs} (L/200)	20,700	6,133	2,587	1,325	0,767	0,483	0,323	0,227	0,166	0,124	0,096	0,075	0,060	0,049	0,040
0,5	q _{Rs} (<1.5h)	12,068	6,160	3,742	2,516	1,752	1,287	0,986	0,779	0,631	0,521	0,438	0,373	0,322	0,280	0,246
	q _{Rs} (≥1.5h)	12,068	6,160	3,742	2,516	1,752	1,287	0,986	0,779	0,631	0,521	0,438	0,373	0,322	0,280	0,246
	q _{Rs} (L/200)	31,355	9,290	3,919	2,007	1,161	0,731	0,490	0,344	0,251	0,188	0,145	0,114	0,091	0,074	0,061
0,55	q _{Rs} (<1.5h)	14,415	7,348	4,461	2,998	2,082	1,529	1,171	0,925	0,749	0,619	0,520	0,443	0,382	0,333	0,293
	q _{Rs} (≥1.5h)	14,415	7,348	4,461	2,998	2,082	1,529	1,171	0,925	0,749	0,619	0,520	0,443	0,382	0,333	0,293
	q _{Rs} (L/200)	36,926	10,941	4,616	2,363	1,368	0,861	0,577	0,405	0,295	0,222	0,171	0,134	0,108	0,088	0,072
0,6	q _{Rs} (<1.5h)	16,918	8,614	5,226	3,501	2,431	1,786	1,368	1,081	0,875	0,723	0,608	0,518	0,447	0,389	0,342
	q _{Rs} (≥1.5h)	16,918	8,614	5,226	3,501	2,431	1,786	1,368	1,081	0,875	0,723	0,608	0,518	0,447	0,389	0,342
	q _{Rs} (L/200)	42,632	12,632	5,329	2,728	1,579	0,994	0,666	0,468	0,341	0,256	0,197	0,155	0,124	0,101	0,083
0,63	q _{Rs} (<1.5h)	18,493	9,410	5,707	3,816	2,650	1,947	1,491	1,178	0,954	0,788	0,663	0,565	0,487	0,424	0,373
	q _{Rs} (≥1.5h)	18,493	9,410	5,707	3,816	2,650	1,947	1,491	1,178	0,954	0,788	0,663	0,565	0,487	0,424	0,373
	q _{Rs} (L/200)	46,113	13,663	5,764	2,951	1,708	1,076	0,721	0,506	0,369	0,277	0,213	0,168	0,134	0,109	0,090
0,7	q _{Rs} (<1.5h)	22,372	11,368	6,888	4,589	3,187	2,341	1,792	1,416	1,147	0,948	0,797	0,679	0,585	0,510	0,448
	q _{Rs} (≥1.5h)	22,372	11,368	6,888	4,589	3,187	2,341	1,792	1,416	1,147	0,948	0,797	0,679	0,585	0,510	0,448
	q _{Rs} (L/200)	54,376	16,111	6,797	3,480	2,014	1,268	0,850	0,597	0,435	0,327	0,252	0,198	0,159	0,129	0,106
0,75	q _{Rs} (<1.5h)	25,348	12,870	7,794	5,183	3,599	2,644	2,024	1,600	1,296	1,071	0,900	0,767	0,661	0,576	0,506
	q _{Rs} (≥1.5h)	25,348	12,870	7,794	5,183	3,599	2,644	2,024	1,600	1,296	1,071	0,900	0,767	0,661	0,576	0,506
	q _{Rs} (L/200)	63,528	18,823	7,941	4,066	2,353	1,482	0,993	0,697	0,508	0,382	0,294	0,231	0,185	0,151	0,124
0,8	q _{Rs} (<1.5h)	27,788	14,051	8,488	5,585	3,879	2,850	2,182	1,724	1,396	1,154	0,970	0,826	0,712	0,621	0,545
	q _{Rs} (≥1.5h)	27,788	14,051	8,488	5,585	3,879	2,850	2,182	1,724	1,396	1,154	0,970	0,826	0,712	0,621	0,545
	q _{Rs} (L/200)	69,443	20,576	8,680	4,444	2,572	1,620	1,085	0,762	0,556	0,417	0,321	0,253	0,202	0,165	0,136
0,88	q _{Rs} (<1.5h)	31,764	15,967	9,611	6,231	4,327	3,179	2,434	1,923	1,558	1,287	1,082	0,922	0,795	0,692	0,608
	q _{Rs} (≥1.5h)	31,764	15,967	9,611	6,231	4,327	3,179	2,434	1,923	1,558	1,287	1,082	0,922	0,795	0,692	0,608
	q _{Rs} (L/200)	79,009	23,410	9,876	5,057	2,926	1,843	1,235	0,867	0,632	0,475	0,366	0,288	0,230	0,187	0,154
1	q _{Rs} (<1.5h)	37,870	18,889	11,252	7,201	5,001	3,674	2,813	2,223	1,800	1,488	1,250	1,065	0,919	0,800	0,703
	q _{Rs} (≥1.5h)	37,870	18,889	11,252	7,201	5,001	3,674	2,813	2,223	1,800	1,488	1,250	1,065	0,919	0,800	0,703
	q _{Rs} (L/200)	92,170	27,310	11,521	5,899	3,414	2,150	1,440	1,011	0,737	0,554	0,427	0,336	0,269	0,218	0,180



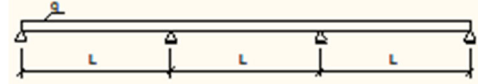
Triple span – positive position



Trapeza® 20/137,5 T		Span [m]														
t [mm]	S320	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,4	q _{rel} (<1.5h)	9,909	5,157	3,172	2,150	1,555	1,151	0,881	0,696	0,564	0,466	0,392	0,334	0,288	0,251	0,220
	q _{rel} (≥1.5h)	9,909	5,157	3,172	2,150	1,555	1,151	0,881	0,696	0,564	0,466	0,392	0,334	0,288	0,251	0,220
	q _{rel} (L/200)	11,259	3,336	1,407	0,721	0,417	0,263	0,176	0,124	0,090	0,068	0,052	0,041	0,033	0,027	0,022
0,5	q _{rel} (<1.5h)	15,030	7,783	4,771	3,228	2,323	1,707	1,307	1,033	0,836	0,691	0,581	0,495	0,427	0,372	0,327
	q _{rel} (≥1.5h)	15,030	7,783	4,771	3,228	2,323	1,707	1,307	1,033	0,836	0,691	0,581	0,495	0,427	0,372	0,327
	q _{rel} (L/200)	17,136	5,077	2,142	1,097	0,635	0,400	0,268	0,188	0,137	0,103	0,079	0,062	0,050	0,041	0,033
0,55	q _{rel} (<1.5h)	17,840	9,215	5,641	3,812	2,728	2,004	1,535	1,213	0,982	0,812	0,682	0,581	0,501	0,437	0,384
	q _{rel} (≥1.5h)	17,840	9,215	5,641	3,812	2,728	2,004	1,535	1,213	0,982	0,812	0,682	0,581	0,501	0,437	0,384
	q _{rel} (L/200)	20,238	5,996	2,530	1,295	0,750	0,472	0,316	0,222	0,162	0,122	0,094	0,074	0,059	0,048	0,040
0,6	q _{rel} (<1.5h)	20,800	10,719	6,552	4,423	3,148	2,313	1,771	1,399	1,133	0,937	0,787	0,671	0,578	0,504	0,443
	q _{rel} (≥1.5h)	20,800	10,719	6,552	4,423	3,148	2,313	1,771	1,399	1,133	0,937	0,787	0,671	0,578	0,504	0,443
	q _{rel} (L/200)	23,439	6,945	2,930	1,500	0,868	0,547	0,366	0,257	0,188	0,141	0,109	0,085	0,068	0,056	0,046
0,63	q _{rel} (<1.5h)	22,643	11,653	7,116	4,802	3,406	2,503	1,916	1,514	1,226	1,013	0,852	0,726	0,626	0,545	0,479
	q _{rel} (≥1.5h)	22,643	11,653	7,116	4,802	3,406	2,503	1,916	1,514	1,226	1,013	0,852	0,726	0,626	0,545	0,479
	q _{rel} (L/200)	25,405	7,527	3,176	1,626	0,941	0,593	0,397	0,279	0,203	0,153	0,118	0,093	0,074	0,060	0,050
0,7	q _{rel} (<1.5h)	27,121	13,914	8,481	5,714	4,025	2,957	2,264	1,789	1,449	1,197	1,006	0,857	0,739	0,644	0,566
	q _{rel} (≥1.5h)	27,121	13,914	8,481	5,714	4,025	2,957	2,264	1,789	1,449	1,197	1,006	0,857	0,739	0,644	0,566
	q _{rel} (L/200)	30,114	8,923	3,764	1,927	1,115	0,702	0,471	0,330	0,241	0,181	0,139	0,110	0,088	0,071	0,059
0,75	q _{rel} (<1.5h)	30,927	15,869	9,674	6,519	4,593	3,375	2,584	2,041	1,654	1,367	1,148	0,978	0,844	0,735	0,646
	q _{rel} (≥1.5h)	30,927	15,869	9,674	6,519	4,593	3,375	2,584	2,041	1,654	1,367	1,148	0,978	0,844	0,735	0,646
	q _{rel} (L/200)	35,330	10,468	4,416	2,261	1,309	0,824	0,552	0,388	0,283	0,212	0,164	0,129	0,103	0,084	0,069
0,8	q _{rel} (<1.5h)	34,354	17,584	10,703	7,204	5,048	3,709	2,840	2,244	1,817	1,502	1,262	1,075	0,927	0,808	0,710
	q _{rel} (≥1.5h)	34,354	17,584	10,703	7,204	5,048	3,709	2,840	2,244	1,817	1,502	1,262	1,075	0,927	0,808	0,710
	q _{rel} (L/200)	38,794	11,495	4,849	2,483	1,437	0,905	0,606	0,426	0,310	0,233	0,180	0,141	0,113	0,092	0,076
0,88	q _{rel} (<1.5h)	40,016	20,405	12,390	8,327	5,786	4,251	3,254	2,571	2,083	1,721	1,446	1,232	1,063	0,926	0,814
	q _{rel} (≥1.5h)	40,016	20,405	12,390	8,327	5,786	4,251	3,254	2,571	2,083	1,721	1,446	1,232	1,063	0,926	0,814
	q _{rel} (L/200)	44,492	13,183	5,562	2,848	1,648	1,038	0,695	0,488	0,356	0,267	0,206	0,162	0,130	0,105	0,087
1	q _{rel} (<1.5h)	48,240	24,423	14,765	9,746	6,768	4,972	3,807	3,008	2,436	2,014	1,692	1,442	1,243	1,083	0,952
	q _{rel} (≥1.5h)	48,240	24,423	14,765	9,746	6,768	4,972	3,807	3,008	2,436	2,014	1,692	1,442	1,243	1,083	0,952
	q _{rel} (L/200)	53,351	15,808	6,669	3,414	1,976	1,244	0,834	0,585	0,427	0,321	0,247	0,194	0,156	0,126	0,104



Triple span – negative position



Trapeza® 20/137,5 T		Span [m]														
t [mm]	S320	0,50	0,75	1,00	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00
0,4	q_{Ed} (<1.5h)	9,454	4,881	2,987	2,018	1,443	1,060	0,812	0,641	0,519	0,429	0,361	0,307	0,265	0,231	0,203
	q_{Ed} ($\geq 1.5h$)	9,454	4,881	2,987	2,018	1,443	1,060	0,812	0,641	0,519	0,429	0,361	0,307	0,265	0,231	0,203
	q_{Ek} (L/200)	15,307	4,535	1,913	0,980	0,567	0,357	0,239	0,168	0,122	0,092	0,071	0,056	0,045	0,036	0,030
0,5	q_{Ed} (<1.5h)	14,522	7,477	4,568	3,083	2,190	1,609	1,232	0,973	0,788	0,652	0,548	0,467	0,402	0,350	0,308
	q_{Ed} ($\geq 1.5h$)	14,522	7,477	4,568	3,083	2,190	1,609	1,232	0,973	0,788	0,652	0,548	0,467	0,402	0,350	0,308
	q_{Ek} (L/200)	23,186	6,870	2,898	1,484	0,859	0,541	0,362	0,254	0,185	0,139	0,107	0,084	0,068	0,055	0,045
0,55	q_{Ed} (<1.5h)	17,351	8,923	5,447	3,674	2,602	1,912	1,464	1,156	0,937	0,774	0,651	0,554	0,478	0,416	0,366
	q_{Ed} ($\geq 1.5h$)	17,351	8,923	5,447	3,674	2,602	1,912	1,464	1,156	0,937	0,774	0,651	0,554	0,478	0,416	0,366
	q_{Ek} (L/200)	27,305	8,091	3,413	1,748	1,011	0,637	0,427	0,300	0,218	0,164	0,126	0,099	0,080	0,065	0,053
0,6	q_{Ed} (<1.5h)	20,371	10,463	6,382	4,303	3,039	2,233	1,709	1,351	1,094	0,904	0,760	0,647	0,558	0,486	0,427
	q_{Ed} ($\geq 1.5h$)	20,371	10,463	6,382	4,303	3,039	2,233	1,709	1,351	1,094	0,904	0,760	0,647	0,558	0,486	0,427
	q_{Ek} (L/200)	31,525	9,341	3,941	2,018	1,168	0,735	0,493	0,346	0,252	0,189	0,146	0,115	0,092	0,075	0,062
0,63	q_{Ed} (<1.5h)	22,270	11,431	6,970	4,697	3,313	2,434	1,863	1,472	1,193	0,986	0,828	0,706	0,608	0,530	0,466
	q_{Ed} ($\geq 1.5h$)	22,270	11,431	6,970	4,697	3,313	2,434	1,863	1,472	1,193	0,986	0,828	0,706	0,608	0,530	0,466
	q_{Ek} (L/200)	34,099	10,104	4,262	2,182	1,263	0,795	0,533	0,374	0,273	0,205	0,158	0,124	0,099	0,081	0,067
0,7	q_{Ed} (<1.5h)	26,952	13,814	8,415	5,668	3,983	2,926	2,241	1,770	1,434	1,185	0,996	0,848	0,732	0,637	0,560
	q_{Ed} ($\geq 1.5h$)	26,952	13,814	8,415	5,668	3,983	2,926	2,241	1,770	1,434	1,185	0,996	0,848	0,732	0,637	0,560
	q_{Ek} (L/200)	40,209	11,914	5,026	2,573	1,489	0,938	0,628	0,441	0,322	0,242	0,186	0,146	0,117	0,095	0,079
0,75	q_{Ed} (<1.5h)	30,543	15,642	9,524	6,412	4,499	3,305	2,531	1,999	1,620	1,338	1,125	0,958	0,826	0,720	0,633
	q_{Ed} ($\geq 1.5h$)	30,543	15,642	9,524	6,412	4,499	3,305	2,531	1,999	1,620	1,338	1,125	0,958	0,826	0,720	0,633
	q_{Ek} (L/200)	46,977	13,919	5,872	3,007	1,740	1,096	0,734	0,516	0,376	0,282	0,217	0,171	0,137	0,111	0,092
0,8	q_{Ed} (<1.5h)	33,518	17,093	10,380	6,976	4,848	3,562	2,727	2,155	1,745	1,442	1,212	1,033	0,890	0,776	0,682
	q_{Ed} ($\geq 1.5h$)	33,518	17,093	10,380	6,976	4,848	3,562	2,727	2,155	1,745	1,442	1,212	1,033	0,890	0,776	0,682
	q_{Ek} (L/200)	51,352	15,215	6,419	3,287	1,902	1,198	0,802	0,564	0,411	0,309	0,238	0,187	0,150	0,122	0,100
0,88	q_{Ed} (<1.5h)	38,372	19,449	11,766	7,789	5,409	3,974	3,042	2,404	1,947	1,609	1,352	1,152	0,993	0,865	0,761
	q_{Ed} ($\geq 1.5h$)	38,372	19,449	11,766	7,789	5,409	3,974	3,042	2,404	1,947	1,609	1,352	1,152	0,993	0,865	0,761
	q_{Ek} (L/200)	58,425	17,311	7,303	3,739	2,164	1,363	0,913	0,641	0,467	0,351	0,270	0,213	0,170	0,138	0,114
1	q_{Ed} (<1.5h)	45,839	23,048	13,875	9,002	6,251	4,593	3,516	2,778	2,250	1,860	1,563	1,332	1,148	1,000	0,879
	q_{Ed} ($\geq 1.5h$)	45,839	23,048	13,875	9,002	6,251	4,593	3,516	2,778	2,250	1,860	1,563	1,332	1,148	1,000	0,879
	q_{Ek} (L/200)	68,157	20,195	8,520	4,362	2,524	1,590	1,065	0,748	0,545	0,410	0,316	0,248	0,199	0,162	0,133

Explanatory note:

- q_{Ed} (<1.5h) design resistance [kN/m²] end support width at least 40 mm, end support at distance at least 40 mm clear from a free end internal support width at least 120 mm
- q_{Ed} ($\geq 1.5h$) design resistance [kN/m²] end support width at least 40 mm, end support at distance at least 1.5 x h_w (web height) clear from a free end internal support width at least 120 mm
- q_{Ek} ($\leq L/200$) characteristics load that meets the serviceability limit for deflection of L/200 [kN/m²]